



EX1200-4264

DUAL 2X32 TWO-WIRE/SINGLE 2X64 TWO-WIRE MATRIX

FEATURES

- Dual (2x32) 2-wire matrix
- Configure as (2x64) under program control
- Switch up to 300V, 2A - highest at this density in its class
- Extensive signal shielding, and differential signal routing employed on PCBs for excellent signal fidelity
- Columns can be connected to the EX1200's analog backplane and can use the internal DMM
- EX1200 series can support 2 x 348, two-wire configurations in a 1U full rack mainframe



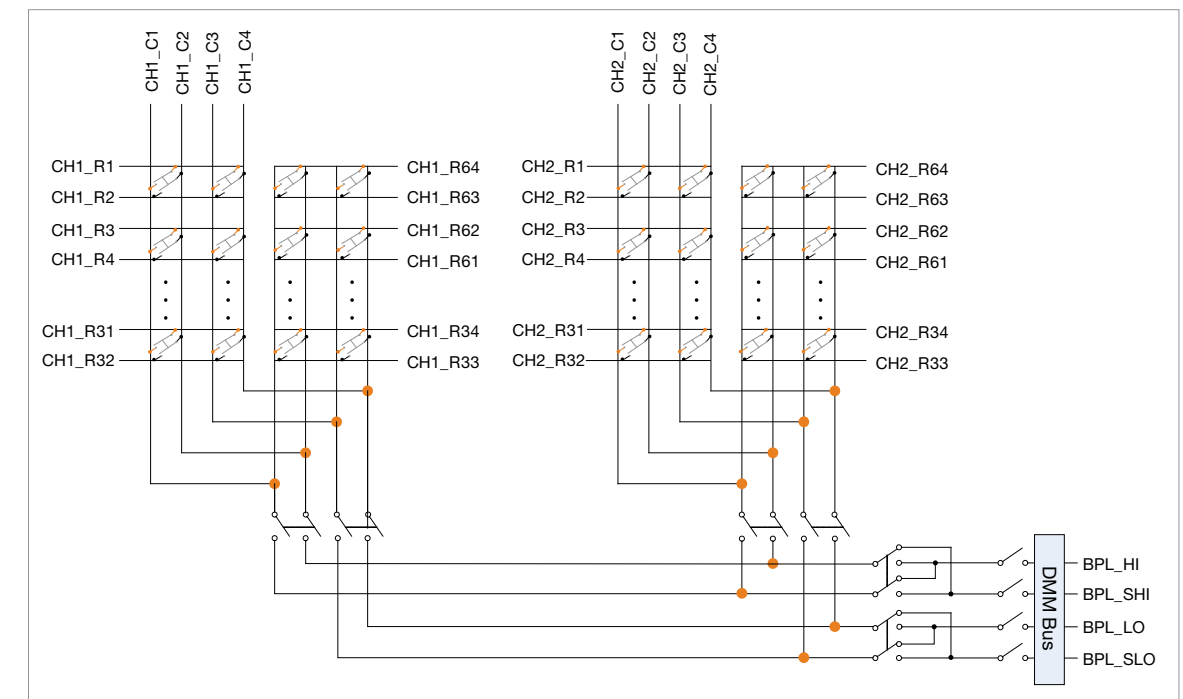
OVERVIEW

The EX1200-4264 is a high-density matrix module which allows the user to connect any input row to any output column with a DPST relay at every row/column crosspoint. Each signal pair in the rows and columns are carefully routed as a differential pair, improving measurement signal integrity. This architecture provides the framework for flexible switch system designs where multiple test instruments need to be connected to common test points. For example, sense and excitation channels from a digital multimeter, counter/timer, and digitizer can be connected to the input rows and each device can be connected to any of the output columns depending on the measurement function that is desired during the test. The connections between rows and columns occur internal to the module which greatly reduces external cabling.

The smallest building block is a (2 x 32) 2-wire matrix, and rows of two banks can be joined together to create single (2 x 64) 2 wire matrix. A (2 x 348) 2-wire matrix can be accommodated in just 1U space, using an EX1200 series full rack mainframe. The two banks of matrices can be joined, as well as connected to the EX1200 DMM's analog backplane bus to further simplify field wiring.

Relays capable of switching up to 300 V and up to 2 A are used to maximize the range of application spaces that can be addressed with this module. All relays are failsafe which ensures that no undesired signals are present at the user interface in the case of power interruption.

EX1200-4264 BLOCK DIAGRAM



General Specifications

RELAY TYPE	Electromechanical, fail-safe
CONFIGURATIONS	Dual 2 x 32 two wire, single 2 x 64 two wire
MAXIMUM SWITCHING VOLTAGE	300 V AC, 300 V DC
MAXIMUM SWITCHING CURRENT	2 A
MAXIMUM SWITCHING POWER	60 W DC, 62.5 VA
PATH RESISTANCE	< 500 m Ω
INSULATION RESISTANCE	> 1 X 10 ⁹ Ω
MAXIMUM THERMAL OFFSET	< 10 μ V
BANDWIDTH (-3 dB)	45 MHz typical
CAPACITANCE	
Open channel	< 50 pF
Channel-mainframe	< 80 pF
High-low	< 50 pF
CROSSTALK (TYPICAL)	
1 MHz	< -70 dB
10 MHz	< -50 dB
ISOLATION (TYPICAL)	
1 MHz	< -60 dB
10 MHz	< -50 dB
RATED SWITCH OPERATIONS	
Mechanical	1 x 10 ⁷
Electrical	5 x 10 ⁵ at full load
SWITCHING TIME	< 10 ms
CONNECTOR TYPE	104-pin

Ordering Information

EX1200-4264 Dual 2 x 32 two-wire matrix, 300 V/2 A

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