



C-Band **IBUC R**

Mid-High power multi-carrier BUC unit.



100W
to
400W

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
- Several Factory Select Bands
- Mounting Brackets
- Optional Type N or F-Type Input Connectors
- Handheld Terminal

C-Band IBUC π

Frequency Range	RF (MHz)	IF (MHz)	
Sense		Inverting	Non-Inverting
Band 1 std C	5850 to 6425	950 to 1525	950 to 1525
Band 2 Palapa	6425 to 6725	975 to 1275	1125 to 1425
Band 3 INSAT	6725 to 7025	1150 to 1450	965 to 1265
Band 4 EXT C	5850 to 6650	950 to 1750	950 to 1750
Band 5 Full C	5850 to 6725	975 to 1850	950 to 1825

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 (80W - 200W) -50 to -15 dBm (400W)

Gain

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

100W	81 dB min
125W	82 dB min
150W	83 dB min
175W	83 dB min
200W	84 dB min
400W	82 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	Bands 1/2/3	Bands 4/5
Open Loop	3 dB p-p max	4 dB p-p max
With AGC	1 dB p-p max	1 dB p-p max

RF Output

Interface	CPR-137G
VSWR	1.3:1 max
Rated Output Power	P1dB
100W	+50 dBm min
125W	+51 dBm min
150W	+51.8 dBm min
175W	+52.4 dBm min
200W	+53 dBm min
400W	+56 dBm min

Note: Output Power in Bands 4 & 5 is reduced by 0.5 dB.

IMD3 (2 Carriers, 3 dB TOBO)	-26 dBc max (80W-200W) -25 dBc max (400W)
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 -70 dBc Out Band Complies with EN 301 443 & MIL-STD 188-164B.
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Harmonics	-50 dBc max.
Output Noise Power Density	TX <- 74 dBm/Hz RX <- 145 dBm/Hz

SSB Phase Noise

10 Hz	-115 dBc/Hz	-54 dBc/Hz
100 Hz	-140 dBc/Hz	-79 dBc/Hz
1 KHz	-150 dBc/Hz	-89 dBc/Hz
10 KHz	-155 dBc/Hz	-94 dBc/Hz
100 KHz	N/A	-100 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	Inverting	Non-Inverting
Band 1		7375 MHz	4900 MHz
Band 2		7700 MHz	5300 MHz
Band 3		8175 MHz	5760 MHz
Band 4		7600 MHz	4900 MHz
Band 5		7700 MHz	4900 MHz

IBUC Power Supply

Voltage	DC	42 V min, 60 V max	
	AC	100 to 240 VAC	100W, 125W
		200 to 240 VAC	150W to 400W

Power Consumption	DC	AC
100W	700 W	800 VA
125W	800 W	900 VA
150W	1056 W	1200 VA
175W	1100 W	1250 VA
200W	1150 W	1300 VA
400W	N/A	2600 VA

Monitor & Control

Ethernet (HTTP, Telnet, SNMPv2c) 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
100W-200W	16.2 x 10 x 7.4 in. 411 x 254 x 188 mm.	16.2 x 10 x 7.6 in. 411 x 254 x 193 mm.
	32 lbs 14.5 kgs	33 lbs 14.9 kgs
400W	N/A	29 x 15 x 10.1 in 737 x 381 x 257 mm.
		83 lbs 37.6 kgs

(Dimensions not including isolators for 100W to 200W models)

Updated 9/21/2020

Specifications subject to change without notice.