

DBU200, Dual 'Hot-swappable' Block Converter Unit



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.

High Grade Converter Modules;

MBU665	L-Band (950-1750MHz) to Extended C-Band (5.85-6.65GHz) BUC Module
MBD420	C-Band (3.4-4.2GHz) to L-Band (950-1750MHz) Inverting BDC Module
MBU790	L-Band (950-1450MHz) to X-Band (7.90-8.40GHz) BUC Module
MBD725	X-Band (7.25-7.75GHz) to L-Band (950-1450MHz) BDC Module
MBU137	L-Band (950-1750MHz) to Ku-Band (13.75-14.50GHz) BUC Module
MBU140	L-Band (950-1450MHz) to Ku-Band (14.00-14.50GHz) 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 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
-  Fully compatible with **RCU100** & **RCU200** series redundancy controllers
-  Redundant PSU's with dual mains inputs



DBU200 Chassis - Typical Specification

External Reference Input

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

Internal back-up reference;

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 mount
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)

Voltage	115/230VAC \pm 10%, selectable, Linear power supply
Frequency	50/60Hz
Total power	50 Watts max.

Control System Interface

Alarms	LO lock fail PSU fail Amplifier fail
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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 0.5dB across any 40MHz in band.

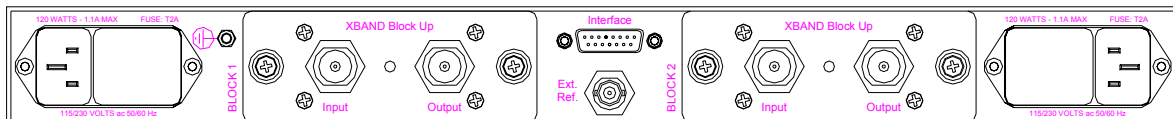
RF Performance

LO Phase noise	-75dBc/Hz at 100Hz
(typical with good 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)
3rd Order Intercept	>+18dBm (standard unit)
LO leakage	-80dBm (always out of band)

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).

Rear panel View



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RBU200-250805.

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