ALB128 Series

4W/6W/8W
Ku-Band VSAT Outdoor Block-Up Converter

ALB128 Series Ku-Band BUC (Block-Up Converter) is a highly cost-effective RF outdoor transmitter for satellite communication. The BUC has very high output power linearity and works well from -40ºC up to 60ºC. The BUC also has a wide input voltage range which allows it to work from 18V to 60V.

Agilis Ku-Band BUC is designed for high reliability operation in various applications such as flyaway antenna. The BUC also has the most complete M&C features in the industry.

Easy to install, it is redundancy-ready and field-proven for any harsh operating environment. It is suitable for both data and voice communication operating in different modulation formats.

Agilis Ku-Band BUC is a compact design that comprises of Upconverter, Solid State Power Amplifier, Phase Locked Oscillator and DC-DC power converter. It employs L-Band IF interface to the indoor unit. Agilis ALB128 Ku-Band BUC is an ideal design suitable for broadband applications (such as DVB-RCS) in satellite IP networks.

Features

- Available for all Ku-Band frequencies
- Direct antenna mount
- Wide operating temperature range -40ºC to +60ºC
- Wide input D.C voltage range 18V to 60V
- Standard RS232/485 interface & optional SNMP/HTTP M&C option
- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Automatic temperature compensation feature
- RoHS compliant
- Waterproof with IP65 standard
- Easy installation
- Redundancy option
- LED indicator for BUC status

Monitoring and Control (Optional)

- SSPA on/off Control
- Automatic gain control with level stability accuracy better than ± 0.5dB
- Adjustable gain
- Temperature sensor reading
- LO unlocked alarm
- Input power detection
- Output power detection
- SNMP/Ethernet (Optional)

Reliability

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

Quality Assurance

All Agilis ODUs go through intensive active electrical stress screening with performance being monitored during screening.
In addition, all units undergo 100% waterproof test equivalent to IP65 to ensure normal operation in tropical, cold and harsh environments.

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Technical Specifications

Buy Now!

Frequency Range

	Output (GHz)	Input (MHz)	LO (GHz)
Standard	14.00 to 14.50	950 to 1450	13.05
Offset	13.75 to 14.25	950 to 1450	12.80
Extended	13.75 to 14.50	950 to 1700	12.80
Low	13.00 to 13.25	950 to 1200	12.05
Plan	12.75 to 13.25	950 to 1450	11.80
High	14.50 to 14.80	1000 to 1300	13.50

Transmit

Power	Output P1dB (dBm) min	Gain (dB)	Power Consumption (Typ)	(Max)
4W	36	61 – 69	42W	52.8W
6W	37.8	61 – 69	42W	65.6W
8W	39	64 – 72	85W	100.8W

Input Power @P1dB Output	- 25dBm
Gain Flatness for Full BW	±2.0dB max
36MHz Gain Flatness (at max slope)	±1.0dB max
Gain Stability Over Temperature	±2.0dB max
Spurious @P1dB Output	-55dBc max
Phase Noise @ 100Hz offset	-65dBc/Hz max
@ 1kHz offset	-73dBc/Hz max
@ 10kHz offset	-83dBc/Hz max
@ 100kHz offset	-93dBc/Hz max
Inter Modulation	-27dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
Frequency Inversion	Non-inverted
Input VSWR	2.0:1 max
Output VSWR	2:0:1 max
IF Input Interface	50Ω N-Type Female/75Ohms F-type Female (optional)
Output Interface	WR 75G
Current @ 24V DC input voltage	2.2A max (for 4W) 2.7A max (for 6W) 4.2A max (for 8W)

Environmental

Operating Temperature	-40ºC to + 60ºC
Relative Humidity	up to 100%

External Reference Requirement

Frequency	10MHz
Phase Noise	External Reference Dependent
Power	-5 to +5dBm

Monitor And Control (optional)

Monitor	BUC temperature LO unlocked alarm Status alarm RF Input and RF Output Power LED status indicator
Control	Adjustable gain with 0.5dB step size RF output mute
Interface	RS232/485
Optional	Ethernet (SNMP + HTTP)

Power Supply Requirement

DC Input Voltage for BUC 4W, 6W & 8W	+18VDC to +60VDC
Power Supply Interface	Common input via IFL (N-type connector/ F-type Female connector)

Mechanical

Dimensions	282L x 140W x 60H mm / 11.1L x 5.5W x 2.4H in (4W & 6W) 282L x 140W x 98H mm / 11.1L x 5.5W x 3.9H in (8W including fan)
Weight	3.3kg / 7.27lbs (4W / 6W) 4.2kg / 9.3lbs (8W including fan)
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)

Note: All specifications are subject to change without notice.
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