

ALB210 Series

Compact 40W Ka 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 and reliable to operate under harsh outdoor environment.

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

Features

- Feed mountable
- Forward 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
- Wide DC input ranging 38 to 60Vdc
AC input voltage option available.
- Wide operating temperature -40°C to +60°C
- IP65 Weatherproof
- RoHS Compliant

Quality Assurance

100% thorough stringent quality checks in addition to well-defined Electrical 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
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}
40W	46.0dBm (40W)	43.0dBm (20W)

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 2.0:1 max @output

AC/DC Power

Prime Power	38 to 60Vdc – DC Model 90 to 264Vac – AC Model
Power Consumption	350VA @ P _{sat} 250VA @ P _{linear}

Interface

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

Reference Requirement

Frequency	10MHz
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
Control	Gain adjustable 30dB with 0.1dB step RF Output On/Mute
Communication Port	Serial RS232/RS485 Ethernet (SNMP & HTTP)
Transmit Redundancy	Redundancy-Ready (with external controller unit)

Environmental

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

Mechanical

Dimension (excluding interface connectors)	L295 x W165 x H165mm (AC Model) L11.6" x W6.5" x H6.5" L295 x W165 x H135mm (DC Model) L11.6" x W6.5" x H5.3"
Weight	7.4Kg / 16.31lbs (AC Model) 7Kg / 15.4lbs (DC Model)

NOTE: All specifications subject to change without notice
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Standard Part List for Standalone Configuration

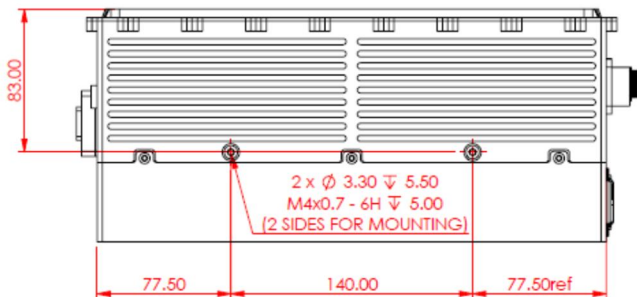
ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Prime Power Input Cable	AC 220V	1001522412	01	Transient Protection Box 12-3S to Unterminated 220Vac 10A 3M
		DC	2502041248	01	C/A DC 12-4S to Unterminated 1M
3	Cable M&C	RS232 / RS485		01	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
4	Cable M&C	ETH	2502041166	01	C/A M&C ETH/RJ45 DB9 (M) to RJ45 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	O-Ring		6401240110	01	O-Ring for Flange WR28
7	Mounting Screw		6308840310	04	Screw Hex M3x10 w Split & Flat Washer

Option Items

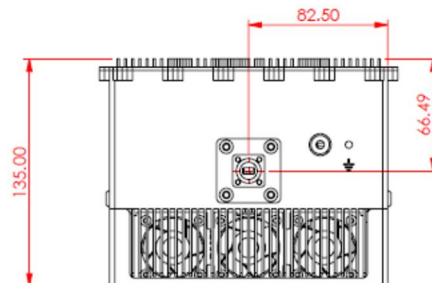
ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	Prime Power Input Cable	AC 110V	1001522818	Transient Protection Box 12-3S to Unterminated 110Vac 10A 3M
		AC 220V / 10M	1001523741	Transient Protection Box 12-3S to Unterminated 220Vac 10A 10M
2	Cable M&C	RS485 / 5M	2502041751	C/A M&C 485/ETH 14-19P to DB9 (F) 5M
		RS485 / 30M	2502041714	C/A M&C 485/ETH 14-19P to DB9 (F) 30M
		RS485 / 50M	2502041721	C/A M&C 485/ETH 14-19P to DB9 (F) 50M

Mounting Dimension Drawing

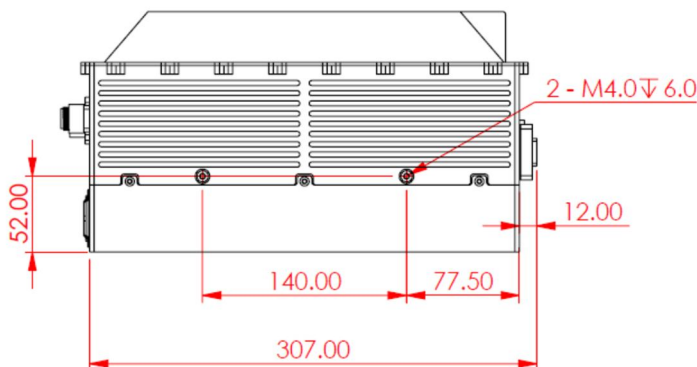
Side View - DC Model



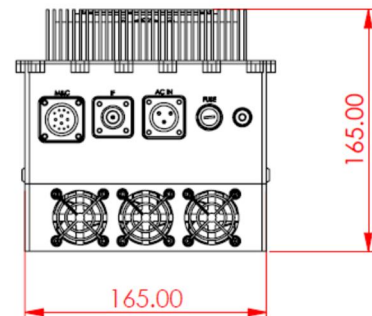
Side View - DC Model



Side View - AC Model



Side View - AC Model



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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	Redundancy Control Unit	Tx Only, In-Door	AAV613NJ04-T-RM	01	Tx Only No DC & 10MHz 96 to 264Vac RS232/485 ETH Rack Mount
3	Prime Power Input Cable	AC 220V	1001522412	02	Transient Protection Box 12-3S to Unterminated 220Vac 10A 3M
		DC		02	C/A DC 12-4S to Open End 1M
4	Cable M&C	RS232 / RS485		01	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
5	WG Switch Set			01	WG Switches including flange o-ring, brackets & screws, termination
6	Cable 1+1		2502042307	01	C/A M&C RCU 12-8S to 14-19P 50M
7	Cable 1+1		2502042308	01	C/A Sw Control 10-6S to 10-6P 50M
8	Cable RF		6202040286	02	C/A RG142 SMA-M to N-M RA 1.3M
9	Cable M&C	ETH	2502041166	01	C/A ETH-DB9 (M) to RJ45 2M
10	Converter	RS485	6103480008	01	Converter USB to RS485
11	Mounting Accessory Set			01	Mounting plate, handles, brackets & screws

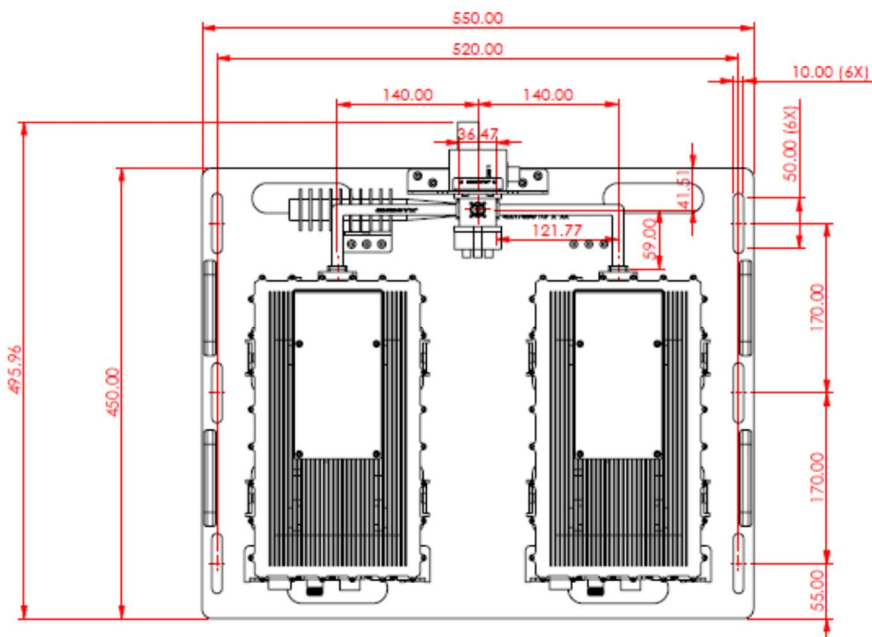
Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	Cable, Power Cord, AC Mains	UK Plug	6202040064G	Power Cord BS 1363 to IEC 60320 C-13 UK Plug 1.5M
		N America Plug	6202040353	Power Cord NEMA 5-15P to IEC 60320 C-13 North America Plug 2M

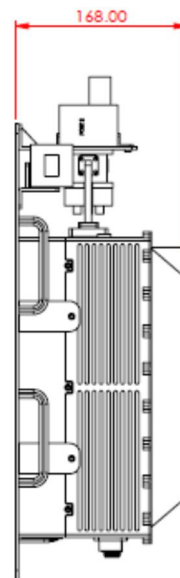
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Mounting Dimension Drawing

Top View – AC/DC Model



Side View - AC Model



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