TERRASAT Communications, Inc.
Engineered to Endure

Ku-Band IBUC 2e
4 Watt to 16 Watt

STEP ELECTRONICS
A Division of Av-Comm

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

Ku-Band
IBUC 2e
Low Energy Consumption Model

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 «

4W to 16W

GaAs Tech Amplifier

3 Year Warranty

Applications

When the requirement calls for a full-featured Block Upconverter that is powered by the modem, the **IBUC 2e** is an excellent fit. The **IBUC 2e** draws less power from the modem ODU power supply than the **IBUC 2** model. Auto-ranging DC input power is supplied via the IFL coaxial cable only. There is no external power connector.

Compatibility with a specific model modem is based on the ODU power supply capacity of that modem. It is also important to take into consideration voltage drop over the IFL cable.

Options

- High Stability Internal 10 MHz Reference with Auto-Detection
- Three Factory Select Bands
- Mounting Brackets
- Optional Type N or F-Type Input Connectors
- Handheld Terminal

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Ku-Band **IBUC 2e**

Frequency Range	RF	IF
Band 1 Std Ku	14.0 to 14.50 GHz	950 to 1450 MHz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz
Band 3 Low Ku	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 Range	-55 to -20 dBm

Gain

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

4W	67 dB min
8W	70 dB min
12W	72 dB min
16W	73 dB min

Attenuator Range 30 dB variable in 0.1 dB steps

Gain Flatness	Bands 1 & 3	Band 2
Full Band	3 dB p-p max	4 dB p-p max
36 MHz	1 dB p-p max	1.5 dB p-p max
1 MHz	0.25 dB p-p max	0.25 dB p-p max

Gain Variation Over Temperature

Open Loop	3 dB p-p max	4 dB p-p max
With AGC	1 dB p-p max	1 dB p-p max

RF Output

Interface WR75 Cover with Groove
VSWR 1.5:1 max
Rated Output Power

	P_{1dB}
4W	+36 dBm min
8W	+39 dBm min
12W	+40.8 dBm min
16W	+42 dBm min

P_{Lin} is the maximum linear power as defined by MIL STD 188-164B

IMD3 (2 Carriers, 3 dB TOBO) -25 dBc max
Level Stability with ALC ± 0.5 dB
Output Power Detector Range Rated Power to -20 dB
Power Reading Accuracy ± 1.0 max
Spurious
In Band -65 dBc
Out Band Complies with EN 301 428/430 & MIL STD 188-164B.
Harmonics -50 dBc max
Output Noise Power Density
TX <- 84 dBm/Hz
RX <- 145 dBm/Hz

SSB Phase Noise	External Reference	**IBUC 2e**
10 Hz	-115 dBC/Hz	-50 dBc/Hz
100 Hz	-140 dBc/Hz	-75 dBc/Hz
1 KHz	-150 dBc/Hz	-85 dBc/Hz
10 KHz	-155 dBc/Hz	-90 dBc/Hz
100 KHz	N/A	-95 dBc/Hz
1 MHz	N/A	-110 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	13050 MHz
Band 2	12800 MHz
Band 3	11800 MHz

IBUC Power Supply

Voltage	4W, 8W	18 to 75 VDC
	12W, 16W	37 to 60 VDC
		DC via coax only

Power Consumption

4W	55 W
8W	65 W
12W	110 W
16W	120 W

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	-40°C to +60°C
Relative Humidity	100% Condensing
Altitude	10,000 ft (3,000 m) ASL

Mechanical

4W, 8W	10.5 x 6 x 3.8 in.
	267 x 152 x 97 mm
	9.3 lbs (*4.2 kgs*)
12W, 16W	10.5 x 6 x 5.2 in.
	267 x 152 x 132 mm
	10.8 lbs (*4.9 kgs*)

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