



## ALB 128 Series

80W/100W  
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  $\pm 0.5$  dB
- Adjustable gain
- Temperature sensor reading
- LO unlocked alarm

### Reliability

Field proven under harsh environment conditions. Agilis ODU's can withstand temperature ranging from  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  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)
<b>Standard</b>	950 to 1450	14.0 to 14.50	13.05
<b>Offset</b>	950 to 1450	13.75 to 14.25	12.80
<b>Extended</b>	950 to 1700	13.75 to 14.50	12.80
<b>Low</b>	950 to 1200	13.00 to 13.25	12.05
<b>Plain</b>	950 to 1450	12.75 to 13.25	11.80
<b>High</b>	1000 to 1300	14.50 to 14.80	13.50

### Transmit

Power	Output Power (dBm) min	Typical Gain (dB)	Power Consumption (Typ)
80W	49	75 - 85	1000VA
100W	50	75 - 85	1200VA

Input Power @P1dB Output	-25 dBm
Gain Flatness for Full BW	±2.0 dB max
Gain Stability Over Temperature	±2.0 dB max
Gain Control	20 dB in step 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	-27dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
Frequency Inversion	Non-inverted
Input VSWR	1.5:1 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)
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### Mechanical

Dimensions	574L x 420W x 223H mm (80W, 100W)
Weight	27kg (80W, 100W)
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 Standard Environmental Engineering Considerations and Laboratory Tests
MIL-STD-810F	Standard Environmental Engineering Considerations and Laboratory Tests



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Note: All specifications are subject to change without notice.  
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