

## ***Ku-Band IBUC – High Power Intelligent Block Upconverter***

### **IBUC Advantages**

Integrated BUC/SSPA packaging for higher performance and reliability.

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

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.

16 dB 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
- Hand-held 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.



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

## 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	
60 W	79 dB min
80 W	80 dB min
Attenuator range	16 dB variable in 0.1dB 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

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
60 W	47.8 dBm min.      47.5 dBm min.
80 W	49.0 dBm min.      48.5 dBm min.
IMD3 (2 carriers, 30 kHz apart, 9 dB BO/carrier)	-30 dBc 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
Harmonics	-50 dBc Max.

### SSB Phase Noise

Offset	External reference	IBUC
10 Hz	-120 dBc/Hz	-35 dBc/Hz
100 Hz	-130 dBc/Hz	-65 dBc/Hz
1 kHz	-143 dBc/Hz	-75 dBc/Hz
10 kHz	-152 dBc/Hz	-85 dBc/Hz
100 kHz	-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 Power Supply

Voltage / Current	100 to 240 VAC or 48 VDC nom. (42 V min. / 60 V max.)
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### Power Consumption

60 W	898 W
80 W	950 W

### Monitor and Control

FSK (multiplexed on TX IFL)

RS232/485

Hand-held Terminal

TCP / IP	Telnet, HTTP
UDP	SNMP

### Environmental

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

### Mechanical

	Size	Weight
	18.0”(L) x 10.0”(W) x 8.4”(H)	32 lbs
	457 mm x 254 mm x 213 mm	14.5 kg

Specifications are subject to change without notice

