



ALB190/290 Series

Compact 80W/100W/150W/200W C Band
Block-Up Converter

Compact and lightweight, 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.

Simple and seamless 1+1 redundancy setup. Built-in redundancy-ready easily configured without need of external controller.

Features

- Forward, reflected 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 AC input range 90 to 264Vac
- Built-in redundancy ready
- Built-in harmonics rejection filter
- 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 to operate under harsh environment conditions. Designed and tested to withstand operating temperature -40°C to +60°C under 100% humidity.

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Technical Specifications

RF Specifications

Freq Band	Transmit	IF	LO
Gorizont C	5725 – 6525MHz	975 – 1775MHz	4750MHz
Intelsat C	5850 – 6425MHz	950 – 1525MHz	4900MHz
Full C	5850 – 6725MHz	950 – 1825MHz	4900MHz
Insat C	6725 – 7025MHz	1100 – 1400MHz	5625MHz

Output Power	P _{sat}	P _{1dB}	P _{linear}
80W (ALB290)	49.0dBm (80W)	-	45.2dBm (33W)
100W (ALB290)	50.0dBm (100W)	-	46.2dBm (42W)
150W (ALB290)	51.8dBm (150W)	-	48.0dBm (63W)
200W (ALB290)	53.0dBm (200W)	-	49.2dBm (83W)
80W (ALB190)	-	49.0dBm (80W)	46.0dBm (40W)
100W (ALB190)	-	50.0dBm (100W)	47.0dBm (50W)
150W (ALB190)	-	51.8dBm (150W)	48.8dBm (75W)
200W (ALB190)	-	53.0dBm (200W)	50.0dBm (100W)

Small Signal Gain	70dB min (80W/100W) 75dB min (150W/200W)
Gain Flatness	±2dB within band
Gain Variation	±2dB over operating temperature
Intermodulation	-27dBc max @ P _{linear}
Spurious	According to EN 301 443
Phase Noise	-100dBc/Hz max @100KHz offset -90dBc/Hz max @10KHz offset -80dBc/Hz max @1KHz offset
VSWR	1.5:1 max @input 1.5:1 max @output
Noise Power Density	Tx Band : -70dBW/4KHz max Rx Band : -142dBW/4KHz max

AC/DC Power

Prime Power	90 to 264Vac
Power Consumption	650VA typ @100W 850VA typ @200W

Interface

IF Input	N-Type Female 50Ω
RF Output	WR137 Grooved

Reference

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 Input & Forward Power Detection Output Reflected Power Detection
Control	Gain adjustable 30dB with 0.5dB step 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)	L284 x W210 x H165mm (80W/100W P _{sat}) L11.2" x W8.2" x H6.5" L296 x W210 x H175mm (100W P _{1dB} /150W/200W) L11.7" x W8.2" x H6.9"
Weight	9Kg / 19.8lbs (80W/100W P _{sat}) 10.2Kg / 22.5lbs (100W P _{1dB} /150W/200W)

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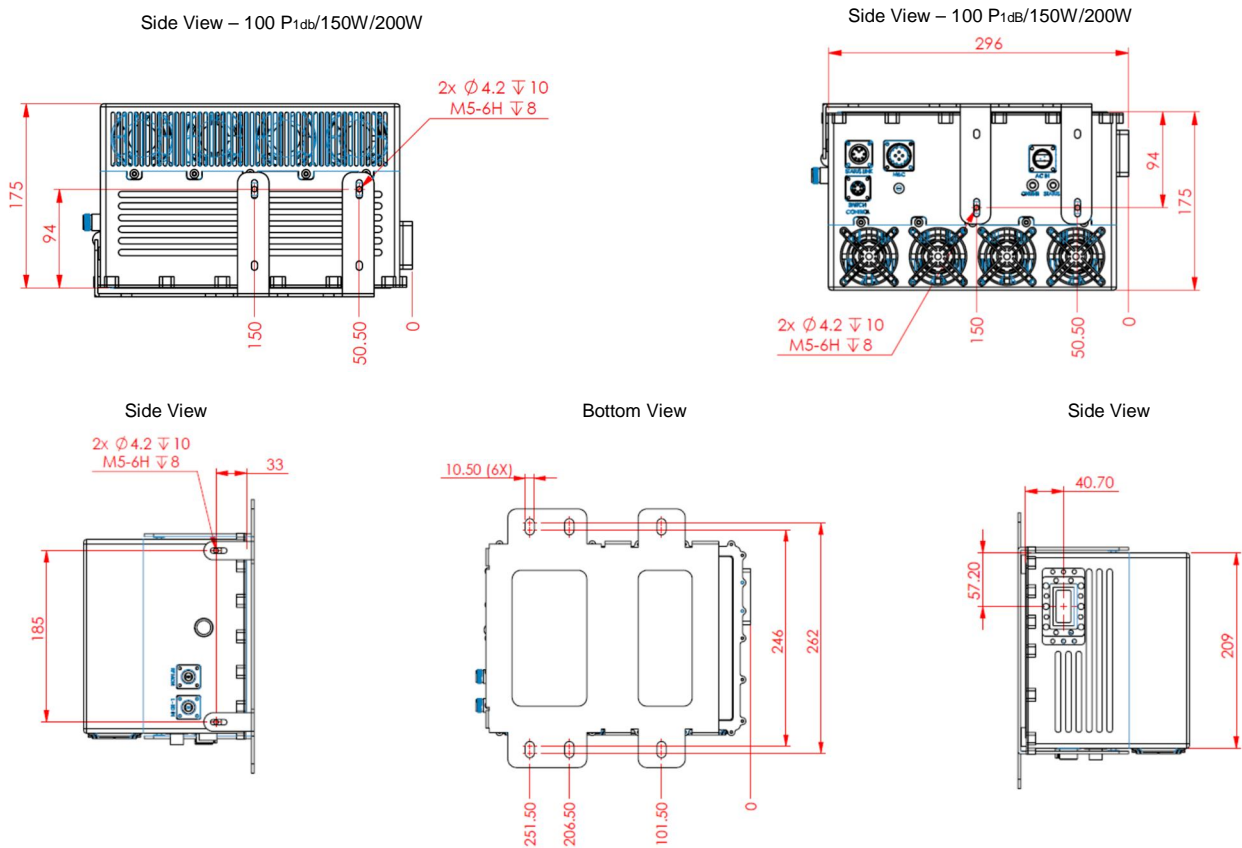
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Standard Part List for Standalone Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Prime Power Input Cable	AC		01	Transient Protection Box 10A 12-3S to Unterminated 3M
3	Cable M&C	RS232 / RS485		01	Cable Assembly Serial/ETH 14-19P to DB9 (F) 2M
4	Cable Converter	ETH	2502041166	01	Cable Assembly ETH-DB9 to RJ45 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	Mounting Accessory Set			01	Mounting brackets, studs, screws, gasket flange WR137

Mounting Diagram



Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	WG Flexible	0.6M	4203490309	WG Flexible C Band WR137 CPRG to WR137 CPRF 0.6M
		1.0M	4203490057	WG Flexible C Band WR137 CPRG to WR137 CPRF 1.0M
		1.5M	4203490289G	WG Flexible C Band WR137 CPRG to WR137 CPRF 1.5M

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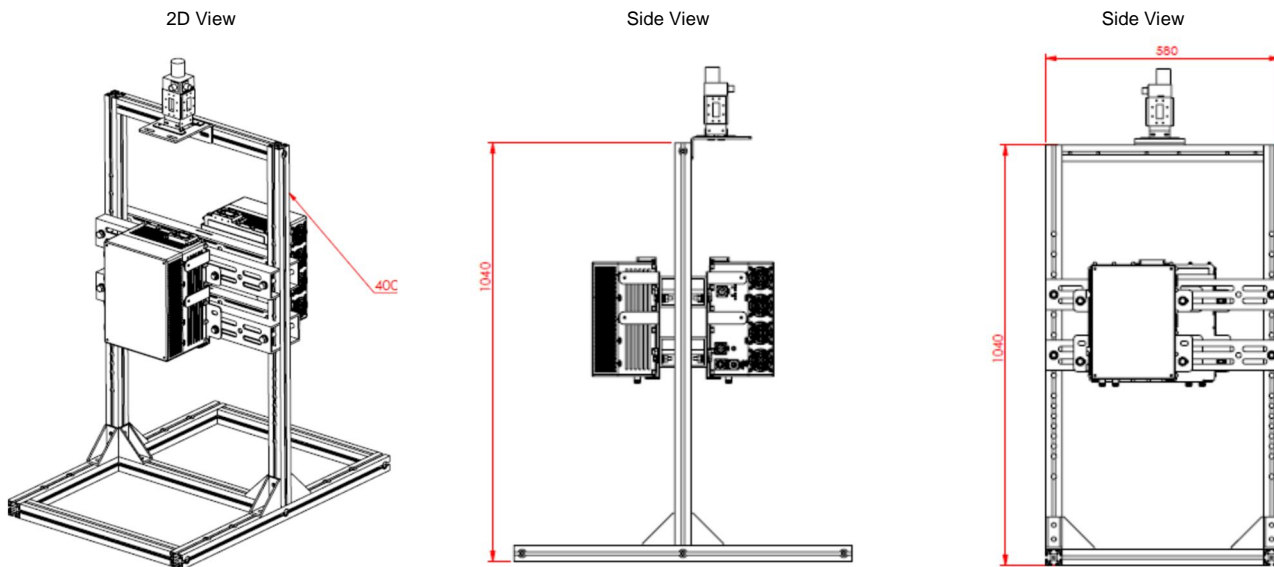
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Standard Part List for Redundancy 1+1 Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			02	BUC
2	Prime Power Input Cable	110 / 220Vac		02	Transient Protection Box 10A 12-3S to Open End 3M
3	M&C Cable	RS232 / RS485		02	Cable Assembly Serial/ETH 14-19P to DB9 (F) 2M
4	Converter	ETH	2502041166	02	Cable Assembly ETH-DB9 to RJ45 2M
5	Converter	RS485	6103480008	02	Converter USB to RS485
6	Mounting Accessory Set			02	Mounting brackets, studs, screws, gasket flange WR137
7	WG Flexible			02	WG Flexible C Band WR137 CPRG to WR137 CPRF 1M
8	WG Switch			01	WG Switch C Band WR137 Dual 230Vac
9	WG Termination			01	WG Termination C Band WR137 CPRF 150W 120mm
10	WG H-Bend			01	WG H-Bend C band WR137 CPRF to WR137 CPRF
11	Termination			01	Termination Coaxial N (M)
12	Cable Status Link		2502041099	01	Cable Assembly Status Link 12-8P to 12-8P 1.8M
13	Cable Switch Control		2502040155	01	Cable Assembly Switch RCU Control 10-6S to 10-6P 3M
14	Cable Switch Control		2502041006	01	Cable Assembly Switch Tx Control 10-6S to 10-6P 3M
15	Cable RF		6202040155	02	Cable Assembly RF N (M) to N (M) 1.5M

Mounting Diagram



Option Item

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
01	Mounting Frame		4004430053G	Mounting Frame w 1 Vertical Frame H1040 x W580mm, Base 840 x 580mm

NOTE: Part list and drawing subject to change without notice
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