



## Ku-Band **IBUC R**

Mid-High power multi-carrier BUC unit.



60W  
to  
200W

GaAs  
Tech  
Amplifier

3  
Year  
Warranty

## The IBUC Advantage

All IBUCs are equipped with cutting-edge intelligent technology:

- Highest quality & exacting performance guaranteed through individual unit testing over temperature
- Superior linearity for maximum useable output power
- Amplifier overdrive protection
- User-selectable AGC/ALC for optimal performance & compatibility with modem adaptive coding
- New high capacity microprocessor & extended M&C functions

### ULTIMATE MANAGEMENT & CONTROL

- » Local Web Interface & NMS-Friendly SNMP «
- » 70+ User Configurable Thresholds & Alarms «
- » Upgraded Event Log with 1,000 Sensor Readings «
- » Performance Trend Analysis Tools & Statistical logs «
- » Embedded Web Pages for Universal Web Browser Access «

## Applications

The **IBUC R** is an integrated BUC/GaAs SSPA designed for higher performance & reliability. Block Upconverters based on GaAs amplifier technology deliver superior performance in terminals transmitting multiple carriers due to their inherent high linearity & minimal backoff requirements.

Multiple sensors & a new, high-capacity microprocessor provide tools to optimize terminal performance. The **IBUC R** is an excellent choice for higher power Satcom terminals in telecom, defense, maritime, broadcast, & other demanding applications.

### Options

- 1+1 Transmit Redundancy
- High Stability Internal 10 MHz Reference with Auto-Detection
- Three Factory Select Bands
- Mounting Brackets
- Optional Type N or F-Type Input Connectors
- Handheld Terminal

## Ku-Band IBUC 7

Frequency Range	RF	IF
Band 1 Std Ku	14.00 to 14.50 GHz	950 to 1450 MHz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz
Band 3 Low Ku	12.75 to 13.25 GHz	950 to 1450 MHz

### 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 Range	-55 to -20 dBm

### Gain

Small Signal Gain (L-band to RF) with Attenuator Set to 0 dB

60W	79 dB min
80W	80 dB min
100W	81 dB min
125W (band 3)	82 dB min
200W	83 dB min
Attenuator Range	30 dB Variable in 0.1 dB Steps
Gain Flatness	
Full Band	4 dB p-p max
36 MHz	1.5 dB p-p max
1 MHz	0.25 dB p-p max

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	1.3:1 max
Rated Output Power (P1dB)	Band 1 & 3	Band 2
60W	+47.8 dBm min	+47.5 dBm min
80W	+49.0 dBm min	+48.5 dBm min
100W	+50.0 dBm min	+49.5 dBm min
125W (Band 3)	+51.0 dBm min	
200W	+53 dBm min	+52.5 dBm min

IMD3 (2 Carriers, 3 dB TOBO)	-24 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 Band	Complies with EN 301 428/430 & MIL-STD 188-164B.
Harmonics	-50 dBc Max
Output Noise Power Density	TX <- 73 dBm/Hz
	RX <- 145 dBm/Hz

### SSB Phase Noise

SSB Phase Noise	External Reference	IBUC 7
10 Hz	-115 dBc/Hz	-50 dBc/Hz
100 Hz	-140 dBc/Hz	-75 dBc/Hz
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

### 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	DC	42 V min, 60 V max	
	AC	100 to 240 VAC	60W to 125W
		200 to 240 VAC	200W
Power Consumption	DC		AC
60W (Bands 1 & 2)	600 W		700 VA
60W (Band 3)	750 W		850 VA
80W	780 W		900 VA
100W (Band 3)	950 W		1050 VA
100W (Bands 1 & 2)			1250 VA
125W (Band 3)			1250 VA
200W			2150 VA

### Monitor & Control

Ethernet (HTTP, Telnet, SNMP) via RJ45 Connector  
 RS232/485, Handheld Terminal via MS-Type Connector,  
 FSK multiplexed on TX IFL.

### Environmental

Operating Temperature	-40°C to +55°C
Relative Humidity	100% Condensing
Altitude	10,000 ft (3,000 m) ASL

### Mechanical

	DC Powered	AC Powered
60 W (Bands 1 & 2)	12.2 x 7.2 x 6.5 in. 310 x 183 x 165 mm. 18.5 lbs 8.4 kgs	12.2 x 7.2 x 6.8 in. 310 x 183 x 173 mm. 19.5 lbs 8.8 kgs
80 W (All Bands) 60 W & 100 W (Band 3)	16.2 x 10 x 7.4 in. 411 x 254 x 188 mm. 32 lbs 14.5 kgs	16.2 x 10 x 7.6 in. 411 x 254 x 193 mm. 33 lbs 15 kgs
100 W (Bands 1 & 2) & 125 W (Band 3)		23 x 10 x 7.4 in. 584 x 254 x 188 mm. 37 lbs 16.8 kgs
200 W		29 x 15 x 10.1 in. 737 x 381 x 257 mm. 83 lbs 38 kgs

Dimensions not including isolators  
 for 60W & 80W (all bands) & 100W (band 3)

Specifications subject to change without notice.

Updated 6/22/2020