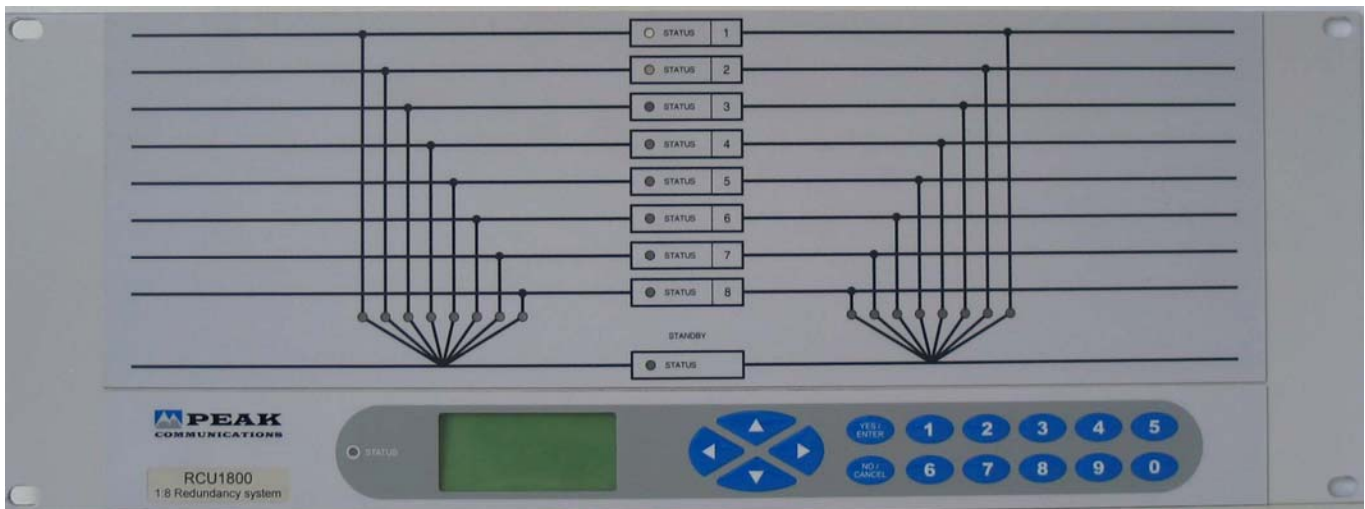


RCU1000 Series








3+1 to 8+1 Redundancy Switching Units for the P7xxx series of Agile Frequency Converters.



The redundancy switch unit can monitor and control up to 8 **P7xxx** series converters plus 1 standby to provide full system redundancy. The **RCU1000 series** automatically configures the standby converter's frequency and gain settings to that of any defective channel. Channel priority can be preset to ensure that high priority traffic is maintained. The **RCU1000 series** also incorporate input and output switching to fully isolate individual channels to ensure that any defective converter can be replaced without any disruption to signal transmission.

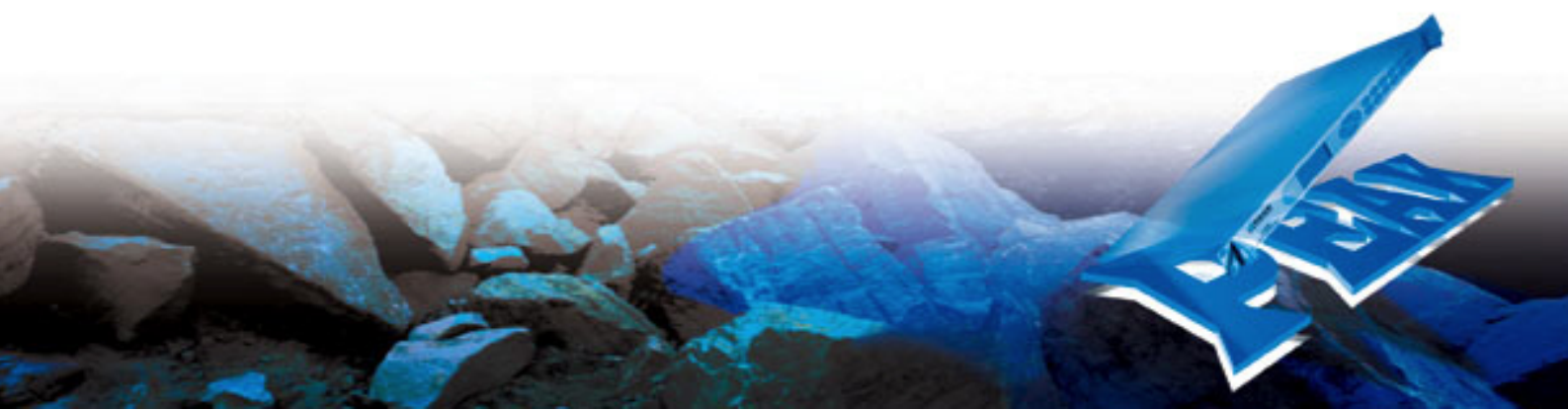
The **RCU1000 series** are 4U high 19" rack mount units with a full front panel system mimic, graphics display module and membrane keyboard which provide clear, intuitive controls and monitoring. The **RCU** can be controlled from the front panel or by the RS232/ 485 link to a host computer (Ethernet interface option available). In remote mode all units can be monitored while keeping switch-over automatic in case of failure.

Peak Features

-  IF and RF switching for isolation of individual channels
-  Automatic setting of frequency and gain on standby converter
-  Full remote control
-  Expandable up to 8+1 configuration
-  Full mimic monitoring of system status
-  Dual redundant power supplies
-  User adjustable gain offset for standby channel optimisation

Ordering information

RCU units can be configured for switching of up to 8 channels. The RCU can be populated with any number of switches and can be expanded at a later date. To order a fully populated 1 for 8 RCU unit use type number RCU1800, for a 1 for 4 use RCU1400 etc



RCU1000 Series - Typical Specification

IF Interface

Frequency range	50 to 180MHz
Connectors	BNC (f), 50Ω (Option 1; BNC (f), 75Ω)
Return loss	15dB min
Isolation	70dB min
IF insertion loss	0.3dB nominal Standby in to standby out; 0.3dB+0.3dB per channel

L-Band Interface (For L-band Converters)

Frequency range	950 to 2150MHz
Connectors	N-type (f), 50Ω
Return loss	16dB min
Isolation	100dB min
L-Band insertion loss	0.6dB nominal Standby in to standby out; 0.6dB+0.3dB per channel

RF Interface (For SHF Converters) – Option 3

Frequency range	to 18GHz
Connectors	N-type (f), 50Ω
Return loss	>13dB, band specific
Isolation	70dB min
SHF insertion loss	<3dB, band specific Standby in to standby out; 3dB+1dB per channel, band specific

Performance

Switchover time	<500ms
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Mechanical

Width	19", standard rack mount
Height	4U (7")
Depth	420mm (16.5"), plus connectors
Construction	Aluminium chassis
Weight	8kgs (17.6lbs)

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	110 to 220VAC ±10%, Auto-switching
Frequency	50/60Hz
Power	50W max.

Control System Interfaces

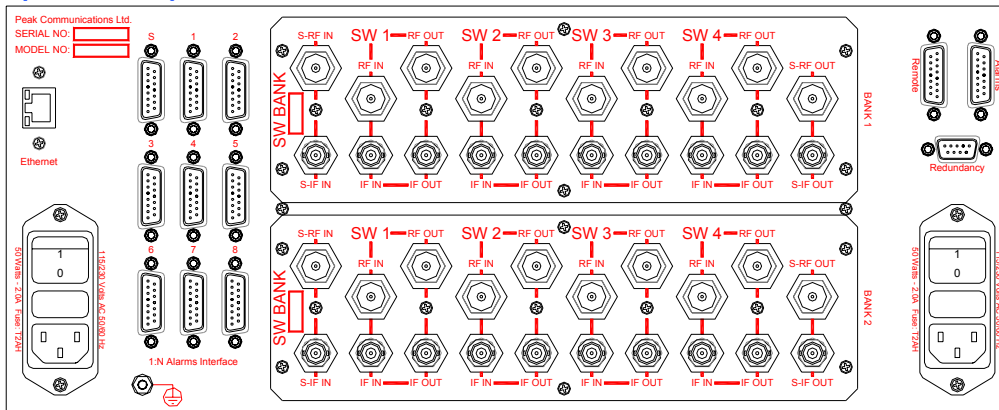
Remote control	RS232/485 serial interface, 15 way, D-type. Ethernet option; Embedded web server & SNMP network management support (option 9).
Converter Alarm inputs	From P7xxx summary alarm (form C)
Alarm Outputs	RCU1000 alarm (form C). P7xxx summary alarm (form C).

Options

- 75Ω IF Input.
- High quality, matched IF, L-band/ RF (C, X or Ku-Band) and control cable set (to interface to the Peak P7xxx series agile converter range, when mounted adjacent to the RCU1000 unit – typically on-line Converters above and redundant unit below the RCU1000).
- As option 2a above but includes DBS-Band SHF cables.
- RF frequency range to 18GHz.
- Ethernet interface with embedded web server & SNMP.

Note: Some of the above options have an impact on the general performance specification, factory guidance should be sought if this is thought to be critical.

Rear panel View (RCU1800)



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU1000-311210.

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