



IBUC 2e

Ku-Band Intelligent Block Upconverter Low Energy Consumption Model

IBUC Advantages

Integrated BUC/SSPA for higher performance and reliability.

Low energy consumption for use with Modems equipped with limited capacity BUC power supplies. DC power supplied via IFL coax.

High linearity.

Low phase noise better than IESS308/309 requirements by a minimum of 5 dB.

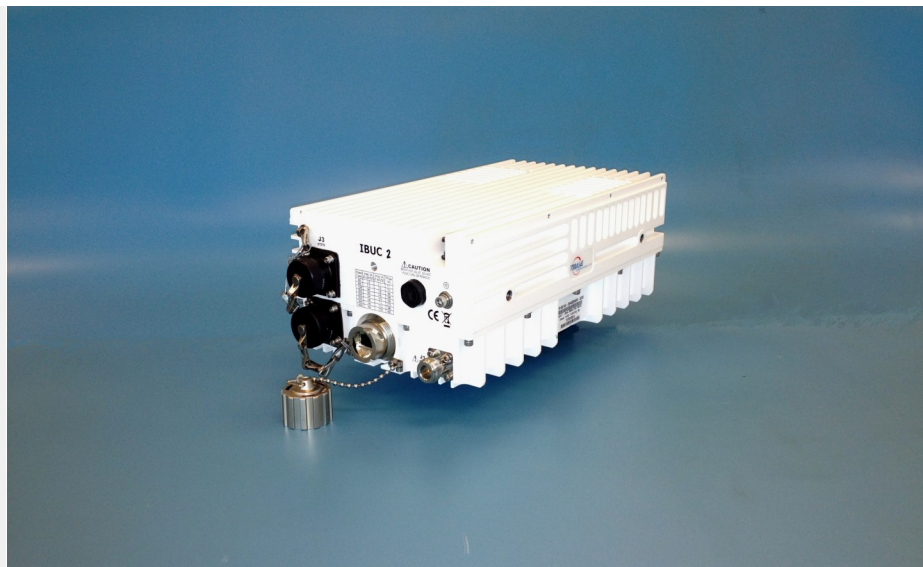
Embedded Web pages provide management for small networks using any Web browser.

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



IBUC 2e 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

IBUC 2e 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** are internal AGC and ALC functions that satisfy demanding applications with stringent specifications.

For additional information contact WESCO Sales at +1 800-932-1555 or by Email: broadcastinfo@wesco.com.
10814 W. 78th St, Shawnee, KS 66214 www.sateng.com

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Frequency range	RF	IF	SSB Phase Noise	External refer-	IBUC
Band 1 Std Ku	14.00 to 14.50 GHz	950 to 1450 MHz	10 Hz	-115 dBc/Hz	-50 dBc/Hz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz	100 Hz	-140 dBc/Hz	-75 dBc/Hz
Band 3 Low Ku	12.75 to 13.25 GHz	950 to 1450 MHz	1 kHz	-150 dBc/Hz	-85 dBc/Hz
			10 kHz	-155 dBc/Hz	-90 dBc/Hz
			100 kHz	n/a	-95 dBc/Hz
			1 MHz	n/a	-110 dBc/Hz
Input					
VSWR / Impedance	1.5:1 max / 50 Ohm				
Input Connector	Type N female (50 Ohm)				
Input Connector options	Type F (75 Ohm), TNC (50 Ohm)				
Input power detector	-55 to -20 dBm				
Gain					
Small Signal Gain (L-band to RF) with attenuator set to 0 dB					
4 W	67 dB min				
8 W	70 dB min				
12 W	72 dB min				
16 W	73 dB min				
Attenuator range	30 dB variable in 0.1 dB steps				
Gain flatness	<u>Band 1 & 3</u>		<u>Band 2</u>		
Full band	3 dB p-p max		4 dB p-p max		
36 MHz	1 dB p-p max		1.5 dB p-p max		
1 MHz	0.25 dB p-p		0.25 dB p-p		
Gain variation over temperature					
Open loop	3 dB p-p max				
With AGC	1 dB p-p max				
RF Output					
Interface	WR75 cover with groove				
VSWR	1.5:1 max				
Rated output power	P _{1dB}				
4 W	+36 dBm min				
8 W	+39 dBm min				
12 W	+40.8 dBm min				
16 W	+42 dBm min				
IMD3 (2 carriers, 3 dB TOBO)	-25 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	In Band	-65 dBc			
	Out of Band	Complies with EN 301 428/430 and MIL-STD 188-164B			
Harmonics	-50 dBc max				
Output Noise Power Density					
	TX < -83 dBm/Hz				
	RX < -145 dBm/Hz				
External Reference (multiplexed on TX IFL)					
Frequency	10 MHz				
Level	-12 to +5 dBm				
Internal Reference - optional					
Local Oscillator Frequency					
Sense	Non-Inverting				
Band 1	13050 MHz				
Band 2	12800 MHz				
Band 3	11800 MHz				
IBUC Power Supply					
Voltage	4W, 8W	18 to 75 VDC			
	12W, 16W	37 to 60 VDC			
	DC via coax only				
Power Consumption					
4 W	55 W				
8 W	65 W				
12 W	110 W				
16 W	120 W				
Monitor and Control					
Ethernet (HTTP, Telnet, SNMP) via RJ-45 connector,					
RS232/485, Hand-held Terminal , via MS-type connector,					
FSK multiplexed on TX IFL.					
Environmental					
Operating temperature	-40°C to +60°C				
Relative humidity	100% condensing				
Altitude	10,000 ft., (3,000 m) ASL				

Specifications are subject to change without notice.

IBUC 2e Ku-Band Data Sheet 4/26/16

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