

RCU50R Series

1+1, 2+1 Remote Mounted BUC/BDC/LNB/LNA Redundancy Control



RCU50R for 1+1 control
RCU52R for 2+1 control

The **RCU50R** 1+1 & **RCU52R** 2+1 remote mounted units provide a fully outdoor BUC, BDC, LNB or LNA redundancy switching control solution, which minimises cross-site control and drive cables, costs and complexity whilst improving antenna isolation. The units can also be configured for antenna selection switching (VHF and above).

The units are designed to drive and monitor remote mounted BUC's, BDC's, LNB's & LNA's. A range of 10MHz reference signal generation, locking and pass through options as well as DC supply can also be provided to drive the BUC, BDC & LNB units.

For LNB's & LNA's, waveguide switch drive and monitoring are provided along with optional external L-band coaxial switches (for non-ganged WGS applications). For BUC's & BDC's, external SHF co-axial switch units can be provided.

The **RCU50R, 52R** units are designed for remote control via Ethernet, but are also offered with basic local controls. Remote control includes an embedded web-browser with SNMP network management support. In remote mode, the on-line unit can be selected and monitored whilst keeping switch-over automatic in case of failure.









Peak can offer dedicated indoor rack mounted user interface units (Ethernet based), see **FPC100**.

In AUTO mode, the unit monitors the alarm signals or DC current (with user settable alarm levels) and if a fault condition develops within the on-line unit, traffic is automatically switched to the standby unit.

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

-  External waveguide or co-axial switch control
-  Comprehensive remote control, plus local manual controls and indicators
-  Minimises capex through reduced cross-site control and drive cable costs
-  Improves electromagnetic antenna isolation
-  DC drive with current sensing and user settable alarm levels
-  Compatible with most makes of outdoor units and waveguide switches
-  Optional reference generation, external reference locking or 'pass-through'
-  Fibre-optic L-Band interfaces available



RCU50R, 52R Units – Typical Specification

External waveguide switch interface

Peak can supply waveguide switches etc. (please consult factory for details)

WGS Voltage	Code 2; +12VDC Code 4; +24VDC
WGS type	Pulsed, latching with indicators Code P; Positive pulse Code N; Negative pulse (may not require tell-backs)
Connection	Circular multi-pole, weatherproof (mating part supplied)

L-Band switching

Type	Code G; Ganged with waveguide switch Code 2; External +12V Code 4; External +24V Code Is/d; Internal, single or dual (for dual-range devices only)
Connection	N-Type(f), 50Ohm (for internal only)

Primary unit interface (BUC/ BDC/ LNB/ LNA)

Many types of primary units are supported, for assistance with ordering please contact factory stating primary unit type & required configuration

Unit type	Code U; BUC Code D; BDC Code L; LNB Code A; LNA
Band	Code S; S-Band Code C; C-Band Code X; X-Band Code Ku; Ku-Band Code D; DBS-Band Code Ka; Ka-Band
Unit output	Code S; Single range Code V; Switched range (multi-voltage switched) Code D; Dual range
Unit alarms	Fault detection method to trigger automatic switch-over Code D; External dry contact closure Code N; None, in which case current monitoring with user settable alarm levels will be provided
Unit Voltage	Factory settable, regulated to $\pm 0.5V$ nominal Code 2; +12VDC Code 8; +18VDC Code 4; +24VDC <i>Note; other voltage options available, please consult the factory.</i> Code X; Switched range (please state voltage requirements)
Unit current	Please state maximum current (in mA) on order code
DC bias	Code E; External supply, requiring bias-tee Code Im; Internal, multiplexed onto L-Band Code Is; Internal, separate connection; multipole (mating half supplied) Code N; None, no DC bias provided

Reference generation

Type	Internal, fed via a separate discrete TNC(f), 50Ohm connection, or via L-Band (primary unit & option dependant)
Code 1;	10MHz at 0dBm nominal
Code 5;	50MHz at 0dBm nominal
Code N;	No internal reference generator
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 ref. input	with automatic detection & locking facility
Code P;	10MHz at 0dBm nom., via TNC (f), 50Ω
Code N;	not required

Mechanical

Dimensions	290 x 230 x 95mm (11.4 x 9.1 x 3.7inch)
Construction	Die-cast Aluminium, weatherproof, IP66 rated
Weight	Approx. 4kgs (9lbs)

Environmental

Operating temp	-10°C to +50°C (less solar gain) Option 13; -40°C to +50°C (less solar gain)
Humidity	0-100% condensing
EMC	EN55022, part B & EN50082-1
Safety	EN60950

Power Supply (dual input)

Voltage	+24 to +27VDC
Power	20 Watts nom (option dependent)
Connection	Multi-pin circular, weatherproof (mating part supplied)

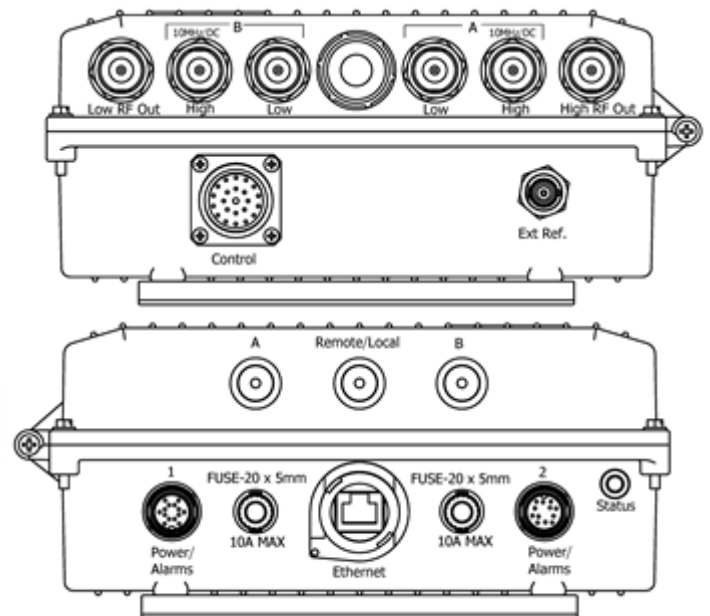
Control System

Alarms	LED indicator & summary failure relay (form C)
Connection	See power supply section
Local control	Weatherproof switches with indicators for local /remote and source selection/ condition
Remote control	Ethernet; embedded web server & SNMP network management support
Connection	RJ45, weatherproof

Options

- 1) Cable assembly (between RCU, primary units and waveguide switch)
- 13) Low temperature operation to -40°C

Connection Panels (1+1, dual range LNB controller shown, with reference & DC drive)



Ordering Code (for help or clarifications please contact the factory)

