

Pickering LXI Ethernet Switch Systems

LXI from Pickering Interfaces

Pickering Interfaces were early adopters of the LXI standard as a means of providing a standardized interface for Ethernet (LAN) controlled instruments.

- A wide range of switching functions are available including low frequency, high density matrices, RF and microwave matrices and multiplexers, and optical switching.
- Custom switching solutions available - existing products can be adapted to meet a specific requirement or a completely custom solution can be created.
- Compatible with all popular software: Windows® 8/7/Vista/XP, Visual Studio® (VB.NET, C#, C/C++), LabVIEW™, LabVIEW RT™, LabWindows/CVI™, VISA (NI and Agilent), IVI, NISE, Agilent VEE, Mathworks Matlab, Marvin Test ATeasy, MTQ TestSolutions Tecap.
- Pickering switch modules set the benchmarks by which others are judged, constantly providing the densest and highest performance solutions available.
- Pickering Interfaces is a Strategic Member of the LXI Consortium.

Pickering is the only provider of LXI and PXI switching products with in-house reed relay manufacturing capability - instrument grade reed relays ensure long service life and repeatable contact performance (for further information visit pickeringrelay.com). In addition, most of Pickering's switch modules use through hole technology relays (as opposed to surface mount) allowing easy replacement without the need for special tools.



BIRST Built-in Relay Self-Test
Select high density matrix solutions are supplied with Built-in Relay Self-Test. This allows the easy detection of faulty or deteriorating relay contacts to help in the diagnosis and verification of complex switching systems.

Further literature available on Pickering LXI Products



LXIMATE Book
Pickering has released the third edition of the LXIMATE book. The 122 page LXIMATE is an overview of the LXI Standard - an open, accessible standard identifying specifications and solutions relating to the functional test, measurement and data acquisition industry. This new edition has been updated to reflect the change in how products are offered, moving away from a class structure to a structure describing a Core Specification and a set of optional Extended Functions. To request a copy of LXIMATE, go to pickeringtest.com/lximate.

The LXI Product Catalog

Details the full range of LXI switching systems and modular products - 158 pages.



All books and catalogs can be ordered from a Pickering Sales Office or downloaded from pickeringtest.com/catalog/

RF & Microwave Multiplexers

	VIDEO MUX	RF MUX - HIGH ISOLATION	MICROWAVE MUX	
Features	<ul style="list-style-type: none"> High Performance Multiplexer Suitable For Video Switching Applications Automatic Termination of Unused Inputs 	<ul style="list-style-type: none"> High Performance 12-Channel Multiplexer 1GHz Bandwidth Single or Dual Multiplexer Banks 	<ul style="list-style-type: none"> High Performance 6-Channel Multiplexer Up to 16 Multiplexer Banks Terminated Versions Available 	<ul style="list-style-type: none"> High Performance 6-Channel Multiplexer Up to 16 Multiplexer Banks Low Loss High Isolation
Model Family	60-721A	60-722	60-800	60-820
Configurations	24, 48, 72, 96, 120 or 144 Channel MUX With Terminations	Single or Dual 12 Channel MUX	6 Channel MUX With 4, 8, 12 or 16 Banks	6 Channel Terminated MUX With 2, 4, 6 or 7 Banks
Impedance	75Ω	50Ω	50Ω	75Ω
Frequency Range	1GHz	1GHz	18GHz	2.5GHz
Insertion Loss	3.5dB	1.3dB	0.5dB	0.3dB
VSWR	1.7:1	1.5:1	1.5:1	1.3:1
Max Power	0.5W (limited by termination resistors)	400W	240W	1W Terminated 400W
Typical Operate Time	5ms	20ms	18ms	
Relay Type	Electro-mechanical	Microwave Relay	Microwave Relay	
Connector Type	F-Type	F-Type	SMA	DIN 1.6/5.6
Enclosure Size	2U or 3U High, Full Rack Width, 500mm Deep	2U High, Full Rack Width, 500mm Deep	2U High, Full Rack Width, 500mm Deep	

Number shows the quantity of modules within a particular range

Low Frequency Matrices

	HIGH DENSITY - DUAL ANALOG BUS	HIGH DENSITY	HIGH POWER	HIGH VOLTAGE	LOW THERMAL EMF	
Features	<ul style="list-style-type: none"> Single Pole High Density Matrix Up to 4096 Crosspoints Dual Analog Bus 	<ul style="list-style-type: none"> Double Pole High Density Matrix Up to 4096 Crosspoints Dual Analog Bus 	<ul style="list-style-type: none"> Single Pole High Density Matrix Up to 4096 Crosspoints X and Y Axis Loop-Thru Easily Expanded to Larger Sizes 	<ul style="list-style-type: none"> Single Pole High Voltage Matrix Up to 1600 Crosspoints X and Y Axis Loop-Thru Easily Expanded to Larger Sizes 	<ul style="list-style-type: none"> Double Pole High Voltage Matrix Up to 800 Crosspoints Up to 1000V Rating 	<ul style="list-style-type: none"> Double Pole High Voltage Matrix Up to 300 Crosspoints Up to 750V Rating
Model Family	60-550	60-551	60-555	60-556	60-552	
Configurations	Between 128x4 and 512x4 1-Pole Matrix	Between 128x4 and 512x4 1-Pole Matrix	Between 192x4 and 512x4 1-Pole Matrix	Between 192x4 and 512x4 2-Pole Matrix	Between 128x4 and 512x4 1-Pole Matrix	
Relay Type	Electro-mechanical		Electro-mechanical		Electro-mechanical	
Max Switch Voltage	300VDC/250VAC		300VDC/250VAC		300VDC/250VAC	
Max Switch/Carry Current	2A		2A		2A	
Max Switch Power	60W		60W		60W	
Typical Operate Time	3ms Crosspoint, 6ms Crosspoint + Isolation		3ms Crosspoint, 6ms Crosspoint + Isolation		3ms	
Connector Type	78-Way D-type		160-Way DIN 41612		78-Way D-type	
Enclosure Size	1U High, Full Rack Width, 500mm Deep		1U High, Full Rack Width, 500mm Deep		1U High, Full Rack Width, 500mm Deep	
Mating Connectors and Cabling Datasheet	90-006D		90-001D		90-006D	
Spare Relay Kits	91-100-001		90-005D & 90-008D		91-100-001	

RF & Microwave Matrices

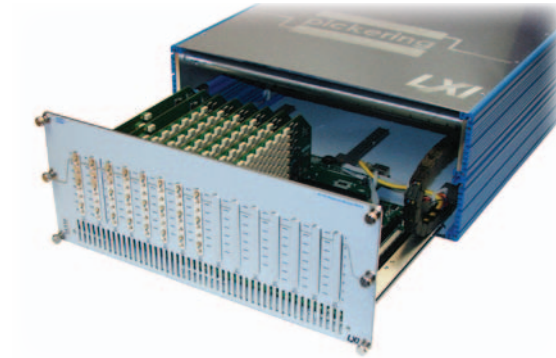
	VIDEO MATRIX	HIGH FREQUENCY MATRIX	RF Matrix - 1GHz	RF Matrix - 2.4GHz	MICROWAVE MATRIX	
Features	<ul style="list-style-type: none"> Single or Dual 24x8 Matrix Suitable For Video Switching Applications Choice of RF Connectors 	<ul style="list-style-type: none"> Single or Dual 24x8 Matrix Matrix Bandwidth: Usable to 100MHz SMB or BNC RF Connectors 	<ul style="list-style-type: none"> High Bandwidth 75Ω Matrix Usable to 1.5GHz Automatic Termination of Unused Inputs 	<ul style="list-style-type: none"> High Bandwidth 75Ω Matrix Usable to 1.5GHz Automatic Termination of Unused Inputs 	<ul style="list-style-type: none"> High Bandwidth 50Ω Matrix Y Axis Loop-Thru Automatic Termination of Unused Inputs 	<ul style="list-style-type: none"> Versatile Microwave Matrix Switching Solution Loop-Thru Option For Easy Expansion Internal Termination Option
Model Family	60-711	60-760	60-730	60-731	60-732	
Configurations	Single or Dual 24x8 (software configurable)	Single or Dual 24x8 (software configurable)	32x16 terminated, 24x16 terminated 16x16 terminated	32x8 terminated, 24x8 terminated 16x8 terminated, 8x8 terminated	32x4 terminated, 24x4 terminated 16x4 terminated, 8x4 terminated	
Impedance	75Ω	50Ω	75Ω	50Ω	50Ω	
Frequency Range	DC to 25MHz	DC to 50MHz (useable to 100MHz)	DC to 1GHz (useable to 1.5GHz)	DC to 2.4GHz	DC to 10GHz	
Insertion Loss	<0.53dB	<1dB	<2.5dB	<2.5dB	<3.6dB	
VSWR	<1.8:1	<1.8:1	<1.8:1	<1.8:1	<1.6:1	
Max Power	10W	10W	0.125W (limited by termination resistors)	0.5W (limited by termination resistors)	100W (1W for termination resistors)	
Typical Operate Time	3ms	3ms	3ms	3ms	18ms	
Relay Type	Electro-mechanical	Electro-mechanical	Electro-mechanical	Electro-mechanical	Microwave Relay	
Connector Type	SMB, MCX or BNC	SMB or BNC	F-type	SMA	SMA	
Enclosure Size	1U High, Full Rack Width, 340mm Deep or 2U High, Full Rack Width, 500mm Deep	1U High, Full Rack Width, 340mm Deep or 2U High, Full Rack Width, 500mm Deep	6U High, Full Rack Width, 500mm Deep	3U High, Full Rack Width, 500mm Deep	2U or 3U High, Full Rack Width, 500mm Deep	

Optical Switching

	FIBER OPTIC MULTIPLEXERS	
Features	<ul style="list-style-type: none"> Single-Mode Fiber Support MEMS Based Actuation For Long Life and Fast Operation Loop-Thru Option For Easy Expansion 	<ul style="list-style-type: none"> Multi-Mode Fiber Support MEMS Based Actuation For Long Life and Fast Operation Loop-Thru Option For Easy Expansion
Model Family	60-850	60-851
Configurations	Single 8-Channel, Dual 4-Channel, Dual 8-Channel, Single 16-Channel or Single 32-Channel	Single 8-Channel, Dual 4-Channel, Dual 8-Channel, Single 16-Channel or Single 32-Channel
Switching Technology	MEMS (Micro Electro-Mechanical Systems)	
Wavelength	1240nm to 1640nm	700nm to 1700nm
Internal Fiber Type	SM 9/125	MM 62.5/125
Typical Operate Time	1ms	
Cycle Rate	500/sec	
Connector Type	FC/APC, FC/PC, SC/PC, MU, LC	SC, ST
Enclosure Size	1U High, Full Rack Width, 340mm Deep	

Pickering LXI System 65 Modular Chassis

Pickering's LXI System 65 Modular Chassis offers the user a solution that can be easily re-configured by the removal and insertion of sub-cards. The unit is purchased as an empty chassis with a baseboard and the quantity of System 65 sub-cards initially required. As the user's requirements evolve, additional cards can be easily fitted and the control software automatically detects the new configuration.



Wide Band Modular Matrix

Features	<ul style="list-style-type: none"> User Configurable For X and Y Dimensions Plug In As Many Cards As Required Built In Self-Test Checks all Relays
Model Family	65-110
Configurations	Between 24x8 and 104x8 or Between 16x16 and 104x16
Impedance	50Ω
Frequency Range	200MHz Usable to 500MHz
Insertion Loss	Dependent upon matrix size and signal path
VSWR	Dependent upon matrix size and signal path
Max Power	0.25W (limited by termination resistors)
Typical Operate Time	5ms
Relay Type	Electro-mechanical
Connector Type	SMB
Enclosure Size	4U High, Full Rack Width, 500mm Deep

Power Management

	AC POWER MANAGEMENT SWITCH
Features	<ul style="list-style-type: none"> Provides a Controlled Startup of Test Systems Supports Up To 8 Instruments Settable Timing Interval and Sequence Permits Remote Re-Booting of Systems
Model Family	60-200
Configurations	One Power Input, Eight Separately Controlled Power Outputs
Switch Type	Electro-mechanical DPST
Current Rating	6A Max Per Channel, 10A Max Total
On/Off Initiation	Remotely or Via Front Panel Switch
Timing	Output delay of 0 to 60s For Each Channel
Emergency Shutdown	Push Button or Remotely via Front Panel Connector
Connector Type	IEC Mains Connector
Enclosure Size	1U High, Full Rack Width, 340mm Deep

Comprehensive Range of Cables & Connectors

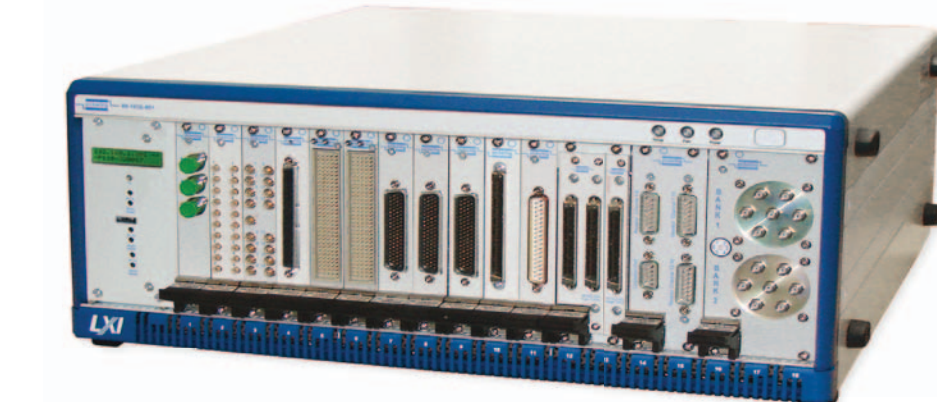
	MULTI-WAY CABLES & CONNECTORS	RF CABLES	More information on Cables & Connectors	
Range of Connectors	<ul style="list-style-type: none"> 200 Way LFH 160 Way DIN 41612 96 & 68 Way SCSI Style Micro-D 50 Way IDC 78, 50, 37, 26, 25, 15 & 9 Way D-Type 50, 37 & 9 Way High Voltage D-Type 20 Way GMCT (MS-M) 26 Way GMCT (MS-M) RF Coaxial 3, 4 & 8 Way Power D-Type 	<ul style="list-style-type: none"> 200 Way LFH 160 Way DIN 41612 96 & 68 Way SCSI Style Micro-D 50, 37 & 9 Way High Voltage D-Type 20 Way GMCT (MS-M) 26 Way GMCT (MS-M) RF Coaxial 3, 4 & 8 Way Power D-Type 	<ul style="list-style-type: none"> BNC to BNC 50Ω SMB to SMB 50Ω SMA to SMA 50Ω µWave SMA to µWave SMA 50Ω MCX to MCX 50Ω SMB to BNC 50Ω SMB to SMA 50Ω F type to SMA 50Ω BNC to BNC 75Ω SMZ/Type43 to SMZ/Type43 75Ω Mini SMB to Mini SMB 75Ω MCX to MCX 75Ω F type to F type 75Ω 1.6/5.6 to 1.6/5.6 75Ω Mini SMB to BNC 75Ω Mini SMB to SMZ/Type43 75Ω Mini SMB to 1.0/2.3 75Ω 	<p>Cables & Connectors Map Outlines the range of cable and connector options available for LXI and PXI switching modules.</p> <p>Cables & Connectors Catalog Details the available cable and connector options Pickering can supply for any module in the LXI and PXI ranges - 170 pages.</p> <p>All books and catalogs can be ordered from a Pickering Sales Office or downloaded from pickeringtest.com/catalog/</p>

LXI Solutions Map

Ethernet Controlled Switching Solutions for Test, Measurement and Data Acquisition



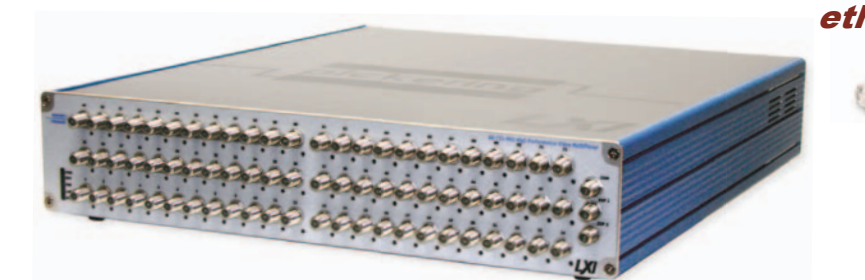
- 600+ Modular Solutions
- 150+ Switch Systems



Pickering's LXI Solutions Map is a single sheet reference to our range of LXI Switch Systems and LXI Modular Solutions and associated 600+ modules, including their basic specifications and cabling options.

pickeringtest.com 2013

LXI Solutions Map



- Features**
- Extensive Range of Switching: Matrix, MUX and General Purpose.
 - Comprehensive Range of Cables and Connectors.
 - Standard Three Year Warranty on all Modules and Switching Systems.
 - RF/Microwave Switching to 65GHz.
 - High Current to 40A, High Voltage to 1kV.
 - Gigabit Ethernet.

Direct Sales & Support Offices

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