ALB180 Series

20W/40W Block Up Converter
Ultra Slim C-Band

This series of slim BUCs offer the highest power/weight ratio. At a mere 4.8Kgs the 40W BUC provides highly reliable performance over a wide temperature range. Being highly linear, the BUC can be used in multi-carrier applications. The innovative thermal management techniques increase long term reliability.

Features

- Ultra slim, compact and lightweight
- Available for all C-Band frequencies
- Easy installation
- Excellent linearity
- Extremely reliable
- Excellent phase noise characteristics
- Low spurious
- High power efficiency
- Built-in M&C, remote monitor & control through RS232/RS485 (Ethernet-optional)
- Wide input DC voltage range
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature
- RoHS compliant
- Waterproof

Enhanced Monitoring and Control (M&C)

M&C via RS232/485 covers:

- Temperature monitoring
- RF inhibit selection
- Gain adjustment
- Automatic fault identification & alarm

Reliability

Field proven under harsh environment conditions, Agilis Outdoor BUC can withstand temperature ranging from -20ºC to +50ºC with up to 100% humidity.

Quality Assurance

Agilis Outdoor BUC goes through intensive active electrical stress screening test. In addition, all units undergo 100% waterproof test equivalent to IP55 to ensure reliable operation during tropical, cold and harsh environment.

Agilis

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Technical Specifications

RF Specifications

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

Output Power @ P1dB	43dBm min (for 20W) 46dBm min (for 40W)
Small signal Gain	70dB (typical for 20W) 73dB (typical for 40W)
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±2dB over -20 to +50º
Inter modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
O/P spurious @ Rated Power	According to EN301443
Phase Noise @ offset	
1KHz	-75dBc/Hz max
10KHz	-83dBc/Hz max
100KHz	-93dBc/Hz max
I/P VSWR	1.5:1 max
O/P VSWR	2.0:1 max
Receive Frequency Range	950 – 1950MHz
Receive Gain	-5dB max
Receive Flatness	2dB max over the receive frequency band

DC Power

At Rated output Power of 40W	-40ºC 200W max (for 20W) 360W max (for 40W)
At 3dB backoff from Rated Output Power	160W max (for 20W) 315W max (for 40W)
Prime Power	48V DC (range 38 to 60VDC)

Interfaces

Input Connectors (Tx IF)	TNC-Female / N-type Female
Impedance	50Ohms
RF Output Connector (Tx out)	N-type Female
Output Impedance	50Ohms
DC and M&C connector	7 pin, Circular
Communication Interface	RS232, 6 pin, Circular
Fan Connector	6 pin, Circular

Monitor & Control

Monitor	BUC Temperature Status Alarm RF Output Power
Control	Temperature threshold setting BUC On/Off Control Adjustable gain with 0.5dB step size
Protection Interface	Over temperature BUC shutdown Over Voltage protection Over current protection
Interface	RS232/RS485, Ethernet (Optional)

Environmental

Operating Temperature	-20ºC to + 50ºC
Storage Temperature	-40ºC to + 70ºC
Enclosure Rating	IP55
Vibration	1.04grms, 5 – 500Hz
Shock	20g, 11ms, Saw Tooth Pulse, 3 Axes

Mechanical

Size	390L x 367W x 37H mm
Weight	4.8kg
Color	White Powder Coat / Nickel Plating

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
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 4 GHz and 30 GHz 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)

Note: All specifications are subject to change without notice.
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