

E1 TimeExpander

Network Timing Expander



TimeExpander™ allows economical distribution of 8 KHz and/or 2.048 MHz network timing signals. TimeExpander has redundant power and clock inputs. Timing output redundancy to network equipment is available from separate output cards. TimeExpander is a compact 8.5 centimeters in height, making it ideal for space constrained applications.

TimeExpander is the ideal solution for remote locations where Stratum 1 traceable network span lines, or feeds from a primary reference source such as the TimeSource® 3100 (GPS antenna on the roof) or TimeSource 3600 (GPS antenna in the window). Complete PRS and timing distribution systems are built economically through deployment of TimeSource and TimeExpander products.

The TimeExpander mounts in either a 19" or 23" standard telecommunications rack to provide up to ten timing outputs. The system is comprised of plug-in cards (8 KHz output, 2.048 MHz output, clock input and fuse & alarm) that may be ordered individually for spares.

TimeExpander Product Offerings

Three configurations of TimeExpander systems are available. All configurations come with shelf, fuse & alarm, and two clock input units. The configurations change by the addition of 8 KHz or 2.048 MHz clock output cards.

- The following TimeExpander systems are currently available:
- 990-45200-07—10 8 KHz outputs
 - 990-45200-08—5 8 KHz and 5 2.048 MHz outputs.
 - 990-45200-09—5 8 KHz outputs

Other options may be available upon request, including the incorporation of holdover

capabilities. The flexibility and scalability of the TimeSource makes it ideal for entry level and remote applications.

All units come with front panel LEDs indicating system & port operation as well as major & minor alarm. Standard power is redundant -48 volts DC.

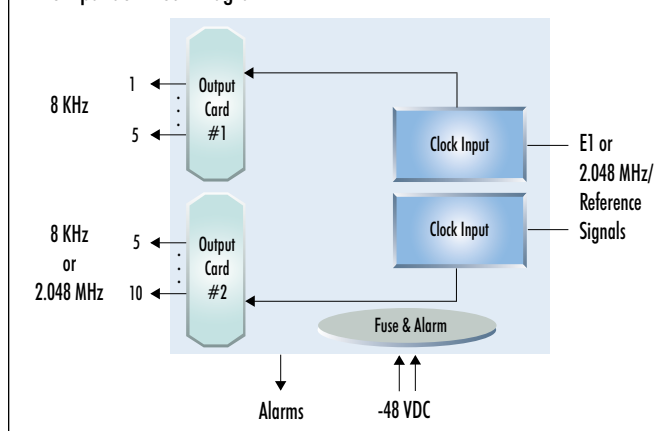
TimeExpander Specifications

REFERENCE INPUTS	Signal Type	E1	2.048 MHz
	Input Level, Terminated	ITU G.703, Table 6	ITU G.703, Table 10
	Impedance	1.0V to 3.5V base to peak 120 W	1.0V to 3.5V base to peak 120 W
TIMING OUTPUTS	Signal Type	8 KHz	2.048 MHz
	Format	RS 422 Balanced	RS 422 Balanced
	Impedance	Square Wave	Square Wave
	Amplitude	100 Ohms	100 Ohms
	Ports per Card	2V to 6VPP 5	2V to 6VPP 5
ALARM INTERFACE	Type	Dry Contact	
	Rating	Major Minor Input 1 Input 2 Port 1A @ 30 Vdc .05A @ 60 Vdc	
GENERAL	Mechanical	8.5cm high × 43cm wide × 30.5cm deep	
	Power	-48 VDC	
	Voltage	-42 to -56 VDC	
	Shelf Current	<400 Ma — fully loaded shelf configuration	
	Shelf Fusing	2A, recommend 3A fuses	
	Operating Temperature	0 to 45° C	
	Operating Humidity	0-95%, non-condensing	



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TimeExpander Block Diagram



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All specifications subject to change without notice.
DS/TXPNDR/D/0101/3.5M