



## MC Card Connectors

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*Prices, specifications, statement of warranty, and other terms and conditions are subject to change without notice by Lighthorse Technologies, Inc.*



MC Card microminiature connectors are suitable for 50 ohm applications and provide repeatable electronic performance from DC to 8 GHz. The snap-on mating design offers low RF leakage and ease of assembly, along with high mating durability. MC Card connectors are a low cost alternative to MMCX connectors.

Typical applications for MC Card connectors are PC MCIA and ISA cards, WLAN, and GSM. They are also suitable for PMR/TETRA antenna applications.

### ELECTRICAL RATINGS

|                                                               |                           |                           |
|---------------------------------------------------------------|---------------------------|---------------------------|
| <b>Impedance</b>                                              | 50 ohm                    |                           |
| <b>Frequency Range</b>                                        | 0-8 GHz                   |                           |
| <b>Insertion Loss</b>                                         | <i>Straight</i>           | <i>Right Angle</i>        |
|                                                               | 0.04 .04 dB max x = f GHz | 0.05 .04 dB max x = f GHz |
| <b>Voltage Rating</b> (in VRMS at sea level)                  | 170 min                   |                           |
| <b>Dielectric Withstanding Voltage</b> (in VRMS at sea level) | 500 min                   |                           |
| <b>Insulation Resistance</b>                                  | 5000 MΩ min               |                           |
| <b>Contact Resistance</b>                                     | <i>Center Contact</i>     | <i>Outer Contact</i>      |
|                                                               | 1.5 mΩ max                | 0.2 mΩ max                |

### MECHANICAL RATINGS

|                                       |                                                      |                         |                         |
|---------------------------------------|------------------------------------------------------|-------------------------|-------------------------|
| <b>Mating</b>                         | Snap-on coupling                                     |                         |                         |
| <b>Durability</b>                     | 5000 matings                                         |                         |                         |
| <b>Engagement/Disengagement Force</b> | 1.39 lbs. max engagement/1.98 lbs. min disengagement |                         |                         |
| <b>Cable Retention</b>                | <i>RG-178, 196</i>                                   | <i>RG-174, 316, 188</i> | <i>.086" Semi-Rigid</i> |
|                                       | 13 lbs.                                              | 24.7 lbs.               | 34.6 lbs.               |

### ENVIRONMENTAL RATINGS

|                          |                                      |
|--------------------------|--------------------------------------|
| <b>Temperature Range</b> | -25°C to + 125°C                     |
| <b>Thermal Cycling</b>   | MIL-STD-202, Method 107, Condition B |
| <b>Vibration</b>         | MIL-STD-202, Method 204, Condition B |
| <b>Corrosion</b>         | MIL-STD-202, Method 101, Condition B |
| <b>Shock</b>             | MIL-STD-202, Method 213, Condition G |

### MATERIALS

|                       |               | <i>Material</i>               | <i>Plating</i> |
|-----------------------|---------------|-------------------------------|----------------|
|                       |               |                               |                |
| <b>Connector Body</b> |               | Brass per QQ-B-626            | Nickel         |
| <b>Center Contact</b> | <i>Male</i>   | Brass per QQ-B-626            | Gold           |
|                       | <i>Female</i> | Beryllium Copper per QQ-C-530 | Gold           |
| <b>Insulator</b>      |               | Teflon                        | None           |
| <b>Crimp Ferrule</b>  |               | Annealed Copper per WW-T-799  | Same as body   |

### VSWR

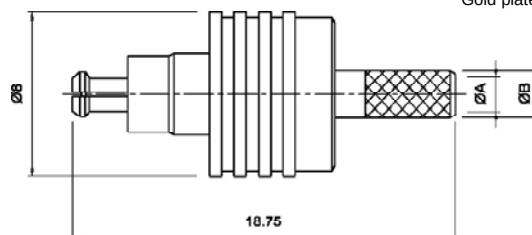
| Cable Type       | Frequency Range |          |           |          |          |                                                 |
|------------------|-----------------|----------|-----------|----------|----------|-------------------------------------------------|
|                  | 1 GHz           | 2.5 GHz  | 4 GHz     | 6 GHz    | 8 GHz    |                                                 |
| RG-178, 196      | 1.07            | 1.15     | 1.16      | 1.17     | 1.25     | Typical VSWR for MC CARD straight connectors    |
| RG-174, 188, 316 | 1.17 max        | 1.19 max | 1.21. max | 1.24 max | 1.27 max |                                                 |
| Semi-rigid .086" | 1.02            | 1.05     | 1.08      | 1.10     | 1.14     |                                                 |
| RG-178, 196      | 1.08            | 1.17     | 1.22      | 1.26     | 1.30     | Typical VSWR for MC CARD right angle connectors |
| RG-174, 188, 316 | 1.05            | 1.08     | 1.10      | 1.13     | 1.12     |                                                 |
| Semi-rigid .086" | 1.02            | 1.05     | 1.08      | 1.09     | 1.10     |                                                 |



## Straight Crimp Plug

| Part Number      | Cable Type             | Dimension |        |
|------------------|------------------------|-----------|--------|
| LTI-MDSM11NT-XXX | RG-316,174,188;Q1,D316 | A: 1.7    | B: 2.3 |
| LTI-MDSM11NT-XXX | RG-178,196             | A: 1.1    | B: 1.8 |

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.  
Gold plated parts (LTI-MDSM11GT-XXX) available.

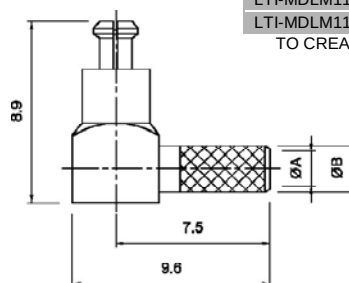


ASSEMBLY INST.: Page 176  
Recommended Stripping DIMS:  
Page 172, Line 2

## Right Angle Crimp Plug

| Part Number      | Cable Type             | Dimension |        |
|------------------|------------------------|-----------|--------|
| LTI-MDLM11NT-XXX | RG-316,174,188;Q1,D316 | A: 1.7    | B: 2.3 |
| LTI-MDLM11NT-XXX | RG-178,196             | A: 1.1    | B: 1.8 |

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.  
Gold plated parts (LTI-MDLM11GT-XXX) available.

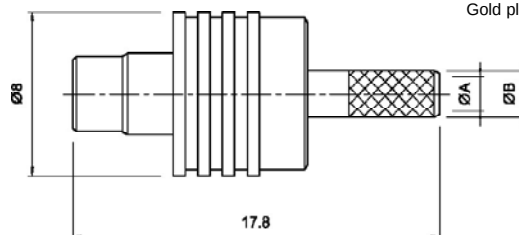


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Recommended Stripping DIMS:  
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## Straight Crimp Jack

| Part Number      | Cable Type             | Dimension |        |
|------------------|------------------------|-----------|--------|
| LTI-MDSF11NT-XXX | RG-316,174,188;Q1,D316 | A: 1.7    | B: 2.3 |
| LTI-MDSF11NT-XXX | RG-178,196             | A: 1.1    | B: 1.8 |

TO CREATE COMPLETE PART NUMBER: Fill in Cable Type where XXX is. See Part Numbering Chart on page 3 for more info.  
Gold plated parts (LTI-MDSF11GT-XXX) available.

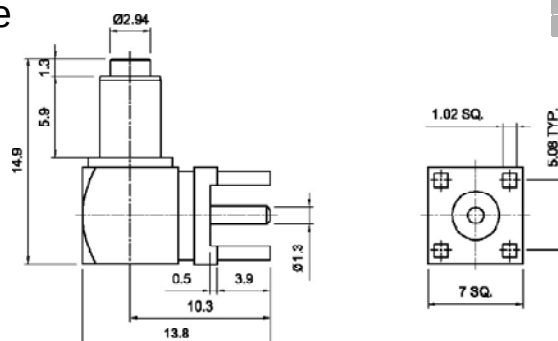


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Recommended Stripping DIMS:  
Page 172, Line 2

## Right Angle PCB Thru Hole Jack

| Part Number  | M.H. |
|--------------|------|
| LTI-MDLF54NT | 24   |

Gold plated parts  
(LTI-MDLF54GT) available.



MOUNTING HOLE (M.H.): Page 174

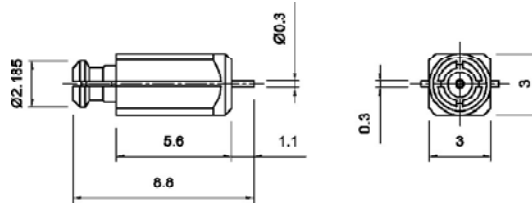


Lighthorse Technologies, Inc.

PCB Mount

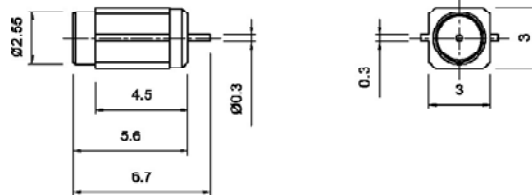
# MC CARD

## Edge Card Surface Mount PCB Plug



| Part Number                                    |
|------------------------------------------------|
| LTI-MDSM96NT                                   |
| Gold plated parts<br>(LTI-MDSM96GT) available. |

## Edge Card Surface Mount PCB Jack



| Part Number                                    |
|------------------------------------------------|
| LTI-MDSF96NT                                   |
| Gold plated parts<br>(LTI-MDSF96GT) available. |