



MEDIBX175A-XN-C

MEDIAN 175W X-Band GaAs BUC (AC + EXT Ref)

Input Connector: N Connector

M&C Option: Cyber Hardened

Gain Version: Standard Gain

For the X-Band Median BUC, a receive reject filter must be purchased as an add-on accessory unless:

- 1) you are using a Tx-only antenna and do not require the receive function; or
- 2) your terminal already includes embedded filters. The receive reject filter is sold separately at an additional cost. The **Standard Version** MEDIAN BUCs offer higher gain to reduce the need for line amplifiers in long cable runs (IFL). In contrast, the **WGS-Compatible Versions** have lower gain to allow operation with IF signals driven up to 0 dBm.

Cyber-Hardened Intelligent BUCs are designed to enhance satellite ground terminal security for industries requiring optimized and flexible protection. These BUCs implement effective security management controls—including encrypted authentication, privacy, and access control—to ensure end-to-end message transmission. They help protect against session hijacking, password attacks, and eavesdropping.



KEY SPECIFICATIONS

Band	X-Band
Compatible Redundant Switch	RSBUCMXTD11
External Ref Freq	10 MHz -12 to +5 dBm
Frequency Sense	Non-Inverting
Input Frequency Band 1	950 - 1450 MHz
LO Frequency 1	6950 MHz
Number Of Onboard LOs	Single-Band
Output Frequency Band 1	7.900 - 8.400 GHz
Output Power Rated	175W
Product Family	MEDIAN
Reference Type	External Reference
Product Revision	A

RF SPECIFICATIONS

AM-PM Conversion	< 3.0 deg/dB @ Rated Power
Attenuator Range	30 dB Variable in 0.1 dB Steps
Gain Flatness (1MHz)	0.25 dB p-p max
Gain Flatness (36MHz)	1.5 dB p-p max
Gain Flatness (Over Full Band)	4 dB p-p max
Gain Variation Over Temperature (Open Loop)	3 dB p-p max
Gain Variation Over Temperature (Witg AGC)	1 dB p-p max
Gain Version	Std Options and Std Specs



Group Delay Linear	0.03 ns/MHz
Group Delay Parabolic	0.003 ns/MHz ¹⁷⁸
Group Delay Ripple	1 ns p-p Over Any 36 MHz
Harmonics	-60 dBc max
IMD3	-27 dBc max
Input Impedance	50 Ohm
Input Power Detector Range	-55 to -20 dBm
Input VSWR	1.5 : 1
Level Stability With ALC	± 0.5 dB
Mute	-70 dBc Max.
Output Noise Power Density Rx	< -165 dBm/Hz (with RX Reject Filter)
Output Noise Power Density Tx	< -75 dBm/Hz
Output P1dB	+52.4 dBm min
Output Plin	46.8 dBm
Output Spurious In Band	65 dBc
Output Spurious Out Of Band	Complies with MIL-STD 188-164C
Output VSWR	1.5 : 1 max
Phase Noise 0.01kHz Offset Max	-115 dBc/Hz
Phase Noise 0.1kHz Offset Max	-140 dBc/Hz
Small Signal Gain	83 dB min

ELECTRICAL SPECIFICATIONS

Current Consumption	1300 VA
Output Power Detector Range	Rated Power to -20 dB
Power Reading Accuracy	± 1.0 dB max
Power Requirements	200-240V AC
Power Supply	AC Powered

INTERFACE SPECIFICATIONS

IF Connector	N
Output Connector	CPR-112G

M and C SPECIFICATIONS

M And C Interface	Cyber Hardened
Option	Cyber Hardened

ENVIRONMENTAL SPECIFICATIONS

Altitude	10,000 ft (3,000 m) ASL
Humidity	100% Condensing
IP Rating	IP 65+
Temperature Operational	-40°C to +55°C

PHYSICAL SPECIFICATIONS

Product Height	188 mm
Product Length	412 mm
Product Weight	14.9 kg



Product Width 254 mm

SHIPPING INFORMATION

HS Code	8517620090
Country of Origin	Made in United States of America
Ex Works	Richmond, BC, Canada
ECCN Number	EAR99
Warranty	3 years
Unit Package Dimensions	610 mm x 381 mm x 381 mm
Unit Package Weight	15.88 kg
Total Aluminium Content	0 kg
Aluminum Country of Smelt and Cast	-
Total Aluminium Value	\$ 0

HOW TO ORDER

MEDIBX040AH-XN-CW

