

## RCU50 Series

### 1+1 & 2+1 Redundancy Control for Remote BUC/ BDC/ LNB Units



**RCU50, 52** for use with;

**PBU/ PBD series** Block Converters and general LNB units

**RCU50(Ka), 52(Ka)** for use with;

**PBU(Ka)/ PBD(Ka) series** Block Converters

The **RCU50** 1+1 & **RCU52** 2+1 Redundancy control units are special versions of the versatile **RCU100/200** Redundancy switch units and are presented in a 1U high 19" rack mount chassis. The **RCU50, 52** units are designed to power and monitor remote mounted Low Noise Blocks (LNB's), Block UpConverters (BUC's) or Block DownConverters (BDC's) and drive remote mounted coaxial or waveguide switches. An optional 10MHz reference signal can also be provided.









The **RCU50, 52** units can be controlled from the front panel or by the RS232/ RS485 link to a host computer. In remote mode the active LNB/BUC/BDC units can be selected and monitored while keeping switch-over automatic in case of failure. An internal L-band coaxial switch changes as the active converter unit is selected.

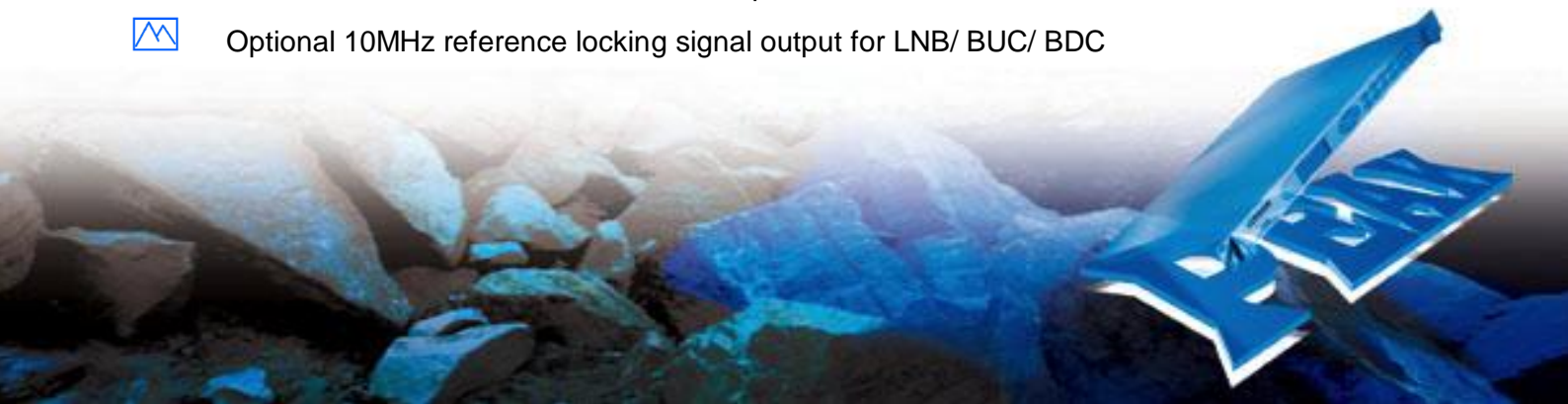
The front panel has manually activated, lockable switches and indicator lights with legends for either LNB/BDC's or BUC's and should be specified accordingly at the time of order placement.

The flexibility of the design allows for customization, so please consult the factory if the features that you require are not shown on this data sheet.

Peak can supply external switches and cabling, for more details please consult the factory.

### Peak Features

-  Keys removable for security in any position
-  Monitoring of off-line LNB/ BDC L-band output
-  Spare drive input for off-line BUC, for test purposes
-  Dual mains input & redundant power supplies fitted as standard
-  Fully compatible with Peak PBU/ PBD Block Up/ DownConverters
-  Compatible with most makes of LNB/ BUC/ BDC
-  Remote control fitted as standard, with optional Ethernet remote
-  Optional 10MHz reference locking signal output for LNB/ BUC/ BDC



## RCU50, 52 Units – Typical Specification

### L-Band Interfaces

Connections	SMA (f), 50Ω
Monitor	Provides an L-band monitor for the off-line LNB/ BDC output
Spare BUC drive	Provides a spare L-band input to drive the off-line BUC (for test purposes)

### External co-axial/ waveguide switch Interface

Connection	D-type, 15-way
Drive type	12 volt pulsed, latching, and indicators
Drive length	Dependent upon customer cable type
Switch	Optional supply of external switches (please consult factory for details)

### Single Switch Insertion Loss (Typical)

L-Band	0.15dB
C-Band	0.2dB (Options 6a, 6c)
X-Band	0.3dB (Options 6a, 6c)
Ku-Band	0.35dB (Options 6a, 6c)
DBS-Band	0.4dB (Options 6a, 6c)
Ka-Band	0.5dB (Option 6b, 6d)

### LNB/BUC/BDC drives

DC supply	Factory settable, typically +22.5V regulated at 0.5A
Connection	Fed on L-band interface

### LNB/BUC/BDC reference output (Option 4)

Output connection	Fed on L-band interface Option 4b; Separate 10MHz output connection, BNC (f), 50Ω
Output	10MHz at 0dBm nominal
Stability	$<5 \times 10^{-10}$ over 1s, $<5 \times 10^{-9}$ per day
Ageing	$<5 \times 10^{-7}$ per year
Temp stability	$<5 \times 10^{-8}$ over 0 to 50°C

### External Reference Input (Option 5)

Frequency	Factory selectable 5 or 10MHz
Connector	50Ω, BNC (f)
Level	0dBm $\pm$ 3dB

### 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

Rem/Loc switch	2 position key switch, selects remote or local mode
Auto/A/B switch	3 position key switch, selects converter A or B to traffic manually, or automatic mode

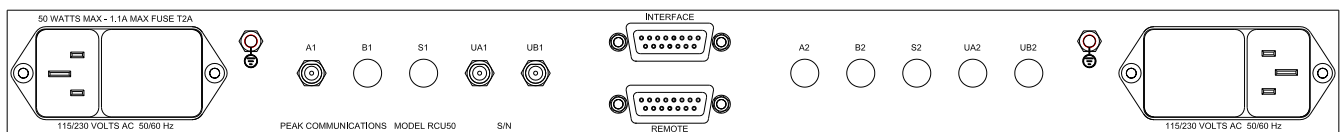
Note; for 2+1 systems, Auto/A/C & Auto/B/C switches are provided.

Remote control	RS232/ RS485 port Option 3 ; Ethernet; Embedded web server & SNMP network management support.
Alarm inputs	Summary alarm (form C) from each Converter Option 7; HPA summary alarm inputs for 'Chain redundancy' control applications
Alarm output	Summary alarm (form C)

### Options

- 2) Custom front panel overlay.
- 3) Ethernet interface with embedded web server & SNMP, replaces RS232/485 port.
- 4) Internal 10MHz reference generation.
- 5) External reference input.
- 6a) Remote mounted 1+1 co-axial switch in a weatherproof housing for use with 2off BUC's.
- 6b) As option 6a above but for Ka-Band units.
- 6c) Remote mounted 2+1 co-axial switches in a weatherproof housing for use with 3off BUC's.
- 6d) As option 6c above but for Ka-Band units.
- 7) HPA summary alarm inputs for 'Chain redundant' applications (BUC system).

## Rear Panel



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. RCU50-260112.

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