RCU100 series
1 for 1 Redundancy Switch Units

RCU100 for use with;
L500 series Block DownConverters
IBU/ IBD 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
- Fully compatible with Peak **L500**, **IBU/IBD** & **F1200 series** Converters
- 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
Connections	50Ω, SMA (Option 6a; N-Type 'system input' connection, Option 6b; N-Type 'system output' connection)

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	C-band	0.2dB	21dB	70dB
	X-band	0.3dB	18dB	65dB
	Ku-band	0.35dB	16dB	60dB
	DBS-band	0.4dB	15dB	60dB

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^{0}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	50Watts max.

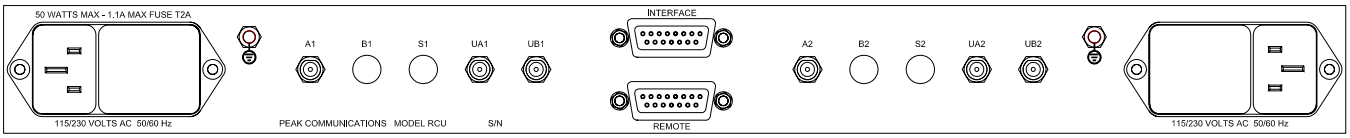
Control System

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. Ethernet option; Embedded web server & SNMP network management support (option 9).
Converter alarm	PSU fail, LO lock fail & Amplifier fail.
Connector	15-way, D-type.

Options

1a) High quality, matched L-Band & RF cables (to interface to the Peak IBU, IBD or L500 series converter products, when mounted adjacent to the RCU100 unit).
1b) High quality, matched IF & L-Band cables (to interface to the Peak F1201 or F1202 converter product, when mounted adjacent to the RCU101 unit).
1c) High quality, matched IF & L-Band cables (to interface to the Peak 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-291209.
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