



# ALB 180 Series

250W/300W/400W  
C-Band Block-Up Converter

Agilis ALB 180-K Series C-Band BUC (Block-Up converter) is a highly cost effective outdoor RF transmitter for satellite communication. Easy to install, it is redundancy-ready and field-proven for any harsh operating environment. The BUC is suitable for both data and voice communication operating in different modulation formats including BPSK, QPSK, QAM and FM.

Agilis C-Band BUC is designed for the SCPC (Single Channel Per Carrier) network configurations and for the low or Intermediate data rate for MCPC (Multi-Channel Per Carrier), DAMA (Demand Assigned Multiple Access) or TDMA (Time Division Multiple Access) applications.

Agilis C-Band BUC offers a wide range of distinctive advantages and enhanced features for satellite communications systems based in remote or challenging geographic regions. The equipment employs L-Band interface to the indoor unit. Agilis ALB 180-K Series C-Band BUC is a low cost solution suitable for broadband application (such as DVB-RCS) in satellite IP networks.

## Features

- Available for all C-Band frequencies
- L-Band Interface
- Low cost, compact
- Direct antenna mount
- Easy installation
- Temperature compensation
- High power options
- Redundancy option
- RS 232/485, FSK & SNMP M&C option
- Excellent phase noise characteristics
- Low spurious
- Low power consumption
- Wide input D.C. voltage range

## 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
- Input Power Detection
- Output Power Detection
- SNMP
- FSK

## Reliability

Field proven under harsh environment conditions. Agilis ODU 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 outdoor units undergo 100% waterproof test equivalent to IP65 to ensure normal operation during tropical, cold and harsh environment.



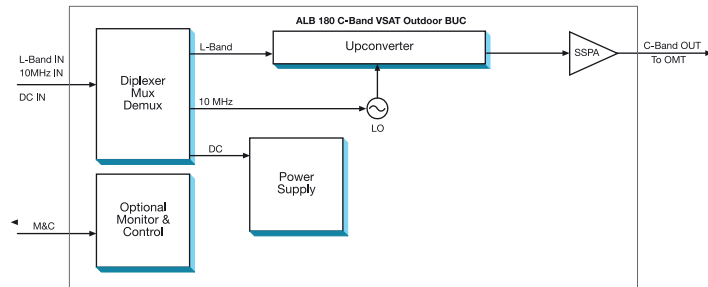
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## Technical Specifications



## Frequency Range (MHz)

	Input	Output	LOW LO
<b>Intelsat</b>	950 to 1525	5850 to 6425	4900
<b>Insat</b>	1100 to 1400	6725 to 7025	5625
<b>Measat 3</b>	950 to 1750	5925 to 6725	4975
<b>ST-1/Palapa-C</b>	1400 to 1700	6425 to 6725	5025
<b>Full C</b>	950 to 1825	5850 to 6725	4900

## Transmit

Power	Output P1dB (dBm) min	Gain (dB)	Typ AC Power Consumption (VA)
<b>250W**</b>	54	83 – 87	1500VA
<b>300W**</b>	54.8	83 – 87	2.2KVA
<b>400W**</b>	56	83 – 87	2.7KVA

<b>Input Power @P1dB Output</b>	-25 dBm (Typ)
<b>Gain Flatness over Full Bandwidth</b>	4 dB max
<b>Gain stability Over Temp</b>	4 dB max
<b>Gain Control</b>	20 dB in step of 0.5 dB
<b>Spurious @ P1dB Output</b>	-55 dBc max
<b>Phase Noise @ 100Hz offset</b>	-63 dBc/Hz
<b>@ 1kHz offset</b>	-73 dBc/Hz
<b>@ 10kHz offset</b>	-83 dBc/Hz
<b>@ 100kHz offset</b>	-93 dBc/Hz
<b>Inter Modulation</b>	-25 dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
<b>Frequency Inversion</b>	Non inverting
<b>Input VSWR</b>	2:0:1 typ
<b>Input Interface</b>	50Ω N-Type Female / F- Type Female (Optional)
<b>Output Interface</b>	50Ω N-Type Female (1mW) WR137G (2W to 500W)

## Environmental

<b>Operating Temperature</b>	-40°C to + 60°C
<b>Relative Humidity</b>	up to 100% Weather Protection sealed to IP65

[www.agilissatcom.com](http://www.agilissatcom.com)

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## External Reference

<b>Frequency</b>	10 MHz
<b>Phase Noise</b>	External Reference Dependent
<b>Power</b>	-5 to +5 dBm @ 50Ω

## Monitor And Control (optional)

<b>Interface</b>	RS 232/485, (Optional) : Ethernet (Http + SNMP)
<b>SSPA Output Power Detect</b>	Yes
<b>SSPA On/Off Control</b>	Yes

## Mechanical

<b>Dimensions</b>	475L x 464W x 420H mm (250W to 400W)
<b>Weight</b>	55 kg (250W to 400W)
<b>Colour</b>	White powder coat

## Compliance Standard

<b>IEC 60950</b>	International Safety Standard for Information Technology Equipment
<b>ETSI EN 300 673</b>	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for Very Small Aperture Terminal (VSAT)
<b>ETSI EN 301 489-1</b>	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
<b>FCC Part 15 Class B</b>	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)
<b>IEC 60068 MIL-STD-810F</b>	Environmental Testing Standard Environmental Engineering Considerations and Laboratory Tests

*Note: All Specifications are subject to changes without notice. Ver. 300112*

