

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 «

X-Band IBUC 2

Smaller, lighter models with RJ45 interface.



5W
to
60W

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 mid-power mobile & fixed defense terminals operating in demanding environments.

Options

- 1+1 Transmit Redundancy
- High Stability Internal 10 MHz Reference with Auto-Detection
- AC or DC Input Models
- Mounting Brackets
- Optional Type N or F-Type Input Connectors
- Waveguide or Type N Output
- Handheld Terminal

X-Band IBUC 2

Frequency Range

RF (MHz)

7900 to 8400

IF (MHz)

950 to 1450

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 10 dB

5W

68 dB min

10W

71 dB min

20W

74 dB min

25W

75 dB min

40W

77 dB min

50W

78 dB min

60W

79 dB min

Attenuator Range

30 dB variable in 0.1 dB steps

Gain Flatness

Full Band

3 dB p-p max

36 MHz

1 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

CPR-112G

VSWR

1.5:1 max

Rated Output Power

5W

P_{1dB}

+37 dBm min

P_{Lin}

36.5 dBm

10W

+40 dBm min

39.5 dBm

20W

+43 dBm min

42.5 dBm

25W

+44 dBm min

43.5 dBm

40W

+46 dBm min

45 dBm

50W

+47 dBm min

46 dBm

60W

+47.8 dBm min

46.8 dBm

Note: P_{Lin} is the maximum linear power as defined by MIL STD 188-164B.

IMD3 (2 Carriers, 3 dB TOBO)

-27 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 MIL STD 188-164B.

Harmonics

-60 dBc max

Output Noise Power Density

TX <- 79 dBm/Hz

RX w/o RX Reject Filter <- 79 dBm/Hz

Mute

-70 dBc Max.

AM-PM Conversion

< 3.0 deg/dB @ Rated Power

Group Delay

Linear

0.03 ns/MHz

Parabolic

0.003 ns/MHz²

Ripple

1 ns p-p Over Any 36 MHz

SSB Phase Noise

10 Hz

-115 dBc/Hz

-55 dBc/Hz

100 Hz

-140 dBc/Hz

-80 dBc/Hz

1 KHz

-150 dBc/Hz

-90 dBc/Hz

10 KHz

-155 dBc/Hz

-95 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

6950 MHz

Sense

Non-Inverting

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-20W

Power Consumption

5W

60W

75 VA

10W

90W

130 VA

20W

160W

200 VA

25W

175W

220 VA

40W

300W

350 VA

50W

350W

400 VA

60W

400W

430 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

5W-40W

-40°C to +60°C

50W/60W

-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 15 x 107 mm

9.3 lbs (4.2 kgs)

10.5 lbs (4.8 kgs)

20W-25W

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-60W

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.

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Questions? Contact Us

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