

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} (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
50W	+47 dBm	+44 dBm

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 \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.	10.5 x 6 x 4.2 x in.
	267 x 152 x 97 mm	267 x 152 x 107 mm
16W-50W	9.5 lbs 4.3 kgs	10.5 lbs 4.8 kgs
	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.

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