

## T1000HR and R1000HR

1+1 Redundancy Unit for the PBU(B)/ PBD(B) Remote Mounted Block Converters.



The **T1000HR and R1000HR 1+1 Redundancy units** are designed to take advantage of the 1+1 redundancy control interface which is built in as a standard feature of the **PBU(B) & PBD(B) series** of remote mounted block Frequency Converters.

The system is designed to provide redundancy for a single-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 one converter 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 the on-line Converter, automatically switches traffic to the standby unit.

The redundancy unit can be controlled via the **PBU(B) or PBD(B)** 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 (See the **PBU(B) or PBD(B) series** datasheets for details).

The **T1000HR** Redundancy Interface unit has connections for the PBU(B) block UpConverter (Transmitter) and the **R1000HR** for the PBD(B) block DownConverter (Receiver).

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(B)/ PBD(B) included as standard.
-  Rugged weatherproof housing.



## T1000HR & R1000HR – Typical Specification

### L-Band & RF Interfaces

Frequency	
L-Band	DC to 2GHz
SHF	5MHz to 18GHz
Connections	50Ω, N-type (f)

### Switch Element Parameters

Switching speed	<15ms
Type	Co-axial, latching
Main path	2 off
Standby path	2 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	C-band	0.2dB	21dB	70dB
	X-band	0.3dB	18dB	65dB
	Ku-band	0.35dB	16dB	60dB
	DBS-band	0.4dB	15dB	60dB

### 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	±1dB full band
Insertion loss	3dB (not including converter gain)
Switching speed	<800ms (from fault to switch completion)

### General Performance

#### Mechanical

Width	172mm (6.8"), plus connections & mounting flanges
Height	123mm (4.85"), plus connections
Depth	48mm (1.89")
Construction	Die-cast Aluminium, IP66 rated
Weight	1.4kgs (3lbs) approx.

#### Control System

Converter Interface	5-pin circular, weatherproof (mating part supplied)
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#### Environmental

Operating temp.	-25°C to +70°C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

#### Associated Products;

- PBU(B)** Remote Mounted Block UpConverter
- PBD(B)** Remote Mounted Block DownConverter
- FPC100** Rack Mount Control Panel (1RU)

