RFTR Electronics

Your Trusted Partner in High Power RF Amplifier Solutions

PRODUCT CATALOG

2024

rftrelectronics.com

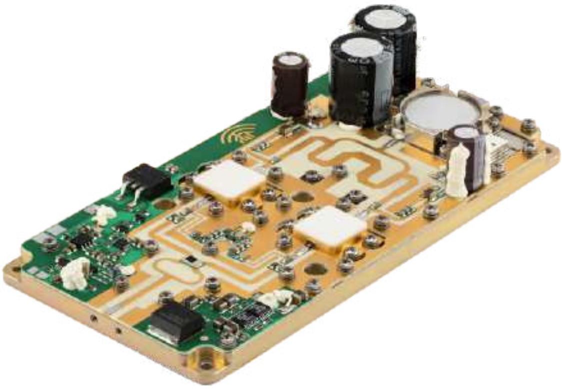
RFTR Electronics

Your Trusted Partner in High Power RF Amplifier Solutions

500 kHz - 18 GHz Frequency Coverage
Ultra Broadband, Highly Efficient, Rugged and Stable Products
More than 40K Military Installed Units

RFTR Electronics designs and manufactures high power RF/Microwave amplifiers and passive components. Broadband and band-specific Amplifiers are available in operating frequencies from 500 kHz to 18 GHz with output power levels to tens of kilowatts. Amplifier products are designed to meet sophisticated performances and military environmental conditions. According to requests of customer, RFTR Electronics develops wide range of RF sub-system products from 500 kHz to 18 GHz.

RFTR Electronics is one of the world-wide technological leader in military RF Amplifier solutions for Jammers, EWs, Radars, Satcoms and Communication. All products utilize the latest technologies enabling us to operate globally and enhances our resources impressively.



CONTENTS

RFTR Electronics

MODULE AMPLIFIERS

- Solid-state Class AB design
- Ruggedized MOS or GaN on SiC Transistors
- Small Dimensions and Light Weight
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	Page No.
JA00010030P40	1.5	30	10	90 × 80 × 22	10
JA00010030P44	1.5	30	25	90 × 80 × 22	11
JA00010030P51	1.5	30	125	179 × 108 × 46	12
JA00010030P57	1.5	30	500	259 × 213 × 65	13
JA00010030P61	1.5	30	1200	415 × 278 × 65	14
JA00200100P46	20	100	40	90 × 90 × 22	15
JA00200100P49	20	100	80	109 × 109 × 37	16
JA00200500P45	20	500	30	90 × 90 × 22	17
JA00200500P47	20	500	50	90 × 90 × 22	18
JA00200500P48	20	500	60	194 × 97 × 24	19
JA00200500P49	20	500	80	194 × 97 × 24	20
JA00200500P50	20	500	100	194 × 97 × 24	21
JA00201000P48	20	1000	65	155 × 124 × 27	22
JA01000500P46	100	500	40	90 × 90 × 22	23
JA01000500P51	100	500	125	150 × 145 × 34	24
JA03900450P46	390	450	40	90 × 90 × 22	25
JA03900450P53	390	450	200	150 × 145 × 34	26
JA04001000P47	400	1000	50	135 × 75 × 24	27
JA04003000P47	400	3000	50	135 × 75 × 24	28
JA05002000P50	500	2000	100	206 × 86 × 21.5	29

MODULE AMPLIFIERS

RFTR Electronics

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	Page No.
JA05003000P52	500	3000	160	300 × 1560 × 28	30
JA05004000P47	500	4000	50	155 × 125 ×19.5	31
JA06501000P47	650	1000	50	135 × 75 × 24	32
JA07001000P50	700	1000	100	206 × 86 × 21.5	33
JA07002700P47	700	2700	50	139 × 125 × 25	34
JA07002700P50	700	2700	100	206 × 86 × 21.5	35
JA10002000P43	1000	2000	20	135 × 75 × 24	36
JA11001700P47	1100	1700	50	135 × 75 × 24	37
JA11001700P50	1100	1700	100	206 × 86 × 21.5	38
JA11001700P53	1100	1700	200	300 × 156 × 28	39
JA18002200P47	1800	2200	50	135 × 75 × 24	40
JA20003000P47	2000	3000	50	139 × 125 × 25	41
JA20006000P43	2000	6000	20	115 × 83 × 19.5	42
JA20006000P47	2000	6000	50	160 × 94 × 19.5	43
JA20006000P50	2000	6000	100	197 × 89 × 40	44
JA22002700P47	2200	2700	50	135 × 75 × 24	45
JA24002700P50	2400	2700	100	206 × 86 × 21.5	46
JA40008000P47	4000	8000	50	135 × 83 × 19.5	47
JA44006000P46	4400	6000	40	134 × 123 ×22.5	48
JA55006000P43	5500	6000	20	110 × 109 × 23	49
JA57005900P43	5700	5900	20	110 × 109 × 23	50
JA57005900P46	5700	5900	40	134 × 123 ×22.5	51
JA600018000P47	6000	18000	50	203 × 152 × 63	52
JA600018000P49	6000	18000	80	203 × 152 × 63	53

SYSTEM AMPLIFIERS

- 19” Rack Mount Instruments
- AC (Single-Phase or 3-Phases) Power Line
- Small Dimensions and Light Weight
- Modular Design for Lowest MTTR
- Ethernet, RS-485, CAN BUS, RS-232, GPIB Interfaces
- Built-in Harmonic Filtering and T/R switching Options

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(U)	Page No.
IA00010030P56	1.5	30	400	6	54
IA00010030P60	1.5	30	1000	9	55
IA00010030P67	1.5	30	5000	45 U Rack	56
IA00010030P70	1.5	30	10000	2 x 45 U Rack	57
IA00200500P54	20	500	250	6	58
IA00201000P53	20	1000	200	6	59
IA00300200P62	30	200	1500	10	60
IA01000500P56	100	500	400	6	61
IA02001000P60	200	1000	1000	13	62
IA03900450P60	390	450	1000	8	63
IA04003000P51	400	3000	150	4	64
IA05002500P51	500	2500	125	4	65
IA05002500P57	500	2500	500	8	66
IA05003000P56	500	3000	400	8	67
IA20006000P50	2000	6000	100	3	68
IA20006000P47	2000	6000	50	3	69
IA20006000P54	2000	6000	250	3	70

PULSED AMPLIFIER MODULES

RFTR Electronics

- Solid-state Class AB design
- Ruggedized MOS or GaN on SiC Transistors
- Small Dimensions and Light Weight
- High reliability and ruggedness
- Fast Switching Capability for Power Saving

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	Modulation	Page No.
IAIFTCP60	1030	1120	800	240.6 x 72.6 x 21	Pulse	71
IAIFTCP60N4	1030	1090	750 x 4	280 x 188 x 33.9	Pulse	72
IAIFTCP66	1030	1090	4000	290 x 188 x 33.9	Pulse	73
RAP2729P60	2700	2900	1000	151 x 75.3	Pulse	74
RAP2833P56	2800	3300	350	86 x 39	Pulse	75
RAM2833P58	2800	3300	600	137.3 x 84.1 x 19.6	Pulse	76
RAM2833P60	2800	3300	1000	261.8 x 153.5 x 23.5	Pulse	77
JA900010000P45	9000	10000	30	150 x 200 x 30	Pulse	78
JA95009900P56	9500	9900	400	300 x 400 x 30	Pulse	79

RFTR Electronics

RF PASSIVES

DIRECTIONAL COUPLERS

- 50 Ohm Input & Output Impedance
- High reliability and ruggedness
- Low insertion Loss
- High power handling
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	Coupling	Page No.
JC00010030P57C40	1.5	30	500	175 × 75 × 39	40	80
JC00010030P63C60	1.5	30	2000	152 × 78 × 29	60	81
JC00010030P68C70	1.5	30	6000	76 x 70 x 38	70	82
JC00010030P71C70	1.5	30	12000	151 x 79 x 53	70	83
JC00200520P60C60	20	520	1000	73 × 59 × 28.2	60	84
JC00201000P63C60	20	1000	2000	58 × 67 × 32	60	85
JC00300200P50C40	30	200	100	70 × 39 × 16	40	86
JC05003000P57C50	500	3000	500	73 × 59 × 28.2	50	87
JC20006000P54C30	2000	6000	250	52.5 × 37 × 14.5	30	88
JC20006000P54C50	2000	6000	250	52.6 × 48.7 × 27.9	50	89
JC27002900P67C50	2700	2900	5000	71.2 × 38.8 × 24	50	90
JC29003300P67C50	2900	3300	5000	71.2 × 38.8 × 24	50	91

RF PASSIVES

COMBINERS / SPLITTERS

RFTR Electronics

- Solid-state Class AB design
- Ruggedized MOS Transistors
- High reliability and ruggedness
- Open/Short Load Full Protection

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	# of ways	Page No.
JPC00010030P47B2	1.5	30	50	101 × 59 × 40	2	92
JPC00010030P47B4	1.5	30	50	97 × 87 × 40	4	93
JPC00010030P58B8	1.5	30	600	337 × 159 × 62	8	94
JPC00010030P62B2	1.5	30	1000	208 × 95 × 84	2	95
JPC00010030P63B4	1.5	30	2000	233 × 181 × 84	4	96
JPC00010030P65B2	1.5	30	2000	208 × 95 × 84	2	97
JPC00010030P67B4	1.5	30	5000	4 U	4	98
JPC00200500P50B4	20	500	100	91 × 93 × 31	4	99
JPC00200520P27B2	20	520	0.5	26 × 43 × 20	2	100
JPC00200520P27B4	20	520	0.5	36 × 74 × 20	4	101
JPC00200500P54B4	20	500	250	250 × 133 × 36	4	102
JPC00201000P53B4	20	1000	200	250 × 133 × 36	4	103
JPC00300200P57B4	30	200	500	250 × 133 × 36	4	104
JPC00300200P63B4	30	200	2000	206 × 133 × 43	4	105
JPC00300500P47B2	30	500	50	59 × 56 × 31	2	106
JPC01000500P47B4	100	500	50	118 × 41 × 30	4	107
JPC01000500P60B4	100	500	1000	206 × 133 × 43	4	108
JPC02001000P63B2	200	1000	2000	416.8 × 249.2 × 26	2	109
JPC05002500P60B4	500	2500	1000	194.8 × 95.7 × 95.7	4	110
JPC09003000P60B2	900	3000	1000	112.1 × 123 × 25	2	111
JPC20006000P54B2	2000	6000	250	80 × 48.5 × 18	2	112
JPC600018000P48B4	6000	18000	70	51.3 × 51.3 × 38	4	113
JPC600018000P50B2	6000	18000	100	24 × 24 × 21	2	114

RF PASSIVES

SWITCHES

- Pin Diode based Designs
- High reliability and ruggedness
- High Switching Speed
- Low insertion Loss
- High power handling
- High isolation

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	P_{OUT}(Watt)	Size(mm)	Page No.
IS00010030P60	1.5	30	1000	230 × 180 × 65	115
IS00200100P57	20	100	500	142 × 90 × 50	116
IS00200500P54	20	500	250	142 × 90 × 50	117
IS01000500P56	100	500	400	142 × 90 × 50	118

CUSTOM PRODUCTS & LOW NOISE AMPLIFIERS

CUSTOM PRODUCTS

According to requests of the customer, RFTR Electronics develops wide range of RF sub-system products from 1 MHz-18 GHz. Please contact us for your specialized needs.

- **Antenna Switching Unit**

Antenna switching unit (ASU) connects high power radios and the antennas. It switches both the TX and RX paths with minimal insertion loss. ASU can be controlled locally and remotely using the LCD and the Ethernet interfaces. It includes a very compact size AC/DC power conversion unit.

- **Antenna Tuning Unit**

Units to increase the power transfer ratio between the transmitters and the antennas. Pin diode based designs are utilized to decrease the switching time between the matching sections. Circuits are built to handle high power levels under high VSWR conditions. Module based and rack mount unit based versions are available upon request.

- **Tx/Rx Switch & Coupler Unit**

Tx/Rx Switch and Coupler unit achieves a very fast ultra-low loss switching for both the transmit and receive direction operating in a wide frequency band and under high power levels. Besides, it can measure the power level in both direction achieving a sensitive detection for different VSWR levels.

- **Block-up Converter & Amplifying Unit:**

Block-up converter & Amplifier unit both converts and amplifies a low frequency low power input to a high frequency large signal without adding any frequency component. The conversion and amplification are suitable for both CW and pulsed waveforms. The clock frequency can be either generated internally or applied externally as an option.

- **High Power RF Filter Unit:**

High power RF filter unit achieves proper ultra-low loss filtering using different topologies for different demands. A very sharp signal cancellation for unwanted frequencies or frequency bands is succeeded for high power RF signals. Module based and rack mount unit based versions are available upon request.

LOW NOISE AMPLIFIERS

- 50 Ohm Input & Output Impedance
- Ultra wide-band
- High linearity
- Low Noise
- High P_{1dB}

Part Number	F_{LOW} (MHz)	F_{HIGH} (MHz)	Noise Figure (dB)	P_{OUT}(dBm)	Size(mm)	Page No.
JNA04006000P30	400	6000	5	30	70 x 50 x 15	119
JNA05008000P18	500	8000	2.5	18	30 x 18.8 x 12	120

RFTR Electronics

JA00010030P40

1.5 MHz - 30 MHz 10W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

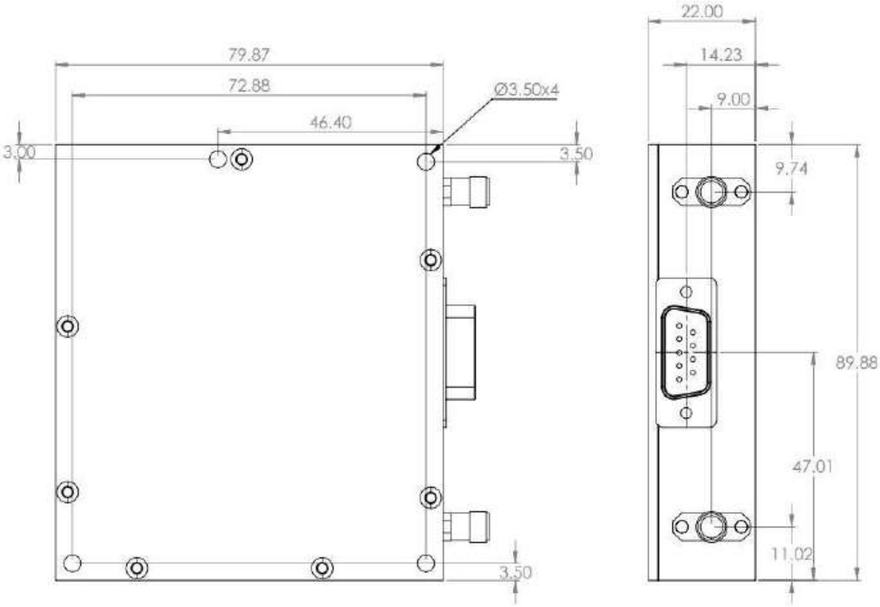
Frequency:	1.5-30 Mhz
Output Power:	10 W CW
Nominal Gain:	40 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	1.2 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) 28 V 2) 28 V 3) Temperature 4) Current 5) Enable (Active Low) 6) GND 7) GND 8) Reverse Power 9) Forward Power

MECHANICAL SPECIFICATIONS

Size (mm) : 90 x 80 x 22
(inch) : 3.55 x 3.15 x 0.87
Weight : 200 gr.
Plating : Yellow Chromate



JA00010030P44

1.5 MHz - 30 MHz 25W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

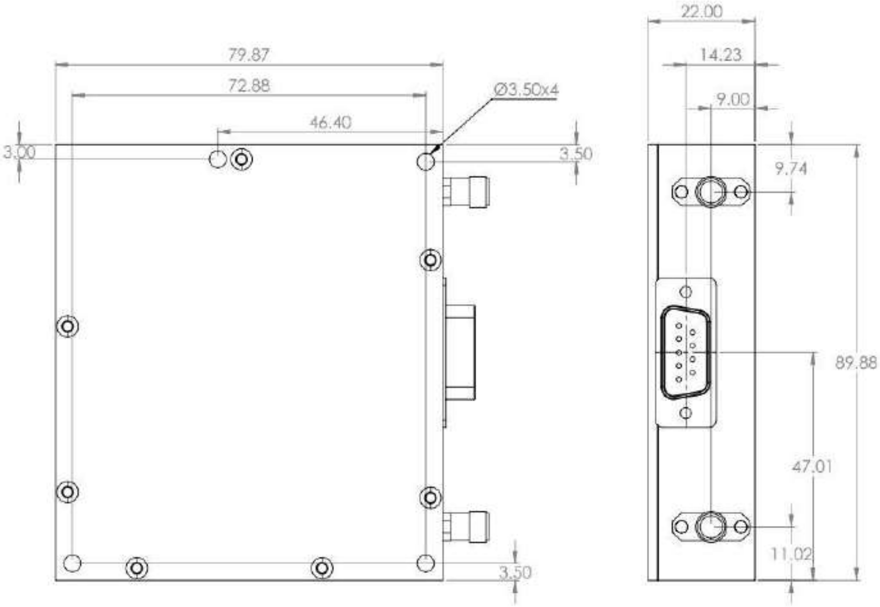
Frequency:	1.5-30 Mhz
Output Power:	25 W CW
Nominal Gain:	44 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	
	1) 28 V
	2) 28 V
	3) Temperature
	4) Current
	5) Enable (Active Low)
	6) GND
	7) GND
	8) Reverse Power
	9) Forward Power

MECHANICAL SPECIFICATIONS

Size (mm) : 90 x 80 x 22
(inch) : 3.55 x 3.15 x 0.87
Weight : 200 gr.
Plating : Yellow Chromate



RFTR Electronics

JA00010030P51

1.5 MHz - 30 MHz 125W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

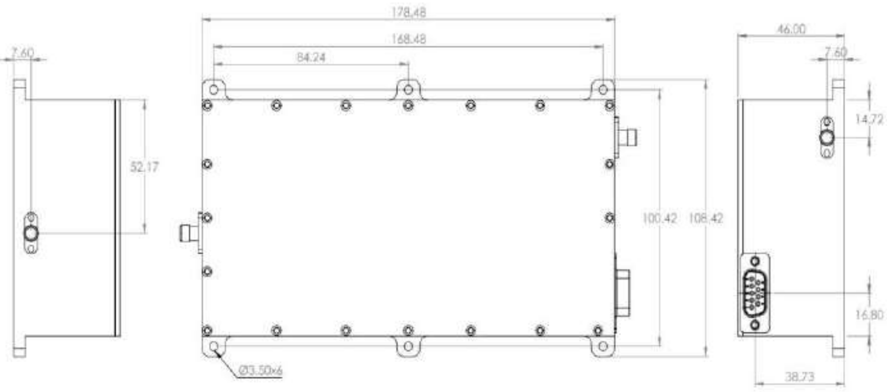
Frequency:	1.5-30 Mhz
Output Power:	125 W CW
Nominal Gain:	30 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	9.5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) NC
	2) NC
	3) Enable (Active High)
	4) 28 V
	5) 28 V
	6) GND
	7) GND
	8) GND
	9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	179 x 108 x 46
(inch) :	7.05 x 4.25 x 1.81
Weight :	900 gr.
Plating :	Yellow Chromate



JA00010030P57

1.5 MHz - 30 MHz 500W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

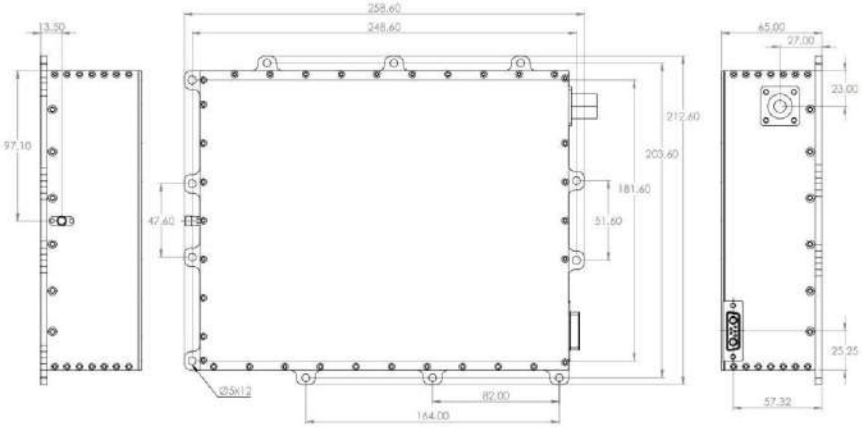
Frequency:	1.5-30 Mhz
Output Power:	500 W CW
Nominal Gain:	20 dB
Gain Flatness:	± 3 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	29 A Avg
Operating Case Temp.:	-40 °C to 85 °C
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 Combo:	A1) GND
	A2) 36 V
	1) Enable (Active High)
	2) NC
	3) GND
	4) NC
	5) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	259 x 213 x 65
(inch) :	10.2 x 8.39 x 2.56
Weight :	3750 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA00010030P61

1.5 MHz - 30 MHz 1200W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

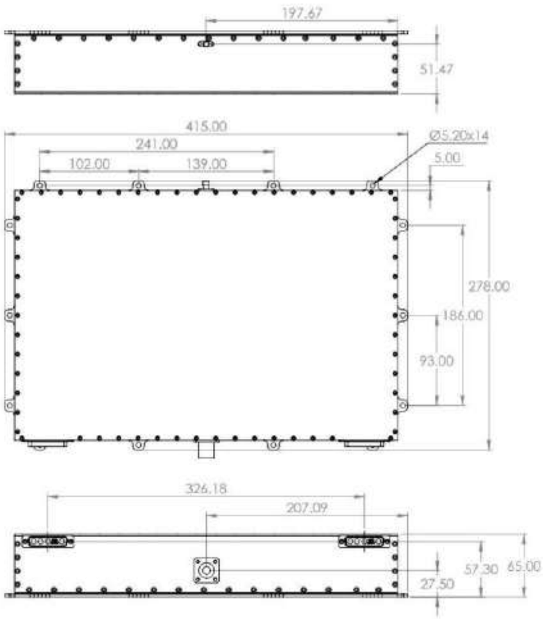
Frequency:	1.5-30 Mhz
Output Power:	1200 W CW
Nominal Gain:	20 dB
Gain Flatness:	± 3 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	70 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
9W4 Combo:	A1) 36 V
	A2) 36 V
	A3) GND
	A4) GND
	1) Enable (Active High)
	2) NC
	3) GND
	4) NC
	5) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	415 x 278 x 65
(inch) :	16.34 x 10.95 x 2.56
Weight :	7800 gr.
Plating :	Yellow Chromate



JA00200100P46

20 MHz - 100 MHz 40W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

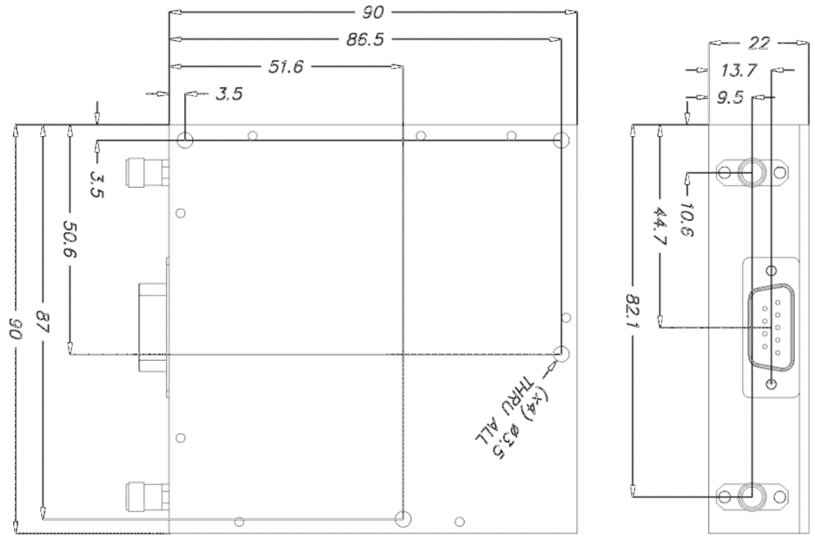
Frequency:	20-100 Mhz
Output Power:	40 W CW
Nominal Gain:	46 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2.9 A Avg
Operating Case Temp.:	-40 °C to 85 °C
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable (Active Low) 2) Forward Power 3) Current 4) Reverse Power 5) Temperature 6) 28 V 7) 28 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	90 x 90 x 22
(inch) :	3.55 x 3.55 x 0.87
Weight :	250 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA00200100P49

20 MHz - 100 MHz 80W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

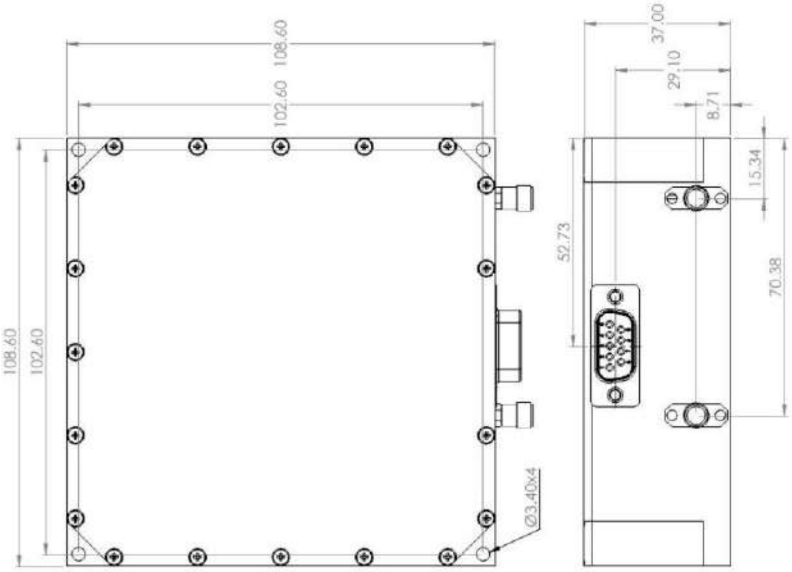
- Frequency: 20-100 Mhz
- Output Power: 80 W CW
- Nominal Gain: 49 dB
- Gain Flatness: ± 2 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 28 V
- DC Current: 6.5 A Avg
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 9-PIN DSUB:
  1) 28 V
  2) 28 V
  3) Current
  4) Enable (Active Low)
  5) Temperature
  6) GND
  7) GND
  8) Forward Power
  9) Reverse Power

MECHANICAL SPECIFICATIONS

- Size (mm) : 109 x 109 x 37
- (inch) : 4.29 x 4.29 x 1.46
- Weight : 480 gr.
- Plating : Yellow Chromate



JA00200500P45

20 MHz - 500 MHz 30W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

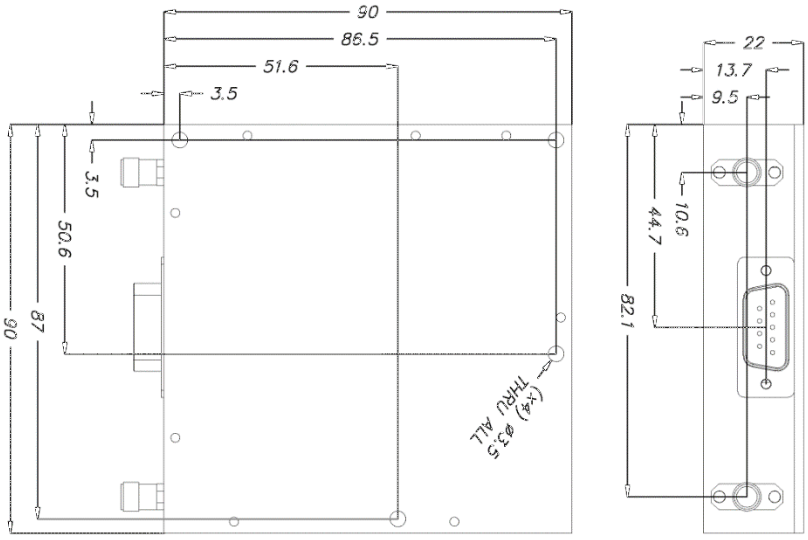
Frequency:	20-500 Mhz
Output Power:	30 W CW
Nominal Gain:	45 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2.9 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable (Active Low) 2) Forward Power 3) Current 4) Reverse Power 5) Temperature 6) 28 V 7) 28 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	90 x 90 x 22
(inch) :	3.55 x 3.55 x 0.87
Weight :	250 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA00200500P47

20 MHz - 500 MHz 50W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

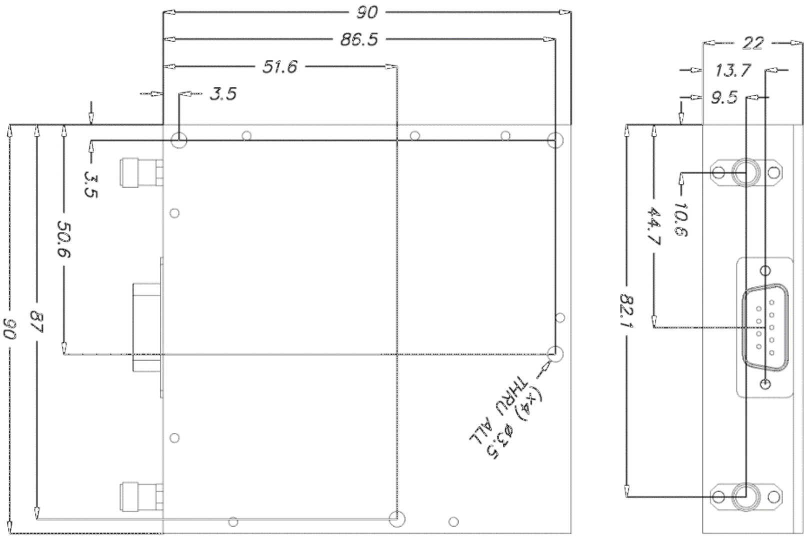
- Frequency: 20-500 Mhz
- Output Power: 50 W min. CW
- Nominal Gain: 47 dB
- Gain Flatness: ± 2 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 32 V
- DC Current: 3.2 A Avg
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temperature: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 9-PIN DSUB: 1) Enable (Active Low)
  2) Forward Power
  3) Current
  4) Reverse Power
  5) Temperature
  6) 32 V
  7) 32 V
  8) GND
  9) GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 90 x 90 x 22
- (inch) : 3.55 x 3.55 x 0.87
- Weight : 250 gr.
- Plating : Yellow Chromate



JA00200500P48

20 MHz - 500 MHz 65W Amplifier

RFTR Electronics

SPECIFICATIONS

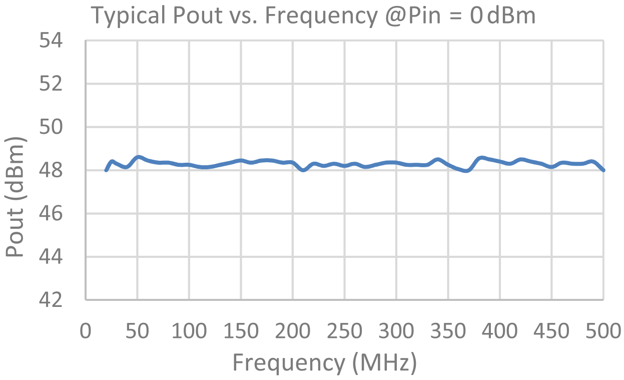
- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-500 MHz
Output Power:	65 W CW
Nominal Gain:	48 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	7.0 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

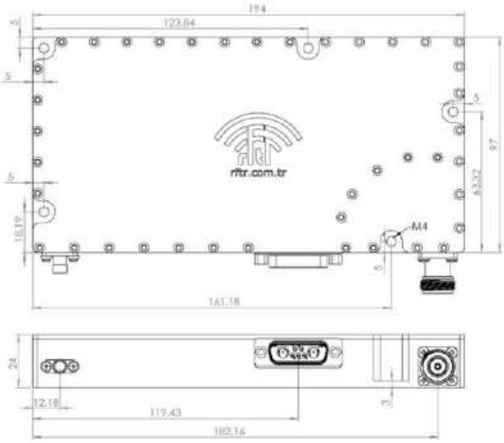
INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 COMBO:	1) Enable (Active Low)
	2) GND
	3) Temperature
	4) Forward Power
	5) Reverse Power
	A1) GND
	A2) 28 V



MECHANICAL SPECIFICATIONS

Size (mm) :	97 x 194 x 24
Weight :	600 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA00200500P49

20 MHz - 500 MHz 80W Amplifier

SPECIFICATIONS

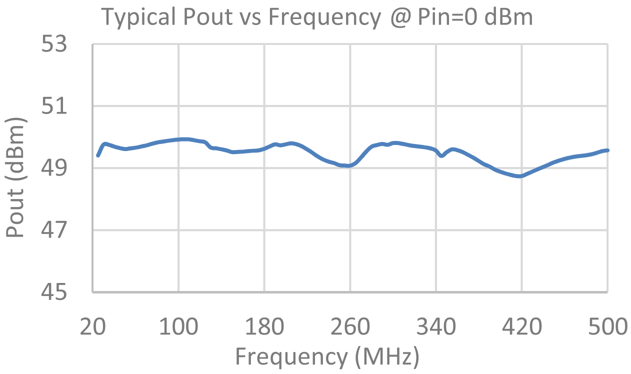
- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 20-500 MHz
- Output Power: 80 W CW
- Nominal Gain: 49 dB
- Gain Flatness: ± 2 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 28 V
- DC Current: 8.5 A Avg
- Operating Case Temp.: -40 ^{o}C to 85 ^{o}C
- Storage Temperature: -40 ^{o}C to 85 ^{o}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

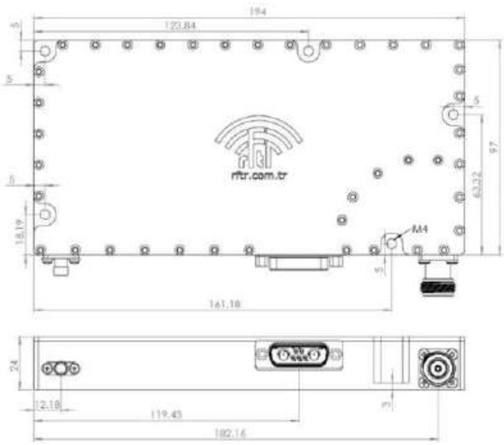
INTERFACES

- RF Input: SMA Female
- RF Output: N Female
- 7W2 COMBO:
  1) Enable (Active Low)
  2) GND
  3) Temperature
  4) Forward Power
  5) Reverse Power
  A1) GND
  A2) 28 V



MECHANICAL SPECIFICATIONS

- Size (mm) : 97 x 194 x 24
- Weight : 600 gr.
- Plating : Yellow Chromate



JA00200500P50

20 MHz - 500 MHz 100W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

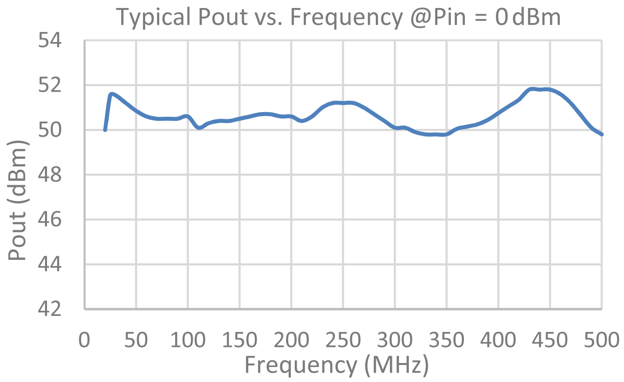
- Frequency: 20-500 MHz
- Output Power: 100 W CW
- Nominal Gain: 50 dB
- Gain Flatness: ± 2 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 28 V
- DC Current: 10 A Avg
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

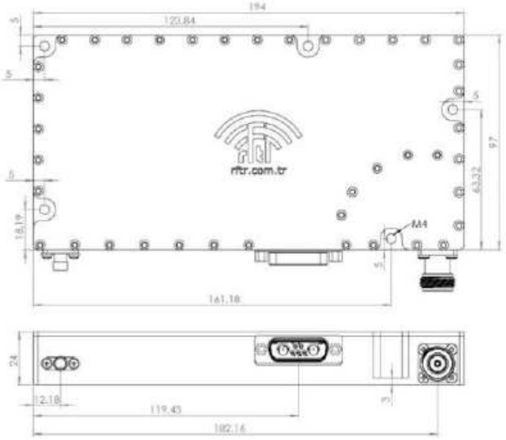
MECHANICAL SPECIFICATIONS

- Size (mm) : 97 x 194 x 24
- Weight : 600 gr.
- Plating : Yellow Chromate

INTERFACES

- RF Input: SMA Female
- RF Output: N Female
- 7W2 COMBO: 1) Enable (Active Low)
  - 2) GND
  - 3) Temperature
  - 4) Forward Power
  - 5) Reverse Power
  - A1) GND
  - A2) 28 V





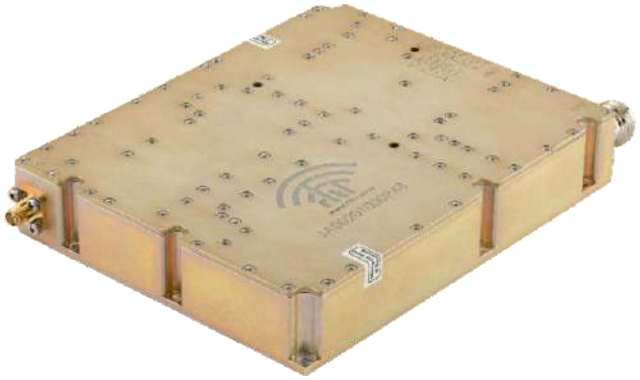
RFTR Electronics

JA00201000P48

20 MHz - 1000 MHz 65W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

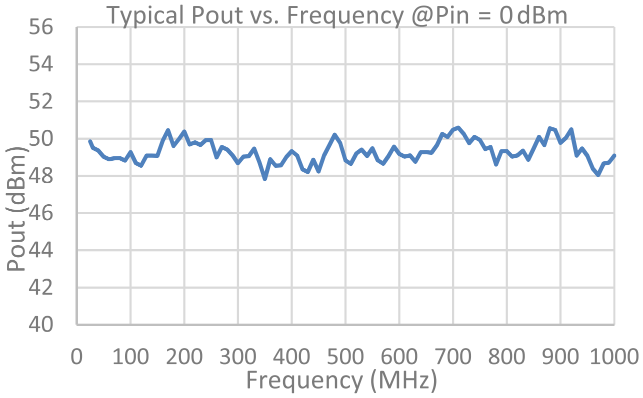


ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-1000 MHz
Output Power:	65 W CW
Nominal Gain:	48 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

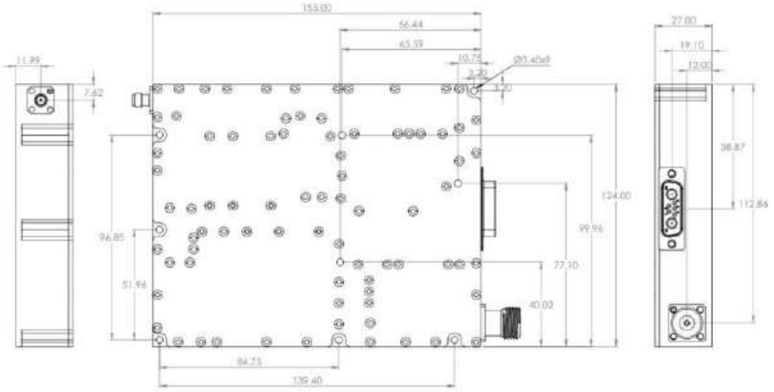
INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 COMBO:	A1) 28 V A2) GND 1) Current 2) Temperature 3) Enable (Active Low) 4) Forward Power 5) Reverse Power



MECHANICAL SPECIFICATIONS

Size (mm) :	155 x 124 x 27
Weight :	840 gr.
Plating :	Yellow Chromate



JA01000500P46

100 MHz – 500 MHz 40W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

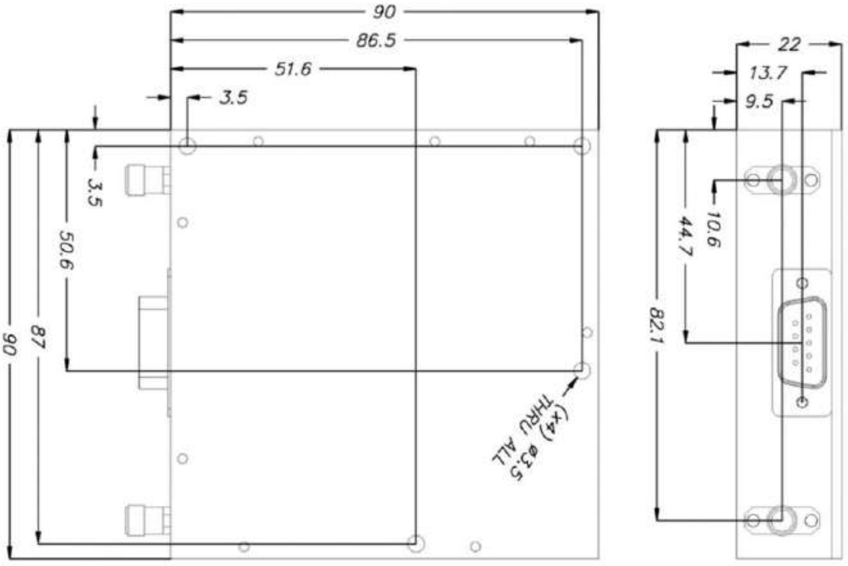
Frequency:	100-500 Mhz
Output Power:	40 W CW
Nominal Gain:	46 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2.8 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable (Active Low)
	2) Forward Power
	3) Current
	4) Reverse Power
	5) Temperature
	6) 28 V
	7) 28 V
	8) GND
	9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	90 x 90 x 22
(inch) :	3.55 x 3.55 x 0.87
Weight :	250 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA01000500P51

100 MHz – 500 MHz 125W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

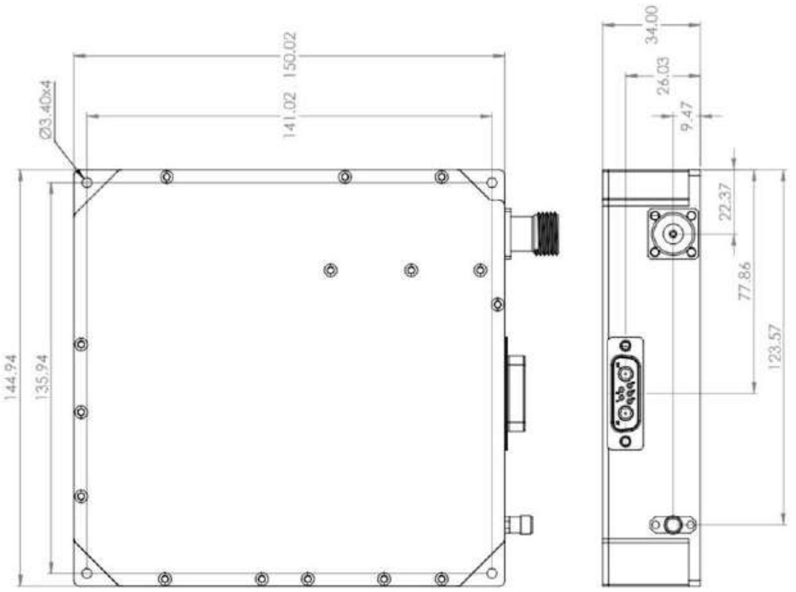
Frequency:	100-500 Mhz
Output Power:	125 W CW
Nominal Gain:	51 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 Combo:	A1) GND
	A2) 28 V
	1) Temperature
	2) Current
	3) Reverse Power
	4) Forward Power
	5) Enable (Active Low)

MECHANICAL SPECIFICATIONS

Size (mm) :	150 x 145 x 34
(inch) :	5.91 x 5.71 x 1.34
Weight :	800 gr.
Plating :	Yellow Chromate



JA03900450P46

390 MHz – 450 MHz 40W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

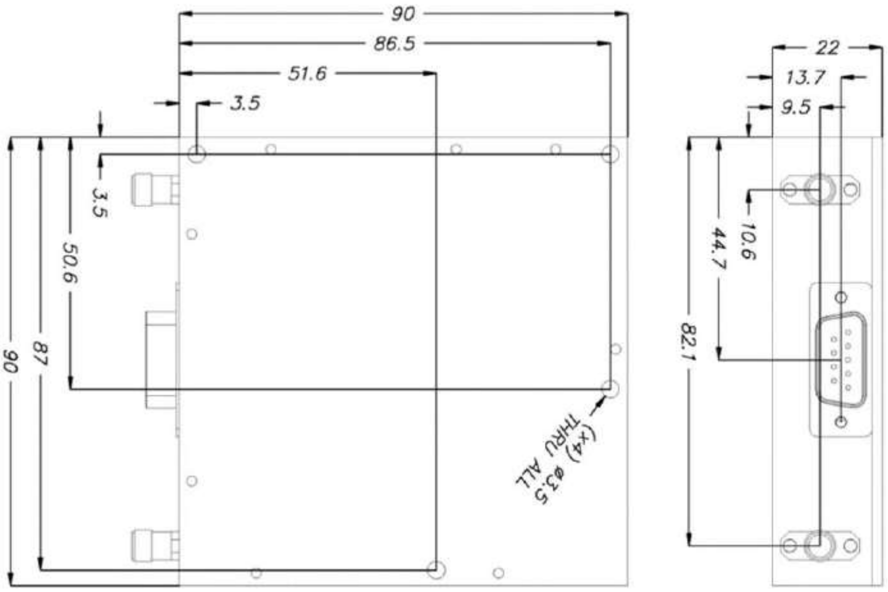
Frequency:	390-450 Mhz
Output Power:	40 W CW
Nominal Gain:	46 dB
Gain Flatness:	± 1 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	3 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable (Active Low) 2) Forward Power 3) Current 4) Reverse Power 5) Temperature 6) 28 V 7) 28 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	90 x 90 x 22
(inch) :	3.55 x 3.55 x 0.87
Weight :	250 gr.
Plating :	Yellow Chromate



JA03900450P53

390 MHz – 450 MHz 200W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Enable Control

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

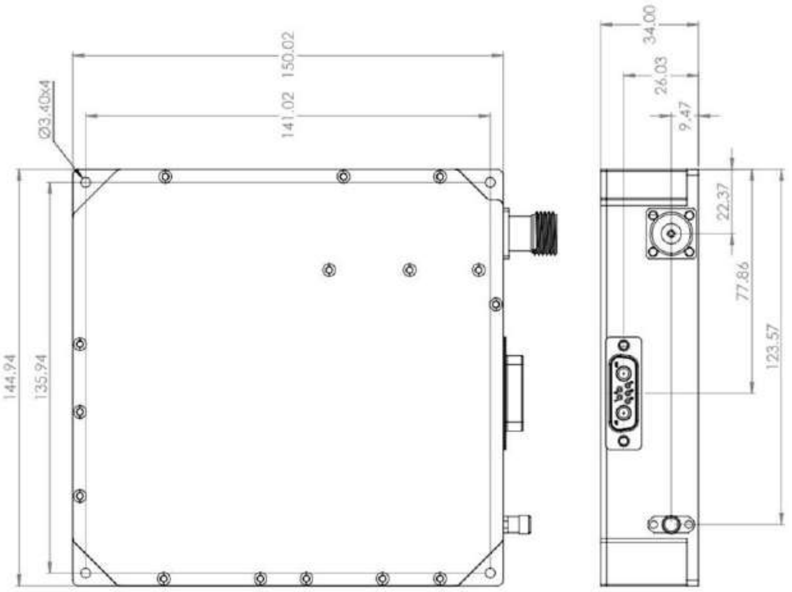
Frequency:	390-450 Mhz
Output Power:	200 W CW
Nominal Gain:	53 dB
Gain Flatness:	± 1 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	15.5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 Combo:	A1) GND A2) 28 V 1) Temperature 2) Current 3) Reverse Power 4) Forward Power 5) Enable (Active Low)

MECHANICAL SPECIFICATIONS

Size (mm) :	150 x 145 x 34
(inch) :	5.91 x 5.71 x 1.34
Weight :	800 gr.
Plating :	Yellow Chromate



JA04001000P47

400 MHz – 1000 MHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

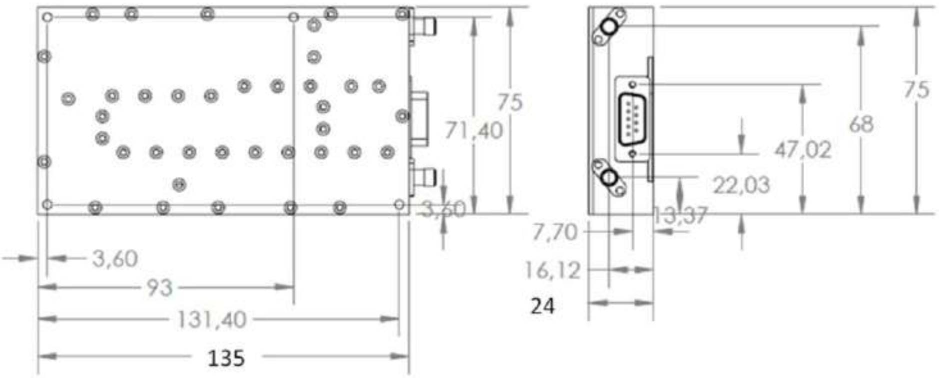
Frequency:	400-1000 Mhz
Output Power:	50 W CW
Nominal Gain:	47 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.8 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	135 x 75 x 24
Weight :	460 gr.



RFTR Electronics

JA04003000P47

400 MHz - 3000 MHz 50W Amplifier

SPECIFICATIONS

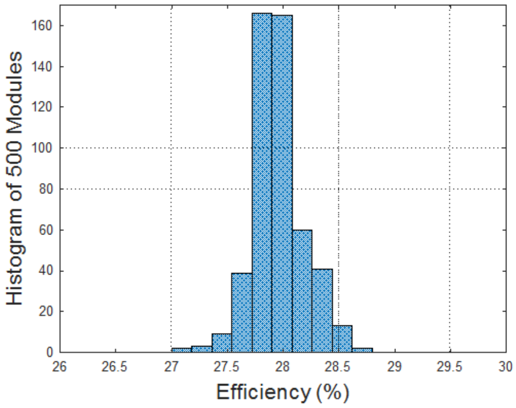
- Solid-state Class AB design
- MOS Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	400-3000 MHz
Output Power:	50 typ. 45W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 2.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

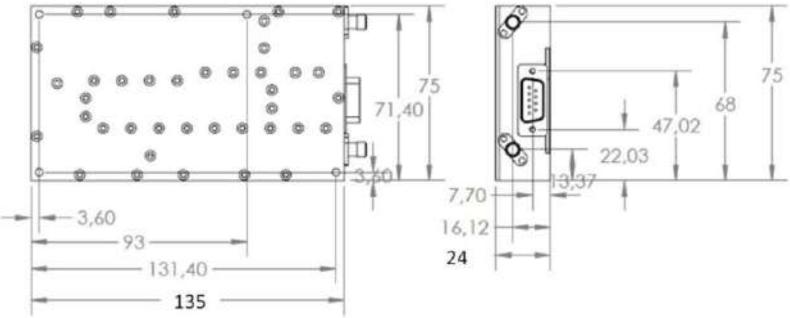
INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32V 6) Reverse Power 7) Enable 8) GND 9) GND



MECHANICAL SPECIFICATIONS

Size (mm) :	135 x 75 x 24
(inch) :	5.31 x 2.95 x 0.95
Weight :	460 gr.
Plating :	Yellow Chromate



JA05002000P50

500 MHz – 2000 MHz 100W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

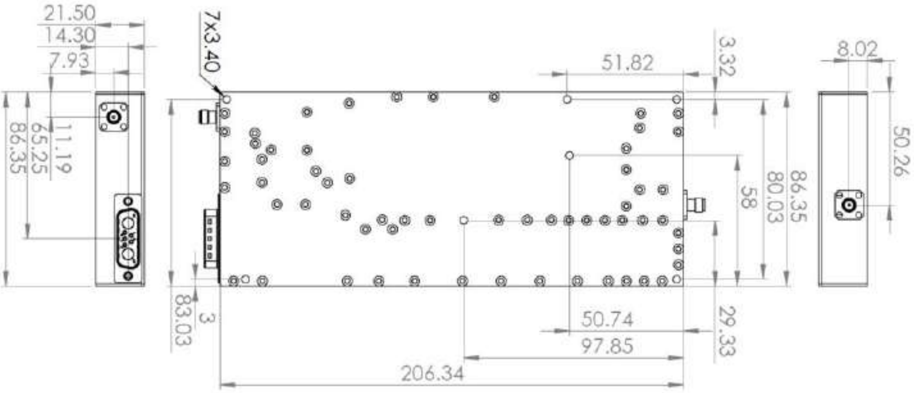
Frequency:	500-2000 Mhz
Output Power:	90 W min. 100 W typ. CW
Nominal Gain:	50 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 Combo:	A1) GND A2) 32 V 1) Temperature 2) Current 3) Reverse Power 4) Forward Power 5) Enable

MECHANICAL SPECIFICATIONS

Size (mm) :	206.3 x 86.4 x 21.5
Weight :	800 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA05003000P52

500 MHz - 3000 MHz 160W Amplifier

SPECIFICATIONS

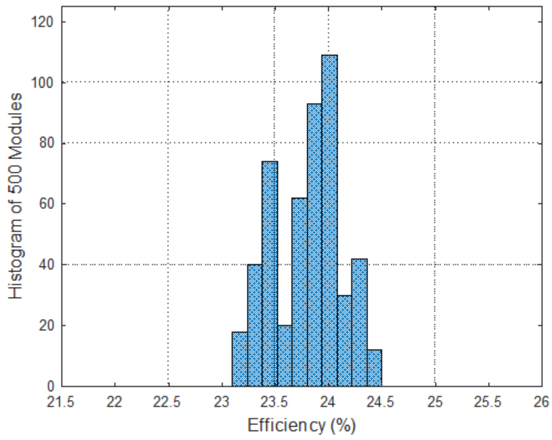
- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Broadband
- Temperature and Current Monitoring

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 500-3000 MHz
- Output Power: 160 W min. CW
- Nominal Gain: 52 dB
- Gain Flatness: ± 2.5 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 36 V
- DC Current: 17.5 A Avg
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temperature: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

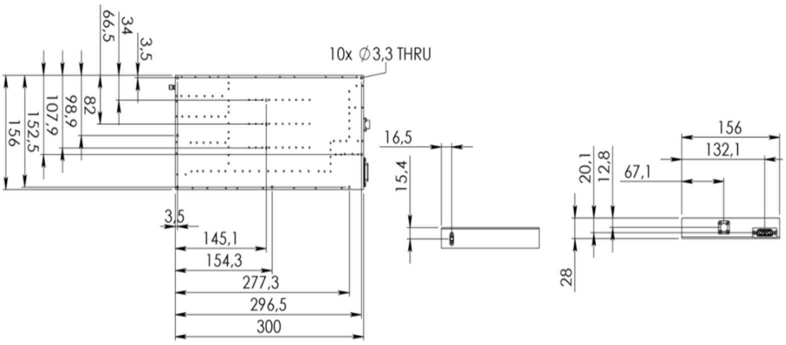
INTERFACES

- RF Input: SMA Female
- RF Output: N Female
- 7W2 DSUB: A1) 36 V
  A2) GND
  1) Temperature
  2) Current
  3) Enable
  4) NC
  5) NC



MECHANICAL SPECIFICATIONS

- Size (mm) : 300 x 156 x 28
- Weight : 2200 gr.



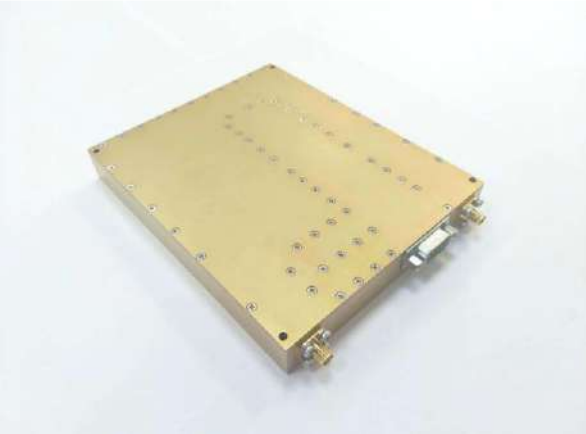
JA05004000P47

500 MHz - 4000 MHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- Ultra wide-band operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Fast Switching Capability
- Forward/Reflected Power Monitoring



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 500-4000 Mhz
- Output Power: 50 W typ. 45W min. @600-3800 MHZ
  25W min. @500-600 MHZ
  25W min. @3800-4000 MHZ
- RF input for rated output: 0 dBm typ.
- Nominal Gain(@SS input): 47 ± 4 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 (Fully Protected)
- DC Supply Voltage: 30 V
- Enable Speed: 5us max.
- Operating Case Temp.: -40 °C to 85 °C
  External Heatsink Required
- Storage Temperature: -40 °C to 85 °C

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 9-PIN DSUB: 1) GND
  2) GND
  3) 30 V
  4) Enable
  5) Reverse Power
  6) GND
  7) 30 V
  8) 30 V
  9) Forward Power

MECHANICAL SPECIFICATIONS

- Size (mm) : 155 x 125 x 19.5
- Size (inch) : 6.15 x 4.9 x 0.77
- Weight : 675 gr.
- Plating : Yellow Chromate

GENERAL DESCRIPTION

RFTR's JA05004000P47 is a reliable ultrawide-band 50W power amplifier operating between 500-4000 MHz and suitable for CW for Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and L bands. JA05004000P47 offers forward-reverse power monitoring and survives under ∞:1 load VSWR condition. The PA can be enabled/disabled as fast as 5 μs that makes it suitable for power saving during pulsed applications.

JA05004000P47 is designed with the components that do not require any export license.

RFTR Electronics

JA06501000P47

650 MHz - 1000 MHz 50W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

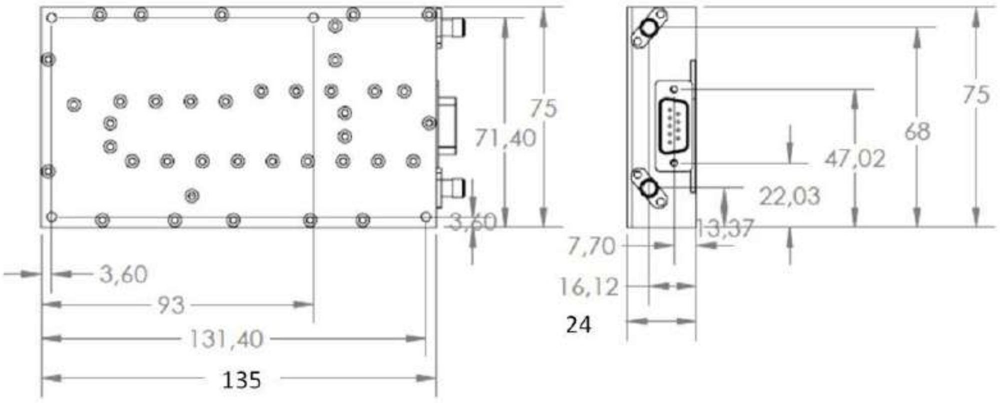
Frequency:	650-1000 MHz
Output Power:	50 W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 2.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.8 A Avg
Operating Case Temp.:	-40 °C to 85 °C
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 135 x 75 x 24
- Weight : 460 gr.



JA07001000P50

700 MHz - 1000 MHz 100W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

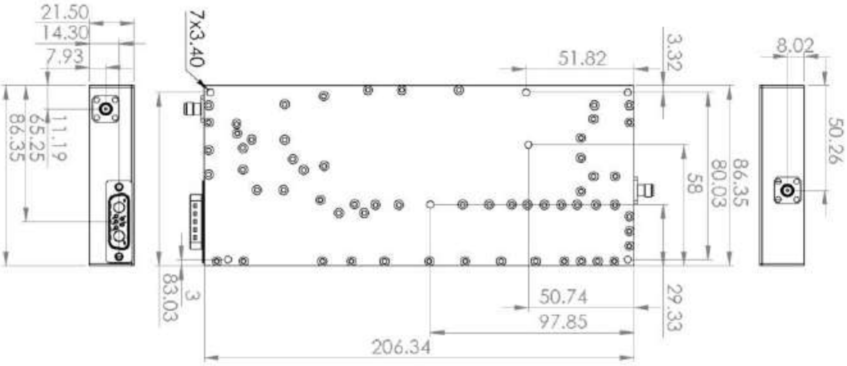
Frequency:	700-1000 MHz
Output Power:	100 W min. CW
Nominal Gain:	50 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 °C to 85 °C
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 DSUB:	A1) GND A2) 32 V 1) Temperature 2) Current 3) Reverse Power 4) Forward Power 5) Enable

MECHANICAL SPECIFICATIONS

Size (mm) :	206.3 x 86.4 x 21.5
Weight :	800 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA07002700P47

700 MHz - 2700 MHz 50W Amplifier

SPECIFICATIONS

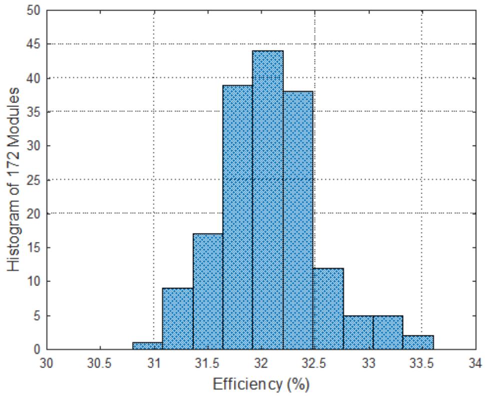
- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	700-2700 MHz
Output Power:	50 W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 2.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	5.5 A Avg
Enable Speed:	3 μs max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

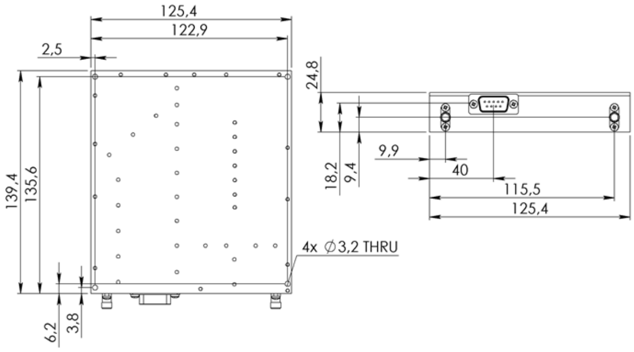
INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable
	2) Forward Power
	3) Current
	4) Reverse Power
	5) Temperature
	6) 28 V
	7) 28 V
	8) GND
	9) GND



MECHANICAL SPECIFICATIONS

Size (mm) :	139.4 x 125.4 x 24.8
Weight :	650 gr.
Plating :	Yellow Chromate



JA07002700P50

700 MHz - 2700 MHz 100W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

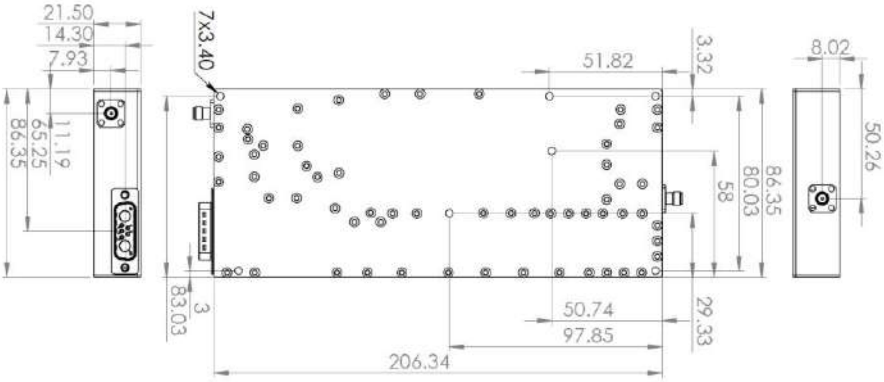
Frequency:	700-2700 MHz
Output Power:	80W min. 100W typ. CW
	50 W min @400-700 MHz
	50 W min @2.7-3.0 GHz
Nominal Gain:	50 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
DC Supply Voltage:	32 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 DSUB:	A1) GND
	A2) 32 V
	1) Temperature
	2) Current
	3) Reverse Power
	4) Forward Power
	5) Enable

MECHANICAL SPECIFICATIONS

Size (mm) :	206.3 x 86.4 x 21.5
Weight :	800 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA10002000P43

1000 MHz - 2000 MHz 20W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

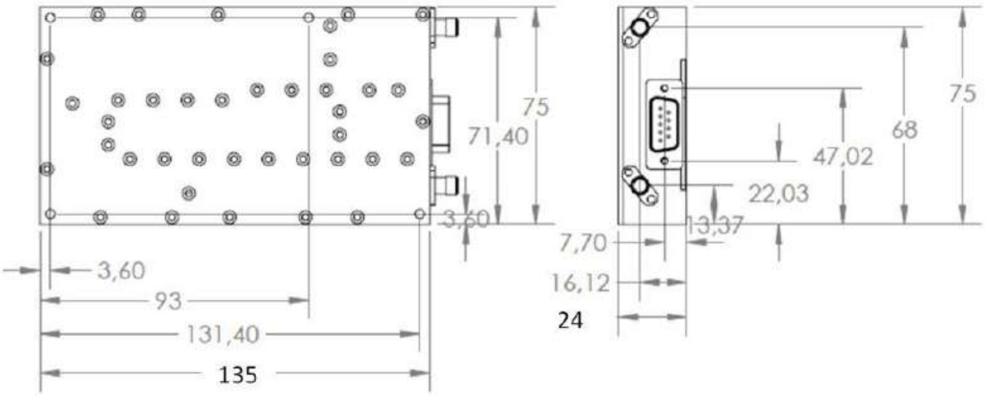
Frequency:	1000-2000 MHz
Output Power:	20 W min. CW
Nominal Gain:	43 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	1.8 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 135 x 75 x 24
- Weight : 460 gr.



JA11001700P47

1100 MHz - 1700 MHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

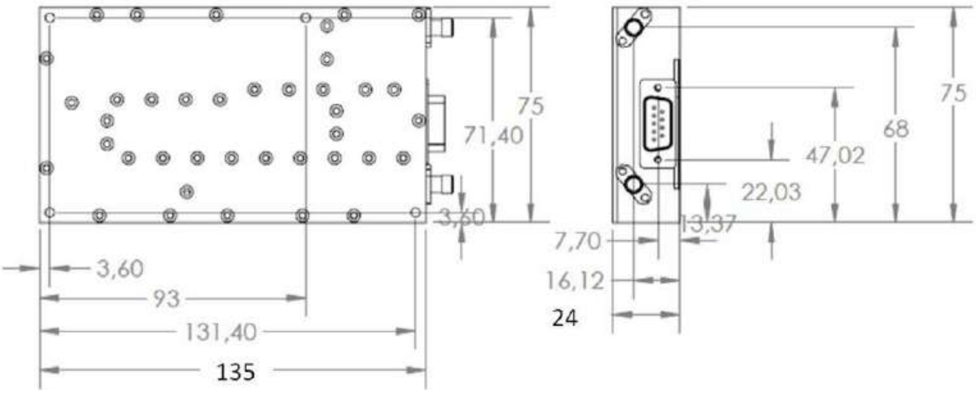
Frequency:	1100-1700 MHz
Output Power:	50 W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 2.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.8 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	135 x 75 x 24
Weight :	460 gr.



RFTR Electronics

JA11001700P50

1100 MHz - 1700 MHz 100W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

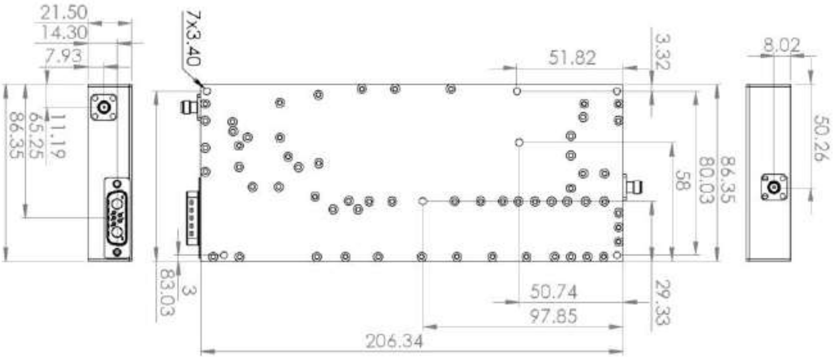
Frequency:	1100-1700 MHz
Output Power:	100 W min. CW
Nominal Gain:	50 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	9.5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 DSUB:	A1) GND A2) 32 V 1) Temperature 2) Current 3) Reverse Power 4) Forward Power 5) Enable

MECHANICAL SPECIFICATIONS

Size (mm) :	206.3 x 86.4 x 21.5
Weight :	800 gr.
Plating :	Yellow Chromate



JA11001700P53

1100 MHz - 1700 MHz 200W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Broadband
- Temperature and Current Monitoring

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

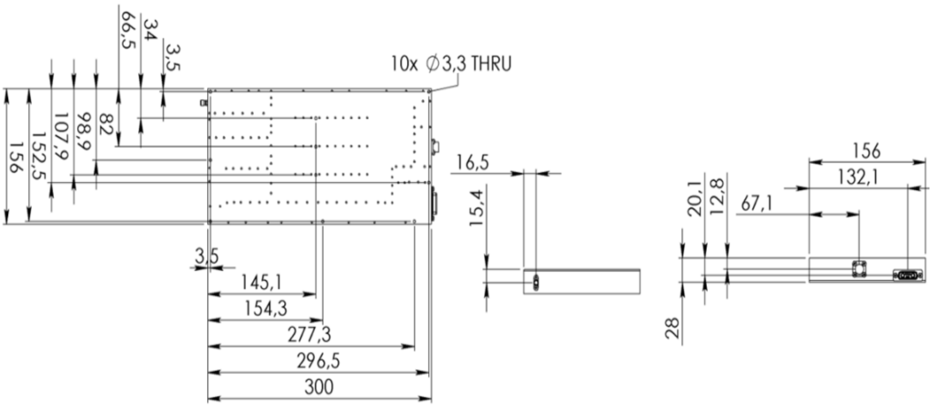
- Frequency: 1100-1700 MHz
- Output Power: 200 W min. CW
- Nominal Gain: 53 dB
- Gain Flatness: ± 1.5 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 36 V
- DC Current: 18 A Avg
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: N Female
- 7W2 DSUB: A1) 36 V
  A2) GND
  1) Temperature
  2) Current
  3) Enable
  4) NC
  5) NC

MECHANICAL SPECIFICATIONS

- Size (mm) : 300 x 156 x 28
- Weight : 2200 gr.



RFTR Electronics

JA18002200P47

1800 MHz - 2200 MHz 50W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

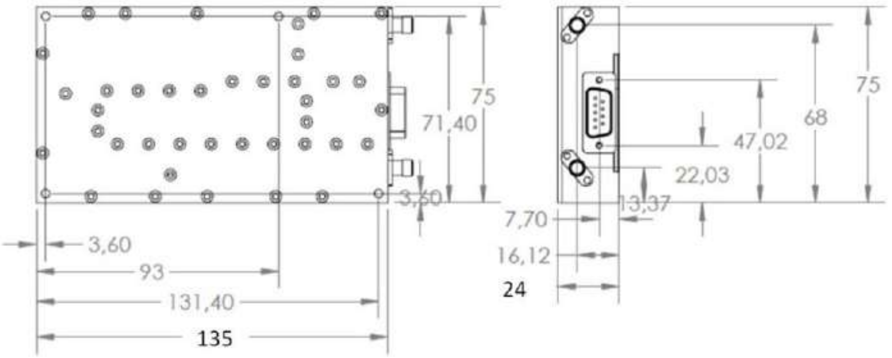
Frequency:	1800-2200 MHz
Output Power:	50 W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.8 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	135 x 75 x 24
(inch) :	5.31 x 2.95 x 0.95
Weight :	460 gr.



JA20003000P47

2000 MHz - 3000 MHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

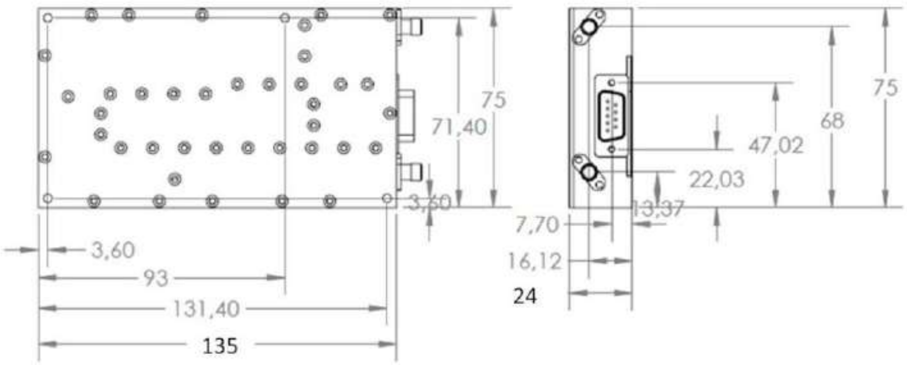
Frequency:	2000-3000 MHz
Output Power:	50 W min. CW
Nominal Gain:	47 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Temperature 2) Current 3) Forward Power 4) 32 V 5) 32 V 6) Reverse Power 7) Enable 8) GND 9) GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 135 x 75 x 24
- Weight : 460 gr.



RFTR Electronics

JA20006000P43

2 GHz – 6 GHz 20W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

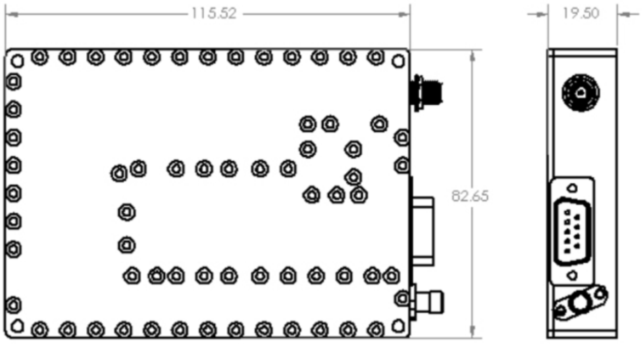
Frequency:	2000-6000 Mhz
Output Power:	20 W typ. 15 W min.
RF input for Rated Power:	-10 dBm typ.
Nominal Gain(@ss input):	53 ± 4 dB typ.
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1(Fully Protected)
DC Supply Voltage:	28 V
DC Current:	5 A Avg
Enable Speed:	3 us max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C External Heatsink Required
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) GND 2) GND 3) 28 V 4) Enable 5) Rev. Power(0-3V Analog) 6) GND 7) 28 V 8) 28 V 9) Fwd. Power(0-3V Analog)

MECHANICAL SPECIFICATIONS

Size (mm) :	115 x 83 x 19.5
Weight :	400 gr.
Plating :	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JA20006000P43 is a reliable ultrawide-band 20W power amplifier operating between 2000-6000 MHz and suitable for CW for Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands. JA20006000P43 offers forward-reverse power monitoring and survives under ∞:1 load VSWR condition. The PA can be enabled/disabled as fast as 3 μs that makes it suitable for power saving during pulsed applications.

JA20006000P43 is designed with the components that do not require any export license.

JA20006000P47

2 GHz – 6 GHz 50W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

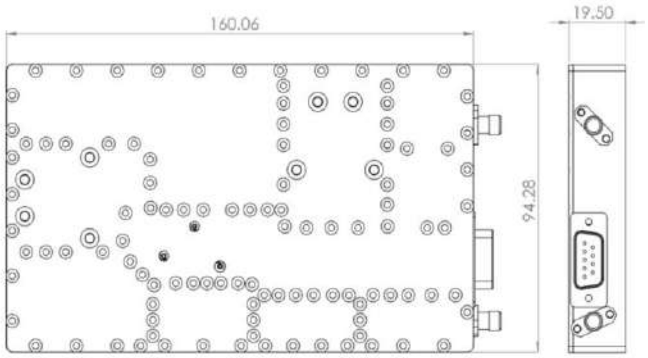
Frequency:	2000-6000 Mhz
Output Power:	50 W typ. 40 W min.
RF input for Rated Power:	-10 dBm typ.
Nominal Gain(@ss input):	60 ± 4 dB typ.
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1(Fully Protected)
Spurious / 2nd&3rd Harmonic:	<-60 dBc / < -15&-20 dBc
DC Supply Voltage:	28 V
DC Current:	5 A Avg typ.
Enable Speed:	3 us max.
Operating Case Temp.:	-40 °C to 85 °C External Heatsink Required
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) GND 2) GND 3) 28 V 4) Enable 5) Rev. Power(0-3V Analog) 6) GND 7) 28 V 8) 28 V 9) Fwd. Power(0-3V Analog)

MECHANICAL SPECIFICATIONS

Size (mm) :	160.1 x 94.3 x 19.5
Size (inch) :	6.3 x 3.71 x 0.77
Weight :	700 gr.
Plating :	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JA20006000P47 is a reliable ultrawide-band 50W power amplifier operating between 2000-6000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands. JA20006000P47 offers forward-reverse power monitoring and survives under ∞:1 load VSWR condition. The PA can be enabled/disabled as fast as 3 μs that makes it suitable for power saving during pulsed applications.

JA20006000P47 is designed with the components that do not require any export license.

RFTR Electronics

JA20006000P50

2 GHz – 6 GHz 100W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- Suitable for CW & Pulsed Waveforms
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection
- Fast Switching Capability
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2000-6000 Mhz
Output Power:	100 W typ. 90 W min. CW
RF input for Rated Power:	-5 dBm typ.
Nominal Gain(@ss input):	60 ± 5 dB typ.
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1(Fully Protected)
2nd&3rd Harmonic:	< -15 dB & -20 dBc typ.
Spurious:	< -60 dBc
Noise Fig. / Noise Output:	<20 dB /< -95 dBm/Hz typ.
DC Supply Voltage / Current:	28 V / 20 A
Enable Speed:	4 us max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C External Heatsink Required
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

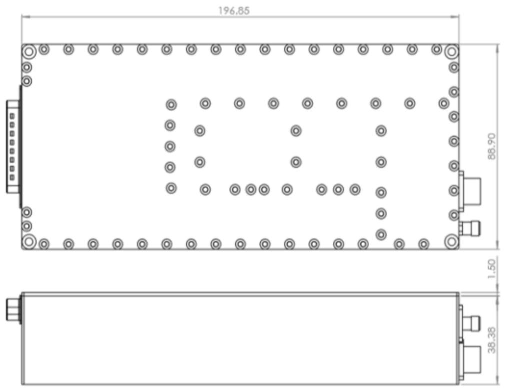
RF Input:	SMA Female
RF Output:	N Female
9-PIN DSUB:	1) RS485-B
2) RS485-A	3) Temperature
4) Attenuator	8) Forward Power
9) GND	10) Reverse Power
11) Current	12) PA On/Of
13) Alarm Out	16) 28 V
17) GND	5,6,7,14,15) Reserved

FUNCTIONS

PA On/Off:	RS485 or TTL 3.3V
Temperature:	1000mV + 20mV/°C x TEMP (Analog)
Attenuator:	0V → Min Att / 2V → Max Att (Analog)
Fwd/Rev Pwr:	0 - 3V (Analog)
Current:	300mV + 60mV/A x CURR (Analog)
Alarm Out:	Over Current, Over Temperature (TTL)

MECHANICAL SPECIFICATIONS

Size (mm) :	197 x 89 x 40
Size (inch) :	7.75 x 3.5 x 1.57
Weight :	1250 gr.
Plating :	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JA20006000P50 is a reliable ultrawide-band 100W power amplifier operating between 2000-6000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands. JA20006000P50 offers forward-reverse power, temperature and current monitoring and generates alarm for the unexpected conditions. RS-485 interface is also available for digital control. The PA can be enabled/disabled as fast as 4 μs that makes it suitable for power saving during pulsed applications. JA20006000P50 can survive under open/short load conditions.

JA20006000P50 is designed with the components that do not require any export license.

JA22002700P47

2.2 GHz – 2.7 GHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Current & Temperature Monitoring
- Ultra Small Dimensions & Ultra Light Weight

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

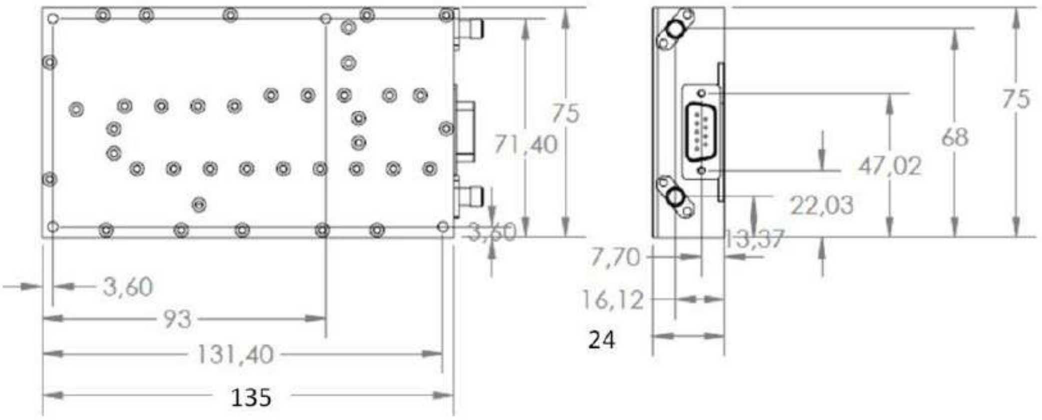
- Frequency: 2200-2700 Mhz
- Output Power: 50 W min. CW
- Nominal Gain: 47 dB
- Gain Flatness: ± 1.5 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 for 1 min.
- DC Supply Voltage: 32 V
- DC Supply Current: 5 A Avg.
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 9-PIN DSUB: 1) Temperature
  2) Current
  3) Forward Power
  4) 32V
  5) 32V
  6) Reverse Power
  7) Enable
  8) GND
  9) GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 135 x 75 x 24
- Weight : 460 gr.



RFTR Electronics

JA24002700P50

2400 MHz - 2700 MHz 100W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2400-2700 MHz
Output Power:	100 W min. CW
Nominal Gain:	50 dB
Gain Flatness:	± 2 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	10 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
7W2 DSUB:	A1) GND A2) 32 V 1) Temperature 2) Current 3) Reverse Power 4) Forward Power 5) Enable

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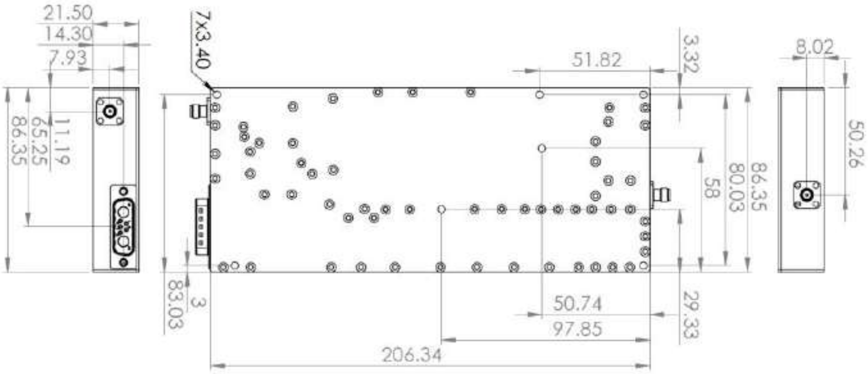
MECHANICAL SPECIFICATIONS

Size (mm) :	206.3 x 86.4 x 21.5
Weight :	800 gr.
Plating :	Yellow Chromate



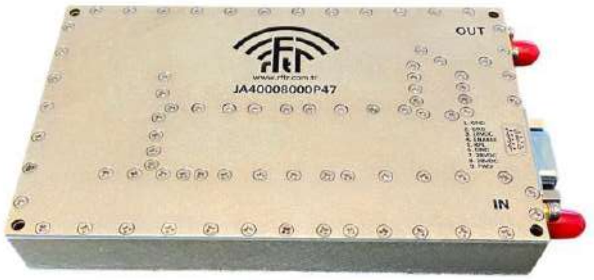
JA40008000P47

4 GHz – 8 GHz 50W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

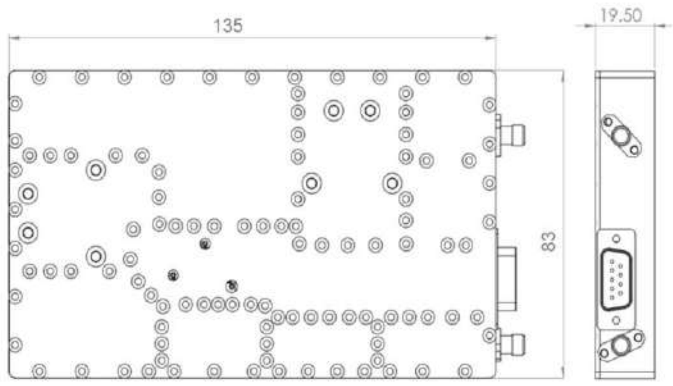
Frequency:	4000-8000 Mhz
Output Power:	50 W typ. 40 W min.
RF input for Rated Power:	-10 dBm typ.
Nominal Gain(@ss input):	60 ± 4 dB typ.
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1(Fully Protected)
Spurious / 2nd&3rd Harmonic:	<-60 dBc / < -15&-20 dBc
DC Supply Voltage:	28 V
Enable Speed:	3 us max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C External Heatsink Required
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) GND 2) GND 3) 28 V 4) Enable 5) Rev. Power(0-3V Analog) 6) GND 7) 28 V 8) 28 V 9) Fwd. Power(0-3V Analog)

MECHANICAL SPECIFICATIONS

Size (mm) :	135 x 83 x 19.5
Size (inch) :	5.3 x 3.27 x 0.77
Weight :	600 gr.
Plating :	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JA40008000P47 is a reliable ultrawide-band 50W power amplifier operating between 4000-8000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands. JA40008000P47 offers forward-reverse power monitoring and survives under ∞:1 load VSWR condition. The PA can be enabled/disabled as fast as 3 μs that makes it suitable for power saving during pulsed applications.

JA40008000P47 is designed with the components that do not require any export license.

RFTR Electronics

JA44006000P46

4400 MHz - 6000 MHz 40W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

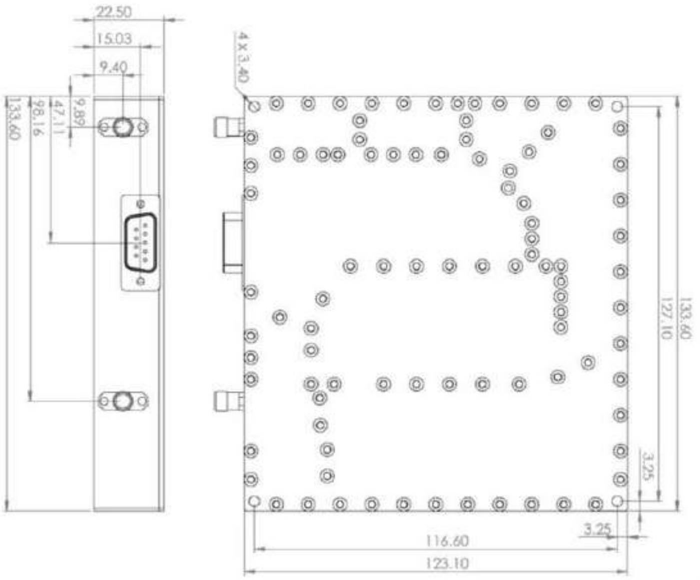
Frequency:	4400-6000 MHz
Output Power:	40W typ. 35W min. CW
Nominal Gain:	46 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.2 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable 2) Forward Power 3) NC 4) Reverse Power 5) Temperature 6) 32 V 7) 32 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	133.6 x 123.1 x 22.5
Weight :	600 gr.
Plating :	Yellow Chromate



JA55006000P43

5500 MHz - 6000 MHz 20W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

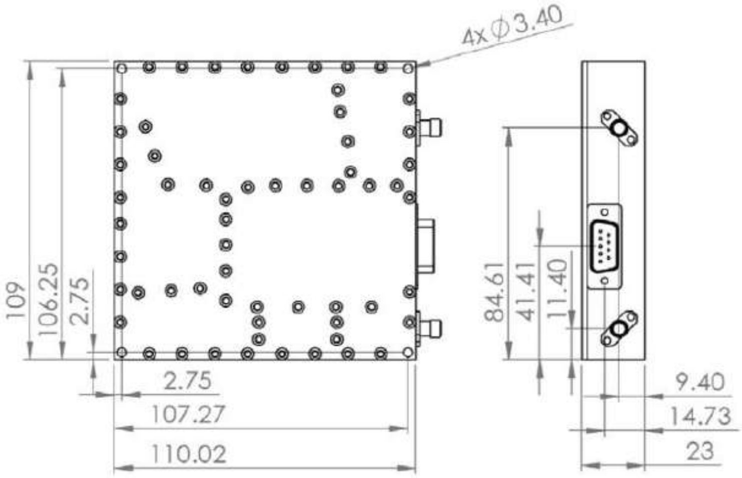
Frequency:	5500-6000 MHz
Output Power:	20W typ. 17 W min. CW
Nominal Gain:	43 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2.6 A Avg
Operating Case Temp.:	-40 °C to 85 °C
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable 2) Forward Power 3) NC 4) Reverse Power 5) Temperature 6) 28 V 7) 28 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	110x 109 x 23
Weight :	450 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA57005900P43

5700 MHz - 5900 MHz 20W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

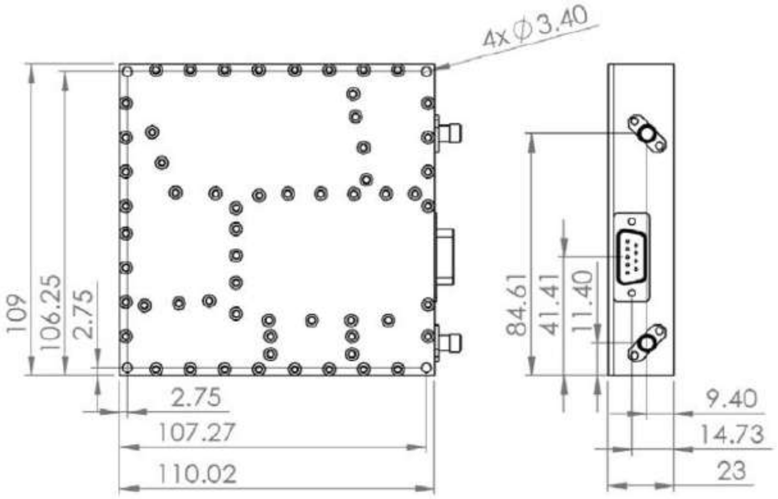
Frequency:	5700-5900 MHz
Output Power:	20W W min. CW
Nominal Gain:	43 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	28 V
DC Current:	2.6 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable 2) Forward Power 3) NC 4) Reverse Power 5) Temperature 6) 28 V 7) 28 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	110 x 109 x 23
Weight :	450 gr.
Plating :	Yellow Chromate



JA57005900P46

5700 MHz - 5900 MHz 40W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Temperature and Current Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

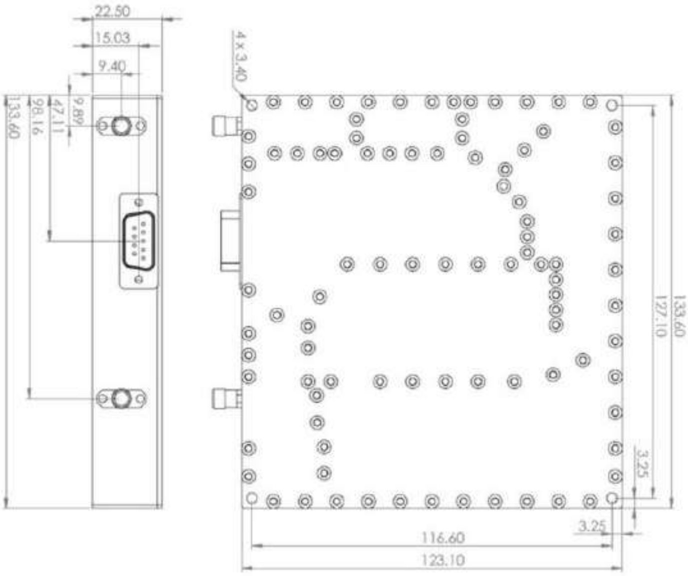
Frequency:	5700-5900 MHz
Output Power:	50W typ. 40W min. CW
Nominal Gain:	46 dB
Gain Flatness:	± 1.5 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 for 1 min.
DC Supply Voltage:	32 V
DC Current:	4.5 A Avg
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
9-PIN DSUB:	1) Enable 2) Forward Power 3) NC 4) Reverse Power 5) Temperature 6) 32 V 7) 32 V 8) GND 9) GND

MECHANICAL SPECIFICATIONS

Size (mm) :	133.6 x 123.1 x 22.5
Weight :	600 gr.
Plating :	Yellow Chromate



RFTR Electronics

JA600018000P47

6 GHz – 18 GHz 50W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	6000-18000 Mhz
Output Power:	60 W typ. 50 W min.
RF input for Rated Power:	0 dBm typ.
Nominal Gain(@ss input):	60 ± 5 dB typ.
Input VSWR:	2:1 max.
Maximum Input Power:	+10 dBm
Spurious / 2nd&3rd Harmonic:	<-60 dBc / < -10&-20 dBc
DC Supply Voltage:	28 V
Enable Speed:	4 us max.
Operating Case Temp.:	-40 °C to 85 °C External Heatsink Required
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
9-PIN Combo:	A1) GND
	A2) GND
	A3) 28 V
	A4) 28 V
	1) Enable
	2) Alarm
	3) Temperature(Analog)
	4) Reverse Power(Analog)
	5) Forward Power(Analog)

MECHANICAL SPECIFICATIONS

Size (mm) :	203 x 152 x 63.5
Size (inch) :	8 x 6 x 2.5
Weight :	2500 gr.
Plating :	Yellow Chromate

GENERAL DESCRIPTION

RFTR's JA600018000P47 is a reliable ultrawide-band 50W power amplifier operating between 6000 - 18000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in C, X and Ku bands. JA600018000P47 offers forward-reverse power monitoring. The PA can be enabled/disabled as fast as 4 μs that makes it suitable for power saving during pulsed applications.

JA600018000P47 is designed with the components that do not require any export license.

JA600018000P49

6 GHz – 18 GHz 80W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Ultrawide-band Operation
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power Monitoring
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	6000-18000 Mhz
Output Power:	80 W typ. 75 W min.
RF input for Rated Power:	0 dBm typ.
Nominal Gain(@ss input):	60 ± 5 dB typ.
Input VSWR:	2:1 max.
Maximum Input Power:	+10 dBm
Spurious / 2nd&3rd Harmonic:	<-60 dBc / < -10&-20 dBc
DC Supply Voltage:	28 V
Enable Speed:	4 us max.
Operating Case Temp.:	-40 °C to 85 °C External Heatsink Required
Storage Temperature:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	N Female
9-PIN Combo:	A1) GND A2) GND A3) 28 V A4) 28 V 1) Enable 2) Alarm 3) Temperature(Analog) 4) Reverse Power(Analog) 5) Forward Power(Analog)

MECHANICAL SPECIFICATIONS

Size (mm) :	203 x 152 x 63.5
Size (inch) :	8 x 6 x 2.5
Weight :	2500 gr.
Plating :	Yellow Chromate

GENERAL DESCRIPTION

RFTR's JA600018000P49 is a reliable ultrawide-band 80W power amplifier operating between 6000 - 18000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in C, X and Ku bands. JA600018000P49 offers forward-reverse power monitoring. The PA can be enabled/disabled as fast as 4 μs that makes it suitable for power saving during pulsed applications.

JA600018000P49 is designed with the components that do not require any export license.

IA00010030P56

1.5 MHz – 30 MHz 400 W Amplifier

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA00010030P56 is a 400W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 1.5 MHz to 30 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 1.5-30 MHz
- Output Power: 400 W min.
- Nominal Gain: 50 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (55 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 2000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19''(W) x 9U(H) x 550 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA00010030P60

1.5 MHz – 30 MHz 1000 W Amplifier

RFTR Electronics

FEATURES

- Solid-state Class AB
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA00010030P60 is a 1000W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 1.5 MHz to 30 MHz.

ELECTRICAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Output Power:	1000 W min.
Nominal Gain:	55 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	20 dBc / 15 dBc (55 dBc with Harm. Filter option)
Spurious:	55 dBc typ.
Line Power:	4000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19''(W) x 6U(H) x 550 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1:	Harmonic Filter *
OPT-2:	RF Switching Unit *
OPT-3:	RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA00010030P67

1.5 MHz – 30 MHz 5000 W Amplifier

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection

GENERAL DESCRIPTION

IA00010030P67 is a 5000 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 1.5 MHz to 30 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 1.5-30 MHz
- Output Power: 5000 W min.
- Nominal Gain: 62 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (50 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 18000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: 7/16 Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 45U Rack
  19’’(W) x 1000 mm (Depth)

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

IA00010030P70

1.5 MHz – 30 MHz 10000 W Amplifier

RFTR Electronics

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection

GENERAL DESCRIPTION

IA00010030P70 is a 10000 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 1.5 MHz to 30 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 1.5-30 MHz
- Output Power: 10000 W min.
- Nominal Gain: 65 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (50 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 38000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: LC Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 2x45U Rack
  19''(W) x 1000 mm (Depth)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA00200500P54

20 MHz – 500 MHZ 250 W Amplifier

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA00200500P54 is a 250W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 20 MHz to 500 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 20-500 MHz
- Output Power: 250 W min.
- Nominal Gain: 50 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (55 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 3000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19’’(W) x 6U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA00201000P53

20 MHz – 1000 MHz 200 W Amplifier

RFTR Electronics

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA00201000P53 is a 200 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 20 MHz to 1000 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 20-1000 MHz
- Output Power: 200 W min.
- Nominal Gain: 50 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (55 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 3000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19’’(W) x 6U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA00300200P62

30 MHz – 200 MHz 1500 W Amplifier

FEATURES

- Solid-state Class AB
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA00300200P62 is a 1500 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 30 MHz to 200 MHz.

ELECTRICAL SPECIFICATIONS

Frequency:	30-200 MHz
Output Power:	1500 W min.
Nominal Gain:	60 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	20 dBc / 15 dBc (55 dBc with Harm. Filter option)
Spurious:	55 dBc typ.
Line Power:	5500 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19''(W) x 10U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA01000500P56

100 MHz – 500 MHz 400 W Amplifier

RFTR Electronics

FEATURES

- Solid-state Class AB design
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA01000500P56 is a 400 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 100 MHz to 500 MHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 100-500 MHz
- Output Power: 400 W min.
- Nominal Gain: 50 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 20 dBc / 15 dBc (55 dBc with Harm. Filter option)
- Spurious: 55 dBc typ.
- Line Power: 4000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19''(W) x 6U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA02001000P60

200 MHz – 1000 MHz 1000 W Amplifier

FEATURES

- Solid-state Class AB
- GaN on SiC Transistors

GENERAL DESCRIPTION

IA02001000P60 is a 1000 W rack-mount Power Amplifier device designed with Solid State technology. This device has a wide band operating frequency starting from 0.2 GHz to 1.0 GHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 200-1000 MHz
- Output Power: 1000 W min.
- Nominal Gain: 60 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 15 dBc / 20dBc
- Spurious: 55 dBc typ.
- Line Power: 7000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19''(W) x 13U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA03900450P60

390 MHz – 450 MHz 1000 W Amplifier

RFTR Electronics

FEATURES

- Solid-state Class AB
- Ruggedized MOS Transistors

GENERAL DESCRIPTION

IA03900450P60 is a 1000 W rack-mount Power Amplifier device designed with Solid State technology. This device has operating frequency starting from 390 MHz to 450 MHz.

ELECTRICAL SPECIFICATIONS

Frequency:	390-450 Mhz
Output Power:	1000 W min.
Nominal Gain:	55 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	20 dBc / 15 dBc (55 dBc with Harm. Filter option)
Spurious:	55 dBc typ.
Line Power:	4500 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19''(W) x 8U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- Temperature Monitoring
- Current Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1:	Harmonic Filter *
OPT-2:	RF Switching Unit *
OPT-3:	RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA04003000P51

400 MHz – 3000 MHz 125 W Amplifier

FEATURES

- Solid-state Class AB design
- GaN on SiC Transistors

GENERAL DESCRIPTION

IA04003000P51 is a 125 W rack-mount Power Amplifier device designed with Solid State technology. This device has an ultra-wide band operating frequency starting from 0.4 GHz to 3 GHz.

ELECTRICAL SPECIFICATIONS

Frequency:	400-3000 MHz
Output Power:	125 W min.
Nominal Gain:	51 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	15 dBc / 20 dBc
Spurious:	55 dBc typ.
AC Supply Voltage:	85 - 265 VAC (220 VAC nom.), 47- 63 Hz
Line Power:	1000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19''(W) x 4U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1:	Harmonic Filter *
OPT-2:	RF Switching Unit *
OPT-3:	RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA05002500P51

500 MHz – 2500 MHz 125 W Amplifier

FEATURES

- Solid-state Class AB design
- GaN on SiC Transistors

GENERAL DESCRIPTION

IA05002500P51 is a 125 W rack-mount Power Amplifier device designed with Solid State technology. This device has an ultra-wide band operating frequency starting from 0.5 GHz to 2.5 GHz.

ELECTRICAL SPECIFICATIONS

- Frequency: 500-2500 MHz
- Output Power: 125 W min.
- Nominal Gain: 51 dB
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 typ.
- Load VSWR: ∞:1 (Fully mismatch tolerant)
- 2nd & 3rd Harmonic: 15 dBc / 20 dBc
- Spurious: 55 dBc typ.
- AC Supply Voltage: 85 - 265 VAC (220 VAC nom.), 47- 63 Hz
- Line Power: 1000 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

- RF Input: N Female
- RF Output: N Female
- Operating Temp.: -20 to 55 °C
- Storage Temp.: -30 to 85 °C
- Relative Humidity: Up to 95%
- Operating Altitude: Up to 3000 meters above sea level
- Cooling: Internal Cooler
- Dimensions: 19’’(W) x 4U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA05002500P57

500 MHz – 2500 MHz 500 W Amplifier

FEATURES

- Solid-state Class AB
- GaN on SiC Transistors

GENERAL DESCRIPTION

IA05002500P57 is a 500 W rack-mount Power Amplifier device designed with Solid State technology. This device has an ultra-wide band operating frequency starting from 0.5 GHz to 2.5 GHz.

ELECTRICAL SPECIFICATIONS

Frequency:	500-2500 Mhz
Output Power:	500 W min.
Nominal Gain:	57 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	15 dBc / 20dBc
Spurious:	55 dBc typ.
AC Supply Voltage:	85 - 265 VAC
	(220 VAC nom.), 47- 63 Hz
Line Power:	3500 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19''(W) x 8U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

IA05003000P56

500 MHz – 3000 MHz 400 W Amplifier

FEATURES

- Solid-state Class AB
- GaN on SiC Transistors

GENERAL DESCRIPTION

IA05003000P56 is a 400W rack-mount Power Amplifier device designed with Solid State technology. This device has an ultra-wide band operating frequency starting from 0.5 GHz to 3.0 GHz.

ELECTRICAL SPECIFICATIONS

Frequency:	500-3000 Mhz
Output Power:	400 W min.
Nominal Gain:	56 dB
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 typ.
Load VSWR:	∞:1 (Fully mismatch tolerant)
2nd & 3rd Harmonic:	15 dBc / 20dBc
Spurious:	55 dBc typ.
AC Supply Voltage:	85 - 265 VAC
	(220 VAC nom.), 47- 63 Hz
Line Power:	3500 VA

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

RF Input:	N Female
RF Output:	N Female
Operating Temp.:	-20 to 55 °C
Storage Temp.:	-30 to 85 °C
Relative Humidity:	Up to 95%
Operating Altitude:	Up to 3000 meters above sea level
Cooling:	Internal Cooler
Dimensions:	19’’(W) x 8U(H) x 660 mm(L)

BUILT-IN FUNCTIONS

- Power Monitoring
- LCD Display
- Ethernet

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485, CANBUS, RS-232, GPIB

* Output power may be degraded with those options

RFTR Electronics

IA20006000P47

2 GHz – 6 GHz 50 W Amplifier

FEATURE

- Solid-state Class AB design
- Ultrawide-band Operation
- Suitable for CW & Pulsed Waveforms
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2000-6000 MHz
Output Power:	50 W min. CW
RF Input for Rated Output:	-10 dBm typ.
Gain (@-15dBm input):	57 dB ± 5 dB typ.
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 max.
Load VSWR Survival:	∞:1 (Fully Protected)
2nd & 3rd Harmonic:	< -15 & -20 dBc typ.
Spurious:	< -60 dBc
AC Supply Voltage:	85 - 265 VAC (220 VAC nom.) 47- 63 Hz
Operating Case Temp.:	-20 °C to 55 °C (FAN cooling)
Storage Temp.:	-30 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	N Female
RF Output:	N Female
RF Sample:	N Female
Power:	MIL-DTL-38999
Programming:	MIL-DTL-38999
Control:	Ethernet / LCD Display

GENERAL DESCRIPTION

RFTR's IA30006000P47 is a reliable ultrawide-band 50W power amplifier instrument operating between 2000-6000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands.
IA30006000P47 offers forward-reverse power, temperature and current monitoring and generates alarm for the unexpected conditions. Both the Ethernet interface and LCD display interface are available for controlling the instrument.
IA30006000P47 can survive under open/short load conditions. The supply voltage of the instrument is AC which operates with 85 – 265VAC, 47 – 63 Hz.
IA30006000P47 is designed with the components that do not require any export license.

MECHANICAL SPECIFICATIONS

Size (mm):	482.6 (W) x 670 (L) x 133.4 (H)
(inch):	19 x 26.4 x 5.25 (3U)
Weight:	30 kg.
Plating:	Yellow Chromate

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485 (A), CANBUS (B), RS-232 (C)

* Output power may be degraded with those options

IA20006000P50

2 GHz – 6 GHz 100 W Amplifier

RFTR Electronics

FEATURE

- Solid-state Class AB design
- Ultrawide-band Operation
- Suitable for CW & Pulsed Waveforms
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2000-6000 Mhz
Output Power:	100 W min. CW
RF Input for Rated Output:	-5 dBm typ.
Gain (@-15dBm input):	60 dB ± 5 dB typ
Overdrive Input Power:	+10 dBm
Input VSWR:	2:1 max.
Load VSWR Survival:	∞:1 (Fully Protected)
2nd & 3rd Harmonic:	< -15 & -20 dBc typ.
Spurious:	< -60 dBc
AC Supply Voltage:	85 - 265 VAC (220 VAC nom.) 47- 63 Hz
Operating Case Temp.:	-20 °C to 55 °C (FAN cooling)
Storage Temp.:	-30 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	N Female
RF Output:	N Female
RF Sample:	N Female
Power:	MIL-DTL-38999
Programming:	MIL-DTL-38999
Control:	Ethernet / LCD Display

GENERAL DESCRIPTION

RFTR's IA20006000P50 is a reliable ultrawide-band 100W power amplifier instrument operating between 2000-6000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands.

IA20006000P50 offers forward-reverse power, temperature and current monitoring and generates alarm for the unexpected conditions. Both the Ethernet interface and LCD display interface are available for controlling the instrument. IA20006000P50 can survive under open/short load conditions. The supply voltage of the instrument is AC which operates with 85 – 265VAC, 47 – 63 Hz.

IA20006000P50 is designed with the components that do not require any export license.

MECHANICAL SPECIFICATIONS

Size (mm):	482.6 (W) x 670 (L) x 133.4 (H)
(inch):	19 x 26.4 x 5.25 (3U)
Weight:	30 kg.
Plating:	Yellow Chromate

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485 (A), CANBUS (B), RS-232 (C)

* Output power may be degraded with those options

RFTR Electronics

IA20006000P54

2 GHz – 6 GHz 250 W Amplifier

FEATURE

- Solid-state Class AB design
- Ultrawide-band Operation
- Suitable for CW & Pulsed Waveforms
- GaN on SiC Transistors
- High reliability and ruggedness
- Forward/Reflected Power, Current & Temperature Monitoring
- Open/Short Load Full Protection
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 2000-6000 MHz
- Output Power: 250 W typ. CW
- RF Input for Rated Output: -5 dBm typ.
- Gain (@-15dBm input): 65 dB ± 5 dB typ.
- Overdrive Input Power: +10 dBm
- Input VSWR: 2:1 max.
- Load VSWR Survival: ∞:1 (Fully Protected)
- 2nd & 3rd Harmonic: < -15 & -20 dBc typ.
- Spurious: < -60 dBc
- AC Supply Voltage: 85 - 265 VAC (220 VAC nom.) 47- 63 Hz
- Operating Case Temp.: -20 °C to 55 °C (FAN cooling)
- Storage Temp.: -30 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: N Female
- RF Output: N Female
- RF Sample: N Female
- Power: MIL-DTL-38999
- Programming: MIL-DTL-38999
- Control: Ethernet / LCD Display

GENERAL DESCRIPTION

RFTR's IA20006000P54 is a reliable ultrawide-band 250W power amplifier instrument operating between 2000-6000 MHz and suitable for CW or Pulsed waveforms. This amplifier can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands.

IA20006000P54 offers forward-reverse power, temperature and current monitoring and generates alarm for the unexpected conditions. Both the Ethernet interface and LCD display interface are available for controlling the instrument.

IA20006000P54 can survive under open/short load conditions. The supply voltage of the instrument is AC which operates with 85 – 265VAC, 47 – 63 Hz.

IA20006000P54 is designed with the components that do not require any export license.

MECHANICAL SPECIFICATIONS

- Size (mm): 482.6 (W) x 670 (L) x 133.4 (H)
- (inch): 19 x 26.4 x 10.5 (6U)

OPTIONS

OPT-1: Harmonic Filter *
OPT-2: RF Switching Unit *
OPT-3: RS-485 (A), CANBUS (B), RS-232 (C)

* Output power may be degraded with those options

IAIFTCP60

1.03 GHz - 1.12 GHz 1000 W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state
- High reliability and ruggedness
- High Dynamic Range
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

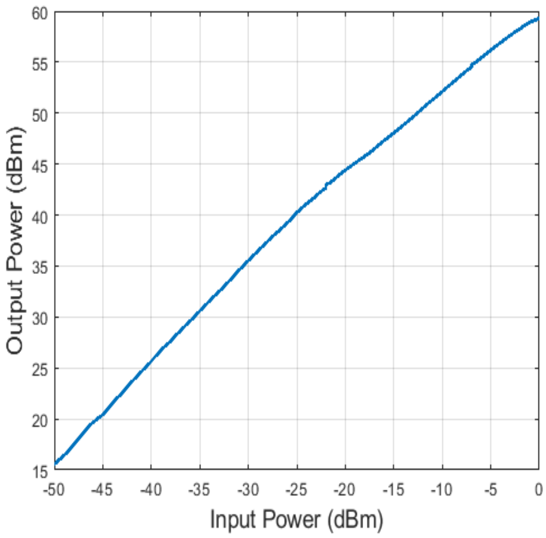
Frequency:	1030 - 1120 MHz
Output Power:	800 W min., 1000 W typ. %6 100 µs
Nominal Gain:	60 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1
DC Voltage Supply:	50 V & 5.5 V
Efficiency:	% 45
Enable Speed:	1 µs max.
Pulse Droop:	0.5 dB
Rise / Fall Time:	50 nsec max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA / TNC Female
15 Pin Micro-D:	

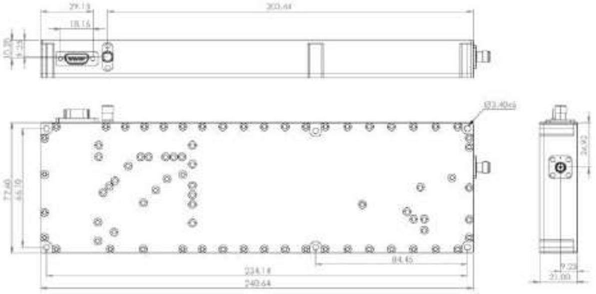
1	Power Alarm
2, 7	NC
13	NC
3	VSWR
4	5.5 V
5, 6	GND
11, 12	GND
8, 14	50 V
15	50 V
9	Temperature
10	Enable

Typical Input-Output Power Characteristic



MECHANICAL SPECIFICATIONS

- Size (mm) : 240.6 x 72.6 x 21



RFTR Electronics

IAIFTCP60N4

1.03 GHz - 1.09 GHz 4 Channel 750 W Amplifier

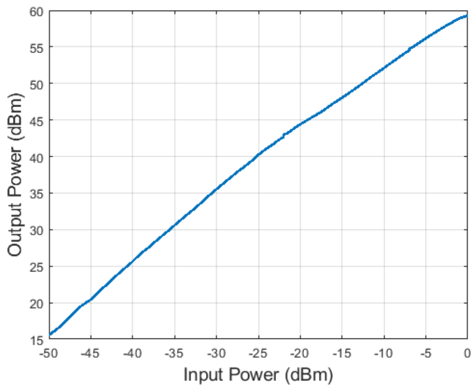
SPECIFICATIONS

- Solid-state
- High Dynamic Range
- Fast Switching Capability
- High reliability and ruggedness

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1030 - 1090 MHz
Output Power:	4 x 750 W , %6 100 µs
Nominal Gain:	60 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1
DC Voltage Supply:	50 V & 5.5 V
Efficiency:	% 45
Enable Speed:	1 µs max.
Pulse Droop:	0.5 dB
Rise / Fall Time:	50 nsec max.
Operating Case Temp.:	-40 ^{o}C to 85 ^{o}C
Storage Temperature:	-40 ^{o}C to 85 ^{o}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

Typical Input-Output Power Characteristic



INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
37 Pin Micro-D:	
1, 6, 13, 14, 15	GND
24, 26, 31	GND
32, 33	GND
17, 18, 19	50 V
35, 36, 37	50 V
2, 4, 7, 22	NC
12, 16, 34	NC
5	Enable Channel-1
3	Enable Channel-2
20	Enable Channel-3
23	Enable Channel-4
27	Temp. Channel-1
28	Temp. Channel-2
29	Temp. Channel-3
30	Temp. Channel-4
8	VSWR Channel-1
9	VSWR Channel-2
10	VSWR Channel-3
11	VSWR Channel-4

MECHANICAL SPECIFICATIONS

Size (mm) :	280 x 185 x 22
Weight :	2400 gr.

IAIFTCP66

1030 MHz - 1090 MHz 4 kW Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state
- High reliability and ruggedness
- High Dynamic Range
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

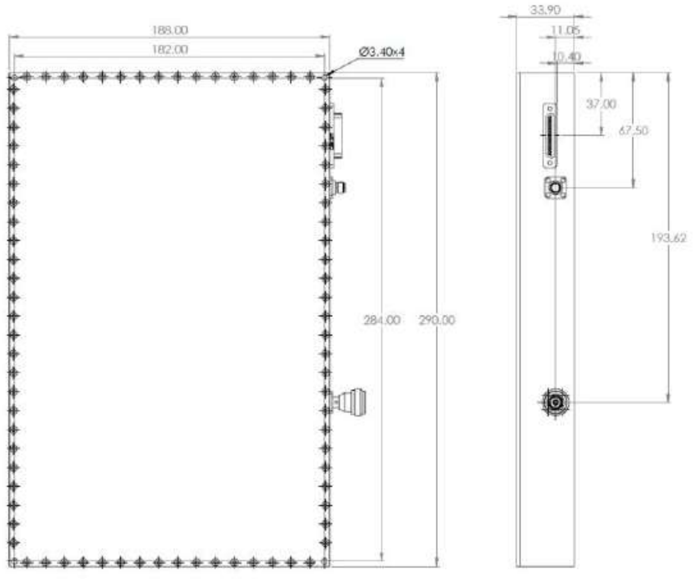
Frequency:	1030 - 1090 MHZ
Output Power:	4000 W , %6 100 µs
Nominal Gain:	65 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1
DC Voltage Supply:	50 V & 5.5 V
Efficiency:	% 45
Enable Speed:	1 µs max.
Pulse Droop:	0.5 dB
Rise / Fall Time:	50 nsec max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female	
RF Output:	N Female	
37 Pin Micro-D:	1, 6, 13, 33	GND
	14, 15, 31	GND
,	24, 26, 32	GND
	8, 9, 10, 37	50 V
	11, 17, 36	50 V
	18, 19, 35	50 V
	2, 4, 7, 22, 12	NC
	16, 28, 34, 3	NC
	20, 23, 29, 30	NC
	5	Enable
	27	Temp.

MECHANICAL SPECIFICATIONS

- Size (mm) : 290 x 188 x 33.9
- Plating : Yellow Chromate



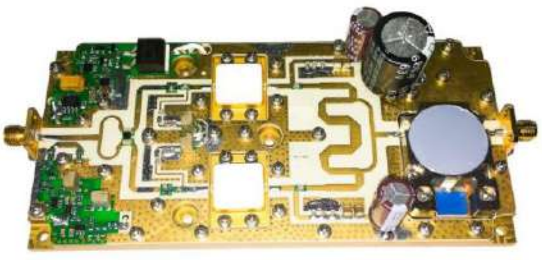
RFTR Electronics

RAP2729P60

2.7 GHz - 2.9 GHz 1000 W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 2.7- 2.9 GHz
- Output Power: 1000 W Typ. %10 300 µs
- Nominal Gain: 10 dB
- Gain Flatness: ± 1 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1
- DC Voltage Supply: 50 V
- Efficiency: % 55 min.
- Enable Speed: 1 µs max.
- Pulse Droop: 0.5 dB
- Rise / Fall Time: 50 nsec max.
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 50 V: Solder Pad
- GND: Solder Pad
- Enable: Solder Pad

MECHANICAL SPECIFICATIONS

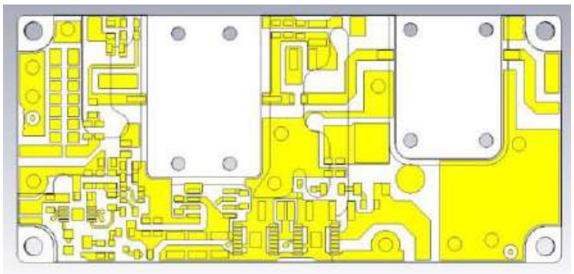
- Size (mm) : 151 x 75.3 x 7.65
- Weight : 275 gr.
- Plating : Yellow Chromate

RAP2833P56

2.8 GHz - 3.3 GHz 350 W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Ultra Small Dimensions & Ultra Light Weight
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

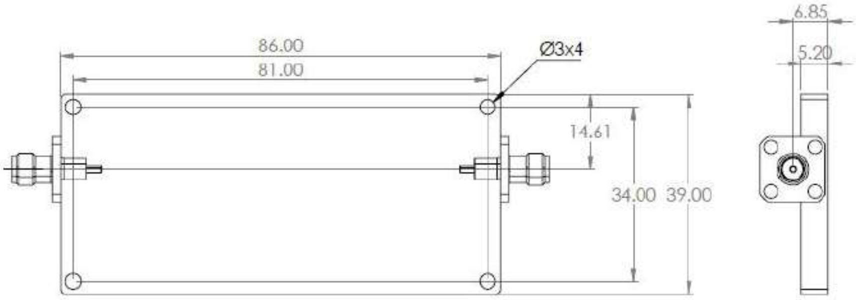
- Frequency: 2.8- 3.3 GHz
- Output Power: 375 W Typ. %10 300 µs
- Nominal Gain: 10.5 dB
- Gain Flatness: ± 1 dB
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1
- DC Voltage Supply: 50 V
- Efficiency: % 60
- Enable Speed: 1 µs max.
- Pulse Droop: 0.5 dB
- Rise / Fall Time: 50 nsec max.
- Operating Case Temp.: -40 ^{0}C to 85 ^{0}C
- Storage Temperature: -40 ^{0}C to 85 ^{0}C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

INTERFACES

- RF Input: SMA Female
- RF Output: SMA Female
- 50 V: Solder Pad
- GND: Solder Pad
- Enable: Solder Pad

MECHANICAL SPECIFICATIONS

- Size (mm) : 86 x 39 x 6.85
- Plating : Yellow Chromate

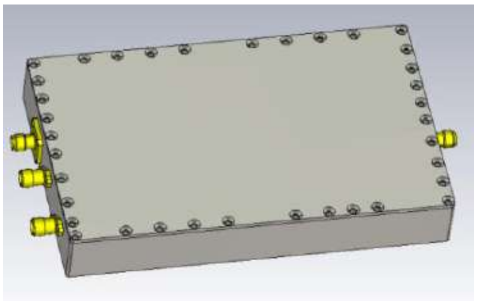


RAM2833P58

2.8 GHz - 3.3 GHz 600 W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

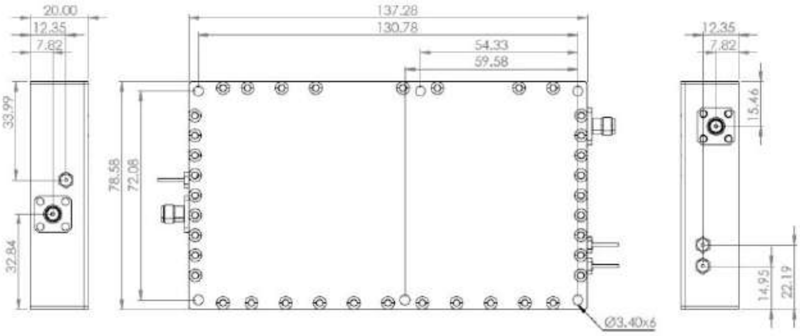
Frequency:	2.8- 3.3 GHz
Output Power:	650 W Typ. %10 300 μs
Nominal Gain:	10 dB
Gain Flatness:	± 1 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1
DC Voltage Supply:	50 V
Efficiency:	% 60
Enable Speed:	1 μs max.
Pulse Droop:	0.5 dB
Rise / Fall Time:	50 nsec max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
50 V & GND:	SMA Female
Enable:	SMA Female

MECHANICAL SPECIFICATIONS

Size (mm) :	137.3 x 78.6 x 20
Plating :	Yellow Chromate



RAM2833P60

2.8 GHz - 3.3 GHz 1000 W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- GaN on SiC Transistors
- High reliability and ruggedness
- Small Dimensions & Light Weight
- Fast Switching Capability

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

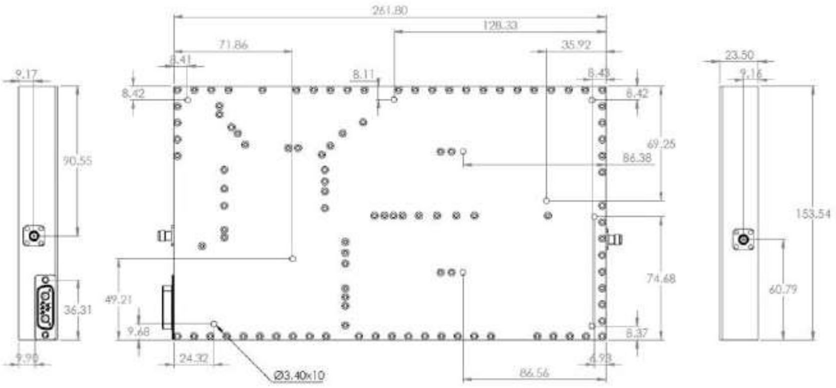
Frequency:	2.8- 3.3 GHz
Output Power:	1000 W Typ. %10 300 µs
Nominal Gain:	33 dB
Gain Flatness:	± 1 dB
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1
DC Voltage Supply:	50 V
Efficiency:	% 45
Enable Speed:	1 µs max.
Pulse Droop:	0.5 dB
Rise / Fall Time:	50 nsec max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C
Storage Temperature:	-40 ^{0}C to 85 ^{0}C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
7W2 DSUB:	A1) 36 V A2) GND 1) Temperature 2) Enable 3) NC 4) NC 5) NC

MECHANICAL SPECIFICATIONS

Size (mm) :	261.8 x 153.5 x 23.5
Plating :	Yellow Chromate



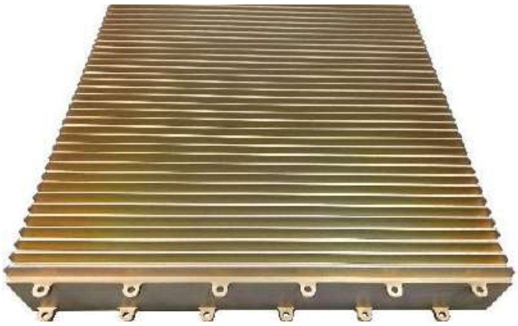
RFTR Electronics

JA900010000P45

9 GHz - 10 GHz 30 W Amplifier

SPECIFICATIONS

- Solid-state Class AB design
- Suitable for Pulsed Waveforms
- High reliability and ruggedness
- Forward/Reflected Power & Temp. Monitoring (Optional)
- Open/Short Load Full Protection
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 9 - 10 GHz
- Output Power: 30 W typ. pulsed (%10 duty, 10 µs width)
- Nominal Gain: 45 dB
- Gain Flatness: ± 1 dB (Large Signal)
- Input VSWR: 2:1 max.
- Load VSWR for Survival: ∞:1 max.
- Spurious / : < -60 dBc
- 2nd & 3rd Harm.: < -15 & -20 dBc
- DC Voltage Supply: 28 V
- DC Power: < 140 W avg.
- Enable Speed: 4 µs max.
- Operating Case Temp.: -40 °C to 71 °C
- Storage Temperature: -40 °C to 85 °C
- Shock / Vibration: MIL-STD-810F/G

GENERAL DESCRIPTION

RFTR's JA900010000P45 is a reliable 30W power amplifier operating between 9000-10000 MHz and suitable for pulsed waveforms with 10% duty cycle, 10 µs pulse width. This amplifier can be used in different applications in X band. The PA can be enabled/disabled as fast as 4 µs that makes it suitable for power saving during pulsed applications.

JA900010000P45 is designed with the components that do not require any export license.

Harmonic filtering, switching units and forward & reverse power monitoring can be added optionally to the module with an acceptable power degradation. I2C interface is also available for temperature monitoring optionally.

INTERFACES

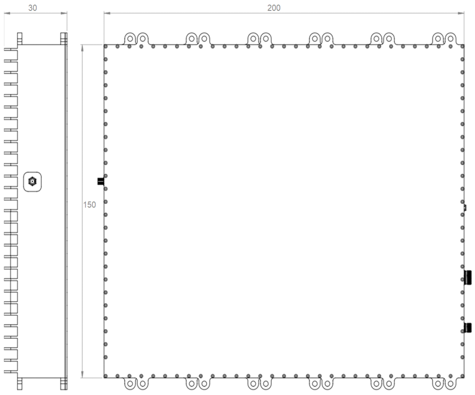
- RF Input: SMA Female
- RF Output: SMA Female
- Control:
  1) GND
  2) RF Enable
  3) Forward Power *
  4) Reverse Power *
  5) I2C CLK **
  6) I2C DATA **
  7, 8, 9) GND
- Power:
  1, 2) DC INPUT
  3, 4) DC RETURN

* Forward & Reverse power detection (Optional)

** I2C is for temperature monitoring (Optional)

MECHANICAL SPECIFICATIONS

- Size (mm) : 150 x 200 x 30
- Weight : 2000 gr.
- Plating : Yellow Chromate



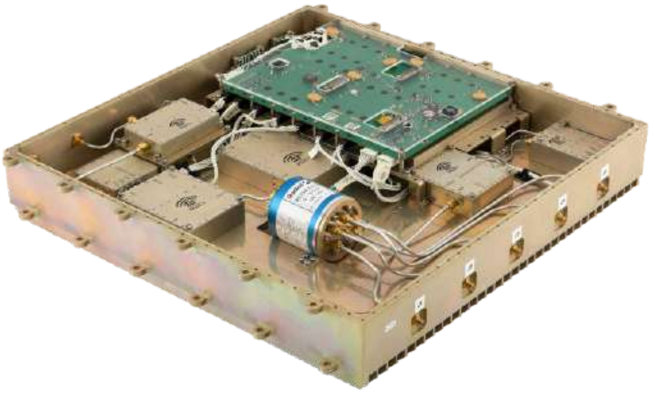
JA95009900P56

9.5 GHz - 9.9 GHz 400 W Amplifier

RFTR Electronics

SPECIFICATIONS

- Solid-state Class AB design
- Suitable for Pulsed Waveforms
- High reliability and ruggedness
- Forward/Reflected Power & Temp. Monitoring
- Open/Short Load Full Protection
- Fast Switching Capability



ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	9.5 - 9.9 GHz
Output Power:	400W typ., 300W min. pulsed (%10 duty, 10 µs width)
Nominal Gain:	56 dB
Gain Flatness:	± 1 dB (Large Signal)
Input VSWR:	2:1 max.
Load VSWR for Survival:	∞:1 max.
Spurious / :	< -60 dBc
2nd & 3rd Harm.:	< -30 & -40 dBc
DC Voltage Supply:	48 V
DC Power:	< 300 W avg.
Enable Speed:	4 µs max.
Operating Case Temp.:	-40 °C to 71 °C
Storage Temperature:	-40 °C to 85 °C
Shock / Vibration:	MIL-STD-810F/G

GENERAL DESCRIPTION

RFTR's JA95009900P56 is a reliable 400W power amplifier operating between 9500-9900 MHz and suitable for Pulsed waveforms with 10% duty cycle, 10 µs pulse width. This amplifier can be used in different applications in X band. JA95009900P56 offers forward and reverse power monitoring. I2C interface is also available for temperature monitoring. The PA can be enabled/disabled as fast as 4 µs that makes it suitable for power saving during pulsed applications.

JA95009900P56 is designed with the components that do not require any export license.

Harmonic filtering and switching units can be added optionally to the module with an acceptable power degradation.

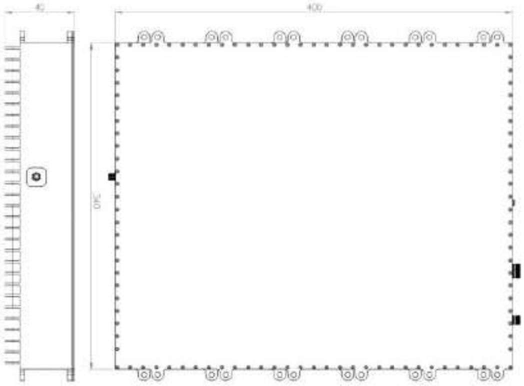
INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
Control:	1) GND
	2) RF Enable
	3) Forward Power
	4) Reverse Power
	5) I2C CLK **
	6) I2C DATA **
	7, 8, 9) GND
Power:	1) DC INPUT
	2) DC INPUT
	3) DC RETURN
	4) DC RETURN

** I2C is for temperature monitoring

MECHANICAL SPECIFICATIONS

Size (mm) :	340 x 400 x 40
Weight :	10.000 gr.
Plating :	Yellow Chromate



RFTR Electronics

JC00010030P57C40

1.5 - 30 MHz 500 W Directional Coupler

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity

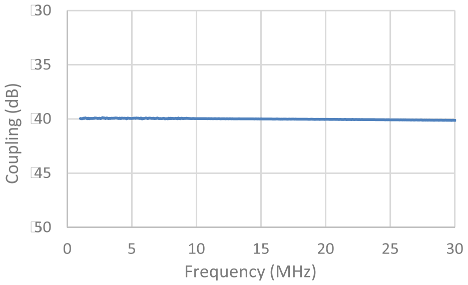
INTERFACES

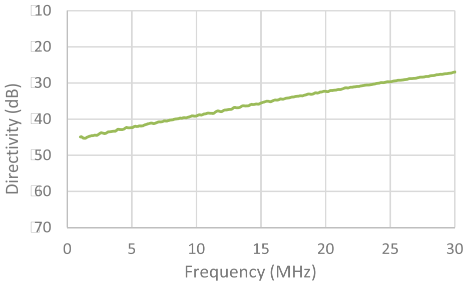
RF Input (1):	N Female
RF Output (2):	N Female
Coupling Port (3):	SMA Female
Isolation Port (4):	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	500 W CW
Insertion Loss:	0.1 dB max.
Coupling:	40 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

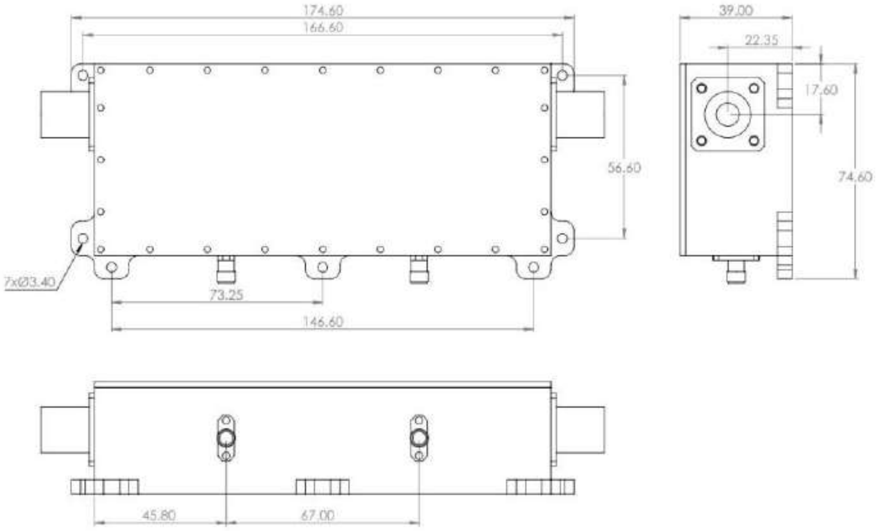
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	175 × 75 × 39
Weight:	820 gr.
Plating:	Yellow Chromate



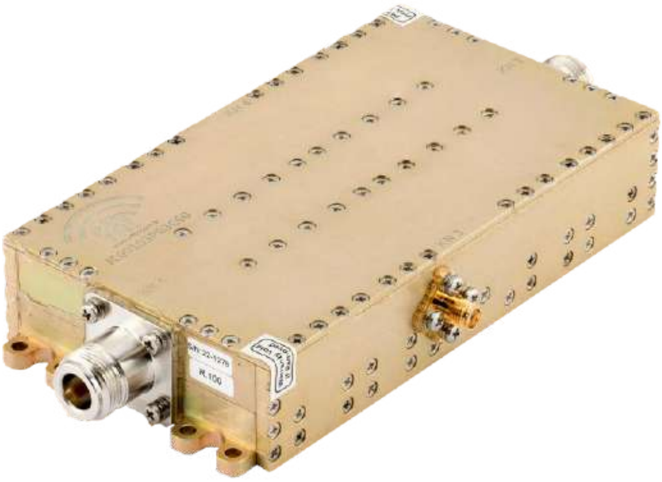
JC00010030P63C60

1.5 - 30 MHz 2000 W Directional Coupler

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity



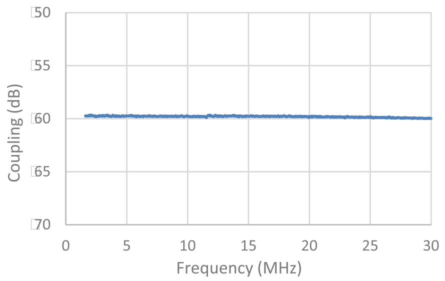
INTERFACES

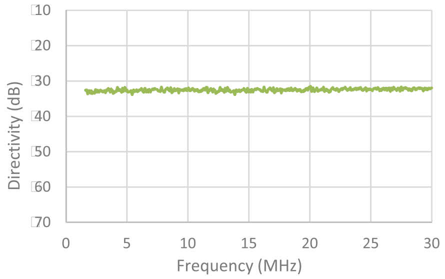
RF Input (1):	N Female
RF Output (2):	N Female
Coupling Port (3):	SMA Female
Isolation Port (4):	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	2000 W CW
Insertion Loss:	0.1 dB max.
Coupling:	60 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

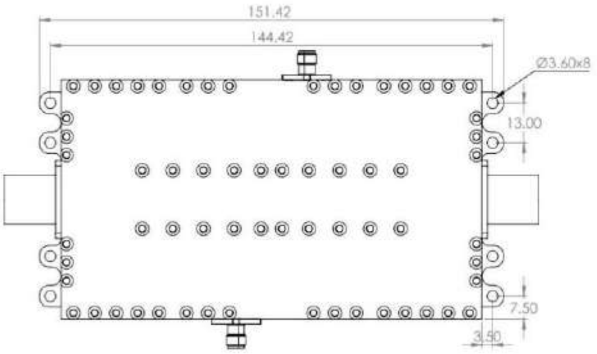
TYPICAL PERFORMANCE GRAPHS

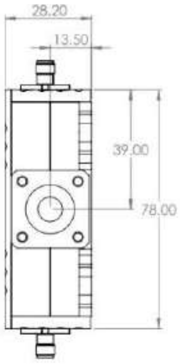


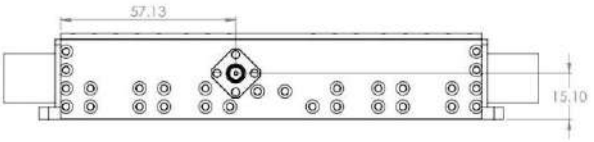


MECHANICAL SPECIFICATIONS

Size (mm):	152 × 78 × 28
Weight:	750 gr.
Plating:	Yellow Chromate







RFTR Electronics

JC00010030P68C70

1.5 - 30 MHz 6000 W Directional Coupler

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity

INTERFACES

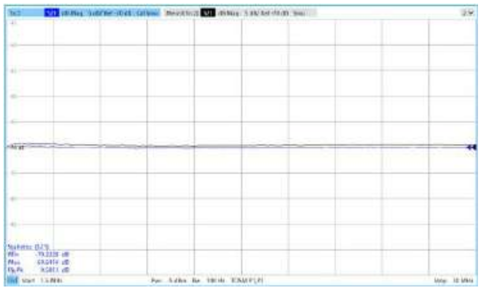
- RF Input (1): 7/16 Female
- RF Output (2): 7/16 Female
- Coupling Port (3): SMA Female
- Isolation Port (4): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

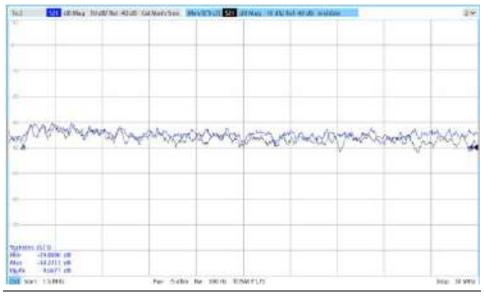
- Frequency: 1.5-30 MHz
- Power Handling: 6000 W CW
- Insertion Loss: 0.1 dB max.
- Coupling: 70 ± 0.5 dB
- Coupling Flatness: ± 1 dB
- In/Out VSWR: 1.2:1 max.
- Directivity: > 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

TYPICAL COUPLING & DIRECTIVITY

FORWARD & REVERSE COUPLING

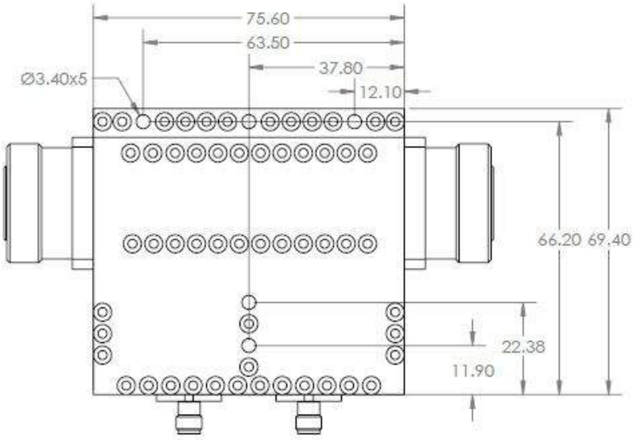


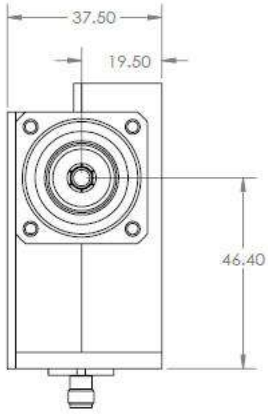
FORWARD & REVERSE DIRECTIVITY



MECHANICAL SPECIFICATIONS

- Size(mm): 76 x 70 x 38
- Weight: 700 gr.
- Plating: Yellow Chromate





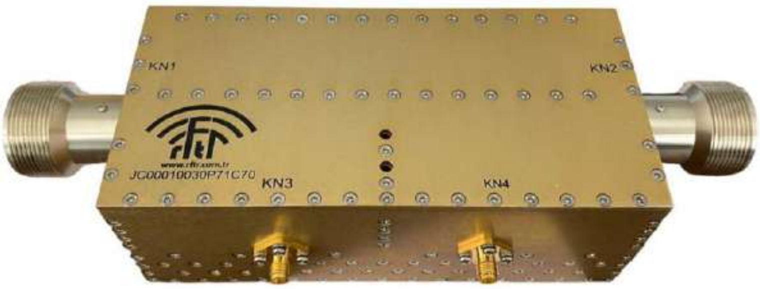
JC00010030P71C70

1.5 - 30 MHz 12000 W Directional Coupler

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity



INTERFACES

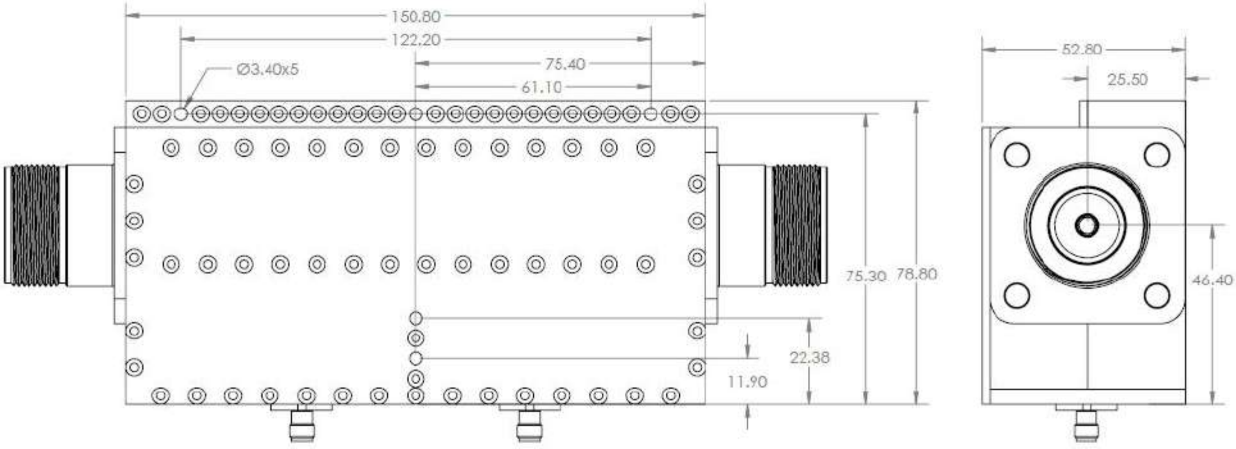
RF Input (1):	LC Female
RF Output (2):	LC Female
Coupling Port (3):	SMA Female
Isolation Port (4):	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	12000 W CW
Insertion Loss:	0.1 dB max.
Coupling:	70 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

Size(mm):	151 x 79 x 53
Weight:	1600 gr.
Plating:	Yellow Chromate



RFTR Electronics

JC00200520P60C60

20 - 520 MHz 1000 W Directional Coupler

FEATURES

- Small Dimensions and Light Weight
- High reliability and ruggedness
- Flat Forward & Reflected Coupling
- High Directivity

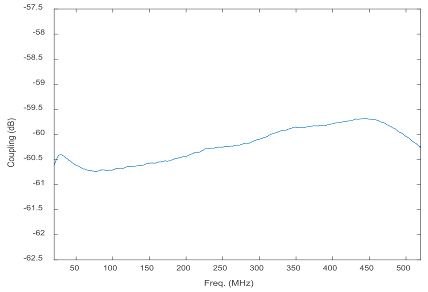
INTERFACES

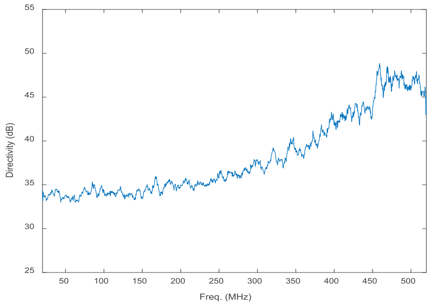
RF Input:	N Female
RF Output:	N Female
Coupled Ports:	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-520 MHz
Power Handling:	1000 W CW
Insertion Loss:	0.1 dB max.
Coupling:	60 ± 0.5 dB
Coupling Flatness:	± 0.75 dB
In/Out VSWR:	1.2:1 max.
Directivity:	20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C

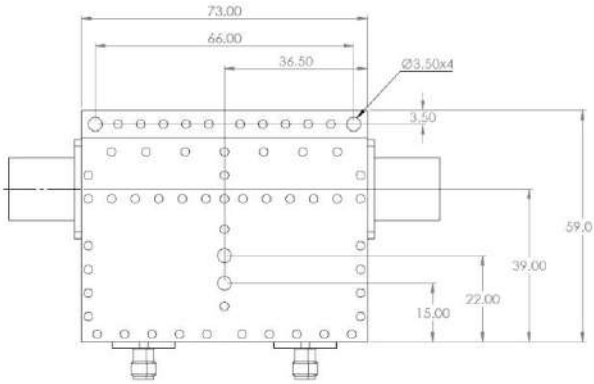
TYPICAL COUPLING & DIRECTIVITY

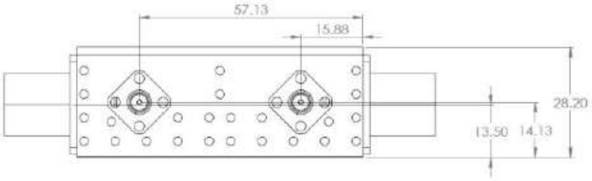




MECHANICAL SPECIFICATIONS

Size (mm):	73 x 59 x 28.2
Plating:	Yellow Chromate





JC00201000P63C60

20 - 1000 MHz 2000 W Directional Coupler

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity

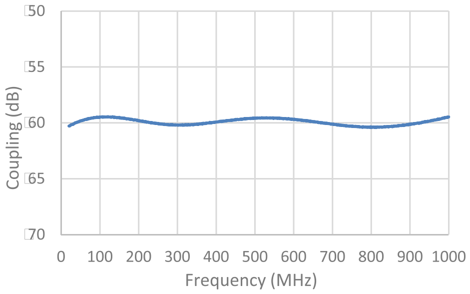
INTERFACES

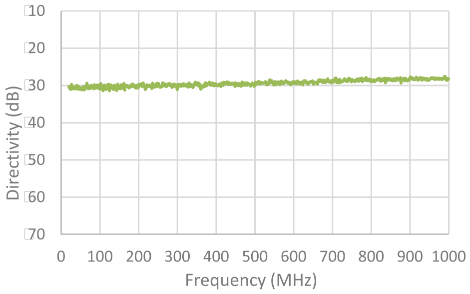
RF Input (1):	7/16 Female
RF Output (2):	7/16 Female
Coupling Port (3):	SMA Female
Isolation Port (4):	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-1000 MHz
Power Handling:	2000 W CW
Insertion Loss:	0.1 dB max.
Coupling:	60 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

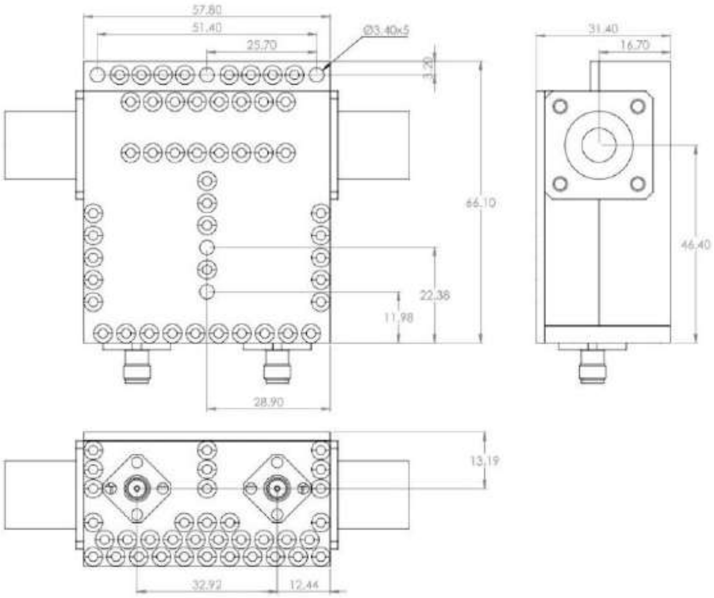
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	58 × 66 × 32
Weight:	420 gr.
Plating:	Yellow Chromate



RFTR Electronics

JC00300200P50C40

30 - 200 MHz 100 W Directional Coupler

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Flat Forward & Reflected Power Sampling
- High Isolation and Directivity

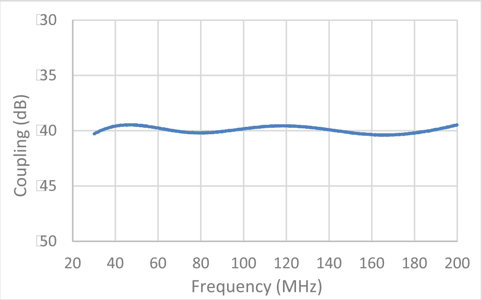
INTERFACES

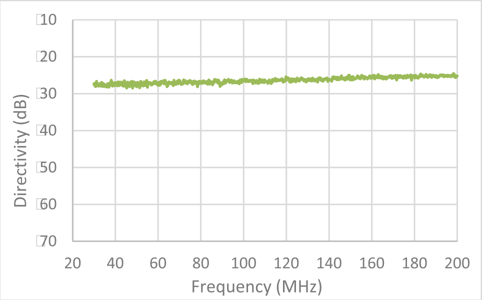
RF Input (1):	SMA Female
RF Output (2):	SMA Female
Coupling Port (3):	SMA Female
Isolation Port (4):	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	30-200 MHz
Power Handling:	100 W CW
Insertion Loss:	0.1 dB max.
Coupling:	40 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

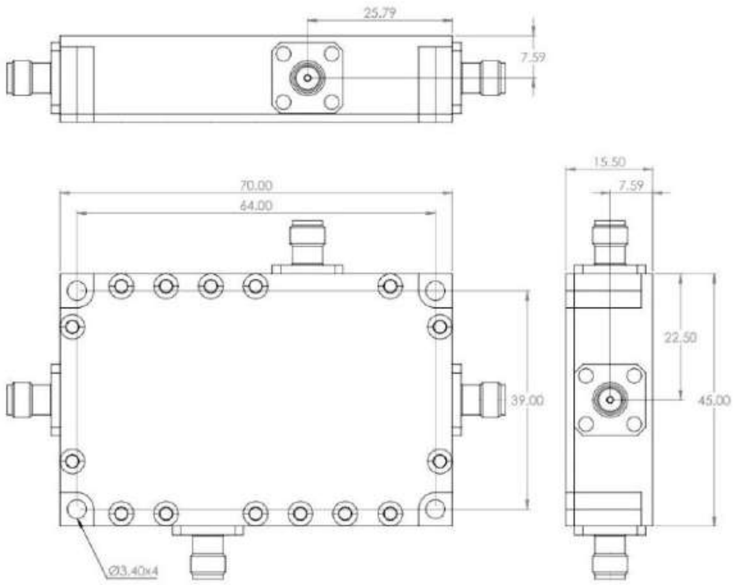
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	70 × 45 × 16
Weight:	160 gr.
Plating:	Yellow Chromate



JC05003000P57C50

500 - 3000 MHz 500 W Directional Coupler

RFTR Electronics

FEATURES

- High reliability and ruggedness
- Small Dimensions and Light Weight
- Flat Forward/Reflected Coupling
- High Directivity

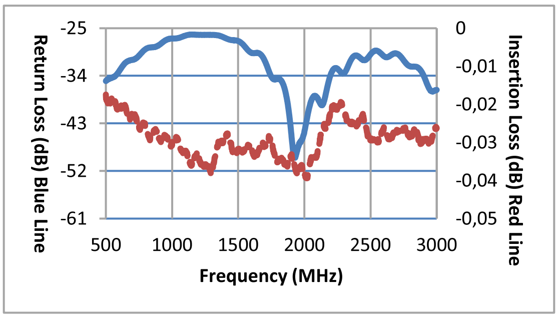
INTERFACES

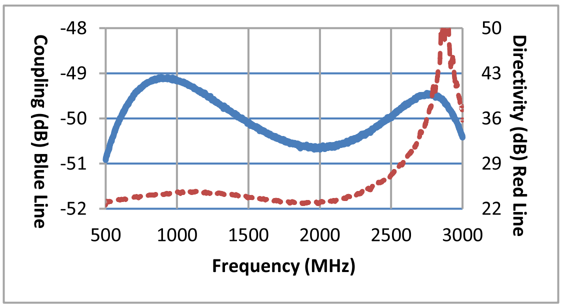
- RF Input: N Female
- RF Output: N Female
- Coupled Ports: SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 500-3000 MHz
- Power Handling: 500 W CW
- Insertion Loss: 0.2 dB max.
- Coupling: 50 ± 0.5 dB
- Coupling Flatness: ± 1 dB
- In/Out VSWR: 1.2:1 max.
- Directivity: 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C

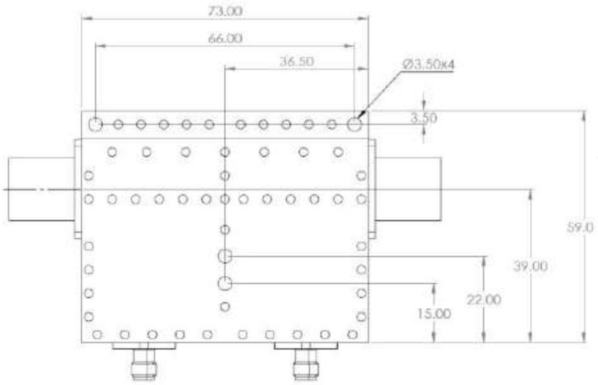
TYPICAL COUPLING & DIRECTIVITY

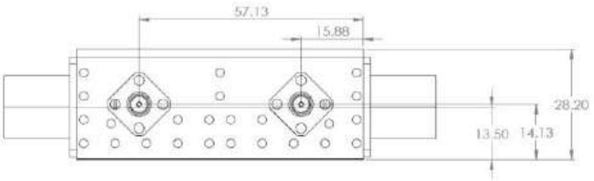




MECHANICAL SPECIFICATIONS

- Size (mm): 73 x 59 x 28.2
- Plating: Yellow Chromate





RFTR Electronics

JC20006000P54C30

2 - 6 GHz 250 W Directional Coupler

FEATURES

- Ultra Low Loss
- High Power Handling
- Flat Coupling
- Excellent Directivity
- 50 Ohm Input / Output Impedance
- High Reliability and Ruggedness
- Small Dimensions and Light Weight

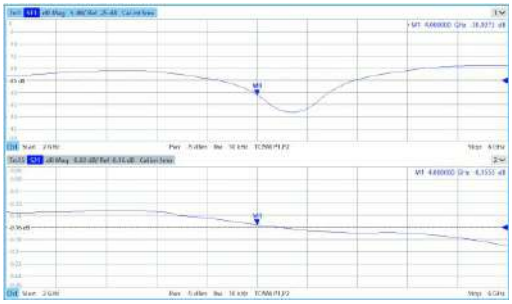
INTERFACES

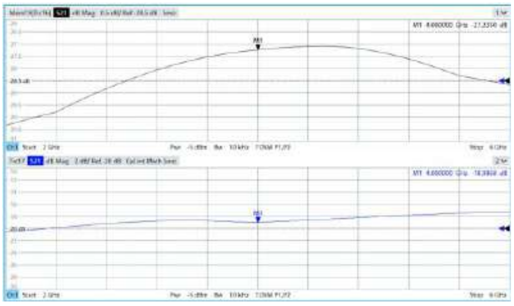
RF Input:	SMA Female
RF Output:	SMA Female
Coupling Port:	SMA Female
Isolation Port:	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2000-6000 MHz
Power Handling:	250 W CW typ.
Insertion Loss:	< 0.2 dB
Return Loss:	22 dB typ, 17 dB min.
Coupling:	28.5 ± 1.5 dB
Directivity:	17 dB min.
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

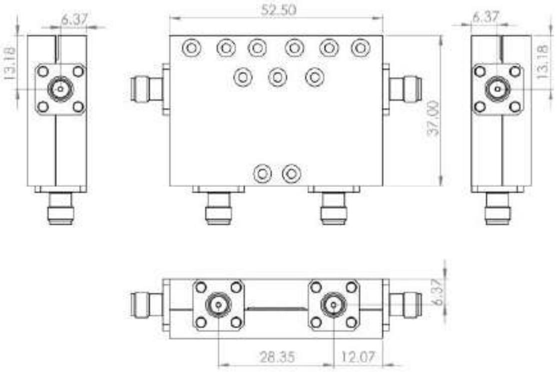
TYPICAL COUPLING & DIRECTIVITY





MECHANICAL SPECIFICATIONS

Size (mm):	52.5 x 37 x 14.5
(inch):	2.06 x 1.45 x 0.57
Weight:	100 gr.
Plating:	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JC20006000P54 is a reliable ultrawide-band 250W directional coupler operating between 2000 - 6000 MHz and suitable for CW or Pulsed waveforms. This coupler can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands as a high power measurement element. JC20006000P54 offers ultra-low loss which is less than 0.2 dB with a return loss of 22 dB typical. The directional coupler facilitates to measure both the forward and reflected power with a typical coupling of 28.5 dB and directivity better than 17 dB.

JC20006000P54C50

2 - 6 GHz 250 W Directional Coupler

RFTR Electronics

FEATURES

- High reliability and ruggedness
- Small Dimensions and Light Weight
- Flat Forward/Reflected Coupling
- High Directivity

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

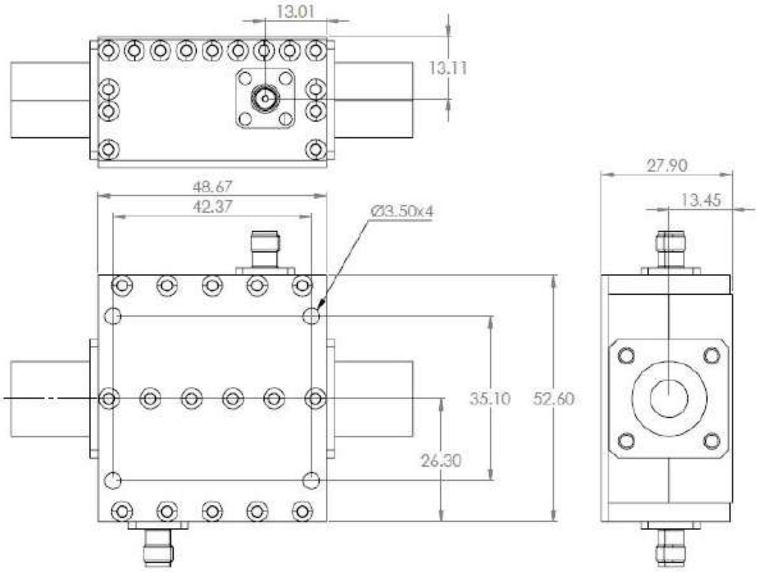
Frequency:	2000-6000 MHz
Power Handling:	250 W CW
Insertion Loss:	0.2 dB max.
Coupling:	50 ± 0.5 dB
Coupling Flatness:	± 1 dB
In/Out VSWR:	1.2:1 max.
Directivity:	20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C

INTERFACES

- RF Input: N Female
- RF Output: N Female
- Coupled Ports: SMA Female

MECHANICAL SPECIFICATIONS

Size (mm):	52.6 x 48.7 x 27.9
Plating:	Yellow Chromate



RFTR Electronics

JC27002900P67C50

2700 - 2900 MHz 5 kW Directional Coupler

FEATURES

- High reliability and ruggedness
- Small Dimensions and Light Weight
- Flat Forward/Reflected Coupling
- High Directivity

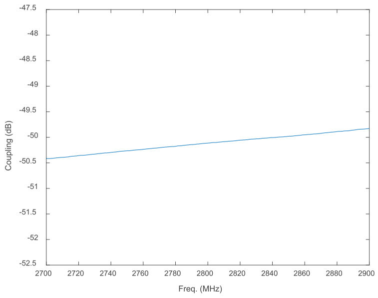
INTERFACES

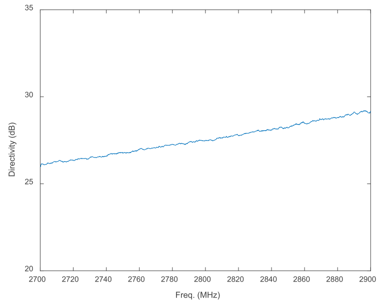
RF Input:	N Female
RF Output:	N Female
Coupled Ports:	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2700-2900 MHz
Power Handling:	5 kW Pulsed 100 usec %10
Insertion Loss:	0.2 dB max.
Coupling:	50 ± 0.5 dB
Coupling Flatness:	± 0.35 dB
In / Out VSWR:	1.2:1 max
Directivity:	20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C

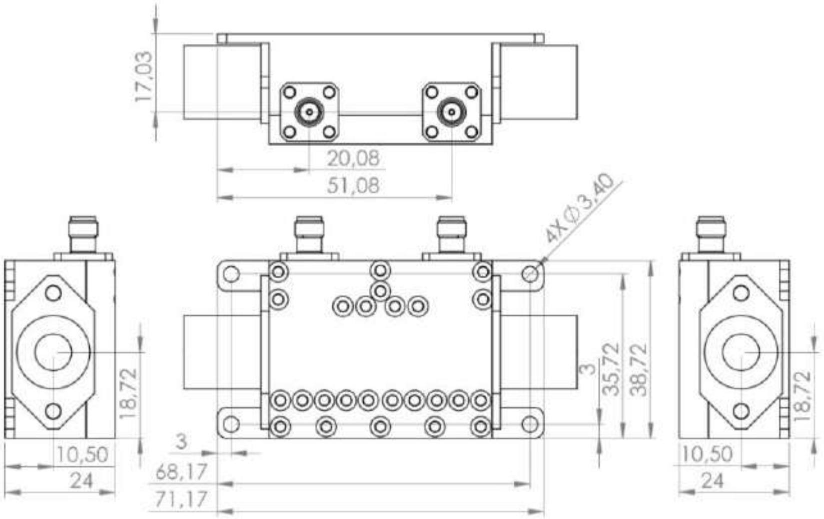
TYPICAL COUPLING & DIRECTIVITY





MECHANICAL SPECIFICATIONS

Size (mm):	71.2 x 38.8 x 24
Plating:	Yellow Chromate



JC29003300P67C50

2900 - 3300 MHz 5 kW Directional Coupler

RFTR Electronics

FEATURES

- High reliability and ruggedness
- Small Dimensions and Light Weight
- Flat Forward/Reflected Coupling
- High Directivity

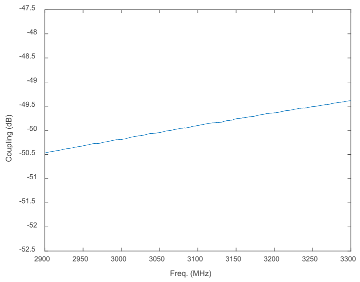
INTERFACES

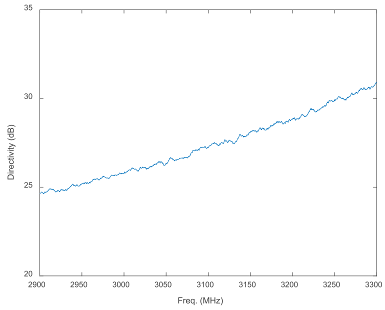
RF Input:	N Female
RF Output:	N Female
Coupled Ports:	SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	2900-3300 MHz
Power Handling:	5 kW Pulsed 100 usec. %10
Insertion Loss:	0.2 dB max.
Coupling:	50 ± 0.5 dB
Coupling Flatness:	± 0.6 dB
In / Out VSWR:	1.2:1 max
Directivity:	20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C

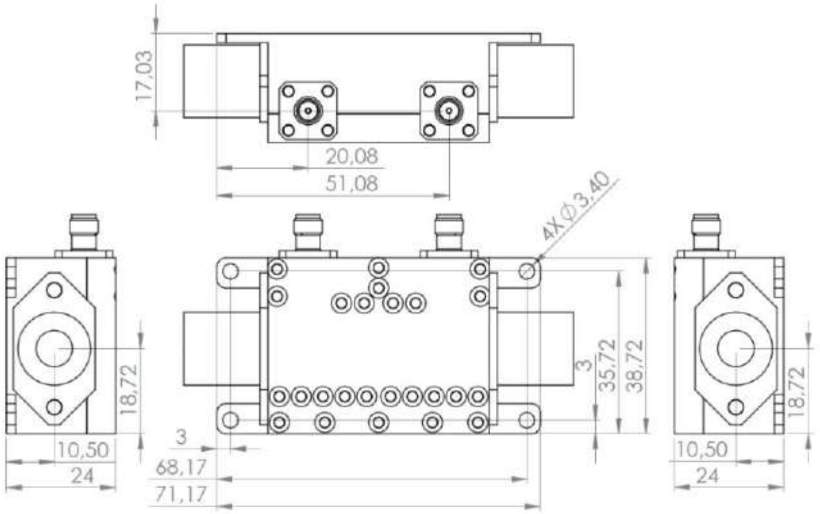
TYPICAL COUPLING & DIRECTIVITY





MECHANICAL SPECIFICATIONS

Size (mm):	71.2 x 38.8 x 24
Plating:	Yellow Chromate



RFTR Electronics

JPC00010030P47B2

1.5-30 MHz 50 W 2-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

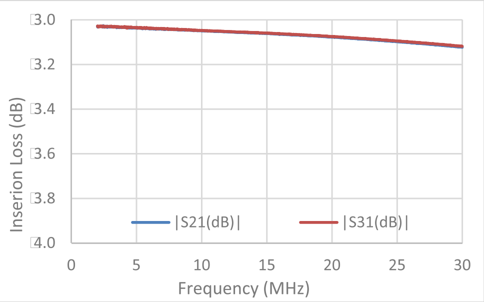
INTERFACES

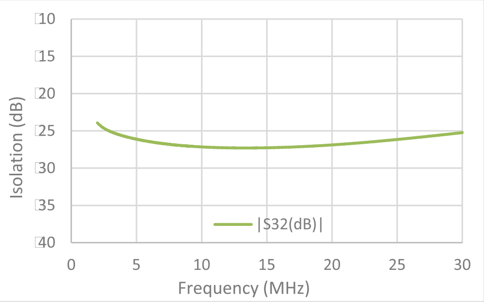
- RF Input (1) : SMA Female
- RF Output (2) : SMA Female
- RF Output (3) : SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	50 W CW
Insertion Loss:	0.3 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

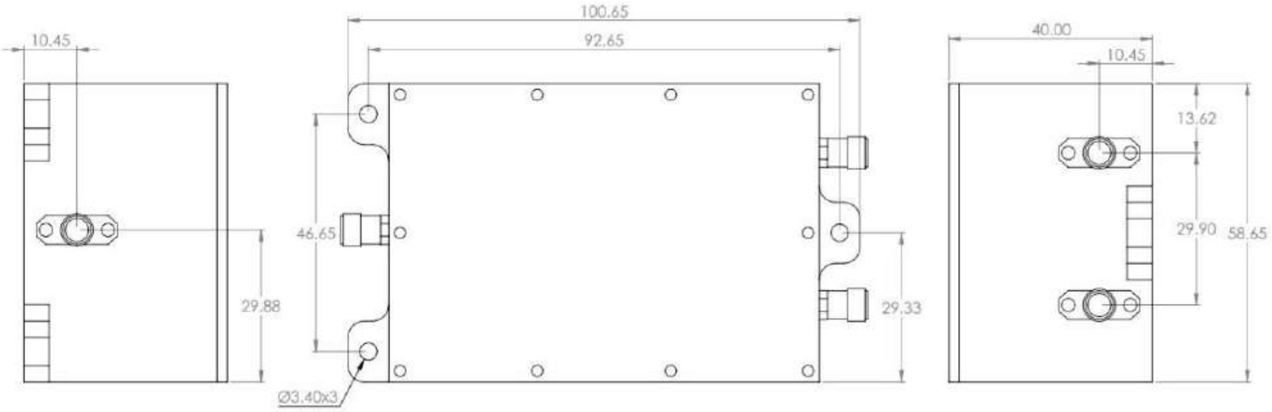
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	101 x 59 x 40
Weight:	290 gr.
Plating:	Yellow Chromate



JPC00010030P47B4

1.5-30 MHz 50 W 4-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

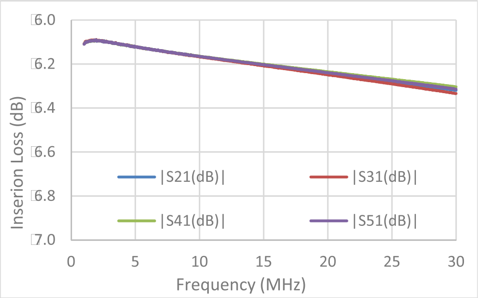
INTERFACES

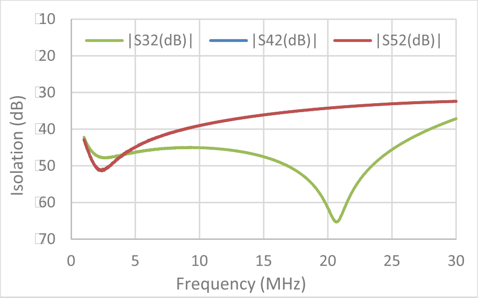
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 1.5-30 MHz
- Power Handling: 50 W CW
- Insertion Loss: 0.5 dB max.
- Amplitude Balance: 0.2 dB max.
- In/Out VSWR: 1.5:1 max.
- Isolation: > 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

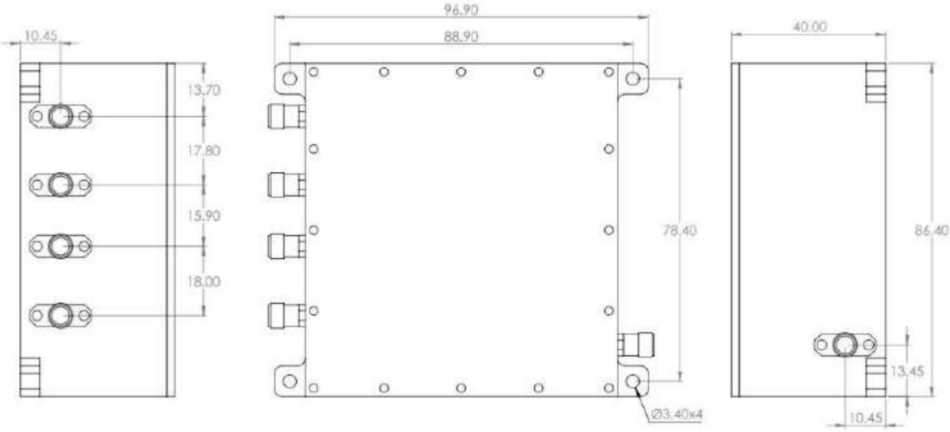
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

- Size (mm): 97 x 87 x 40
- Weight: 470 gr.
- Plating: Yellow Chromate



RFTR Electronics

JPC00010030P58B8

1.5-30 MHz 600 W 8-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

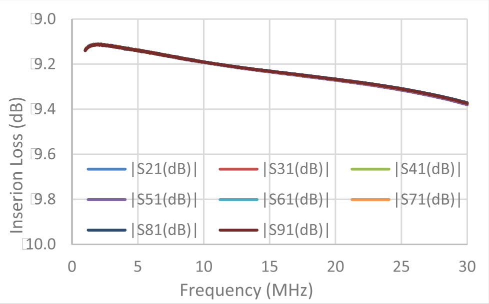
INTERFACES

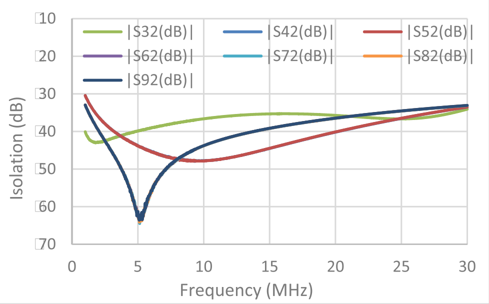
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female
- RF Output (6): SMA Female
- RF Output (7): SMA Female
- RF Output (8): SMA Female
- RF Output (9): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	600 W CW
Insertion Loss:	0.6 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

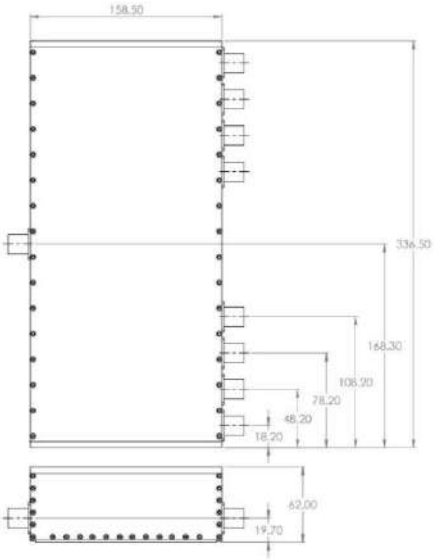
TYPICAL PERFORMANCE GRAPHS

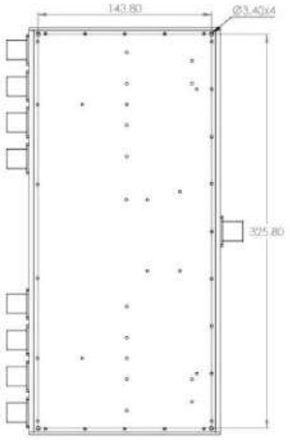




MECHANICAL SPECIFICATIONS

Size (mm):	159 x 337 x 62
Weight:	2900 gr.
Plating:	Yellow Chromate





JPC00010030P62B2

1.5-30 MHz 1500 W 2-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

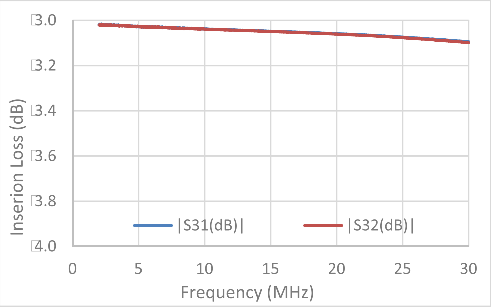
INTERFACES

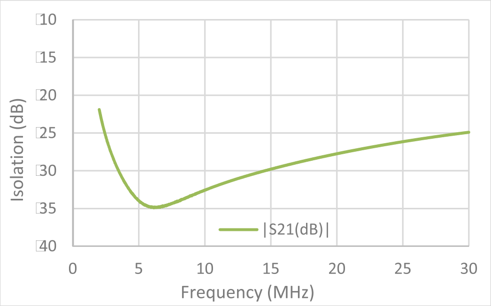
- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	1500 W CW
Insertion Loss:	0.3 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

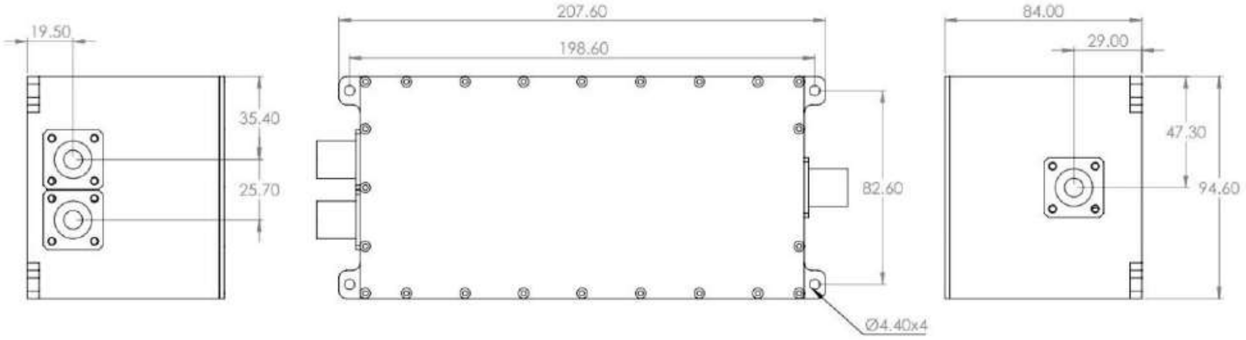
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	208 x 95 x 84
Weight:	2100 gr.
Plating:	Yellow Chromate



RFTR Electronics

JPC00010030P63B4

1.5-30 MHz 2000 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

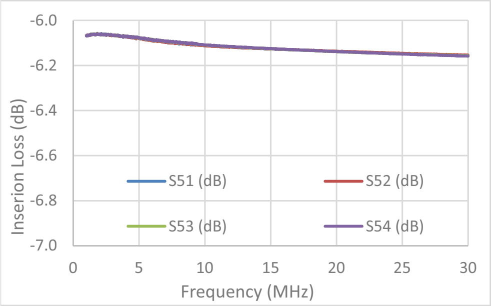
INTERFACES

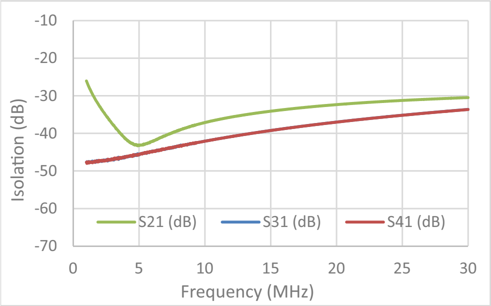
- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female
- RF Output (4): N Female
- RF Output (5): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	2000 W CW
Insertion Loss:	0.3 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

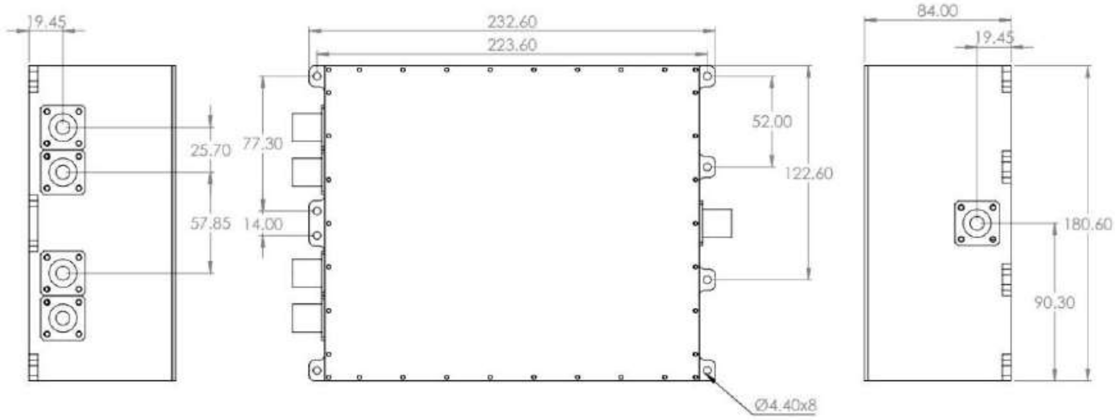
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	233 x 181 x 84
Weight:	2300 gr.
Plating:	Yellow Chromate



JPC00010030P65B2

1.5-30 MHz 3000 W 2-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

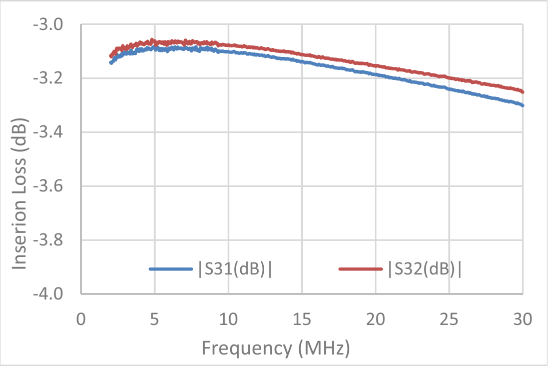
INTERFACES

- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

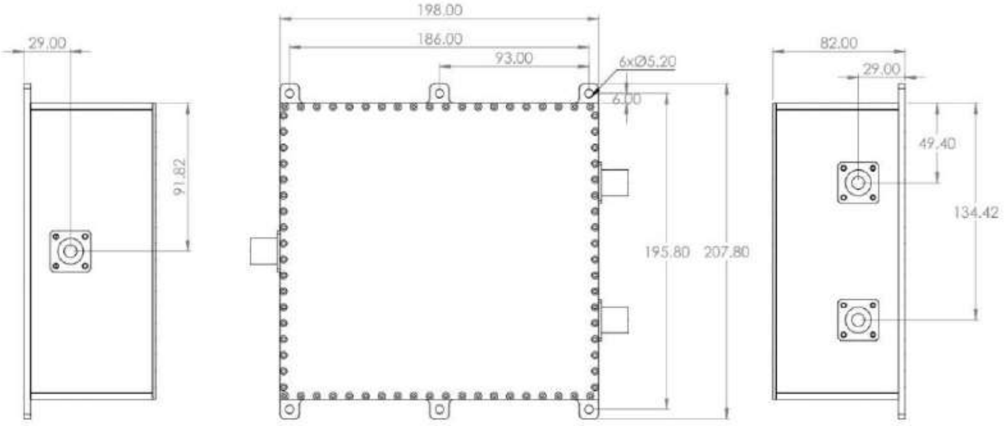
- Frequency: 1.5-30 MHz
- Power Handling: 3000 W CW
- Insertion Loss: 0.5 dB max.
- Amplitude Balance: 0.2 dB max.
- In/Out VSWR: 2:1 max.
- Isolation: > 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

TYPICAL PERFORMANCE GRAPH



MECHANICAL SPECIFICATIONS

- Size (mm): 198 x 208 x 82
- Weight: 2400 gr.
- Plating: Yellow Chromate



JPC00010030P67B4

1.5-30 MHz 5000 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss

INTERFACES

- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female
- RF Output (4): N Female
- RF Output (5): 7/16 Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	5000 W CW
Insertion Loss:	0.4 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

Size:	19"(W) x 6U(H) x 660mm(L)
Plating:	Yellow Chromate

JPC00200500P50B4

20-500 MHz 100 W 4-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

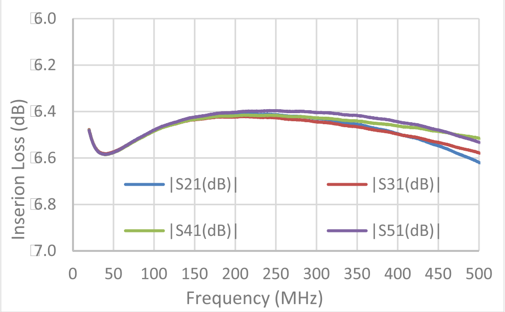
INTERFACES

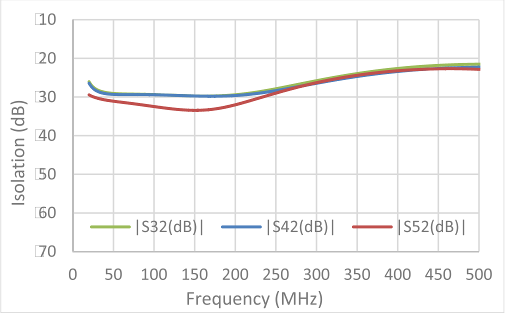
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-500 MHz
Power Handling:	100 W CW
Insertion Loss:	0.7 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

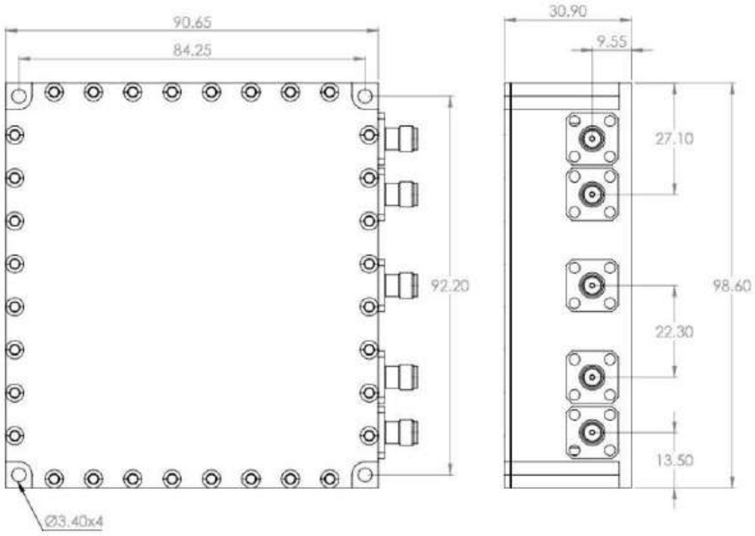
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size(mm):	91 x 93 x 31
Weight:	470 gr.
Plating:	Yellow Chromate



RFTR Electronics

JPC00200520P27B2

20-520 MHz 0.5 W 2-Way RF Combiners/Splitters

FEATURES

- Small Size
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

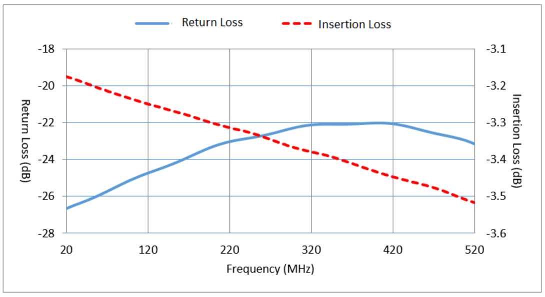
INTERFACES

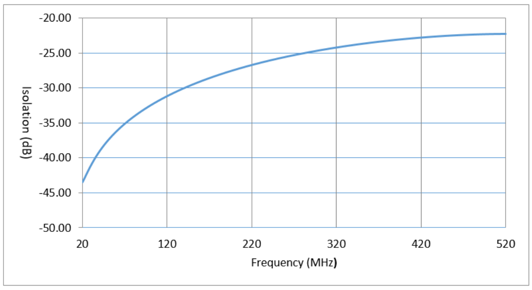
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 20-520 MHz
- Power Handling: 0.5 W CW
- Insertion Loss: 1 dB max.
- Amplitude Balance: 0.3 dB max.
- In/Out VSWR: 1.5:1 max.
- Isolation: > 18 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

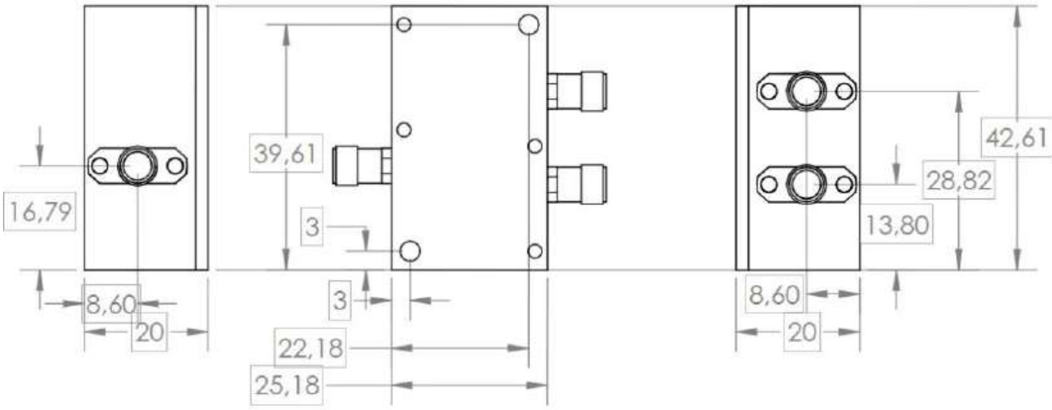
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

- Size (mm): 25.2 x 42.6 x 20
- Weight: 60 gr.
- Plating: Yellow Chromate



JPC00200520P27B4

20-500 MHz 0.5 W 4-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

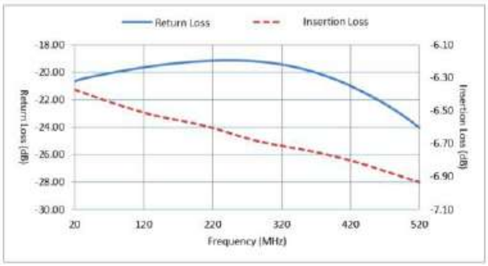
INTERFACES

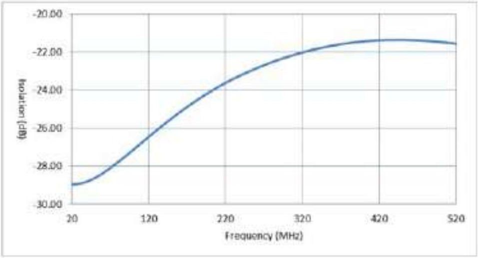
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 20-520 MHz
- Power Handling: 0.5 W CW
- Insertion Loss: 1.5 dB max.
- Amplitude Balance: 0.5 dB max.
- In/Out VSWR: 1.5:1 max.
- Isolation: > 15 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

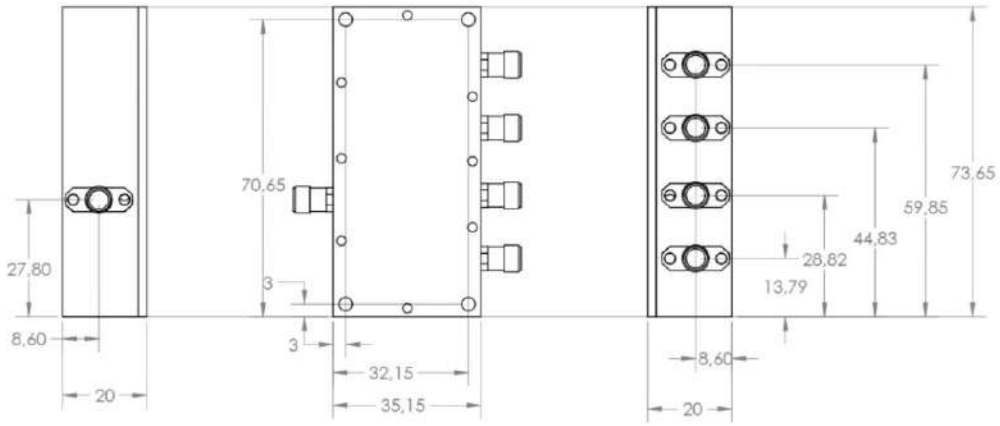
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

- Size (mm): 35.2 x 73.7 x 20
- Weight: 110 gr.
- Plating: Yellow Chromate



RFTR Electronics

JPC00200500P54B4

20-500 MHz 250 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

INTERFACES

- RF Input (1): N Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-500 MHz
Power Handling:	250 W CW
Insertion Loss:	0.5 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

- Plating: Yellow Chromate

JPC00201000P53B4

20-1000 MHz 200 W 4-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

INTERFACES

- RF Input (1): N Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-1000 MHz
Power Handling:	200 W CW
Insertion Loss:	0.5 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

- Plating: Yellow Chromate

JPC00300200P57B4

30-200 MHz 500 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

INTERFACES

- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female
- RF Output (4): N Female
- RF Output (5): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 30-200 MHz
- Power Handling: 500 W CW
- Insertion Loss: 0.5 dB max.
- Amplitude Balance: 0.2 dB max.
- In/Out VSWR: 1.5:1 max.
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

- Plating: Yellow Chromate

JPC00300200P63B4

30-200 MHz 2000 W 4-Way RF Combiners/Splitters

RFTR Electronics

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

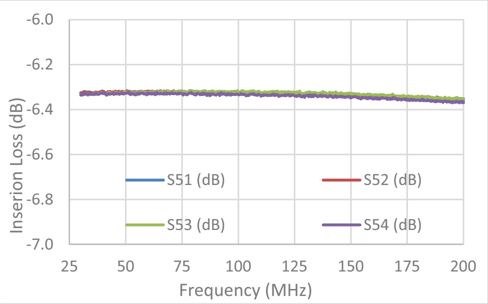
INTERFACES

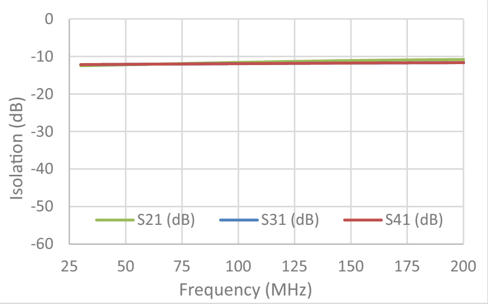
- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female
- RF Output (4): N Female
- RF Output (5): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	30-200 MHz
Power Handling:	2000 W CW
Insertion Loss:	0.5 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	2:1 max.
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

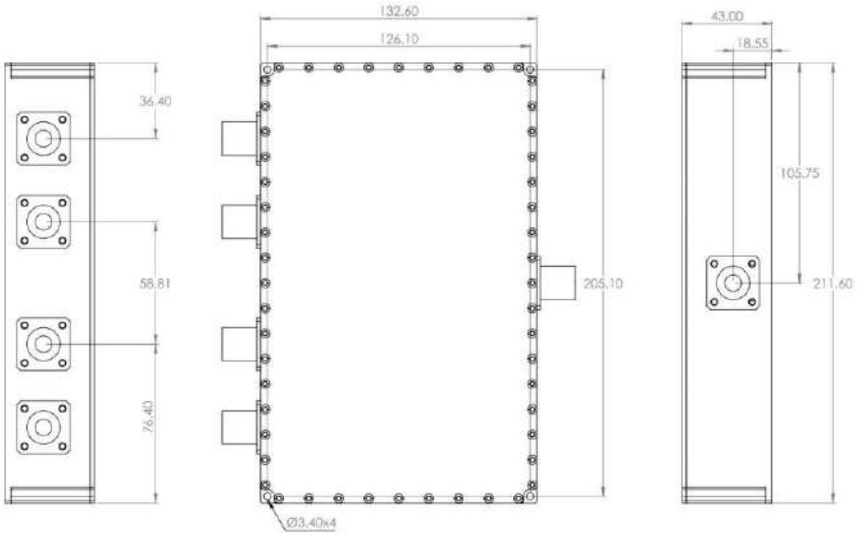
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	133 x 205 x 43
Weight:	2300 gr.
Plating:	Yellow Chromate



RFTR Electronics

JPC00300500P47B2

30-500 MHz 50 W 2-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

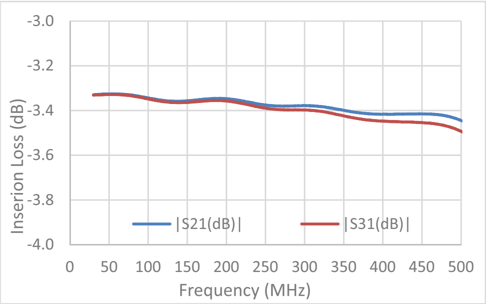
INTERFACES

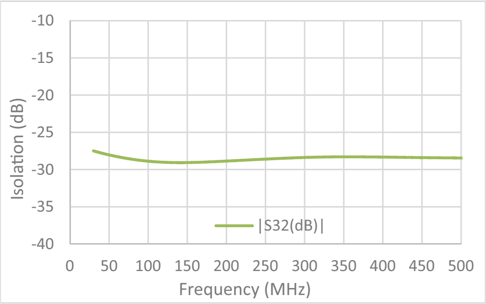
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output(3): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 30-500 Mhz
- Power Handling: 50 W CW
- Insertion Loss: 0.6 dB max.
- Amplitude Balance: 0.2 dB max.
- In/Out VSWR: 1.5:1 max.
- Isolation: > 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

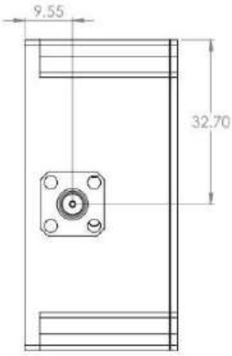
TYPICAL PERFORMANCE GRAPHS

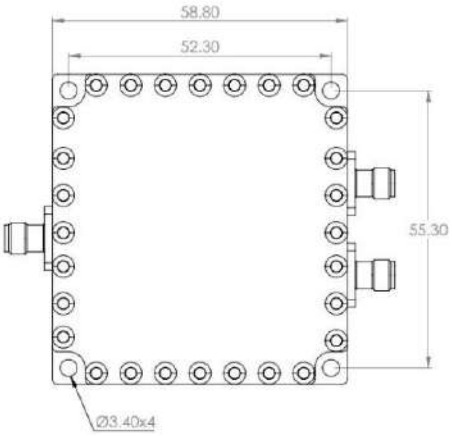


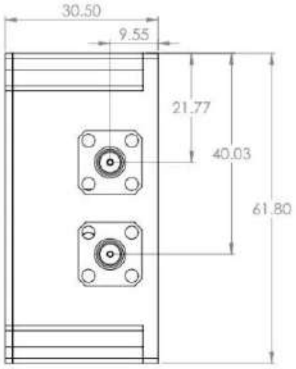


MECHANICAL SPECIFICATIONS

- Size (mm): 59 x 62 x 31
- Weight: 110 gr.
- Plating: Yellow Chromate







JPC01000500P47B4

100-500 MHz 50 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

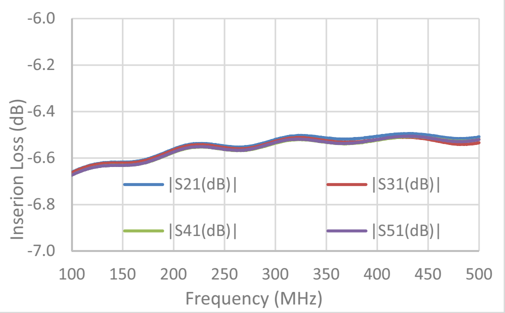
INTERFACES

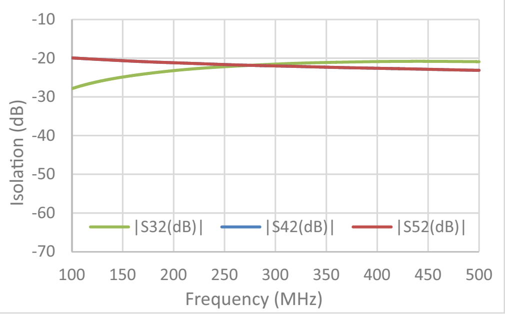
- RF Input (1): SMA Female
- RF Output (2): SMA Female
- RF Output (3): SMA Female
- RF Output (4): SMA Female
- RF Output (5): SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	100-500 MHz
Power Handling:	50 W CW
Insertion Loss:	0.8 dB max.
Amplitude Balance:	0.2 dB max.
In/Out VSWR:	1.5:1 max.
Isolation:	> 20 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

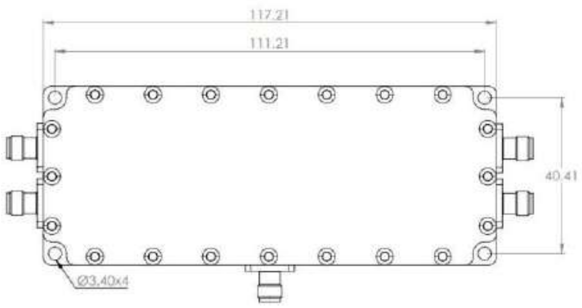
TYPICAL PERFORMANCE GRAPHS

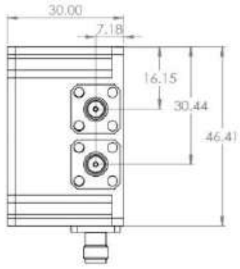


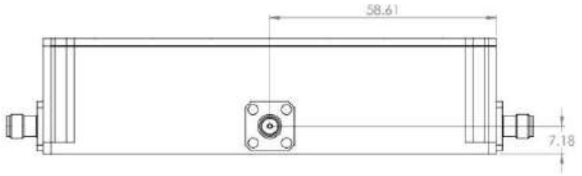


MECHANICAL SPECIFICATIONS

Size (mm):	118 x 47 x 30
Weight:	230 gr.
Plating:	Yellow Chromate







RFTR Electronics

JPC01000500P60B4

100-500 MHz 1000 W 4-Way RF Combiners/Splitters

FEATURES

- Small Size and High Power Handling
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss

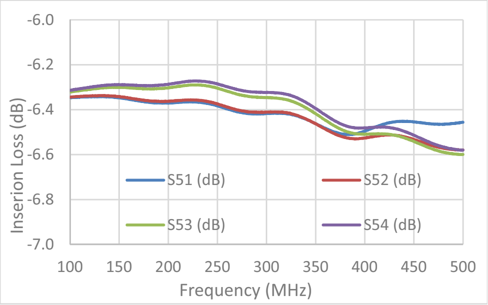
INTERFACES

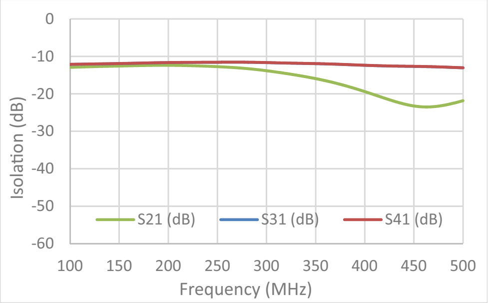
- RF Input (1): N Female
- RF Output (2): N Female
- RF Output (3): N Female
- RF Output (4): N Female
- RF Output (5): N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

- Frequency: 100-500 MHz
- Power Handling: 1000 W CW
- Insertion Loss: 0.7 dB max.
- Amplitude Balance: 0.2 dB max.
- In/Out VSWR: 2:1 max.
- Isolation: > 20 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

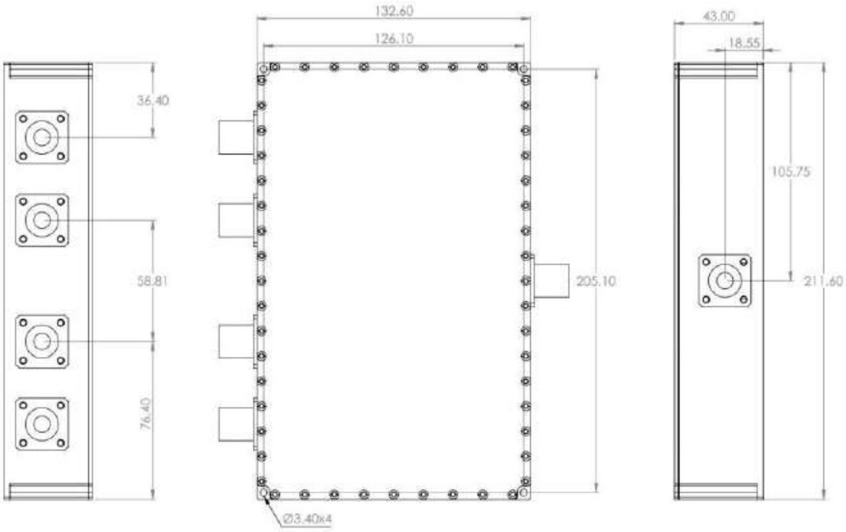
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

- Size (mm): 133 x 212 x 43
- Weight: 2300 gr.
- Plating: Yellow Chromate

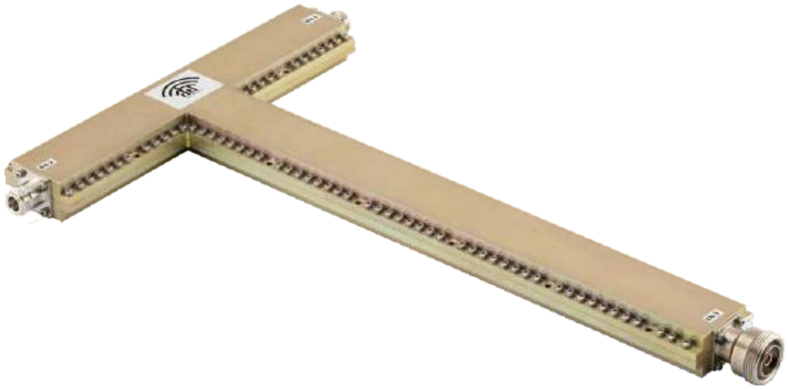


JPC02001000P63B2

200-1000 MHz 2000 W 2-Way RF Combiners/Splitters

RFTR Electronics

- **FEATURES**
- High reliability and ruggedness
- High Power Handling
- Low Insertion Loss



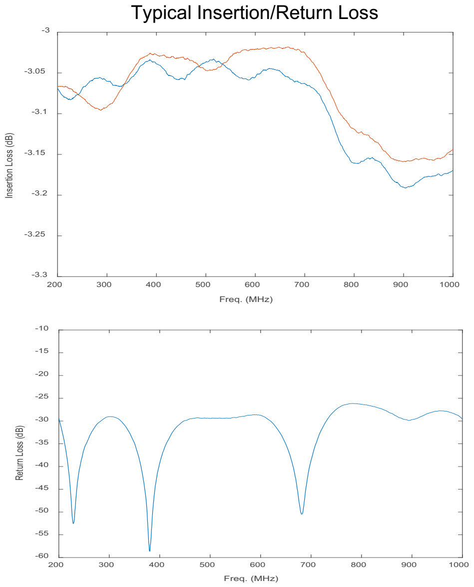
INTERFACES

- RF Inputs :N Female
- RF Output :7/16 DIN Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

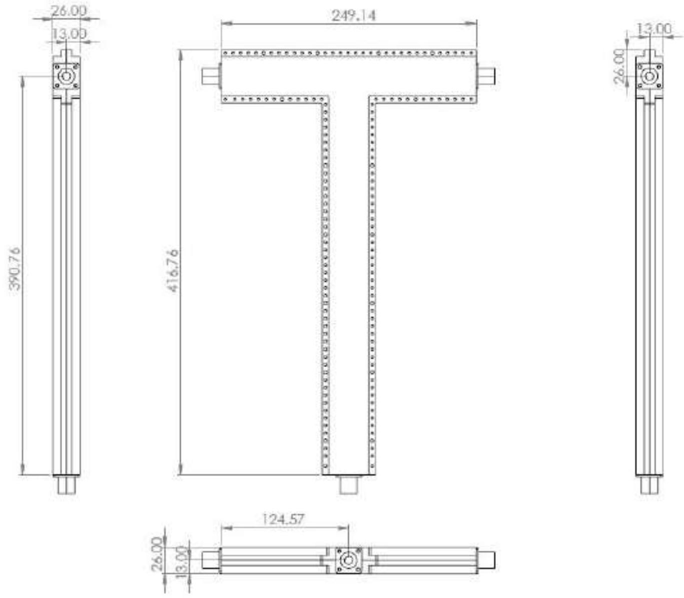
- Frequency: 200-1000 MHz
- Power Handling: 2000 W CW
- Insertion Loss: 0.2 dB max.
- In/Out VSWR: 1.2:1 max.
- Isolation: > 6 dB
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

TYPICAL PERFORMANCE GRAPHS



MECHANICAL SPECIFICATIONS

- Size (mm): 416.8 x 249.2 x 26
- Plating: Yellow Chromate



RFTR Electronics

JPC05002500P60B4

500-2500 MHz 1000 W 4-Way RF Combiners/Splitters

- **FEATURES**
- High reliability and ruggedness
- High Power Handling
- Low Insertion Loss

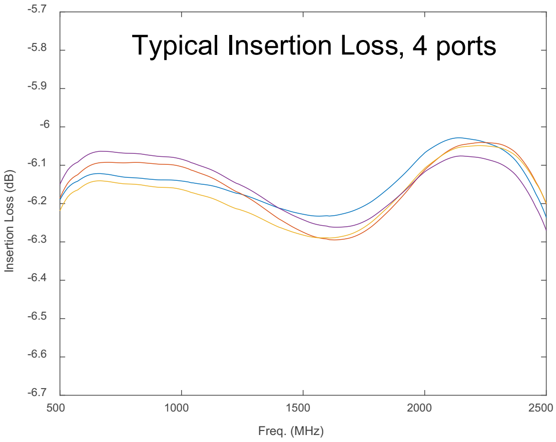
INTERFACES

- RF Inputs: N Female
- RF Outputs: N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

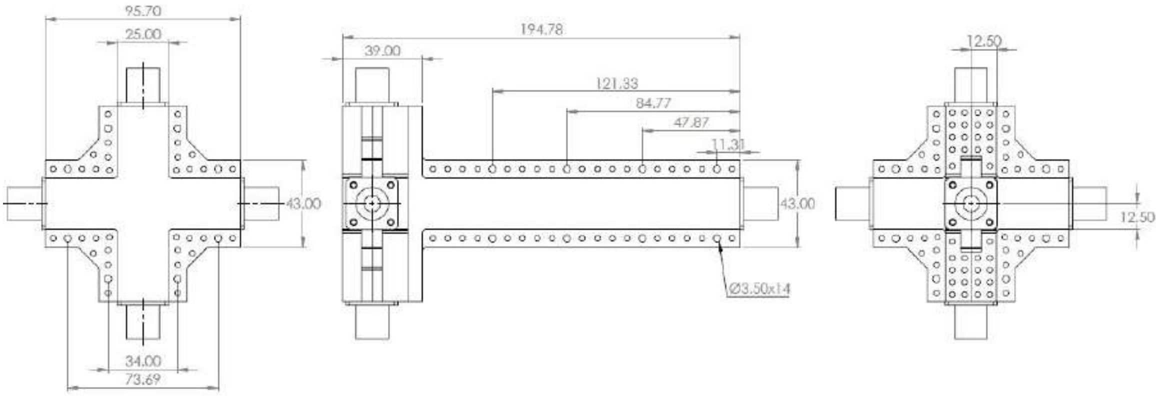
- Frequency: 500-25000 MHz
- Power Handling: 1000 W CW
- Insertion Loss: 0.6 dB max.
- Amplitude Loss: 0.25 dB max.
- In/Out VSWR: 1.5:1 max.
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G

TYPICAL PERFORMANCE GRAPHS



MECHANICAL SPECIFICATIONS

- Size (mm): 194.8 x 95.7 x 95.7
- Plating: Yellow Chromate



JPC09003000P60B2

0.9-3 GHz 1000 W 2-Way RF Combiners/Splitters

RFTR Electronics

- **FEATURES**
- High reliability and ruggedness
- High Power Handling
- Low Insertion Loss

INTERFACES

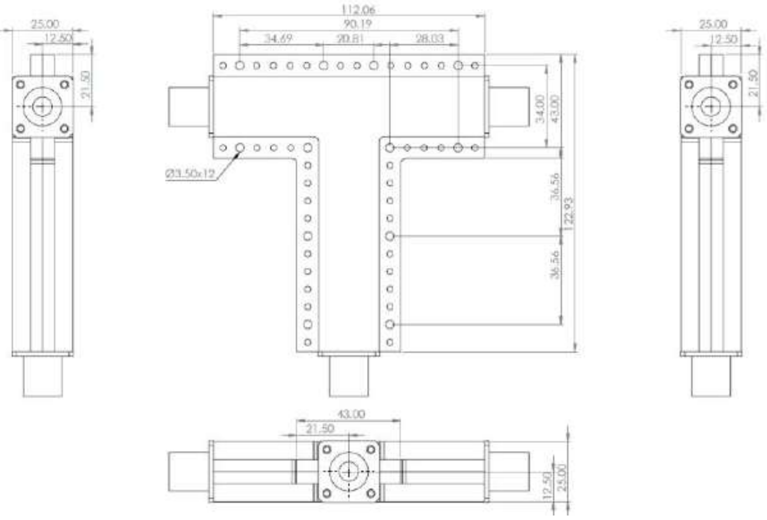
- RF Inputs: N Female
- RF Output: N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	900-3000 MHz
Power Handling:	1000 W CW
Insertion Loss:	0.4 dB max.
Amplitude Loss:	0.2 dB max.
In/Out VSWR:	1.2:1 max.
Isolation:	> 6 dB
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

MECHANICAL SPECIFICATIONS

Size (mm):	112.1 x 123 x 25
Plating:	Yellow Chromate



RFTR Electronics

JPC20006000P54B2

2 - 6 GHz 250 W 2-Way RF Combiners/Splitters

FEATURES

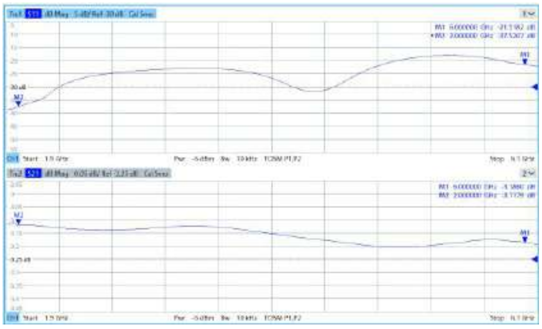
- Ultra Low Loss
- High Power Combining
- 50 Ohm Input / Output Impedance
- High Reliability and Ruggedness
- Small Dimensions and Light Weight

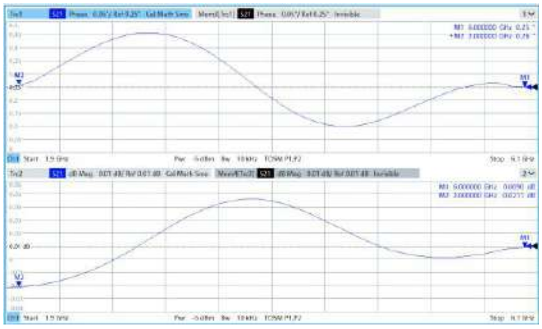
INTERFACES

- RF Inputs: N Female
- RF Output: N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

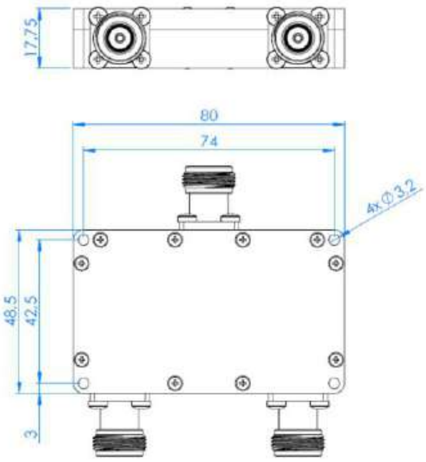
- Frequency: 2000-6000 MHz
- Power Handling: 250 W CW typ.
- Insertion Loss: < 0.2 dB
- Input Return Loss: 22 dB typ. 16 dB min.
- Amplitude Balance: 0.1 dB max.
- Phase Balance: 5° max.
- Operating Case Temp.: -40 °C to 85 °C
- Storage Temp.: -40 °C to 85 °C
- Shock: MIL-STD-810F/G
- Vibration: MIL-STD-810F/G





MECHANICAL SPECIFICATIONS

- Size (mm): 80 x 48.5 x 18
- Weight: 210 gr.
- Plating: Yellow Chromate



GENERAL DESCRIPTION

RFTR's JPC20006000P54 is a reliable ultrawideband 250W power combiner operating between 2000 - 6000 MHz and suitable for CW or Pulsed waveforms. This combiner can be used in different applications such as radars, datalinks, mobile jamming or UAVs in S and C bands as a high power combining element.

JPC20006000P54 offers ultra-low loss which is less than 0.2 dB with an input return loss of 22 dB typical. The combiner has the amplitude balance of 0.1 dB and phase balance of 1 degree maximum.

JPC600018000P48B4

6-18 GHz 70 W 4-Way RF Combiner

RFTR Electronics

FEATURES

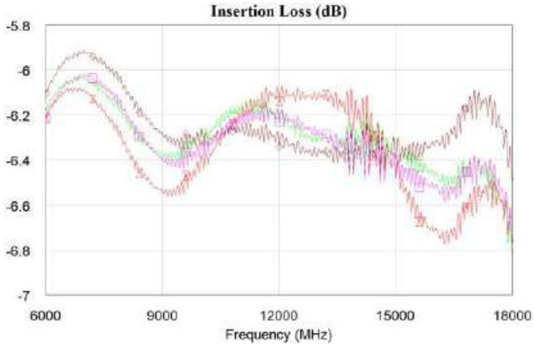
- Low Loss
- High Power Combining
- 50 Ohm Input / Output Impedance
- High Reliability and Ruggedness
- Small Dimensions and Light Weight

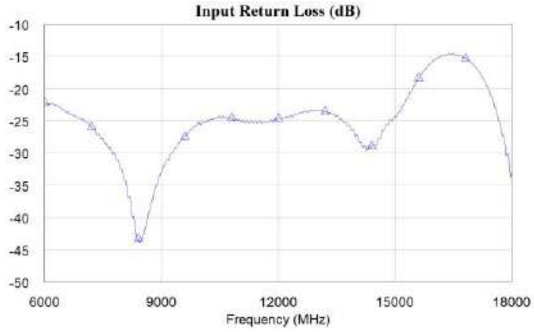
INTERFACES

- RF Inputs: SMA Female
- RF Output: SMA Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

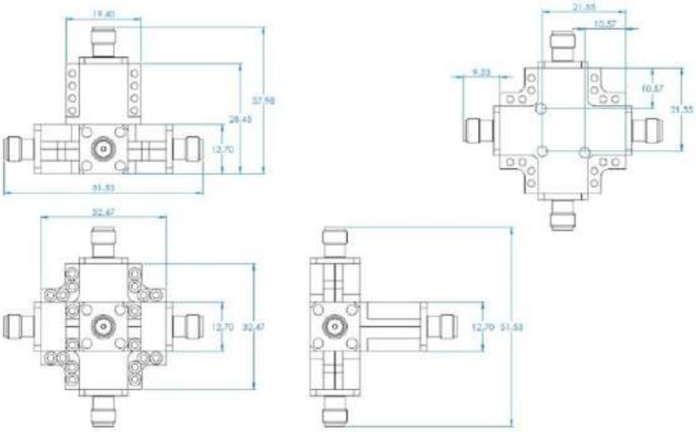
Frequency:	6000-18000 MHz
Power Handling:	70 W CW typ.
Insertion Loss:	< 0.5 dB typ. 0.9dB max.
Input Return Loss:	20 dB typ. 13 dB min.
Amplitude Balance:	0.6 dB max.
Phase Balance:	10° max.
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G





MECHANICAL SPECIFICATIONS

Size (mm):	51.3 x 51.3 x 38
Size (inch):	2.02 x 2.02 x 1.5
Weight:	55 gr.
Plating:	Silver



GENERAL DESCRIPTION

RFTR's JPC600018000P48B4 is a reliable ultrawide-band 70W non-isolated power combiner operating between 6000 - 18000 MHz and suitable for CW or Pulsed waveforms. This combiner can be used in different applications such as radars, datalinks, mobile jamming or UAVs in C, X and Ku bands as a high power combining element.

JPC600018000P48B4 offers low loss which is less than 0.5 dB with an input return loss of 20 dB typical. The combiner has the amplitude balance of 0.6 dB and phase balance of 10 degree maximum.

RFTR Electronics

JPC600018000P50B2

6-18 GHz 100 W 2-Way RF Combiners/Splitters

FEATURES

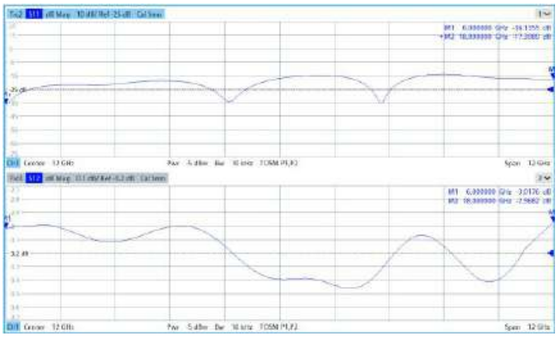
- Ultra Low Loss
- High Power Combining
- 50 Ohm Input / Output Impedance
- High Reliability and Ruggedness
- Small Dimensions and Light Weight

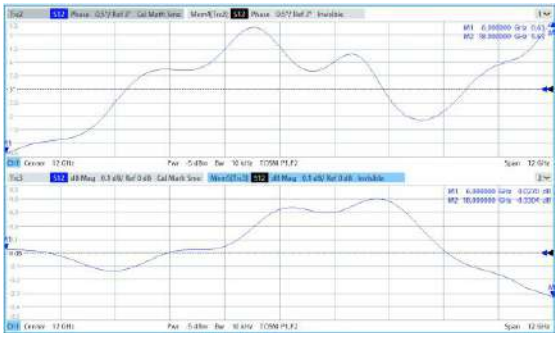
INTERFACES

- RF Inputs: N Female
- RF Output: N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

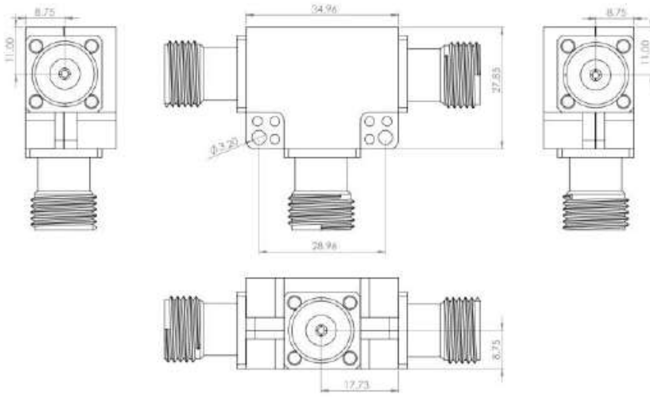
Frequency:	6000-18000 MHz
Power Handling:	100 W CW
Insertion Loss:	< 0.5 dB
Input Return Loss:	22 dB typ. 15 dB min.
Amplitude Balance:	0.4 dB max.
Phase Balance:	10° max.
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G





MECHANICAL SPECIFICATIONS

Size (mm):	35 x 27.9 x 21.75
Weight:	100 gr.
Plating:	Yellow Chromate



GENERAL DESCRIPTION

RFTR's JPC600018000P50 is a reliable ultrawide-band 100W power combiner operating between 6000 - 18000 MHz and suitable for CW or Pulsed waveforms. This combiner can be used in different applications such as radars, datalinks, mobile jamming or UAVs in C, X and Ku bands as a high power combining element.

JPC600018000P50 offers ultra-low loss which is less than 0.5 dB with an input return loss of 22 dB typical. The combiner has the amplitude balance of 0.4 dB and phase balance of 10 degree maximum.

IS00010030P60

1.5 - 30 MHz 1000 W Transmit/Receive Switch

RFTR Electronics

FEATURES

- Pin diode based design
- High switching speed
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

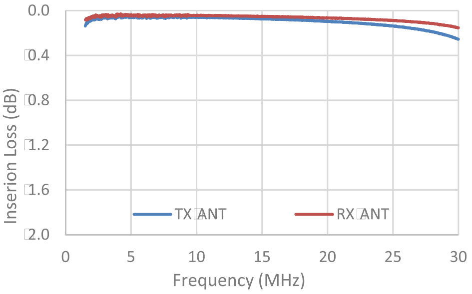
INTERFACES

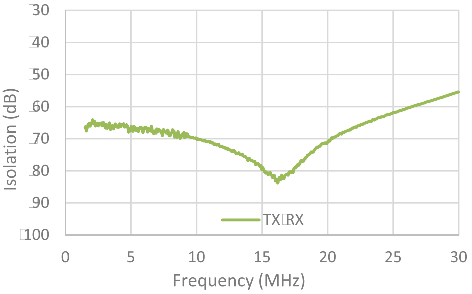
TX (1) :	N Female
RX (2) :	N Female
ANT (3) :	N Female
LOAD (4) :	N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	1.5-30 MHz
Power Handling:	1000 W CW
Insertion Loss:	0.5 dB max.
Isolation:	> 30 dB
In/Out VSWR:	1.5:1 max.
TX / RX Speed:	100 us
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

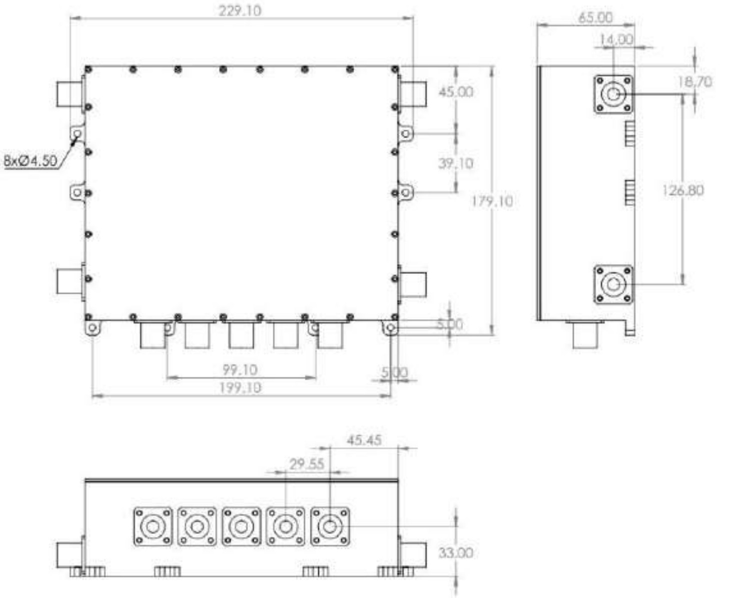
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	230 × 180 × 65
Weight:	2600 gr.
Plating:	Yellow Chromate



RFTR Electronics

IS00200100P57

20 - 100 MHz 500 W Transmit/Receive Switch

FEATURES

- Pin diode based design
- High switching speed
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

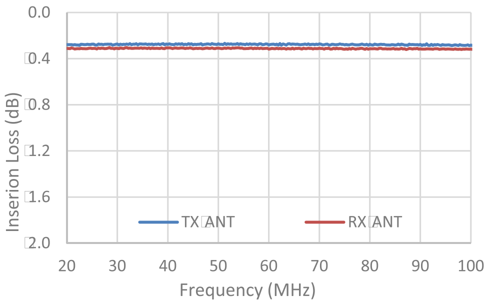
INTERFACES

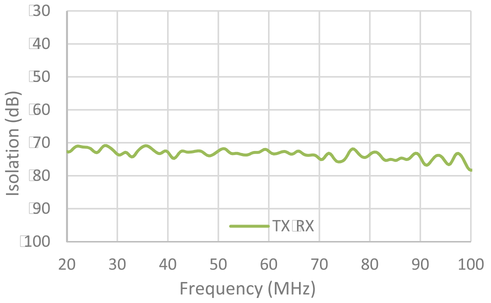
TX (1) :	N Female
RX (2) :	N Female
ANT (3) :	N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-100 MHz
Power Handling:	500 W CW
Insertion Loss:	0.5 dB max.
Isolation:	> 30 dB
In/Out VSWR:	1.5:1 max.
TX / RX Speed:	20 us
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

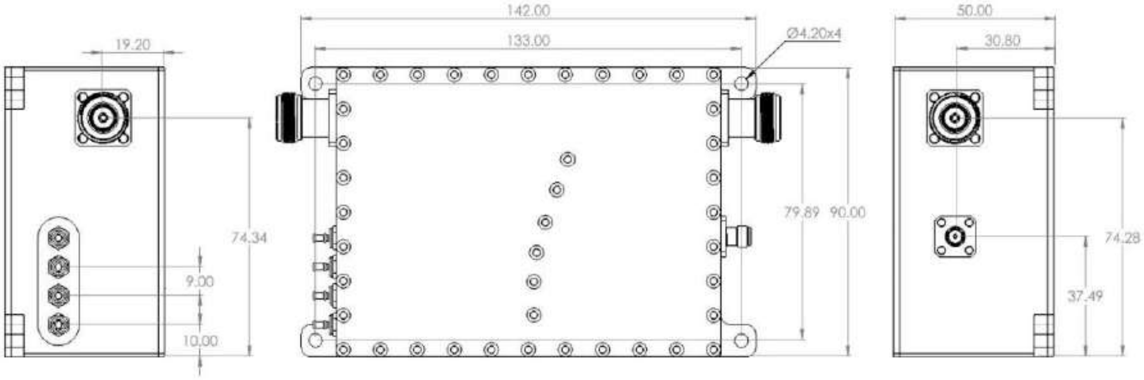
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	142 × 90 × 50
Weight:	660 gr.
Plating:	Yellow Chromate



IS00200500P54

20 - 500 MHz 250 W Transmit/Receive Switch

RFTR Electronics

FEATURES

- Pin diode based design
- High switching speed
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

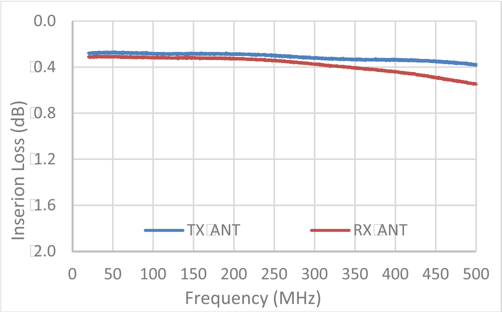
INTERFACES

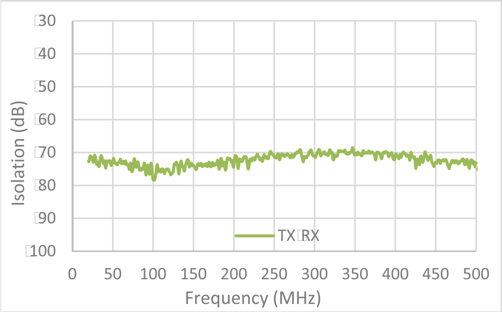
TX (1) :	N Female
RX (2) :	N Female
ANT (3) :	N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	20-500 MHz
Power Handling:	250 W CW
Insertion Loss:	0.8 dB max.
Isolation:	> 30 dB
In/Out VSWR:	1.5:1 max.
TX / RX Speed:	20 us
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

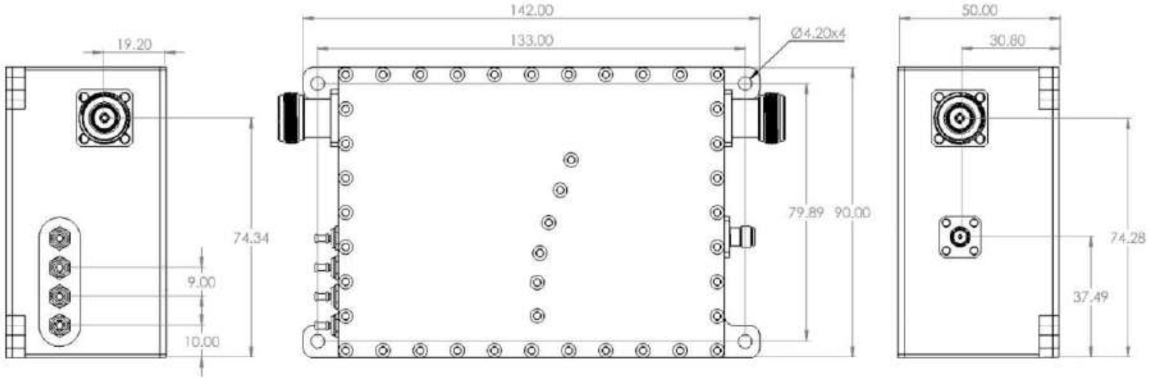
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	142 × 90 × 50
Weight:	660 gr.
Plating:	Yellow Chromate



RFTR Electronics

IS01000500P56

100 - 500 MHz 400 W Transmit/Receive Switch

FEATURES

- Pin diode based design
- High switching speed
- High reliability and ruggedness
- Ultra Broadband
- 50 Ohm Input & Output Impedance
- Low Insertion Loss
- High Isolation

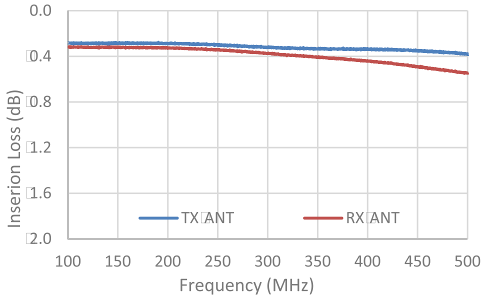
INTERFACES

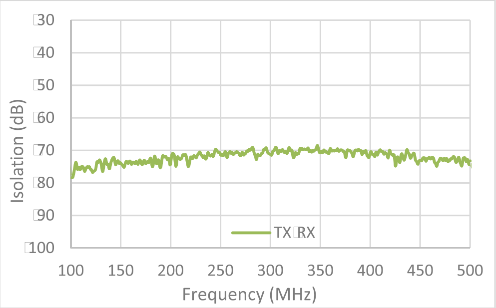
TX (1) :	N Female
RX (2) :	N Female
ANT (3) :	N Female

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

Frequency:	100-500 MHz
Power Handling:	400 W CW
Insertion Loss:	0.8 dB max.
Isolation:	> 30 dB
In/Out VSWR:	1.5:1 max.
TX / RX Speed:	20 us
Operating Case Temp.:	-40 °C to 85 °C
Storage Temp.:	-40 °C to 85 °C
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

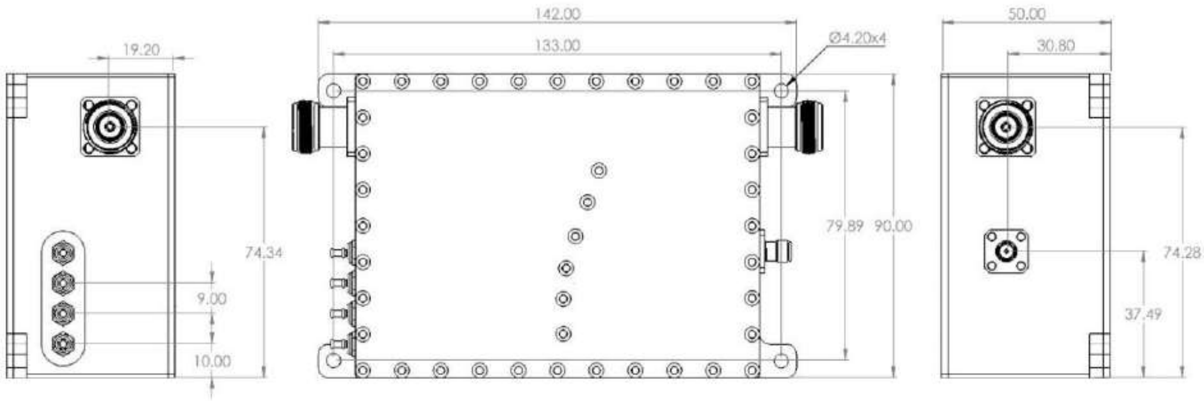
TYPICAL PERFORMANCE GRAPHS





MECHANICAL SPECIFICATIONS

Size (mm):	142 × 90 × 50
Weight:	660 gr.
Plating:	Yellow Chromate



JNA04006000P30

400 MHz - 6000 MHz 1 W Amplifier

RFTR Electronics

SPECIFICATIONS

- Ultra Wide-Band
- Low-Noise & High P1dB
- High Linearity

APPLICATIONS

- Communications, Test instrument, Fiber optics

GENERAL DESCRIPTION

JNA0460P30 is a low noise amplifier module with high P1dB and high linearity. This matched module has an ultra-wide band operating frequency starting from 400 MHz to 6 GHz.

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

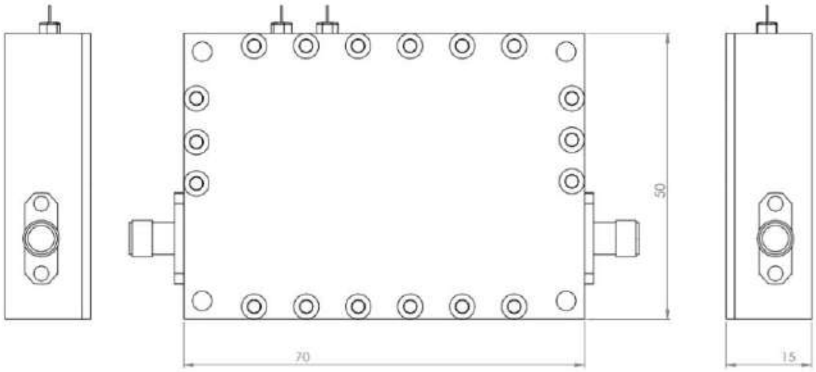
Frequency:	400 - 6000 MHz
Output Power (P1dB):	29 dBm
OIP3:	38 dBm
Nominal Gain:	40 dB
Noise Figure:	5 dB max.
Gain Flatness:	± 2.5 dB
Input / Output VSWR:	2:1 max.
DC Voltage Supply:	15 V
DC Current:	800 mA max.
Operating Case Temp.:	-40 ^{0}C to 75 ^{0}C

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
DC:	Pin 1 DC Pin 2 GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 70 x 50 x 15



JNA05008000P18

500 MHz - 8000 MHz LNA

SPECIFICATIONS

- Ultra Wide-Band
- Low-Noise
- High Linearity

APPLICATIONS

- Communications, Test instrument, Fiber optics, Radar, LTE

GENERAL DESCRIPTION

JNA05008000P18 is a low noise amplifier module with high linearity. This matched module has an ultra-wide band operating frequency starting from 500 MHz to 8 GHz.

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

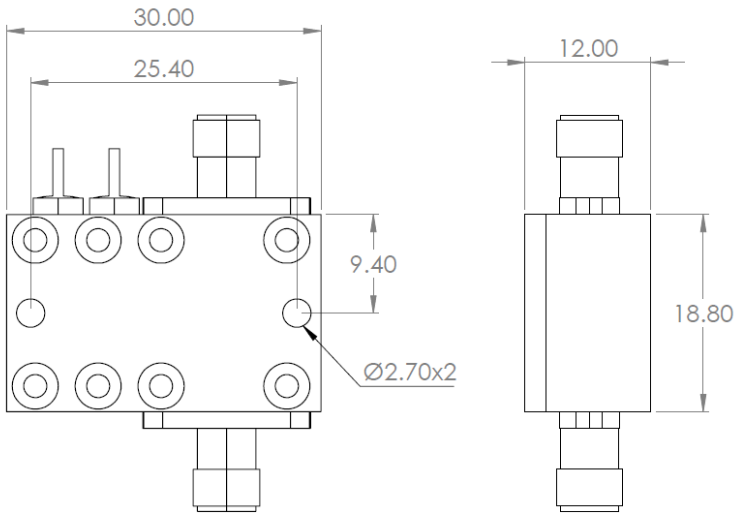
Frequency:	500 - 8000 MHz
Output Power (P1dB):	18 dBm typ.
OIP3:	27 dBm typ.
Nominal Gain:	20 dB typ.
Noise Figure:	2.5 dB max.
Gain Flatness:	± 2.5 dB max.
Input / Output VSWR:	2:1
DC Voltage Supply:	5 V
DC Current:	60 mA typ. 90 mA max.
Operating Case Temp.:	-40 ^{0}C to 85 ^{0}C

INTERFACES

RF Input:	SMA Female
RF Output:	SMA Female
DC:	Pin 1 5V DC Pin 2 GND

MECHANICAL SPECIFICATIONS

- Size (mm) : 30 x 18.8 x 12



VSWR - Return Loss - Insertion Loss Conversion

dBm - Watt - dBuV Conversion

RFTR Electronics

VSWR	RL	IL
1	INF	0
1.05	32.3	0.003
1.1	26.4	0.01
1.15	23.1	0.021
1.2	20.8	0.036
1.3	17.7	0.075
1.4	15.6	0.122
1.5	14	0.177
1.6	12.7	0.238
1.7	11.7	0.302
1.8	10.9	0.37
1.9	10.2	0.44
2	9.5	0.512
2.2	8.5	0.658
2.4	7.7	0.807
2.6	7	0.956
2.8	6.5	1.10
3	6	1.25
3.5	5.1	1.60
4	4.44	1.94
5	3.5	2.55
6	2.9	3.1
8	2.2	4.03
10	1.75	4.8
15	1.16	6.3
20	0.9	7.41
25	0.7	8.3
30	0.6	9.04
35	0.5	9.63
40	0.4	10.21

dBm	Watt	dBuV
30	1	137
33	2	140
36	3.98	143
37	5.01	144
40	10	147
41	12.6	148
42	15.8	149
43	20	150
44	25.1	151
45	31.6	152
46	39.8	153
47	50.1	154
48	63.1	155
49	79.4	156
50	100	157
51	126	158
52	158	159
53	200	160
54	251	161
55	316	162
56	398	163
57	501	164
58	631	165
59	794	166
60	1000	167
62	1584	169
63	1995	170
64	2511	171
67	5012	174
70	10000	177

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Pi Attenuator Resistor Values

T Attenuator Resistor Values

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Pi Att (dB)	R1,R3(Ω) Shunt	R2(Ω) Series
1	869	5.77
2	436	11.6
3	292	17.6
4	220	23.8
5	178	30.4
6	150	37.4
7	130	44.9
8	116	52.8
9	104	61.6
10	96.2	71.2
11	89.2	81.7
12	83.5	93.2
13	78.8	106
14	74.9	120
15	71.6	136
16	68.8	153
17	66.4	173
18	64.4	195
19	62.6	220
20	61.1	247
21	59.8	278
22	58.6	312
23	57.6	351
24	56.7	394
25	56	443
26	55.3	497
27	54.7	558
28	54.1	626
29	53.7	703
30	53.3	789

T Att (dB)	R1,R3(Ω) Series	R2(Ω) Shunt
1	2.87	433
2	5.73	215
3	8.55	141
4	11.3	104
5	14	82.2
6	16.6	66.9
7	19.1	55.8
8	21.5	47.3
9	23.8	40.6
10	25.9	35.1
11	28	30.6
12	29.9	26.8
13	31.7	23.6
14	33.4	20.8
15	34.9	18.4
16	36.3	16.3
17	37.6	14.4
18	38.8	12.8
19	39.9	11.4
20	40.9	10.1
21	41.8	8.98
22	42.6	7.99
23	43.4	7.12
24	44.1	6.34
25	44.7	5.64
26	45.2	5.02
27	45.7	4.48
28	46.2	3.99
29	46.6	3.55
30	46.9	3.17

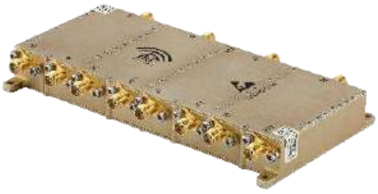
RFTR Electronics

RFTR Electronics designs and manufactures high power RF/Microwave products both in the module level and in the system level. Focus of the company is on High Power Amplifiers, RF Front Ends, Block Up Converters and RF Passives. The frequency of the products range from 500 kHz to 18 GHz, specialized bands are: 1.5-30 MHz, 20-520 MHz, 500-3000 MHz, 2000-6000 MHz and 6000-18000 MHz. Narrowband products are also available. Power levels up to 10 kW are covered. Module Amplifiers, Instrumental Amplifiers, Pulsed Amplifiers and Low Noise High Power Amplifiers are the main product categories. Upon request, Up/Down converter blocks can be included into the amplifier products. RFTR Electronics have delivered more than 40,000 products, most of them are used in harsh environmental conditions including the airborne systems and the naval systems. The R&D team has an experience of 25 years in this field. With this capability, the products can be customized upon the customer's requests.

Module Amplifiers

System Amplifiers

Pulsed Amplifier Modules



RF Passives

Custom Products

Low Noise Amplifiers

SCAN ME

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