



ALB210 Series

Compact 80W/100W/125W/160W Ka Band
Block-Up Converter

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

Wide range of AC power supply from 90V to 264V. Innovative and excellent efficiency thermal design makes this BUC one of the most power efficient, robust and reliable to operate under harsh outdoor environment.

Easy installation with built-in redundancy feature to work in 1+1 redundancy mode.

Features

- Excellent linearity
- Forward power and reflect 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
- Built-in redundancy ready
- Unit temperature controlled fan speed
- Wide AC power supply voltage range from 90V to 264V
- Wide operating temperature -40°C to +60°C
- IP65 Weatherproof
- RoHS Compliant

Quality Assurance

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

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 (Switchable)
Band 1	27.5 – 28.5GHz	950 – 1950MHz	26.55GHz
Band 2	28.5 – 29.5GHz	950 – 1950MHz	27.55GHz
Band 3	29.0 – 30.0GHz	950 – 1950MHz	28.05GHz
Band 4	30.0 – 31.0GHz	1000 – 2000MHz	29.00GHz

Output Power	P _{sat}	P _{linear}
80W	49.0dBm (80W)	46.0dBm (40W)
100W	50.0dBm (100W)	47.0dBm (50W)
125W	51.0dBm (125W)	48.0dBm (62.5W)
160W	52.0dBm (160W)	49.0dBm (80W)

Small Signal Gain	70dB min
Gain Flatness	±2dB within band ±1dB over 40MHz
Gain Variation	±2dB within band over operating temperature
Spectral Regrowth	-30dBc max @ P _{linear} at 1.0x symbol rate offset for single OQPSK or at 1.5x symbol rate offset for single QPSK
Spurious	-60dBc typ
Phase Noise	-93dBc/Hz max @100KHz offset -83dBc/Hz max @10KHz offset -73dBc/Hz max @1KHz offset
VSWR	1.5:1 max @input 1.3:1 max @output

AC/DC Power

Prime Power	90 to 264Vac
Power Consumption	850VA (80W) 950VA (100W) 1150VA (125W) 1400VA (160W)

Interface

IF Input	N-Type Female 50Ω
RF Output	WR28 Grooved

Reference Requirement

Source	External/Internal Auto Switching
Ext Ref Frequency	10MHz/50MHz Auto Sensing
Ext Ref Power Level	-5dBm to +5dBm
Ext Ref Phase Noise	-160dBc/Hz max @100KHz offset -155dBc/Hz max @10KHz offset -150dBc/Hz max @1KHz offset

Monitor & Control

Monitor	BUC Temperature Status Alarm with LED Indicator LO Unlock Alarm RF Forward Power Detection RF Reflect Power Detection
Control	Gain adjustable 30dB with 0.1dB step size RF Output On/Mute
Communication Port	Serial RS232/RS485 Ethernet (SNMP & HTTP)
Transmit Redundancy	Built-in

Environmental

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

Mechanical

Dimension (excluding interface connectors)	L398 x W220 x H140mm (80W) L15.7" x W8.7" x H5.5" L478 x W390 x H154mm (100W/125W) L18.8" x W15.4" x H6.1" L574 x W392 x H179mm (160W) L22.6" x W15.4" x H7.1"
Weight	12Kg / 26.45lbs (80W) 30Kg / 66.14lbs (100W/125W) 37Kg / 81.57lbs (160W)

NOTE: All specifications subject to change without notice
B01D21

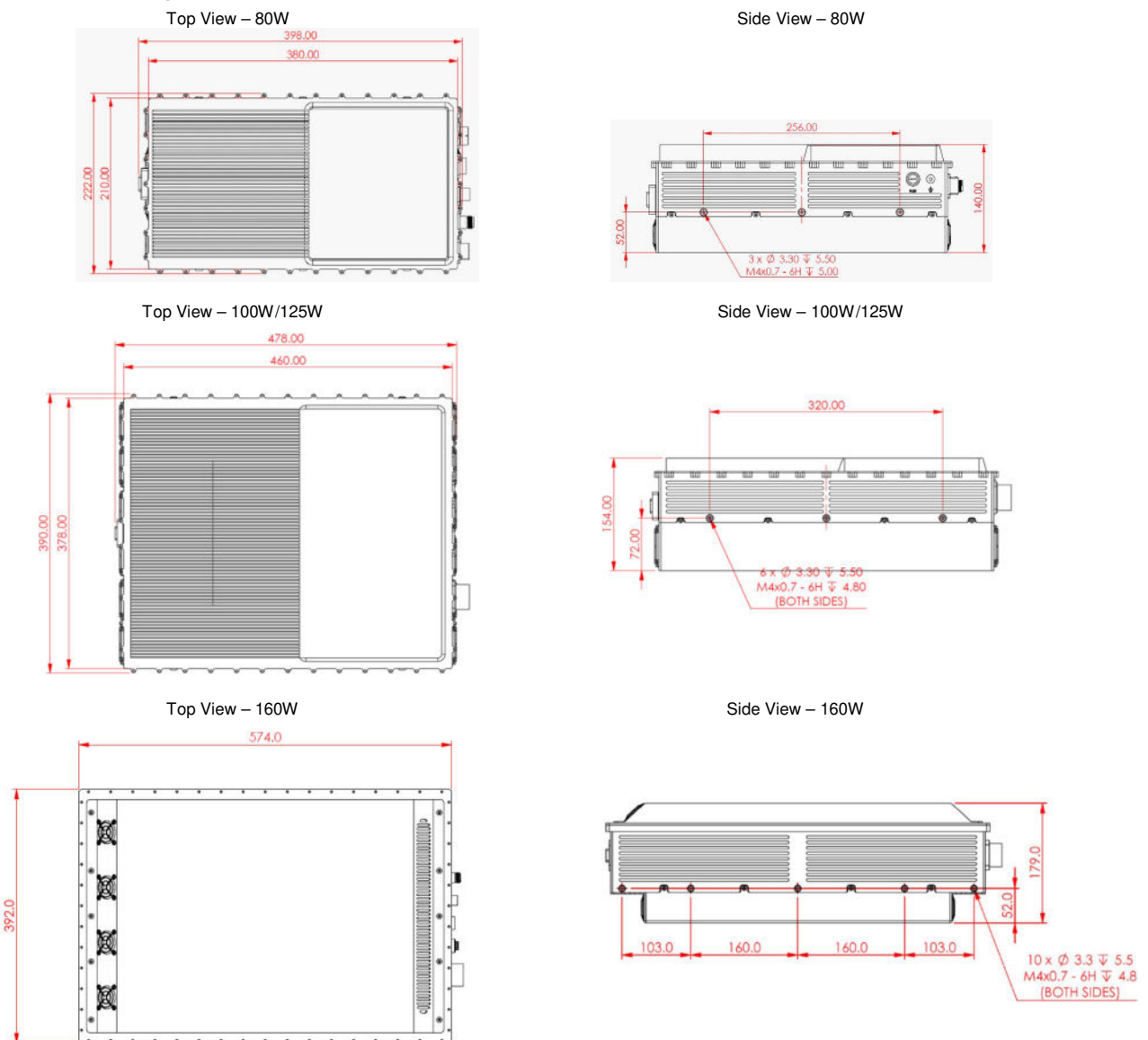
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Standard Part List for Standalone Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Prime Power Input Cable	AC 220V	1001522064	01	Transient Protection Box 220Vac 16A 3M
3	Cable M&C	RS485	2502041256	01	C/A S/P M&C CIR 14-19P TO DB9 ETH/485 2M
4	Cable M&C	ETH	2502041166	01	C/A FOR VSAT ETH-DB9 TO RJ45 CONVERTER 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	Mounting Accessory Set			01	Mounting accessories including screws and O-Ring

Mounting Dimension Drawing



NOTE: Part list and drawing subject to change without notice
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Standard Part List for Redundancy 1+1 Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			02	BUC
2	Prime Power Input Cable	AC 220V	1001522064	02	Transient Protection Box 220Vac 16A 3M
3	Cable M&C	RS485	2502041256	02	C/A S/P M&C CIR 14-19P TO DB9 ETH/485 2M
4	Cable M&C	ETH	2502041166	01	C/A FOR VSAT ETH-DB9 TO RJ45 CONVERTER 2M
5	Converter	RS485	6103480008	02	Converter USB to RS485
6	Mounting Accessory Set			01	Mounting accessories including screws and O-Ring
7	Cable RF	1.5M	6202040155	02	C/A RF N (M) to N (M) 1.5M
8	Cable Status Link	1.8M	2502041099	01	C/A Status Link 12-8P to 12-8P 1.8M
9	Cable Switch Control	2M	2502040155	02	C/A Switch RCU Control 10-6S to 10-6P 3M 2M
10	WG E-Bend		4008540333G	02	WR28 KA-BD WG E-BEND TO WG SWITCH
11	Termination Load		4203490152	01	WR28 29~31GHz WG TERMINATION 150W
12	WG Extension		4008540334G	02	WR28 KA-BD WG EXTENSION 40MM
13	Splitter L-BD		1501522364	01	MODULE FOR SPLITTER WITH L-BD & 10MHz
14	WG Switch		5903290177	01	SW WR28 DUAL 26.5-40.0GHz SMV-1929-1