

WR-28 Waveguide Low Noise Amplifier, Ka Band 26.5 GHz to 40 GHz, 36 dB Gain, 12 dBm P1dB, UG-599/U Flange



PEWGA3208

Features

- WR28 / UG599-U I/O Waveguide Ports
- Full WR28 Operational Bandwidth: 26.5-40 GHz
- High Small Signal Gain: 36 dB typ
- Low Noise Figure: 2.5 dB typ
- Low VSWR: 1.7:1
- Unconditionally Stable Design
- 50 Ohm Input and Output Matched
- Output P1dB: +12 dBm
- Output IP3: +20 dBm
- High Reverse Isolation: 45 dB
- Spurious Suppression: 60 dBc
- Operating Temperature: -40°C +75°C
- Single DC Positive Supply: +12Vdc
- Built-in Voltage Regulator

Applications

- Laboratory Applications
- Military & Space
- General Purpose Amplification
- R&D Labs
- Communication Systems
- General Purpose Wireless
- Military Radio
- Wireless Communication
- Wideband Gain Block
- Radar Systems
- Microwave Radio Systems
- IF Amplifier/RF Driver Amplifier
- Telecom Infrastructure
- Cellular Base Stations
- RF Wideband Front Ends
- Test Instrumentation
- Low Noise Amplifier
- RF Pre-amplification

Description

The PEWGA3208 is a Ka Band Waveguide Low Noise Amplifier, operating in the full 26.5 to 40 GHz frequency range. This 50 ohm design is unconditionally stable and exhibits impressive typical performance which includes 36 dB gain, 2.5 dB noise figure, 1.7:1 VSWR, +12 dBm output P1dB, and +20 dBm output IP3. Also, high reverse isolation of 45 dB and low spurious suppression of 60 dBc. The amplifier has an integrated voltage regulator with typical DC voltage of +12Vdc and 125 mA, and operates over a full temperature range of -40°C to +75°C. The module is ruggedly built and has WR-28 I/O waveguide ports that match to UG-599/U waveguide flanges.

Electrical Specifications (TA = +25°C, DC Voltage = 12Vdc, DC Current = 125mA)

Description	Minimum	Typical	Maximum	Units
Frequency	26.5		40	GHz
Small Signal Gain	32.5	36	39.5	dB
Gain Flatness		±0.75	±1.25	dB
Output at 1dB Compression Point	9	+12		dBm
Output 3rd Order Intercept Point	16	20		dBm
Noise Figure		2.5	3	dB
Input VSWR		1.7:1	2.5:1	
Output VSWR		1.7:1	2.5:1	
Reverse Isolation		45		dB
Spurious		-60		dBc
Operating DC Voltage	8	12	15	Volts
Operating DC Current	110	125	150	mA
Operating Temperature Range	-40		75	°C

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Mechanical Specifications

Size

Length	1.6 in [40.64 mm]
Width	1.2 in [30.48 mm]
Height	0.75 in [19.05 mm]
Weight	0.131 lbs [59.42 g]

Configuration

Design	Waveguide Low Noise
Flange	UG-599/U

Biassing Up and Power Down Procedure

Parameter	Rating
DC Voltage	+18V
RF Input Power	+10 dBm
Storage Temperature	-55 to +125°C
Operating Temperature	-40 to 85°C



ESD Sensitive Material,
Transport material in
Approved ESD bags.
Handle only in approved
ESD Workstation.

Environmental Specifications

Temperature

Operating Range	-40 to 75 deg C
Storage Temperature	-45 to 125 deg C
ESD Sensitive	ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.

Compliance Certifications

(see product page for current document)

Plotted and Other Data

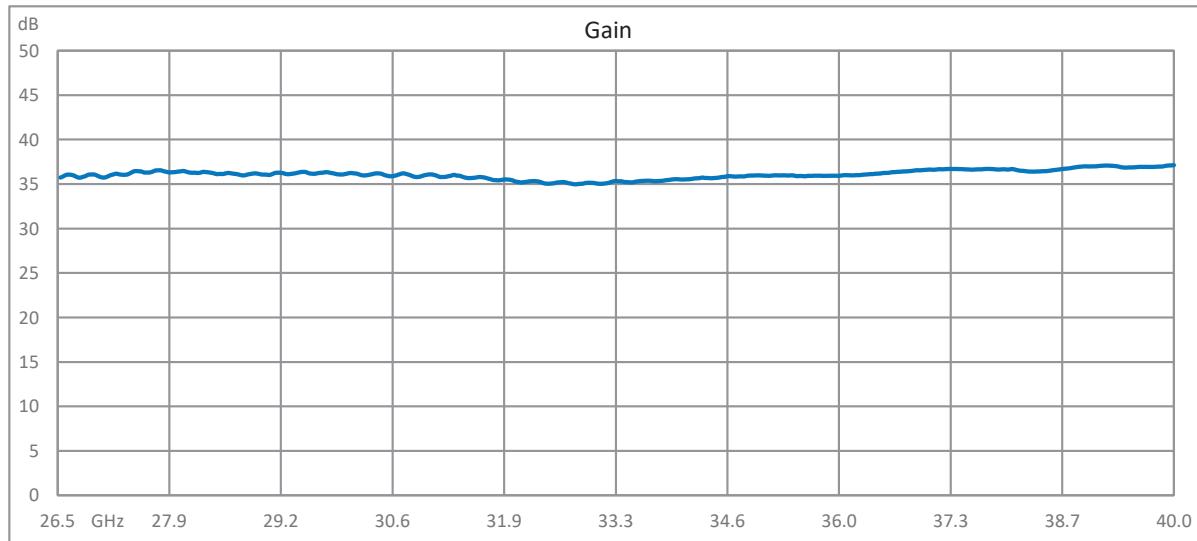
Notes

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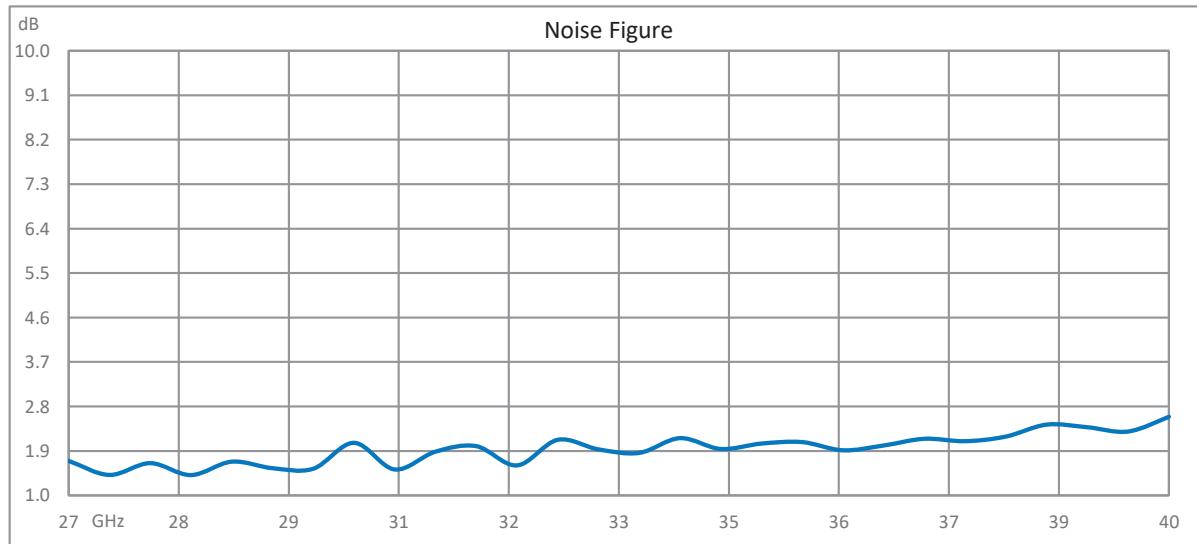
Typical Performance Data



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WR-28 Waveguide Low Noise Amplifier, Ka Band 26.5 GHz to 40 GHz, 36 dB Gain, 12 dBm P1dB, UG-599/U Flange from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.5 dB Low Noise Amplifier \(LNA\), 26.5 to 40 GHz Frequencies in Ka Band, WR-28 Waveguide connectors with UG-599/U Flanges, 36 dB Gain PEWGA3208](#)

URL: <https://www.pasternack.com/2.5-db-low-noise-amplifier-lna-26.5-to-40-ghz-frequencies-in-ka-band-wr-28-waveguide-connectors-with-ug-599-u-flanges-22-db-gain-pewga3208-p.aspx>

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PEWGA3208 CAD Drawing

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