RCU1001 Series
1+1 to 8+1 Redundancy Switching Units for the IBU/IBD series of Block Converters & ILA series of Line Amplifiers

RCU1001 for use with:
- **IBU/IBD series** Block Converters
- **ILA series** Line Amplifiers

RCU1001(Ka) for use with:
- **IBU(Ka)/IBD(Ka) series** Block Converters

The redundancy switch unit can monitor and control up to 8 IBU/IBD/ILA series converters/amplifiers plus 1 standby unit, to provide full system redundancy. Channel priority can be preset to ensure that high priority traffic is maintained. The **RCU1001 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 **RCU1001 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** unit can be controlled from the front panel or by the RS232/485 link to a host computer (Ethernet interface option available).

**Peak Features**
- L-Band and RF switching for isolation of individual channels
- Full remote control
- Expandable up to 8+1 configuration
- Full mimic monitoring of system status
- Dual redundant power supplies

**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 RCU1801, for a 1 for 4 use RCU1401 etc.
**RCU1001 Series - Typical Specification**

**IF Interface (for ILA series IF amplifiers)**
- Frequency range: 50 to 180MHz
- Connectors: BNC (f), 50Ω
- 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**
- Frequency range: 950-2150MHz
- Connectors: SMA (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**
- Frequency range: to 18GHz (to 31GHz for Ka-Band)
- Connectors: SMA (f), 50Ω
  - Ka-Band: 50Ω, K-Type (f) or 2.92mm (f)
- Return loss: >13dB, band specific
- Isolation: 70dB min (Ka-Band 50dB)
- SHF insertion loss: <3dB, band specific
  - Standby in to standby out: 3dB+1dB per channel, band specific

**Performance**
- Switchover time: <500ms

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

**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 alarms: Summary alarm (form C)
- Alarm outputs: RCU1001 alarm (form C)
  - IBU/IBD/ILA summary alarm (form C)

**Options**
1) 75Ω IF interfaces for ILA series (IF version)
2d) High quality, matched L-band, RF (C, X or Ku-Band) and control cable set (to interface to the Peak IBU/ IBD/ ILA series converter/amplifier range, when mounted adjacent to the RCU (with typically on-line units above and standby unit below the RCU).
2e) See option 2d above but includes DBS-Band SHF cables.
2f) See option 2d above but includes Ka-Band SHF cables.
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.

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**Rear panel View (RCU1801)**

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Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU1001-230715.

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