T2000LR and R2000LR

2+1 Redundancy Unit for the P70xxR Remote Mounted Agile L/S-Band Converters

The **T2000LR** and **R2000LR** 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 **P7001R/ 2R & P7021R/ 22R** series of synthesised remote mounted 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 normal 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 **P70xxRseries** which in turn are controlled by the user from either a PC based M&C system (RS232/ 485/ Ethernet) or a rack mounted control panel (See the **P70xxRseries** datasheets for details).

The **T2000LR** redundancy interface units have connections for the P7002R/22R up converters (transmit chain) and the **R2000LR** for the P7001R/21R down converters (receive chain).

Options exist to include remote mounted BUC/ BDC's in a chain-redundant 2+1 switching arrangement.

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

Peak Features

- High quality, matched IF, L/S-Band & control cable set for interfacing to the P70xxR included as standard
- BUC/BDC chain-redundancy switching options available
- Rugged weatherproof housing

T2000LR & R2000LR – Typical Specification

IF & L-band Interfaces

Frequency	
IF	50 to 200MHz
L-band	DC to 2.4GHz
Connections	50Ω, N-type (f)
Option 1;	75Ω IF connections

Switch Element Parameters

Type	Co-axial, latching

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 cable sets;

Gain flatness	±1dB full band
Insertion loss (excludes converter gain)	
IF	6.5dB (7.5dB for 75Ω option)
L-Band	0.75dB
Note; for option 2b please consult the factory for frequency dependent SHF switch performance.	
10MHz	0.75dB
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	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

1) 75Ω IF connections.
2b) BUC/ BDC included in 2+1 chain-redundancy configuration.
12) Low temperature operation to -40°C.

Associated Products;

P7001R remote mounted agile L-Band Down Converter
P7002R remote mounted agile L-Band Up Converter
P7021R remote mounted agile S-Band Down Converter
P7022R remote mounted agile S-Band Up Converter
FPC100 rack mounted control panel (1RU)

PEAK COMMUNICATIONS

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