



ALB210 Series

Compact 40W
Ka-Band Block-Up Converter

This small and light weight new Ka-Band BUC is ideal for mobile and satellite uplink applications. Designed to be mounted on the feed horn, the BUC has excellent efficiency. The unit works on a wide range input AC power supply from 96V to 260V. Innovative and efficient thermal design makes this BUC one of the smallest, lightest and most reliable in the industry.

With redundancy-ready feature, the unit can be easily configured to work in 1+1

Features

- Compact and lightweight
- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Forward power detection function
- Remote monitor & control through RS232/RS485 and Ethernet (SNMP & HTTP)
- Integrated AC Supply
- In built 10MHz reference
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature
- Redundancy ready
- Wide operating temperature range -40°C to +60°C
- RoHS compliant
- Waterproof
- LED indicator for BUC status

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.

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Technical Specifications

RF Specifications

Transmit Frequency	27.6GHz to 30.0GHz (Please refer to the Table 1 below for band selection)
Input Frequency	950MHz to 1700MHz
LO frequency	Switchable (Refer Table 1)
Output Power @ Psat	46dBm (40W)
Output @ P Linear	43dBm
Small Signal Gain	65dB (min)
Gain Flatness	±2.0dB typ
Gain Flatness over 40MHz	±1.0dB typ
Gain Variation	±2dB over the operating temperature range
Spectral Re-Growth	-30dBc at P _{Linear}
Phase Noise @ Offset	
1KHz	-73dBc/Hz min
10KHz	-83dBc/Hz min
100KHz	-93dBc/Hz min
Spurious	-60dBc typ
I/P VSWR	2.0:1 typ
O/P VSWR	2.0:1 typ

Power Supply

Prime Power AC supply (96 - 260)VAC

Power Consumption

	Plinear	Psat
40W	210W	285W

Interfaces

IF Input Interface	50Ohms N-type Female / 75Ohms F-type Female (optional)
Output Interface	WR28 grooved

Reference

Internal Frequency 50 MHz

External Reference (option) 10 MHz -5dBm to +5dBm

External reference phase
noise requirement @ frequency offset

1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Table 1

Band	RF Band (GHz)	IF Band (MHz)	LO Frequency (GHz)
Band 1	27.6 – 28.35	950 – 1700	26.65
Band 2	28.35 – 29.1	950 – 1700	27.4
Band 3	29.5 – 30.0	950 – 1450	28.55

Other operating bands available

Monitor & Control

Monitor	BUC temperature LO unlocked alarm Status alarm RF Output Power detection LED indication
Control	30dB adjustable gain with 0.25dB step size RF output mute
Interface	RS232/RS485, Ethernet (SNMP & HTTP) ,
Tx Redundancy	Redundancy-ready (with external RCU)

Environmental

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

Mechanical

Size	295L x 165W x 165H mm
Weight	6.8 Kg
Color	White Powder Coat

