



Ku-Band **IBUC G**

300W/400W GaN IBUC



300W
&
400W

GaN
Tech
Amplifier

3
Year
Warranty

The IBUC Advantage

All IBUCs are equipped with cutting-edge intelligent technology:

- Highest quality & exacting performance guaranteed through individual unit testing over temperature
- Superior linearity for maximum useable output power
- Amplifier overdrive protection
- User-selectable AGC/ALC for optimal performance & compatibility with modem adaptive coding
- New high capacity microprocessor & extended M&C functions

ULTIMATE MANAGEMENT & CONTROL

- » Local Web Interface & NMS-Friendly SNMP «
- » 70+ User Configurable Thresholds & Alarms «
- » Upgraded Event Log with 1,000 Sensor Readings «
- » Performance Trend Analysis Tools & Statistical logs «
- » Embedded Web Pages for Universal Web Browser Access «

Applications

The **IBUC G** delivers the highest available output power, making it an ideal solution for high data rate applications such as maritime, broadcast and network hubs. The 300W model produces +53 dBm of linear output power while the 400W model increases usable power to a full +54 dBm.

Gallium Nitride amplifier technology enables smaller packaging for antenna mounting, eliminating the losses in long waveguide runs. And the greater power efficiency translates to an appreciable reduction in power consumption. Comparing favorably with earlier technology TWTAs, the GaN **IBUC G** delivers maximum linear output power with the reliability of solid state.

Options

- 1+1 Transmit Redundancy with Eco-Mode
- High Stability Internal 10 MHz Reference with Auto-Detection
- Three Factory Select Bands
- Mounting Brackets
- Type N or F-Type Input Connectors
- Handheld Terminal

Ku-Band IBUC

Frequency Range	RF	IF
Band 1 Std Ku-Band	14.00 to 14.50 GHz	950 to 1450 MHz
Band 2 Full Ku-Band	13.75 to 14.50 GHz	950 to 1700 MHz
Band 3 Low Ku-Band	12.75 to 13.25 GHz	950 to 1450 MHz

Input

VSWR/ Impedance	1.5:1 / 50 Ohm
Input Connector	Type N Female (50 Ohm)
Input Connector Options	Type F (75 Ohm), TNC (50 Ohm)
Input Power Detector Range	-55 to -20 dBm

Gain

Small Signal Gain (L-band to RF) with attenuator set to 0 dB
 3000W/400W 83 dB Min

Attenuator Range 30 dB variable in 0.1 dB steps

Gain Flatness

Full Band	4 dB p-p max
36 MHz	1.5 dB p-p max
1 MHz	0.25 dB p-p

Gain Variation Over Temperature

Open Loop	3 dB p-p Max
With AGC	1 dB p-p Max

RF Output

Interface	WR75 Cover with Groove
VSWR	1.3:1 max

Output Power

	300W	400W
at P_{Sat} (typ)	+54.8 dBm	+56 dBm
at P_{Lin} (min)	+53 dBm (200W)	+54 dBm (250W)

P_{Lin} is the maximum linear power as defined by MIL STD 188-164B

Level stability with ALC	± 0.5 dB
Output power detector range	Rated power to -20 dB
Power reading accuracy	± 1.0 dB max.

Spurious @ P_{Lin}

In Band -65 dBc

Out of Band Complies with EN 301 428/430 & MIL-STD 188-164B

Harmonics @ P_{Lin} -60 dBc max.

Output Noise Power Density

Tx <	- 73 dBm/Hz
Rx <	- 150 dBm/Hz

SSB Phase Noise

SSB Phase Noise	External Reference	IBUC
10 Hz	-115 dBc/Hz	-50 dBc/Hz
100 Hz	-140 dBc/Hz	-75 dBc/Hz
1 KHz	-150 dBc/Hz	-85 dBc/Hz
10 KHz	-155 dBc/Hz	-90 dBc/Hz
100 KHz	N/A	-95 dBc/Hz
1 MHz	N/A	-110 dBc/Hz

External Reference (Multiplexed on TX IFL)

Frequency & Level	10 MHz	-12 to +5 dBm
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Internal Reference - Optional

Local Oscillator Frequency

Sense	Non-Inverting
Band 1	13050 MHz
Band 2	12800 MHz
Band 3	11800 MHz

IBUC Power Supply

Voltage	200 to 240 VAC	
Power Consumption	<u>300W</u>	<u>400W</u>
at P_{Sat}	2800 VA	3100 VA
at P_{Lin}	2400 VA	2700 VA

Monitor & Control

Ethernet (HTTP, Telnet, SNMP) via RJ45 Connector

RS232/485, Handheld Terminal via MS-Type Connector

FSK multiplexed on TX IFL

Environmental

Operating Temperature	-40°C to +55°C
Relative Humidity	100% Condensing
Altitude	10,000 ft (3,000 m) ASL

Mechanical

Size	29 x 15 x 9.6 x in. 737 x 381 x 244 mm
Weight	83 lbs 38 kg

(Dimensions not including isolators)

Specifications subject to change without notice.

Updated 08/22/2019