PASTERNACK
an INFINITE brand

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange

Waveguide Power Amplifiers - PEWGA3220

Features

- WR-12 Waveguide Power Noise Amplifier
- 71 GHz to 76 GHz
- E Band
- Small Signal Gain 35 dB typ
- Ouput P1dB: +29 dBm typ
- Output Psat: +33 dBm typ
- VSWR 3.4:1 typ
- DC Bias +6V @ 3.6 A typ
- Max RF Input Power (CW) +10 dBm
- 50 Ohm Design
- RF Input and Output Waveguide Flange UG-387/U
- Solder Pins for DC Bias Voltage and Ground
- Operational Temperature Range -10°C to +45°C
- Rugged and Compact Gold Plated Aluminum Package Design with an Integrated Heatsink
- RoHS Compliant

Applications

- Test & Measurement
- Military & Commercial Communications
- Military Electronic Systems
- Research & Development

Description

The PEWGA3220 is a WR-12 Waveguide Power Amplifier, operating across the E Band from 71 GHz to 76 GHz. This 50 Ohm design exhibits impressive typcial performance which includes 35 dB gain, +29 dBm P1dB, and +33 dBm Psat. Maximum RF input power (CW) is +10 dBm, and DC bias is +6 Vdc at 3.6A typ. The rugged and small size aluminum package design is gold plated with an integrated heatsink to ensure highly reliabile operation. The RF input and output ports support a UG-387/U waveguide flange pattern. Solder pins are used for DC bias voltage and ground. The Power amplifier design is RoHS compliant and operates across a wide temperature range from -10°C to +45°C.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency	71		76	GHz
Small Signal Gain		35		dB
Saturated Output Power		33		dBm
Output at 1dB Compression Point		29		dBm
Input VSWR		3.4:1		
Output VSWR		1.8:1		
Operating DC Voltage	5	6	10	Volts
Operating DC Current		3600		mA
Input Power (CW)			10	dBm
Operating Temperature Range	-10		45	°C

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange PEWGA3220

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

PASTERNACK
an INFINITE brand

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange

Waveguide Power Amplifiers - PEWGA3220

Electrical Specification Notes:
1.) DC Supply must be able to source at least 9A DC at startup.
2.) Open and short-circuit loads are not recommended at the amplifier output.
3.) Ensure proper 50 ohm load before turning the amplifier “ON”.
4.) Reverse biasing will destroy the amplifier.
5.) Do not put any foreign objects inside the waveguide. Warranty will be voided.

Absolute Maximum Rating

Parameter	Rating
Operating Temperature	-10°C to +45°C
Storage Temperature	-40°C to +100°C
Total Power Dissipation	20W
Input Power (CW)	+10dBm
DC Operating Voltage	+12V

Mechanical SpecificationsSize

Length	2 in [50.8 mm]
Width	2 in [50.8 mm]
Height	1.8 in [45.72 mm]
Weight	0.05 lbs [22.68 g]
Body Material and Plating	Aluminum, Gold
Design	
DC Bias Connector	Solder Pin

Description	Input Port	Output Port
Type	WR-12	WR-12
Flange	UG-387/U	UG-387/U

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange PEWGA3220

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange

Waveguide Power Amplifiers - PEWGA3220

Environmental Specifications

Biasing Up Procedure

Biasing Up Procedure	
Step 1	Connect Ground Pin
Step 2	Apply DC Supply Voltage
Step 3	Turn ON RF input

Power Down Procedure	
Step 1	Turn OFF RF input
Step 2	Turn OFF DC Supply Voltage
Step 3	Remove Ground

Temperature

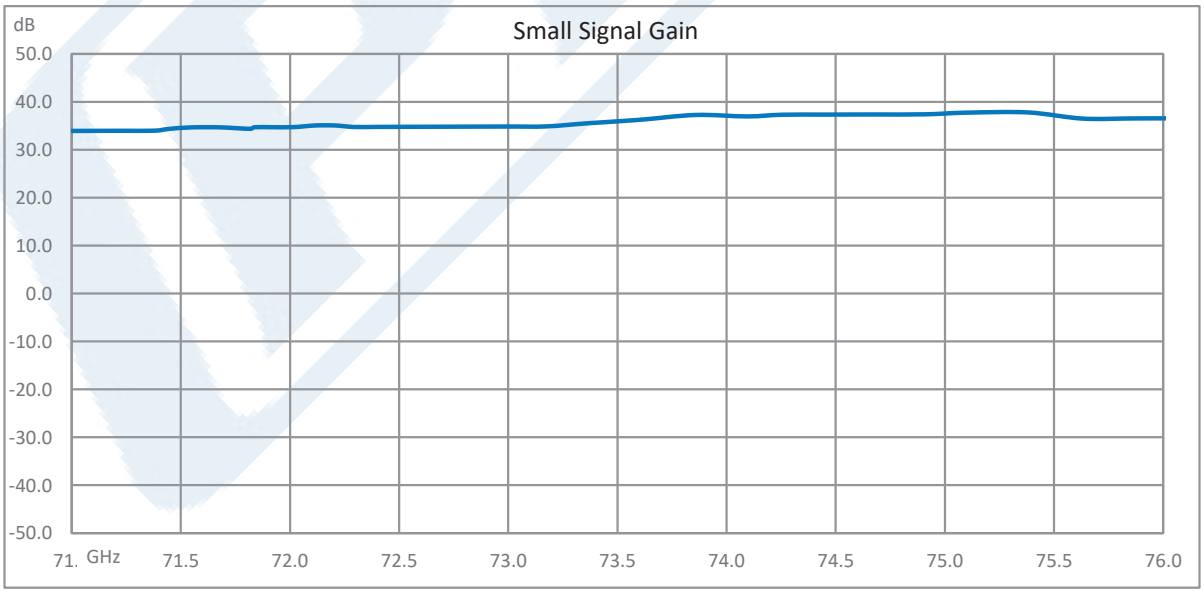
Operating Range	-10 to 45 deg C
Storage Range	-40 to 100 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data



Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange PEWGA3220

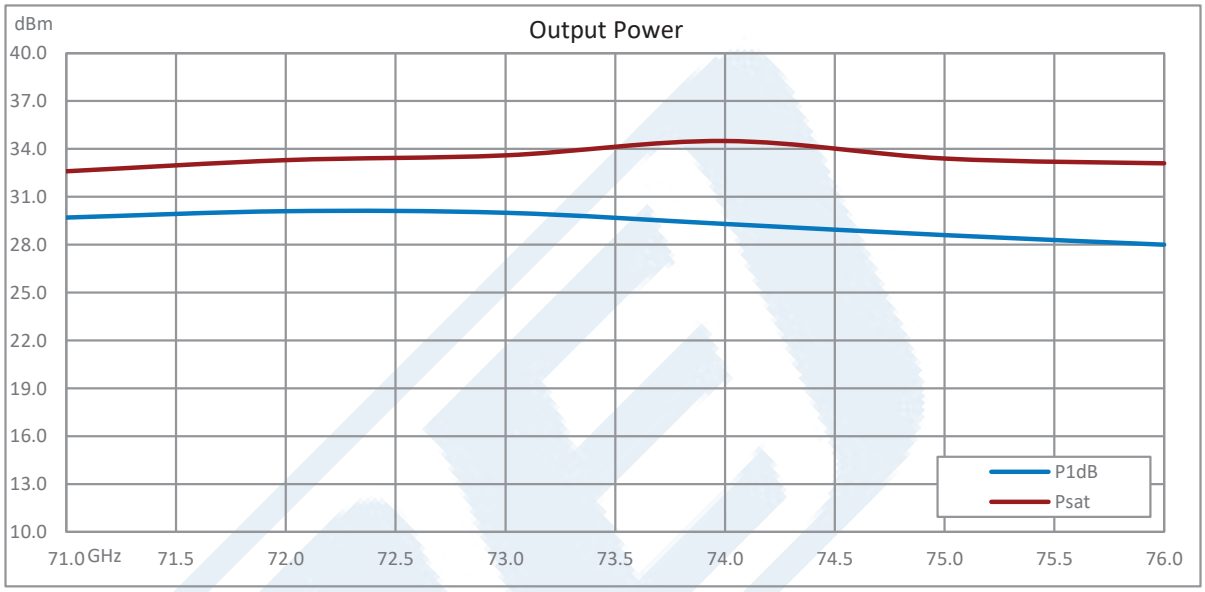
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

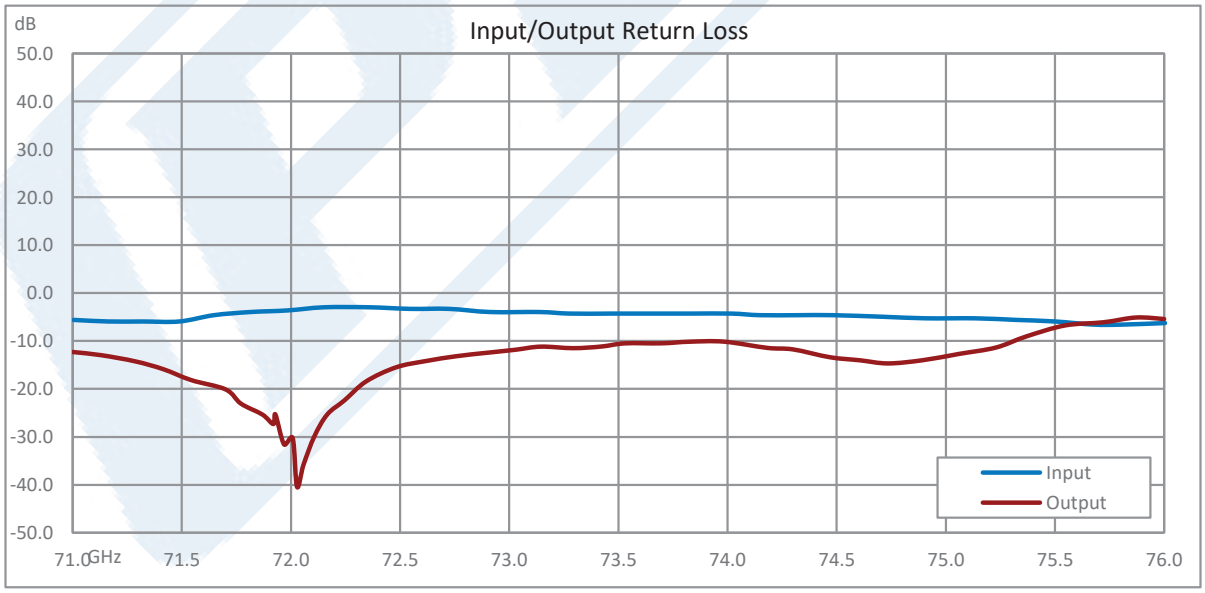
© 2020 Pasternack Enterprises All Rights Reserved

PASTERNACK
an INFINITE brand

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange

Waveguide Power Amplifiers - PEWGA3220





Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange PEWGA3220

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

PASTERNACK
an INFINITE brand

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange

Waveguide Power Amplifiers - PEWGA3220

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/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: WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz, 35 dB Gain, 33 dBm Psat, UG-387/U Flange PEWGA3220

URL: https://www.pasternack.com/waveguide-power-amplifier-e-band-76-ghz-30-dbm-psat-pewga3220-p.aspx

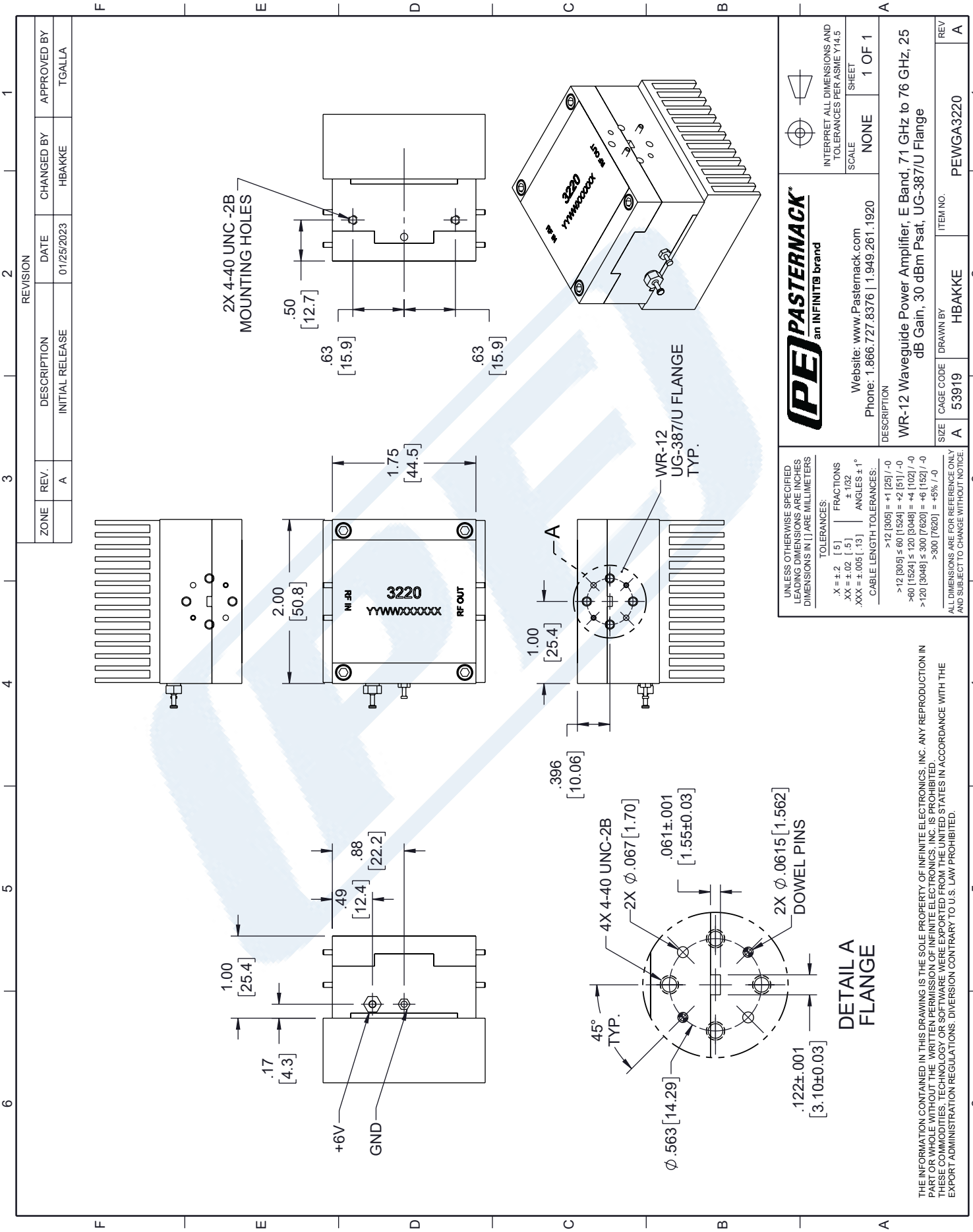
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

© 2020 Pasternack Enterprises All Rights Reserved

PEWGA3220 CAD Drawing

WR-12 Waveguide Power Amplifier, E Band, 71 GHz to 76 GHz,
35 dB Gain, 33 dBm Psat, UG-387/U Flange



© 2020 Pasternack Enterprises All Rights Reserved