

DBU200

Dual 'Hot-swap' Block Converter with optional 1+1 Redundancy



The 19 inch 1U rack mounted **DBU200** chassis unit is designed to accept any mix of two of the Converter modules shown below. Modules can be inserted/ replaced in the **DBU200** unit from the rear without the need to remove power or disturb the other channel in any way.

The **DBU200** chassis units are mains powered (redundant power supplies as standard) and are constructed of high grade components to give the ultimate stability, ripple and phase noise performance.







The **DBU200** unit is available with optional integral 1+1 redundancy switching and control for use when two identical modules are used.

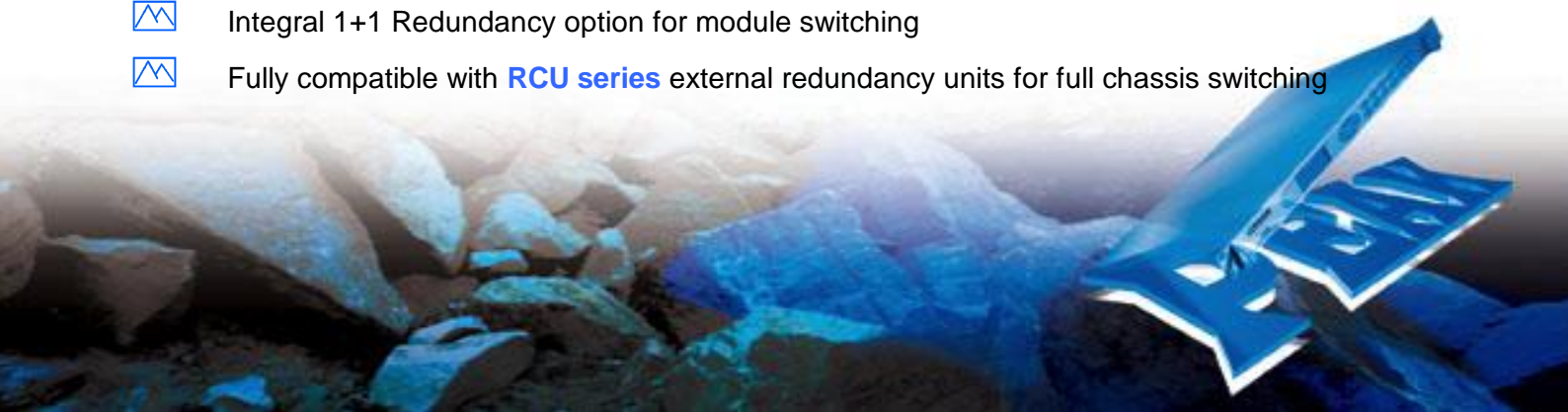
High Grade Converter Modules;

MBU600	L-Band to C-Band (5.85-6.425GHz) BUC Module	MBD420	C-Band (3.4-4.2GHz) to L-Band Inverting BDC Module
MBU665	L-Band to Extended C-Band (5.85-6.65GHz) BUC Module	MBD450	INSAT C-Band (4.5-4.8GHz) to L-Band BDC Module
MBU6725	L-Band to Super Extended C-Band (5.85-6.725GHz) BUC Module	MBD725	X-Band (7.25-7.75GHz) to L-Band BDC Module
MBU7025	L-Band to INSAT C-Band (6.70-7.025GHz) BUC Module	MBD1070	Ku-Band (10.70-11.70GHz) to L-Band BDC Module
MBU710	L-Band to INSAT C-Band (6.70-7.10GHz) BUC Module	MBD1095	Ku-Band (10.95-11.70GHz) to L-Band BDC Module
MBU790	L-Band to X-Band (7.90-8.40GHz) BUC Module	MBD1170	Ku-Band (11.70-12.20GHz) to L-Band BDC Module
MBU1275	L-Band to Ku-Band (12.75-13.50GHz) BUC Module	MBD1171	Ku-Band (11.70-12.75GHz) to L-Band BDC Module
MBU130	L-Band to Ku-Band (13.00-13.75GHz) BUC Module	MBD1225	Ku-Band (12.25-12.75GHz) to L-Band BDC Module
MBU137	L-Band to Ku-Band (13.75-14.50GHz) BUC Module		
MBU140	L-Band to Ku-Band (14.00-14.50GHz) BUC Module		
MBU180	L-Band to DBS-Band (17.30-18.10GHz) BUC Module		
MBU184	L-Band to DBS-Band (17.30-18.40GHz) BUC Module		

If the converter module that you require is not shown above, please contact us with your frequency requirements and we will be pleased to consider adding it to our range.

Peak Features

-  High stability, low ripple and excellent phase noise
-  10MHz External Reference option fitted as standard with automatic internal reference back-up
-  Full Alarm monitoring
-  Redundant Power Supplies with dual mains input
-  Integral 1+1 Redundancy option for module switching
-  Fully compatible with **RCU series** external redundancy units for full chassis switching



DBU200 Chassis - Typical Specification

External Reference Input

Frequency	10MHz (5MHz factory settable)
Level	0dBm \pm 3dB
Connector	50 Ω BNC
Locking delay	<2 min to stabilise from cold

Internal back-up reference Stability

Stability	<1 x 10 ⁻¹⁰ per second
Temp. Stability	< \pm 5 x 10 ⁻⁸ (0 to +50°C)
Ageing	< \pm 5 x 10 ⁻⁹ per day

Mechanical

Width	19" standard rack mountable
Height	1U (1.75")
Depth	400mm (15.7"), plus connectors
Construction	Aluminium chassis
Weight	4.5kgs (10lbs)

Environmental

Operating temp	0°C to +50°C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

Power Supply (2off in redundant configuration)

Voltage	90-264VAC
Option 10;	48VDC
Frequency	47-63Hz
Total power	50 Watts max.

Control System Interface

Remote Control	RS232/RS485 port
Option 9;	Ethernet; Embedded web server & SNMP network management support
Alarms	LO lock fail PSU fail Amplifier fail

Integral 1+1 'Module' Redundancy (Option 6)

User Interface	Key switches on front panel
Switch type	Rated to 18GHz
Switching speed	<150ms (from fault to switch completion)
Switch Isolation	>60dB input to output
RF Cables	Includes high grade rear panel links.

Note; the connection to the internal redundancy circuitry is made via RF links on the rear panel, this allows for by-pass wiring should the need arise. High grade co-axial linking cables are provided.

MBU/MBD Modules - Typical Specification

SHF Interface

Connector	50 Ω SMA (Option 1a; N-Type)
Return loss	>18dB

L-Band Interface

Connector	50 Ω SMA (Option 1b; N-Type)
Return loss	>15dB

Transfer Characteristics

Conversion gain	30dB \pm 1dB at band centre (MBD) 17dB \pm 1dB at band centre (MBU) (MBU Option 4; 27dB \pm 1dB)
RF Input power	-25dBm max (MBD)
1dB Output GCP	+8dBm (MBU Option 5; +18dBm)
Gain stability	\pm 0.5dB from 0 to 40°C
Gain flatness	\pm 1dB full band (\pm 1.5dB for MBU184) \pm 0.5dB across any 40MHz in band

RF Performance

Note; for MBU180, MBU184 phase noise & spurious performance please consult the factory.

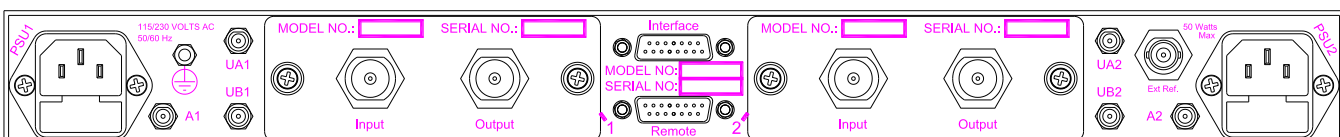
LO Phase noise	-55dBc/Hz at 10Hz
(typical with good	-75dBc/Hz at 100Hz
phase noise	-92dBc/Hz at 1kHz
ext. 10MHz ref.)	-100dBc/Hz at 10kHz
	-107dBc/Hz at 100kHz
	-125dBc/Hz at 1MHz
Spurious	<-80dBm (in band non-carrier related) <-75dBc (in band carrier related) Note; MBD420 specified at Input of -40dBm
3rd Order Intercept	>+18dBm (standard unit)

Options

- 1a) N-Type SHF connector
- 1b) N-Type L-Band connector
- 4) MBU Extra 10dB increase in gain, to +27dB
- 5) MBU 1dB GCP increase to +18dBm (includes extra 10dB Gain option)
- 6) Integral 1+1 redundancy module switching
- 9) Ethernet interface with embedded web server & SNMP, replaces RS232/485 port
- 10) 48VDC prime power supply

Note; the addition of options can modify the typical specification, for details please consult the factory

Rear panel View (shown with 1+1 redundancy option fitted)



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. DBU200-310112.

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