ALB229 Series

Compact 100W/125W
Plan/Low Ku-Band Block-Up Converter

This small and lightweight BUC is ideal for mobile and satellite uplink applications.

The BUC has “Best in Class” efficiency and “lowest power consumption.” The unit works on a wide range AC power supply of 96VAC to 264VAC. Innovative and efficient thermal design makes this BUC one of the smallest, robust, reliable and rugged enough to withstand outdoor conditions in the industry.

Built-in redundancy feature eliminates the use of an external controller for 1:1 redundancy operation. This eliminates messy cabling at the antenna making this a very elegant solution.

Extensive M/C interface with RS232/RS485/Ethernet (SNMP & HTTP) and Wifi.

Features

- Compact and lightweight
- Available in standard and extended Ku-Band
- Forward & reverse power detection
- Input power detection
- Intuitive monitoring & control through RS232/RS485 & Ethernet (SNMP & HTTP) and Wifi
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference with auto-detection
- Built-in receive reject filter
- Sample port for output monitoring
- Wide operating temperature range -40ºC to +60ºC
- RoHS Compliant
- Waterproof

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

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Technical Specifications

RF Specifications

Transmit Frequency	12.75GHz – 13.25GHz (Plan Ku) 13.00GHz – 13.25GHz (Low Ku)
IF Frequency Range	950MHz – 1450MHz (Plan Ku) 950MHz – 1200MHz (Low Ku)
LO Frequency	11.8GHz (Plan Ku) 12.05GHz (Low Ku)
Output Power 100W/125W P_{Sat}	50.0/51.0 dBm
Spectral Re-growth	30dBc @ P_{rated}
Third Order Intermod (two tone)	-25dBc @ Relative to combine power of two carrier at 3dB total power back off from P1dB.
Small Signal Gain	80dB Min
Gain Flatness Full Band	±2dB
Gain Slope over 40MHz	±1dB
Gain Variation over temperature	±1.0dB @ from -40ºC to +60ºC
Gain Control	20dB in step of 0.5dB
O/P spurious	According to EN301428
Phase Noise @ Offset	
1KHz	-75dBc/Hz
10KHz	-85dBc/Hz
100KHz	-95dBc/Hz
I/P VSWR	1.3:1
O/P VSWR	1.25:1
Noise Power Density Tx BD	70dBW/4KHz
Rx BD	142dBW/4KHz

DC Power

Prime Power	230VAC (range 96V to 264VAC)
Power Consumption	1500W

Interfaces

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

External Reference

Frequency	10MHz
Power	-5dBm to +5dBm
Internal reference	Built-in (Auto detection)
External reference phase noise Requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Monitor And Control

Monitor	BUC temperature Status alarm Output power Reverse power Input power LED status indication
Control	Attenuation RF output mute
Interface	RS232/RS485 & Ethernet (SNMP & HTTP) WIFI
Tx Redundancy	Built-in

Environmental

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

Mechanical

Size	600L x 250W x 253H mm
Weight	28kg
Color	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 Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.
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Request A Quote

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