

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.



Rear Panel

