- Available as PXI or PXIe Modules
- Single or Dual SP4T or SP6T Panel Mounted Multiplexer
- Up To 3 Remote SP4T or SP6T Multiplexers From Single Slot Version
- 50 Ω Versions With 3-67 GHz Bandwidth
- 50 Ω Terminated and Unterminated Versions
- 75 Ω Version With 2.5 GHz Bandwidth
- LED Indication
- VISA, IVI & Kernel Drivers Supplied for Windows
- PXI Version Supported by PXI or LXI Chassis
- 3 Year Warranty

The 40-785C (PXI) and 42-785C (PXIe) range of PXI microwave multiplexer modules are suitable for switching 50 Ω signals up to 67 GHz. They are available in single or dual SP4T or SP6T configurations with relays mounted on the front panel. Remote versions are also available which can support up to three multiplexers in a single slot.

The remote multiplexer versions, as well as occupying less PXI panel space, allow the microwave relays to be placed closer to the UUT and RF test equipment. This can shorten the length of cables and improve system performance. Remote versions are supplied with a 1.5m interface cable.

The panel mounted 50 Ω terminated version occupies 3 slots for the single version or 6 slots for the dual version.

A 75 Ω version is available with a bandwidth of 2.5 GHz and uses Siemens 1.6/5.6 style connectors.

The 40/42-785C range is suitable for constructing complex microwave switching networks and includes switching configurations to suit most applications. Connection is by high performance SMA, SMA 2.9, SMA 2.4, SMA 1.85 or N-type connectors for 50 Ω versions.

These modules give you the highest RF and microwave switching performance available within a Pickering switching system. Although designed for microwave applications, they have many uses in the RF spectrum where extremely low insertion loss and ultra high isolation are critical.
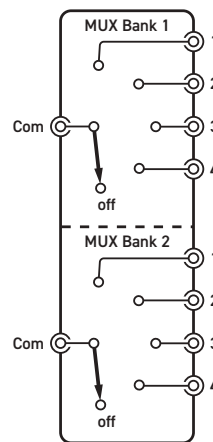

Single slot version controls 1, 2 or 3 remotely mounted microwave multiplexers via interface cables
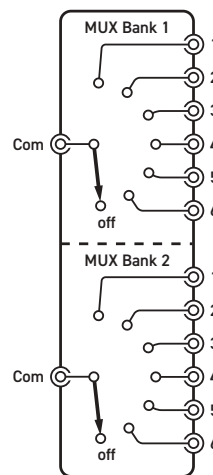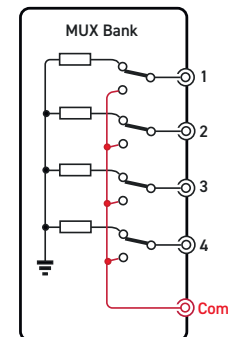

40/42-785C in Dual SP6T Format
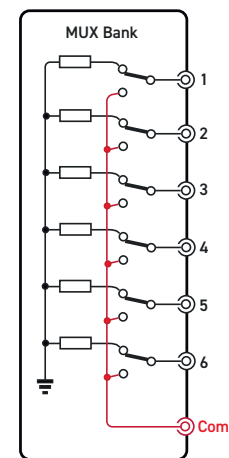
40/42-785C in Single SP6T Terminated Format

40/42-785C in Dual SP4T Format

40/42-785C in Single SP4T Terminated Format

pickering

pickering**test**.com

General Multiplexer Information

Relay Manufacturer:	Radiall
Configuration:	SP6T or SP4T Microwave MUX with 1, 2 or 3 independent banks.
LED Indicators:	Multiplexers have blue LEDs to indicate a closed RF path.
Operate Time:	Typically 15 ms
Maximum Cold Switch Voltage:	100 V
Maximum Carry Current:	1 A

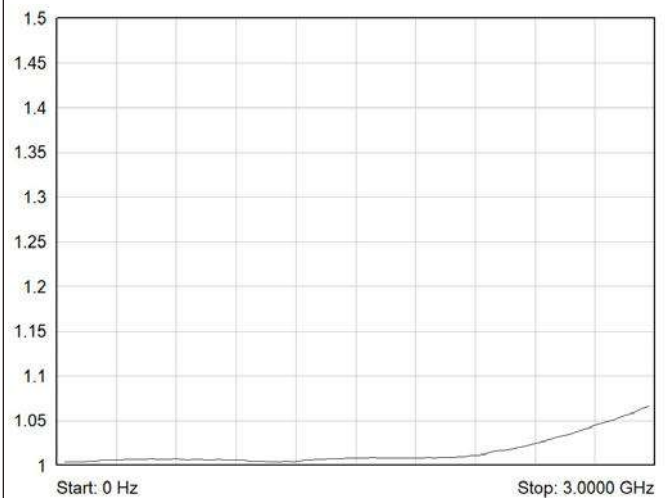## Specification - 3 GHz Unterminated & Terminated Versions

Characteristic Impedance:	50 Ω
Connectors:	N-type
Bandwidth	DC to 3 GHz
Isolation:	80 dB (0-3 GHz)
Insertion Loss:	0.2 dB (0-3 GHz)
VSWR:	1.2:1 (0-3 GHz)
Maximum RF Carry Power:	400 W (0-3 GHz)
Termination Power Rating:	1 W per termination, 3 W total per 6 channel multiplexer.
Expected Life (Low Power):	3 GHz option, >2 million operations
	3 GHz terminated option, >2 million operations
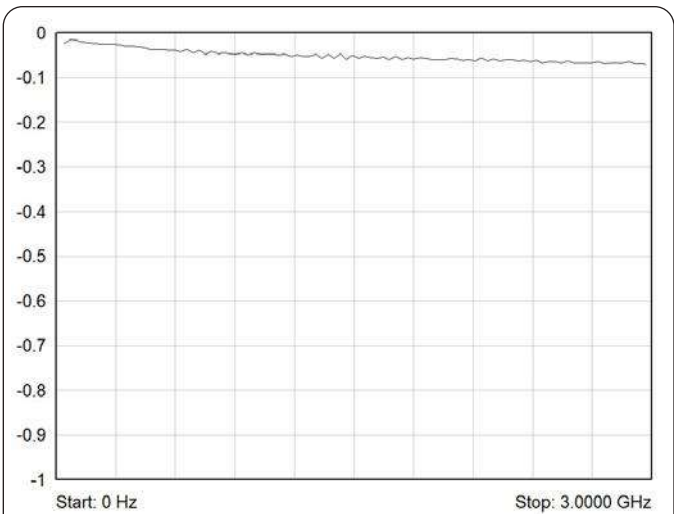
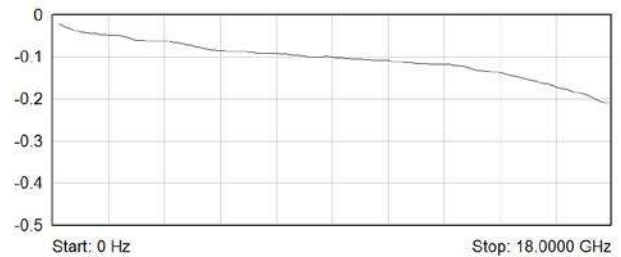**Typical Insertion Loss (dB) Plot for 3 GHz Terminated & Unterminated Versions**
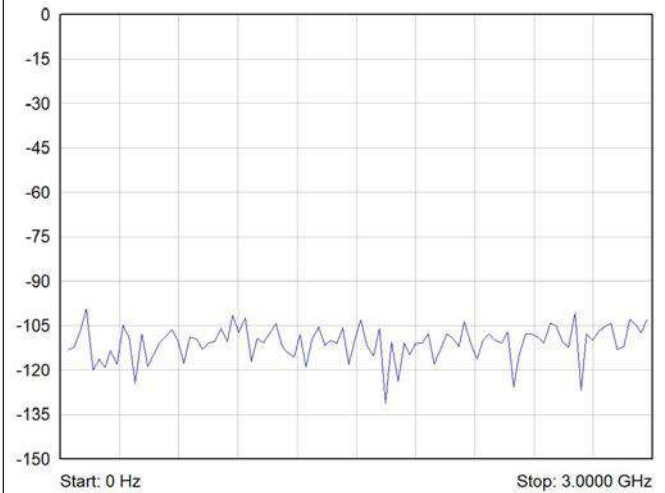
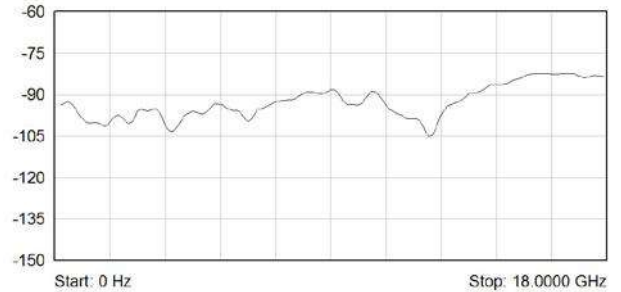**Typical Isolation (dB) Plot for 3 GHz Terminated & Unterminated Versions**

Typical VSWR Plot for 3 GHz Terminated & Unterminated Versions

pickering

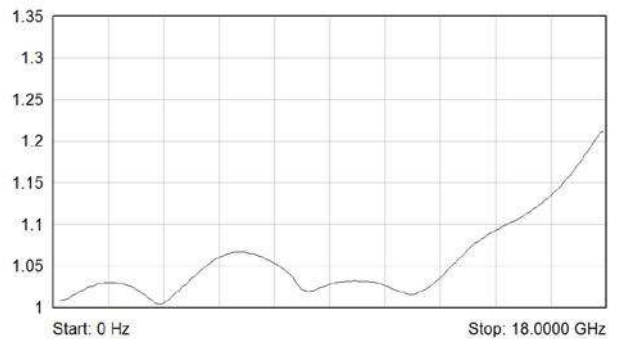## Specification - 18 GHz Unterminated & Terminated Versions

|	
Characteristic Impedance:	50 Ω
Connectors:	SMA
Bandwidth	DC to 18 GHz
Isolation:	80 dB (0-3 GHz) 70 dB (3-8 GHz) 60 dB (8-12.4 GHz) 60 dB (12.4-18 GHz)
Insertion Loss:	0.2 dB (0-3 GHz) 0.3 dB (3-8 GHz) 0.4 dB (8-12.4 GHz) 0.5 dB (12.4-18 GHz)
VSWR:	1.2:1 (0-3 GHz) 1.3:1 (3-8 GHz) 1.4:1 (8-12.4 GHz) 1.5:1 (12.4-18 GHz)
Maximum RF Carry Power:	240 W (0-3 GHz) 150 W (3-8 GHz) 120 W (8-12.4 GHz) 100 W (12.4-18 GHz)
Termination Power Rating:	1 W per termination, 3 W total per 6 channel multiplexer.
Expected Life (Low Power):	18 GHz option >5 million operations 18 GHz terminated option >2 million operations

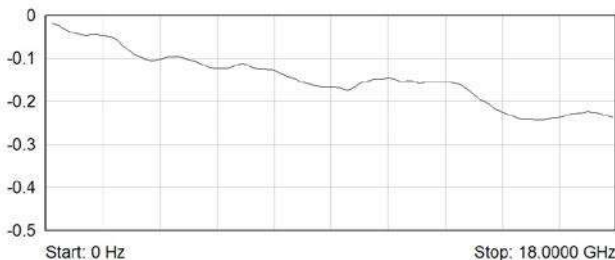Typical Insertion Loss (dB) Plot for 18 GHz
Unterminated Versions

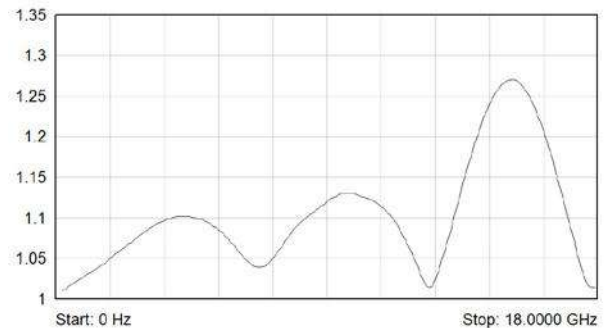Typical Isolation (dB) Plot for 18 GHz
Unterminated Versions

Typical VSWR Plot for 18 GHz
Unterminated Versions
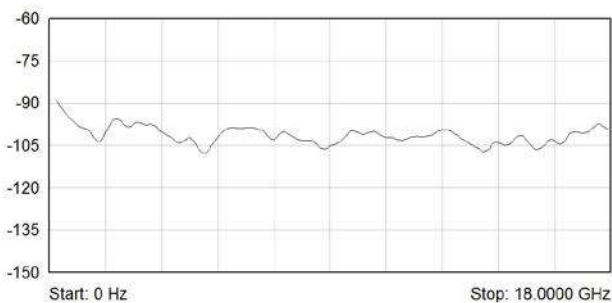
Typical Isolation (dB) Plot for 18 GHz
Terminated Versions

Typical Insertion Loss (dB) Plot for 18 GHz
Terminated Versions

Typical VSWR Plot for 18 GHz
Terminated Versions

Specification - 26.5 GHz Unterminated Versions

Characteristic Impedance:	50 Ω
Connectors:	SMA
Bandwidth	DC to 26.5 GHz
Isolation:	80 dB (0-3 GHz) 70 dB (3-8 GHz) 60 dB (8-12.4 GHz) 60 dB (12.4-18 GHz) 50 dB (18-26.5 GHz)
Insertion Loss:	0.2 dB (0-3 GHz) 0.3 dB (3-8 GHz) 0.4 dB (8-12.4 GHz) 0.5 dB (12.4-18 GHz) 0.7 dB (18-26.5 GHz
VSWR:	1.2:1 (0-3 GHz) 1.3:1 (3-8 GHz) 1.4:1 (8-12.4 GHz) 1.5:1 (12.4-18 GHz) 1.7:1(18-26.5 GHz)
Maximum RF Carry Power:	240 W (0-3 GHz) 150 W (3-8 GHz) 120 W (8-12.4 GHz) 100 W (12.4-18 GHz) 40 W (18-26.5 GHz)
Expected Life (low power):	5 million ops per position
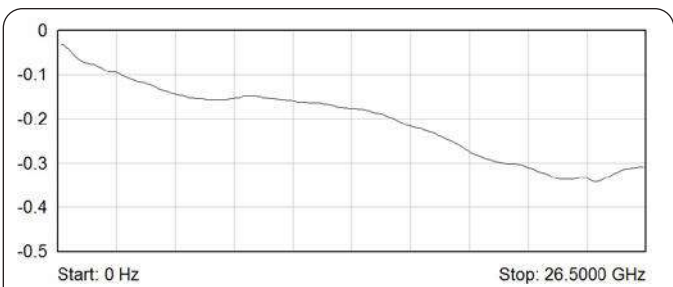
Typical Insertion Loss (dB) Plot for 26.5 GHz Unterminated Versions
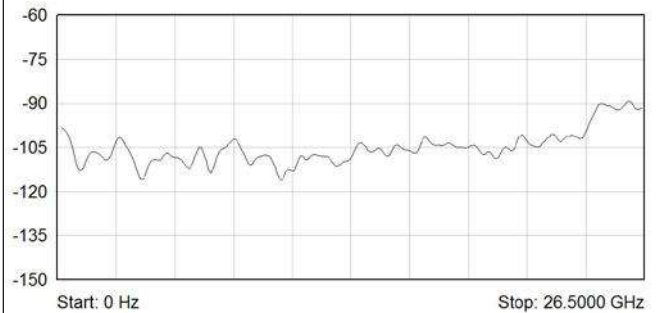
Typical Isolation (dB) Plot for 26.5 GHz Unterminated Versions

Typical VSWR Plot for 26.5 GHz Unterminated Versions

Specification - 26.5 GHz Terminated Versions

Characteristic Impedance:	50 Ω
Connectors:	SMA
Bandwidth	DC to 26.5 GHz
Isolation:	80 dB (0-3 GHz) 70 dB (3-8 GHz) 60 dB (8-12.4 GHz) 60 dB (12.4-18 GHz) 55 dB (18-26.5 GHz)
Insertion Loss:	0.2 dB (0-3 GHz) 0.3 dB (3-8 GHz) 0.4 dB (8-12.4 GHz) 0.5 dB (12.4-18 GHz) 0.7 dB (18-26.5 GHz
VSWR:	1.2:1 (0-3 GHz) 1.3:1 (3-8 GHz) 1.4:1 (8-12.4 GHz) 1.5:1 (12.4-18 GHz) 1.7:1(18-26.5 GHz)
Maximum RF Carry Power:	240 W (0-3 GHz) 150 W (3-8 GHz) 120 W (8-12.4 GHz) 100 W (12.4-18 GHz) 40 W (18-26.5 GHz)
Termination power rating:	1 W per termination, 3 W total per 6 channel multiplexer
Expected Life (low power):	>2 million ops per position

Typical Insertion (dB) Loss Plot for 26.5 GHz Terminated Versions

Typical Isolation (dB) Plot for 26.5 GHz Terminated Versions
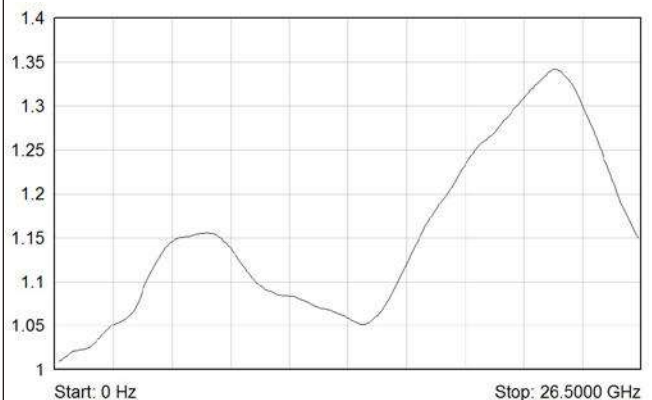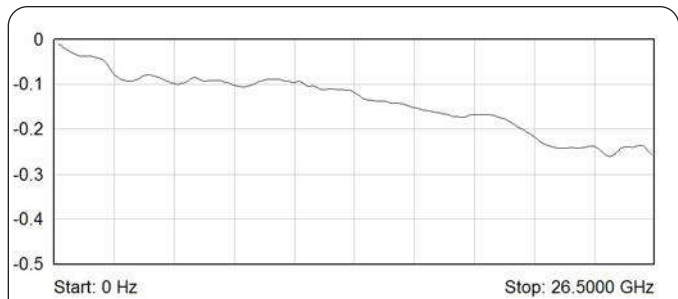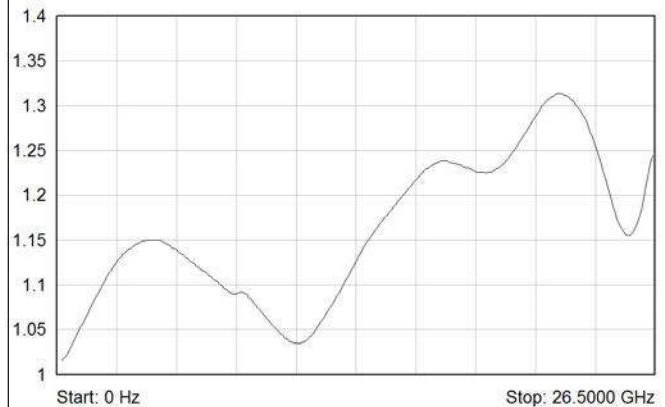

Typical VSWR Plot for 26.5 GHz Terminated Versions

Specification - 40 GHz Unterminated & Terminated Versions

Characteristic Impedance:	50 Ω
Connectors:	SMA 2.9
Bandwidth	DC to 40 GHz
Isolation:	70 dB (0-6 GHz) 60 dB (6-12.4 GHz) 60 dB (12.4-18 GHz) 55 dB (18-26.5 GHz) 50 dB (26.5-40 GHz)
Insertion Loss:	0.2 dB (0-6 GHz) 0.4 dB (6-12.4 GHz) 0.5 dB (12.4-18 GHz) 0.7 dB (18-26.5 GHz) 1.1 dB (26.5-40 GHz)
VSWR:	1.3:1 (0-6 GHz) 1.4:1 (6-12.4 GHz) 1.5:1 (12.4-18 GHz) 1.7:1 (18-26.5 GHz) 2.2:1 (26.5-40 GHz
Maximum RF Carry Power:	40 W (0-6 GHz) 30 W (6-12.4 GHz) 25 W (12.4-18 GHz) 15 W (18-26.5 GHz) 5 W (26.5-40 GHz)
Termination power rating:	1 W per termination, 3 W total per 6 channel mux
Expected Life (Low Power):	>2 million ops per position

Typical VSWR Plot for 40 GHz Unterminated Versions

Typical Insertion Loss (dB) Plot for 40 GHz Unterminated Versions

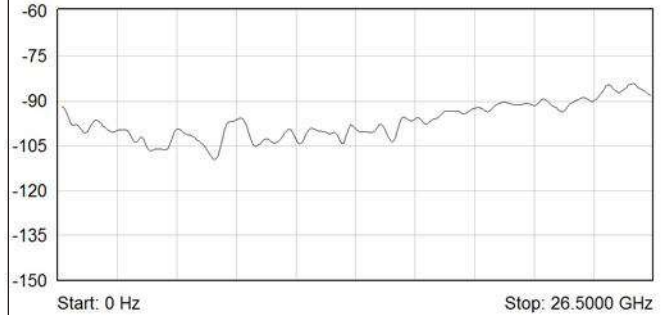**Typical Isolation (dB) Plot for 40 GHz Unterminated Versions**
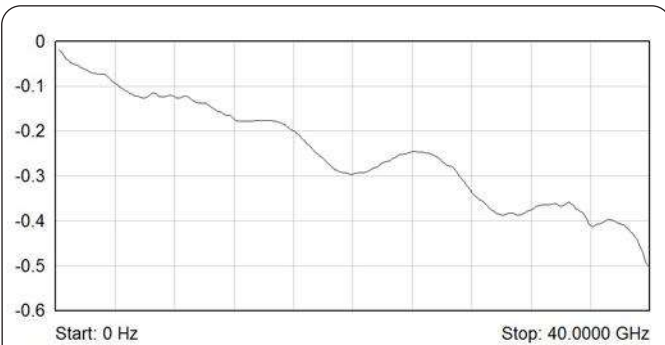
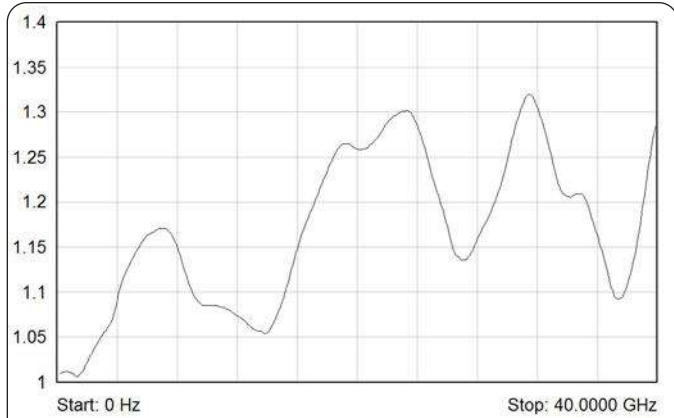**Typical Insertion (dB) Loss Plot for 40 GHz Terminated Versions**
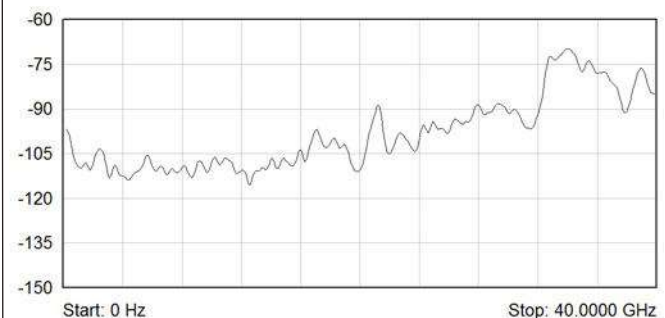
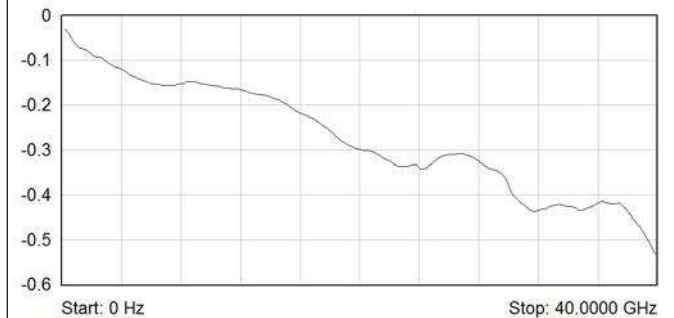**Typical Isolation (dB) Plot for 40 GHz Terminated Versions**
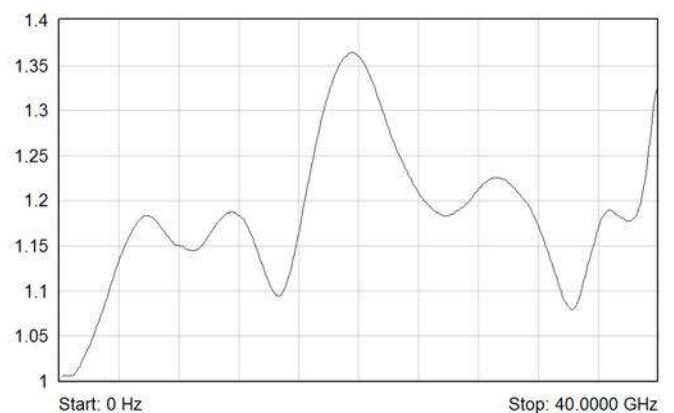
Typical VSWR Plot for 40 GHz Terminated Versions

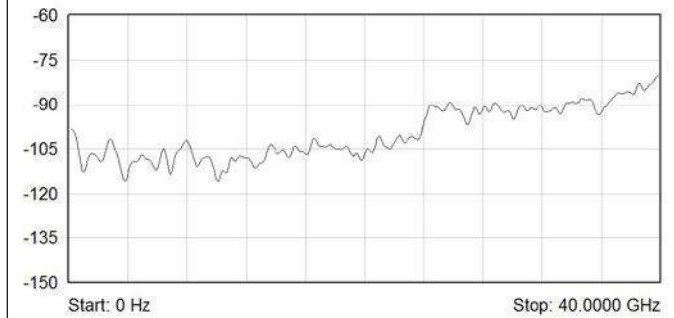**Specification – 50 GHz Unterminated & Terminated Versions**

Characteristic Impedance:	50 Ω
Connectors:	SMA 2.4
Bandwidth	DC to 50 GHz
Isolation:	70 dB (0-6 GHz) 60 dB (6-12.4 GHz) 60 dB (12.4-18 GHz) 55 dB (18-26.5 GHz) 50 dB (26.5-40 GHz) 50 dB (40-50 GHz)
Insertion Loss:	0.2 dB (0-6 GHz) 0.4 dB (6-12.4 GHz) 0.5 dB (12.4-18 GHz) 0.7 dB (18-26.5 GHz) 0.9 dB (26.5-40 GHz) 1.2 dB (40-50 GHz)
VSWR:	1.3:1 (0-6 GHz) 1.4:1 (6-12.4 GHz) 1.5:1 (12.4-18 GHz) 1.7:1 (18-26.5 GHz) 1.9:1 (26.5-40 GHz) 2.2:1 (40-50 GHz)
Maximum RF Carry Power:	40 W (0-6 GHz) 30 W (6-12.4 GHz) 25 W (12.4-18 GHz) 15 W (18-26.5 GHz) 5 W (26.5-40 GHz) 3 W (40-50 GHz)
Termination power rating:	1 W per termination, 3 W total per 6 channel multiplexer
Expected Life (Low Power):	>2 million operations per position

Typical Insertion Loss (dB) Plot for 50 GHz Terminated & Unterminated Versions

Typical Isolation (dB) Plot for 50 GHz Terminated & Unterminated Versions

Typical VSWR Plot for 50 GHz Terminated & Unterminated Versions

Specifications

Specification - 67 GHz Unterminated Versions

|	
Characteristic Impedance:	50 Ω
Connectors:	SMA 1.85
Bandwidth	DC to 67 GHz
Isolation:	70 dB (0-6 GHz)
	60 dB (6-12.4 GHz)
	60 dB (12.4-18 GHz)
	55 dB (18-26.5 GHz)
	50 dB (26.5-40 GHz)
	50 dB (40-50 GHz)
	50 dB (50-65 GHz)
	50 dB (65-67 GHz)
Insertion Loss:	0.3 dB (0-6 GHz)
	0.4 dB (6-12.4 GHz)
	0.5 dB (12.4-18 GHz)
	0.7 dB (18-26.5 GHz)
	0.9 dB (26.5-40 GHz)
	1.2 dB (40-50 GHz)
	1.2 dB (50-65 GHz)
	1.7 dB (65-67 GHz)
VSWR:	1.3:1 (0-6 GHz)
	1.4:1 (6-12.4 GHz)
	1.5:1 (12.4-18 GHz)
	1.7:1(18-26.5 GHz)
	1.9:1 (26.5-40 GHz)
	2.2:1 (40-50 GHz)
	2.2:1 (50-65 GHz)
	2.2:1 (65-67 GHz)
Maximum RF Carry Power:	40 W (0-6 GHz)
	30 W (6-12.4 GHz)
	25 W (12.4-18 GHz)
	15 W (18-26.5 GHz)
	5 W (26.5-40 GHz)
	3 W (40-50 GHz)
	1 W (50-65 GHz)
	1 W (65-67 GHz)
Expected Life (Low Power):	>2 million operations per position
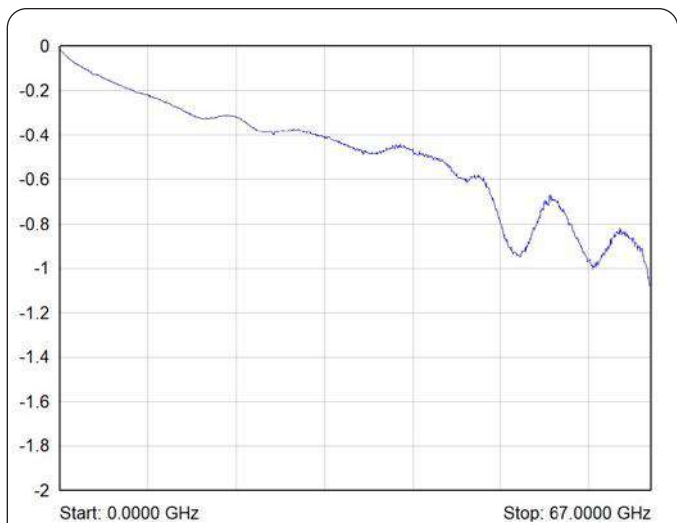
Typical Insertion Loss (dB) Plot for 67 GHz Unterminated Versions
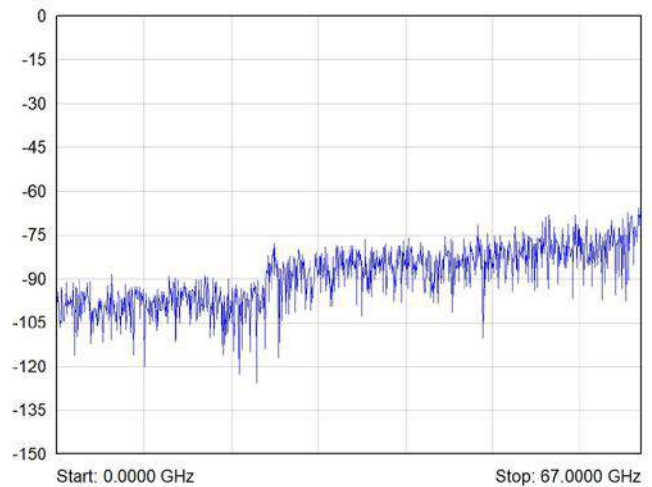
Typical Isolation (dB) Plot for 67 GHz Unterminated Versions
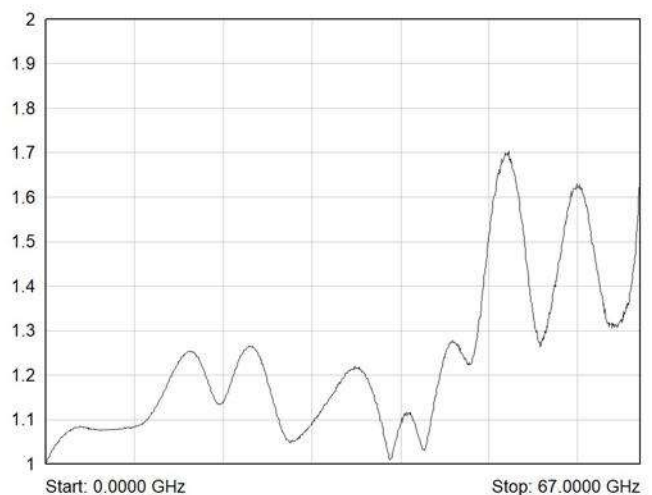
Typical VSWR Plot for 67 GHz Unterminated Versions
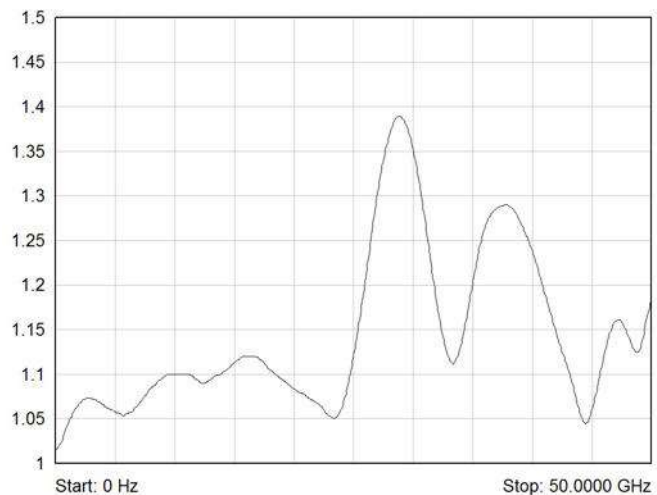
Specification - 2.5 GHz Unterminated Version

Characteristic Impedance:	75 Ω
Connectors:	1.6/5.6
Bandwidth	DC to 2.5 GHz
Isolation:	80 dB (0-1 GHz) 70 dB (1-2.5 GHz)
Insertion Loss:	0.2 dB (0-1 GHz) 0.3 dB (1-2.5 GHz)
VSWR:	1.2:1 (0-1 GHz) 1.3:1 (1-2.5 GHz)
Maximum RF Carry Power:	400 W (0-1 GHz) 240 W (1-2.5 GHz)
Expected Life (Low Power):	>2 million operations per position
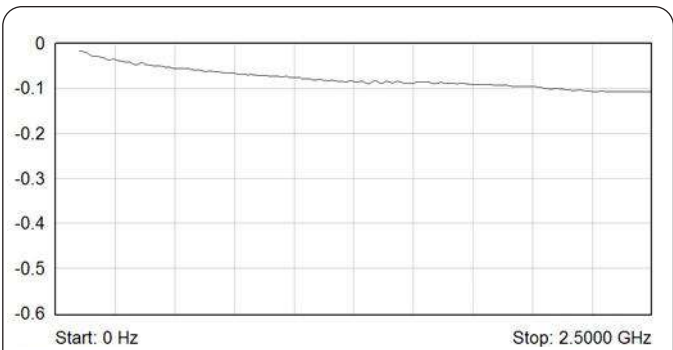
Typical Insertion Loss (dB) Plot for 2.5 GHz 75 Ω Versions
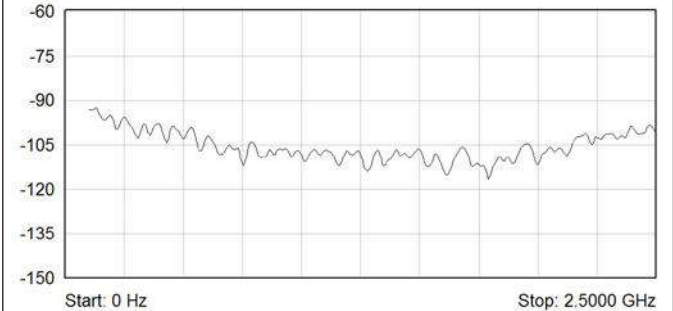
Typical Isolation (dB) Plot for 2.5 GHz 75 Ω Versions
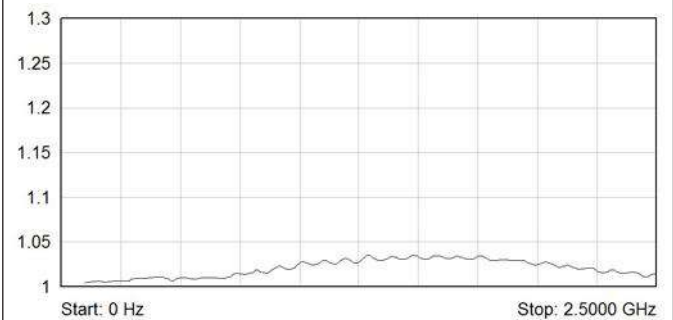
Typical VSWR Plot for 2.5 GHz 75 Ω Versions

Power Requirements - 40-785C

+3.3 V	+5 V	+12 V	-12 V
0.13 A	0.01 A	0.75 A	0

Power Requirements - 42-785C

+3.3 V	+12 V
0.36 A	0.95 A

Mechanical Characteristics

Front panel mounted multiplexers:

- 40-785C Single unterminated versions (except 3 GHz)
  - 3 slot 3U PXI (CompactPCI card)
- 40-785C 3 GHz versions
  - 4 slot 3U PXI (CompactPCI card)
- 40-785C Single terminated versions
  - 3 slot 3U PXI (CompactPCI card)
- 40-785C Dual unterminated versions
  - 3 slot 3U PXI (CompactPCI card)
- 40-785C Dual terminated versions
  - 6 slot 3U PXI (CompactPCI card)
- 42-785C Single unterminated versions (except 3 GHz)
  - 3 slot 3U PXIe, compatible with PXIe hybrid slot
- 42-785C 3 GHz versions
  - 4 slot 3U PXIe, compatible with PXIe hybrid slot
- 42-785C Single terminated versions
  - 3 slot 3U PXIe, compatible with PXIe hybrid slot
- 42-785C Dual unterminated versions
  - 3 slot 3U PXIe, compatible with PXIe hybrid slot
- 42-785C Dual terminated versions
  - 6 slot 3U PXIe, compatible with PXIe hybrid slot

Remote mounted multiplexers:

- 40-785C Remote mounted versions
  - Single slot 3U PXI (CompactPCI card)
- 42-785C Remote mounted versions
  - Single slot 3U PXIe, compatible with PXIe hybrid slot

Remote mounted multiplexer versions are supplied with a 1.5 m interface cable for each of the supplied microwave relays.

3D models for all versions in a variety of popular file formats are

Connectors

40-781A - PXI bus via 32-bit P1/J1 backplane connector.

42-781A - PXIe bus via XJ3 and XJ4 backplane connectors.

Signals via front panel mounted coaxial connectors:

- 3 GHz, 50 Ω versions - N-type
- 18 GHz, 50 Ω versions - SMA
- 26.5 GHz, 50 Ω versions - SMA
- 40 GHz, 50 Ω versions - SMA-2.9
- 50 GHz, 50 Ω versions - SMA-2.4
- 67 GHz, 50 Ω versions - SMA-1.85
- 2.5 GHz, 75 Ω versions - Siemens 1.6/5.6

Operating/Storage Conditions

Operating Conditions

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

Storage and Transport Conditions

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

PXI & CompactPCI Compliance - 40-785C

The module is compliant with the PXI Specification 2.2. Local Bus, Trigger Bus & Star Trigger are not implemented. Uses a 33 MHz 32-bit backplane interface.

PXIe Compliance - 42-785C

The module is compliant with the PXIe Specification 1.0. Local Bus, Trigger Bus & Star Trigger are not implemented.

Safety & CE Compliance

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2010, EMC Immunity EN61326-1:2013, Emissions EN55011:2009+A1:2010.

Remotely Mounted Microwave Multiplexer Versions

40/42-785C
Single Slot
Version

3 off Interface Cables 1.5m Length

MUX BANK 1

MUX BANK 2

MUX BANK 3
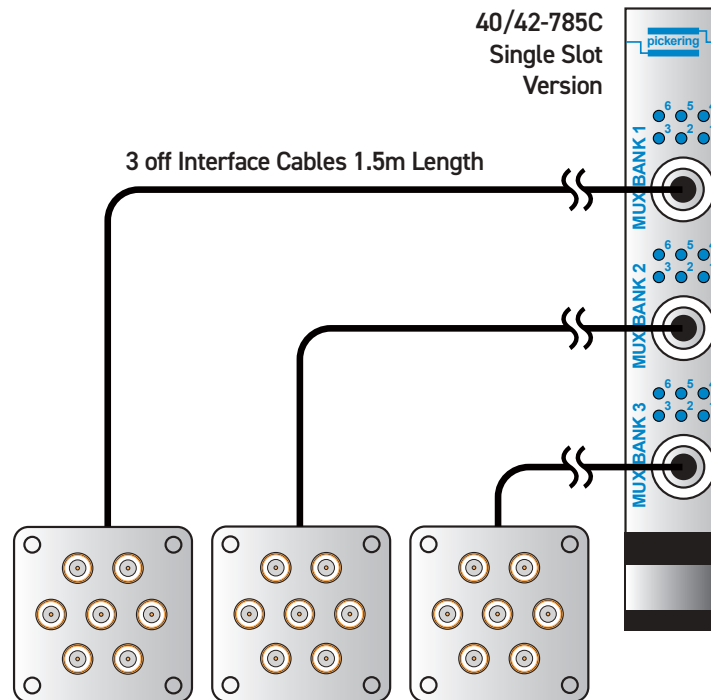
Remotely Mounted Microwave Multiplexers

Interconnection Between 40/42-785C Single Slot Version and Remotely Mounted Microwave Multiplexers

Remote Mount Microwave Multiplexer (18-67 GHz) Range:

- Upper left, unterminated (all frequencies) relay.
- Upper right, terminated 26.5 GHz, 40 GHz or 50 GHz relay.
- Lower left, unterminated (all frequencies) relay mounted to optional bracket.
- Lower right, terminated 26.5 GHz, 40 GHz or 50 GHz relay mounted to optional bracket.

Product Order Codes – Panel Mounted Microwave Multiplexers

		3 GHz, 50 Ω (N-Type)	18 GHz, 50 Ω (SMA)	26.5 GHz, 50 Ω (SMA)	40 GHz, 50 Ω (SMA 2.9)	50 GHz, 50 Ω (SMA 2.4)	67 GHz, 50 Ω (SMA 1.85)	2.5 GHz, 75 Ω (1.6/5.6)
Single	PXI, SP4T	—	See "Product Order Codes Suggested Alternatives" overleaf			40-785C-451	40-785C-471	—
	PXIe, SP4T	—				42-785C-451	42-785C-471	—
	PXI, SP6T	40-785C-561				40-785C-551	40-785C-571	40-785C-751
	PXIe, SP6T	42-785C-561				42-785C-551	42-785C-571	42-785C-751
Single Term.	PXI, SP4T	—	40-785C-421-T	40-785C-431-T	40-785C-441-T	40-785C-451-T	—	—
	PXIe, SP4T	—	42-785C-421-T	42-785C-431-T	42-785C-441-T	42-785C-451-T	—	—
	PXI, SP6T	40-785C-561-T	40-785C-521-T	40-785C-531-T	40-785C-541-T	40-785C-551-T	—	—
	PXIe, SP6T	42-785C-561-T	42-785C-521-T	42-785C-531-T	42-785C-541-T	42-785C-551-T	—	—
Dual	PXI, SP4T	—	See "Product Order Codes Suggested Alternatives" overleaf			40-785C-452	40-785C-472	—
	PXIe, SP4T	—				42-785C-452	42-785C-472	—
	PXI, SP6T	—				40-785C-552	40-785C-572	40-785C-752
	PXIe, SP6T	—				42-785C-552	42-785C-572	42-785C-752
Dual Term.	PXI, SP4T	—	40-785C-422-T	40-785C-432-T	40-785C-442-T	40-785C-452-T	—	—
	PXIe, SP4T	—	42-785C-422-T	42-785C-432-T	42-785C-442-T	42-785C-452-T	—	—
	PXI, SP6T	—	40-785C-522-T	40-785C-532-T	40-785C-542-T	40-785C-552-T	—	—
	PXIe, SP6T	—	42-785C-522-T	42-785C-532-T	42-785C-542-T	42-785C-552-T	—	—

Product Order Codes – Remote Mounted Microwave Multiplexers

		3 GHz, 50 Ω (N-Type)	18 GHz, 50 Ω (SMA)	26.5 GHz, 50 Ω (SMA)	40 GHz, 50 Ω (SMA 2.9)	50 GHz, 50 Ω (SMA 2.4)	67 GHz, 50 Ω (SMA 1.85)	2.5 GHz, 75 Ω (1.6/5.6)
Single	PXI, SP4T	—	See "Product Order Codes Suggested Alternatives" overleaf			40-785C-451-E	40-785C-471-E	—
	PXIe, SP4T	—				42-785C-451-E	42-785C-471-E	—
	PXI, SP6T	40-785C-561-E				40-785C-551-E	40-785C-571-E	40-785C-751-E
	PXIe, SP6T	42-785C-561-E				42-785C-551-E	42-785C-571-E	42-785C-751-E
Single Term.	PXI, SP4T	—	40-785C-421-TE	40-785C-431-TE	40-785C-441-TE	40-785C-451-TE	—	—
	PXIe, SP4T	—	42-785C-421-TE	42-785C-431-TE	42-785C-441-TE	42-785C-451-TE	—	—
	PXI, SP6T	40-785C-561-E	40-785C-521-TE	40-785C-531-TE	40-785C-541-TE	40-785C-551-TE	—	—
	PXIe, SP6T	42-785C-561-E	42-785C-521-TE	42-785C-531-TE	42-785C-541-TE	42-785C-551-TE	—	—
Dual	PXI, SP4T	—	See "Product Order Codes Suggested Alternatives" overleaf			40-785C-452-E	40-785C-472-E	—
	PXIe, SP4T	—				42-785C-452-E	42-785C-472-E	—
	PXI, SP6T	40-785C-562-E				40-785C-552-E	40-785C-572-E	40-785C-752-E
	PXIe, SP6T	42-785C-562-E				42-785C-552-E	42-785C-572-E	42-785C-752-E
Dual Term.	PXI, SP4T	—	40-785C-422-TE	40-785C-432-TE	40-785C-442-TE	40-785C-452-TE	—	—
	PXIe, SP4T	—	42-785C-422-TE	42-785C-432-TE	42-785C-442-TE	42-785C-452-TE	—	—
	PXI, SP6T	40-785C-562-TE	40-785C-522-TE	40-785C-532-TE	40-785C-542-TE	40-785C-552-TE	—	—
	PXIe, SP6T	42-785C-562-TE	42-785C-522-TE	42-785C-532-TE	42-785C-542-TE	42-785C-552-TE	—	—
Triple	PXI, SP4T	—	See "Product Order Codes Suggested Alternatives" overleaf			40-785C-453-E	40-785C-473-E	—
	PXIe, SP4T	—				42-785C-453-E	42-785C-473-E	—
	PXI, SP6T	40-785C-563-TE				40-785C-553-E	40-785C-573-E	40-785C-753-E
	PXIe, SP6T	42-785C-563-TE				42-785C-553-E	42-785C-573-E	42-785C-753-E
Triple Term.	PXI, SP4T	—	40-785C-423-TE	40-785C-433-TE	40-785C-443-TE	40-785C-453-TE	—	—
	PXIe, SP4T	—	42-785C-423-TE	42-785C-433-TE	42-785C-443-TE	42-785C-453-TE	—	—
	PXI, SP6T	40-785C-563-TE	40-785C-523-TE	40-785C-533-TE	40-785C-543-TE	40-785C-553-TE	—	—
	PXIe, SP6T	42-785C-563-TE	42-785C-523-TE	42-785C-533-TE	42-785C-543-TE	42-785C-553-TE	—	—

Accessories
Microwave relay bracket for remote mounting:

Bracket for unterminated, SMA, SMA 2.9, SMA 2.4 or SMA 1.85	40-785A-521-E-MB
Bracket for terminated, SMA, SMA 2.9 or SMA 2.4	40-785A-531-TE-MB
Bracket for unterminated or terminated, N-type	40-785A-561-TE-MB

Note: A single relay is mounted to each bracket, see user manual for details. To mount more than one relay, order multiples of the required part number.

Mating Connectors & Cabling

For connection accessories for the 40/42-785C range please refer to the 90-011D RF Cable Assemblies data sheet where a complete list and documentation can be found for accessories, or refer to the Connection Solutions catalog.

Product Customization

Pickering modules are designed and manufactured on our own flexible manufacturing lines, giving complete product control and enabling simple customization to meet very specific requirements.

Customization can include:

- Alternative relay types
- Mixture of relay types
- Alternative number of relays
- Different performance specifications

All customized products are given a unique part number, fully documented and may be ordered at any time in the future. Please contact your local sales office to discuss.

Product Order Codes Suggested Alternatives

The following products are available for all users but consideration should be given to the 40/42-784B product range. The 40/42-784B range provides comparable performance to the 40/42-785C family for unterminated relays rated to 40GHz with the density and slot count advantages of up to three panel mounted multiplexers in just two PXI/PXIe slots.

Panel Mounted Microwave Multiplexers

		18 GHz, 50 Ω (SMA)	26.5 GHz, 50 Ω (SMA)	40 GHz, 50 Ω (SMA 2.9)
Single	PXI, SP4T	40-785C-421	40-785C-431	40-785C-441
	PXIe, SP4T	42-785C-421	42-785C-431	42-785C-441
	PXI, SP6T	40-785C-521	40-785C-531	40-785C-541
	PXIe, SP6T	42-785C-521	42-785C-531	42-785C-541
Dual	PXI, SP4T	40-785C-422	40-785C-432	40-785C-442
	PXIe, SP4T	42-785C-422	42-785C-432	42-785C-442
	PXI, SP6T	40-785C-522	40-785C-532	40-785C-542
	PXIe, SP6T	42-785C-522	42-785C-532	42-785C-542

Remote Mounted Microwave Multiplexers

		18 GHz, 50 Ω (SMA)	26.5 GHz, 50 Ω (SMA)	40 GHz, 50 Ω (SMA 2.9)
Single	PXI, SP4T	40-785C-421-E	40-785C-431-E	40-785C-441-E
	PXIe, SP4T	42-785C-421-E	42-785C-431-E	42-785C-441-E
	PXI, SP6T	40-785C-521-E	40-785C-531-E	40-785C-541-E
	PXIe, SP6T	42-785C-521-E	42-785C-531-E	42-785C-541-E
Dual	PXI, SP4T	40-785C-422-E	40-785C-432-E	40-785C-442-E
	PXIe, SP4T	42-785C-422-E	42-785C-432-E	42-785C-442-E
	PXI, SP6T	40-785C-522-E	40-785C-532-E	40-785C-542-E
	PXIe, SP6T	42-785C-522-E	42-785C-532-E	42-785C-542-E
Triple	PXI, SP4T	40-785C-423-E	40-785C-433-E	40-785C-443-E
	PXIe, SP4T	42-785C-423-E	42-785C-433-E	42-785C-443-E
	PXI, SP6T	40-785C-523-E	40-785C-533-E	40-785C-543-E
	PXIe, SP6T	42-785C-523-E	42-785C-533-E	42-785C-543-E

42-785C-542 PXIe Dual SP6T Microwave Multiplexer

Chassis Compatibility

The PXI versions of this module must be used in a suitable chassis. They are compatible with the following chassis types:

- All chassis conforming to the 3U PXI and 3U Compact PCI (cPCI) specification
- Legacy and Hybrid Peripheral slots in a 3U PXI Express (PXIe) chassis
- Pickering Interfaces LXI or LXI/USB Modular Chassis

The PXIe versions of this module are compatible with the following chassis types:

- All chassis conforming to the 3U PXIe specification
- PXIe and Hybrid Peripheral slots in a 3U PXI Express (PXIe) chassis

Chassis Selection Guide

Standard PXI or hybrid PXIe Chassis from any Vendor:

- Mix our 1000+ PXI switching & simulation modules with any vendor's PXI instrumentation
- Embedded or remote Windows PC control
- Real-time Operating System Support
- High data bandwidths, especially with PXI Express
- Integrated module timing and synchronization

Pickering LXI or LXI/USB Modular Chassis—only accept our 1000+ PXI Switching & Simulation Modules:

- Ethernet or USB control enables remote operation
- Low-cost control from practically any controller
- LXI provides manual control via Web browsers
- Driverless software support
- Power sequencing immunity
- Ethernet provides chassis/controller voltage isolation
- Independence from Windows operating system
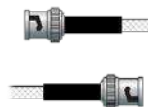
Connectivity Solutions

We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed to mechanically and electrically mate to our modules.

Connectors & Backshells   **Multiway Cable Assemblies**   **RF Cable Assemblies**   **Connector Blocks**

We also offer customized cabling and have a free online **Cable Design Tool** that can be used to create custom cable solutions for many applications. Visit: pickeringtest.com/cdt to start your design.

Mass Interconnect

We recommend the use of a mass interconnect solution when an Interchangeable Test Adapter (ITA) is required for a PXI or LXI based test system. Our modules are fully supported by both Virginia Panel and MacPanel.

Pickering Reed Relays

We are the only switch provider with in-house reed relay manufacturing capability via our Relay Division. These instrument grade reed relays feature *SoftCenter™* technology, ensuring long service life and repeatable contact performance. To learn more, please go to: pickeringrelay.com

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Programming

Pickering provide kernel, IVI and VISA (NI & Keysight) drivers which are compatible with all Microsoft supported versions of Windows and popular older versions. For a list of all supporting operating systems, please see: pickeringtest.com/os

The VISA driver is also compatible with Real-Time Operating Systems such as LabVIEW RT. For other RTOS support contact Pickering. These drivers may be used with a variety of programming environments and applications including:

- **Pickering Interfaces Switch Path Manager**
- **National Instruments** products (LabVIEW, LabWindows/CVI, Switch Executive, MAX, TestStand, VeriStand, etc.)
- **Microsoft Visual Studio** products (Visual Basic, Visual C+)
- **Keysight** VEE and OpenTAP
- **Mathworks** Matlab
- **Marvin** ATEasy
- **MTQ Testsolutions** Tecap Test & Measurement Suite

Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries. We provide Soft Front Panels (SFPs) for our products for familiarity and manual control, as well as comprehensive documentation and example programs to help you develop test routines with ease.

To learn more about software drivers and development environments, please go to: pickeringtest.com/software

Signal Routing Software

Our signal routing software, Switch Path Manager, automatically selects and energizes switch paths through Pickering switching systems. Signal routing is performed by simply defining test system endpoints to be connected together, greatly accelerating Test System software development. To learn more, please go to: pickeringtest.com/spm
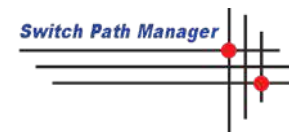
Diagnostic Relay Test Tools

eBIRST Switching System Test Tools are designed specifically for our PXI, PCI or LXI products, these tools simplify switching system fault-finding by quickly testing the system and graphically identifying the faulty relay.
To learn more, please go to: pickeringtest.com/ebirst

Three Year Warranty & Guaranteed Long-Term Support

All standard products manufactured by Pickering Interfaces are warranted against defective materials and workmanship for a period of three years from the date of delivery to the original purchaser. Extended warranty and service agreements are available for all our modules and systems with various levels to suit your requirements. Although we offer a 3-year warranty as standard, we also include guaranteed long-term support—with a history of supporting our products for typically 15-20 years. To learn more, please go to: pickeringtest.com/support

Available Product Resources

We have a large library of product resources including success stories, product and support videos, articles and white papers as well as application specific product brochures to assist when looking for the switching, simulation and connection solutions you need. We have also published handy reference books on Switching Technology and for the PXI and LXI standards.

To view, download or request any of our product resources, please visit: pickeringtest.com/resources