

C-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 10 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.

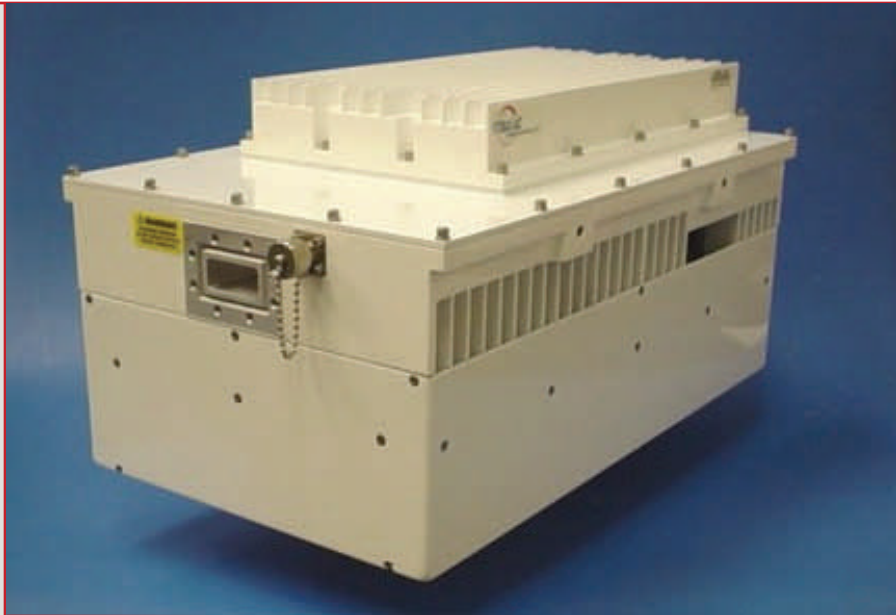
Advanced customer interfaces:

- 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.

C-Band IBUC – High Power Block Upconverter Specifications

L-Band Input	Frequency range			Power reading accuracy	+/- 1.0 dB max.
Band 1	950 to 1525 MHz			Spurious	Complies with EN 301 443
Band 2	975 to 1275 MHz			Harmonics	-50 dBc max
Band 3	1150 to 1450 MHz			SSB Phase Noise	
Band 4	950 to 1750 MHz			Offset	External reference IBUC
Band 5	975 to 1850 MHz			10 Hz	-120 dBc/Hz -35 dBc/Hz
VSWR / Impedance	1.5:1 max / 50 ohms			100 Hz	-130 dBc/Hz -70 dBc/Hz
Connector	Type N female			1 kHz	-143 dBc/Hz -80 dBc/Hz
Input power detector	-55 to -20 dBm			10 kHz	-152 dBc/Hz -90 dBc/Hz
Gain				100 kHz	-155 dBc/Hz -100 dBc/Hz
Small Signal Gain (L-band to RF) with attenuator set to 0 dB.				1 MHz	-155 dBc/Hz -110 dBc/Hz
100 W	81 dB min			External Reference (multiplexed on TX IFL)	
125 W	82 dB min			Frequency	10 MHz
150 W	83 dB min			Level	-12 to +5 dBm
175 W	83 dB min			Local Oscillator Frequency	
200 W	84 dB min			Band 1	7375 MHz
Attenuator range	16 dB variable in 0.1 dB steps			Band 2	7700 MHz
Gain flatness				Band 3	8175 MHz
Full band	4dB p-p max			Band 4	7600 MHz
36 MHz	1.5 dB p-p max			Band 5	7700 MHz
1 MHz	0.25 dB p-p			Sense	Inverting
Gain variation over temperature				IBUC Power Supply	
Open loop	4 dB p-p max			Voltage / Current	100 to 240 VAC for 100 W to 125 W
With AGC	1 dB p-p max				200 to 240 VAC for 150 W to 200 W, or
RF Output	Frequency range				48 VDC nom. (42 V min. / 60 V max.)
Band 1 Std C-Band	5850 to 6425 MHz			Power Consumption	
Band 2 Palapa/ST-1	6425 to 6725 MHz			100 W	739 W
Band 3 Insat	6725 to 7025 MHz			125 W	898 W
Band 4 Extended C	5850 to 6650 MHz			150 W	1056 W
Band 5 Full C-band	5850 to 6725 MHz			175 W	1109 W
Interface	CPR-137G			200 W	1162 W
VSWR	1.5:1 max			Monitor and Control	
Rated output power (P1dB)				FSK (multiplexed on TX IFL)	
100 W	+50 dBm min			RS232/485, Hand-held Terminal	
125 W	+51 dBm min			TCP / IP	Telnet, HTTP
150 W	+51.8 dBm min			UDP	SNMP
175 W	+52.4 dBm min			Environmental	
200 W	+53 dBm min			Operating temperature	-40 °C to +55 °C
Note: Output power in bands 4 & 5 is reduced by 0.5 dB				Relative humidity	100% condensing
IMD3 (2 carriers, 30 kHz apart, 9 dB BO/carrier)	-32 dBc max			Altitude	10,000 ft., (3,000m) ASL
Level stability with ALC	± 0.5 dB			Mechanical	
Output power detector range	Rated power to -20 dB			Size	Weight
				19.5”(L) x 10.0”(W) x 8.4”(H)	32 lbs
				495 mm x 254 mm x 213 mm	14.5 kg

Specifications are subject to change without notice