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**: 950-2150MHz
- **Connectors**: SMA (f), 50Ω
  - Option 1b: N-Type (f), 50Ω
- **Return loss**: >16dB (with SMA connections)
- **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**: SMA (f), 50Ω
  - Option 1c: N-Type (f), 50Ω
- **Return loss**: >13dB (with SMA connections), 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**: 90-264VAC
- **Frequency**: 47-63Hz
- **Power**: 50W max

**Control System Interfaces**
- **Remote control**: RS232/485 serial interface, 15-Way, D-Type
  - Option 9: Ethernet; embedded web server & SNMP network management support.
- **Converter alarm**: From P7xxx summary alarm (form C) input
- **Alarm outputs**: RCU1000 alarm (form C) P7xxx summary alarm (form C)

**Options**
1) 75Ω IF interface
1b) N-Type, 50Ω L-Band interfaces
1c) N-Type, 50Ω SHF interfaces
2a) 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 (with typically on-line converters above and redundant unit below the RCU1000)
2b) See option 2a above but includes DBS-Band SHF cables
3) RF frequency range to 18GHz
9) Ethernet interface with embedded web server & SNMP

*Note: the addition of options can modify the typical specification, for details please consult the factory*

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**Rear panel View (RCU1800), showing N-Type connector option**