



Ku-Band IBUC - High Power Intelligent Block Upconverter

IBUC Advantages

Integrated BUC/SSPA for higher performance and reliability.

All models available with integral AC power supply or separate DC power supply.

Internal 10MHz reference option automatically switches to internal reference when external reference is not available.

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

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

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

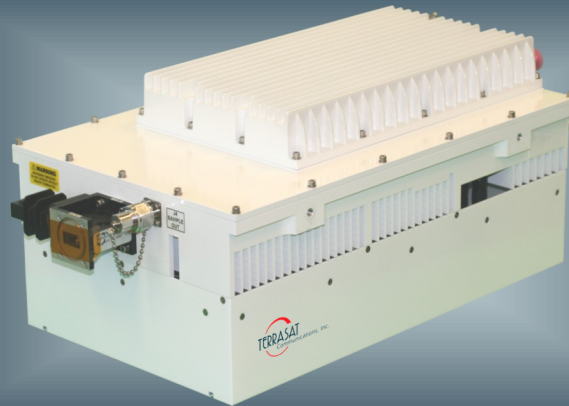
AGC or ALC circuits hold gain or output level constant.

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

Output sample port included.

Advanced user interfaces:

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



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 time-stamped alarm history
- Simplified **troubleshooting** of terminal faults

The **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
- User configurable thresholds and alarms

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

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

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	-120 dBc/Hz	-35 dBc/Hz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz	100 Hz	-130 dBc/Hz	-65 dBc/Hz
Band 3 Low Ku	12.75 to 13.25 GHz	950 to 1450 MHz	1 kHz	-143 dBc/Hz	-75 dBc/Hz
VSWR / Impedance	1.5:1 max / 50 Ohm		10 kHz	-152 dBc/Hz	-85 dBc/Hz
Connector	Type N female (50 Ohm)		100 kHz	-155 dBc/Hz	-95 dBc/Hz
Connector options	Type F (75 Ohm), TNC (50 Ohm)		1 MHz	-155 dBc/Hz	-110 dBc/Hz
Input power detector	-55 to -20 dBm				

Gain

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

60 W 79 dB min

80 W 80 dB min

Attenuator range 16 dB variable in 0.1 dB steps

Gain flatness

Full band 4 dB 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

Interface WR75 UG cover with groove

VSWR 1.5:1 max

Rated output power (P1dB)

	Band 1 & 3	Band 2
60 W	+47.8 dBm min	+47.5 dBm min
80 W	+49.0 dBm min	+48.5 dBm min

IMD3 (2 carriers, 3 dB TOBO) -24 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 and MIL-STD 188-164

Harmonics -50 dBc max.

Output Noise Power Density

TX < -80 dBm/Hz

RX < -145 dBm/Hz

External Reference (multiplexed on TX IFL)

Frequency 10 MHz

Level -12 to +5 dBm

Internal Reference - optional

Local Oscillator Frequency

Band 1 13050 MHz

Band 2 12800 MHz

Band 3 11800 MHz

Sense Non-Inverting

IBUC Power Supply

	DC	AC
Voltage	± 48 VDC	100 to 240 VAC

42 V min, 60 V max

Power Consumption

60 W	750 W	850 VA
80 W	850 W	900 VA

Monitor and Control

FSK (multiplexed on TX IFL), **RS232/485**

Hand-held Terminal, TCP / IP (HTTP, Telnet, SNMP)

Environmental

Operating temperature -40°C to +55°C

Relative humidity 100% condensing

Altitude 10,000 ft., (3,000 m) ASL

Mechanical

Size 19.5x10x7.8 in.

495x254x198 mm

Weight 32 lbs, 14.5 kg DC powered

33 lbs, 15 kg AC powered

Specifications are subject to change without notice.

Ku-Band IBUC Hi Power Data Sheet 08/06/10



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