RCU1002 Series
1+1 to 8+1 Redundancy Switching Units for the IBUH/IBDH series of Block Converters & ILAH series of Line Amplifiers

RCU1002 for use with:
- **IBUH/IBDH series** Block Converters
- **ILAH series** Line Amplifiers

RCU1002(Ka) for use with:
- **IBUH(Ka)/IBDH(Ka) series** Block Converters

The redundancy switch unit can monitor and control up to 8 **IBUH/IBDH/ILAH 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 **RCU1002 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 **RCU1002 series** are 4U high 19-inch 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/RS485 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 RCU1802, for a 1 for 4 use RCU1402 etc.
**RCU1002 Series - Typical Specification**

**IF Interface (for ILA series IF amplifiers)**
- **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 sbty out**: 0.3dB+0.3dB per channel

**L-Band Interface**
- **Frequency range**: 950-2150MHz
- **Connectors**: SMA (f), 50Ω
  - **Option 1b**: N-Type (f), 50Ω
- **Return loss**: 16dB min
- **Isolation**: 100dB min
- **L-Band insertion loss**: 0.6dB nominal
  - **Standby in to sbty 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)
  - **Option 1c**: N-Type (f), 50Ω
- **Return loss**: >13dB, band specific
- **Isolation**: 70dB min (Ka-Band; 50dB typical)
- **SHF insertion loss**: <3dB, band specific
  - **Standby in to sbty out**: 3dB+1dB per channel, band specific

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

**Mechanical**
- **Width**: 19”, standard rack mount
- **Height**: 4U (17”)
- **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**: 20-264VAC
- **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**: RCU1002 alarm (form C)

**Options**
1) 75Ω IF interfaces for ILAH series (IF version)
1b) N-Type, 50Ω L-Band interfaces.
1c) N-Type, 50Ω SHF interfaces.
2d) High quality, matched L-band, RF (C, X or Ku-Band) and control cable set (to interface to the Peak IBUH/IBDH 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 (RCU1802)**