

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

Specially designed for mobility, the **IBUC 3** is a full-featured IBUC in a new, smaller & lighter package. An excellent fit with very small aperture or flat panel antennas where size & weight are key considerations.

Yet, all of the IBUC performance & manageability advantages remain. The included web interface enables terminal optimization during installation & provides a suite of trouble-shooting tools. An auto-ranging DC power supply is accessed via external power connector or IFL cable.

Options

- 1+1 Transmit Redundancy
- High Stability Internal 10 MHz Reference with Auto-Detection
- Three Factory Select Bands (Low,Std, and Full Ku-Bands)
- Mounting Brackets
- Optional Type N, F-Type, or TNC Input Connectors
- Handheld Terminal
- Cyber Hardened Core M&C
- WGS (Wideband Global SATCOM) compatible

Ku-Band IBUC 3

Compact Size Without the Compromise | 8W to 16W



New **Cyber Hardened** version available

Multicarrier Application

8W to 16W

GaAs Tech Amplifier

3 Year Warranty

Note: Since not all the optional features can be combined, please, contact our sales team for further info at: Sales@Terrasatinc.com

Ku-Band IBUC 3

8W to 16W

Frequency Range	RF	IF
Band 1 Std Ku	14.00 to 14.50 GHz	950 to 1450 MHz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 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	Standard Version ¹	WGS Version ²
Range Options:	-55 to -20 dBm	-35 to 0 dBm

Gain

Small Signal Gain (L-band to RF) with attenuator set to 0 dB	Standard Version ¹	WGS Version ²
8W	70 dB min	59 dB min
16W	73 dB min	62 dB min

¹Terrasats Standard Version has a higher gain to reduce the need for line amplifiers in long cable runs (IFL).

²WGS Compatible Versions have lower gain allowing operations to drive the IF signal up to 0 dBm.

Attenuator Range	30 dB variable in 0.1 dB steps
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Gain Flatness

Full Band	4 dB p-p max
36 MHz	1.5 dB p-p max
1 MHz	0.25 dB p-p max

Gain Variation Over Temperature

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

RF Output

Interface	WR75 Cover with Groove
VSWR	1.5:1 max

Output Power

	P _{1dB}
8W	+39 dBm min
16W	+42 dBm min

IMD3 (2 Carriers, 3dB TOBO)	-25 dBc max
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Level Stability with ALC	± 0.5 dB
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Output Power Detector Range	Rated Power to -20 dB
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Power Reading Accuracy	± 1.0 dB max.
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Spurious

In Band	-65 dBc
Out of Band	Complies with EN 301 428/430 & MIL-STD 188-164C

Harmonics	-50 dBc max.
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Output Noise Power Density	Tx < - 83 dBm/Hz
	Rx <- 145 dBm/Hz

SSB Phase Noise	External Reference	IBUC 3
10 Hz	-125 dBc/Hz	-50 dBc/Hz
100 Hz	-145 dBc/Hz	-65 dBc/Hz
1 KHz	-160 dBc/Hz	-80 dBc/Hz
10 KHz	-165 dBc/Hz	-85 dBc/Hz
100 KHz	N/A	-90 dBc/Hz
1 MHz	N/A	-115 dBc/Hz

External Reference (Multiplexed on TX IFL)

Frequency: 10 MHz	Level: -12 to +5 dBm
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Internal Reference: Optional feature includes auto-detection of External Reference

Local Oscillator Frequency

Sense	Non-Inverting
Band 1	13050 MHz
Band 2	12800 MHz

IBUC Power Supply

Voltage	
8W	20 to 36 VDC or 38 to 76 VDC
16W	38 to 76 VDC
	DC via coax available on 8W-16W

Power Consumption

8W	70 W
16W	135 W

Monitor & Control

Ethernet (HTTP, Telnet, SNMP) 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

7 x 5 x 4 in.
178 x 127 x 102 mm.
5.6 lbs
2.5 kgs

Specifications subject to change without notice.

Updated January 8th 2025

PART NUMBER CONFIGURATION | OPTIONS AVAILABLE FOR:

Ku-Band 8W & 16W GaAs IBUC 3

Cyber Hardened Option Part Number

Example/Std Offer: IBH137145-2N4016TSWW-0000

IBH XXXXXX - X X X XXX T S W W - XXXX

		Power Output	Optional Specs & Features	
		008 8W	0000	Std Options and Std Specs
		016 16W	0218	WGS Compatibility Option
			Color	
			W	Std Terrasat Inc Color (White)
			X	Other Colors (Please, Provide Color Specs)
		Power Supply		
	2	DC Powered, With Power Thru Coax, Floating 24 VDC (Valid for 8W IBUCs only)		
	4	DC Powered, With Power Thru Coax, 38 to 76 VDC		
	5	DC Powered, No Power Thru Coax, 38 to 76 VDC		
	8	DC Powered, No Power Thru Coax, Floating 24 VDC (Valid for 8W IBUCs only)		
		IF Input Connector		
	N	N-Type IF Input Connector		
	F	F-Type IF Input Connector		
		Spectral Sense and 10MHz Reference		
	0	Non-Inverting + External 10MHz		
	2	Non-Inverting + Internal 10MHz Std (30ppb stability)		
	4	Non-Inverting + Internal 10MHz High Stability (5ppb)		
		RF Frequency Plan		
140145	14.000-14.500 GHz (Std Ku-Band)			
137145	13.750-14.500 GHz (Full Ku-Band)			

Std M&C Option Part Number

Example/Std Offer: IBA137145-2N4016TSWW-0000

IBA XXXXXX - X X X XXX T S W W - XXXX

		Power Output	Optional Specs & Features	
		008 8W	0000	Std Options and Std Specs
		016 16W	0218	WGS Compatibility Option
			Color	
			W	Std Terrasat Inc Color (White)
			X	Other Colors (Please, Provide Color Specs)
		Power Supply		
	2	DC Powered, With Power Thru Coax, Floating 24 VDC (Valid for 8W IBUCs only)		
	4	DC Powered, With Power Thru Coax, 38 to 76 VDC		
	5	DC Powered, No Power Thru Coax, 38 to 76 VDC		
	8	DC Powered, No Power Thru Coax, Floating 24 VDC (Valid for 8W IBUCs only)		
		IF Input Connector		
	N	N-Type IF Input Connector		
	F	F-Type IF Input Connector		
		Spectral Sense and 10MHz Reference		
	0	Non-Inverting + External 10MHz		
	2	Non-Inverting + Internal 10MHz Std (30ppb stability)		
	4	Non-Inverting + Internal 10MHz High Stability (5ppb)		
		RF Frequency Plan		
140145	14.000-14.500 GHz (Std Ku-Band)			
137145	13.750-14.500 GHz (Full Ku-Band)			

Note: Consult Terrasat Communications Inc for more options.