



C-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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C-Band IBUC High Power Block Upconverter

L-Band Input	Frequency range
Band 1	950 to 1525 MHz
Band 2	975 to 1275 MHz
Band 3	1150 to 1450 MHz
Band 4	950 to 1750 MHz
VSWR / Impedance	1.5:1 max / 50 ohms
Connector	Type N female
Input power detector	-55 to -20 dBm
Gain	
Small Signal Gain (L-band to RF) with attenuator set to 0 dB.	
100W	81 dB min
125W	82 dB min
150W	83 dB min
200W	84 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 Std C-Band	5850 to 6425 MHz, 100 - 200W
Band 2 Palapa/ST-1	6425 to 6725 MHz, 100 - 150W
Band 3 Insat	6725 to 7025 MHz, 100 - 150W
Band 4 Extended C	5850 to 6650 MHz, 100 - 200W
Interface	CPR-137G
VSWR	1.5:1 max
Rated output power (P1dB)	
100W	+50 dBm min
125W	+51 dBm min
150W	+51.8 dBm min
200W	+53 dBm min
IMD3 (2 carriers, 30kHz apart, 9dB BO/carrier)	-32 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	Complies with EN 301 443

SSB Phase Noise		
Offset	External reference	IBUC
10Hz	-120 dBc/Hz	-35 dBc/Hz
100Hz	-130 dBc/Hz	-70 dBc/Hz
1 kHz	-143 dBc/Hz	-80 dBc/Hz
10 kHz	-152 dBc/Hz	-90 dBc/Hz
100kHz	-155 dBc/Hz	-100 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	7375 MHz
Band 2	7700 MHz
Band 3	8175 MHz
Band 4	7600 MHz
Sense	Inverting

IBUC DC Supply

Connector	ACS02E14S-6P(553) or equivalent	
Voltage / Current	48VDC nom. (42V min. / 60V max.) *	
100W	14A@ 48VDC	672W
125W	17A@ 48VDC	816W
150W	20A@ 48VDC	960W
200W	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
19.5"(L)x10.0"(W)x8.4"(H)	32 lbs
495mm x 254mm x 213mm	14.5 kg

Specifications are subject to change without notice



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C-Band IBUC Hi Pwr Data Sheet 02/12/08