



# ALB128 Series

20W/40W BUC  
Ultra Slim Ku-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. The rotary joint provides a multiplexed signal for Transmit at Ku-Band and Receive at L-Band frequency. 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
- Multiplexed output Ku-Band Tx, DC for antenna controller and L-Band receive
- Available for all Ku-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 BUC goes 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

<b>Transmit Frequency</b>	13.75 – 14.5GHz (for Extended Ku) 14 – 14.5GHz (for Standard Ku)
<b>IF Frequency Range</b>	950 – 1700MHz (for Extended Ku) 950 – 1450MHz (for Standard Ku)
<b>Output Power @ P1dB</b>	43dBm min (for 20W) 46dBm min (for 40W)
<b>Small signal Gain</b>	70dB (typical for 20W) 73dB (typical for 40W)
<b>Gain Flatness</b>	±2dB over the O/P frequency band
<b>Gain Variation</b>	±2dB over -20 to +50°
<b>Inter modulation</b>	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
<b>O/P spurious @ Rated Power</b>	According to EN301428
<b>Phase Noise @ offset</b>	
1KHz	75dBc/Hz max
10KHz	83dBc/Hz max
100KHz	93dBc/Hz max
<b>I/P VSWR</b>	1.5:1 max
<b>O/P VSWR</b>	2.0:1 max
<b>Receive Frequency Range</b>	950 – 1950MHz
<b>Receive Gain</b>	-5dB max
<b>Receive Flatness</b>	2dB max over the Receive frequency band

### DC Power

<b>At Rated output Power of 40W</b>	220W max (for 20W) 600W max (for 40W)
<b>At 3dB backoff from Rated Output Power</b>	175W max (for 20W) 350W max (for 40W)
<b>Prime Power</b>	48VDC (range 38 to 60VDC)

### Interfaces

<b>Input Connectors (Tx IF)</b>	TNC-Female
<b>Impedance</b>	50Ohms
<b>Output Connector(Rx IF)</b>	TNC-Female
<b>Impedance</b>	50Ohms
<b>RF Output Connector (Tx out and Rx in)</b>	SMA-Female (Rotary Joint)
<b>Output Impedance</b>	50Ohms
<b>DC and M&amp;C connector</b>	7 pin, Circular
<b>Communication Interface</b>	RS232, 6 pin, Circular
<b>Fan Connector</b>	6 pin, Circular

### Monitor And Control

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

### Environmental

<b>Operating Temperature</b>	-20°C to + 50°C
<b>Storage Temperature</b>	-40°C to + 70°C
<b>Enclosure Rating</b>	IP 55
<b>Vibration</b>	1.04grms, 5-500Hz
<b>Shock</b>	20g, 11ms, Saw Tooth Pulse, 3 Axes

### Mechanical

<b>Dimensions</b>	341L x 357W x 39H mm
<b>Weight</b>	4.8kg (40W)
<b>Colour</b>	White Powder coat / Nickel Plating

### Compliance Standard

<b>IEC 609501-2nd Edition</b>	International Safety Standard for Information Technology Equipment
<b>ETSI EN 301 489-12</b>	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)
<b>ETSI EN 301 489-1</b>	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
<b>FCC Part 15 Class B</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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