



ALB180 Series

Klassic 5W/10W C Band IFL
Block-Up Converter

Designed to mount directly to the feedhorn, ideal for data and voice communication operating in different modulation formats for broadband applications in satellite IP networks.

High performance on output power linearity. Robust and highly reliable design to operate under harsh outdoor environment.

Features

- Feed mountable
- Forward power detection
- Monitoring and Control through Serial and Ethernet ports
- Fault identification and alarm generation
- Auto gain control throughout operating temperature
- Wide DC input ranging 18 to 60Vdc
- 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
S/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}
5W (ALB180)	-	37.0dBm (5W)	34.0dBm (2.5W)
10W (ALB180)	-	40.0dBm (10W)	37.0dBm (5W)

Small Signal Gain	56dB min (5W) 63dB min (10W)
Gain Flatness	±2dB within band ±1dB over 40MHz
Gain Variation	±2dB within band over operating temperature
Intermodulation	-27dBc max @ P _{linear}
Spurious	According to EN 301 443
Phase Noise	-93dBc/Hz max @100KHz offset -83dBc/Hz max @10KHz offset -73dBc/Hz max @1KHz offset
VSWR	2.0:1 max @input 2.0:1 max @output

AC/DC Power

Prime Power	18 to 60Vdc
Power Consumption	40VA max @5W 90VA max @10W

Interface

IF Input	N-Type Female 50Ω F-Type Female 75Ω (option)
RF Output	WR137 Grooved

External Reference Requirement

Frequency	10MHz
Power Level	-5dBm to +5dBm
Phase Noise	-160dBc/Hz max @100KHz offset -155dBc/Hz max @10KHz offset -150dBc/Hz max @1KHz offset

Monitor & Control

Monitor	BUC Temperature LO Unlock and Status Alarm RF Forward and Output Power Detection
Control	Gain adjustable 15dB with 0.5dB step RF Output On/Mute
Communication Port	Serial RS232/RS485 SNMP & HTTP (Option)

Environmental

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

Mechanical

Dimension (excluding interface connectors)	L248 x W130 x H56mm (5W) L9.76" x W5.12" x H2.2" L248 x W130 x H94mm (10W) L9.17" x W6.73" x H3.7"
Weight	2.7Kg / 6lbs (5W), 3.1Kg / 6.8lbs (10W)

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the Fixed Satellite Service (FSS)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Electro Magnetic Compatibility Standard for Radio Equipment and Services
ETSI EN 301 443	Satellite Earth Stations and Systems (SES); Harmonized EN for Very Small Aperture Terminal (VSAT); Transmit-only, transmit-and-receive, receive-only satellite earth stations operating in the 4 GHz and 6 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive
FCC Class A	Two levels of radiation and conducted emissions limits for unintentional radiators (FCC Mark)



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
200621

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Compact 5W/10W C Band IFL Block-Up Converter

Standard Part List for Standalone Configuration

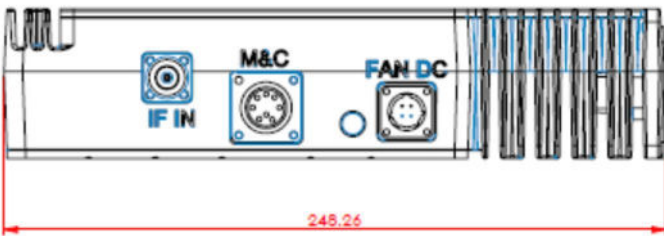
ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	M&C Cable	RS232 / RS485	2502041169	01	C/A M&C 485/ETH 12-8P to DB9 (F) 2M
3	M&C Cable	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
4	Converter	RS485	6103480008	01	Converter USB to RS485
5	Mounting Accessory Set			01	Mounting screws including gasket for flange WR137

Option Item

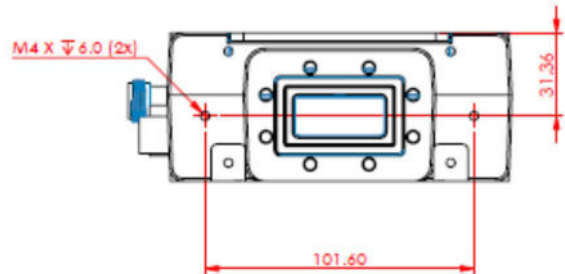
ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	WG Flexible	0.6M	4203490309	Flexible WG C band WR137 CPRG to WR137 CPRF 0.6M
		1.0M	4203490057	Flexible WG C band WR137 CPRG to WR137 CPRF 1M
		1.5M	4203490289G	Flexible WG C band WR137 CPRG to WR137 CPRF 1.5M
2	RF Cable	3M	2502040137	C/A RF N (M) to 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
3	M&C Cable	Serial / 6M	2502041980	C/A M&C 485/ETH 12-8P to DB9 (F) 6M
		Serial / 50M	2502041722	C/A M&C 485/ETH 12-8P to DB9 (F) 50M

Mounting Diagram

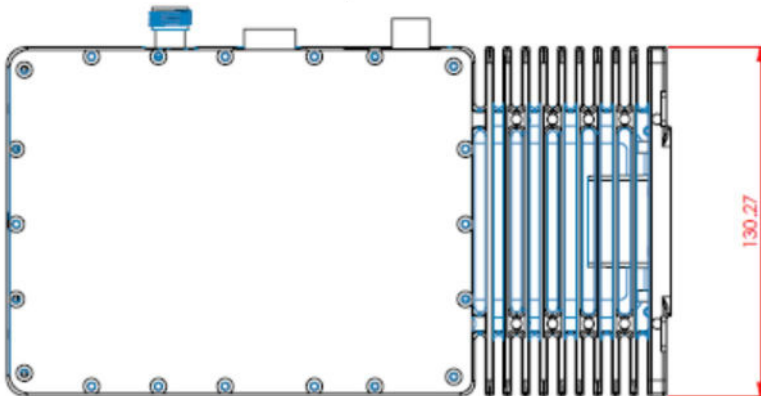
Side View – 5W



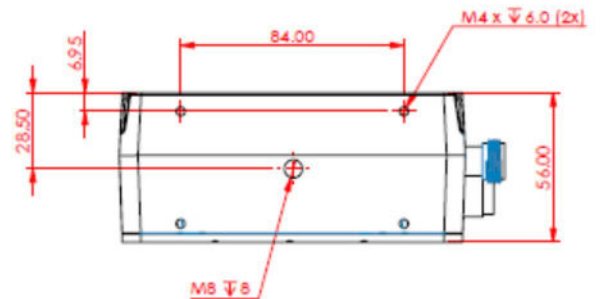
Side View – 5W



Top View – 5W



Side View – 5W

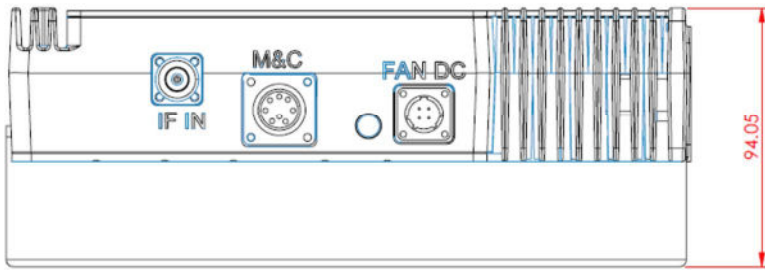


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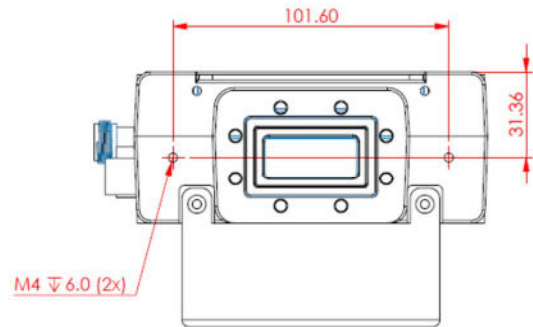
Compact 5W/10W C Band IFL Block-Up Converter

Mounting Diagram

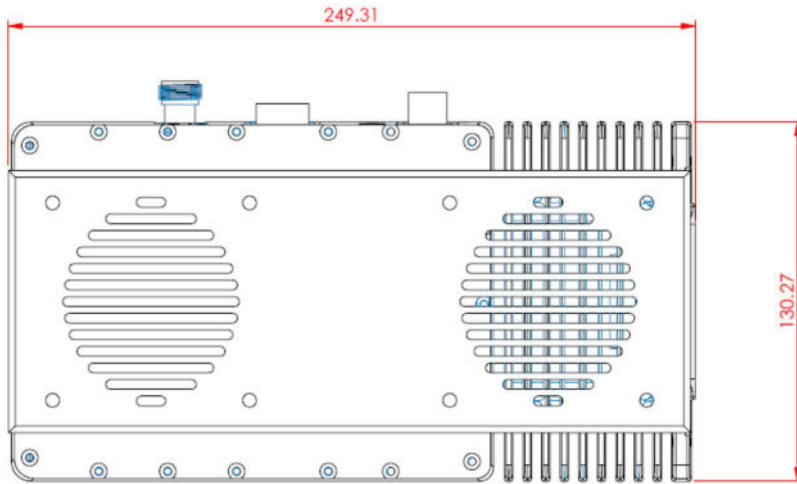
Side View – 10W



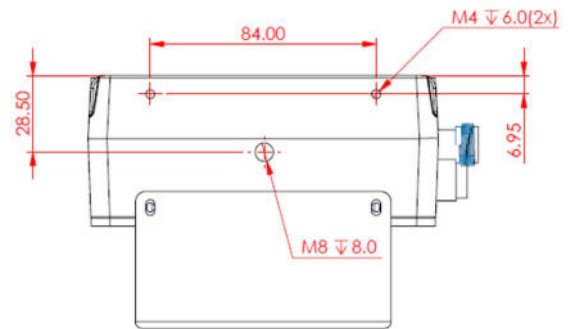
Side View – 10W



Bottom View – 10W



Side View – 10W

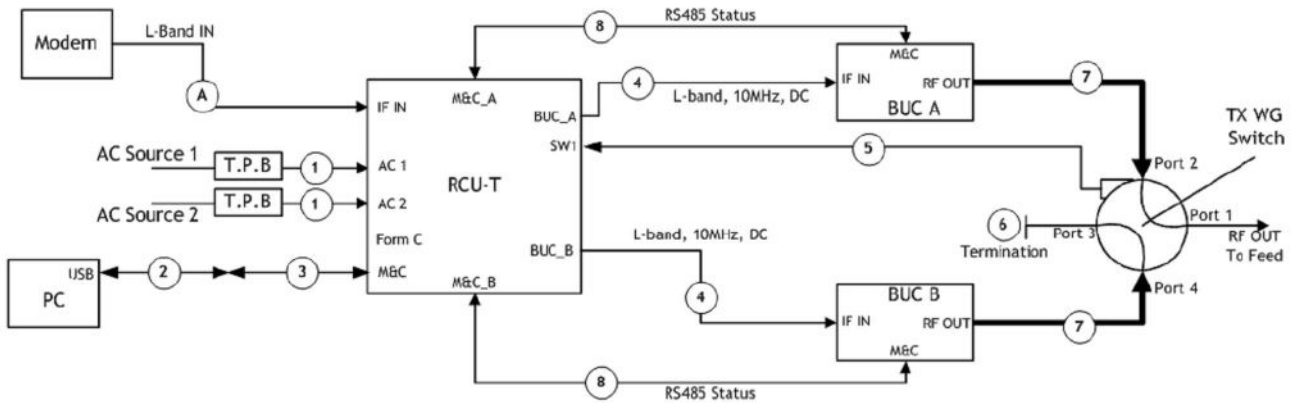


NOTE: Part list and drawing subject to change without notice
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Compact 5W/10W C Band IFL Block-Up Converter

1:1 Redundancy System Block Diagram



Standard Part List for 1:1 Configuration

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	RCU	Transmit	AAV6103204-T	01	Redundancy Control Unit
2	BUC	10W & below		02	BUC Output Power 10W & Below
3	Prime Power Input Cable	220Vac	1001520980	02	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
4	Cable M&C	Serial/ETH	2502041169	01	C/A M&C Serial/ETH 12-8P to DB9 (F) 2M
5	Cable M&C	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
6	Converter	RS485	6103480008	01	Converter USB to RS485
7	Cable Control		2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
8	Cable Control		2502040561	02	C/A Straight 12-8S to 12-8P 2M
9	Cable RF		2502040137	02	C/A RF N (M) to N (M) 3M
10	WG Flexible	1.0M	4203490057	02	Flexible WG C band WR137 CPRG to WR137 CPRF 1M
11	WG S/W & Accessory Set		5903290003	01	Wave guide switch and accessories including E-bend/H-bend and termination load
12	Mounting Accessory Set			01	Mounting accessories including brackets, screws, studs, gasket for flange WR137

NOTE: Part list and drawing subject to change without notice
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