

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 «

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**

5W to 50W Compact GaN IBUC



5W
to
50W

GaN
Tech
Amplifier

3
Year
Warranty

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	
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	
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 ± 11 VDC		100 ± 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.		10.5 x 6 x 4.2 x in.		
	267 x 152 x 97 mm		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.		10.5 x 6 x 6.1 x in.		
	267 x 152 x 145 mm		267 x 152 x 155 mm		
	11.5 lbs 5.2 kgs		12.8 lbs 5.8 kgs		

Specifications subject to change without notice.

Updated 5/20/2021