ALB 128 Series

25W/40W/50W
Ku-Band Block-Up Converter

Agilis ALB 128 Series Ku-Band BUC (Block-Upconverter) is a highly cost effective RF outdoor transmitter for satellite communication. It is suitable for both data and voice communication operating in different modulation formats including BPSK, QPSK, 8-PSK / 8-QAM / 16-QAM, 16-APSK and 32-APSK.

Agilis Ku-Band BUC is also suitable for SCPC (Single Channel Per Carrier) network configurations and can be used in low or intermediate data rate for MCPC (Multi-Channel Per Carrier), DAMA (Demand Assigned Multiple Access) or TDMA (Time Division Multiple Access) applications.

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 ALB 128 Ku-Band BUC is a low cost design suitable for broadband applications (such as DVB-RCS) in satellite IP networks.

Features

- Available for all Ku-Band frequencies
- L-Band Interface
- Easy installation
- Excellent phase noise characteristics
- Temperature compensation
- Low spurious
- Higher power options
- In-built Redundancy
- Monitoring and control via RS232/RS485
- Optional Ethernet interface

Monitoring and Control (Optional)

- SSPA On/Off Control
- Automatic level control with level stability accuracy better than ± 0.5 dB
- Adjustable gain
- Temperature sensor reading
- LO unlocked alarm

Reliability

Field proven under harsh environment conditions. Agilis ODUs can withstand temperature ranging from -40°C to +60°C 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 during tropical, cold and harsh environment.

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Technical Specifications

Frequency Range

	Input (MHz)	Output (GHz)	LO (GHz)
Standard	950 to 1450	14.0 to 14.50	13.05
Offset	950 to 1450	13.75 to 14.25	12.80
Extended	950 to 1700	13.75 to 14.50	12.80
Low	950 to 1200	13.00 to 13.25	12.05
Plain	950 to 1450	12.75 to 13.25	11.80
High	1000 to 1300	14.50 to 14.80	13.50

Transmit

Power	Output Power (dBm) min	Typical Gain (dB)	Power Consumption (Typ)
25W	44	65 - 75	210VA
40W	46	65 - 75	400VA
50W	47	75 - 85	500VA

Input Power @P1dB Output	- 25 dBm
Gain Flatness for Full BW	±1.25 dB max
Gain Stability Over Temperature	±2.0 dB max
Gain Control	20 dB in steps of 0.5 dB
Spurious @P1dB Output	-55 dBc max
Phase Noise @ 100Hz offset	-63 dBc/Hz
@ 1kHz offset	-73 dBc/Hz
@ 10kHz offset	-83 dBc/Hz
@ 100kHz offset	-93 dBc/Hz
Inter Modulation	-27 dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
Frequency Inversion	Non-inverted
Input VSWR	1.2:1 max
Output VSWR	1.3:1 max
IF Input Interface	50Ω N-Type Female F-Type Female (Optional)
Output Interface	WR 75G

Environmental

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

External Reference

Frequency	10MHz
Phase Noise	External Reference Dependent
Power	-5 to +5 dBm
In-built Internal 10MHz reference	Optional

Monitor And Control (optional)

Interface	RS232/485
Optional	Ethernet (HTTP / SNMP)
SSPA Output Power Detect	Yes
SSPA On/Off Control	Yes
Redundancy option	In-built

Power Supply

AC Input Voltage	220 V AC 110 V AC (Optional)

Mechanical

Dimensions	397L x 230W x 207H mm (25W to 50W)
Weight	10 kg (25W to 50W)
Colour	White powder coat

Compliance Standard

IEC 60950	International Safety Standard for Information Technology Equipment
ETSI EN 300 673	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for Very Small Aperture Terminal (VSAT)
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)
IEC 60068	Environmental Testing
MIL-STD-810F	Standard Environmental EngineeringConsiderations and Laboratory Tests

Note: All specifications are subject to change without notice.
Rev. 300112

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