

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.

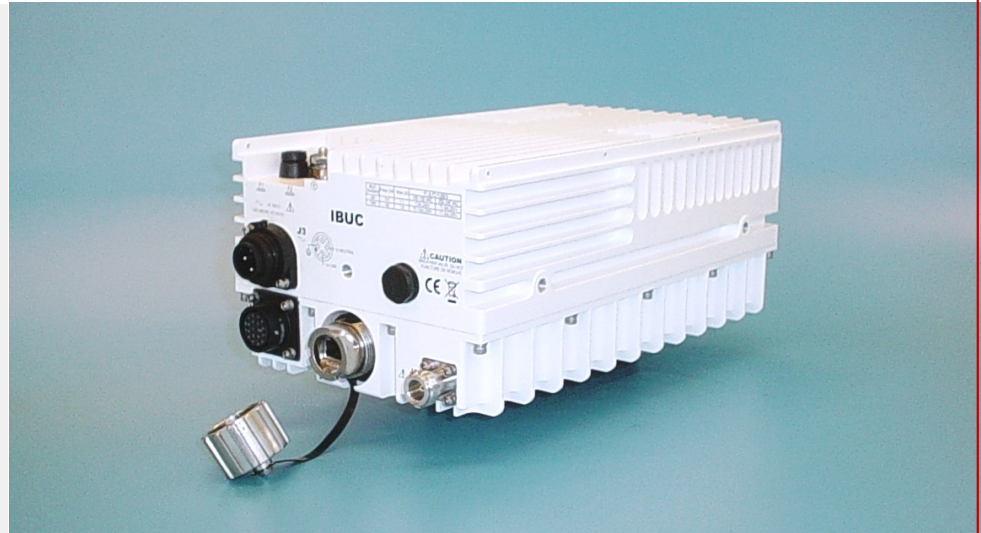
Embedded Web pages provide management for small networks using any Web browser.

AGC or ALC circuits hold gain or output level constant.

30 dB User-adjustable gain in 0.1 dB steps preserves modem 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.

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	
				5 W		95 W 120VA	
				8 W		130 W 150 VA	
				10 W		150 W 170 VA	
				20 W		280 W 320 VA	
				25 W		310 W 350 VA	
Gain flatness		Band 1	Band 2	Monitor and Control			
Full band		4 dB p-p max	3 dB p-p max	Ethernet (HTTP, Telnet, SNMP) via RJ-45 connector,			
36 MHz		1 dB p-p max	1 dB p-p max	RS232/485, Hand-held Terminal via MS-type connector,			
1 MHz		0.25 dB p-p	0.25 dB p-p	FSK multiplexed on TX IFL.			
Gain variation over temperature				Environmental			
Open loop		3 dB p-p max		Operating temperature		-40°C to +55°C	
With AGC		1 dB p-p max		Relative humidity		100% condensing	
RF Output				Altitude		10,000 ft., (3,000 m) ASL	
Interface		WR62 cover with groove		Mechanical		DC powered AC powered	
VSWR		1.5:1 max		3 W - 5 W		10.5 x 6 x 3.8 in. 10.5 x 6 x 4.2 in.	
Rated output power (P _{1dB})						9.3 lbs 10.5 lbs	
3 W		+34.8 dBm min		8 W - 20 W		10.5 x 6 x 5.2 in. 10.5 x 6 x 5.6 in.	
5 W		+37 dBm min				10.9 lbs 11.9 lbs	
8 W		+39 dBm min		25 W		10.5 x 6 x 5.7 in. 10.5 x 6 x 6.1 in.	
10 W		+40 dBm min				10.9 lbs 11.9 lbs	
20 W		+43 dBm min					
25 W		+44 dBm min					
IMD3 (2 carriers, 3 dB TOBO)		-23 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		-65 dBc max.					
Harmonics		-50 dBc max					
Output Noise Power Density							
		TX < -81 dBm/Hz					
		RX < -150 dBm/Hz					

Specifications are subject to change without notice.

IBUC2 DBS-Band Data Sheet 2/29/16



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