

## RCU100 series 1 for 1 Redundancy Switch Units



**RCU100** for use with;

**L500 series** Block DownConverters

**IBU/ IBUH/ IBD/ IBUH series** Block Converters

**RCU100(Ka)** for use with;

**IBU(Ka)/ IBUH(Ka)/ IBD(Ka)/ IBDH(Ka) series** Block Converters

**RCU101** for use with;

**F1201/ F1202** Fixed Frequency L-Band Converters

**RCU102** for use with;








**F1200** Fixed frequency L-Band Up & DownConverter

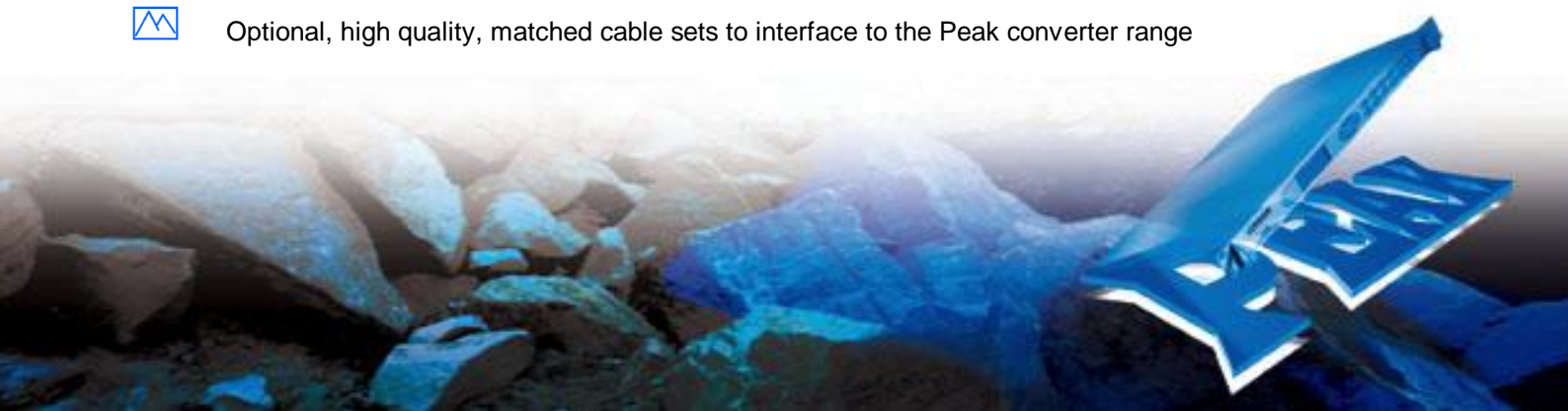
The **RCU100 series** 1+1 Redundancy switch units are designed to provide redundancy for single-feed systems, maintaining maximum availability whilst allowing routine maintenance and repair work to be carried out on the standby converter without the normally associated down-time.

The **RCU100 series** maintains one converter on-line whilst the other is held in hot standby, allowing the user to select the on-line converter. The redundancy unit can be controlled from the front panel (Local mode) or by the RS232/ 485 link to a host computer (Remote mode). In remote mode, the on-line converter can be selected and monitored whilst keeping switch-over automatic in case of failure. Ethernet options are available.

In AUTO mode, the unit monitors the converter alarm signals via the interface connecting cables and if a fault condition develops within the on-line converter, the **RCU100 series** unit automatically switches traffic to the standby unit.

### Peak Features

-  Standard 5MHz to 18GHz operation
-  Keys removable for security in any position
-  Dual mains input & redundant power supplies fitted as standard
-  Remote RS232/ 485 control fitted as standard (Ethernet option available)
-  Dual switching arrangement (L-Band and RF) minimises insertion loss
-  Peak Converter alarm interface cables provided as standard
-  Optional, high quality, matched cable sets to interface to the Peak converter range



## RCU100 series – Typical Specification

The following gives the performance of the RCU units in isolation;

### IF, L-Band & RF Interfaces

Frequency	5MHz to 18GHz
Ka-band	to 31GHz
Connections	50Ω, SMA (f)
Option 6a;	50Ω, N-Type (f) 'system input' connection
Option 6b;	50Ω, N-Type (f) 'system output' connection)
Ka-Band	50Ω, K-Type (f) or 2.92mm (f)

### Switch Element Parameters

Switching speed	<15ms
Type	Co-axial, latching
Main path	2 off
Standby path	2 off

Frequency Dependent Parameters		Single Switch Insertion Loss (maximum)	Switch Return Loss (typical)	Switch Isolation (typical)
L-Band Section	L-band	0.15dB	23dB	80dB
RF Section	S-band	0.15dB	23dB	80dB
	C-band	0.2dB	21dB	70dB
	X-band	0.3dB	18dB	65dB
	Ku-band	0.35dB	16dB	60dB
	DBS-band	0.4dB	15dB	60dB
	Ka-band	0.75dB	13dB	50dB

### Typical System Performance

The following gives the typical performance that can be expected from a system comprising Peak Converters & using the high quality matched IF, L-Band & RF cable set (option 1);

Gain Flatness	±1dB full band (C-band, with IBU600 converters)
Insertion loss	3dB (not including converter gain)
Switching speed	<150ms (from fault to switch completion)

### RCU100 Unit General

#### Mechanical

Width	19", standard rack mount
Height	1U (1.75")
Depth	420mm (16.5"), plus connectors
Weight	4.0kgs (8.8 lbs)
Construction	Aluminium chassis

#### Environmental

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



### Power Supply (dual, redundant)

Connection	IEC (dual feed cables provided)
Voltage	115/230VAC ±10%, switch selectable
Frequency	50/60Hz
Power	50 Watts max.

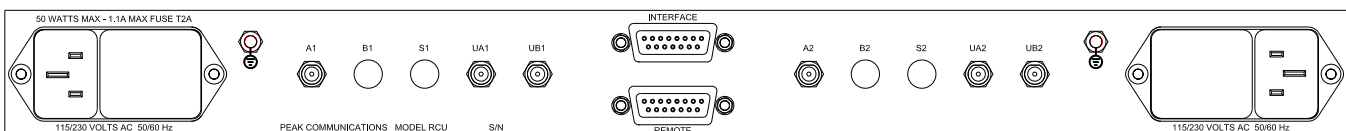
### Control System

Rem/Loc switch	2 position key switch, selects remote or local mode.
Auto/A/B switch	3 position key switch, selects converter A or B to traffic manually, or automatic mode.
Remote control	RS232/ 485 port.
Option 9 ;	Ethernet; Embedded web server & SNMP network management support.
Converter alarm	PSU fail, LO lock fail & Amplifier fail.
Connector	15-way, D-type.

### Options

- 1a) High quality, matched L-Band & RF (C, X or Ku-Band) cables to interface to the IBU/ IBUH/ IBD/ IBDH/ L500 series converter products, when mounted adjacent to the RCU100 unit.
- 1b) As option 1a above but includes DBS-Band SHF cables.
- 1c) As option 1a above but includes Ka-Band SHF cables.
- 1d) High quality, matched IF & L-Band cables to interface to the F1201/ F1202 converter products, when mounted adjacent to the RCU101 unit.
- 1e) High quality, matched IF & L-Band cables to interface to the F1200 converter product, when mounted adjacent to the RCU102 unit.
- 2) Custom front panel overlay.
- 6a) N-Type (f), 50Ohm 'system input' interface.
- 6b) N-Type (f), 50Ohm 'system output' interface.
- 9) Ethernet interface with embedded web server & SNMP, replaces RS232/485 port.

### Rear Panel



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU100series-180511.

Peak Communications Ltd, 22 West Park Street, Brighouse, HD6 1DU, England

Tel; +44 (0)1484 714200 Sales; +44 (0)1484 714229 Fax; +44 (0)1484 723666 Email; [sales@peakcom.co.uk](mailto:sales@peakcom.co.uk) Web; [www.peakcom.co.uk](http://www.peakcom.co.uk)