

## RCU200 series

### 1 for 2 Redundancy Switch Units



- RCU200** for use with;
  - L500 series** Block DownConverters
  - IBU/ IBD series** Block Converters
- RCU200(Ka)** for use with;
  - IBU(Ka)/ IBD(Ka) series** Block Converters
- RCU201** for use with;
  - F1201/ F1202** Fixed Frequency L-Band Converters
- RCU202** for use with;
  - F1200** Fixed frequency L-Band Up & DownConverter
- RCU203** for use with;
  - ILA series** Line amplifiers








The **RCU200 series** 2+1 Redundancy switch units are designed to provide redundancy for dual-feed systems, maintaining maximum availability whilst allowing routine maintenance and repair work to be carried out on the standby unit without the normally associated down-time.

The **RCU200 series** maintains two converters/ amplifiers on-line whilst the other is held in hot standby, allowing the user to select the on-line unit in either chain. 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 unit 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/ amplifier alarm signals via the interface connecting cables and if a fault condition develops within either of the on-line units, the **RCU200 series** unit automatically switches traffic to the standby unit.

Factory alignment for the complete 2+1 system including Peak supplied high quality cables is recommended for this product to optimise Gain flatness and other parameters. If bought as a complete set of equipment, factory alignment is automatically undertaken.

### 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 remote control fitted as standard (Ethernet option available)
-  Dual switching arrangement (L-Band and RF) minimises insertion loss
-  Peak converter/ amplifier alarm interface cables provided as standard
-  Optional, high quality, matched cable sets to interface to the Peak converter/ Amplifier range



## RCU200 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'
Option 6b;	50Ω, N-Type (f) 'system output'
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	4 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 factory aligned 1+1 system comprising Peak converters & using the high quality matched IF, L-Band & RF cable set (option 1);

Gain flatness	±0.5dB full band, ±0.25dB across any 40MHz in-band (C-band, with IBU600 converters)
Insertion loss	4dB (not including converter gain)
Switching speed	<150ms (from fault to switch completion)

### RCU200 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	90-264VAC
Frequency	47-63Hz
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 standby converter to chain A or B manually, or automatic mode
Remote control Connector	RS232/ 485 port (internally user settable) 15-way, D-type
Option 9;	Ethernet; embedded web server & SNMP network management support
Interface connector	15-way, D-type to redundant units

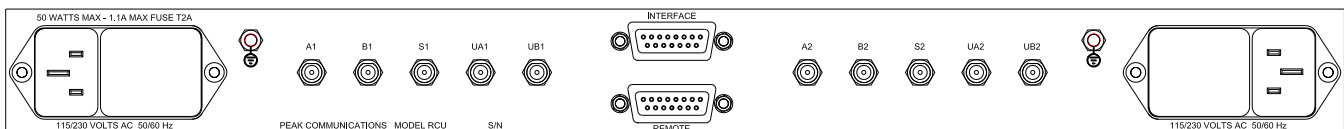
### Options

- 1a) High quality, matched L-Band, RF & control cables to interface to the IBU/ IBD/ L500 series converter products, when mounted adjacent to the RCU200 unit.
- 1b) See option 1a above but includes DBS-Band SHF cables.
- 1c) See option 1a above but includes Ka-Band SHF cables.
- 1d) High quality, matched IF, L-Band & control cables to interface to the F1201/ F1202 converter products, when mounted adjacent to the RCU201 unit.
- 1e) High quality, matched IF, L-Band & control cables to interface to the F1200 converter products, when mounted adjacent to the RCU202 unit.
- 1f) High quality, matched L-Band and control cables to interface to the ILA line amplifier products, when mounted adjacent to the RCU203 unit
- 2) Custom front panel overlay
- 6a) N-Type (f), 50Ohm 'system input' interfaces
- 6b) N-Type (f), 50Ohm 'system output' interfaces
- 9) Ethernet interface with embedded web server & SNMP
- 13) Transfer switching for off-line unit monitoring /test

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



### Rear Panel



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU200series-280217.

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