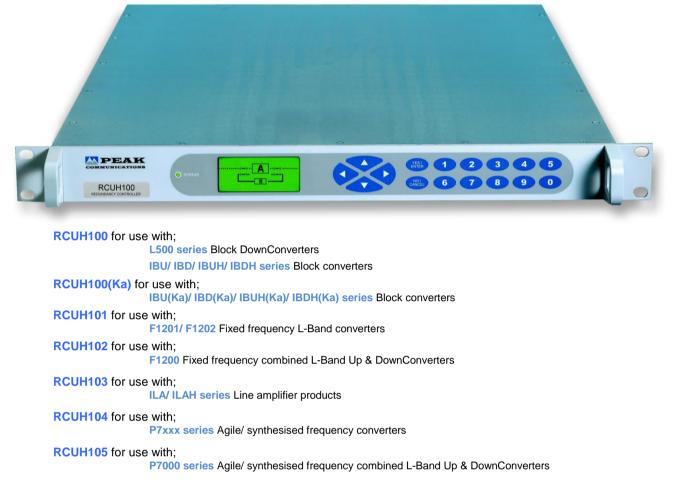


RCUH100 series

1 for 1 Redundancy Switch Units with full User Interface and Remote Control



The **RCUH100 series** 1+1 redundancy switch units are designed to provide redundancy for single-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 **RCUH100 series** maintains one converter/ amplifier on-line whilst the other is held in hot standby, allowing the user to select the on-line unit. 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 and if a fault condition develops within the on-line unit, the RCUH100 series automatically switches traffic to the standby unit.

Factory alignment for the complete 1+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 and remote control fitted as standard (Ethernet optional)
- Dual switching arrangement (IF/ L-Band and RF) minimises insertion loss
- Transfer switching option for convenient off-line unit monitoring/ test
- Optional, high quality matched cable sets to interface to the Peak converter/ amplifier range

RCUH100 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	50Ω, SMA (f)
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
Туре	Co-axial, latching
Option 13;	Transfer switching for convenient
	offline unit test/ monitoring
Main path	2 off
Standby path	2 off

Frequency D Paramo		Single Switch Insertion Loss (maximum)	Switch Return Loss (typical)	Switch Isolation (typical)
L-Band Section	L-band	0.15dB	23dB	80dB
	S-band	0.15dB	23dB	80dB
	C-band	0.2dB	21dB	70dB
RF Section	X-band	0.3dB	18dB	65dB
	Ku-band	0.35dB	16dB	60dB
	DBS-band	0.4dB	15dB	60dB
	Ka-band	0.75dB	13dB	50dB

Typical System Performance

The following gives the typical performance that can be expected from a factory aligned 1+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	3dB (not including converter gain)
Switching speed	<150ms (from fault to switch completion)

RCUH100series 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	1
Voltage	
Frequency	
Power	

IEC (dual feed cables provided) 90-264VAC 47-63Hz 50 Watts max

Control System

Remote control	RS232/ 485 port
Option 9 ;	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) and control cables to interface to the IBU/ IBD/ IBUH/ IBDH/ L500 series converter products, when mounted adjacent to the RCUH100 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 & RCUH101 unit
- 1e) Cable set for F1200 & RCUH102 unit
- 1f) Cable set for ILA & RCUH103 unit
- 1g) Cable set for P7xxx series & RCUH104 unit
- 1h) Cable set for P7000 & RCUH105 unit
- 2) Custom front panel overlay
- 6a) N-Type (f), 50Ohm, 'system input' interface
- 6b) N-Type (f), 50Ohm, 'system output' interface
- 9) Ethernet interface with embedded web server & SNMP
- 13) Transfer switching for offline unit monitoring

Rear Panel

