



IBUC G

GaN 300W / 400W

Ku-Band Intelligent Block Upconverter

IBUC Advantages

Integrated BUC/SSPA for higher performance and reliability.

Integral AC power supply.

Internal 10MHz reference option automatically switches to internal reference when external reference is not detected.

Low phase noise exceeds IESS308/309 requirements by a minimum of 5 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.

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

Output sample port included.

Advanced user interfaces:

- TCP/IP HTTP with embedded Web pages via RJ45 user interface connector
- SNMP
- TELNET through TCP/IP
- FSK through TX IFL cable
- RS232/485 serial port
- Hand-held terminal



The revolutionary **IBUC G** has advanced features to take your network to new heights.

IBUC G offers significant benefits:

- Low terminal cost
- Simple design and installation
- Superior RF performance
- Simplified 1+1 configuration

New interfaces connect you to 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 time-stamped alarm history
- Simplified **monitoring** of terminal status

The **IBUC G** 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 Terrasat Sales at +1 408-782-5911 or by Email: Sales@Terrasatinc.com.
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IBUC G - GaN 300W / 400W Ku-Band Intelligent Block Upconverter

Frequency range	RF	IF	SSB Phase Noise	External reference	IBUC
Band 1 Std Ku-Band	14.00 to 14.50	950 to 1450 MHz	10 Hz	-115 dBc/Hz	-50 dBc/Hz
Band 2 Full Ku-Band	13.75 to 14.50	950 to 1700 MHz	100 Hz	-140 dBc/Hz	-75 dBc/Hz
			1 kHz	-150 dBc/Hz	-85dBc/Hz
			10 kHz	-155 dBc/Hz	-90 dBc/Hz
			100 kHz	n/a	-95 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	13050 MHz	
300W / 400W	83 dB min		Band 2	12800 MHz	
Attenuator range	30 dB variable in 0.1 dB steps		IBUC Power Supply		
Gain flatness			Voltage	AC	200 to 240 VAC
Full band	4 dB p-p max		Power Consumption		
72 MHz	1.5 dB p-p max			<u>300W</u>	<u>400W</u>
1 MHz	0.25 dB p-p			at P _{lin}	2400 VA 2700 VA
Gain variation over temperature				at P _{sat}	2800 VA 3100 VA
Open loop	3 dB p-p max		Monitor and Control		
With AGC	1 dB p-p max		Ethernet (HTTP, Telnet, SNMP) via RJ45 connector,		
RF Output			RS232/485, Hand-held Terminal via MS-type connector,		
Interface	WR75 cover with groove		FSK multiplexed on TX IFL.		
VSWR	1.3:1 max		Environmental		
Output power	<u>300W</u>	<u>400W</u>	Operating temperature		
P _{sat} (typ)	+54.8 dBm	+56 dBm	-40°C to +55°C		
P _{lin} (min)	+53 dBm	+54 dBm	Relative humidity		
	(200W)	(250W)	100% condensing		
			Altitude		
			10,000 ft., (3,000 m) ASL		
P _{lin} is the maximum linear power as defined by MIL STD 188-164B			Mechanical		
Level stability with ALC	±0.5 dB		<u>300W / 400W</u>		
Output power detector range	Rated power to -20 dB		Size	29 x 15 x 9.6 in.	
Power reading accuracy	±1.0 dB max.			737 x 381 x 244 mm.	
Spurious @ P _{lin}			Weight	83 lbs, 38 kg.	
In Band	-65 dBc				
Out of Band	Complies with EN 301 428/430 and MIL-STD 188-164B				
Harmonics @ P _{lin}	-60 dBc max.				
Output Noise Power Density					
TX	< -73 dBm/Hz				
RX	< -150 dBm/Hz				

Specifications are subject to change without notice.

IBUC G Ku-Band Data Sheet 300/400W



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