



## ALB229 Series

300W Ku-Band  
Block-Up Converter

The ALB229 Series 300W Ku-Band BUC is ideal for mobile and satellite uplink applications.

The BUC has “Best in Class” efficiency and “lowest power consumption.” The unit works on a wide range AC power supply of 96VAC to 264VAC.

Built-in redundancy feature eliminates the use of an external controller for 1:1 redundancy operation. This eliminates messy cabling at the antenna making this a very elegant solution.

Extensive M/C interface with RS232/RS485/ and Ethernet (SNMP & HTTP).

### Features

- Available in standard and extended Ku-Band
- Forward & reverse power detection
- Input power detection
- Intuitive monitoring & control through RS232/RS485 & Ethernet (SNMP & HTTP)
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference with auto-detection
- Built-in receive reject filter
- Sample port for output monitoring
- Wide operating temperature range 0°C to +50°C
- RoHS Compliant

### Quality Assurance

100% of all BUCs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation.

### Reliability

Field proven under harsh environment conditions, Agilis IDUs can withstand temperature ranging from -0°C to +50°C with up to 95% humidity.

# ALB229 Series

300W Ku-Band  
Block-Up Converter



## Technical Specifications

### RF Specifications

<b>Transmit Frequency</b>	14.0GHz – 14.5GHz 13.75GHz – 14.5GHz
<b>IF Frequency Range</b>	950MHz – 1450MHz 950MHz – 1700MHz
<b>LO Frequency</b>	13.05GHz 12.80GHz
<b>Output Power (P<sub>sat</sub>)</b>	55dBm
<b>Spectral Re-growth</b>	30dBc @ P <sub>Linear</sub>
<b>Third Order Intermod (two tone)</b>	-25dBc @ Relative to combine power of two carrier at 3dB total power backoff from P <sub>Linear</sub>
<b>Small Signal Gain</b>	
<b>300W</b>	80dB Min
<b>Gain Flatness Full Band</b>	±2dB
<b>Gain Slope over 40MHz</b>	±1dB
<b>Gain Variation over temperature</b>	±1dB @ from -0°C to +50°C
<b>Gain Control</b>	20dB in step of 0.5dB
<b>O/P spurious</b>	According to EN301428
<b>Phase Noise @ Offset</b>	
<b>1KHz</b>	-75dBc/Hz
<b>10KHz</b>	-85dBc/Hz
<b>100KHz</b>	-95dBc/Hz
<b>I/P VSWR</b>	1.3:1
<b>O/P VSWR</b>	1.25:1
<b>Noise Power Density Tx BD</b>	70dBW/4KHz
<b>Rx BD</b>	142dBW/4KHz
<b>Maximum Input Power</b>	+10 dBm (without damage)
<b>Noise Figure at Gain max</b>	10.0 dB max
<b>Display</b>	24 x 2 LCD Display
<b>Power Supply</b>	220 Vac, 1 phase ±10.0%
<b>Frequency Voltage</b>	47Hz ~ 63Hz

### Power

<b>Prime Power</b>	230VAC (range 96V to 264VAC)
<b>Power Consumption</b>	2.5 KW

### Interfaces

<b>IF Input Interface</b>	50Ohms N-type Female
<b>Output Interface</b>	WR 75G

### External Reference

<b>Frequency</b>	10MHz
<b>Power</b>	-5dBm to +5dBm
<b>Internal reference</b>	Built-in (Auto detection)
<b>External reference phase noise</b>	
<b>Requirement @ frequency offset</b>	
<b>1KHz</b>	-150dBc/Hz
<b>10KHz</b>	-155dBc/Hz
<b>100KHz</b>	-160dBc/Hz

### Monitor And Control

<b>Monitor</b>	BUC temperature Status alarm Output power Reverse power Input power LED status indication
<b>Control</b>	Attenuation RF output mute
<b>Interface</b>	RS485 & Ethernet (SNMP & HTTP)
<b>Tx Redundancy</b>	Built-in

### Environmental

<b>Operating Temperature</b>	-0°C to +50°C
<b>Humidity</b>	Up to 100% Weather protection sealed to IP65

### Mechanical

<b>Size</b>	19" rack, 7RU height
<b>Weight</b>	50kg
<b>Color</b>	Grey

### Compliance Standard

<b>IEC 609501-2nd Edition</b>	International Safety Standard for Information Technology Equipment
<b>ETSI EN 301 489-12</b>	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)
<b>ETSI EN 301 489-1</b>	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
<b>FCC Class A</b>	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.  
Rev. 031013

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

For more information, please send enquiry to:

**Singapore (Headquarters)**

[mktg\\_satcoms@stee.stengg.com](mailto:mktg_satcoms@stee.stengg.com)

**USA**

[usa\\_satcoms@stee.stengg.com](mailto:usa_satcoms@stee.stengg.com)

**Europe**

[europe\\_satcoms@stee.stengg.com](mailto:europe_satcoms@stee.stengg.com)

