RCUH200 series
1 for 2 Redundancy Switch Unit with full User Interface and Remote Control

RCUH200 for use with;
- L500 series Block DownConverters
- IBU/IBD/IBUH/IBDH series Block Converters

RCUH200(Ka) for use with;
- IBU(Ka)/IBD(Ka)/IBUH(Ka)/IBDH(Ka) series Block Converters

RCUH201 for use with;
- F1201/ F1202 Fixed Frequency L-Band Converters

RCUH202 for use with;
- F1200 Fixed frequency L-Band Up & DownConverter

RCUH203 for use with;
- ILA/ ILAH series Line Amplifiers

RCUH204 for use with;
- P7xxx series Agile/ synthesised frequency converters

RCUH205 for use with;
- P7000 series Agile/ synthesised frequency combined L-Band Up & DownConverters

The RCUH200 series 2+1 redundancy switch units are designed to provide redundancy for dual-feed systems, maintaining maximum availability whilst allowing routine maintenance and repair work to be carried out on the standby unit without the normally associated down-time.

The RCUH200 series maintains two converters/amplifiers on-line whilst the other is held in hot standby, allowing the user to select the on-line unit in either chain. The redundancy unit can be controlled from the front panel user interface (local mode) or remotely via the RS232/485 or optional Ethernet link to a host computer (remote mode). In remote mode, the on-line unit can be selected and monitored whilst keeping switch-over automatic in case of failure.

In AUTO mode, the unit monitors the converter/amplifier alarm signals via the interface connecting cables and if a fault condition develops within either of the on-line units, the RCUH200 series automatically switches traffic to the standby unit.

Factory alignment for the complete 2+1 system including Peak supplied high quality cables is recommended for this product to optimise gain flatness and other parameters. If bought as a complete set of equipment, factory alignment is automatically undertaken.

Peak Features
- Standard 5MHz to 18GHz operation
- Dual mains input & redundant power supplies fitted as standard
- Full user interface & remote control fitted as standard (Ethernet optional)
- Dual switching arrangement (L-Band and RF) minimises insertion loss
- Peak converter/amplifier alarm interface cables provided as standard
- Optional, high quality, matched cable sets, to interface to the Peak converter/amplifier range


**RCUH200 series - Typical Specification**

The following gives the performance of the RCUH units in isolation;

### IF, L-Band & RF Interfaces

- **Frequency**
  - 5MHz to 18GHz
  - Ka-band to 31GHz

- **Connections**
  - Option 6a: 50Ω, N-Type (f) 'system input'
  - Option 6b: 50Ω, N-Type (f) 'system output'
  - Ka-Band 50Ω, K-Type (f) or 2.92mm (f)

### Switch Element Parameters

- **Switching speed** <15ms
- **Type** Co-axial, latching
- **Main path** 2 off
- **Standby path** 4 off

### Frequency Dependent Parameters

<table>
<thead>
<tr>
<th>Frequency Dependent Parameters</th>
<th>Single Switch Insertion Loss (maximum)</th>
<th>Switch Return Loss (typical)</th>
<th>Switch Isolation (typical)</th>
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<tbody>
<tr>
<td><strong>L-Band Section</strong></td>
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<tr>
<td>L-band</td>
<td>0.15dB</td>
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<tr>
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<tr>
<td>Ku-band</td>
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<td>60dB</td>
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<tr>
<td>DBS-band</td>
<td>0.4dB</td>
<td>15dB</td>
<td>60dB</td>
</tr>
<tr>
<td>Ka-band</td>
<td>0.75dB</td>
<td>13dB</td>
<td>50dB</td>
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<tr>
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### Typical System Performance

The following gives the typical performance that can be expected from a factory aligned 2+1 system comprising Peak converters & using the high quality matched IF, L-Band & RF cable set (option 1);

- **Gain Flatness** ±0.5dB full band, ±0.25dB across any 40MHz in-band (C-band, with IBU600/ IBUH600 converters)
- **Insertion Loss** 4dB (not including converter gain)
- **Switching Speed** <150ms (from fault to switch completion)

### RCUH200 Unit General

#### Mechanical

- **Width** 19", standard rack mount
- **Height** 1U (1.75")
- **Depth** 420mm (16.5"), plus connectors
- **Weight** 4.0kgs (8.8 lbs)
- **Construction** Aluminium chassis

#### 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** 50 Watts max

#### Control System

- **Remote control** RS232/ 485 port
- **Ethernet**; embedded web server & SNMP network management support
- **Converter alarms** PSU fail, LO lock fail & Amplifier fail
- **Connector** 15-way, D-type

#### Options

1a) High quality, matched L-Band, RF (C, X or Ku-Band) & control cables to interface to the IBU/ IBD/ IBUH/ IBDH/ L500 series converter products, when mounted adjacent to the RCUH200 unit

1b) See option 1a above but includes DBS-Band SHF cables

1c) See option 1a above but includes Ka-Band SHF cables

1d) Cable set for F1201/ F1202 & RCUH201 unit

1e) Cable set for F1200 & RCUH202 unit

1f) Cable set for ILA & RCUH203 unit

1g) Cable set for P7xxx series & RCUH204 unit

1h) Cable set for P7000 & RCUH205 unit

2) Custom front panel overlay

6a) N-Type (f), 50Ohm 'system input' interfaces

6b) N-Type (f), 50Ohm 'system output' interfaces

9) Ethernet interface with embedded web server & SNMP

13) Transfer switching for off-line unit monitoring test

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