

60-710

Dual 24 x 8 Video Matrix



- Dual 24 x 8 Video Matrix
- Software Configurable As 48 x 8 Video Matrix
- 25MHz Bandwidth
- High Density SMB Coaxial Connectors
- 75Ω Impedance Suitable for Video Switching

- 1U Rack Mountable Enclosure
- Designed To Be Fully Compliant To LXI Standard - Class C Instrument
- Program via Windows DLL
- 3 Year Warranty

The 60-710 is a Dual 24 x 8 Video Matrix Module suitable for switching frequencies up to 25MHz. It has an impedance of 75Ω implemented using 50Ω SMB connectors.

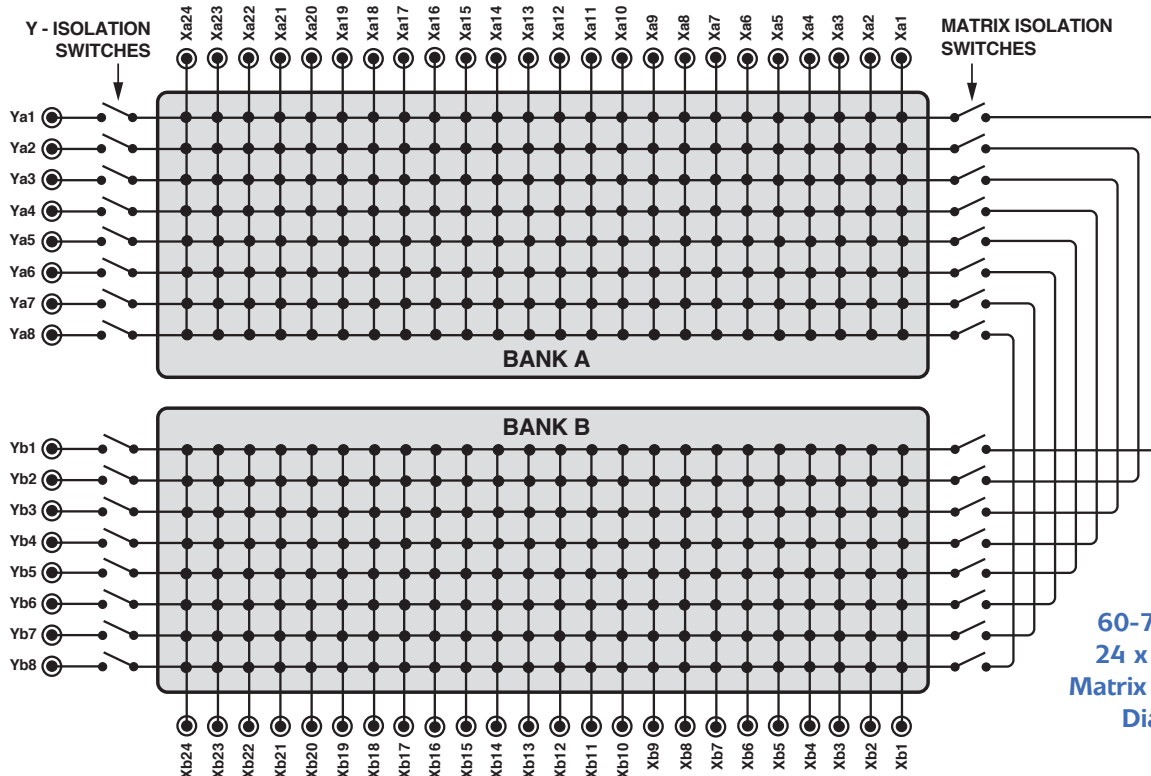
It is designed to provide a simple and scalable bidirectional matrix for video frequencies and is intended for the easy construction of high performance bidirectional matrix switching systems.

Software configuration allows the 60-710 to be set as a dual 24 by 8 matrix, a single 48 by 8 matrix and other configurations. All connections to the matrices are accessible from the front panel.

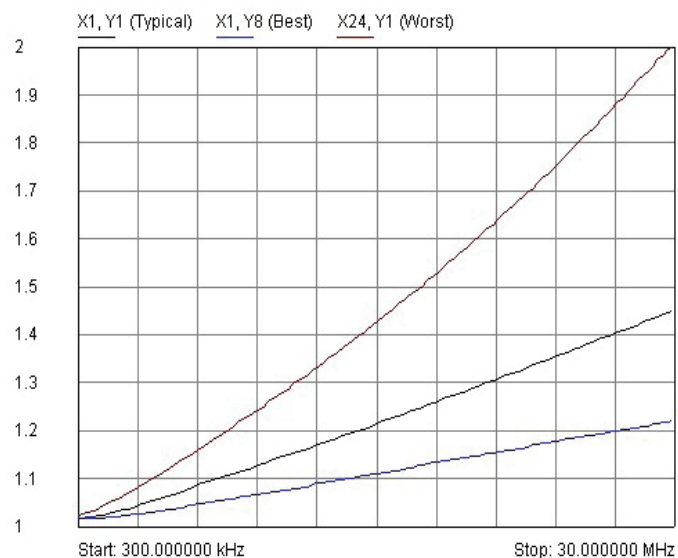
A flexible isolation switch arrangement permits the matrices to be configured so the matrix can be expanded with other modules while maximizing the bandwidth of the switching system.

The 60-710 is designed in accordance with the LXI Class C standard and is supplied in a compact 1U high, rack width case, 340mm depth.

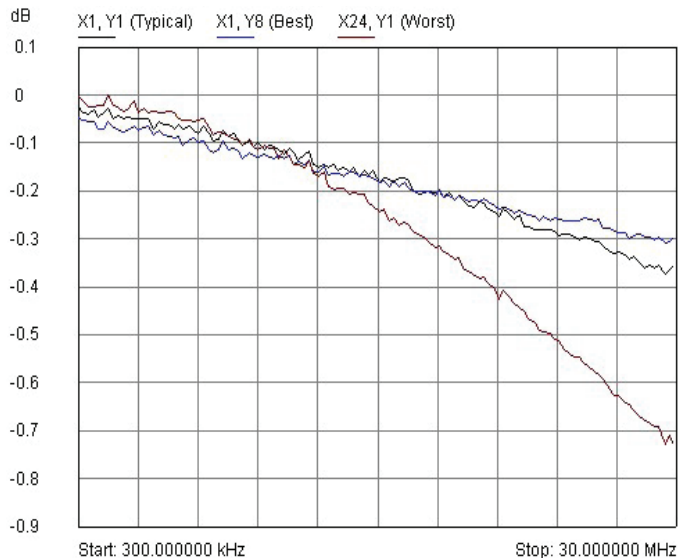
It is fully programmable via the LAN interface using code based Pickering Interfaces PXI switch driver. Industry standard (W3C) web browsers can be used to access and change configuration information and provide access to the soft front panels.



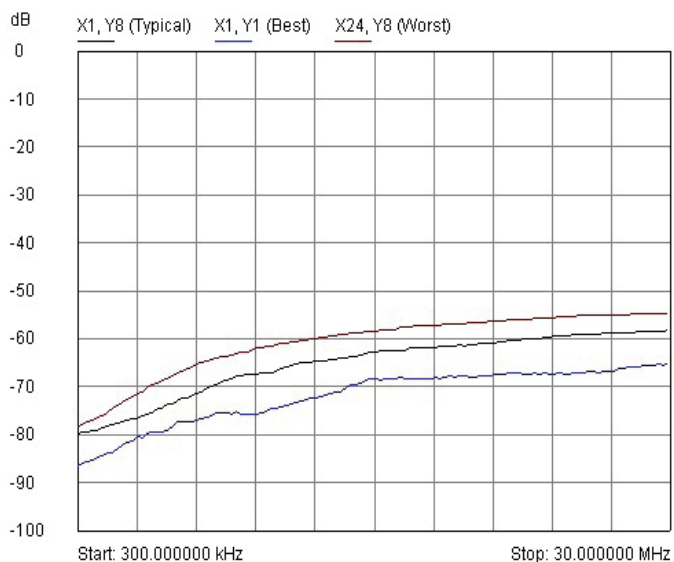
60-710 Dual
24 x 8 Video
Matrix Schematic
Diagram



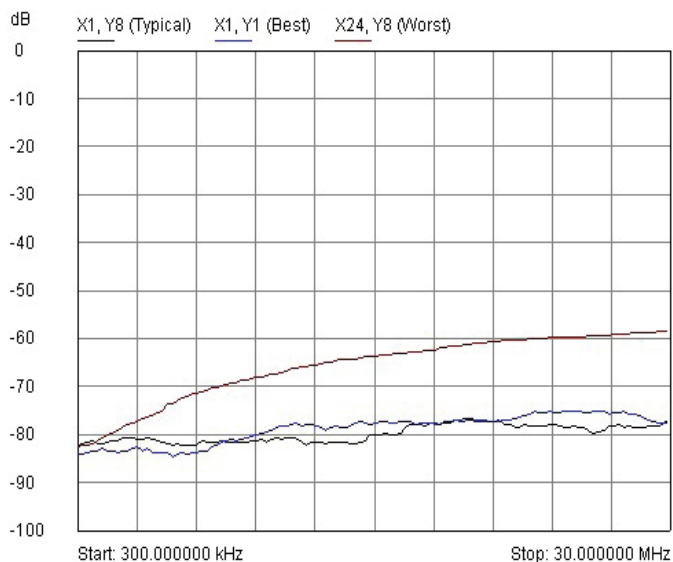
VSWR Plot for 60-710 24 x 8 Video Matrix



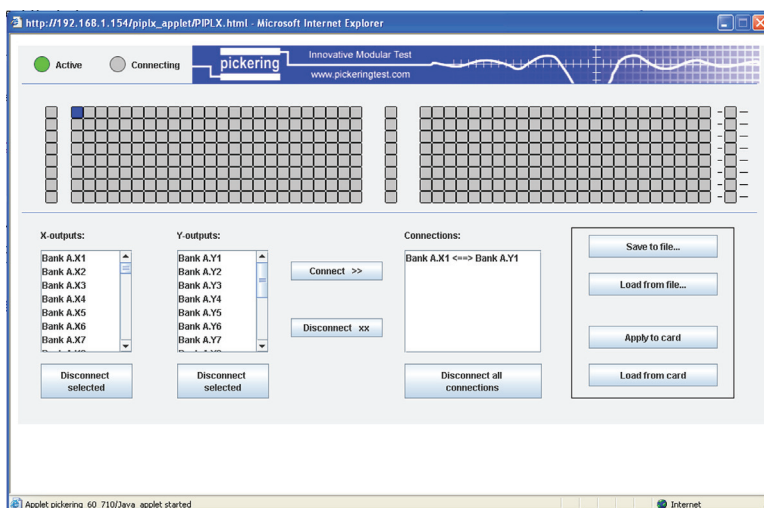
Insertion Loss Plot for 60-710 24 x 8 Video Matrix



Crosstalk Plot for 60-710 24 x 8 Video Matrix



Isolation Plot for 60-710 24 x 8 Video Matrix



Soft Front Panel for the 60-710 Dual 24 x 8 Video Matrix

LAN Interface

The 60-710 has a 100 Base T Ethernet Interface with a standard RJ-45 connector mounted on the rear panel.

Programming

All LXI cards are supplied with built-in software drivers (as per the LXI specification):-

- Windows DLL (similar to Pickering PXI and PCI cards)
- Web Pages for configuration and soft front panel.

Up to date driver software is available from our web site at www.pickeringtest.com

General Matrix Switching Specification

Maximum Voltage:	100V DC
Maximum Power:	60W
Maximum Switch Current:	1.4A
Characteristic Impedance:	75Ω
On Path Resistance:	<1Ω
Off Path Resistance:	>10 ⁸ Ω
Thermal Offset:	<50μV
Expected Life (Low Power):	10 ⁸ operations
Expected Life (Max Power):	>10 ⁷ operations
Operate Time:	<3ms

RF Specification - Single or Dual 24 x 8 Configuration

Insertion Loss:	<0.3dB @ 10MHz, 0.12dB typical <0.75dB @ 25MHz, 0.29dB typical typical worst case 0.53dB @ 25MHz
VSWR:	<1.4 @ 10MHz, 1.2 typical <2.0 @ 25MHz, 1.37 typical typical worst case 1.76 @ 25MHz
Crosstalk:	Better than 55dB @ 10MHz Better than 50dB @ 25MHz
Isolation:	Better than 55dB to 25MHz

RF Specification - Single 48 x 8 Configuration

Insertion Loss:	<0.3dB @ 10MHz, 0.2dB typical <1dB @ 25MHz, 0.45dB typical typical worst case 0.74dB @ 25MHz
VSWR:	<1.4 @ 10MHz, 1.2 typical <2.1 @ 25MHz, 1.45 typical typical worst case 1.9 @ 25MHz
Crosstalk:	Better than 60dB @ 10MHz Better than 50dB @ 25MHz
Isolation:	Better than 70dB to 25MHz

Note: Matrix RF Performance is entirely dependant upon the combination of crosspoints currently selected, these figures are for **one** selected crosspoint on any X or Y channel only, refer to graphs. For further assistance on getting maximum performance using the 60-710 please refer to the Operating Manual.

Relay Type & Maintenance

The 60-710 is fitted with electromechanical signal relays with palladium-ruthenium, gold covered contacts. These are leaded relays (not SMT relays) so field maintenance is greatly simplified. In addition a total of **8 Spare Relays** are fitted to the circuit boards to facilitate easy maintenance with minimum downtime.

Mechanical Characteristics

Supplied configured ready for rack mounting..

Dimensions: 1U high, full rack width, 340mm depth.

Weight: 4.6Kg

Matrix Signal Connectors: 50Ω SMB

Power Source:

Universal AC mains supply, 90-120/200-240V 50-60Hz

Power inlet: Male IEC connector

Power Rating: 100VA maximum

Fuse Rating: 2.5A 250V

Safety & CE Compliance

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2001, EMC Immunity EN61000-6-1:2001, Emissions EN55011:1998.

Product Order Codes

Single 24 x 8 Video Matrix	60-710-711
Dual 24 x 8 Video Matrix	60-710-721

Mating Connectors & Cabling

Please refer to the Pickering Interfaces "**Interconnection Solutions**" catalog for a full list of connector/cabling options, including drawings, photos and specifications. This is available in either print or as a download.

Latest Details

Please refer to our Web Site for Latest Product Details.
www.pickeringtest.com

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0°C to 55°C
Humidity:	Up to 90% non-condensing
Altitude:	5000m

Storage and Transport Conditions

Storage Temperature:	-20°C to +75°C
Humidity:	Up to 90% non-condensing
Altitude:	15000m

LXI is the new standard for Ethernet control of instrumentation. It is the natural successor to GPIB (IEEE-488) incorporating LAN connectivity, full web browser support, IVI drivers and advanced triggering capability.

Pickering Interfaces is a Board level member of the LXI Consortium (www.lxistandard.org) and together with Agilent Technologies was the first company to release a fully compliant LXI device. Pickering is developing a large range of products conforming to the LXI standard and is constantly introducing new products in response to specific user demand. For further information go to www.pickeringtest.com/lxi



