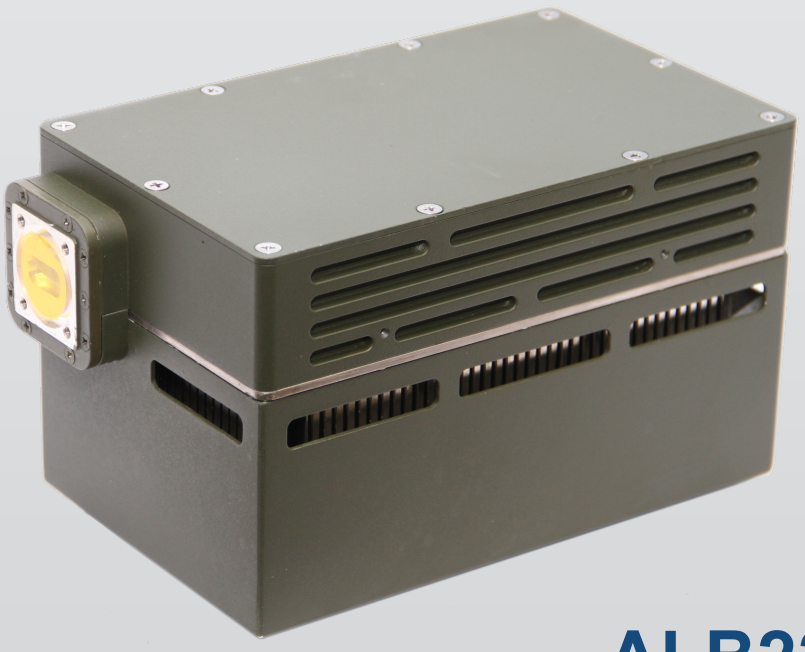


ALB229 Series

Ruggedized Compact 40W Ku-Band Block-Up Converter

This small and lightweight BUC is ideal for SOTM applications while also offering benefits for fixed and maritime applications.

Designed to be mounted on the feed horn, the BUC has “Best in Class” efficiency and “lowest power consumption” with less than 330W. The unit works on a wide range DC power supply of 38V to 60V. Innovative and efficient thermal design makes this BUC on of the smallest, robust, reliable and rugged enough to withstand outdoor conditions in the industry.

The unit can be configured to work in 1:1 redundant mode by adding on a simple redundancy option to the basic unit.

Features

- Compact and lightweight
- Feed mountable
- Available in both standard and extended Ku-Band
- Forward power detection facility
- Intuitive monitoring & control through RS232/485 & Ethernet (SNMP & HTTP)
- Auto ranging 38 to 60VDC Power Supply
- Automatic fault identification & alarm generation
- Wide operating temperature range -40ºC to +60ºC
- IP65 rated housing (Weather proof Construction)
- RoHS compliant

Quality Assurance

100% of all BUCs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation in harsh outdoor environments. The BUCs are also subjected to seal test for water ingress verification.

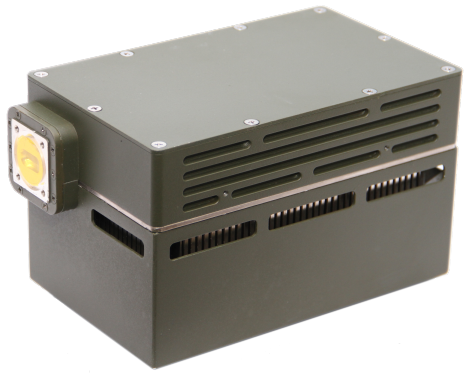
Reliability

Field proven under harsh environment conditions, Agilis ODUs can withstand temperature ranging from -40ºC to +60ºC with up to 100% humidity.

Agilis

ALB229 Series

Ruggedized Compact 40W Ku-Band Block-Up Converter



Technical Specifications

RF Specifications

Transmit Frequency	14.0GHz – 14.5GHz 13.75GHz – 14.5GHz
IF Frequency Range	950MHz to 1450MHz 950MHz to 1700MHz
L0 Frequency	13.05GHz (Ku-Band) 12.8GHz (Extended Ku-Band)
Output Power (P_{sat})	46dBm
Output Power (P_{Linear})	44dBm
Spectral Re-growth	30dBc @ 2dB below rated power (p-linear) at 1.0 x symbol rate offset for OQPSK or QPSK
Small Signal Gain	70dB Min
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±2dB over the operating temperature range
Gain Control	20 dB in step of 0.5 dB
O/P spurious	According to EN301428
Phase Noise @ Offset	
1KHz	-73dBc/Hz
10KHz	-83dBc/Hz
100KHz	-93dBc/Hz
I/P VSWR	1.5:1
O/P VSWR	1.25:1 (with optional external isolator)
Noise Power Density Tx BD	70dBW/4KHz
Rx BD	142dBW/4KHz

DC Power

Prime Power	48VDC (range 38 to 60VDC) via external MS connector
Power Consumption	280W (Typical @ 46dBm)

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	WR 75G

External Reference

Frequency	10MHz
Power	-5dBm to +5dBm
External reference phase noise requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Monitor And Control

Monitor	BUC temperature Status alarm RF output power LED status indication
Control	Attenuation RF output mute
Interface	RS232/485 & Ethernet (SNMP & HTTP) via external MS connector
Tx Redundancy	External RCU (optional for 1+1 redundancy system requirement)

Environmental

Operating Temperature	-40ºC to +60ºC
Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Dimensions	200L x 130W x 130H mm
Weight	3.7kg / 8.14lbs
Colour	White Powder Coat

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); ElectroMagnetic 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); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Part 15 Class B	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)
Transportation Vibration	Mil-Std-810F, Method 514.5, Procedure 1, Cat 4,5-500Hz, Vertical: 218grms, Transverse: 1.60grms, Longitudinal: 1.96grms
Transportation Shock	Mil-Std-810F, Method 516.5 40G, 11ms saw tooth pulse, all three axis.

Note: All specifications are subject to change without notice.
Rev. 050313

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