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MODEL 5303135

225 - 450 MHz
40 WATTS
LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

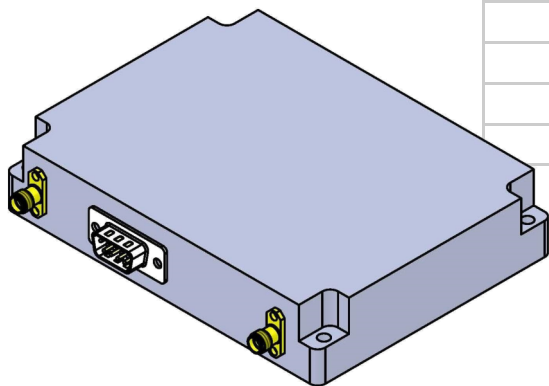
The 5303135 is a 40 Watt broadband amplifier that covers the 225 – 450 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR_{RF} amplifiers, the 5303135 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
<u>Electrical</u>		
1	Frequency Range	225 – 450 MHz
2	Saturated Output Power	40 Watts typ
3	Power Output @ 1dB Comp.	25 Watts min
4	Small Signal Gain	+46 dB min +48 dB max
5	Gain Flatness	± 0.5 dB max
6	*IP ₃	+54 dBm typ
7	Output/Input VSWR	2:1 max
8	Harmonics	-40 dBc max @ 25 Watts
9	Spurious Signals	< -60 dBc max
10	Input/Output Impedance	50 Ohms nominal
11	Noise Figure	10 dB max
12	DC Input Current	@ 25 W Pout, 3.75 Amps Max @ 4 W Pout, 1.6 Amps Max @ 4 W Pout, 2.0 Amps Max
13	DC Input	26 –30 VDC
14	RF Input	0 dBm max
15	RF Input Signal Format	CW/AM/FM/PM/Pulse
16	Mute	On/Off (see page 2)
<u>Mechanical</u>		
17	Dimensions	5.0" x 3.75" x 1.0"
18	Weight	2 lb. max
19	Connectors	SMA female
20	I/O Connector	D-sub 9 Pin
21	Grounding	Chassis
22	Cooling	Adequate Heatsink Required
<u>Environmental</u>		
23	Baseplate Temperature	-40° C to +85° C
24	Operating Humidity	95% Non-condensing
25	Operating Altitude	Up to 30,000' Above Sea Level
26	Shock and Vibration	See Page 2

*IP3 testing: 2-tones @ 2W/Tone, 25 -500KHz spacing

Specifications subject to change without notice.





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Mute Definition: (With or without RF)

- ◇ **Gain:** -40dB Typical
-20dB Max
- ◇ **IDD:** 200mA Typical
300mS Max
- ◇ **Mute Control:**
TTL High or Open: Module Off
TTL Low: Module on
- ◇ **Timing, Mute Off:**
20uS Max (Module on)
- ◇ **Timing, Mute On:**
100uS Max (Module off)

Vibration:

- ◇ MIL-STD-810F Method 514.5Proc 1
Random sinusoidal Category 4 or 9 or 13

Shock:

- ◇ MIL-STD-810F Method 514.5 Proc 1
- ◇ Operational: Acceleration (A) of 20.0 g +/-1.5 g
with duration of 11.0 mS +/- 1.0 mS shock Pulse
- ◇ Non-Operational: Impact shocks of 25.0 g +/-3.0 g
with duration of 11.0 mS +/- 1.0 mS shock pulse

Protection:

- ◇ Input overdrive: +6dBm
without damage
- ◇ Load VSWR @ 25W:
Infinite at all load phase and
Amplitude
- ◇ Thermal overload:
85 degreeC shutdown

DC and Interface Connector Pin Description:

- ◇ Pin 1 N/C
- ◇ Pin 2 N/C
- ◇ Pin 3 Temp Monitor
- ◇ Pin 4 Current Monitor
- ◇ Pin 5 Mute
- ◇ Pin 6 VDD
- ◇ Pin 7 VDD
- ◇ Pin 8 Ground
- ◇ Pin 9 Ground

