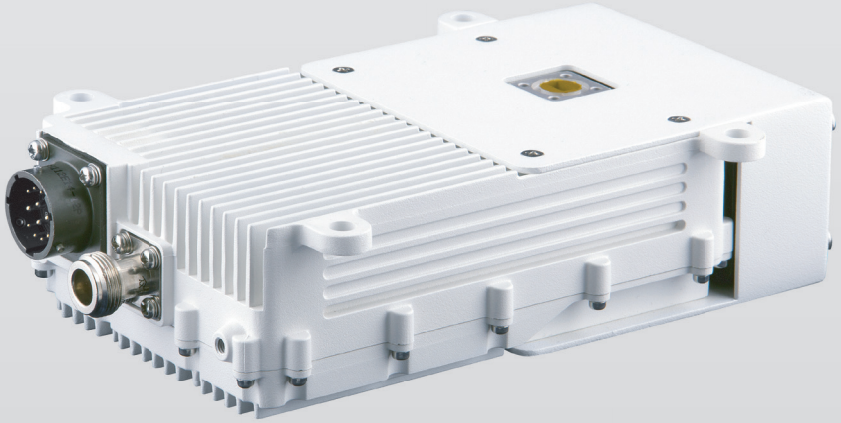

ALB110 Wideband Series

Compact 5W
Ka-Band Block-Up Converter

This small and light weight new wideband Ka-Band BUC is ideal for mobile and satellite uplink applications. Designed to be mounted on the feed horn, the BUC has excellent efficiency and consumes less than 60W for 5W Ka-Band BUC. The unit works on a wide range input DC power supply from 18V to 50V. Innovative and efficient thermal design makes this BUC one of the smallest, lightest and most reliable in the industry.

Features

- Compact and lightweight
- Feed mountable
- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Forward power detection function
- Remote monitor & control through RS422
- Wide input DC voltage range
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature
- 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

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

Agilis

ALB110 Wideband Series

Compact 5W
Ka-Band Block-Up Converter

Technical Specifications

RF Specifications

Transmit Frequency	29.5GHz to 31GHz
IF Frequency Range	950MHz to 1950MHz
L.O Frequency	28.55GHz / 29.05GHz
Max Operating Point (MOP)	37dBm (5W)
Small Signal Gain	45dB (min for 5W)
Gain Flatness	±2.5dB over the O/P frequency band
Gain Variation	±2.5dB over the operating temperature range
ACPR at MOP with Q/8PSK, 1msps, α= 0.2 modulated output power:measured at first sidelobes over temperature	-20dBc
Phase Noise @ Offset	
1KHz	-75dBc/Hz max
10KHz	-85dBc/Hz max
100KHz	-95dBc/Hz max
I/P VSWR	2.0:1 max
O/P VSWR	2.0:1 max

DC Power

Prime Power (either via IFL or MS Connector)	48VDC (range 18 to 51VDC)
Power Consumption	65W @ 48VDC input (max)

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	WR28 grooved

External Reference

Frequency	10 / 50 MHz (Switchable)
Power	-5dBm to +5dBm
External reference phase noise requirement @ frequency offset	
10Hz	-95dBc/Hz
100Hz	-105dBc/Hz
1KHz	-130dBc/Hz
10KHz	-130dBc/Hz
100KHz	-130dBc/Hz

Monitor & Control

Protocol	Open BUC Modem Interface Protocol
Monitor	BUC temperature LO unlocked alarm Status alarm RF Output Power detection RF Output Overdrive
Control	RF Output Mute (Keyline) Band Selection
Interface	RS422

Environmental

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

Mechanical

Size	230L x 125W x 71H mm
Weight	2.5kg
Color	White Powder Coat

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
IEC 60945	Maritime navigation and radiocommunication equipment and systems - General requirements; Methods of testing; and required test results.
ETSI EN 301 360	Satellite Earth Stations and Systems (SES); Harmonized EN for Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) transmitting towards geostationary satellites in the 27.5 GHz to 29.5 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE Directive
ETSI EN 301 459	Satellite Earth Stations and Systems (SES); Harmonized EN for Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) transmitting towards satellites in geostationary orbit in the 29.5 GHz to 30.0 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE Directive
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 4 GHz and 30 GHz 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
ETSI EN 303 978	Satellite Earth Stations and Systems (SES); Harmonized EN for Earth Stations on Mobile Platforms (ESOMP) transmitting towards satellites in geostationary orbit in the 27,5 GHz to 30,0 GHz frequency bands.
FCC Part 15 Class B	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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