JA20006000P50; 2 – 6 GHz 100W AMPLIFIER

- **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:	100W typ., 90 W min. CW
RF input for Rated Output:	-5 dBm typ.
Gain (@-15dBm input):	60 dB ± 5 dB typ.
Input VSWR:	2:1 max.
Load VSWR Survival:	∞:1 (Fully Protected)
2nd & 3rd Harm:	< -15 & -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 µs max.
Operating Case Temp.:	-40 ºC to 65 ºC
	External Heatsink Required
Storage Temp.:	-40 ºC to 85 ºC
Shock:	MIL-STD-810F/G
Vibration:	MIL-STD-810F/G

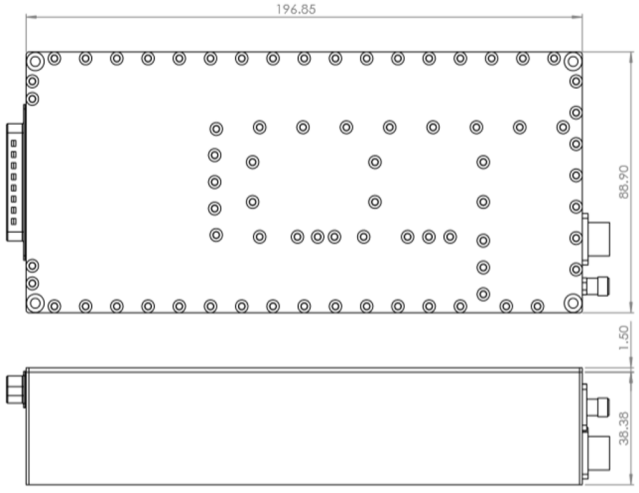
INTERFACES

Interfaces:		
RF Input:		SMA Female
RF Output:		N Female
17-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/OFF
	13	ALARM OUT
	16	28V
	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
(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.

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