ALB250 Series

Phase Combined 1000W X-Band Block-up Converter

Agilis ALB250 Series X-Band BUC is a highly cost effective outdoor RF transmitter for satellite communication.

The BUC has excellent efficiency and consumes less power due to the innovative and efficient thermal design.

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 and Ethernet (SNMP & HTTP).

Features

- Forward & reverse power detection facility
- Input power detection facility
- Intuitive monitoring & control through RS232/485 and Ethernet (SNMP & HTTP).
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference
- Sample port for output monitoring
- Wide operating temperature range -40ºC to +60ºC
- 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 -40ºC to +60ºC with up to 100% humidity.

Agilis

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Technical Specifications

RF Specifications

Transmit Frequency	7900MHz to 8400MHz
IF Frequency Range	950MHz to 1450MHz
Output Power	60.0dBm
Small Signal Gain	80dB nominal
Gain Flatness	±2.0dB over the O/P frequency band
Gain Variation	±2.0dB over the operating temperature range
Gain Control	20dB in step of 0.5dB
Inter Modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
O/P spurious	According to EN301443
Phase Noise @ Offset	
1KHz	-73dBc/Hz
10KHz	-83dBc/Hz
100KHz	-93dBc/Hz
I/P VSWR	1.5.1
O/P VSWR	1.5.1

DC Power Requirement

Prime Power	For AC (230VAC, 50 – 60Hz)
Power Consumption	5.4kVA

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	WR 112G

Reference Requirement

Frequency	10MHz
Power	-5dBm to +5dBm
Internal 10MHz Ref	In-built (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)
Tx Redundancy	In-built

Environmental

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

Mechanical

Size	950L x 464W x 420H
Weight	110kg
Color	White Powder Coat

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 Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.
Rev. 090714

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