

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
- Weatherized RJ45 Ethernet interface for simplified connection

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 Intelligent Block Upconverter/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
- AC or DC Input Models
- Mounting Brackets
- Optional Type N,F-Type or TNC Input Connectors
- Waveguide or Type N Output
- Handheld Terminal
- Cyber Hardened

C-Band **IBUC R**

Mid-High power multi-carrier IBUC unit.



New **Cyber
Hardened**
version
available

Multicarrier
Application

100W
to
400W

GaAs
Tech
Amplifier

3
Year
Warranty

Note: Since not all the optional features can be combined, please, contact our sales team for further info at: Sales@Terrasatinc.com

C-Band IBUC 2				SSB Phase Noise			External Reference		IBUC 2	
Frequency Range		RF (MHz)	IF (MHz)							
Sense			Inverting	Non-Inverting						
Band 1 std C		5850 to 6425	950 to 1525	950 to 1525	10 Hz			-115 dBc/Hz		-54 dBc/Hz
Band 2 Palapa		6425 to 6725	975 to 1275	1125 to 1425	100 Hz			-140 dBc/Hz		-79 dBc/Hz
Band 3 INSAT		6725 to 7025	1150 to 1450	965 to 1265	1 KHz			-150 dBc/Hz		-89 dBc/Hz
Band 4 EXT C		5850 to 6650	950 to 1750	950 to 1750	10 KHz			-155 dBc/Hz		-94 dBc/Hz
Band 5 Full C		5850 to 6725	975 to 1850	950 to 1825	100 KHz			N/A		-100 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 Range		Standard Version ¹			WGS Version ²					
Range Options:		80W-200W	-55 to -20 dBm		-35 to 0 dBm					
		400W	-50 to -15 dBm		-35 to 0 dBm					
Gain										
Small Signal Gain (L-band to RF) with Attenuator Set to 0 dB										
		Standard Version ¹			WGS Version ²					
100W		81 dB min		70 dB min						
125W		82 dB min		71 dB min						
150W		83 dB min		72 dB min						
175W		83 dB min		72 dB min						
200W		84 dB min		73 dB min						
400W		82 dB min		76 dB min						
Attenuator Range		30 dB Variable in 0.1 dB Steps								
Gain Flatness		Bands 1/2/3/4/5								
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					
¹ Terrasat's Standard Version has a higher gain to reduce the need for line amplifiers in long cable runs (IFL).										
² The lower gain WGS Compatible Versions allow operations to drive the IF signal up to 0 dBm.										
RF Output										
Interface		CPR-137G								
VSWR		1.3:1 max								
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 188-164C								
Harmonics		-50 dBc max.								
Output Noise Power Density		TX <- 74 dBm/Hz RX <- 145 dBm/Hz								
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)										
Specifications subject to change without notice.										
Updated: January 8th, 2025										

[illegible]

Std M&C Option Part Number

Example/Std Offer: IBR058064-3NC400WW-0919

IBR	XXXXXX	-	X	X	X	XXX	W	W	-	XXXX

Note: Consult Terrasat Communications Inc for more options.