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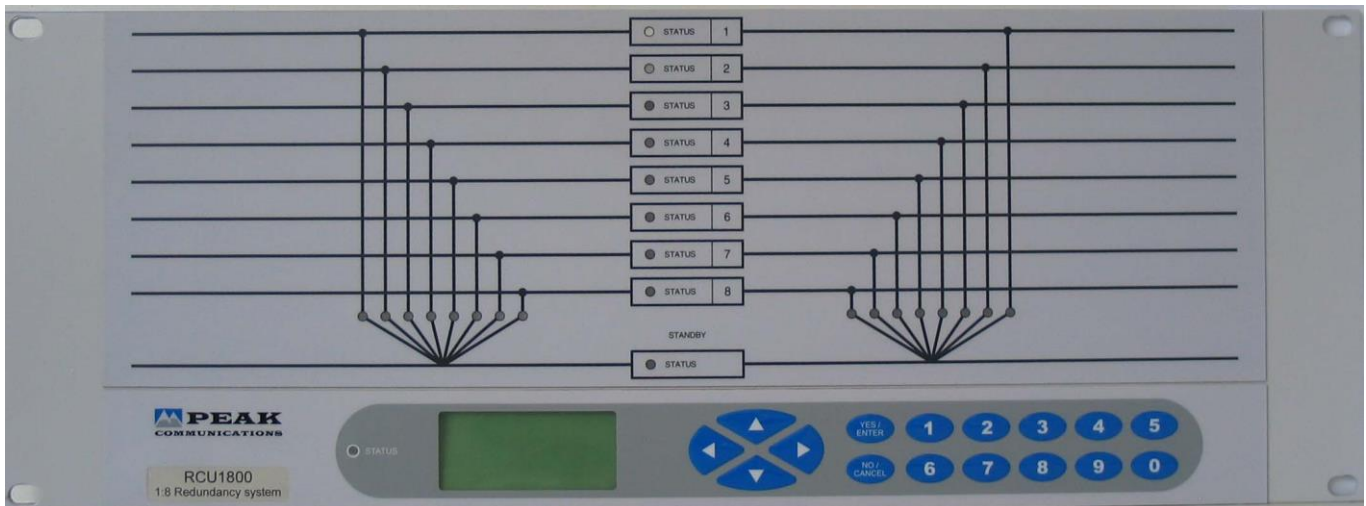
## 1+1 to 8+1 Redundancy Switching Units for the IBUH/ IBDH series of Block Converters & ILAH



### 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 stby 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 stby 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 stby 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$^0$C |
| EMC | EN 55022, part B & EN 50082-1 |
| Safety | EN 60950 |

## Power Supply (dual, redundant)

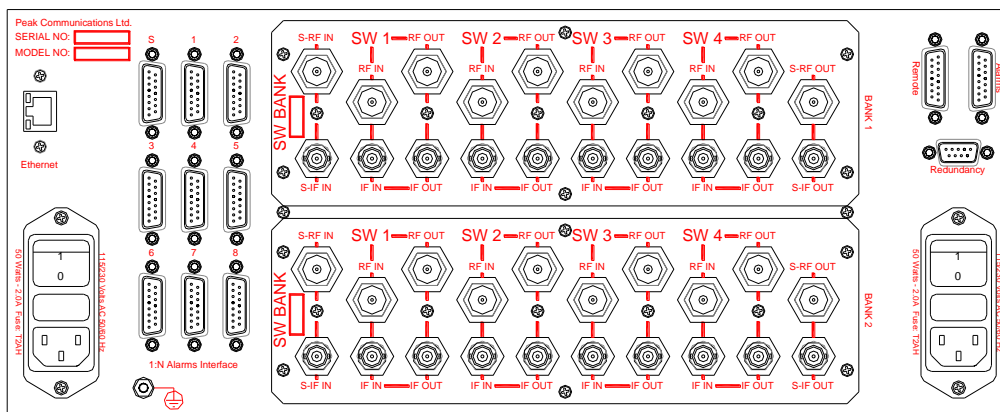| | |
|---|---|
| Connection | IEC (dual feed cables provided) |
| Voltage | 90-264VAC |
| Frequency | 47-63Hz |
| Power | 50W max |

## 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 | RCU1002 alarm (form C) IBUH/IBDH/ILAH summary 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/ ILAH 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.

## Rear panel view (RCU1802)