Agilis ALB180 K-Series C-Band BUC (Block-up Converter) is a highly cost-effective outdoor RF 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 for 5W and 10W models.

Agilis C-Band BUC is designed for high reliability operation in various applications such as flyaway antenna. The BUC also has one of the best 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 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 ALB180 K-Series C-Band BUC is an ideal solution suitable for broadband application (such as DVB-RCS) in satellite IP networks.

**Features**
- Available for all C-Band frequencies
- Direct antenna mount
- Wide operating temperature range -40ºC to +60ºC
- Wide input D.C voltage range 18V to 60V for 5W and 10W C-BUC
- 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

**Monitoring and Control**
- 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/HTTP (Optional)

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

**Quality Assurance**
All Agilis ODU 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 in tropical, cold and harsh environments.
## ALB180 Series

**C-Band VSAT Outdoor Block-Up Converter**

### Technical Specifications

#### Frequency Range (MHz)

<table>
<thead>
<tr>
<th></th>
<th>Output</th>
<th>Input</th>
<th>LO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelsat</td>
<td>5850 to 6425</td>
<td>950 to 1525</td>
<td>4900</td>
</tr>
<tr>
<td>Insat</td>
<td>6725 to 7025</td>
<td>1100 to 1400</td>
<td>5625</td>
</tr>
<tr>
<td>Measat 3</td>
<td>5925 to 6725</td>
<td>950 to 1750</td>
<td>4975</td>
</tr>
<tr>
<td>ST-1/Palapa-C</td>
<td>6425 to 6725</td>
<td>1150 to 1450</td>
<td>5275</td>
</tr>
<tr>
<td>Full C</td>
<td>5850 to 6725</td>
<td>950 to 1825</td>
<td>4900</td>
</tr>
</tbody>
</table>

#### Transmit

<table>
<thead>
<tr>
<th>Power</th>
<th>Output P1dB (dBm)</th>
<th>Gain (dB)</th>
<th>Power Consumption (Typ)</th>
<th>(Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2W</td>
<td>33</td>
<td>55 - 63</td>
<td>25W</td>
<td>28.8W</td>
</tr>
<tr>
<td>5W</td>
<td>37</td>
<td>56 - 84</td>
<td>43.2W</td>
<td>50W</td>
</tr>
<tr>
<td>10W</td>
<td>40</td>
<td>63 - 71</td>
<td>80W</td>
<td>91.2W</td>
</tr>
</tbody>
</table>

- Input Power @P1dB Output: -25dBm (Typ)
- Gain Flatness over Full Bandwidth: ±2.0dB max
- Gain stability Over Temp: ±2.0dB max
- Spurious @ P1dB Output: -55dBc max
- Phase Noise @ 100Hz offset: -63dBc/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 VS&W
- 2:0:1 max

#### Output Interface
- 2:0:1 max

#### Input Interface
- 50Ω N-Type Female/F-Type Female (Optional)

#### Output Interface
- CPRG137

#### Current @ 24VDC input voltage
- 1.2A max (for 2W)
- 1.8A max (for 5W)
- 3.8A max (for 10W)

#### Environmental

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

#### External Reference Requirement

- Frequency: 10MHz
- Phase Noise: External Reference Dependent
- Power: -5 to +5dBm @ 50Ω

### Monitor & Control

- **Monitor**: BUC Temperature
- **Control**: Adjustable gain with 0.5dB step size
- **Interface**: RS232/485 (Standard)

#### Environmental

- Operating Voltage
  - +15VDC to +36VDC (2W)
  - +15VDC to +60VDC (5W to 10W)

#### Power Supply Interface
- Common input via IFL (N-type connector/F-type Female connector)

#### Mechanical

- **Size**: 187L x 131W x 54H mm / 7.4L x 5.2W x 2.1H in (for 2W)
  - 248L x 128W x 56H mm / 9.8L x 5.0W x 2.2H in (for 5W)
  - 250L x 128W x 94H mm / 9.8x 5.0W x 3.7H in (for 10W)
- **Weight**: 1.8kg / 4.0lbs (2W)
  - 2.5kg / 6.0lbs (5W)
  - 3.0kg / 6.6lbs (10W)
- **Color**: White powder coat

### Compliance Standard

- **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)