

ALB190 Series

Compact 500W Phase-Combined 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.

This phase-combined architecture comprise of 2 x BUC with a phase control box and combiner optimizing output power.

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

Output Power	P _{1dB}	P _{linear}
500W	57.0dBm (500W)	54.0dBm (250W)

Small Signal Gain	78dB min
Gain Flatness	±2dB within band ±1dB over 40MHz
Gain Variation	±1.5dB within band over operating temperature
Intermodulation	-25dBc 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	190 to 264Vac, 47 to 63Hz
Power Consumption	4000VA typical

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 (single SSPA) L21.06" x W11.81" x H6.61" L1000 x W664 x H1192mm (500W BUC) L39.37" x W26.14" x H46.93"
Weight	50Kg / 110lbs (500W BUC)

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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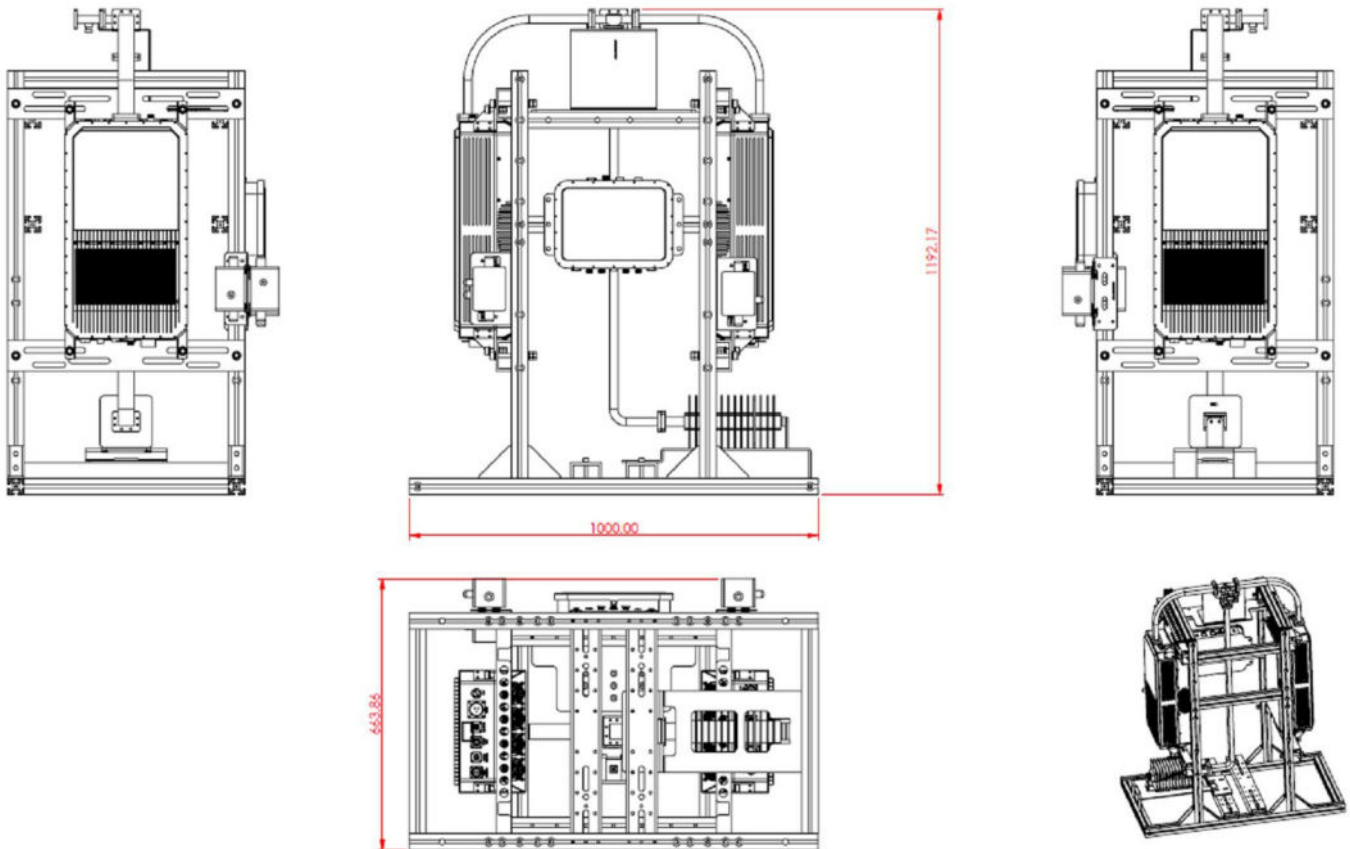
Standard Part List for Standalone Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Prime Power Input Cable	AC 220V	1001522064	02	Transient Protection Box 22-9S to Unterminated 220Vac 16A 3M
3	Prime Power Input Cable	AC 220V	1001520980	01	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
4	M&C Cable	RS232 / RS485	2502041257 / 2502041256	01	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
5	M&C Cable	Serial / ETH	2502041169	01	C/A M&C Serial/ETH 12-8P to DB9 (F) 2M
6	M&C Cable	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
7	Converter	RS485	6103480008	01	Converter USB to RS485
8	Mounting Accessory Set			01	Mounting screws and kit

Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	Cable M&C	5M	2502041751	C/A M&C 485/ETH 14-19P to DB9 (F) 5M
		30M	2502041714	C/A M&C 485/ETH 14-19P to DB9 (F) 30M
		50M	2502041721	C/A M&C 485/ETH 14-19P to DB9 (F) 50M

Mounting Diagram



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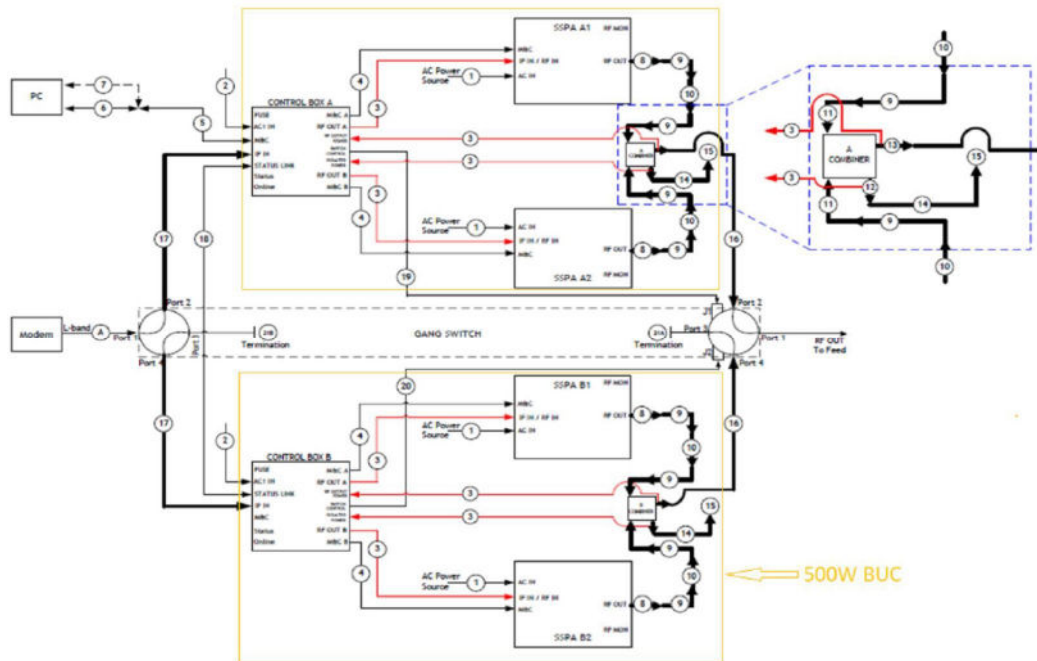
Standard Part List for Redundancy 1+1 Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			04	BUC
2	Prime Power Input Cable	AC 220V	1001522064	04	Transient Protection Box 22-9S to Underterminated 220Vac 16A 3M
3	Prime Power Input Cable	AC 220V	1001520980	02	Transient Protection Box 12-3S to Underterminated 220Vac 5A 3M
4	M&C Cable	RS232 / RS485	2502041257 / 2502041256	02	C/A M&C Serial/ETH 14-19P to DB9 (F) 2M
5	M&C Cable	ETH	2502041166	02	C/A M&C ETH-DB9 (M) to RJ45 2M
6	Converter	RS485	6103480008	02	Converter USB to RS485
7	WG Flexible		4203490057	02	Flexible WG C band WR137 CPRG to WR137 CPRF 1M
8	Switch RF		5903290101	01	Switch WR137 Type N Dual 230VAC
9	Termination		4203490042	01	Termination C band WR137 CPRF
10	Termination		5704090015	01	Termination N-Type Coaxial N1117018
11	WG H-Bend		4203490022	01	H-Bend C band WR137 CPRF to WR137 CPRF
12	Cable Status Link		2502041099	01	C/A Status Link 12-8P to 12-8P 1.8M
13	Cable Switch Control		2502040155	01	C/A Sw Control 10-6S to 10-6P 3M
14	Cable Switch Control		2502041006	01	C/A Sw Tx Control 10-6S to 10-6P 3M
15	Cable RF		6202040155	02	C/A RF N (M) to N (M) 1.5M
16	Converter	RS485	6103480008	01	Converter USB to RS485
17	Mounting Accessory Set			01	Mounting screws and kit

Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	RF Cable	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

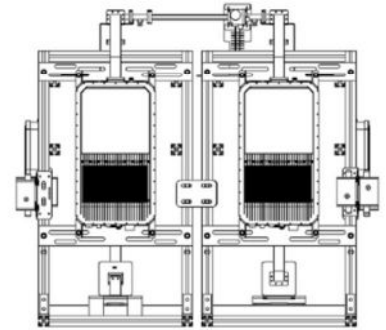
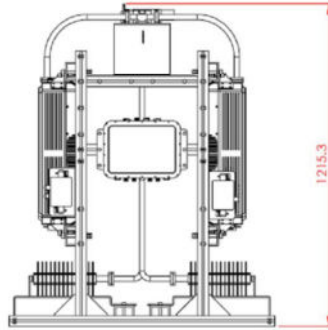
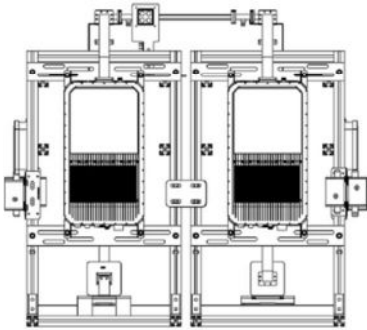
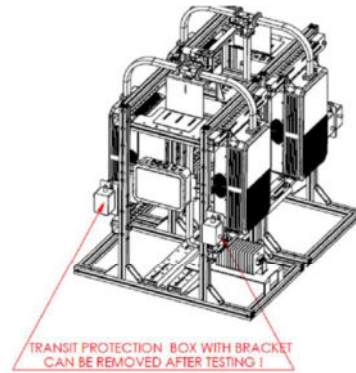
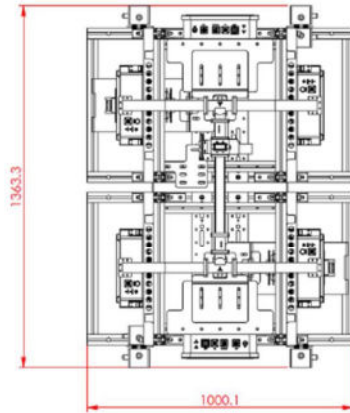
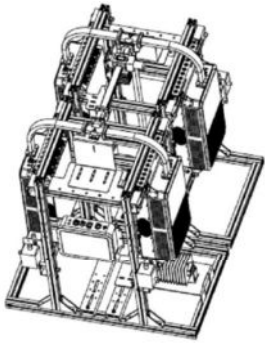
1:1 Redundancy System Block Diagram



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1:1 Redundancy System Mounting Diagram



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