



# ALB150 Series

Compact 20W/40W X Band  
Block-Up Converter

Designed to mount directly to the feedhorn, ideal for mobile and satellite uplink applications.

Innovative and excellent efficiency thermal design makes this BUC one of the most power efficient, robust, rugged, and reliable to operate under harsh outdoor environment.

Easy installation with redundancy ready features to work in 1+1 redundancy mode.

## Features

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- Feed mountable
- Forward and input power detection
- Monitoring and Control through Serial and Ethernet ports
- Fault identification and alarm generation
- LED status and alarm indicator
- Auto gain control throughout operating temperature
- Wide DC input ranging 38 to 60Vdc
- Wide operating temperature -40°C to +60°C
- IP65 Weatherproof
- RoHS Compliant

## Quality Assurance

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100% thorough stringent quality checks in addition to well-defined Environmental Stress Screening to ensure operation in harsh outdoor environment conditions. All subjected to seal test for water ingress verification.

## Reliability

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Field proven under harsh environment conditions. Agilis ODUs can withstand temperature ranging from -40°C to +60°C under 100% humidity.

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## Technical Specifications

### RF Specifications

Freq Band	Transmit	IF	LO
Standard	7900 – 8400MHz	950 – 1450MHz	6950MHz

Output Power	P <sub>1dB</sub>	P <sub>linear</sub>
20W	43.0dBm (20W)	40.0dBm (10W)
40W	46.0dBm (40W)	43.0dBm (20W)

<b>Small Signal Gain</b>	66dB min (20W), 69dB min (40W)
<b>Gain Flatness</b>	±2dB within band, ±1dB over 40MHz span
<b>Gain Variation</b>	±2dB within band over operating temperature
<b>Intermodulation</b>	-27dBc max @ P <sub>linear</sub>
<b>Spurious</b>	According to EN 301 443
<b>Phase Noise</b>	-100dBc/Hz max @100KHz offset -90dBc/Hz max @10KHz offset -80dBc/Hz max @1KHz offset
<b>VSWR</b>	2.0:1 max @input 2.0:1 max @output

### AC/DC Power

<b>Prime Power</b>	38 to 60Vdc
<b>Power Consumption</b>	144VA typ @20W 240VA typ @40W

### Interface

<b>IF Input</b>	N-Type Female 50Ω F-Type Female 75Ω (option)
<b>RF Output</b>	WR112 Grooved

### External Reference Requirement

<b>Frequency</b>	10MHz
<b>Power Level</b>	-5dBm to +5dBm
<b>Phase Noise</b>	-160dBc/Hz max @100KHz offset -155dBc/Hz max @10KHz offset -150dBc/Hz max @1KHz offset

### Monitor & Control

<b>Monitor</b>	BUC Temperature Status Alarm with LED Indicator LO Unlock Alarm RF Input & Forward Power Detection
<b>Control</b>	Gain adjustable 30dB with 0.5dB step RF Output On/Mute
<b>Communication Port</b>	Serial RS232/RS485 Ethernet (SNMP & HTTP)
<b>Transmit Redundancy</b>	Redundancy-Ready (with ext. controller unit)

### Environmental

<b>Operating Temperature</b>	-40°C to +60°C
<b>Relative Humidity</b>	Up to 100%
<b>Weatherproof</b>	IP65

### Mechanical

<b>Dimension</b> (excluding interface connectors)	L223 x W171 x H88mm L8.78" x W6.73" x H3.46"
<b>Weight</b>	4.0Kg / 8.8lbs

NOTE: All specifications subject to change without notice  
200422

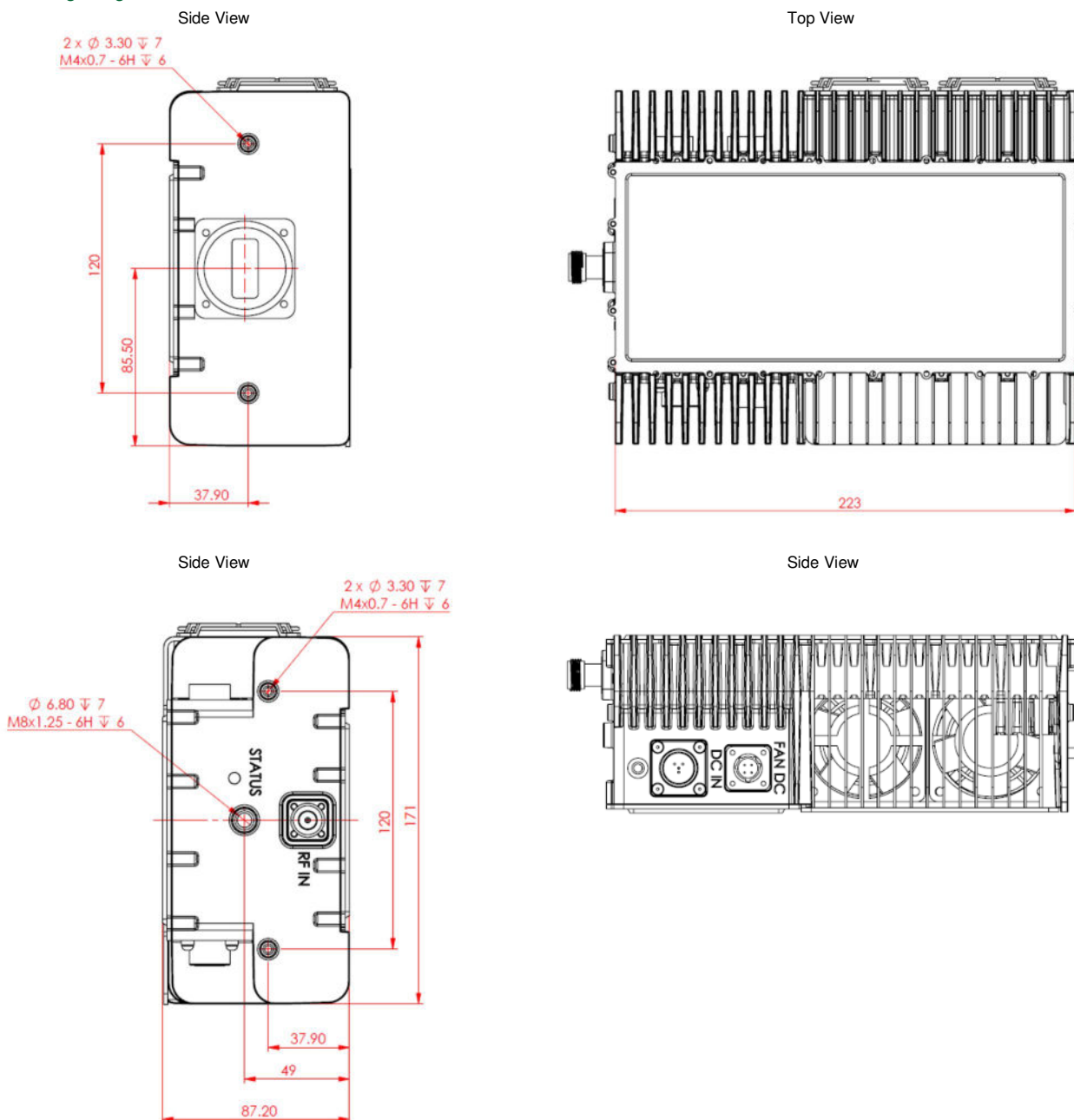
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### Standard Part List for Standalone Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Cable DC	DC Power Supply	2502041298	01	C/A DC 12-3S to Unterminated 2M
3	Cable M&C	RS232/485	2502040500	01	C/A M&C 232/485 12-8P to DB9 (F) 3M
4	Cable M&C	ETH	2502041313	01	C/A M&C ETH 12-8P to RJ45 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	Mounting Accessory Set			01	Mounting screws including brackets, screws, studs, gasket for flange WR112

### Mounting Diagram



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