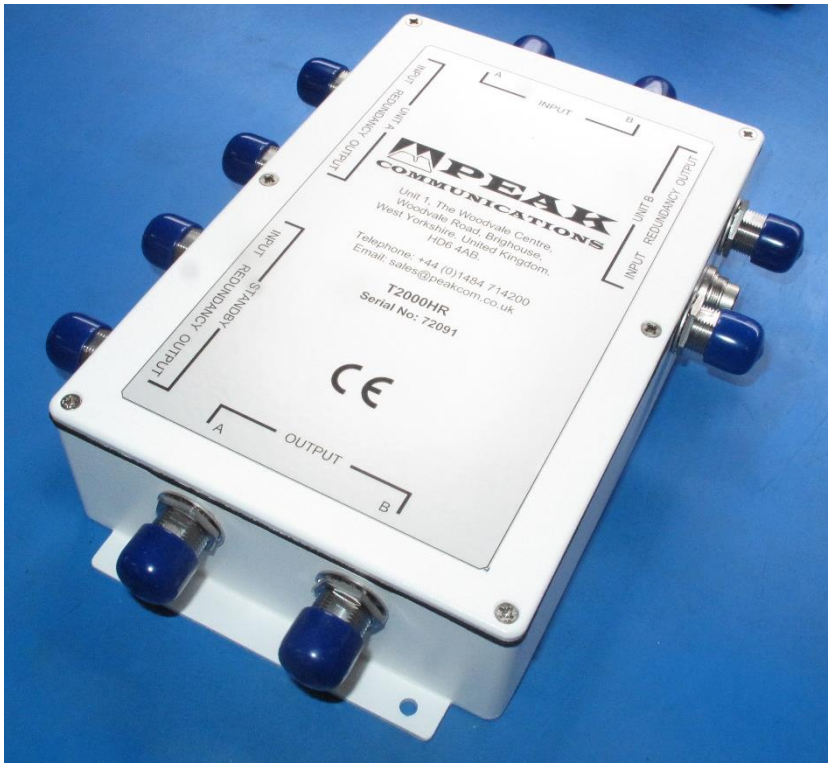
T2000HR and R2000HR

2+1 Redundancy Unit for the PBU/ PBD Series Remote Mounted Block Converters



The **T2000HR** and **R2000HR** 2+1 redundancy switch units are designed to take advantage of the 2+1 redundancy control interface which is built in as a standard feature of the **PBU(B)/ PBD(B)/ PBU(Ka)/ PBD(Ka) series** of remote mounted block frequency converters & the **PBU(A)/ PBD(A) series** when fitted with remote control options.

The system is designed to provide redundancy for a dual-feed system, maintaining maximum availability whilst allowing routine maintenance and repair work to be carried out on the standby converter, without the normally associated down-time.

The system maintains two converters on-line whilst the other is held in hot standby, allowing the user to select and monitor the on-line converter, or the automatic mode chosen where the system monitors the converter alarm status and if a fault condition develops within either of the on-line converters, automatically switches traffic to the standby unit.

The redundancy unit can be controlled via the **PBU or PBD** which in turn is controlled by the user from either a PC based M&C system (RS232/ 485/ Ethernet) or a rack mounted control panel (**FPC100**).

The **T2000HR** redundancy interface unit has connections for the PBU up converter (transmit chain) and the **R2000HR** for the PBD down converter (receive chain).

The unit is housed in a rugged weatherproof chassis, suitable for either internal or external/remote locations.

Peak Features

- High quality, matched L-Band, SHF & control cable set for interfacing to the PBU/ PBD included as standard
- Rugged weatherproof housing

T2000HR & R2000HR – Typical Specification

L-Band & RF Interfaces

Frequency	
L-band	DC to 2GHz
SHF (Ka)	to 31GHz
Connections	50Ω, N-type (f)
SHF (Ka)	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		Single Switch Insertion Loss (maximum)	Switch Return Loss (typical)	Switch Isolation (typical)
L-Band Section	L-band	0.15dB	23dB	80dB
RF Section	S-band	0.15dB	23dB	80dB
	C-band	0.2dB	21dB	70dB
	X-band	0.3dB	18dB	65dB
	Ku-band	0.35dB	16dB	60dB
	DBS-band	0.4dB	15dB	60dB
	Ka-Band	Please contact factory.		

Typical System RF Performance

The following gives the typical performance that can be expected from a system comprising Peak converters & using the high quality matched L-Band & RF cable set;

Gain flatness	±1.5dB full band
Insertion loss	4dB (not including converter gain)
Switching speed	<800ms (from fault to switch completion)

General performance

Mechanical

Width	223mm (8.8”), plus connections & mounting flanges
Height	146mm (5.8”), plus connections
Depth	57mm (2.2”)
Construction	Die-cast Aluminium, IP66 rated
Weight	1.4kgs (3lbs) approx

Control System

Converter interface	multi-pin circular, weatherproof (mating part supplied)

Environmental

Operating temp	-25°C to +55°C (less solar gain)
Option 12 ;	-40°C to +55°C (less solar gain)
Humidity	0-100% condensing
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

Options

12) Low temperature operation to -40°C.

Associated Products;

FPC100 rack mounted control panel (1RU)

Peak Communications reserves the right to alter the specifications of this equipment without prior notice. T2000HR/R2000HR-070322.
Peak Communications Ltd., Unit 1, The Woodvale Centre, Woodvale Road, Brighouse, West Yorkshire, HD6 4AB, U.K.
Tel; +44 (0)1484 714200 Sales; +44 (0)1484 714229 Fax; +44(0)1484 723666 Email; sales@peakcom.co.uk web; www.peakcom.co.uk