



IBUC 2 DBS-Band Intelligent Block Upconverter

IBUC Advantages

Integrated BUC/SSPA for higher performance and reliability.

DC power can be supplied via IFL coax or separate DC connector for 5 W through 8 W models.

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 detected.

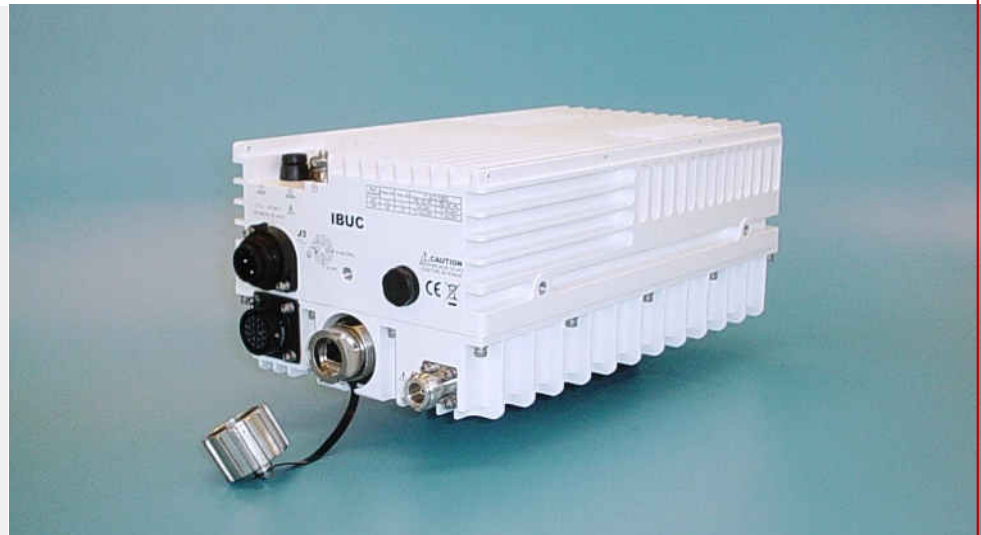
Embedded Web pages provide management for small networks using any Web browser.

AGC or ALC circuits hold gain or output level constant.

30 dB User-adjustable gain in 0.1 dB steps preserves modern dynamic range.

Advanced user interfaces:

- TCP/IP HTTP with embedded Web pages via RJ-45 connector.
- SNMP
- TELNET through TCP/IP
- FSK through TX IFL cable
- RS232/485 serial port
- Hand-held terminal



The latest evolution of the **IBUC** has all of the advanced features and reliability of the original **IBUC** in a new, more compact package.

IBUC 2 offers significant benefits:

- High performance in a compact, cost effective package
- Simple design and installation
- Simplified 1+1 configuration

New interfaces connect you to extensive M&C facilities for network management or local access. This powerful M&C enables:

- **Trouble-free commissioning** with easy, point-and-click installation/configuration
- Continuous **verification** of performance with time-stamped alarm history
- Simplified **monitoring** of terminal status

The **IBUC 2** 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 2** 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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IBUC 2 DBS-Band Intelligent Block Upconverter

Frequency range	RF	IF	SSB Phase Noise	External refer-	IBUC
Band 1	17.3 to 18.1 GHz	950 to 1750 MHz	10 Hz	-115 dBc/Hz	-47 dBc/Hz
Band 2	18.1 to 18.4 GHz	1150 to 1450 MHz	100 Hz	-140 dBc/Hz	-72 dBc/Hz
			1 kHz	-150 dBc/Hz	-82 dBc/Hz
			10 kHz	-155 dBc/Hz	-87 dBc/Hz
			100 kHz	n/a	-92 dBc/Hz
			1 MHz	n/a	-110 dBc/Hz
Input			External Reference (multiplexed on TX IFL)		
VSWR / Impedance	1.5:1 max / 50 Ohm		Frequency	10 MHz	
Input Connector	Type N female (50 Ohm)		Level	-12 to +5 dBm	
Input Connector options	Type F (75 Ohm), TNC (50 Ohm)		Internal Reference - optional		
Input power detector	-55 to -20 dBm		Local Oscillator Frequency		
Gain			Sense	Non-Inverting	
Small Signal Gain (L-band to RF) with attenuator set to 0 dB			Band 1	16350 MHz	
3 W	66 dB min		Band 2	16950 MHz	
5 W	68 dB min		IBUC Power Supply		
8 W	70 dB min		DC	AC	
10 W	71 dB min		Voltage	48 ± 11 VDC	100 to 240 VAC
20 W	74 dB min		DC via coax available on 5 W and 8 W		
25 W	75 dB min		Power Consumption		
Attenuator range	30 dB variable in 0.1 dB steps		3 W	60 W	75 VA
Gain flatness	Band 1	Band 2	5 W	95 W	120VA
Full band	4 dB p-p max	3 dB p-p max	8 W	130 W	150 VA
36 MHz	1 dB p-p max	1 dB p-p max	10 W	150 W	170 VA
1 MHz	0.25 dB p-p	0.25 dB p-p	20 W	280 W	320 VA
Gain variation over temperature			25 W	310 W	350 VA
Open loop		3 dB p-p max	Monitor and Control		
With AGC		1 dB p-p max	Ethernet (HTTP, Telnet, SNMP) via RJ-45 connector,		
RF Output			RS232/485, Hand-held Terminal via MS-type connector,		
Interface	WR62 cover with groove		FSK multiplexed on TX IFL.		
VSWR	1.5:1 max		Environmental		
Rated output power (P _{1dB})			Operating temperature		
3 W	+34.8 dBm min		-40°C to +55°C		
5 W	+37 dBm min		Relative humidity		
8 W	+39 dBm min		100% condensing		
10 W	+40 dBm min		Altitude		
20 W	+43 dBm min		10,000 ft., (3,000 m) ASL		
25 W	+44 dBm min		Mechanical		
IMD3 (2 carriers, 3 dB TOBO)	-23 dBc max		DC powered	AC powered	
Level stability with ALC	± 0.5 dB		3 W - 5 W	10.5 x 6 x 3.8 in.	10.5 x 6 x 4.2 in.
Output power detector range	Rated power to -20 dB			9.3 lbs	10.5 lbs
Power reading accuracy	± 1.0 dB max		8 W - 20 W	10.5 x 6 x 5.2 in.	10.5 x 6 x 5.6 in.
Spurious	-60 dBc max.			10.9 lbs	11.9 lbs
Harmonics	-50 dBc max		25 W	10.5 x 6 x 5.7 in.	10.5 x 6 x 6.1 in.
Output Noise Power Density				10.9 lbs	11.9 lbs
	TX < -81 dBm/Hz				
	RX < -150 dBm/Hz				

Specifications are subject to change without notice.

IBUC2 DBS-Band Data Sheet 8/1/16



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