

Ku-Band IBUC - High Power Intelligent Block Upconverter

IBUC Advantages

Integrated BUC/SSPA packaging for higher performance and reliability.

Low phase noise exceeds IESS308/309 requirements by a minimum of 10dB.

NMS-friendly interfaces enable remote management of your earth station RF.

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

AGC or ALC circuits hold gain or output level constant.

16dB User-adjustable gain in 0.1 dB steps preserves modem dynamic range.

Advanced customer interfaces:

- TCP/IP HTTP with embedded web pages.
- SNMP
- TELNET through TCP/IP
- FSK through TX IFL cable.
- RS232/485 serial port.
- Handheld terminal

1+1 switching logic and drivers built into the IBUC eliminate expensive external switching controller.

Extensive diagnostics displayed as web pages for faster setup and troubleshooting.

Output sample port included as standard.



The revolutionary **IBUC** has advanced features to take your network to new heights.

IBUC offers significant benefits:

- Low terminal cost
- Simple design and installation
- Superior RF performance
- Simplified 1+1 configuration

New interfaces connect you to the **IBUC's** extensive M&C facilities for network management or local access. This powerful new M&C enables:

- **Trouble free commissioning** with easy, point-and-click installation/configuration
- Continuous **verification** of performance with alarm history.
- Simplified **troubleshooting** of terminal faults.

IBUC 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
- Alarm history

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

For additional information contact Terrasat Sales at +1 408-782-5911 or by Email:
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Ku-Band IBUC High Power Block Upconverter

L-Band Input

Frequency range	
Band 1	950 to 1450 MHz
Band 2	950 to 1700 MHz
VSWR / Impedance	1.5:1 max / 50 ohms
Connector	Type N female
Input power detector range	-55 to -20 dBm

Gain

Small Signal Gain (L-band to RF) with attenuator set to 0 dB	
60W	79 dB min
80W	80 dB min
Attenuator range	16 dB variable in 0.1dB steps
Gain flatness	
Full band	4dB p-p max
36 MHz	1.5 dB p-p max
1 MHz	0.25 dB p-p
Gain variation over temperature	
Open loop	4 dB p-p max
With AGC	1 dB p-p max

RF Output

Frequency range		
Band 1	14.00 to 14.50 GHz	
Band 2	13.75 to 14.50 GHz	
Interface	WR-75 UG cover w/ groove	
VSWR	1.5:1 max	
Rated output power (P1dB)		
	Band 1	Band 2
60W	47.8dBm min.	47.5dBm min.
80W	49.0dBm min.	48.5dBm min.
IMD3 (2 carriers, 30kHz apart, 9dB BO/carrier)	-30dBc max	
Level stability with ALC	± 0.5 dB	
Output power detector range:		
Rated power to -20dB		
Power reading accuracy	+/- 1.0 dB max	
Spurious	Complies with EN 301 428	

SSB Phase Noise

Offset	External reference	IBUC
10Hz	-120 dBc/Hz	-35 dBc/Hz
100Hz	-130 dBc/Hz	-65 dBc/Hz
1 kHz	-143 dBc/Hz	-75 dBc/Hz
10 kHz	-152 dBc/Hz	-85 dBc/Hz
100kHz	-155 dBc/Hz	-95 dBc/Hz
1MHz	-155 dBc/Hz	-110 dBc/Hz

External Reference (multiplexed on TX IFL)

Frequency	10 MHz
Level	-12 to +5 dBm

Local Oscillator Frequency

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

IBUC DC Supply

Connector	ACS02E14S-6P(553) or equivalent	
Voltage / Current	48VDC nom. (42Vmin. / 60Vmax.) *	
60W	17A@48VDC	816W
80W	22A@48VDC	1056W

* External source or available outdoor power supply.

Monitor and Control

FSK (multiplexed on TX IFL)

RS232/485

Handheld Terminal

TCP / IP	Telnet, HTTP
UDP	SNMP

Environmental

Operating temperature	-40°C to +55°C
Relative humidity	100% condensing
Altitude	10,000 ft., (3,000m) ASL

Mechanical

	Size	Weight
	18.0"(L)x10.0"(W)x8.4"(H)	32 lbs
	457mm x 254mm x 213mm	14.5 kg



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Specifications are subject to change without notice

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