



## 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 «

## Ka-Band IBUC 2G

5W to 40W Compact GaN IBUC



5W  
to  
40W

GaN  
Tech  
Amplifier

3  
Year  
Warranty

## Applications

The **IBUC 2G** delivers proven superior performance in high data rate, & higher order modulation satellite links. With its rugged, compact design, the Ka-band **IBUC 2G** is suitable for both mobile & long-term fixed satcom terminals.

Multiple sensors & a new, high-capacity microprocessor provide tools to optimize remote terminal performance. The **IBUC 2G** is a popular choice for satcom uplinks for telecom, government, defense and other demanding applications.

### Options

- 1+1 Transmit Redundancy
- High Stability Internal 10 MHz Reference with Auto-Detection
- Three Factory Select Bands
- AC or DC Input Models
- Type N or F-Type Input Connectors
- Handheld Terminal

# Ka-Band IBUC 2G

Frequency Range	RF	IF
	29.0 to 30.0 GHz	1.0 to 2.0 GHz
	29.5 to 30.0 GHz	1.0 to 1.5 GHz
	30.0 to 31.0 GHz	1.0 to 2.0 GHz

## 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

5W	68 dB min
10W	71 dB min
16W	73 dB min
20W	74 dB min
25W	75 dB min
40W	77 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
Gain Variation Over Temperature	
Open Loop	4 dB p-p max
With AGC	1 dB p-p max

## RF Output

Interface	WR28 UG Cover with Groove
VSWR	1.3:1 max

## Output Power

	P <sub>sat</sub> (typ)	P <sub>Lin</sub> (min)
5W	+37 dBm	+34 dBm
10W	+40 dBm	+37 dBm
16W	+42 dBm	+39 dBm
20W	+43 dBm	+40 dBm
25W	+44 dBm	+41 dBm
40W	+46 dBm	+43 dBm

P<sub>Lin</sub> 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 <sub>Lin</sub>	
In Band	-60 dBc
Out of Band	-60 dBc
AM/PM Conversion	<2 Deg/dB @ P <sub>Linear</sub>
Output Noise Power Density	Tx < - 75 dBm/Hz

## SSB Phase Noise

	External Reference	IBUC 2G
10 Hz	-115 dBc/Hz	-43 dBc/Hz
100 Hz	-140 dBc/Hz	-68 dBc/Hz
1 KHz	-150 dBc/Hz	-78 dBc/Hz
10 KHz	-155 dBc/Hz	-83 dBc/Hz
100 KHz	N/A	-92 dBc/Hz
1 MHz	N/A	-102 dBc/Hz

## External Reference (Multiplexed on TX IFL)

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

## Local Oscillator Frequency

Sense	Non-Inverting
Band 1	28000 MHz
Band 2	28500 MHz
Band 3	29000 MHz

## IBUC Power Supply

	DC	AC
Voltage	48 ± 11 VDC	100 ± 240 VAC
Power Consumption	@ P <sub>Lin</sub> / P <sub>Sat</sub>	@ P <sub>Lin</sub> / P <sub>Sat</sub>
5W	65/80 W	70/90 VA
10W	80/110 W	90/120 VA
16W	130/175 W	140/180 VA
20W	135/180 W	150/200 VA
25W	150/200 W	170/220 VA
40W	270/360 W	300/400 VA

## Monitor & Control

Ethernet (HTTP, Telnet, SNMPv2c) via RJ45 Connector  
 RS232/485, Handheld Terminal via MS-Type Connector  
 FSK multiplexed on TX IFL

## Environmental

Operating Temperature	
5 to 10 W	-40°C to +60°C
16 to 40 W	-40°C to +55°C
Relative Humidity	100% Condensing
Altitude	10,000 ft (3,000 m) ASL

## Mechanical

	DC Powered	AC Powered
5W-10W	10.5 x 6 x 3.8 x in. 267 x 152 x 97 mm	10.5 x 6 x 4.2 x in. 267 x 152 x 107 mm
16W-40W	10.5 x 6 x 5.7 x in. 267 x 152 x 145 mm	10.5 x 6 x 6.1 x in. 267 x 152 x 155 mm
	11.5 lbs 5.2 kgs	12.8 lbs 5.8 kgs

(Dimensions not including isolators)

Specifications subject to change without notice.

Updated 11/30/2020



**Request A Quote**