Av-Comm

ALB129 Series

Compact 16W/20W/25W 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”. The unit works on a wide range DC power supply of 38V to 60V.
Innovative and efficient thermal design makes this BUC one 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
- Best in class efficiency with less power consumption.
- Available in both standard and extended Ku-Band
- Forward power detection facility
- Intuitive monitoring & control through RS232/RS485 & Ethernet (SNMP & HTTP)
- Auto ranging 38 to 60VDC Power Supply
- Optional input AC Voltage
- 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

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Technical Specifications

RF Specifications

Transmit Frequency	13.75 – 14.5GHz	(EXT Ku)
	14.0 – 14.5GHz	(STD Ku)
IF Frequency Range	950 – 1700MHz	(EXT Ku)
	950 – 1450MHz	(STD Ku)
L.O Frequency	13.05GHz	(STD Ku)
	12.8GHz	(EXT Ku)
Output Power	42dBm (16W), 43dBm (20W) & 44dBm (25W)	
Small Signal Gain	68dB Min	
Gain Flatness	±2dB over the O/P frequency band	
Gain Variation	±2dB over the operating temperature range	
Gain Control	20dB in steps of 0.5dB	
Inter modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power	
O/P spurious	According to EN301428	
Phase Noise @ Offset		
1KHz	-73dBc/Hz	
10KHz	-83dBc/Hz	
100KHz	-93dBc/Hz	
I/P VSWR	2.0:1	
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 Optional 230VAC (range 96 to 264VAC)
Power Consumption	177.6W (max for 16W/20W/25W)

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	
1 KHz	-135dBc/Hz
10 KHz	-145dBc/Hz
100 KHz	-155dBc/Hz

Monitor & Control

Monitor	BUC temperature Status alarm RF output power LED status indication
Control	Attenuation RF output mute
Interface	RS232/RS485 & Ethernet (SNMP & HTTP) via external MS connector
Tx Redundancy	External RCU (optional for 1+1 redundancy system requirement

Environmental

Operating Temperature	-40ºC to +60ºC Optional (-40ºC to +70ºC for 16W)
Relative Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	200L x 130W x 112.5 H mm (16W & 20W) 200L x 130W x 130H mm (25W) 200L x 130W x 192.5H mm (AC option for 16W & 20W) 200L x 130W x 210H mm (AC option for 25W)
Weight	3.5kg / 7.5lbs 4.7kg / 10.36lbs (AC option)
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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