

## T2000, R2000 and TR2000

### 2+1 Redundancy Interface for the P7000 & IBUH/IBDH series of frequency converters

The **T2000**, **R2000** and **TR2000** 2+1 Redundancy Interface units are designed to take advantage of the redundancy control interface which is built in as a standard feature of the **P7000**, **IBUH** & **IBDH** series of Synthesized and Block frequency converters.

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 the on-line converters. The redundancy unit can be controlled from the front panel of the **P7000**, **IBUH** or **IBDH** series Converters (Local mode) or by the **P7000**, **IBUH** or **IBDH** series RS232/ 485 link to a host computer (Remote mode). In remote mode, the on-line converters can be selected and monitored whilst keeping switch-over automatic in case of failure. In automatic mode, the system monitors the Converter alarm status and if a fault condition develops within the on-line Converters, automatically switches traffic to the standby unit.

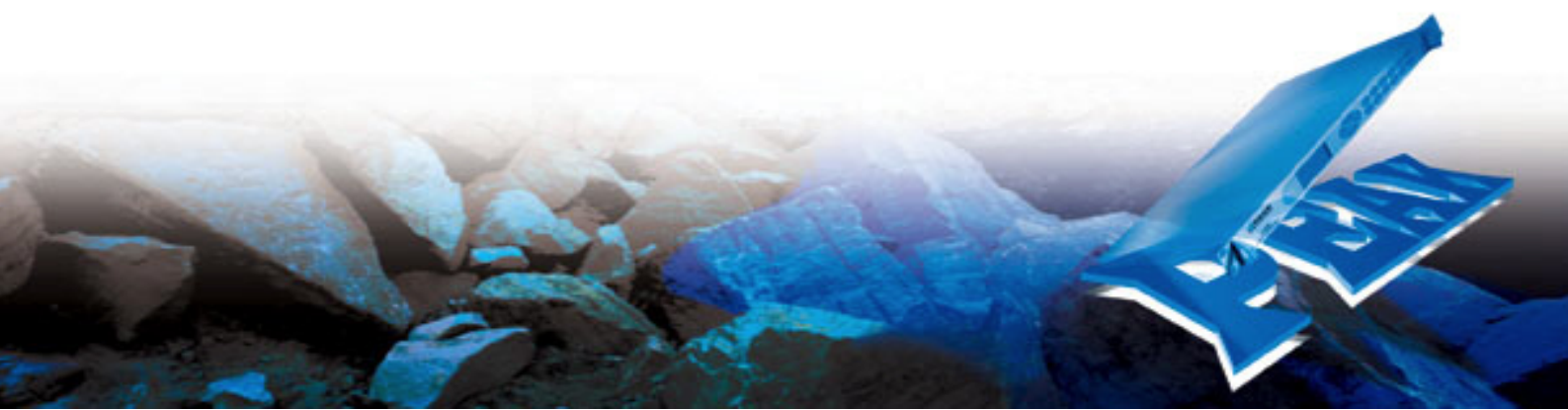
The **T2000** Redundancy Interface unit has connections for the Upconverter (Transmitter) or BUC series, the **R2000** for the DownConverter (Receiver) or BDC series and the **TR2000** for the combined Up/DownConverter unit.

The unit is standard 19" Rack Mountable and having no front panel controls (control is via the Frequency Converters), can be mounted in the rear of the rack behind the converters and connected with the cables provided. The units are designed to pass the DC and 10MHz external reference frequency required to lock an LNB or BUC.

Several different types of unit are available;  
IF to L-band (denoted 'L', ie. T2000L, R2000L etc.).  
IF to SHF (denoted 'H', ie. T2000H, R2000H etc.).  
L-Band to SHF (denoted 'HH', ie. T2000HH, R2000HH).

#### **Peak Features**

-  High quality, matched IF, L-Band & RF (as appropriate) cable set included as standard.
-  Does not require rack 'front panel' space.
-  Fully compatible with Peak **P7000**, **IBUH** & **IBDH series** of Frequency Converters.



# T2000, R2000 & TR2000 - Typical Specification

## IF, L-band & RF Interfaces

Frequency	
IF	50 to 200MHz
L-band/RF	DC to 14.5GHz
Connections (for use with P7000 series Converters)	
IF	50Ω, BNC (f). Option 1; 75Ω
L-band/RF	50Ω, N-type (f)
Connections (for use with IBUH, IBDH series Converters)	
L-Band	50Ω, SMA (f)
RF	50Ω, SMA (f)

## Switch Element Parameters

Type	Co-axial, latching
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## Typical System Performance

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

Gain Flatness	±1dB full band
Insertion loss (excludes converter gain)	
IF	6.5dB (7.5dB for 75Ω option)
L-Band	0.75dB
C-Band	1.75dB
X-Band	2.25dB
Ku-Band	2.75dB
DBS-Band	3.25dB
10MHz	0.75dB
Switching speed	<800ms (from fault to switch completion)

## General

### Mechanical

Width	19", standard rack mount
Height	1U (1.75")
Depth	150mm (6"), plus connectors
Weight (nom.)	2kgs (4.4lbs)
Construction	Aluminium chassis

### Environmental

Operating temp.	0 to +50°C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

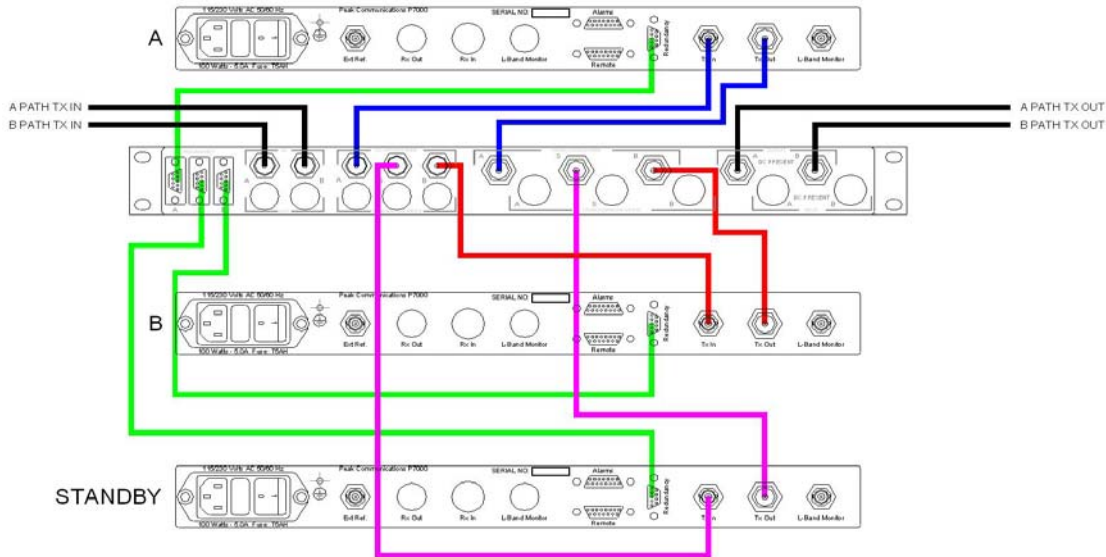
### Control System

Converter Interface 9 way, D-type.

### Options

- 1) 75Ω IF interface.

## Wiring Configuration (example for the T2000L connected to P7002, IF to L-band UpConverters);



## Rear Panel (T2000L example);

