



ALB190 Series

Compact 150W/200W
C-Band High Power Block-Up Converter

This small and lightweight BUC is ideal for mobile and satellite uplink applications.

The BUC has excellent efficiency and consumes less than 950W for 200W RF power. Innovative and efficient thermal design makes this BUC one of the smallest in the industry.

Built-in redundancy-ready 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 RS232/485, Ethernet (SNMP & HTTP) and Wifi.

Features

- Compact and lightweight
- Forward & reverse power detection facility
- Input power detection facility
- Intuitive monitoring & control through RS232/485, Ethernet (SNMP & HTTP)
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference with auto-detection
- Built-in harmonics reject filter
- Sample port for output monitoring
- Wide operating temperature range -40°C to +60°C
- RoHS Compliant
- Waterproof

Quality Assurance

100% of all BUCs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation in harsh outdoor environments. The BUCs are also subjected to seal test for water ingress verification.

Reliability

Field proven under harsh environment conditions, Agilis ODUs can withstand temperature ranging from -40°C to +60°C with up to 100% humidity.

Frequency Band

INTELSAT

LO : 7375MHz / 4900MHz
IF : 950 to 1525MHz
Tx : 5.850 to 6.425GHz

Table 1

ALB190 Series

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Technical Specifications

RF Specifications

Transmit Frequency	Intelsat
IF Frequency Range	Refer to Table 1
Output Power @ P1dB	53dBm (200W)/ 51.8dBm (150W)
Small Signal Gain	73dB Min
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±1.5dB over the operating temperature range
Gain Control	30dB in step of 0.5dB
Inter Modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power back-off from P1dB
O/P spurious	According to EN301443
Phase Noise @ Offset	
1KHz	-80dBc/Hz
10KHz	-90dBc/Hz
100KHz	-100dBc/Hz
I/P VSWR	2.0:1
O/P VSWR	1.5:1
Noise Power Density TX BD	-70dBm/ 4KHz
RX BD	-142dBm/ 4KHz

AC Power Requirement

Prime Power	90 – 264VAC, 50 – 60Hz
Power Consumption	800W (typical for 150W) 950W (Typical for 200W)

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	CPRG 137G

Reference Requirement

Frequency	10MHz
Power	-5dBm to +5dBm
Internal 10MHz Ref	Built-in (auto-detection)
External reference phase noise requirement @frequency offset	
1kHz	-150dBc/Hz
10kHz	-155dBc/Hz
100kHz	-160dBc/Hz

Monitor & Control

Monitor	BUC Temperature Status Alarm RF Output Power/RF Input Power RF Reflected Output Power LED Status Indication
Control	Attenuation RF output mute
Interface	RS232/485, Ethernet (SNMP & HTTP) & Wifi (Optional)
Tx Redundancy	Built-in

Environmental

Operating Temperature	-40°C to +60°C
Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	296L x 209W x 175H
Weight	11.5kg
Color	White Powder Coat

Note: All specifications are subject to change without notice.
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