

# DC-110 GHz



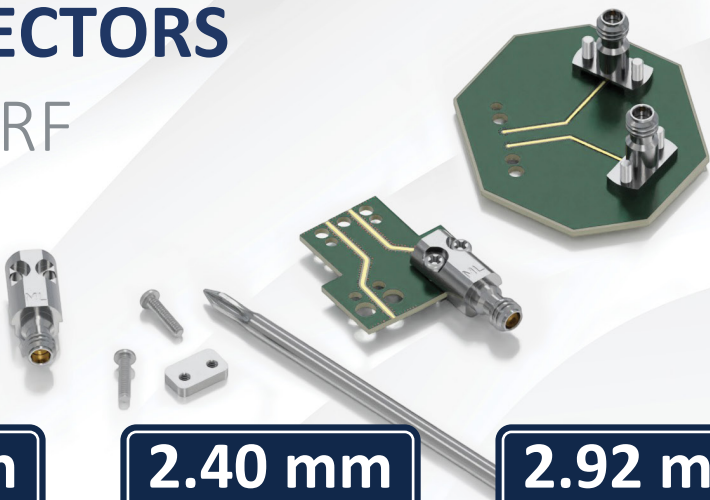
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# PCB MOUNT CONNECTORS

Solderless Precision RF



**1.00 mm**  
DC – 110 GHz

**1.85 mm**  
DC – 67 GHz

**2.40 mm**  
DC – 50 GHz

**2.92 mm**  
DC – 40 GHz

We recognize the industry’s biggest challenge: consolidating a PCB stack up with the appropriate connector.

We developed our own solderless precision connectors to support our instrumentation and our partners with the aim to save time and cost when it comes to connector selection all the way to footprint optimization.

Standard Offering includes the following configurations:

| Vertical Launch      |                                        | Edge Launch                                                |
|----------------------|----------------------------------------|------------------------------------------------------------|
| CPW                  | STL                                    | EMI                                                        |
|                      |                                        |                                                            |
| CPW trace compatible | Exclusively Stripline trace compatible | Compatible with both Stripline & Coplanar Waveguide traces |

## Part Number Scheme

**MLBMC-185FEEM-6**

**Connector Interface**

- 100: 1.00mm
- 185: 1.85mm
- 240: 2.40mm
- 292: 2.92mm

**Mounting Method**

- E: Edge Launch
- V: Vertical Mount

**Type**

- EM: EMI
- CW: Coplanar Waveguide
- SL: Stripline

**Screw Length**

Consult sales team

# THE EMI EDGE LAUNCH CONNECTOR

## MULTILANE'S SIGNATURE PRECISION CONNECTOR

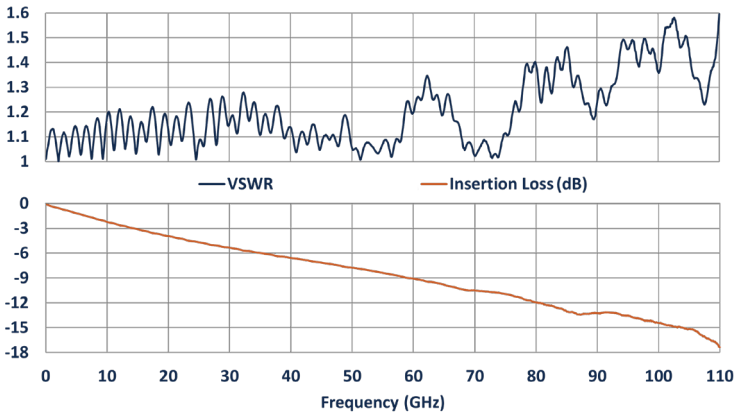
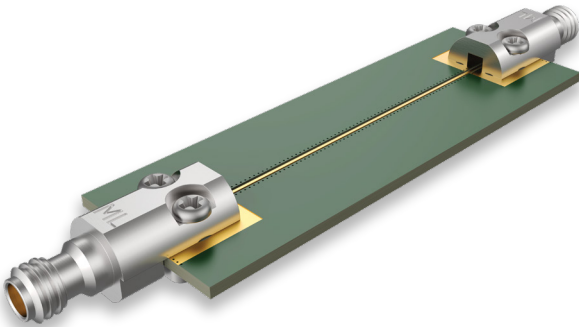
### MLBMC-XXXFEEM-X

- 1.00 mm, 1.85 mm, 2.40 mm, 2.92 mm
- Solderless
- Easy 3 step installation
- Compact body for high density designs
- Compatible with both CPW & STL traces
- Compression mount



| Edge Launch -EMI                                   |           |           |      |                |
|----------------------------------------------------|-----------|-----------|------|----------------|
| SI Performance Simulation for Individual Connector |           |           |      |                |
| PN                                                 | Interface | Frequency | VSWR | Insertion Loss |
| MLBMC-100FEEM-X                                    | 1.00mm    | DC-110GHz | 1.12 | 0.097 dB       |
| MLBMC-185FEEM-X                                    | 1.85mm    | DC-67GHz  | 1.15 | 0.049 dB       |
| MLBMC-240FEEM-X                                    | 2.40mm    | DC-50GHz  | 1.13 | 0.030 dB       |
| MLBMC-292FEEM-X                                    | 2.92mm    | DC-40GHz  | 1.10 | 0.027 dB       |

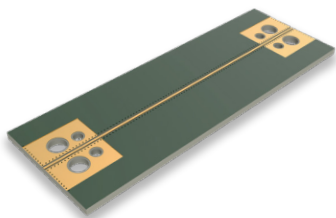
### SI Performance



### Measured Data for: 1.00mm Edge Launch – EMI

This measurement data was obtained using a 2in coplanar waveguide trace on 3.2 mils thick TU933+ substrate and two edge launch 1.00mm connectors

### DEVELOPMENT BOARD AVAILABLE



### MLPB-TB-CMFE

Compatible with 1.00 mm - 1.85 mm - 2.40 mm - 2.92 mm connectors interfaces

# VERTICAL LAUNCH CONNECTORS

## INDUSTRY STANDARD

COPLANAR WAVEGUIDE

### MLBMC-CMXXXFSTVCW-X

- 1.00 mm, 1.85 mm, 2.40 mm, 2.92 mm
- Solderless
- Easy 2 step installation
- Compatible only with CPW traces
- Compression mount

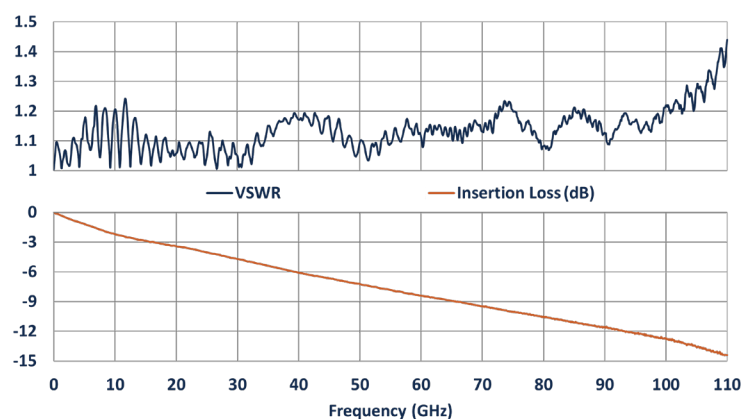
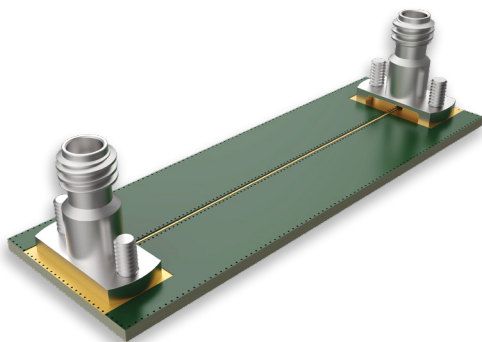


Reach out to [sales@multilaneinc.com](mailto:sales@multilaneinc.com) to request DXF, s2p or STEP files.  
Our connectors are customizable.

**Vertical Mount - Coplanar Waveguide**  
**SI Performance Simulation for Individual Connector**

| PN              | Interface | Frequency | VSWR | Insertion Loss |
|-----------------|-----------|-----------|------|----------------|
| MLBMC-100FVSL-X | 1.00mm    | DC-110GHz | 1.06 | 0.059 dB       |
| MLBMC-185FVSL-X | 1.85mm    | DC-67GHz  | 1.05 | 0.026 dB       |
| MLBMC-240FVSL-X | 2.40mm    | DC-50GHz  | 1.03 | 0.018 dB       |
| MLBMC-292FVSL-X | 2.92mm    | DC-40GHz  | 1.02 | 0.015 dB       |

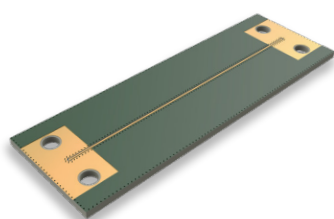
## SI Performance



### Measured Data for: 1.00mm Vertical Mount - CPW

This measurement data was obtained using a 2in coplanar waveguide trace on a 3.7 mils thick TU933+ substrate and two vertical launch 1.00mm connectors.

## DEVELOPMENT BOARD AVAILABLE



### MLBMC-TB-CM185FSTVCW

Compatible with 1.85 mm - 2.40 mm - 2.92 mm connectors interfaces

### MLBMC-TB-CM100FSTVCW

Compatible with 1.00 mm connectors interfaces

# VERTICAL LAUNCH CONNECTORS

## INDUSTRY STANDARD

STRIPLINE

### MLBMC-CMXXXFSTVSL-X

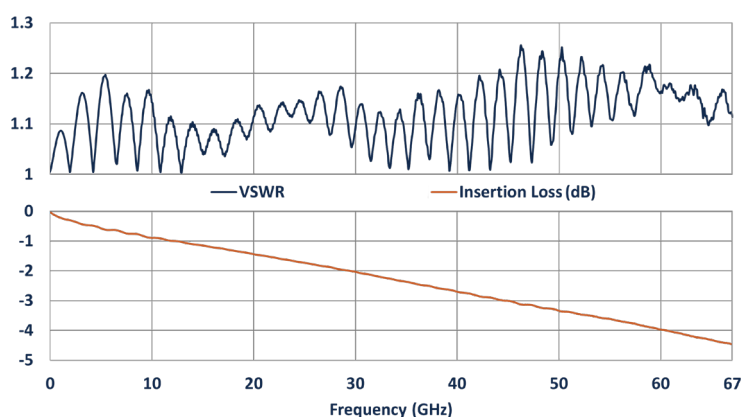
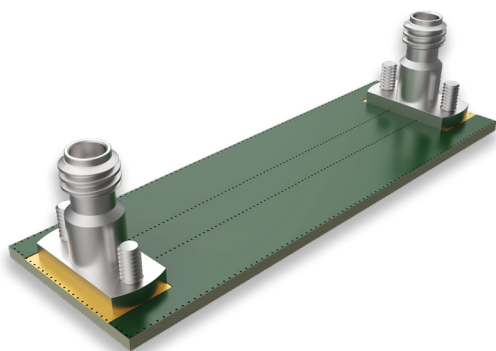
- 1.00 mm, 1.85 mm, 2.40 mm, 2.92 mm
- Solderless
- Easy 2 step installation
- Compatible only with STL traces
- Compression mount



Reach out to [sales@multilaneinc.com](mailto:sales@multilaneinc.com) to request DXF, s2p or STEP files.  
Our connectors are customizable.

| Vertical Mount - Stripline<br>SI Performance Simulation for Individual Connector |           |           |      |                |
|----------------------------------------------------------------------------------|-----------|-----------|------|----------------|
| PN                                                                               | Interface | Frequency | VSWR | Insertion Loss |
| MLBMC-100FVSL-X                                                                  | 1.00mm    | DC-110GHz | 1.06 | 0.059 dB       |
| MLBMC-185FVSL-X                                                                  | 1.85mm    | DC-67GHz  | 1.05 | 0.026 dB       |
| MLBMC-240FVSL-X                                                                  | 2.40mm    | DC-50GHz  | 1.03 | 0.018 dB       |
| MLBMC-292FVSL-X                                                                  | 2.92mm    | DC-40GHz  | 1.02 | 0.015 dB       |

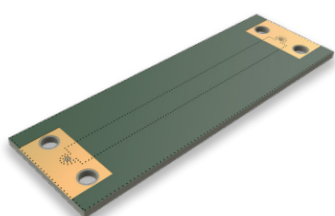
## SI Performance



### Measured Data for: 1.85mm Vertical Mount - STL

This measurement data was obtained using a 1.5in stripline trace on a 1.00mm thick PCB and two vertical launch 1.85mm connectors.

## DEVELOPMENT BOARD AVAILABLE



### MLBMC-TB-CM185FSTVSL

Compatible with 1.85 mm - 2.40 mm - 2.92 mm connectors interfaces

### MLBMC-TB-CM100FSTVSL

Compatible with 1.00 mm connectors interfaces

# TECHNICAL SPECIFICATIONS

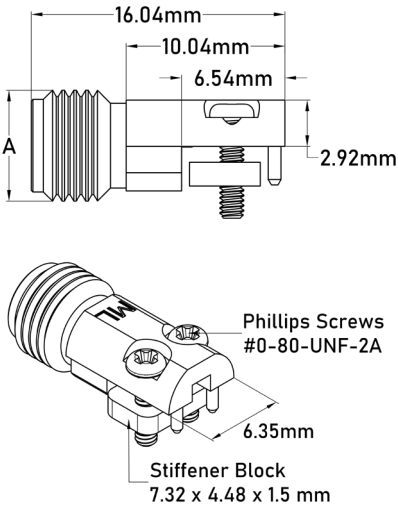
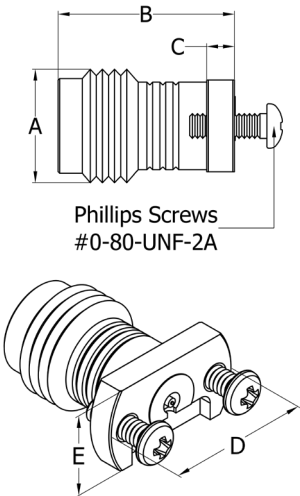
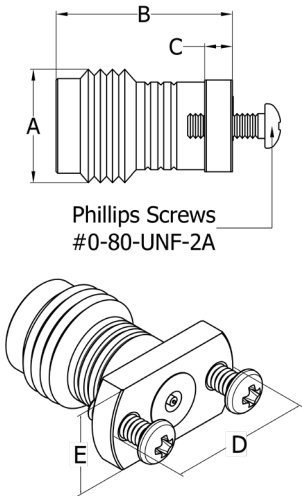
## TYPICAL VALUES

### General Electrical Specifications

| Coaxial PCB Mount Connector                  |                |                    |
|----------------------------------------------|----------------|--------------------|
| Impedance                                    |                | 50 Ω               |
| Working Voltage at Sea Level                 |                | 500V RMS Max.      |
| Dielectric Withstanding Voltage at Sea Level |                | 500V RMS Min.      |
| Contact Resistance                           | Center Contact | 3 Milliohms Max.   |
|                                              | Outer Contact  | 2.5 Milliohms Max. |
| Insulation Resistance                        |                | 5000 Megaohms Min. |

### Mechanical & Environmental Specifications

| Coaxial PCB Mount Connector |                  |                              |
|-----------------------------|------------------|------------------------------|
| Mating Cycles               | Male to Female   | 500                          |
|                             | PCB Installation | 100                          |
| Operating Temperature Range |                  | +25 to +150°C                |
| Materials                   | Center Pin       | Gold plated beryllium copper |
|                             | Connector Body   | Passivated stainless steel   |

| Mechanical Dimensions                                                                                              |            |                                                                                     |        |                                                                                       |        |
|--------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------|--------|
| STEP files available upon request, reach out to <a href="mailto:sales@multilaneinc.com">sales@multilaneinc.com</a> |            |                                                                                     |        |                                                                                       |        |
| <b>EMI Edge Launch Connector</b>                                                                                   |            | <b>CPW Vertical Launch Connector</b>                                                |        | <b>STL Vertical Launch Connector</b>                                                  |        |
|                                  |            |  |        |  |        |
| Connector Interface                                                                                                | A          | B                                                                                   | C      | D                                                                                     | E      |
| 1.00mm                                                                                                             | M4         | 9.53mm                                                                              | 1.27mm | 9.90mm                                                                                | 4.57mm |
| 1.85mm                                                                                                             | M7         | 10.86mm                                                                             | 1.71mm | 10.01mm                                                                               | 5.66mm |
| 2.40mm                                                                                                             | M7         | 10.86mm                                                                             | 1.71mm | 10.01mm                                                                               | 5.66mm |
| 2.92mm                                                                                                             | 1/4-36 UNS | 10.86mm                                                                             | 1.65mm | 10.01mm                                                                               | 5.66mm |



## RF JUMPER CABLES

### Coax Cable Assemblies



**1.00 mm**

DC – 110 GHz

**1.85 mm**

DC – 67 GHz

**2.40 mm**

DC – 50 GHz

**2.92 mm**

DC – 40 GHz

### General Electrical Specifications

- High performance flexible low loss cables
- Phase stable assemblies
- Cable sets of 2, 4, 8, 16 & 32 cable assemblies
- Time delay matched to +/- 0.5 ps or +/-0.15 or custom upon request
- Robust precision connectors termination
- High flex cycles up to 2K
- Customizable

### Applications

- High speed IO test setup: instrumentation connection to DUT eval boards
- Pairs well with MultiLane data center test solutions such as MCB and HCB test fixtures

### Part Number Scheme

**MLCC-185MST-F04730-185MST-1-2**

#### Connector Interface

100: 1.00mm

185: 1.85mm

240: 2.40mm

292: 2.92mm

M: Male

F: Female

#### Cable Configuration

047: Ø 0.047 in 15: 15cm

086: Ø 0.086 in 30: 30cm

60: 60cm

Custom lengths available

#### Phase Matched Cable Sets

null: single cable

03: skew ≤ 0.3 ps  
(phase match ± 0.15 ps)

1: skew ≤ 1 ps  
(phase match ± 0.5 ps)

2: set of 2 cables

4: set of 4 cables

8: set of 8 cables

16: set of 16 cables

32: set of 32 cables

| Coax RF Jumper Cables Standard Offering |                    |                    |               |                    |                      |                           |
|-----------------------------------------|--------------------|--------------------|---------------|--------------------|----------------------|---------------------------|
| Part Number                             | Frequency<br>(max) | Connector<br>End 1 | Cable         | Connector<br>End 2 | Measurement Data     |                           |
|                                         |                    |                    |               |                    | Return Loss<br>(max) | VSWR<br>(max)             |
| MLCC-100FST-F04715-100FST               | 110 GHz            | 1.00mm<br>(F)      | Ø.047<br>15cm | 1.00mm<br>(F)      | 19.25dB              | 1.24<br><i>at 110 GHz</i> |
| MLCC-100FST-F04730-100FST               | 110 GHz            | 1.00mm<br>(F)      | Ø.047<br>30cm | 1.00mm<br>(F)      | 19.12dB              | 1.24<br><i>at 110 GHz</i> |
| MLCC-100FST-F04760-100FST               | 110 GHz            | 1.00mm<br>(F)      | Ø.047<br>60cm | 1.00mm<br>(F)      | 19.05dB              | 1.25<br><i>at 110 GHz</i> |
| MLCC-100MST-F04715-100MST               | 110 GHz            | 1.00mm<br>(M)      | Ø.047<br>15cm | 1.00mm<br>(M)      | 15.28dB              | 1.41<br><i>at 110 GHz</i> |
| MLCC-100MST-F04730-100MST               | 110 GHz            | 1.00mm<br>(M)      | Ø.047<br>30cm | 1.00mm<br>(M)      | 17.73dB              | 1.29<br><i>at 110 GHz</i> |
| MLCC-100MST-F04760-100MST               | 110 GHz            | 1.00mm<br>(M)      | Ø.047<br>60cm | 1.00mm<br>(M)      | 19.02dB              | 1.25<br><i>at 110 GHz</i> |
| MLCC-185FST-F04715-185FST               | 67 GHz             | 1.85mm<br>(F)      | Ø.047<br>15cm | 1.85mm<br>(F)      | 24.12dB              | 1.13<br><i>at 67 GHz</i>  |
| MLCC-185FST-F04730-185FST               | 67 GHz             | 1.85mm<br>(F)      | Ø.047<br>30cm | 1.85mm<br>(F)      | 19.90dB              | 1.22<br><i>at 67 GHz</i>  |
| MLCC-185FST-F04760-185FST               | 67 GHz             | 1.85mm<br>(F)      | Ø.047<br>60cm | 1.85mm<br>(F)      | 17.68dB              | 1.30<br><i>at 67 GHz</i>  |
| MLCC-185MST-F04715-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.047<br>15cm | 1.85mm<br>(M)      | 25.01dB              | 1.11<br><i>at 67 GHz</i>  |
| MLCC-185MST-F04730-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.047<br>30cm | 1.85mm<br>(M)      | 23.76dB              | 1.13<br><i>at 67 GHz</i>  |
| MLCC-185MST-F04760-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.047<br>60cm | 1.85mm<br>(M)      | 23.10dB              | 1.15<br><i>at 67 GHz</i>  |
| MLCC-240FST-F04715-240FST               | 50 GHz             | 2.40mm<br>(F)      | Ø.047<br>15cm | 2.40mm<br>(F)      | 19.55dB              | 1.22<br><i>at 50 GHz</i>  |
| MLCC-240FST-F04730-240FST               | 50 GHz             | 2.40mm<br>(F)      | Ø.047<br>30cm | 2.40mm<br>(F)      | 19.36dB              | 1.24<br><i>at 50 GHz</i>  |
| MLCC-240FST-F04760-240FST               | 50 GHz             | 2.40mm<br>(F)      | Ø.047<br>60cm | 2.40mm<br>(F)      | 19.06dB              | 1.27<br><i>at 50 GHz</i>  |
| MLCC-240MST-F04715-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.047<br>15cm | 2.40mm<br>(M)      | 19.72dB              | 1.21<br><i>at 50 GHz</i>  |
| MLCC-240MST-F04730-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.047<br>30cm | 2.40mm<br>(M)      | 19.59dB              | 1.23<br><i>at 50 GHz</i>  |
| MLCC-240MST-F04760-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.047<br>60cm | 2.40mm<br>(M)      | 19.25dB              | 1.26<br><i>at 50 GHz</i>  |
| MLCC-292FST-F04715-292FST               | 40 GHz             | 2.92mm<br>(F)      | Ø.047<br>15cm | 2.92mm<br>(F)      | 27.52dB              | 1.08<br><i>at 40 GHz</i>  |
| MLCC-292FST-F04730-292FST               | 40 GHz             | 2.92mm<br>(F)      | Ø.047<br>30cm | 2.92mm<br>(F)      | 27.37dB              | 1.09<br><i>at 40 GHz</i>  |
| MLCC-292FST-F04760-292FST               | 40 GHz             | 2.92mm<br>(F)      | Ø.047<br>60cm | 2.92mm<br>(F)      | 27.21dB              | 1.10<br><i>at 40 GHz</i>  |
| MLCC-292MST-F04715-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.047<br>15cm | 2.92mm<br>(M)      | 24.15dB              | 1.13<br><i>at 40 GHz</i>  |
| MLCC-292MST-F04730-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.047<br>30cm | 2.92mm<br>(M)      | 23.92dB              | 1.14<br><i>at 40 GHz</i>  |
| MLCC-292MST-F04760-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.047<br>60cm | 2.92mm<br>(M)      | 23.84dB              | 1.15<br><i>at 40 GHz</i>  |

| Coax RF Jumper Cables Standard Offering |                    |                    |               |                    |                      |                          |
|-----------------------------------------|--------------------|--------------------|---------------|--------------------|----------------------|--------------------------|
| Part Number                             | Frequency<br>(max) | Connector<br>End 1 | Cable         | Connector<br>End 2 | Measurement Data     |                          |
|                                         |                    |                    |               |                    | Return Loss<br>(max) | VSWR<br>(max)            |
| MLCC-185MST-F08615-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.086<br>15cm | 1.85mm<br>(M)      | 19.60dB              | 1.23<br><i>at 67 GHz</i> |
| MLCC-185MST-F08630-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.086<br>30cm | 1.85mm<br>(M)      | 18.89dB              | 1.25<br><i>at 67 GHz</i> |
| MLCC-185MST-F08660-185MST               | 67 GHz             | 1.85mm<br>(M)      | Ø.086<br>60cm | 1.85mm<br>(M)      | 18.52dB              | 1.27<br><i>at 67 GHz</i> |
| MLCC-240MST-F08615-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.086<br>15cm | 2.40mm<br>(M)      | 22.87dB              | 1.15<br><i>at 50 GHz</i> |
| MLCC-240MST-F08630-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.086<br>30cm | 2.40mm<br>(M)      | 21.31dB              | 1.18<br><i>at 50 GHz</i> |
| MLCC-240MST-F08660-240MST               | 50 GHz             | 2.40mm<br>(M)      | Ø.086<br>60cm | 2.40mm<br>(M)      | 20.49dB              | 1.21<br><i>at 50 GHz</i> |
| MLCC-292MST-F08615-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.086<br>15cm | 2.92mm<br>(M)      | 27.00dB              | 1.09<br><i>at 40 GHz</i> |
| MLCC-292MST-F08630-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.086<br>30cm | 2.92mm<br>(M)      | 25.73dB              | 1.10<br><i>at 40 GHz</i> |
| MLCC-292MST-F08660-292MST               | 40 GHz             | 2.92mm<br>(M)      | Ø.086<br>60cm | 2.92mm<br>(M)      | 25.06dB              | 1.12<br><i>at 40 GHz</i> |

Insertion loss values are provided in the respective product datasheets.  
Custom lengths and configurations available upon request, reach out to [sales@multilaneinc.com](mailto:sales@multilaneinc.com)

# TECHNICAL SPECIFICATIONS

## TYPICAL VALUES

### General Electrical Specifications

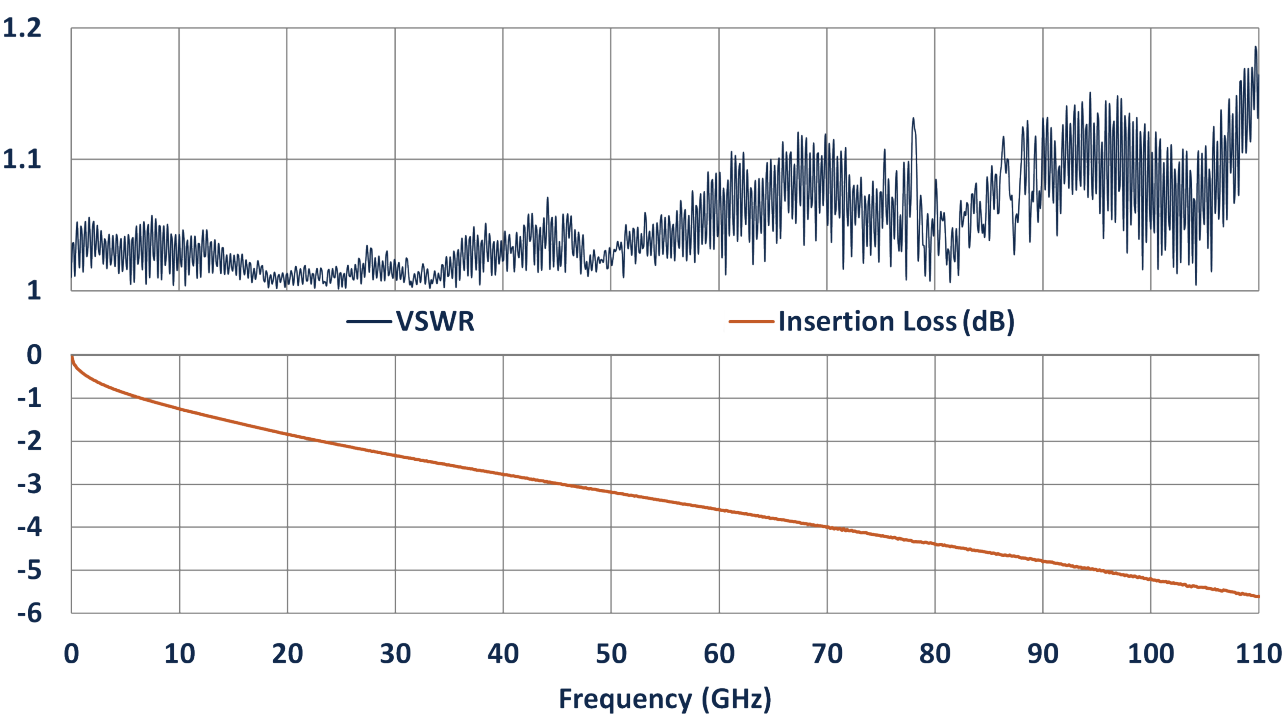
| Ø.047 Coax Cable        |             |
|-------------------------|-------------|
| Impedance               | 50 Ω        |
| Velocity of Propagation | 80 %        |
| Shielding Effectiveness | < -90 dB    |
| Capacitance             | 81.7 pF / m |

| Ø.086 Coax Cable        |           |
|-------------------------|-----------|
| Impedance               | 50 Ω      |
| Velocity of Propagation | 82 %      |
| Shielding Effectiveness | < -90 dB  |
| Capacitance             | 83 pF / m |

### SI Performance

#### Measured data for: MLCC-100MST-F04730-100MST

Coaxial Cable Assembly, 1.00 mm (M) ST. to 1.00 mm (M) ST., 30cm, Flexible 047, Single Phase Stable Cable



# Mechanical & Environmental Specifications

| Ø.047 Coax Cable                                      |         |                    |
|-------------------------------------------------------|---------|--------------------|
| Cable Type                                            |         | Flexible           |
| Shield Diameter                                       |         | 0.047 in (1.19 mm) |
| Operating Temperature Range                           |         | -45 to +200°C      |
| Minimum Bending Radius                                | Static  | 7 mm               |
|                                                       | Dynamic | 15 mm              |
| Flex cycles over 1 in diameter mandrel, o.5 lb Weight |         | >2000              |

| Ø.086 Coax Cable                                      |         |                    |
|-------------------------------------------------------|---------|--------------------|
| Cable Type                                            |         | Flexible           |
| Shield Diameter                                       |         | 0.086 in (2.18 mm) |
| Operating Temperature Range                           |         | -55 to +125°C      |
| Minimum Bending Radius                                | Static  | 11 mm              |
|                                                       | Dynamic | 22 mm              |
| Flex cycles over 1 in diameter mandrel, o.5 lb Weight |         | >2000              |

| Cable Mount Precision Connectors  |                |                              |
|-----------------------------------|----------------|------------------------------|
| Mating Cycles                     |                | 500                          |
| Pull strength: Cable to connector |                | 10 lbs minimum               |
| Operating Temperature Range       |                | -55 to +125°C                |
| Materials                         | Center Pin     | Gold plated beryllium copper |
|                                   | Connector Body | Passivated stainless steel   |

Cable Construction

Ø.047 Cable & Ø.086 Cable



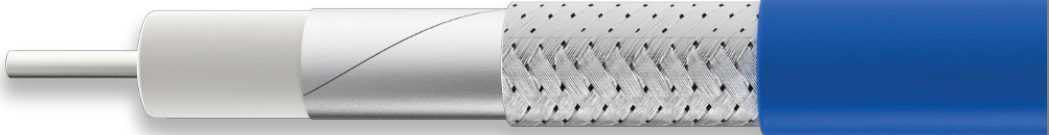
SPC Solid

PTFE

Helically Wrapped Shield

Braided Shield

FEP Jacket



Detailed cable mechanical dimensions available in datasheets.

## PRECISION ADAPTERS

Coaxial Connector Savers



**1.00 mm**

DC – 110 GHz

**1.85 mm**

DC – 67 GHz

**2.40 mm**

DC – 50 GHz

**2.92 mm**

DC – 40 GHz

### Features & Benefits

- Designed for repeatability and accuracy
- Wide variety of mating interfaces
- Customizable

### Applications

- High speed IO test setup: instrumentation connection to DUT eval boards
- Precision connector savers
- Adapts two different precision interfaces

### Part Number Scheme

To place an order, reach out to: [sales@multilaneinc.com](mailto:sales@multilaneinc.com)

**MLA-185MST-185MST**

#### Connector Interface

100: 1.00mm

185: 1.85mm

240: 2.40mm

292: 2.92mm

M: Male

F: Female

#### Connector Interface

100: 1.00mm

185: 1.85mm

240: 2.40mm

292: 2.92mm

M: Male

F: Female

# TECHNICAL SPECIFICATIONS

## TYPICAL VALUES

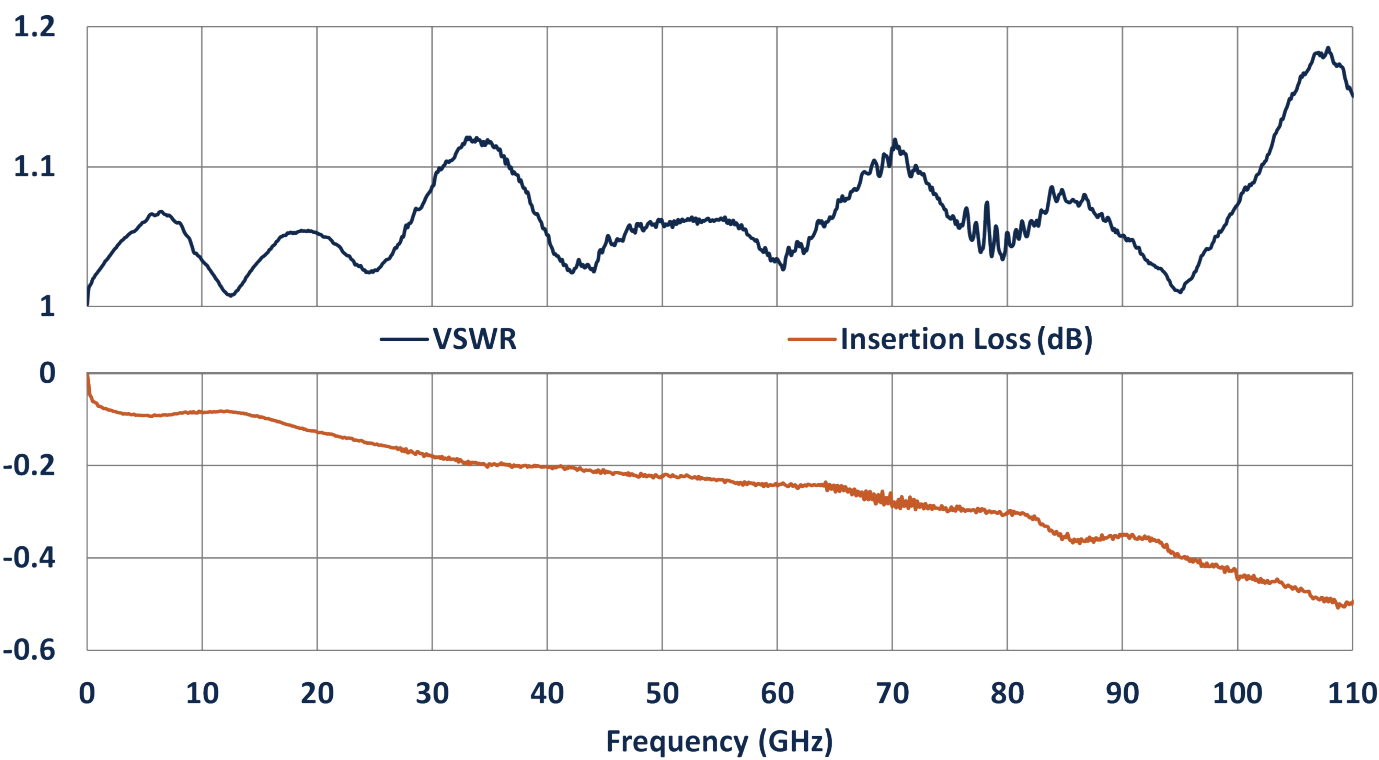
### General Electrical Specifications

| 50 $\Omega$ RF Coaxial Adapters Standard Offering |                   |             |             |                      |                 |
|---------------------------------------------------|-------------------|-------------|-------------|----------------------|-----------------|
| Configuration                                     | Part Number       | Interface 1 | Interface 2 | Insertion Loss (max) | VSWR (max)      |
| Straight Plug to Plug Within Series               | MLA-100MST-100MST | 1.00mm (M)  | 1.00mm (M)  | 0.63dB at 110 GHz    | 1.30 at 110 GHz |
|                                                   | MLA-185MST-185MST | 1.85mm (M)  | 1.85mm (M)  | 0.48dB at 67 GHz     | 1.15 at 67 GHz  |
|                                                   | MLA-240MST-240MST | 2.40mm (M)  | 2.40mm (M)  | 0.42dB at 50 GHz     | 1.15 at 50 GHz  |
|                                                   | MLA-292MST-292MST | 2.92mm (M)  | 2.92mm (M)  | 0.38dB at 40 GHz     | 1.15 at 40 GHz  |
| Straight Jack to Jack Within Series               | MLA-100FST-100FST | 1.00mm (F)  | 1.00mm (F)  | 0.63dB at 110 GHz    | 1.30 at 110 GHz |
|                                                   | MLA-185FST-185FST | 1.85mm (F)  | 1.85mm (F)  | 0.48dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-240FST-240FST | 2.40mm (F)  | 2.40mm (F)  | 0.42dB at 50 GHz     | 1.20 at 50 GHz  |
|                                                   | MLA-292FST-292FST | 2.92mm (F)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
| Straight Plug to Jack Within Series               | MLA-100MST-100FST | 1.00mm (M)  | 1.00mm (F)  | 0.63dB at 110 GHz    | 1.30 at 110 GHz |
|                                                   | MLA-185MST-185FST | 1.85mm (M)  | 1.85mm (F)  | 0.48dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-240MST-240FST | 2.40mm (M)  | 2.40mm (F)  | 0.42dB at 50 GHz     | 1.20 at 50 GHz  |
|                                                   | MLA-292MST-292FST | 2.92mm (M)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
| Straight In-Between Series                        | MLA-185FST-100MST | 1.85mm (F)  | 1.00mm (M)  | 0.49dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-185FST-100FST | 1.85mm (F)  | 1.00mm (F)  | 0.49dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-185FST-240MST | 1.85mm (F)  | 2.40mm (M)  | 0.42dB at 50 GHz     | 1.20 at 50 GHz  |
|                                                   | MLA-185FST-240FST | 1.85mm (F)  | 2.40mm (F)  | 0.42dB at 50 GHz     | 1.20 at 50 GHz  |
|                                                   | MLA-185FST-292MST | 1.85mm (F)  | 2.92mm (M)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
|                                                   | MLA-185FST-292FST | 1.85mm (F)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
|                                                   | MLA-185MST-100MST | 1.85mm (M)  | 1.00mm (M)  | 0.49dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-185MST-100FST | 1.85mm (M)  | 1.00mm (F)  | 0.49dB at 67 GHz     | 1.20 at 67 GHz  |
|                                                   | MLA-185MST-240MST | 1.85mm (M)  | 2.40mm (M)  | 0.42dB at 50 GHz     | 1.15 at 50 GHz  |
|                                                   | MLA-185MST-240FST | 1.85mm (M)  | 2.40mm (F)  | 0.42dB at 50 GHz     | 1.20 at 50 GHz  |
|                                                   | MLA-185MST-292MST | 1.85mm (M)  | 2.92mm (M)  | 0.38dB at 40 GHz     | 1.15 at 40 GHz  |
|                                                   | MLA-185MST-292FST | 1.85mm (M)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
|                                                   | MLA-240FST-292MST | 2.40mm (F)  | 2.92mm (M)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
|                                                   | MLA-240FST-292FST | 2.40mm (F)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |
|                                                   | MLA-240MST-292MST | 2.40mm (M)  | 2.92mm (M)  | 0.38dB at 40 GHz     | 1.15 at 40 GHz  |
|                                                   | MLA-240MST-292FST | 2.40mm (M)  | 2.92mm (F)  | 0.38dB at 40 GHz     | 1.20 at 40 GHz  |

# SI Performance

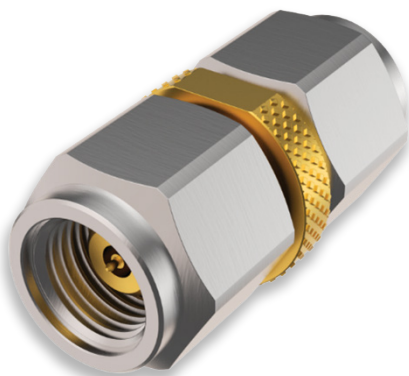
## Measured data for: MLA-100MST-100MST

RF Coaxial Adapter, 50 Ohm, 1.00 mm (M) to 1.00 mm (M)



# Mechanical & Environmental Specifications

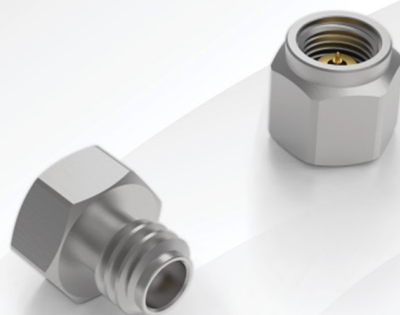
| Coaxial Adapters            |                |                              |
|-----------------------------|----------------|------------------------------|
| Mating Cycles               |                | 500                          |
| Operating Temperature Range | Within Series  | -65 to +85°C                 |
|                             | Between Series | -55 to +85°C                 |
| Materials                   | Center Pin     | Gold plated beryllium copper |
|                             | Shell          | Passivated stainless steel   |





## PRECISION TERMINATORS

Coaxial Loads



**1.00 mm**

DC – 110 GHz

**1.85 mm**

DC – 67 GHz

**2.40 mm**

DC – 50 GHz

**2.92 mm**

DC – 40 GHz

### Features & Benefits

- Designed for repeatability and accuracy
- Wide variety of mating interfaces
- Customizable

### Applications

- Loads dissipating signal reflections from open ports

### Part Number Scheme

To place an order, reach out to: [sales@multilaneinc.com](mailto:sales@multilaneinc.com)

**MLT-185MST-2**

#### Connector Interface

100: 1.00mm

185: 1.85mm

240: 1.35mm

292: 2.92mm

M: Male

F: Female

#### Power Handling

1: 1 Watt

2: 2 Watt

# TECHNICAL SPECIFICATIONS

## TYPICAL VALUES

### General Electrical Specifications

| Ω RF Coaxial Terminators Standard Offering |              |            |                 |                |
|--------------------------------------------|--------------|------------|-----------------|----------------|
| Configuration                              | Part Number  | Interface  | VSWR (max)      | Power Handling |
| Straight Plug                              | MLT-100MST-1 | 1.00mm (M) | 1.56 at 110 GHz | 1 Watt at 25°C |
|                                            | MLT-185MST-2 | 1.85mm (M) | 1.40 at 67 GHz  | 2 Watt at 25°C |
|                                            | MLT-240MST-1 | 2.40mm (M) | 1.35 at 50 GHz  | 1 Watt at 25°C |
|                                            | MLT-292MST-2 | 2.92mm (M) | 1.20 at 40 GHz  | 2 Watt at 25°C |
| Straight Jack                              | MLT-100FST-1 | 1.00mm (F) | 1.56 at 110 GHz | 1 Watt at 25°C |
|                                            | MLT-185FST-2 | 1.85mm (F) | 1.40 at 67 GHz  | 2 Watt at 25°C |
|                                            | MLT-240FST-1 | 2.40mm (F) | 1.35 at 50 GHz  | 1 Watt at 25°C |
|                                            | MLT-292FST-2 | 2.92mm (F) | 1.20 at 40 GHz  | 2 Watt at 25°C |

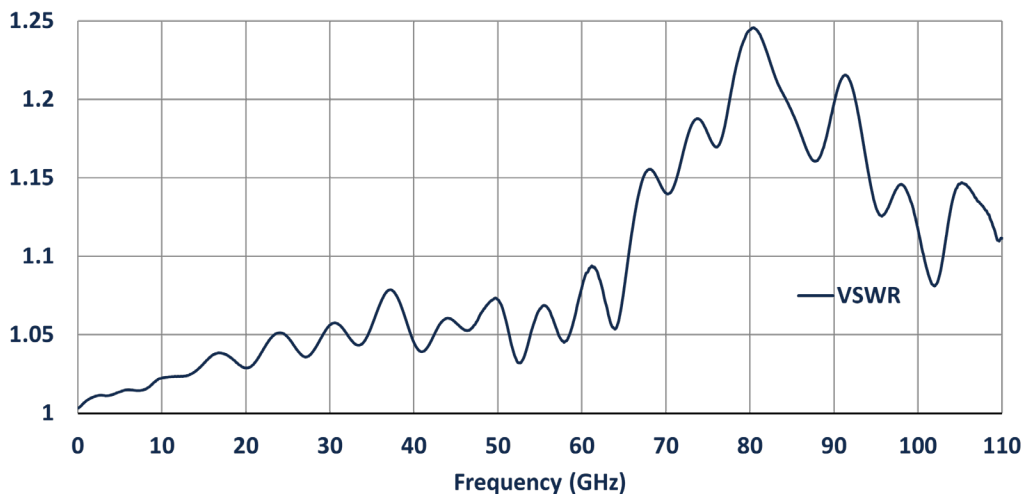
### Mechanical & Environmental Specifications

| Coaxial Adapters            |            |                              |
|-----------------------------|------------|------------------------------|
| Mating Cycles               |            | 500                          |
| Operating Temperature Range |            | -55 to +125°C                |
| Materials                   | Center Pin | Gold plated beryllium copper |
|                             | Shell      | Passivated stainless steel   |

### SI Performance

#### Measured data for: MLT-100MST

RF Coaxial Terminator, 50 Ohm, 1.00 mm (M), 1 Watt



| Revision No. | Last Modified  |
|--------------|----------------|
| 1.4          | September 2026 |

# multiLane



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