



Terrasat **IBUC 2e**

Ku-Band Intelligent Block Upconverter

Low Energy Consumption Model

IBUC Advantages

Integrated BUC/SSPA for higher performance and reliability.

Low energy consumption for use with Modems equipped with limited capacity BUC power supplies. DC power supplied via IFL coax.

High linearity.

Low phase noise better than IESS308/309 requirements by a minimum of 5 dB.

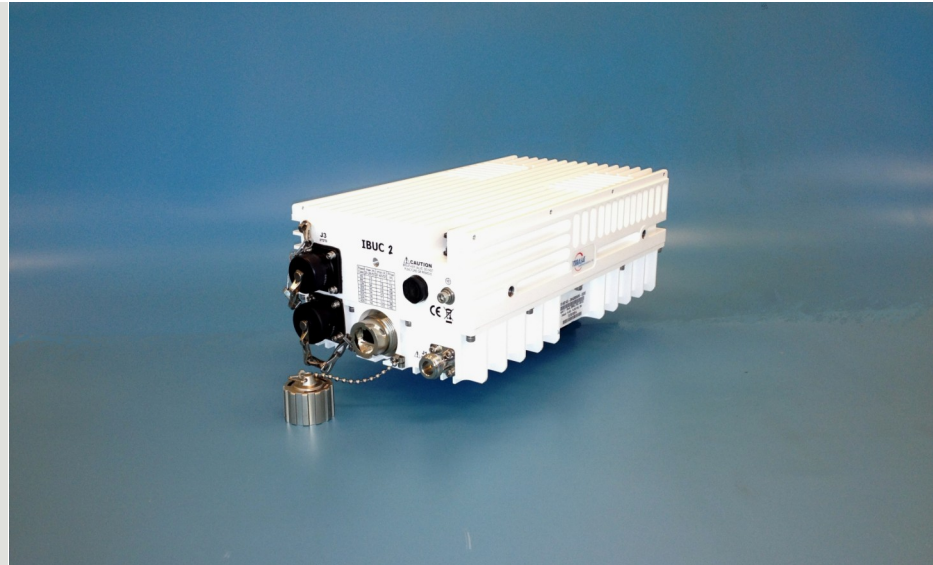
Embedded Web pages provide management for small networks using any Web browser.

AGC or ALC circuits hold gain or output level constant.

30 dB User-adjustable gain in 0.1 dB steps preserves modem dynamic range.

Advanced user interfaces:

- TCP/IP HTTP with embedded Web pages via RJ-45 connector
- SNMP
- TELNET through TCP/IP
- FSK through TX IFL cable
- RS232/485 serial port
- Hand-held terminal



IBUC 2 offers significant benefits:

- High performance in a compact, cost effective package
- Simple design and installation
- Simplified 1+1 configuration

New interfaces connect you to extensive M&C facilities for network management or local access. This powerful M&C enables:

- **Trouble-free commissioning** with easy, point-and-click installation/configuration
- Continuous **verification** of performance with time-stamped alarm history
- Simplified **monitoring** of terminal status

IBUC 2 comes with a complete set of diagnostic tools including:

- 10 MHz input detector
- Input voltage and current monitoring
- Transmit L-band input level detector
- Transmit RF output level detector
- User configurable thresholds and alarms

Unique to the **IBUC** are internal AGC and ALC functions that satisfy demanding applications with stringent specifications.

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Frequency range	RF	IF	SSB Phase Noise	External reference	IBUC
Band 1 Std Ku	14.00 to 14.50 GHz	950 to 1450 MHz	10 Hz	-115 dBc/Hz	-50 dBc/Hz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz	100 Hz	-140 dBc/Hz	-75 dBc/Hz
Band 3 Low Ku	12.75 to 13.25 GHz	950 to 1450 MHz	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
Input			External Reference (multiplexed on TX IFL)		
VSWR / Impedance	1.5:1 max / 50 Ohm		Frequency	10 MHz	
Input Connector	Type N female (50 Ohm)		Level	-12 to +5 dBm	
Input Connector options	Type F (75 Ohm), TNC (50 Ohm)		Internal Reference - optional		
Input power detector	-55 to -20 dBm		Local Oscillator Frequency		
			Sense	Non-Inverting	
			Band 1	13050 MHz	
			Band 2	12800 MHz	
			Band 3	11800 MHz	
Gain			IBUC Power Supply		
Small Signal Gain (L-band to RF) with attenuator set to 0 dB			Voltage	4W, 8W	18 to 75 VDC
4 W	67 dB min			12W, 16W	37 to 60 VDC
8 W	70 dB min		DC via coax only		
12 W	72 dB min		Power Consumption		
16 W	73 dB min		4 W	55 W	
			8 W	65 W	
			12 W	110 W	
			16 W	120 W	
Attenuator range	30 dB variable in 0.1 dB steps		Monitor and Control		
Gain flatness	<u>Band 1 & 3</u>	<u>Band 2</u>	Ethernet (HTTP, Telnet, SNMP) via RJ-45 connector,		
Full band	3 dB p-p max	4 dB p-p max	RS232/485, Hand-held Terminal , via MS-type connector,		
36 MHz	1 dB p-p max	1 dB p-p max	FSK multiplexed on TX IFL.		
1 MHz	0.25 dB p-p	0.25 dB p-p	Environmental		
Gain variation over temperature			Operating temperature	-40°C to +60°C	
Open loop	3 dB p-p max		Relative humidity	100% condensing	
With AGC	1 dB p-p max		Altitude	10,000 ft., (3,000 m) ASL	
RF Output			Mechanical		
Interface	WR75 cover with groove		4W, 8W	10.5 x 6 x 3.8 in.	
VSWR	1.5:1 max			9.3 lbs	
Rated output power	P _{1dB}		12W, 16W	10.5 x 6 x 5.2 in.	
4 W	+36 dBm min			10.8 lbs	
8 W	+39 dBm min				
12 W	+40.8 dBm min				
16 W	+42 dBm min				
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 dB max				
Spurious	In Band	-65 dBc			
	Out of Band	Complies with EN 301 428/430 and MIL-STD 188-164B			
Harmonics	-50 dBc max				
Output Noise Power Density					
	TX < -83 dBm/Hz				
	RX < -145 dBm/Hz				

Specifications are subject to change without notice.

