

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 «



5W
to
80W

GaAs
Tech
Amplifier

3
Year
Warranty

Applications

The **IBUC 2** is a compact integrated BUC/GaAs SSPA designed for higher performance & reliability. Block Upconverters based on linear GaAs amplifier technology require minimal output power backoff. 24-48-hour environmental chamber testing guarantees $P_{1\text{ dB}}$ output power over frequency and temperature range.

Multiple sensors & a new, high-capacity microprocessor provide tools to optimize terminal performance. The **IBUC 2** is a popular choice for medium-high power Satcom terminals in telecom, defense, air traffic control, government & other demanding network 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 or F-Type Input Connectors
- Waveguide or Type N Output
- Handheld Terminal

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 / 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				
5W		68 dB min		
10W		71 dB min		
15W		72.8 dB min		
20W		74 dB min		
25W		75 dB min		
30W		75.8 dB min		
40W		77 dB min		
50W		78 dB min		
60W		79 dB min		
80W		80 dB min		
Attenuator Range		30 dB variable in 0.1 dB steps		
Gain Flatness		Bands 1/2/3	Bands 4/5	
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 max	0.25 dB p-p max	
Gain Variation Over Temperature				
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 or N(f)		
VSWR		1.5:1 max		
Rated Output Power		P _{1dB}		
5W		+37 dBm min		
10W		+40 dBm min		
15W		+41.8 dBm min		
20W		+43 dBm min		
25W		+44 dBm min		
30W		+44.8 dBm min		
40W		+46 dBm min		
50W		+47 dBm min		
60W		+47.8 dBm min		
80W		+49 dBm min		
Note: For 40W & Above, Output Power in Bands 4 & 5 is Reduced by 0.5 dB.				
IMD3 (2 Carriers, 3 dB TOBO)		-26 dBc max		
Level Stability with ALC		± 0.5 dB		
Output Power Detector Range		Rated Power to -20 dB		
Power Reading Accuracy		± 1.0 max		
Spurious		In Band	-65 dBc	
		Out Band	Complies with EN 301 443 & MIL STD 188-164B.	
Harmonics		-50 dBc max		
Output Noise Power Density		TX <- 78 dBm/Hz RX <- 145 dBm/Hz		

SSB Phase Noise			External Reference	IBUC 2
	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 & Level	10 MHz			-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	48 ± 11 VDC		
	AC	100 to 240 VAC		
Options for 5W, 10W		24 ± 4 VDC		
DC via coax available on 5W-25W				
Power Consumption		DC		AC
5W		60W		75 VA
10W		85W		120 VA
15W		125W		150 VA
20W		154W		200 VA
25W		168W		210 VA
30W		188W		220 VA
40W		300W		330 VA
50W		320W		350 VA
60W		360W		400 VA
80W		N/A		540 VA
Monitor & Control				
Ethernet (HTTP, Telnet, SNMPv2e) via RJ45 Connector				
RS232/485, Handheld Terminal via MS-Type Connector, FSK multiplexed on TX IFL.				
Environmental				
		5W-50W		60W/80W
Operating Temperature		-40°C to +60°C		-40°C to +55°C
Relative Humidity		100% Condensing		
Altitude		10,000 ft (3,000 m) ASL		
Mechanical				
		DC Powered		AC Powered
	5W-10W	10.5 x 6 x 3.8 in.		10.5 x 6 x 4.2 in.
		267 x 152 x 97 mm		267 x 152 x 107 mm
		9.3 lbs (4.2 kgs)		10.5 lbs (4.8 kgs)
	15W-30W	10.5 x 6 x 5.2 in.		10.5 x 6 x 5.6 in.
		267 x 152 x 132 mm		267 x 152 x 142 mm
		10.8 lbs (4.9 kgs)		11.7 lbs (5.3 kgs)
	40W-80W	10.5 x 6 x 5.7 in.		10.5 x 6 x 6.1 in.
		267 x 152 x 145 mm		267 x 152 x 155 mm
		11.5 lbs (5.2 kgs)		12.4 lbs (5.6 kgs)

Specifications subject to change without notice.

Updated 11/30/2020