

DATA SHEET



EX1200-7500

64-CHANNEL 2 MHz DIGITAL INPUT/OUTPUT

FEATURES

Eight ports of 8 I/O bits each

High current capability for control of external relays,
300 mA sink

Simulate and receive digital data at up to 2 MHz
sample rates

Selectable output voltages range from 3.3 V to 60 V

Setup outputs and scan inputs as part of EX1200
measurement sequencing engine



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RELIABLE DATA FIRST TIME EVERY TIME

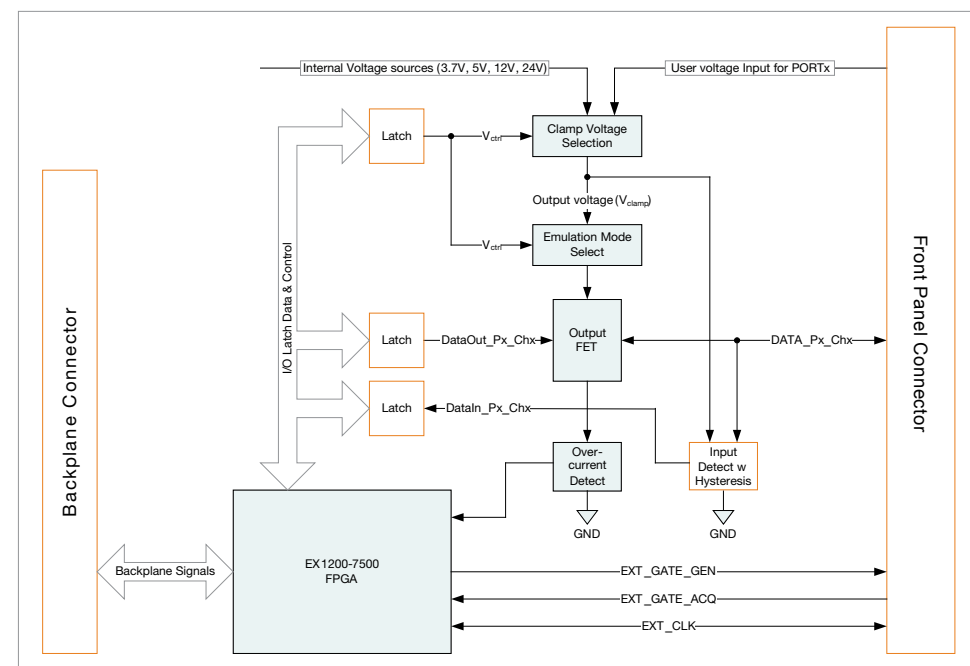
OVERVIEW

The EX1200-7500 is a high-performance I/O module with eight 8-bit ports (64 channels). Each port may be configured as an input or output under program control. The I/O may be single buffered, to provide real time data access, or double buffered, to provide synchronized data. As part of the EX1200 series, up to 384 channels can be accommodated in a full rack mainframe or combined with other plug-ins to configure a measure and control subsystem.

The EX1200-7500 has the flexibility to source the input and output clocks from the front panel allowing very large numbers of channels to be synchronized to collect or present data to a UUT. Additionally, input data can be timestamped to IEEE 1588 precision as part of the EX1200 scan engine. Deep on board memory (up to 1 MB) can be used to generate patterns on output channels at rates up to 2 MHz. In order to ease overall system cabling, all clamping diodes and open collector channels can be pulled up internally, rather than on a per channel basis.

Each channel can sink 300 mA, and includes built-in clamping diodes making this module ideal for driving and sensing external devices such as relays.

BLOCK DIAGRAM



General Specifications

DATA INPUT CHARACTERISTICS

V_{IN} (high)	> 40% of V_{clamp}^1
V_{IN} (low)	< 16% of V_{clamp}^1
V_{IN} (max)	60 V

DATA OUTPUT CHARACTERISTICS

V_{OUT} (high)	> 2 V to 60 V
V_{OUT} (low)	< 1.5 V @ 300 mA

VOLTAGE RANGE

Internal Voltage Source	± 3.3 V, ± 5.0 V, ± 12.0 V, and ± 24.0 V
User	> 2 V up to 60 V

MODES

Immediate	Inputs and outputs read and written via software control
Asynchronous	Channels are latched into memory via external clock
Pattern	Buffered pattern generation and acquisition controlled by internal or external clock

GATE (PATTERN MODE)

Programmable active low or high

CHANNEL CONFIGURATION (PATTERN MODE)

32 inputs, 32 outputs

MEMORY DEPTH

Output or input Enabled	2 MB
Output and input Enabled	1 MB

MAXIMUM EXTERNAL CLOCK RATE

Pattern Generation Disabled	2.5 MHz
Pattern Generation Enabled	2 MHz

MAXIMUM PATTERN UPDATE RATE

Pattern Generation Disabled	2.5 MHz
Pattern Generation Enabled	2 MHz

DATA INPUT CLOCK SOURCES

Internal clock, front panel input

POWER CONSUMPTION

3.3 V	0.260 A
5 V	0.450 A
24 V	0.0240 A

CONNECTOR TYPE

160-pin

Notes:

1. V_{clamp} is the user defined reference voltage.

Ordering Information

EX1200-7500	64-channel 2 MHz digital input/output
ACCESSORIES AND TOOLS	
70-0363-504	Strain relief bracket (includes connector, recommended accessory)
70-0363-503	Strain relief bracket kit (without connector)
52-0109-000	Crimp pin (includes 100 crimp pins)
27-0088-160	Mating connector (one per board)
46-0010-000	Crimp tool (DIN)
46-0011-000	Extraction tool (DIN)
70-0363-505	160-pin, unterminated cable assembly, 3 ft
70-0367-005	EX1200-TB160SE terminal block, single-ended module