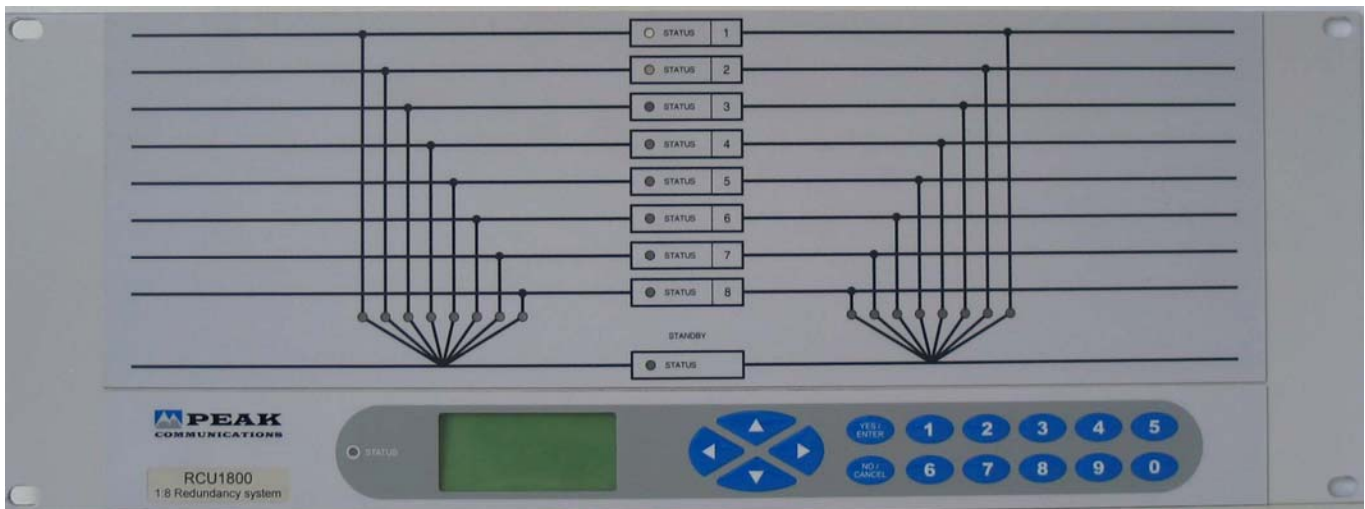


## RCU1000 series








4+1 to 8+1 Redundancy Switching Units for the P7xxx series of Agile Frequency Converters.

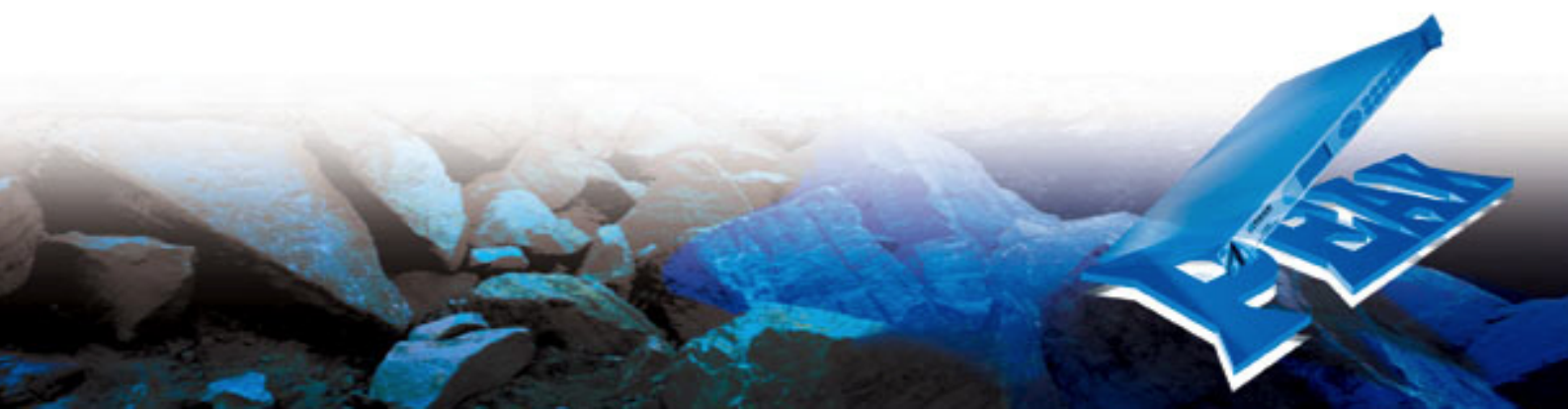


The redundancy switch unit can monitor and control up to 8 **P7xxx** series converters plus 1 standby to provide full system redundancy. The **RCU1000 series** automatically configures the standby converter's frequency and gain settings to that of any defective channel. Channel priority can be preset 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



## 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

- 1) 75Ω IF Input.
- 2) High quality, matched IF, L-band/RF 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).
- 3) RF frequency range to 18GHz.
- 9) 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.

## 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.



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU1000-311209.

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