

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 50W Compact GaN IBUC



5W
to
50W

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

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	
50W	78 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 _{sat} (typ)	P _{Lin}
5W	+37 dBm	+34
10W	+40 dBm	+37
16W	+42 dBm	+39
20W	+43 dBm	+40
25W	+44 dBm	+41
40W	+46 dBm	+43
50W	+47 dBm	+44
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	-60 dBc	
Out of Band	-60 dBc	
AM/PM Conversion	<2 Deg/dB @ P _{Linear}	
Output Noise Power Density	Tx < - 74 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
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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 via coax available on 5W - 10W

	DC	AC
Voltage	48 $\pm$ 11 VDC	100 $\pm$ 240 VAC
Power Consumption	@ P_{Lin} / P_{Sat}	@ P_{Lin} / P_{Sat}
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
50W	330/440 W	360/480 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 50 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
	9.5 lbs 4.3 kgs	10.5 lbs 4.8 kgs
16W-50W	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

Specifications subject to change without notice.

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