



ALB190/290 Series

Compact 250W/300W/400W C Band
Block-Up Converter

Ideal for 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
- Output power monitoring port
- Monitoring and Control through Serial and Ethernet ports option
- Fault identification and alarm generation
- LED status and alarm indicator
- Auto gain control throughout operating temperature
- 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 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
Intelsat C	5850 – 6425MHz	950 – 1525MHz	4900MHz
Full C	5850 – 6725MHz	950 – 1825MHz	4900MHz
Spe.Gorizont C	5725 – 6525MHz	950 – 1750MHz	4775MHz

Output Power	Psat	P1dB	Plinear
250W	-	54.0dBm (250W)	51.0dBm (126W)
300W	54.8dBm (300W)	-	51.0dBm (126W)
400W	56.0dBm (400W)	-	52.2dBm (166W)

Small Signal Gain	75dB min (250W) 78dB min (300~400W)
Gain Flatness	±2dB within band ±1dB over 40MHz
Gain Variation	±1.5dB within band over operating temperature
Intermodulation	-25dBc max @ Plinear
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	190 to 264Vac, 47 to 63Hz
Power Consumption	1500VA typ. @ 250W 2000VA typ. @ 400W

Interface

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

Reference

Source	Internal/External Auto Sensing
Frequency	10MHz
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 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)	L535 x W300 x H168mm L21.06" x W11.81" x H6.61"
Weight	23Kg / 50.7lbs

Compliance Standard



Certification of products with radio technologies for the Brazilian market based on approval by the local authority Agência Nacional De Telecomunicações (Anatel).

The certification is based on national specifications for the testing and certification process and is a condition for market approval in Brazil.

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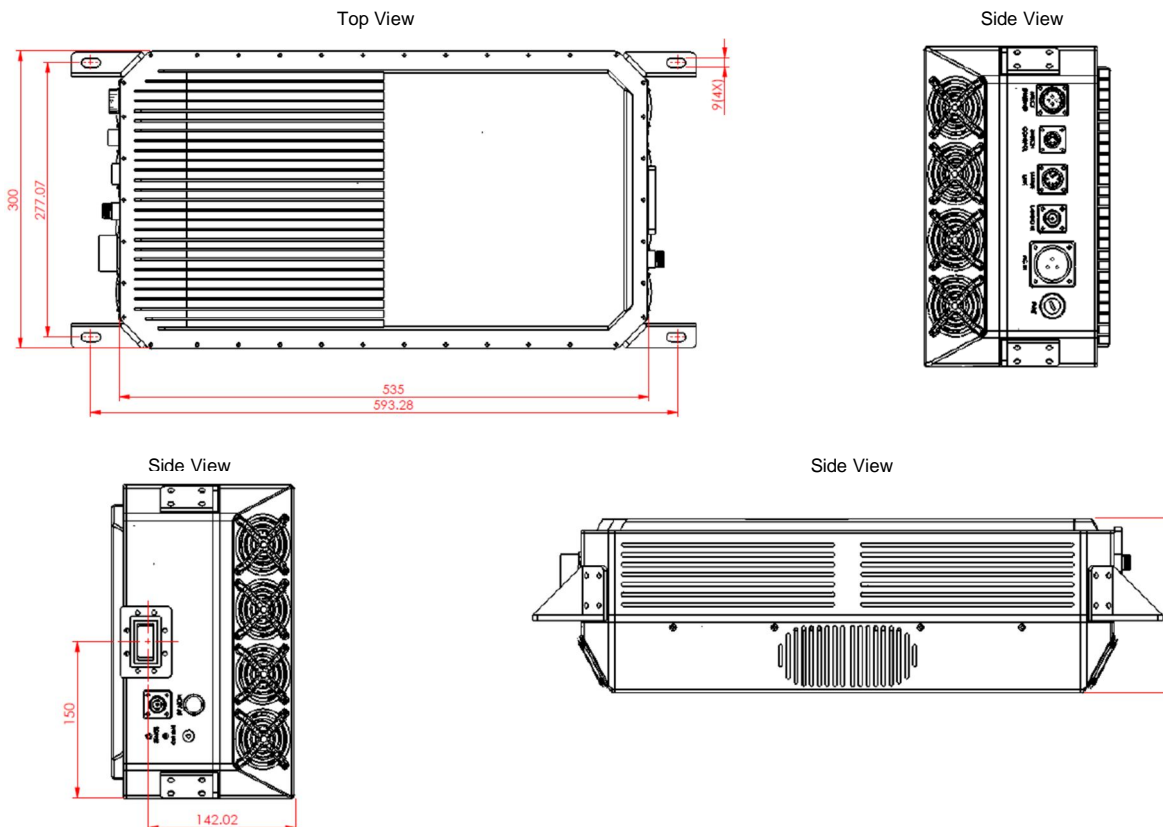
Standard Part List for Standalone Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC		ALBx90xxx-xxx	01	BUC
2	Prime Power Input Cable	AC 220V	1001522064	01	Transient Protection Box 22-9S to Underterminated 220Vac 16A 3M
3	M&C Cable	RS232 / RS485	2502041257 / 2502041256	01	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
4	M&C Cable	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	Mounting Accessory Set			01	Mounting screws including gasket for flange WR137

Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	WG Flexible	0.6M	4203490309	Flexible WG C band WR137 CPRG to WR137 CPRF 0.6M
		1M	4203490057	Flexible WG C band WR137 CPRG to WR137 CPRF 1M
		1.5M	4203490289G	Flexible WG C band WR137 CPRG to WR137 CPRF 1.5M
2	M&C Cable	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
3	RF Cable	1.5M	6202040155	C/A RF N (M) to N (M) 1.5M
		3M	2502040137	C/A RF N (M) to N (M) 3M
		7M	2502040109	C/A RF N(M) TO N(M) 7M
		10M	2502041952	C/A RF N(M) TO N(M) 10M

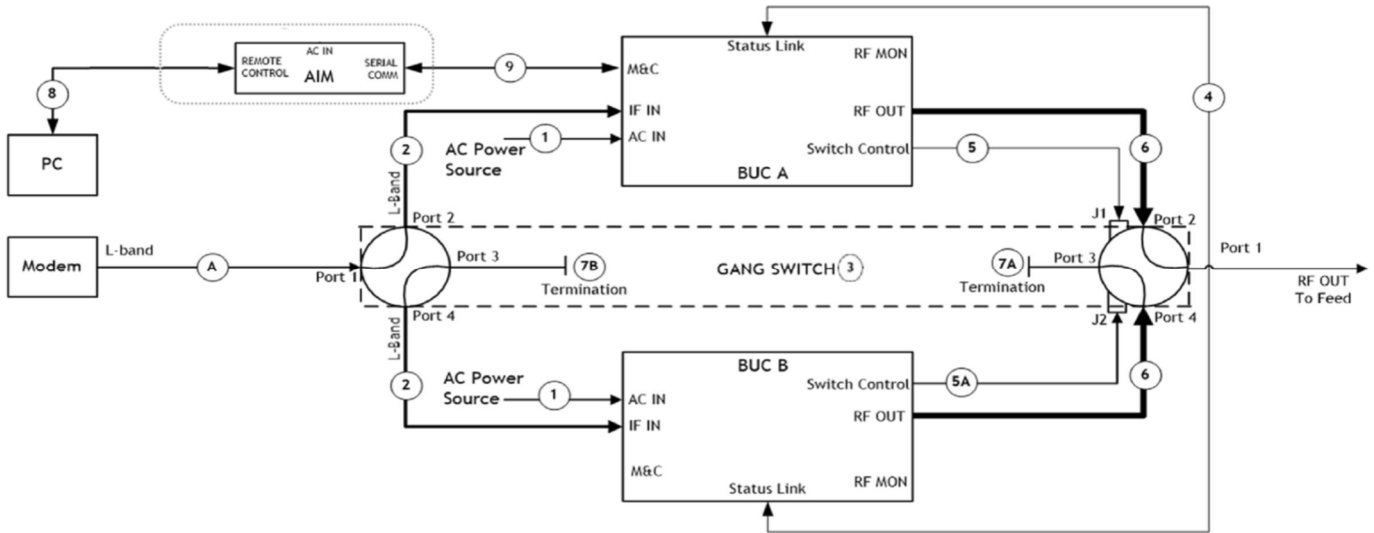
Mounting Diagram



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1:1 Redundancy System Block Diagram



Standard Part List for Redundancy 1+1 Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	Prime Power Input Cable	AC	1001522412	02	Transient Protection Box 12-3S to Underterminated 220Vac 10A 3M
2	Cable RF	1.5M	6202040155	02	C/A RF N (M) to N (M) 1.5M
3	WG Switch		5903290101	01	WG Switch C Band WR137 Dual 230Vac
4	Cable Status Link	1.8M	2502041099	01	C/A Status Link 12-8P to 12-8P 1.8M
5	Cable Switch Control	3M	2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
5A	Cable Switch Control	3M	2502041006	01	C/A Switch Tx Control 10-6S to 10-6P 3M
6	WG Flexible	1M	4203490057	02	WG Flexible C Band WR137 CPRG to WR137 CPRF 1M
7A	WG Termination		4203490042	01	WG Termination C Band WR137 CPRF 150W 120mm
7B	N-Type Termination		5704090015	01	Termination Coaxial N (M)
8	Converter	RS485	6103480008	02	Converter USB to RS485
9	Cable M&C	RS485	2502041256	02	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
10	BUC		ALBx90xxx-xxx	02	C BUC
11	Cable M&C	ETH	2502041166	02	C/A M&C ETH-DB9 (M) to RJ45 2M
12	Mounting Accessory Set		2503160038	02	Mounting brackets, studs, screws, gasket flange WR137

Option Items

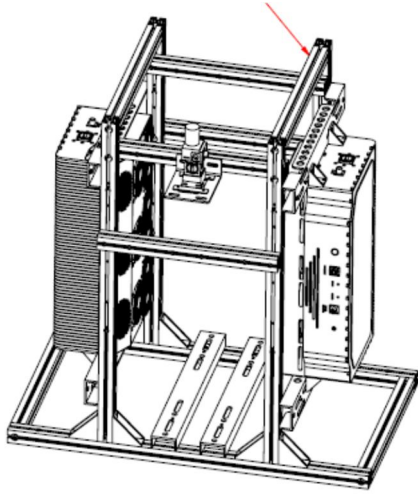
ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	Mounting Frame		4004430024	Mounting Frame w 2 Vertical Frames H1040 x W580mm, Base 1000 x 580mm
2	AIM		AIM281xx	System Status Monitoring Unit

NOTE: Part list and drawing subject to change without notice
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1:1 Redundancy System Mounting Diagram
2D View



Side View

