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MODEL 5302026

1.6 - 1.8 GHz 12 WATTS LINEAR POWER RF AMPLIFIER

Solid State Band-specific High Power RF Amplifier

The 5302026 is a 12 Watt band-specifc amplifier that covers the 1.6 – 1.8 GHz 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 5302026 comes with an extended multiyear warranty.

9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical Dimensions 6.25" x 2.3" x .83"			
1 Frequency Range 1.6 – 1.8 GHz 2 Saturated Output Power 12 Watts typical 3 Power Output @ 1dB Comp. 10 Watts min 4 Small Signal Gain +45 dB min 5 Gain Flatness ± 1.0 dB max 6 IP3 +52 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical @ 1 dB comp 9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical Dimensions 6.25" x 2.3" x .83"		<u>Parameter</u>	<u>Specification</u>
2	<u>Electrical</u>		
3 Power Output @ 1dB Comp. 10 Watts min 4 Small Signal Gain +45 dB min 5 Gain Flatness ± 1.0 dB max 6 IP ₃ +52 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical @ 1 dB comp 9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear	1	Frequency Range	1.6 – 1.8 GHz
4 Small Signal Gain +45 dB min 5 Gain Flatness ± 1.0 dB max 6 IP ₃ +52 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical @ 1 dB comp 9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical Dimensions 6.25" x 2.3" x .83"	2	Saturated Output Power	12 Watts typical
5 Gain Flatness ± 1.0 dB max 6 IP ₃ +52 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical @ 1 dB comp 9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 - 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical Dimensions 6.25" x 2.3" x .83"	3	Power Output @ 1dB Comp.	10 Watts min
6 IP ₃ +52 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical @ 1 dB comp 9 Spurious Signals > -60 dBc 10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	4	Small Signal Gain	+45 dB min
7	5	Gain Flatness	<u>+</u> 1.0 dB max
8	6	IP ₃	+52 dBm typical
9	7	Input VSWR	2:1 max
10 Input/Output Impedance 50 Ohms nominal 11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical Dimensions 6.25" x 2.3" x .83"	8	Harmonics	-20 dBc typical @ 1 dB comp.
11 DC Input Current 3 Amps max 12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	9	Spurious Signals	> -60 dBc
12 DC Input 13 – 15 VDC nominal 13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	10	Input/Output Impedance	50 Ohms nominal
13 RF Input Overdrive +10 dB over 1 dB Compression 14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	11	DC Input Current	3 Amps max
14 RF Input Signal Format CW/AM/FM/PM/Pulse 15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	12	DC Input	13 – 15 VDC nominal
15 Class of Operation A/AB Linear Mechanical 16 Dimensions 6.25" x 2.3" x .83"	13	RF Input Overdrive	+10 dB over 1 dB Compression
Mechanical Dimensions 6.25" x 2.3" x .83"	14	RF Input Signal Format	CW/AM/FM/PM/Pulse
16 Dimensions 6.25" x 2.3" x .83"	15	Class of Operation	A/AB Linear
	<u>Mechanical</u>		
17 Weight 1 lb. max	16	Dimensions	6.25" x 2.3" x .83"
11.019.11	17	Weight	1 lb. max
18 Connectors SMA female	18	Connectors	SMA female
19 Grounding Chassis	19	Grounding	Chassis
20 Cooling Adequate Heatsink Required	20	Cooling	Adequate Heatsink Required
<u>Environmental</u>	<u>Environmental</u>		
Operating Temperature 0° C to +50° C	21	Operating Temperature	0° C to +50° C
22 Operating Humidity 95% Non-condensing	22	Operating Humidity	95% Non-condensing
Operating Altitude Up to 10,000' Above Sea Lev	23	Operating Altitude	Up to 10,000' Above Sea Level
24 Shock and Vibration Normal Truck Transport	24	Shock and Vibration	Normal Truck Transport

AVAILABLE OPTIONS

- ♦ Gain Adjustment
- ♦ Automatic Level Control
- ♦ Extended Temperature Range
- ♦ Thermal Overload
- ♦ Over Current
- ◊ Over Voltage

