



# ALB130/230 Series

Lite 40W/50W Ku Band  
Block-Up Converter

Designed to mount directly to the feedhorn, ideal for SOTM, fixed and maritime applications with option of IFL powered directly through modem via MS connector.

Innovative and excellent efficiency thermal design makes this BUC one of the most power efficient, robust and reliable to operate in harsh outdoor environment.

Easy installation with redundancy ready features to work in 1+1 redundancy mode.

## Features

- Feed mountable
- Forward power detection
- Monitoring and Control through Serial and Ethernet ports
- Fault identification and alarm generation
- LED status and alarm indicator
- Auto gain control throughout operating temperature
- Auto input DC voltage ranging 38 to 60Vdc
- Wide operating temperature -40°C to +60°C
- IP65 Weatherproof
- RoHS Compliant

## Quality Assurance

100% thorough stringent quality checks in addition to well-defined Electrical Stress Screening to ensure operation in harsh outdoor environment conditions. All 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 under 100% humidity.

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## Technical Specifications

### RF Specifications

Freq Band	Transmit	IF	LO
Plan	12.75 - 13.25GHz	950 - 1450MHz	11.80GHz
Standard	14.00 - 14.50GHz	950 - 1450MHz	13.05GHz
Extended	13.75 - 14.50GHz	950 - 1700MHz	12.80GHz

Output Power	PsAT	P1dB	Plinear
40W	-	46.0dBm (40W)	43.0dBm (20W)
50W	47.0dBm (50W)	-	43.2dBm (20.9W)

<b>Small Signal Gain</b>	74dB min
<b>Gain Flatness</b>	±2dB within band ±1dB over 40MHz
<b>Gain Variation</b>	±2dB within band over operating temperature
<b>Intermodulation</b>	-25dBc max @ Plinear
<b>Spurious</b>	According to EN 301 428
<b>Phase Noise</b>	-93dBc/Hz max @100KHz offset -83dBc/Hz max @10KHz offset -73dBc/Hz max @1KHz offset
<b>VSWR</b>	1.5:1 max @input 1.25:1 max @output with optional external isolator
<b>Noise Power Density</b>	Tx Band : -70dBW/4KHz max Rx Band : -142dBW/4KHz max

### AC/DC Power

<b>Prime Power</b>	38 to 60Vdc Auto Range
<b>Power Consumption</b>	280VA

### Interface

<b>IF Input</b>	N-Type Female 50Ω F-Type Female 75Ω (option)
<b>RF Output</b>	WR75 Square Grooved

### Reference Requirement

<b>Frequency</b>	10MHz
<b>Power Level</b>	-5dBm to +5dBm
<b>Ext Ref Phase Noise</b>	-155dBc/Hz max @100KHz offset -145dBc/Hz max @10KHz offset -135dBc/Hz max @1KHz offset

### Monitor & Control

<b>Monitor</b>	BUC Temperature Status Alarm LED Indicator LO Unlock Alarm RF Forward Power Detection
<b>Control</b>	Gain adjustable 20dB with 0.5dB step RF Output On/Mute
<b>Communication Port</b>	Serial RS232/RS485 Ethernet (SNMP & HTTP)
<b>Transmit Redundancy</b>	Redundancy-Ready (with external controller unit)

### Environmental

<b>Operating Temperature</b>	-40°C to +60°C
<b>Relative Humidity</b>	Up to 100%
<b>Weatherproof</b>	IP65

### Mechanical

<b>Dimension</b> (excluding interface connectors)	L192 x W120 x H100mm (Std/Ext) L7.56" x W4.72" x H3.94" L192 x W120 x H110mm (Plan) L7.56" x W4.72" x H4.33"
<b>Weight</b>	2.2Kg / 4.9lbs (Std/Ext) 2.5Kg / 5.56lbs (Plan)

NOTE: All specifications subject to change without notice  
200613

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### Standard Part List for Standalone Configuration

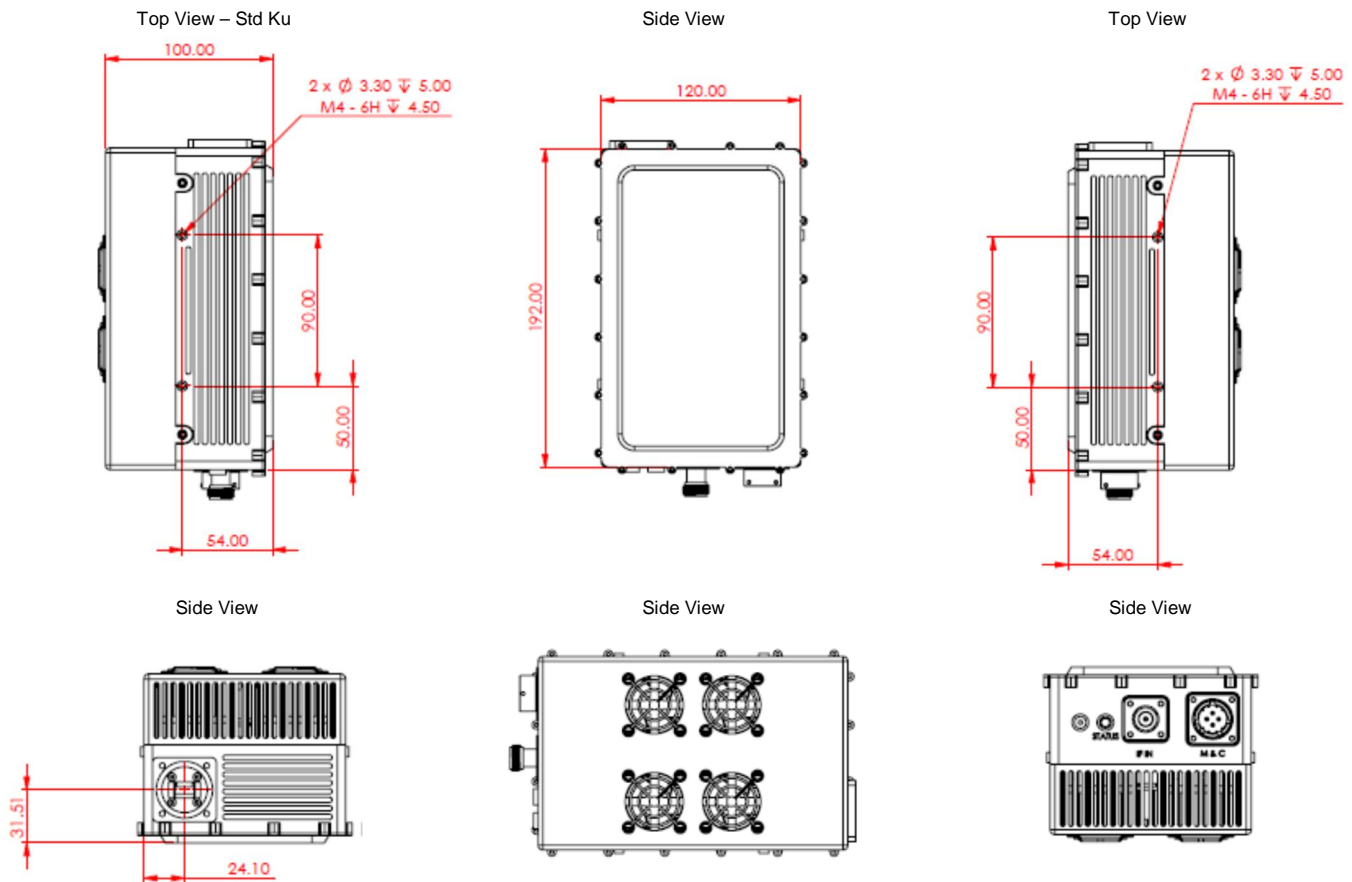
ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC			01	BUC
2	Cable M&C	RS232 / RS485		01	C/A M&C Serial/ETH 14-12S to DB9 (F)/DC Underterminated 2M
3	Cable M&C	ETH	2502041166	01	C/A M&C ETH/RJ45 DB9 (M) to RJ45 2M
4	Converter	RS485	6103480008	01	Converter USB to RS485
5	Mounting Accessory Set			01	Mounting brackets and screws including gasket for flange WR75

### Option Items

ITEM	PRODUCT NAME	OPTION	PART NUMBER	DESCRIPTION
1	WG Flexible	0.6M	4203490010	Flexible WG Ku band WR75 Sq Grooved to WR75 Sq Cover 0.6M
		1.0M	4203490049	Flexible WG Ku band WR75 Sq Grooved to WR75 Sq Cover 1M
		1.5M	4203490014	Flexible WG Ku band WR75 Sq Grooved to WR75 Sq Cover 1.5M
2	Cable M&C	10M	2502042303	C/A M&C 485/ETH 14-12S to DB9 (F) 10M
		15M	2502042285	C/A M&C 485/ETH 14-12S to DB9 (F) 15M

NOTE: Part list and drawing subject to change without notice  
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### Mounting Diagram



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