ALB150 Series
Compact 20W/40W X Band Block-Up Converter

Designed to mount directly to the feedhorn, ideal for mobile and satellite uplink applications.

Innovative and excellent efficiency thermal design makes this BUC one of the most power efficient, robust, rugged, and reliable to operate under harsh outdoor environment.

Easy installation with redundancy ready features to work in 1+1 redundancy mode.

Features
- Feed mountable
- Forward, reflected and input power detection
- Monitoring and Control through Serial and Ethernet ports
- Fault identification and alarm generation
- LED status and alarm indicator
- Auto gain control throughout operating temperature
- Built-in redundancy ready
- Wide DC input ranging 38 to 60Vdc
- Wide operating temperature -40°C to +60°C
- IP65 Weatherproof
- RoHS Compliant

Quality Assurance
100% thorough stringent quality checks in addition to well-defined Electrical Stress Screening to ensure operation in harsh outdoor environment conditions. All subjected to seal test for water ingress verification.

Reliability
Field proven under harsh environment conditions. Agilis ODU can withstand temperature ranging from -40°C to +60°C under 100% humidity.
# ALB190/290 Series

Compact 20W/40W X Band Block-Up Converter

## Technical Specifications

### RF Specifications

<table>
<thead>
<tr>
<th>Freq Band</th>
<th>Transmit</th>
<th>IF</th>
<th>LO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>7900 – 8400MHz</td>
<td>950 – 1450MHz</td>
<td>6950MHz</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Power</th>
<th>P_{1dB}</th>
<th>PIN</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20W</td>
<td>43.0dBm</td>
<td>40.0dBm (10W)</td>
<td></td>
</tr>
<tr>
<td>40W</td>
<td>46.0dBm</td>
<td>43.0dBm (20W)</td>
<td></td>
</tr>
</tbody>
</table>

- **Small Signal Gain**: 69dB min
- **Gain Flatness**: ±2dB within band
- **Gain Variation**: ±2dB within band over operating temperature
- **Intermodulation**: -27dBc max @ PIN |
- **Spurious**: According to EN 301 443
  - -100dBc/Hz max @100KHz offset
  - -90dBc/Hz max @10KHz offset
  - -80dBc/Hz max @1KHz offset
- **VSWR**: 2.0:1 max @input
  - 2.0:1 max @output

### AC/DC Power

- **Prime Power**: 38 to 60Vdc auto range
- **Power Consumption**: 144VA typ @20W
  - 240VA typ @40W

### Interface

- **IF Input**: N-Type Female 50Ω
  - F-Type Female 75Ω (option)
- **RF Output**: WR112 Grooved

### Reference Requirement

- **Frequency**: 10MHz
- **Power Level**: -5dBm to +5dBm
- **Phase Noise**: -160dBc/Hz max @100KHz offset
  - -155dBc/Hz max @10KHz offset
  - -150dBc/Hz max @1KHz offset

### Monitor & Control

- **BUC Temperature**: Status Alarm with LED Indicator
- **LO Unlock Alarm**: RF Input & Forward Power Detection
- **RF Input & Forward Power Detection**: Output Reflected Power Detection
- **Gain Adjustable 30dB with 0.5dB step**: Gain adjustable 30dB with 0.5dB step
- **RF Output On/Mute**: RF Output On/Mute
- **Serial RS232/RS485**: According to EN 301 443
- **Ethernet (SNMP & HTTP)**: Ethernet (SNMP & HTTP)
- **Built-in**: Communication Port

### Environmental

- **Operating Temperature**: -40°C to +60°C
- **Relative Humidity**: Up to 100%
- **Weatherproof**: IP65

### Mechanical

- **Dimension (excluding interface connectors)**: L223 x W171 x H88mm
  - L8.78” x W6.73” x H3.46”
- **Weight**: 4.0Kg / 8.8lbs

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**NOTE**: All specifications subject to change without notice 200422
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Standard Part List for Standalone Configuration

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRODUCT NAME</th>
<th>OPTION</th>
<th>PART NUMBER</th>
<th>QTY</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>BUC</td>
<td></td>
<td></td>
<td>01</td>
<td>BUC</td>
</tr>
<tr>
<td>2</td>
<td>Cable DC</td>
<td>DC Power Supply</td>
<td>2502041298</td>
<td>01</td>
<td>Cable Assembly DC 12-3S to Unterminated 2M</td>
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<tr>
<td>3</td>
<td>Cable M&amp;C</td>
<td>RS232/485</td>
<td>2502040500</td>
<td>01</td>
<td>Cable Assembly M&amp;C - 232/485 12-8P to DB9 (F) 3M</td>
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<tr>
<td>4</td>
<td>Cable M&amp;C</td>
<td>ETH</td>
<td>2502041313</td>
<td>01</td>
<td>Cable Assembly M&amp;C - ETH 12-8P to RJ45 2M</td>
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<tr>
<td>5</td>
<td>Converter</td>
<td>RS485</td>
<td>6103480008</td>
<td>01</td>
<td>Converter USB to RS485</td>
</tr>
<tr>
<td>6</td>
<td>Mounting Accessory Set</td>
<td></td>
<td></td>
<td>01</td>
<td>Mounting screws including brackets, screws, studs, gasket for flange WR112</td>
</tr>
</tbody>
</table>

NOTE: Part list and drawing subject to change without notice

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