



ALB150 Series

20W/40W BUC
Ultra Slim X-Band

This series of slim BUCs offer the highest power/weight ratio. At a mere 4.8Kgs the 40W BUC provides highly reliable performance over a wide temperature range. Being highly linear, the BUC can be used in multi carrier applications. The innovative thermal management techniques increase long term reliability.

Features

- Ultra slim, compact and lightweight
- Available for all X-Band frequencies
- Easy installation
- Excellent linearity
- Extremely reliable
- Excellent phase noise characteristics
- Low spurious
- High power efficiency
- Built-in M&C, remote monitor & control through RS232/RS485 (Ethernet-optional)
- Wide input DC voltage range
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature
- RoHS compliant
- Waterproof

Enhanced Monitoring and Control (M&C)

M&C via RS232/485 covers:

- Temperature monitoring
- RF inhibit selection
- Gain adjustment
- Automatic fault identification & alarm

Reliability

Field proven under harsh environment conditions, Agilis Outdoor BUC can withstand temperature ranging from -20°C to +50°C with up to 100% humidity.

Quality Assurance

Agilis Outdoor BUCs go through intensive active electrical stress screening test. In addition, all units undergo 100% waterproof test equivalent to IP55 to ensure reliable operation during tropical, cold and harsh environment.

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Technical Specifications

RF Specifications

Transmit Frequency	7900MHz to 8400MHz
IF Frequency Range	950-1450MHz
Output Power @ P1dB	43dBm min (for 20W) 46dBm min (for 40W)
Small signal Gain	70dB (typical for 20W) 73dB (typical for 40W)
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±2dB over -20 to +50°
Inter modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
O/P spurious @ Rated Power	-55dBc (In band spurious)
Phase Noise @ offset	
1KHz	-75dBc/Hz max
10KHz	-83dBc/Hz max
100KHz	-93dBc/Hz max
I/P VSWR	1.5:1 max
O/P VSWR	2.0:1 max
Receive Frequency Range	950-950MHz
Receive Gain	-5dB max
Receive Flatness	2dB max over the receive frequency band

DC Power

At Rated output Power of 40W	150W max (for 20W) 220W max (for 40W)
At 3 dB backoff from Rated Output Power	167W max (for 20W) 332W max (for 40W)
Prime Power	48VDC (range 38 to 60VDC)

Interfaces

Input Connectors (Tx IF)	TNC-Female / N-type Female
Impedance	50Ohms
RF Output Connector	N-type Female
(Tx out)	
Output Impedance	50Ohms
DC and M&C connector	7 pin, Circular
Communication Interface	RS232, 6 pin, Circular
Fan Connector	6 pin, Circular

Monitor & Control

Monitor	BUC temperature Status alarm RF output power
Control	Temperature threshold setting BUC On/Off Control Adjustable gain with 0.5dB step size
Protection Interface	Over temperature BUC shutdown Over voltage protection Over current protection
Interface	RS232/RS485, Ethernet (optional)

Environmental

Operating Temperature	-20°C to + 50°C
Storage Temperature	-40°C to + 70°C
Enclosure Rating	IP55
Vibration	1.04grms, 5-500Hz
Shock	20g, 11ms, Saw Tooth Pulse, 3 Axes

Mechanical

Size	390L x 367W x 37H mm
Weight	4.8kg
Color	White Powder coat / Nickel Plating

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the Fixed Satellite Service (FSS)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Part 15 Class B	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.
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