



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
- Weatherized RJ45 Ethernet interface for simplified connection

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 «

Ku-Band | Phase Combined **IBUC G**

800W Psat / 400W Plin GaN IBUC for multicarrier application.



Disclaimer: Image as a reference only.

Multicarrier
Application

P_{Sat} 800W
 P_{Lin} 400W

GaN
Tech
Amplifier

3
Year
Warranty

Applications

The new IBUC **G** now supports multicarrier transmission across the full Ku-band spectrum. The **Phase Combined IBUC G** delivers the highest available output power, making it an ideal solution for high data rate multicarrier applications such as maritime, broadband, broadcast and network hubs. The 800W Psat / 400W Plin model produces +56 dBm of linear output power.

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

- High Stability Internal 10 MHz Reference with Auto-Detection
- Mounting Brackets
- N-Type, F-Type or TNC Input Connectors
- Handheld Terminal
- WGS (Wideband Global SATCOM) compatible.

Ku-Band 800W Phase Combined IBUC \mathcal{G} for Multicarrier Application

Frequency Range	RF (MHz)	IF (MHz)
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	Standard Version	WGS Version
Range Options:	-50 to -15 dBm	-35 to 0 dBm

Gain

Small Signal Gain (L-band to RF) with attenuator set to 0 dB options:

	Standard Version	WGS Version
800W	83 dB min	79 dB min

Attenuator Range	30 dB variable in 0.1 dB steps
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Gain Flatness

Bandwidth	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

	All Sub-Bands
Open Loop	4 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

at P_{sat} (typ)	59 dBm
at P_{Lin} (min)	56 dBm
19 dB min of NPR (Noise Power Ratio) at:	53 dBm

P_{Lin} is the maximum linear power as defined by MIL STD 188-164C
Two-tone measured at 5MHz and 150 MHz spacing

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	-60 dBc
Out of Band	Complies with EN 301 443 & MIL-STD 188-164C

Harmonics @ P_{Lin}

-60 dBc max.

Output Noise Power Density

Tx < -	73 dBm/Hz
Rx < -	145 dBm/Hz

SSB Phase Noise	External Reference	IBUC \mathcal{G}
10 Hz	-125 dBc/Hz	-45 dBc/Hz
100 Hz	-145 dBc/Hz	-65 dBc/Hz
1 KHz	-160 dBc/Hz	-80 dBc/Hz
10 KHz	-165 dBc/Hz	-85 dBc/Hz
100 KHz	N/A	-90 dBc/Hz
1 MHz	N/A	-115 dBc/Hz

External Reference (Multiplexed on TX IFL)

Frequency: 10 MHz Level: -12 to +5 dBm

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	AC	200 to 240 VAC (3 inputs)	50 Hz / 60Hz
Power Consumption	at P_{sat}	6250 VA	
	at P_{Lin}	5050 VA	

Monitor & Control

Ethernet (HTTP, Telnet, SNMPv2c) via RJ45 Connector

RS232/485, Handheld Terminal via MS-Type Connector



Environmental

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

Mechanical

Weight	275 lbs 125 kg
Size	40 x 40 x 13.5in. 1016 x 1016 x 343 mm

Specifications subject to change without notice. Updated: September 26th, 2023