T2000, R2000, TR2000 and A2000L/H

2+1 Redundancy Switch for the P7000 & IBUH/ IBDH series of frequency converters, and the ILAH series of Line Amplifiers

T2000L, R2000L, TR2000L for use with **P7000 series** IF/ L-Band synthesised converters
T2000LD, R2000LD, R2000LQ for use with **P7001D/ 1Q/ 2D series** IF/ L-Band synthesised multi-channel converters
T2000H, R2000H, TR2000H for use with **P7000 series** IF/ SHF (S, C, X, Ku & DBS-Band) synthesised converters
T2000HH, R2000HH for use with **IBUH, IBDH series** L/ SHF (S, C, X, Ku & DBS-Band) block converters
T2000HH(Ka), R2000HH(Ka) for use with **IBUH(Ka), IBDH(Ka) series** L/ SHF (Ka-Band) block converters
A2000L for use with **ILAH series** L-Band line amplifiers
A2000H for use with **ILAH series** SHF line amplifiers

The **T2000, R2000, TR2000 & A2000L/H** 2+1 redundancy switch units are designed to take advantage of the redundancy control interface which is built in as a standard feature of the **P7000 series** of synthesized converters, the **IBUH, IBDH series** of block frequency converters and the **ILAH series** of line amplifiers.

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 unit, without the normally associated down-time.

The system maintains two ‘host’ units on-line whilst the other is held in hot standby and allows the user to select the on-line unit. The redundancy unit can be controlled from the front panel of the host units (local mode) or via the host units RS232/ 485 serial communications (or optional Ethernet) port (remote mode). In remote mode, the on-line units can be selected and monitored whilst keeping switch-over automatic in case of failure. In automatic mode, the system monitors the host units alarm status and if a fault condition develops within one of the on-line units, automatically switches traffic to the standby unit.

The unit is standard 19-inch rack mountable, however having no front panel controls 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.

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 & ILAH series** of units

T2000, R2000, TR2000 & A2000L/H - Typical Specification

IF, L-band & RF Interfaces

Frequency

IF	50 to 200MHz
L-band/ RF	DC to 18.4GHz
RF (Ka)	to 31.0GHz

Connections (for use with P7000 series converters)

IF	50Ω, BNC (f)
Option 1;	75Ω, BNC (f)
L-band/ RF	50Ω, N-type (f)

Connections (for use with IBUH, IBDH series converters)

L-Band/ RF	50Ω, SMA (f)

Connections (for use with IBUH(Ka), IBDH(Ka) series converters)

L-Band	50Ω, SMA (f)
RF (Ka)	50Ω, K-Type (f) or 2.92mm (f)

Connections (for use with ILAH series line amplifiers)

L-Band/ RF	50Ω, SMA (f)

Switch Element Parameters

Type	Co-axial, latching

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^{0}C
EMC	EN 55022-part B & EN 50082-1
Safety	EN 60950

Control System

Converter interface	9-way, D-type

Typical System Performance

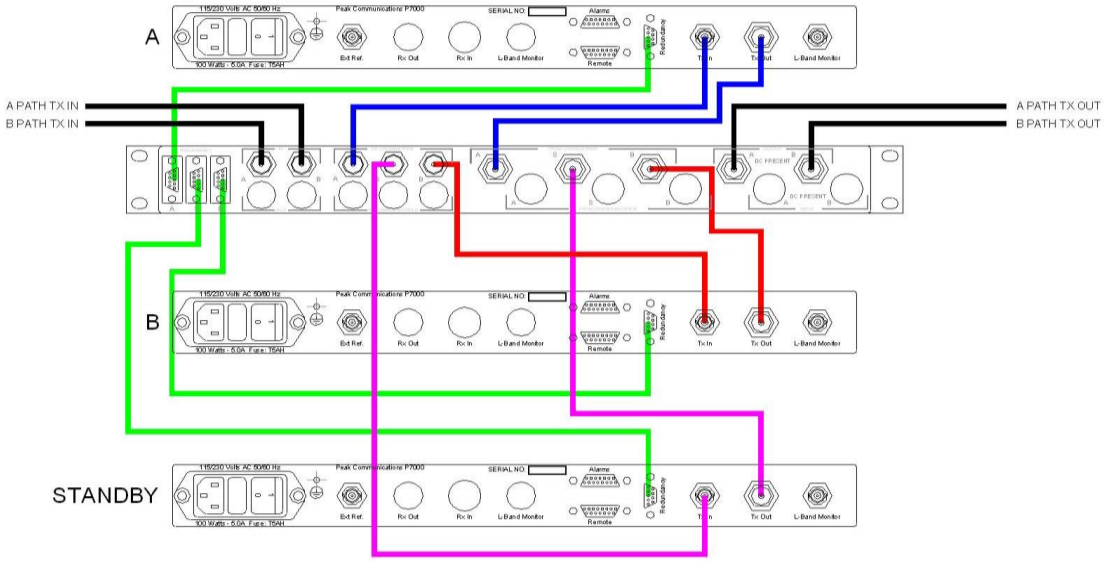
The following gives the typical performance that can be expected from a system comprising Peak converters & using the high quality matched IF & L-band/RF cable set;

Gain flatness	±1dB full band, band specific
Insertion loss (excludes converter gain)	
IF	6.5dB (7.5dB for 75Ω option)
L-Band	0.75dB
S-Band	0.75dB
C-Band	1.75dB
X-Band	2.25dB
Ku-Band	2.75dB
DBS-Band	3.25dB
Ka-Band	3.75dB
10MHz	0.75dB
Switching speed	<800ms (from fault to switch completion)

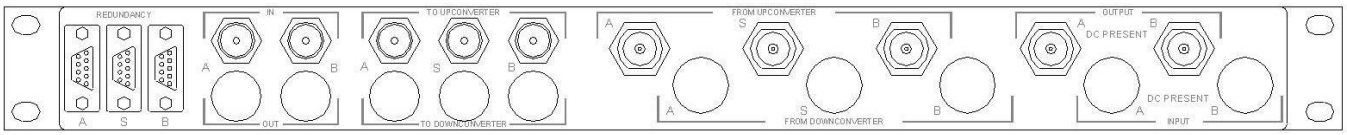
Options

1) 75Ω IF interface.

Wiring configuration (sample T2000L connected to P7002 IF to L-Band up converters)



Rear panel view (sample)



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