TEST & MEASUREMENT

# Mass InterConnect Solutions

...creating order out of wiring chaos.

ROMEX

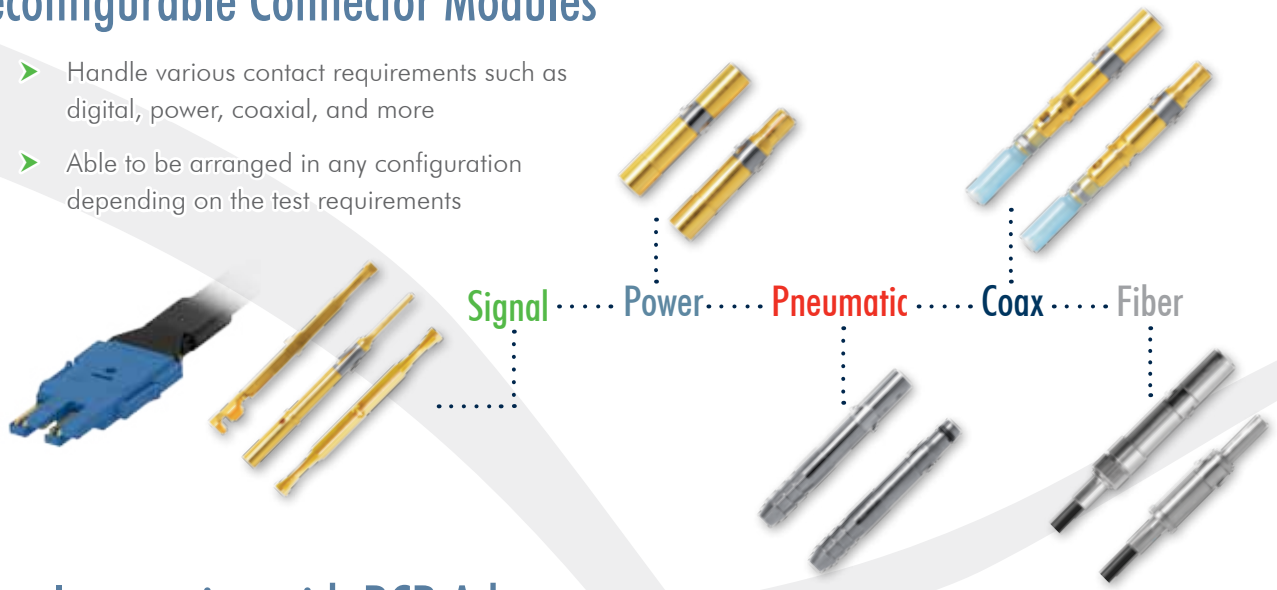
VPC Virginia Panel Corporation

PRODUCT CATALOG

# Complete the Package
## with Contacts, Modules, Patchcords and Tools.

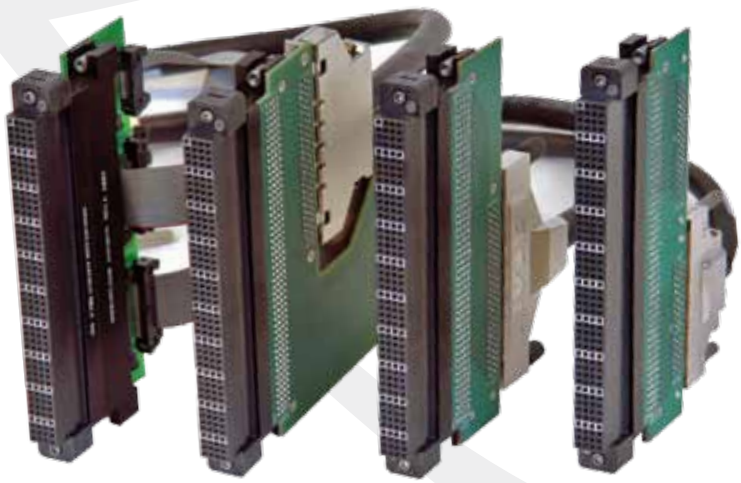
## Reconfigurable Connector Modules

- Handle various contact requirements such as digital, power, coaxial, and more
- Able to be arranged in any configuration depending on the test requirements



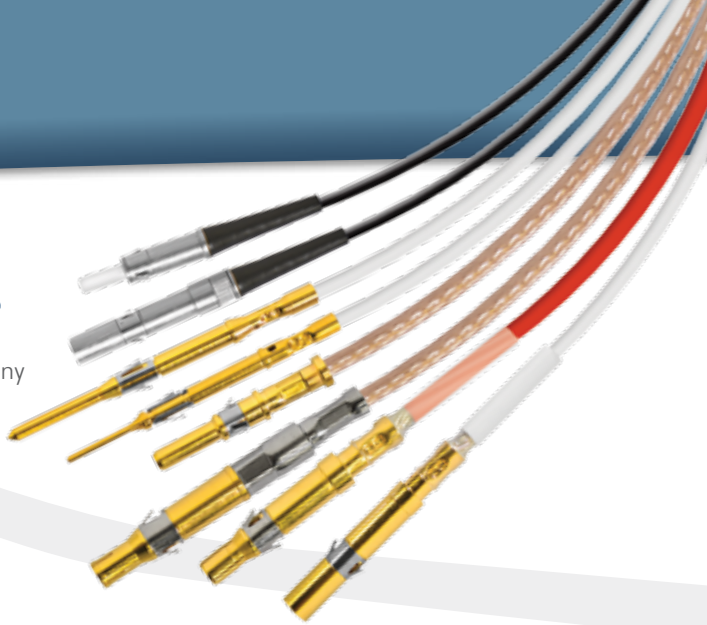

## Easy Integration with PCB Adapters

- Enables ease of integration while providing wiring convenience in a cost-effective package
- Incorporates a PCB with multiple standard connectors
- Offers "plug and play" capability between module and instrumentation



## Fewer Complications with Patchcords

- Patchcords are available in various lengths to suit any application
- Cost-effective solution for your wiring needs
- Reduced setup time with pre-built patchcords



## Variety of Connection Options

- Configurable for virtually any connection requirement
- Reliable connections maintain signal integrity
- Most contacts are rated to 20,000 mating cycles

## Complete Tool Selection

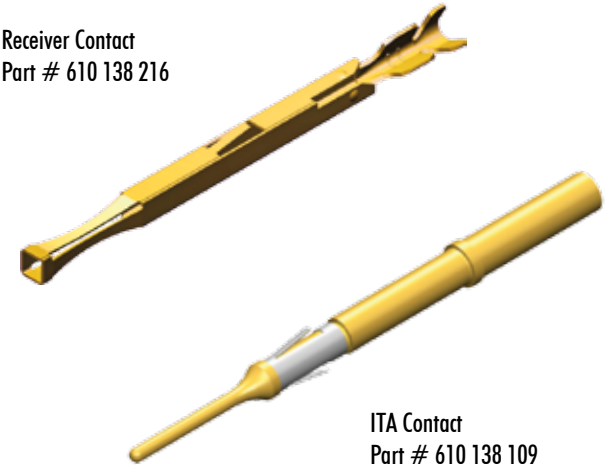
- Crimp tools and locators are available to easily terminate contacts and wires
- Extraction tools are available to remove contacts from the module quickly when necessary, saving time
- Inspection tools are available to ensure proper function before system integration

# QuadraPaddle® Signal Contacts

## Contact Specifications

| | |
|---|---|
| **Operating Current and Voltage** | 5 amp max. continuous; 600 volt max. use of wire Mil-W-16878/4 |
| **Contact Resistance** | 25 mΩ max. Measured at 50 mV @ 100 mA |
| **Mating Force** | 6 oz. nominal [.15 kg] |
| **Dielectric Withstanding Voltage (DWV)** | 1500 VDC min. |
| **Insulation Resistance** | 5000 MΩ min. |
| **Contact Body Material** | Twin Female (RCV) – BeCu/PhBrz<br>Crimp (RCV) – BeCu<br>Male (ITA) – Brass |
| **Contact Plating** | Female (RCV) – 30μ" Au over 100μ" Ni<br>Male (ITA) – 30μ" Au over 100μ" Ni |
| **Cycle Life** | 20,000 cycles |

Receiver Contact
Part # 610 138 216



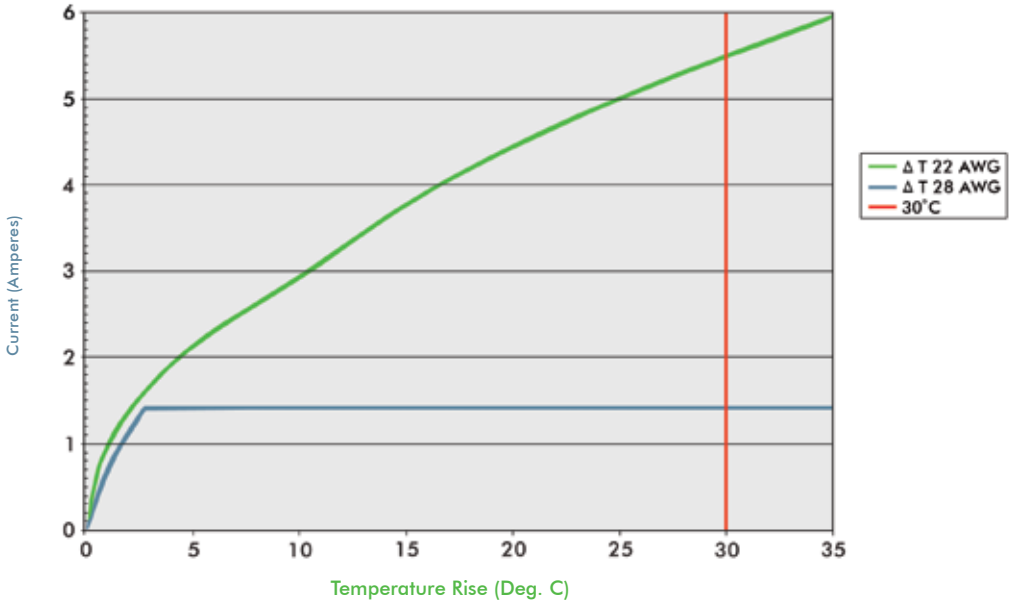
ITA Contact
Part # 610 138 109

ITA Contact
Part # 610 138 112

ITA Contact
Part # 610 138 122

ITA Contact
Part # 610 138 115

**QuadraPaddle Contact**
28 AWG & 22 AWG
T-Rise Test

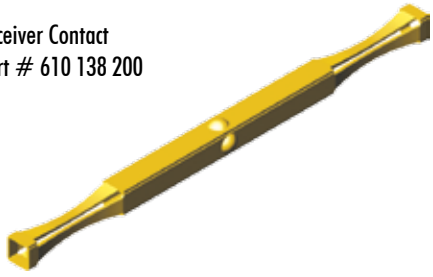



*Maximum current rating for 28 AWG wire is 1.4 amperes*

*NOTE: For information on high speed applications with QuadraPaddle signal technology, visit vpc.com/QP*

# QuadraPaddle® Signal Contacts

Receiver Contact
Part # 610 138 200



Round Post Receiver Contact
Part # 610 138 117

Square Post Receiver Contact
Part # 610 138 118

*QuadraPaddle round and square post adapter pins convert QuadraPaddle twin female pins to female-male contacts*

| Part # | Description | Used in Module |
|---|---|---|
| **QUADRAPADDLE RECEIVER CONTACTS** | | |
| 610 138 200* | Signal Contact, Receiver, QuadraPaddle, 5 Amp, 30µ" Gold, Twin Female Replacement Contact | 510 150 130/131/135<br>510 150 136/137/147<br>510 160 105/112/122 |
| 610 138 117* | Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, .025" Round Post | 510 150 130/131/135/137<br>510 160 105/112/113 |
| 610 138 118* | Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, .025" Square Post for Wire Wrap | 510 150 130/131/136/147<br>510 160 105/112 |
| 610 138 216 | Signal Contact, Receiver, QuadraPaddle, 5 Amp, 22-28 AWG, 30µ" Gold | 510 150 115/116<br>510 160 101/102/107 |
| **QUADRAPADDLE ITA CONTACTS** | | |
| 610 138 109 | Signal Contact, QuadraPaddle, ITA, 5 Amp, 22–24 AWG | 510 151 105/106<br>510 161 101/102/107 |
| 610 138 112 | Signal Contact, ITA, QuadraPaddle, 5 Amp, 26–30 AWG | 510 151 105/106<br>510 161 101/102/107 |
| 610 138 115 | Signal Contact, ITA, QuadraPaddle, 5 Amp, .025" Round Post | 510 151 105/106/107/108<br>510 161 101/102/107 |
| 610 138 122 | Signal Contact, ITA, QuadraPaddle, 5 Amp, .025" Square Post for Wire Wrap with Anti-Rotation | 510 151 105/106/107/124<br>510 161 101/102/107 |

**For PCB layouts, please visit vpc.com/PCBlayouts*

| Part # | Description | Used on Contact |
|---|---|---|
| **CRIMP TOOLS** | | |
| 910 101 125 | Tool, Crimp, QuadraPaddle, Receiver | 610 138 216 |
| 910 101 103 | Tool, Crimp, QuadraPaddle ITA and TriPaddle Receiver and ITA Contacts, Locator Required | 610 138 109/112<br>610 110 101/108/109/167/169 |
| **LOCATOR** | | |
| 910 104 140 | Tool, Locator, QuadraPaddle, ITA Contact | 610 138 109/112 |
| **EXTRACTION TOOLS** | | |
| 910 110 111 | Tool, Extraction, ITA, QuadraPaddle | 610 138 109/112/115/122 |
| 910 110 112 | Tool, Extraction, Receiver, QuadraPaddle | 610 138 216 |
| **INSERTION TOOL** | | |
| 910 113 106 | Tool, Insertion, QuadraPaddle ITA Wire Wrap Contact | 610 138 122 |

# QuadraPaddle® Signal Patchcords

| QuadraPaddle Receiver Patchcord | QuadraPaddle ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| **QUADRAPADDLE RECEIVER AND ITA PATCHCORDS** | | |
| 7-124 924 000-036 | Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 24 AWG, Single Ended | 510 150 115/116<br>510 160 101/102/107 |
| 7-124 922 000-036 | Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 22 AWG, Single Ended | 510 150 115/116<br>510 160 101/102/107 |
| 7-121 924 000-036 | Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 24 AWG, Single Ended | 510 151 105/106<br>510 161 101/102/107 |
| 7-121 922 000-036 | Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 22 AWG, Single Ended | 510 151 105/106<br>510 161 101/102/107 |
| **QUADRAPADDLE ITA JUMPERS** | | |
| 7-121 924 121-006 | Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 24 AWG, Double Ended Jumpers | 510 151 105/106<br>510 161 101/102/107 |
| 7-121 922 121-006 | Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 22 AWG, Double Ended Jumpers | 510 151 105/106<br>510 161 101/102/107 |

| QuadraPaddle Receiver Twisted Pair Patchcord | QuadraPaddle ITA Twisted Pair Patchcord |
|---|---|

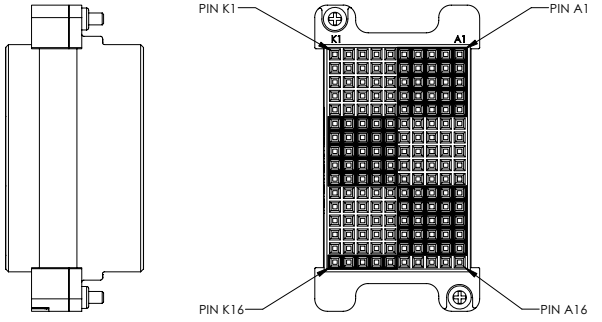
| Part # | Description | Used in Module |
|---|---|---|
| **QUADRAPADDLE RECEIVER AND ITA TWISTED PAIR PATCHCORDS** | | |
| 7-124 424 000-036 | Signal Patchcord, Receiver, QuadraPaddle, 36", 24 AWG Twisted Pair, Single Ended | 510 150 115/116<br>510 160 101/102/107 |
| 7-124 422 000-036 | Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended | 510 150 115/116<br>510 160 101/102/107 |
| 7-121 424 000-036 | Signal Patchcord, ITA, QuadraPaddle, 36", 5 Amp, 24 AWG Twisted Pair, Single Ended | 510 151 105/106<br>510 161 101/102/107 |
| 7-123 426 000-036 | Signal Patchcord, ITA, QuadraPaddle, 36", 26 AWG Twisted Pair, Single Ended | |
| 7-121 422 000-036 | Signal Patchcord, ITA, QuadraPaddle, 36", 22 AWG Twisted Pair, Single Ended | 510 151 105/106<br>510 161 101/102/107 |
| **QUADRAPADDLE ITA TWISTED PAIR JUMPERS** | | |
| 7-121 424 121-006 | Signal Patchcord, ITA, QuadraPaddle, 6", 24 AWG Twisted Pair, Double Ended Jumpers | 510 151 105/106<br>510 161 101/102/107 |
| 7-121 422 121-006 | Signal Patchcord, ITA, QuadraPaddle, 6", 22 AWG Twisted Pair, Double Ended Jumpers | 510 151 105/106<br>510 161 101/102/107 |
| **USB PATCHCORDS** | | |
| 7-124 872 596-036 | Signal Patchcord, Receiver, QuadraPaddle, 36", USB 2.0 Wire, to USB Type A Plug | |
| 7-121 872 596-036 | Signal Patchcord, ITA, QuadraPaddle, 36", USB 2.0 Wire, to USB Type A Plug | |
| **RJ45 PATCHCORDS** | | |
| 7-124 870 595-036 | Signal Patchcord, Receiver, QuadraPaddle, 36", CAT5e, to RJ45 Plug | |
| 7-123 870 595-036 | Signal Patchcord, ITA, QuadraPaddle, 36", CAT5e, to RJ45 Plug | |

*NOTE: To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner*

# 160 Position QuadraPaddle Signal Modules

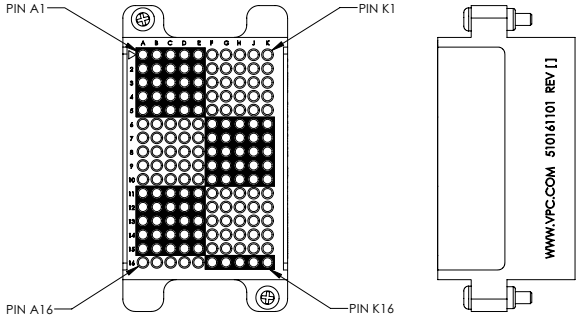
## Module Specifications

| | |
|---|---|
| Material | Black high-temp thermoplastic |
| Temperature | Operating • -55°C to 125°C<br>Non-operating • -65°C to 220°C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 160 |
| Module Positions Needed | 1 |




WIRING SIDE

Receiver • **Part # 510 160 101**




WIRING SIDE

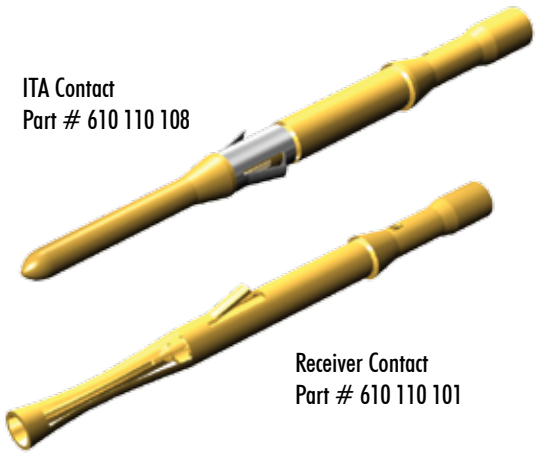
ITA • **Part # 510 161 101**

| Part # | Description | Contacts Used |
|---|---|---|
| **ICON RECEIVER QUADRAPADDLE MODULES** | | |
| 510 160 101 | Signal Module, Receiver, QuadraPaddle, iCon, 160 Position, for Crimp Contacts | 610 138 216 |
| 510 160 105 | Signal Module, Receiver, QuadraPaddle, iCon, 160 Position, Fully Loaded with Twin Female Contacts (610 138 200) | 610 138 117/118/200 |
| 510 160 122 | Signal Module, Receiver, QuadraPaddle, iCon, 160 Position, Fully Loaded with Twin Female Contacts and Round Posts (610 138 200 and 610 138 117) | 610 138 117/200 |
| **ICON ITA QUADRAPADDLE MODULE** | | |
| 510 161 101 | Signal Module, ITA, QuadraPaddle, iCon, 160 Position | 610 138 109/112/115/122 |

# TriPaddle Signal Contacts

## Contact Specifications

| | |
|---|---|
| Operating Current and Voltage | 7 amps max. continuous (20 AWG)<br>10 amps max. continuous (14 AWG)<br>600 volt max. use of wire MIL-W-16878/4 |
| Contact Resistance | 4 mΩ max.<br>Measured at 50 mV @ 100 mA |
| Mating Force | 10 oz. nominal [.25 kg] |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Insulation Resistance | 4000 MΩ min. |
| Contact Body Material | Female (RCV) – BeCu<br>Male (ITA) – brass |
| Contact Plating | Female (RCV) – 30μ" Au over 100μ" Ni<br>Male (ITA) – 30μ" Au over 100μ" Ni<br>10 Amp (RCV & ITA) – 50μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

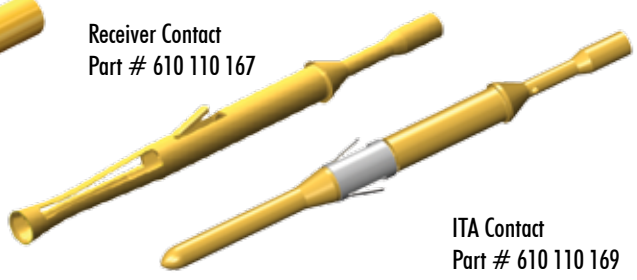


ITA Contact
Part # 610 110 108

Receiver Contact
Part # 610 110 101

Receiver Contact
Part # 610 110 128

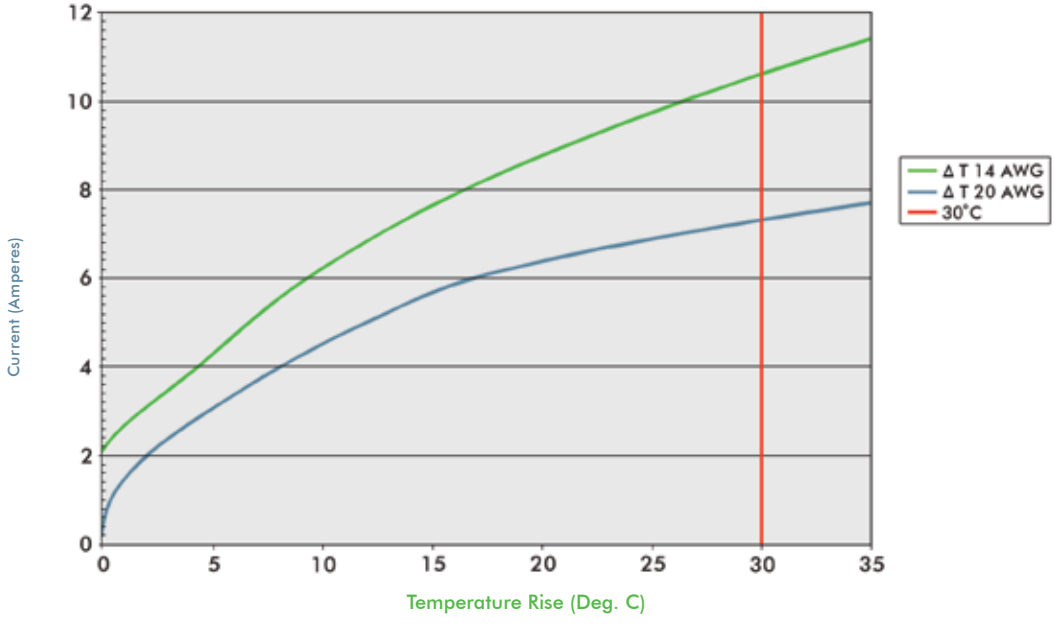
ITA Contact
Part # 610 110 129



Receiver Contact
Part # 610 110 167

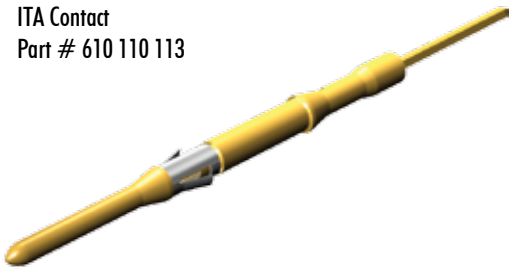
ITA Contact
Part # 610 110 169

**TriPaddle Contact**
20 AWG & 14 AWG
T-Rise Test



# TriPaddle Signal Contacts

ITA Contact
Part # 610 110 113



Receiver Contact
Part # 610 110 104

| Part # | Description | Used in Module |
|---|---|---|
| **TRIPADDLE RECEIVER CONTACTS** | | |
| 610 110 101 | Signal Contact, Receiver, TriPaddle, 7 Amp, 20-24 AWG, 30µ" Gold | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 610 110 128 | Signal Contact, Receiver, TriPaddle, 10 Amp, 14-18 AWG max, 50µ" Gold | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 610 110 167 | Signal Contact, Receiver, TriPaddle, 7 Amp, 26-28 AWG, 30µ" Gold | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 610 110 177 | Signal Contact, Receiver, TriPaddle, 10 Amp, 14-18 AWG, 30µ" Gold | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 610 110 179 | Signal Contact, Receiver, TriPaddle, 5 Amp, .025" Round Post, 30µ" Gold | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| **TRIPADDLE ITA CONTACTS** | | |
| 610 110 108 | Signal Contact, ITA, TriPaddle, 7 Amp, 20-24 AWG, 30µ" Gold | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 610 110 129 | Signal Contact, ITA, TriPaddle, 10 Amp, 14-18 AWG max, 30µ" Gold | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 610 110 146 | Signal Contact, ITA, TriPaddle, 7 Amp, 20-24 AWG, 50µ" Gold, Crimp/Solder | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 610 110 169 | Signal Contact, ITA, TriPaddle, 7 Amp, 26-28 AWG, 30µ" Gold | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 610 110 113 | Signal Contact, ITA, TriPaddle, 7 Amp, .025" Post for Wire Wrap, 30µ" Gold | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |

| Part # | Description | Used on Contact |
|---|---|---|
| **CRIMP TOOLS** | | |
| 910 101 102 | Tool, Crimp, 10 Amp TriPaddle, Thermocouple, Micro Power, Receiver and ITA, Locator Required | 610 110 128/129/177 |
| 910 101 103 | Tool, Crimp, QuadraPaddle and TriPaddle, Receiver and ITA Contacts, Locator Required | 610 110 101/108/167/169/179 |
| **LOCATORS** | | |
| 910 104 127 | Tool, Locator, TriPaddle, Receiver | 610 110 101/167/179 |
| 910 104 107 | Tool, Locator, TriPaddle, ITA | 610 110 108/169 |
| 910 104 116 | Tool, Locator, TriPaddle, Receiver | 610 110 128 |
| 910 104 118 | Tool, Locator, TriPaddle, ITA | 610 110 129 |
| **EXTRACTION TOOL** | | |
| 910 110 102 | Tool, Extraction, Receiver and ITA, TriPaddle and Thermocouple | |

# TriPaddle Signal Patchcords

| TriPaddle Receiver Patchcord | TriPaddle ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| **TRIPADDLE RECEIVER AND ITA PATCHCORDS** | | |
| 7-104 924 000-036 | Signal Patchcord, Receiver, TriPaddle, 3 Amp, 36", 24 AWG, Single Ended | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 7-104 922 000-036 | Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG, Single Ended | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 7-102 914 000-036 | Signal Patchcord, Receiver, TriPaddle, 10 Amp, 36", 14 AWG, Single Ended | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 7-103 924 000-036 | Signal Patchcord, ITA, TriPaddle, 36", 3 Amp, 24 AWG, Single Ended | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115/ |
| 7-103 922 000-036 | Signal Patchcord, ITA, TriPaddle, 36", 5 Amp, 22 AWG, Single Ended | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 7-101 914 000-036 | Signal Patchcord, ITA, TriPaddle, 36", 10 Amp, 14 AWG, Single Ended | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| **TRIPADDLE ITA PATCHCORD JUMPERS (DOUBLE ENDED)** | | |
| 7-103 924 103-006 | Signal Patchcord, ITA, TriPaddle, 6", 3 Amp, 24 AWG, Double Ended Jumpers | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 7-103 922 103-006 | Signal Patchcord, ITA, TriPaddle, 6", 5 Amp, 22 AWG, Double Ended Jumpers | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 7-101 914 101-006 | Signal Patchcord, ITA, TriPaddle, 6", 10 Amp, 14 AWG, Double Ended Jumpers | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |

| TriPaddle Receiver Twisted Pair Patchcord | TriPaddle ITA Twisted Pair Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| **TRIPADDLE TWISTED PAIR RECEIVER AND ITA PATCHCORDS** | | |
| 7-104 424 000-036 | Signal Patchcord, Receiver, TriPaddle, 3 Amp, 36", 24 AWG Twisted Pair, Single Ended | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 7-104 422 000-036 | Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended | 510 104 134/136/149/206/243/261/306/307<br>510 160 103/108/109/111/115/124 |
| 7-103 424 000-036 | Signal Patchcord, ITA, TriPaddle, 36", 3 Amp, 24 AWG Twisted Pair, Single Ended | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 7-103 422 000-036 | Signal Patchcord, ITA, TriPaddle, 36", 5 Amp, 24 AWG Twisted Pair, Single Ended | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| **TRIPADDLE ITA TWISTED PAIR PATCHCORD JUMPERS (DOUBLE ENDED)** | | |
| 7-103 424 103-006 | Signal Patchcord, ITA, TriPaddle, 6", 24 AWG Twisted Pair, Double Ended Jumpers | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| 7-103 422 103-006 | Signal Patchcord, ITA, TriPaddle, 3 Amp, 6", 22 AWG Twisted Pair, Double Ended Jumpers | 510 108 101/126/131/178/210/245<br>510 161 103/108/109/111/115 |
| **USB PATCHCORDS** | | |
| 7-104 872 596-036 | Signal Patchcord, Receiver, TriPaddle, 36", USB 2.0 Wire, to USB Type A Plug | |
| 7-103 872 596-036 | Signal Patchcord, ITA, TriPaddle, 36", USB 2.0 Wire, to USB Type A Plug | |
| **RJ45 PATCHCORDS** | | |
| 7-106 870 595-036 | Signal Patchcord, Receiver, TriPaddle, 36", CAT5e, to RJ45 Plug | |
| 7-105 870 595-036 | Signal Patchcord, ITA, TriPaddle, 36", CAT5e, to RJ45 Plug | |

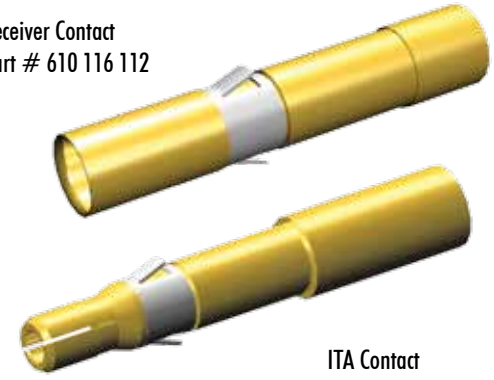
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

# Mini Power Patchcords, Contacts and Tools

## Contact Specifications

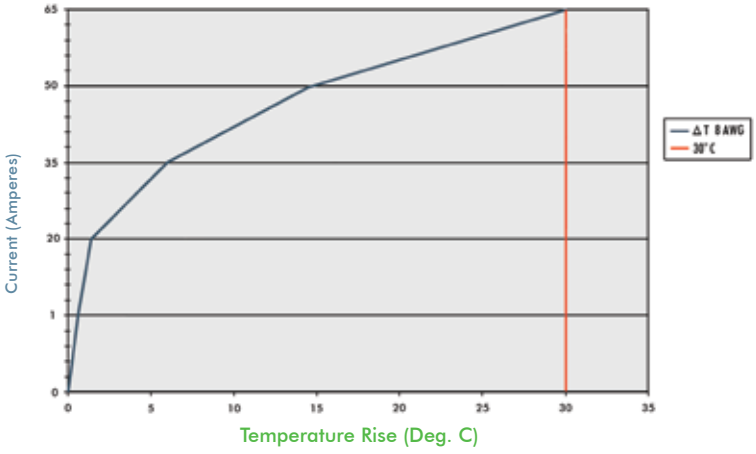
| | |
|---|---|
| Operating Current | 65 amp max. continuous • 8 AWG<br>40 amp max. continuous • 12 AWG<br>30 amp max. continuous • 14 AWG<br>25 amp max. continuous • 16 AWG |
| Contact Resistance | 1 mΩ max. |
| Mating Force | 5.7 lbs max. [2.58 kg] |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Insulation Resistance | 1000 MΩ min. |
| Contact Body Material | Female (RCV) – brass<br>Male (ITA) – BeCu |
| Contact Plating | 50μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

Receiver Contact
Part # 610 116 112



ITA Contact
Part # 610 115 124

**Mini Power Contact**
610 116 112 / 610 115 124
T-Rise Test



| Mini Power Receiver Patchcord | Mini Power ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| MINI POWER RECEIVER CONTACT | | |
| 610 116 112 | Mini Power Contact, Receiver, 8 AWG (max.), 50μ" Gold | 510 104 123/206<br>510 160 102/103/104 |
| MINI POWER ITA CONTACTS | | |
| 610 115 124 | Mini Power Contact, ITA, 8 AWG (max.), 50μ" Gold | 510 108 115/178<br>510 161 102/103/104 |
| 610 115 125 | Mini Power Contact, ITA, 8 AWG (max.), 30μ" Gold | 510 108 115/178<br>510 161 102/103/104 |
| MINI POWER RECEIVER AND ITA PATCHCORDS | | |
| 7-232 912 000-036 | Mini Power Patchcord, Receiver, 40 Amp, 36", 12 AWG, White Wire, Single Ended | 510 104 123/206<br>510 160 102/103/104 |
| 7-231 912 000-036 | Mini Power Patchcord, ITA, 40 Amp, 36", 12 AWG, White Wire, Single Ended | 510 108 115/178<br>510 160 102/103/104 |

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

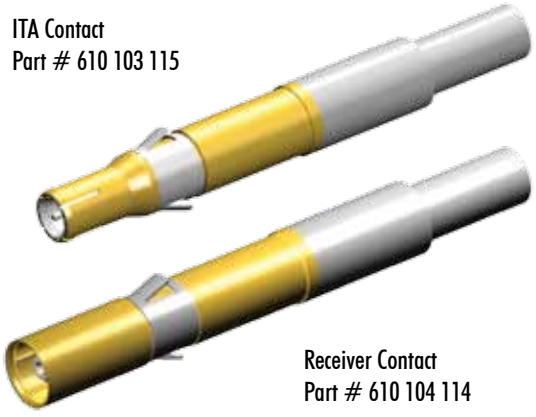
| | |
|---|---|
| EXTRACTION TOOL | |
| 910 112 104 | Tool, Extraction, Mini Power/Mini Coaxial/Mini Pneumatic Contacts, Receiver and ITA |

# 50 Ohm Mini Coaxial Patchcords and Contacts

## Contact Specifications

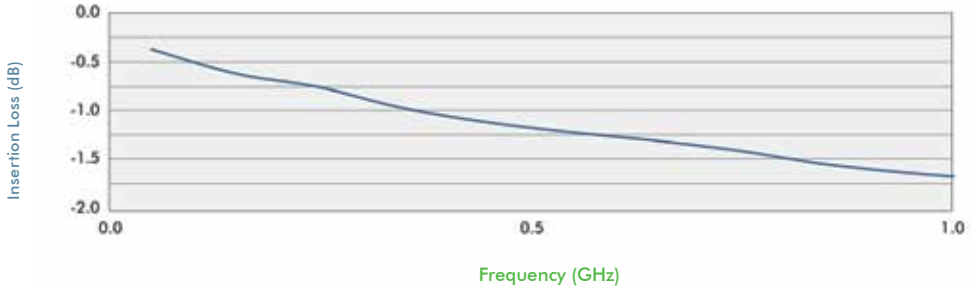
| | |
|---|---|
| Characteristic Impedance | 50 Ω |
| Frequency Range | DC to 1 GHz |
| Insertion Loss | 1.2 dB @ 1 GHz<br>1.02 dB @ 500 Mhz |
| VSWR | ≤ 1.06 @ 1 GHz |
| Operating Current | 0.5 amps max. continuous |
| Contact Resistance | 5 mΩ max. |
| Mating Force | 1.5 lbs max. [.68 kg] |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Insulation Resistance | 1000 MΩ min. |
| Contact Body | Shield – brass<br>Center conductor – BeCu |
| Contact Plating | Shield – 30μ" Au over 100μ" Ni<br>Shield (610 103 115/130/136) – 30μ" Au over 100μ" Ni<br>Center conductor – 60μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

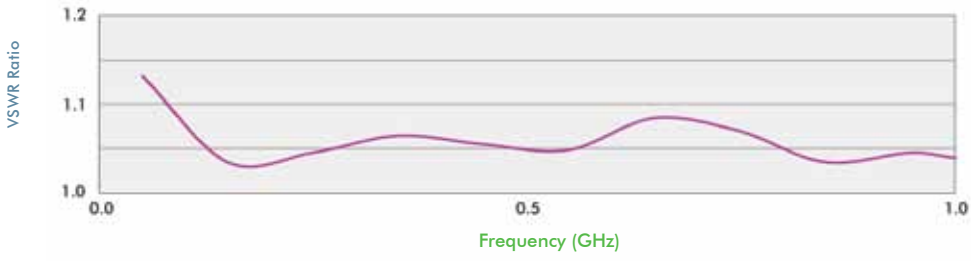
ITA Contact
Part # 610 103 115



Receiver Contact
Part # 610 104 114

**Mini Coaxial RF Response**
50 Ohm impedance
RG316 & 178 style de-embedded cable (contact only)



# 50 Ohm Mini Coaxial Patchcords and Contacts

| Mini Coaxial Receiver Patchcord | Mini Coaxial ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| **MINI COAXIAL RECEIVER CONTACTS** | | |
| 610 104 114 | Mini Coaxial Contact, Receiver, RG316 | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 610 104 140 | Mini Coaxial Contact, Receiver, with Two .025" Square Posts for Wire Wrap | 510 104 120/150/243<br>510 160 102/103/104 |
| 610 104 141 | Mini Coaxial Contact, Receiver, RG178 | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 610 104 160 | Mini Coaxial Contact, Receiver, Right Angle Posts for PCB Mount | 510 104 280 |
| 610 104 149 | Mini Coaxial Contact, Receiver, RG316 Double Shield | 510 104 120/150/243<br>510 160 102/103/104 |
| **MINI COAXIAL ITA CONTACTS** | | |
| 610 103 115 | Mini Coaxial Contact, ITA, RG316 | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 610 103 129 | Mini Coaxial Contact, ITA, with Two .025" Square Posts for Wire Wrap | 510 108 111/132/210<br>510 161 102/103/104 |
| 610 103 130 | Mini Coaxial Contact, ITA, RG178 | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 610 103 136 | Mini Coaxial Contact, ITA, 24 AWG | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 610 103 150 | Mini Coaxial Contact, ITA, with One .025" Round Post and One .02" square post, .075" Spacing | 510 108 111/132/210<br>510 161 102/103/104 |
| 610 103 152 | Mini Coaxial Contact, ITA, RG316 Double Shield | 510 108 111/132/210<br>510 161 102/103/104 |
| 610 103 161 | Mini Coaxial Contact, ITA, 24 & 26 AWG Twisted Pair | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 610 103 172 | Mini Coaxial Contact, ITA, 22 AWG | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 610 103 184 | Mini Coaxial Contact, ITA, 22 AWG, Twisted Pair | 510 108 111/132/210<br>510 161 102/132/210 |
| **MINI COAXIAL RECEIVER AND ITA PATCHCORDS** | | |
| 7-332 116 000-036 | Coaxial, Patchcord, Receiver, Mini Coaxial, 50 Ohm, 36", RG316 Tan, Single Ended | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-334 178 000-036 | Coaxial, Patchcord, Receiver, Mini Coaxial, 50 Ohm, 36", RG178 Tan, Single Ended | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-331 116 000-036 | Coaxial, Patchcord, ITA, Mini Coaxial, 50 Ohm, 36", RG316 Tan, Single Ended | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-333 178 000-036 | Coaxial, Patchcord, ITA, Mini Coaxial, 50 Ohm, 36", RG178 Tan, Single Ended | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-335 924 000-036 | Coaxial, Patchcord, ITA, Mini Coaxial, 50 Ohm, 36", 24 AWG, Single Ended | 510 108 111/132/210/276<br>510 161 102/103/104 |

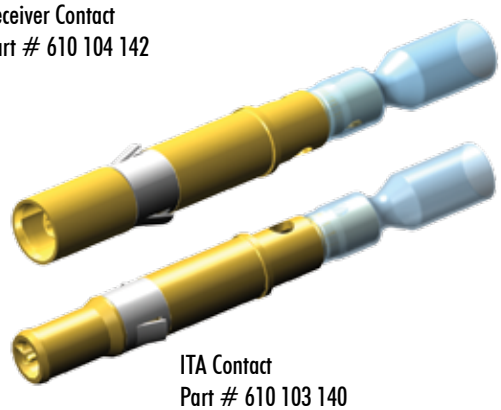
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

# 50 Ohm Mini Coaxial Solder Sleeve Patchcords and Contacts

## Contact Specifications

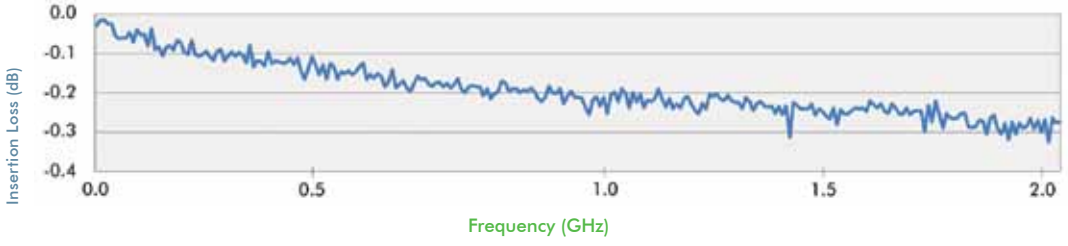
| | |
|---|---|
| Characteristic Impedance | 50 Ω |
| Frequency Range | DC to 2 GHz |
| Insertion Loss | .05 dB @ 500 Mhz<br>≥ −0.3 dB @ 2 GHz |
| VSWR | ≤ 1.2 @ 2 GHz |
| Operating Current | .5 amp max. continuous |
| Contact Resistance | 5 mΩ max. |
| Mating Force | 1.5 lbs max. [.68 kg] |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Insulation Resistance | 1000 MΩ min. |
| Contact Body | Shield – brass<br>Center Conductor – BeCu |
| Contact Plating | Shield – RCV • 30μ" Au over 100μ" Ni<br>ITA • 50μ" Au over 100μ" Ni<br>Center conductor – 60μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

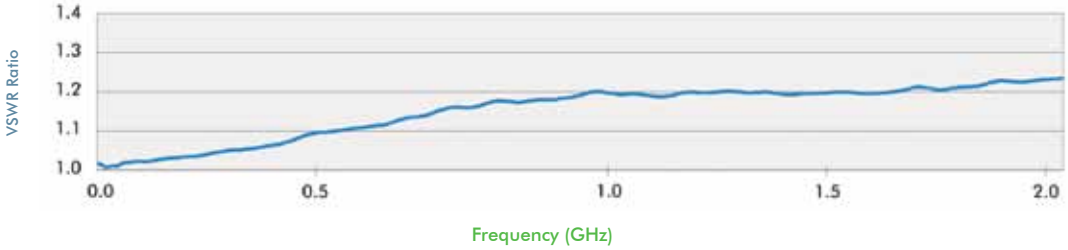
Receiver Contact
Part # 610 104 142



ITA Contact
Part # 610 103 140

**Mini Coaxial Solder Sleeve RF Response**
50 Ohm impedance
RG316 & 178 style de-embedded cable (contact only)




| Part # | Description | Used in Module |
|---|---|---|
| 50 OHM MINI COAX SOLDER SLEEVE RECEIVER CONTACT | | |
| 610 104 142 | Mini Coaxial Contact, Receiver, Solder Sleeve, RG316 & RG178 | 510 104 120/150/243<br>510 160 102/103/104 |
| 50 OHM MINI COAX SOLDER SLEEVE ITA CONTACT | | |
| 610 103 140 | Mini Coaxial Contact, ITA, Solder Sleeve, RG316 & RG178 | 510 108 111/132/210<br>510 161 102/103/104 |

# Mini Coaxial Solder Sleeve Patchcords and Mini Coaxial Tools

Mini Coaxial Solder Sleeve Receiver Patchcord

Mini Coaxial Solder Sleeve ITA Patchcord

| Part # | Description | Used in Module |
|---|---|---|
| 50 OHM MINI COAX SOLDER SLEEVE RECEIVER AND ITA PATCHCORDS | | |
| 7-338 116 000-036 | Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG316, Single Ended | 510 104 120/150/243<br>510 160 102/103/104 |
| 7-338 178 000-036 | Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG178, Single Ended | 510 104 120/150/243<br>510 160 102/103/104 |
| 7-339 116 000-036 | Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG316, Single Ended | 510 108 111/132/243<br>510 161 102/103/104 |
| 7-339 178 000-036 | Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG178, Single Ended | 510 108 111/132/243<br>510 161 102/103/104 |

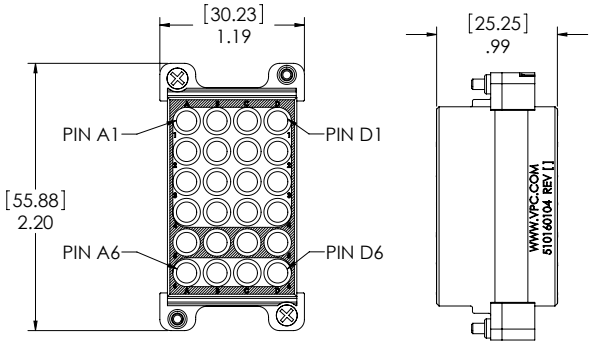
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

| Part # | Description | Used on Contact |
|---|---|---|
| CRIMP TOOLS | | |
| 910 101 115 | Tool, Crimp, Coaxial Contacts | 610 103 115/130/152/157/161<br>610 104 114/141/149 |
| 910 101 118 | Tool, Crimp, Coaxial Contacts, ITA, 24 AWG Wire | 610 103 136/161/172/184 |
| LOCATOR | | |
| 910 104 128 | Tool, Locator, Coaxial Contacts, 24 AWG Wire | 610 103 136/161/172/184 |
| EXTRACTION TOOL | | |
| 910 112 104 | Tool, Extraction, Mini Power/Mini Coaxial/Mini Pneumatic Contacts, Receiver and ITA | 610 103 115/129/130<br>610 103 136/140/150/152/161/172<br>610 104 114/140/141/142/149 |
| MINI COAXIAL FORMING TOOLS | | |
| 910 121 119 | Tool, Center Conductor Forming, Mini Coaxial, Receiver (used before assembly) | 610 104 114/141 |
| 910 121 126 | Tool, Outer Shield Conductor Forming, Mini Coaxial, ITA | 610 103 115/129/130/136<br>610 103 140/150/152/161 |
| 910 121 142 | Tool, Outer Shield Conductor Expanding, Mini Coaxial, ITA | 610 103 115/129/130/136<br>610 103 140/150/152/161 |
| 910 121 143 | Tool, Center Conductor Enlarging, Mini Coaxial, Receiver | 610 104 114/141/149 |
| MINI COAXIAL INSPECTION TOOLS | | |
| 910 121 131 | Tool, Weight Gage Kit, Mini Coaxial, Receiver | 610 104 114/140/141/142/149 |
| 910 121 155 | Tool, Weight Gage Kit, Mini Coaxial, ITA | 610 103 115/129/130/136/140<br>610 103 150/152/161 |
| 910 121 156 | Tool, Inspection Depth Gauge, Mini Coaxial, Receiver | 610 104 114/140/141/142/149 |
| 910 121 157 | Tool, Inspection Depth Gauge, Mini Coaxial, ITA | 610 103 115/129/130/136<br>610 103 140/150/152/161 |
| MISCELLANEOUS TOOLS | | |
| 910 121 144 | Tool, Solder Kit, Mini Coaxial Contacts with Solder Sleeve (includes Raychem Holding Fixture AD-1319) | 610 103 140/158<br>610 104 142 |
| 910 121 149 | Tool, Adapter for Raychem Holding Fixture (AD-1319-29) | 610 103 140/158<br>610 104 142 |
| 910 121 160 | Tool, Steinel Heat Gun with Nozzle – 110V | 610 103 140/158<br>610 104 142 |
| 910 121 167 | Tool, Steinel Heat Gun with Nozzle – 220V | 610 103 140/158<br>610 104 142 |

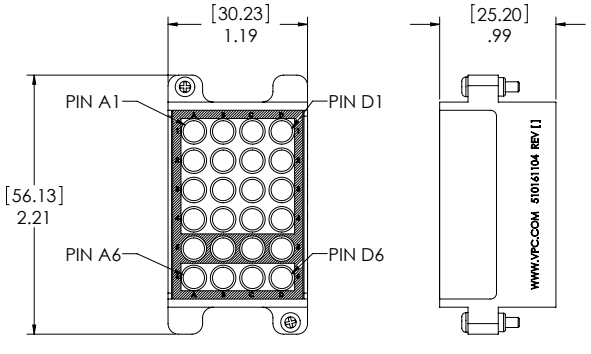
# 24 Position Mini Power and Mini Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | Black high-temp thermoplastic |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -65° C to 220° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC |
| Available Contact Positions | 24 |
| Module Positions Needed | 1 |




MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 104** | **ITA • Part # 510 161 104**

| Part # | Description | Contacts Used | |
|---|---|---|---|
| | | MINI POWER | MINI COAX |
| ICON RECEIVER MINI POWER AND MINI COAXIAL MODULE | | | |
| 510 160 104 | Mini Power and Mini Coaxial Module, Receiver, iCon, 24 Position | 610 116 112 | 610 104 114<br>610 104 140<br>610 104 141<br>610 104 142<br>610 104 149 |
| ICON ITA MINI POWER AND MINI COAXIAL MODULE | | | |
| 510 161 104 | Mini Power and Mini Coaxial Module, ITA, iCon, 24 Position | 610 115 124<br>610 115 125 | 610 103 115<br>610 103 129<br>610 103 130<br>610 103 136<br>610 103 140<br>610 103 150<br>610 103 152<br>610 103 161<br>610 103 172<br>610 103 189 |

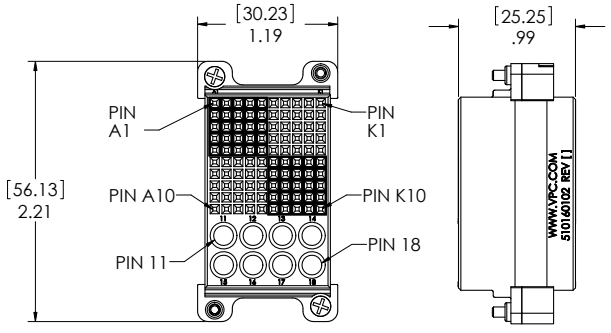
*NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) and Fiber Optic patchcords can be used with these modules.*

*NOTE: Refer to User's Manual for power applications with this module.*

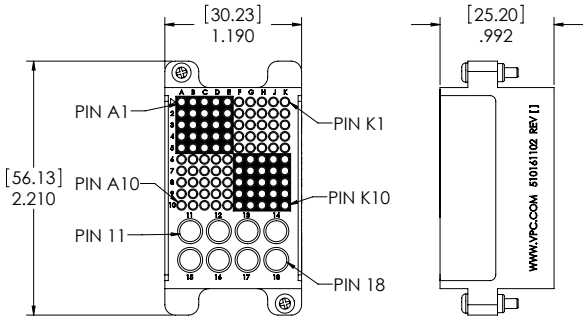
# 100/8 QuadraPaddle/Mini Power and Mini Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | Black high-temp thermoplastic |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -65° C to 220° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 100/8 |
| Module Positions Needed | 1 |




MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 102**

**ITA • Part # 510 161 102**

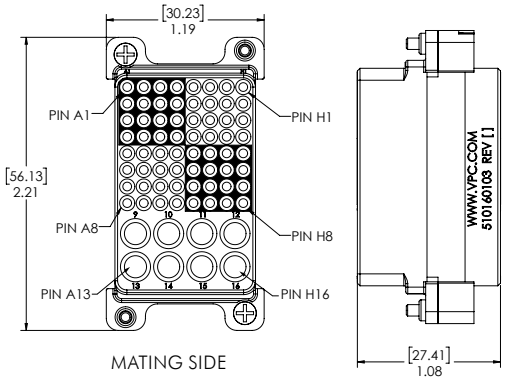
| Part # | Description | Contacts Used | | |
|---|---|---|---|---|
| | | QUADRAPADDLE | MINI POWER | MINI COAX |
| ICON RECEIVER QUADRAPADDLE/MINI POWER AND MINI COAXIAL MODULE | | | | |
| 510 160 102 | QuadraPaddle Signal/Mini Power and Mini Coaxial Module, Receiver, iCon, 100/8 Position | 610 138 216 | 610 116 112 | 610 104 114<br>610 104 140<br>610 104 141<br>610 104 142<br>610 104 149 |
| ICON ITA QUADRAPADDLE/MINI POWER AND MINI COAXIAL MODULE | | | | |
| 510 161 102 | QuadraPaddle Signal/Mini Power and Mini Coaxial Module, ITA, iCon, 100/8 Position | 610 138 109<br>610 138 122<br>610 138 112<br>610 138 115 | 610 115 124<br>610 115 125 | 610 103 115<br>610 103 129<br>610 103 130<br>610 103 136<br>610 103 140<br>610 103 150<br>610 103 152<br>610 103 161<br>610 103 172<br>610 103 184 |

*NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) and Fiber Optic patchcords can be used with these modules.*

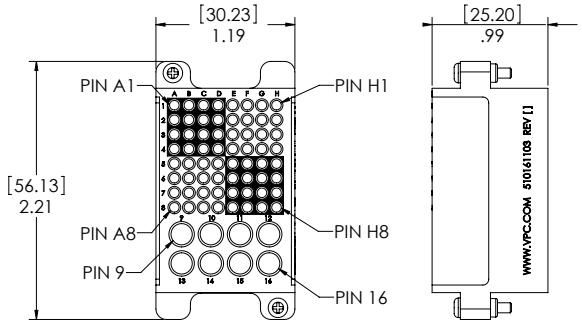
# 64/8 TriPaddle Signal/Mini Power and Mini Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | Black high-temp thermoplastic |
| ITA Material | Black filled black thermoplastic |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -65° C to 220° C |
| ITA Temperature | Operating • -55° C to 125° C<br>Non-operating • -55° C to 140° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 64/8 |
| Module Positions Needed | 1 |



MATING SIDE



WIRING SIDE

**Receiver • Part # 510 160 103**

**ITA • Part # 510 161 103**

| Part # | Description | Contacts Used | | |
|---|---|---|---|---|
| | | TRIPADDLE | MINI POWER | MINI COAX |
| ICON RECEIVER TRIPADDLE SIGNAL/MINI POWER AND MINI COAXIAL MODULE | | | | |
| 510 160 103 | TriPaddle Signal/Mini Power and Mini Coaxial Module, Receiver, iCon, 64/8 Position | 610 110 101<br>610 110 128<br>610 110 167<br>610 110 177<br>610 110 179 | 610 116 112 | 610 104 114<br>610 104 140<br>610 104 141<br>610 104 142<br>610 104 149 |
| ICON ITA TRIPADDLE SIGNAL/MINI POWER AND MINI COAXIAL MODULE | | | | |
| 510 161 103 | TriPaddle Signal/Mini Power and Mini Coaxial Module, ITA, iCon, 64/8 Position | 610 110 108<br>610 110 113<br>610 110 129<br>610 110 169 | 610 115 124<br>610 115 125 | 610 103 115<br>610 103 129<br>610 103 130<br>610 103 136<br>610 103 140<br>610 103 150<br>610 103 152<br>610 103 161<br>610 103 172<br>610 103 184 |

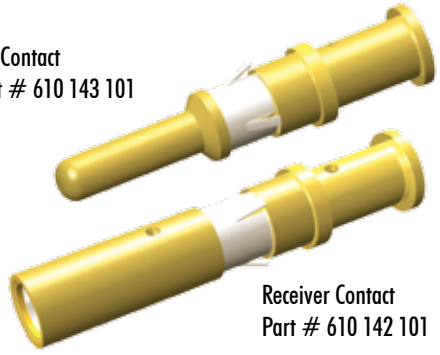
*NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) and Fiber Optic patchcords can be used with these modules.*

# Micro Power Contacts and Patchcords

## Contact Specifications

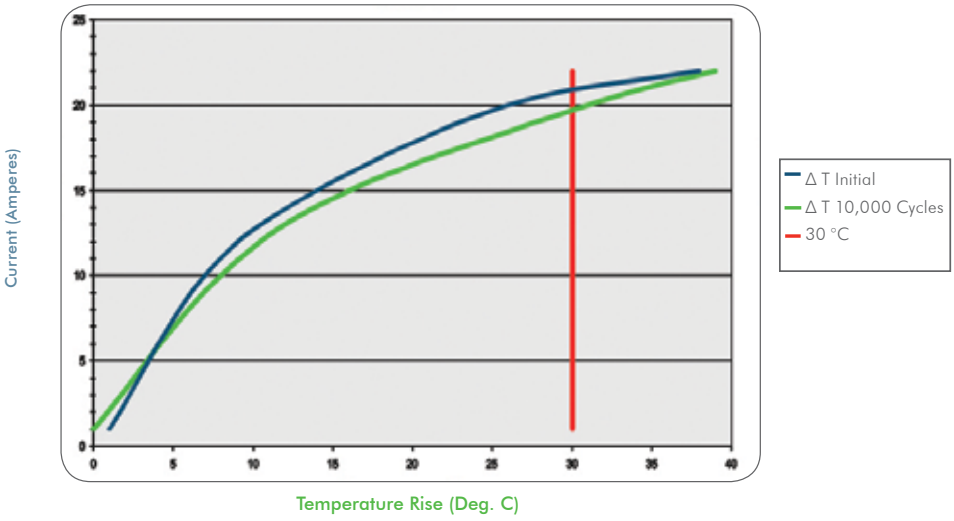
| | |
|---|---|
| Operating Current | 21 amp continuous |
| Contact Resistance | 1.5 mΩ max. |
| Mating Force | 2.0 lbs max. [.91 kg] |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Contact Body Material | Brass |
| Contact Plating | 30μ" Au over 100μ" Ni |
| Cycle Life | 10,000 cycles |

ITA Contact
Part # 610 143 101



Receiver Contact
Part # 610 142 101

**Micro Power Contact 610 142 101/610 143 101**
T-Rise Test (12 AWG)




| Part # | Description | Used in Module |
|---|---|---|
| **MICRO POWER RECEIVER CONTACTS** | | |
| 610 142 101 | Micro Power Contact, Receiver, 12-14 AWG, Crimp | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 610 142 102 | Micro Power Contact, Receiver, PCB Mount | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| **MICRO POWER ITA CONTACTS** | | |
| 610 143 101 | Micro Power Contact, ITA, 12-14 AWG, Crimp | 510 108 262/263<br>510 161 106/107/111 |
| **MICRO POWER RECEIVER AND ITA PATCHCORDS** | | |
| 7-252 912 000-036 | Power Patchcord, Receiver, Micro Power, 36", 12 AWG White, Single Ended | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 7-251 912 000-036 | Power Patchcord, ITA, Micro Power, 36", 12 AWG White, Single Ended | 510 108 262/263<br>510 161 106/107/111 |

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

**CRIMP TOOLS**

| | |
|---|---|
| 910 101 102 | Tool, Crimp, 10 Amp TriPaddle, Thermocouple, Micro Power, Receiver and ITA, Locator Required |
| 910 104 144 | Tool, Locator, Micro Power, ITA |
| 910 104 145 | Tool, Locator, Micro Power, Receiver |

**EXTRACTION TOOL**

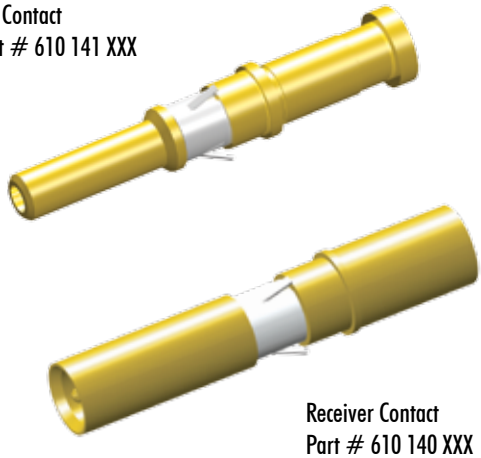
| | |
|---|---|
| 910 112 123 | Tool, Extraction, Micro Power/Micro Coaxial Contacts |

# Micro Coaxial Contacts and Patchcords

## Contact Specifications

| | |
|---|---|
| **Characteristic Impedance** | 50 Ω<br>75 Ω • for RG179<br>50 Ω • for RG316 double shield |
| **Frequency Range** | DC – 3 GHz • 50 Ω<br>DC – 2 GHz • for RG179<br>DC – 10.5 GHz • for RG316 double shield |
| **Contact Isolation** | –90 dB minimum |
| **VSWR** | 1.22 @ 3 GHz • 50 Ω<br>1.39 @ 2 GHz • for RG179<br>1.0225 +.05 f(GHz) • for RG316 double shield |
| **Mating Force** | 1.5 lbs max. [.68 kg] |
| **Insertion Loss** | – √f(GHz) x .06 dB |
| **Dielectric Withstanding Voltage (DWV)** | 800 volts RMS |
| **Contact Plating** | 50μ" Au over 100μ" Ni |
| **Cycle Life** | 10,000 cycles |

ITA Contact
Part # 610 141 XXX



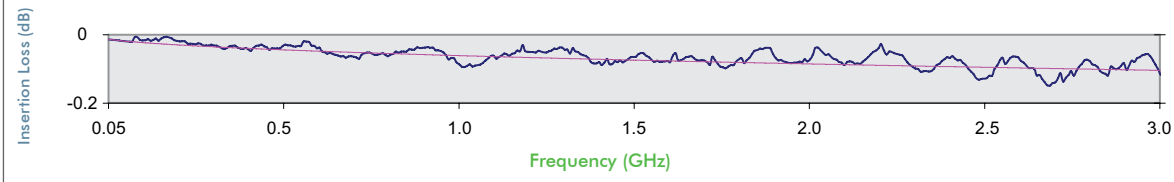
Receiver Contact
Part # 610 140 XXX

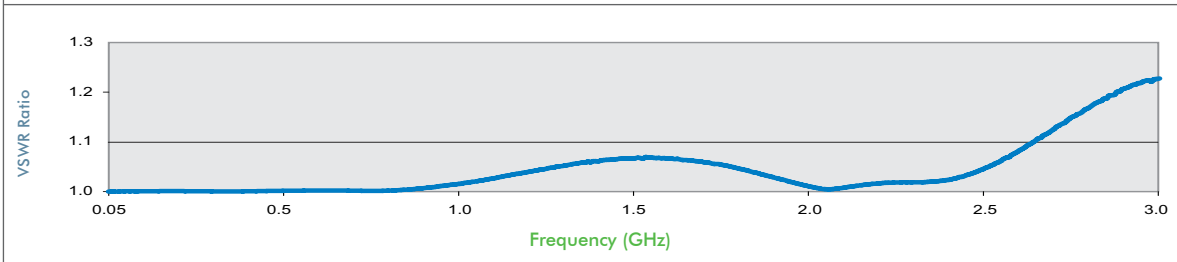
| Part # | Description | Used in Module |
|---|---|---|
| MICRO COAXIAL RECEIVER CONTACTS | | |
| 610 140 101 | Micro Coaxial Contact, Receiver, RG316, Crimp | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 610 140 102 | Micro Coaxial Contact, Receiver, RG178, Crimp | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 610 140 103 | Micro Coaxial Contact, Receiver, RG179, Crimp | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 610 140 104 | Micro Coaxial Contact, Receiver, RG316 Double Shield, Solder | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| MICRO COAXIAL ITA CONTACTS | | |
| 610 141 101 | Micro Coaxial Contact, ITA, RG316, Crimp | 510 108 262/263<br>510 161 106/107/111 |
| 610 141 102 | Micro Coaxial Contact, ITA, RG178, Crimp | 510 108 262/263<br>510 161 106/107/111 |
| 610 141 103 | Micro Coaxial Contact, ITA, RG179, Crimp | 510 108 262/263<br>510 161 106/107/111 |
| 610 141 104 | Micro Coaxial Contact, ITA, RG316 Double Shield, Solder | 510 108 262/263<br>510 161 106/107/111 |

*For information on high speed applications with 50 Ohm Micro Coaxial, visit vpc.com/highspeed*

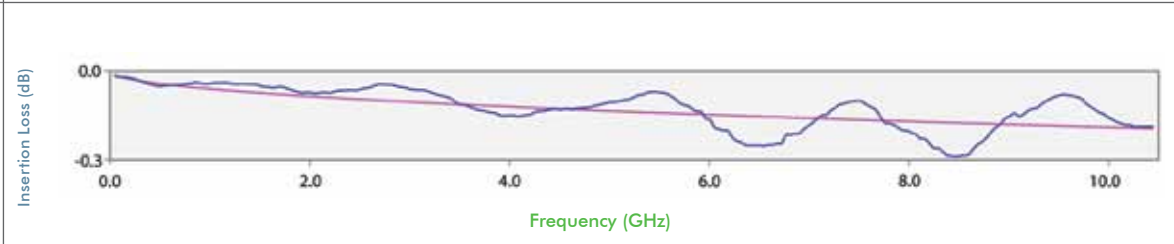
# Micro Coaxial Contacts and Patchcords

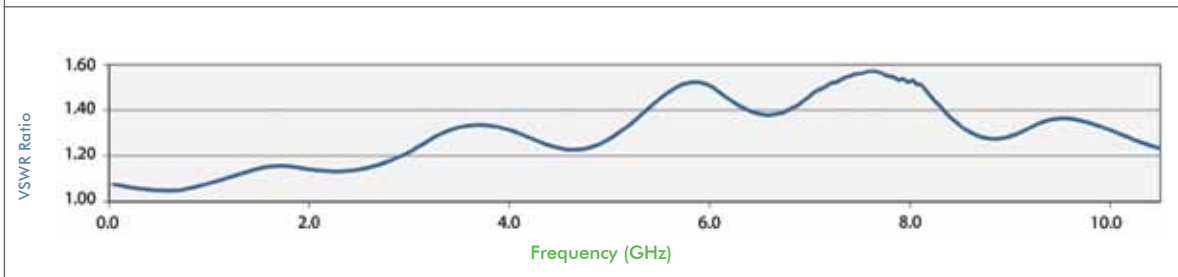
**Micro Coax RF Response**
RG316 50 Ohm impedance



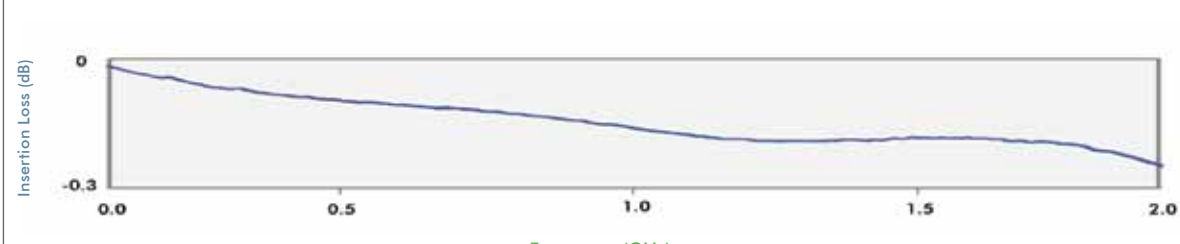



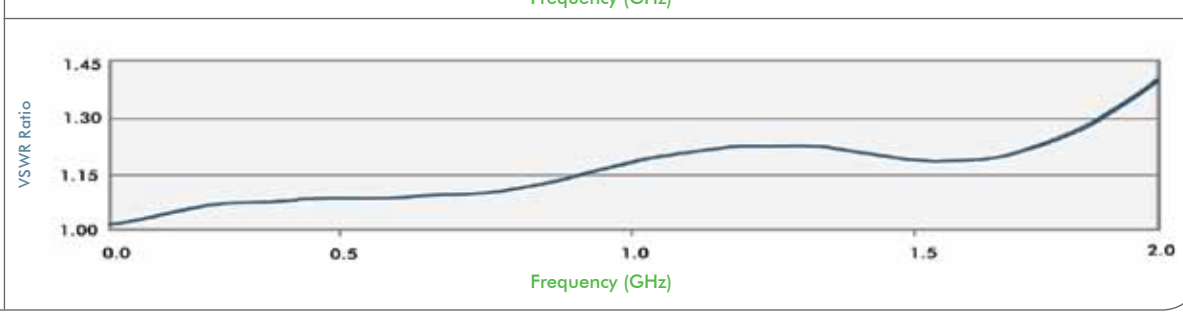

**Micro Coax RF Response**
50 Ohm impedance Double Shield
RG316DS style de-embedded cable (contact only)




**Micro Coax RF Response**
75 Ohm impedance
RG179 style de-embedded cable (contact only)



# Micro Coaxial Patchcords and Tools

| Micro Coaxial Receiver Patchcord | Micro Coaxial ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| MICRO COAXIAL RECEIVER AND ITA PATCHCORDS | | |
| 7-362 116 000-036 | Coaxial Patchcord, Receiver, Micro Coaxial, 50 Ohm, 36", RG316 Tan, Single Ended | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 7-364 178 000-036 | Coaxial Patchcord, Receiver, Micro Coaxial, 36", RG178BU Tan, Single Ended | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 7-366 179 000-036 | Coaxial Patchcord, Receiver, Micro Coaxial, 36", RG179U Tan, Single Ended | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 7-368 117 000-036 | Coaxial Patchcord, Receiver, Micro Coaxial, 36", RG316 Double Shield Tan, Single Ended | 510 104 267/270/306<br>510 160 106/107/111/112/113 |
| 7-361 116 000-036 | Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Tan, Single Ended | 510 108 262/263<br>510 161 106/107/111 |
| 7-363 178 000-036 | Coaxial Patchcord, ITA, Micro Coaxial, 36", RG178BU Tan, Single Ended | 510 108 262/263<br>510 161 106/107/111 |
| 7-365 179 000-036 | Coaxial Patchcord, ITA, Micro Coaxial, 36", RG179U Tan, Single Ended | 510 108 262/263<br>510 161 106/107/111 |
| 7-367 117 000-036 | Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Double Shield Tan, Single Ended | 510 108 262/263<br>510 161 106/107/111 |

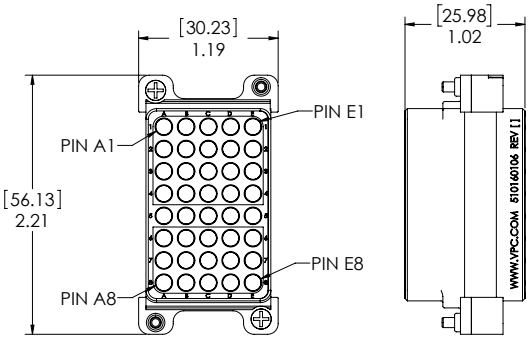
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

| Part # | Description | Used on Contact |
|---|---|---|
| CRIMP TOOLS | | |
| 910 101 131 | Tool, Crimp, Micro Coaxial RG178, Receiver and ITA | 610 140 102 & 610 141 102 |
| 910 101 132 | Tool, Crimp, Micro Coaxial RG179 & RG316, Receiver and ITA | 610 140 101/103<br>610 141 101/103 |
| 910 101 135 | Tool, Locator, Micro Coaxial, Receiver | 610 142 101/102 |
| 910 101 139 | Tool, Locator, Micro Coaxial, ITA | 610 143 101 |
| INSPECTION TOOLS | | |
| 910 121 179 | Tool, Inspection Depth Gage, Micro Coaxial, Receiver | 610 140 101/102/103/104 |
| 910 121 180 | Tool, Inspection Depth Gage, Micro Coaxial, ITA | 610 141 101/102/103/104 |
| EXTRACTION TOOL | | |
| 910 112 123 | Tool, Extraction, Micro Power/Micro Coaxial Contacts | 610 140 101/102/103/104<br>610 141 101/102/103/104 |
| SOLDERING FIXTURE | | |
| 910 121 178 | Tool, Soldering Fixture, Micro Coaxial, Receiver and ITA | 610 140 101/102/103/104<br>610 141 101/102/103/104 |

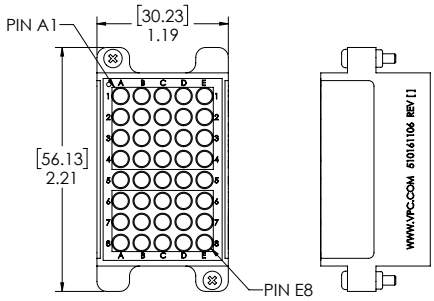
# 40 Position Micro Power and Micro Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | Black high-temp thermoplastic |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -65° C to 220° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 40 |
| Module Positions Needed | 1 |




MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 106** | **ITA • Part # 510 161 106**

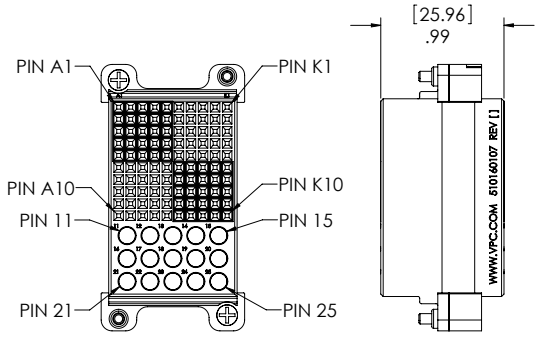
| Part # | Description | Contacts Used | |
|---|---|---|---|
| | | MICRO POWER | MICRO COAX |
| ICON RECEIVER MICRO POWER AND MICRO COAX MODULE | | | |
| 510 160 106 | Micro Power and Micro Coaxial Module, Receiver, iCon, 40 Position | 610 142 101/102 | 610 140 101/102<br>610 140 103/104 |
| ICON ITA MICRO POWER AND MICRO COAX MODULE | | | |
| 510 161 106 | Micro Power and Micro Coaxial Module, ITA, iCon, 40 Position | 610 143 101 | 610 141 101/102<br>610 141 103/104 |

*NOTE: Refer to User's Manual for power applications with this module.*

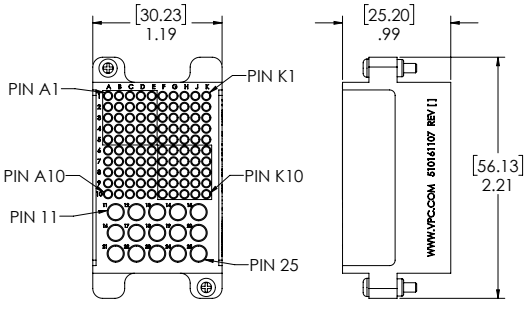
# 100/15 QuadraPaddle/Micro Power and Micro Coaxial Modules

## Module Specifications

| | |
|---|---|
| Receiver/ITA Module Material | Black high-temp thermoplastic |
| Receiver/ITA Module Temperature | Operating • -55° C to 125° C<br>Non-operating • -65° C to 220° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available QuadraPaddle Positions | 100 |
| Available Micro Power/Micro Coaxial Positions | 15 |
| Module Positions Needed | 1 |



MATING SIDE



WIRING SIDE

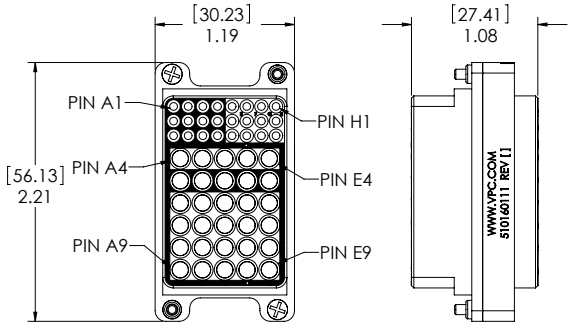
**Receiver • Part # 510 160 107** | **ITA • Part # 510 161 107**

| Part # | Description | Contacts Used | | |
|---|---|---|---|---|
| | | QUADRAPADDLE | MICRO POWER | MICRO COAX |
| ICON RECEIVER QUADRAPADDLE/MICRO POWER AND MICRO COAXIAL MODULE | | | | |
| 510 160 107 | QuadraPaddle Signal / Micro Power and Micro Coaxial Module, Receiver, iCon, 100/15 Position, for Crimp Contacts | 610 138 216<br>610 138 116 | 610 142 101<br>610 142 102 | 610 140 101<br>610 140 102<br>610 140 103<br>610 140 104 |
| 510 160 112 | QuadraPaddle Signal / Micro Power and Micro Coaxial Module, Receiver, iCon, 100/15 Position, with Twin Female Signal Contacts (610 138 200) | 610 138 200<br>610 138 117<br>610 138 118<br>610 138 100 | 610 142 101<br>610 142 102 | 610 140 101<br>610 140 102<br>610 140 103<br>610 140 104 |
| 510 160 113 | QuadraPaddle Signal / Micro Power and Micro Coaxial Module, Receiver, iCon, 100/15 Position, Fully Loaded with Twin Female Contacts and Round Posts (610138200 and 610138117) | 610 138 200<br>610 138 117 | 610 142 101<br>610 142 102 | 610 140 101<br>610 140 102<br>610 140 103<br>610 140 104 |
| ICON ITA QUADRAPADDLE/MICRO POWER AND MICRO COAXIAL MODULE | | | | |
| 510 161 107 | QuadraPaddle Signal / Micro Power and Micro Coaxial Module, ITA, iCon, 100/15 Position | 610 138 109<br>610 138 122<br>610 138 112<br>610 138 115 | 610 143 101 | 610 141 101<br>610 141 102<br>610 141 103<br>610 141 104 |

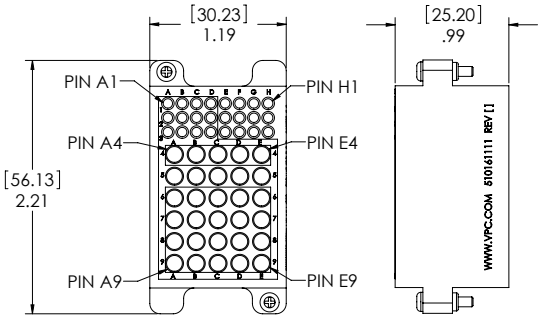
# 24/30 TriPaddle Signal/Micro Power and Micro Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | G10 epoxy glass |
| Temperature | Operating • -55°C to 125°C<br>Non-operating • -55°C to 140°C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 24/30 |
| Module Positions Needed | 1 |




MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 111**

**ITA • Part # 510 161 111**

| Part # | Description | Contacts Used | | |
|---|---|---|---|---|
| | | TRIPADDLE | MICRO POWER | MICRO COAX |
| ICON RECEIVER TRIPADDLE SIGNAL/MICRO POWER AND MICRO COAXIAL MODULE | | | | |
| 510 160 111 | TriPaddle Signal/Micro Power and Micro Coaxial Module, Receiver, iCon, 24/30 Position | 610 110 101<br>610 110 128<br>610 110 167<br>610 110 177<br>610 110 179 | 610 142 101<br>610 142 102 | 610 140 101<br>610 140 102<br>610 140 103<br>610 140 104 |
| ICON ITA TRIPADDLE SIGNAL/MICRO POWER AND MICRO COAXIAL MODULE | | | | |
| 510 161 111 | TriPaddle Signal/Micro Power and Micro Coaxial Module, ITA, iCon, 24/30 Position | 610 110 108<br>610 110 113<br>610 110 129<br>610 110 169 | 610 143 101 | 610 141 101<br>610 141 102<br>610 141 103<br>610 141 104 |

*NOTE: Refer to User's Manual for power applications with this module.*

# High Power Contacts and Patchcords

## Contact Specifications

| | |
|---|---|
| Operating Current | 150 amp continuous (using 2 AWG wire) |
| Contact Resistance | .35 mΩ |
| Mating Force | 2.5 lbs max. [1.13 kg] |
| Operating Voltage | 600V |
| Operating Temperature | -40°C to 125 °C |
| T-Rise | +40°C at 150 amps<br>+30°C at 125 amps |
| Contact Body Material | Cu alloy<br>Internal contact beams - Cu alloy |
| Contact Plating | Body - 30μ" Au over 100μ" Ni<br>Internal contact beams - 5μ" Ag over 50μ" Ni |
| Contact Termination | Crimp |
| Cycle Life | 10,000 cycles |

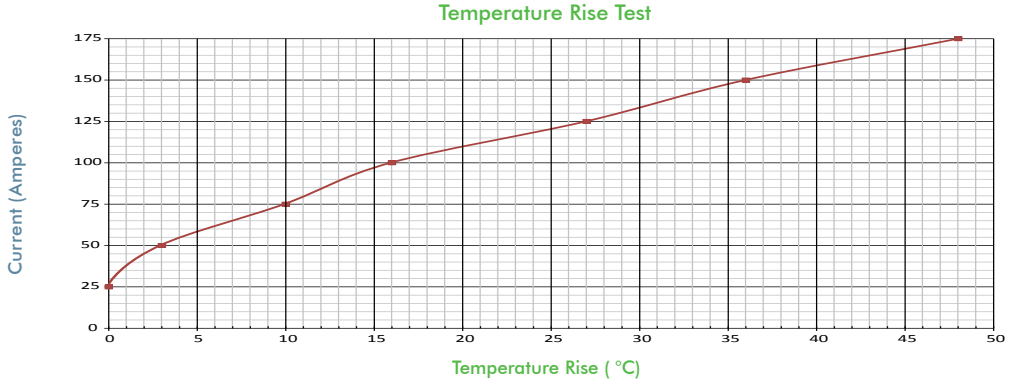
Receiver Contact • Part # 610 149 101

ITA Contact • Part # 610 150 101

150 Amp High Power Receiver Patchcord | 150 Amp High Power ITA Patchcord

**Temperature Rise Test**

150 Amp High Power Contacts

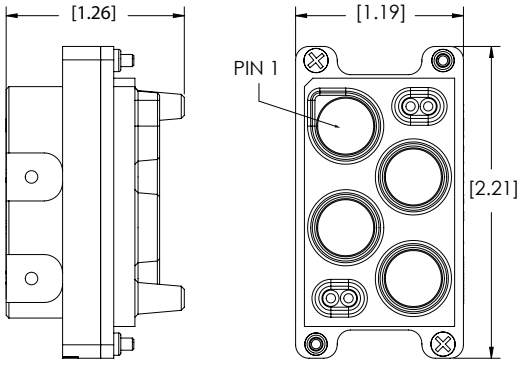


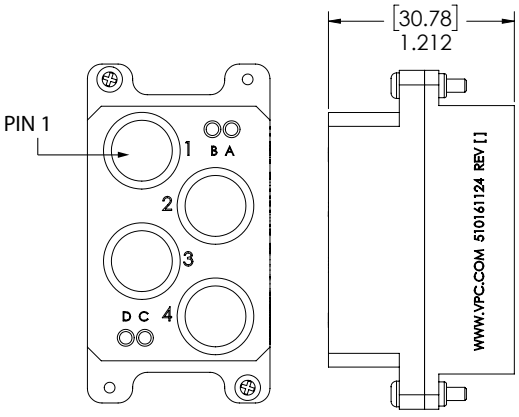

| Part # | Description | Used in Module |
|---|---|---|
| **150 AMP HIGH POWER RECEIVER CONTACT** | | |
| 610 149 101 | High Power Contact, Receiver, 150 Amps, 2 AWG, 30μ" Gold | 510 104 307<br>510 160 124 |
| **150 AMP HIGH POWER ITA CONTACT** | | |
| 610 150 101 | High Power Contact, ITA, 150 Amps, 2 AWG, 30μ" Gold | 510 108 281<br>510 161 124 |
| **150 AMP HIGH POWER RECEIVER AND ITA PATCHCORDS** | | |
| 7-221 902 000-036 | High Power Contact, Receiver, 150 Amps, 36", 2 AWG, Single Ended | 510 104 307<br>510 160 307 |
| 7-222 902 000-036 | High Power Contact, ITA, 150 Amps, 36", 2 AWG, Single Ended | 510 108 281<br>510 161 124 |
| **CRIMP TOOLS** | | |
| 910 102 116 | Tool, Crimp Kit (Pneumatic Crimp Tool, Locator and Die), High Power, Receiver and ITA | |
| 910 102 117 | Tool, Crimp Kit (Locator and Die), High Power, Receiver and ITA | |
| **EXTRACTION TOOL** | | |
| 910 112 129 | Tool, Extraction, High Power, Receiver and ITA | |

# High Power iCon Modules

## Module Specifications

| | |
|---|---|
| Receiver Material | G10 epoxy glass |
| Receiver Temperature | Operating • –55° C to 125° C<br>Non-operating • –55° C to 140° C |
| ITA Material | G10 epoxy glass |
| ITA Temperature | Operating • –55° C to 125° C<br>Non-operating • –65° C to 140°C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 4 signal/4 high power |
| Module Positions Needed | 1 |




Receiver • Part # 510 160 124

ITA • Part # 510 161 124

| Part # | Description | Contacts Used |
|---|---|---|
| **HIGH POWER ICON RECEIVER MODULES** | | |
| 510 160 124 | TriPaddle Signal/High Power Module, Receiver, iCon, 4/4 Position | 610 149 101 |
| 510 109 572 | Strain Relief Plate, iCon High Power, Receiver | |
| **HIGH POWER ICON ITA MODULE** | | |
| 510 161 124 | TriPaddle Signal/High Power Module, ITA, iCon, 4/4 Position | 610 150 101 |

# 75 Ohm Coaxial Contacts and Patchcords

## Contact Specifications

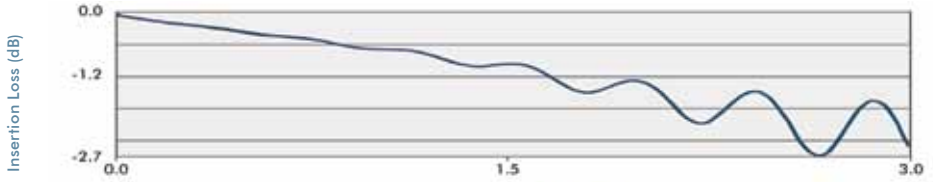
| | |
|---|---|
| Characteristic Impedance | 75 Ω |
| Frequency Range | DC to 3 GHz |
| Insertion Loss | -1.64 dB @ 3 GHz |
| VSWR | < 2.95 @ 3 GHz |
| Operating Current | 3.0 amp DC max. continuous |
| Contact Resistance | Center contact – 5 mΩ<br>Outer shield – 3 mΩ |
| Mating Force | 4.0 lbs max. [1.81 kg] |
| Dielectric Withstanding Voltage (DWV) | 800 volts RMS |
| Insulation Resistance | 1000 MΩ min. |
| Contact Body Material | Female & male shield • brass<br>Center contact • BeCu |
| Contact Plating | Center conductor shield • 30μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

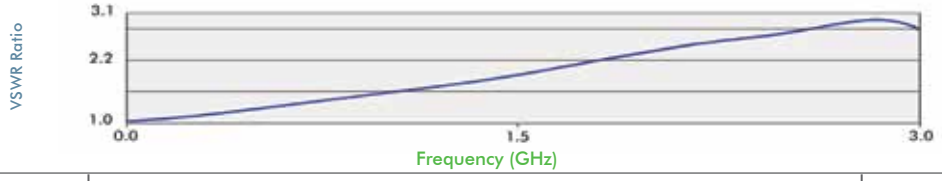
Receiver Contact • Part # 610 104 157

ITA Contact • Part # 610 103 169

75 Ohm Coaxial Receiver Patchcord | 75 Ohm Coaxial ITA Patchcord

**75 Ohm Coaxial RF Response**
75 Ohm impedance
RG179 style de-embedded cable (contact only)




| Part # | Description | Used in Module |
|---|---|---|
| **75 OHM COAXIAL RECEIVER CONTACT** | | |
| 610 104 157 | Coaxial Contact, Receiver, 75 Ohm, RG179, Crimp | 510 104 249 |
| **75 OHM COAXIAL ITA CONTACT** | | |
| 610 103 169 | Coaxial Contact, ITA, 75 Ohm, RG179, Crimp | 510 108 179 |
| **75 OHM COAXIAL RECEIVER AND ITA PATCHCORDS** | | |
| 7-382 179 000-036 | Coaxial Patchcord, Receiver, 75 Ohm, 36", RG179, Single Ended | 510 104 249 |
| 7-381 179 000-036 | Coaxial Patchcord, ITA, 75 Ohm, 36", RG179, Single Ended | 510 108 179 |
| ** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.* | | |
| **CRIMP TOOLS** | | |
| 910 102 106 | Tool Kit, 75 Ohm Coaxial Contacts, Receiver | |
| 910 102 107 | Tool Kit, 75 Ohm Coaxial, ITA | |
| 910 104 139 | Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial, Receiver and ITA Contacts | |
| **EXTRACTION TOOL** | | |
| 910 112 117 | Tool, Extraction, for 75 Ohm and 20/26 GHz Receiver and ITA Contacts | |

# 75 Ohm High Definition (HD) Coaxial Patchcords and Contacts

## Contact Specifications

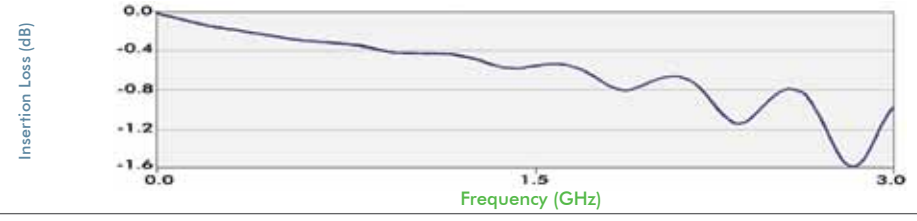
| | |
|---|---|
| Characteristic Impedance | 75 Ω |
| Frequency Range | DC to 3 GHz |
| Insertion Loss | -.86 dB @ 3 GHz |
| VSWR | < 2.26 @ 3 GHz |
| Operating Current | 3.0 amp DC max. continuous |
| Contact Resistance | Center contact – 5 mΩ<br>Outer shield – 3 mΩ |
| Mating Force | |
| Dielectric Withstanding Voltage (DWV) | 800 VDC min. |
| Insulation Resistance | 1000 MΩ min. |
| Contact Body Material | Female & male shield • brass<br>Center contact • BeCu |
| Contact Plating | Center conductor shield • 30μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

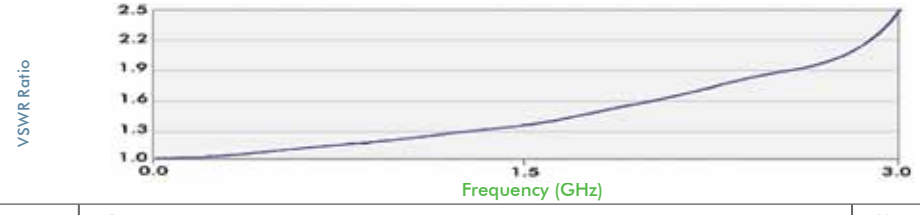
Receiver Contact • Part # 610 102 133

ITA Contact • Part # 610 102 132

75 Ohm HD Coaxial Receiver Patchcord | 75 Ohm HD Coaxial ITA Patchcord

**75 Ohm HD Coaxial RF Response**
75 Ohm impedance
de-embedded cable (contact only)




| Part # | Description | Used in Module |
|---|---|---|
| **75 OHM HD COAXIAL RECEIVER CONTACT** | | |
| 610 102 133 | Coaxial Contact, Receiver, 75 Ohm HD, sm59/U Belden 1855A, 3 GHz, Crimp | 510 104 251<br>510 160 114/115 |
| **75 OHM HD COAXIAL ITA CONTACT** | | |
| 610 102 132 | Coaxial Contact, ITA, 75 Ohm HD, sm59/U Belden 1855A, 3 GHz, Crimp | 510 108 179<br>510 161 114/115 |
| **75 OHM HD COAXIAL RECEIVER AND ITA PATCHCORDS** | | |
| 7-412 873 000-036 | Coaxial Patchcord, Receiver, 75 Ohm HD, 36" sm59/U Belden 1855A, Single Ended | 510 104 251<br>510 160 114/115 |
| 7-411 873 000-036 | Coaxial Patchcord, ITA, 75 Ohm HD, 36", sm59/U Belden 1855A, Single Ended | 510 108 179<br>510 161 114/115 |

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

| | |
|---|---|
| **CRIMP TOOL** | |
| 910 104 139 | Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial, Receiver and ITA |
| **EXTRACTION TOOL** | |
| 910 112 117 | Tool, Extraction, 75 Ohm and 20/26 GHz Coaxial, Receiver and ITA |

# 20/26 GHz Coaxial Contacts and Patchcords

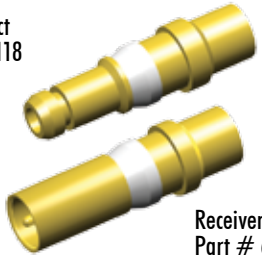
## Contact Specifications

| | |
|---|---|
| Characteristic Impedance | 50 Ω |
| Frequency Range | DC to 26 GHz |
| Insertion Loss | .06 x√f(GHz) dB |
| VSWR | 1.15 + .01 (f) GHz (w/ SF142 [20 GHz])<br>1.25 for 2 – 18 GHz (w/ TF402)<br>1.30 for 18 – 26 GHz (w/ TF402) |
| Operating Current | 5 Amps DC max. continuous |
| Contact Isolation | > –90 dB over frequency range |
| Contact Resistance | 4 mΩ max. center conductor<br>2 mΩ max. shield |
| Mating Force | 4.0 lbs max. [1.81 kg] |
| Dielectric Withstanding Voltage (DWV) | 800 volts RMS shield to center contact<br>1000 volts RMS contact to contact |
| Insulation Resistance | 2000 MΩ min. |
| Contact Body Material | Female & male plug (RCV & ITA)<br>Shield – brass<br>Center conductor – BeCu |
| Contact Plating | 30μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

ITA Crimp Contact
Part # 610 102 110

Receiver Crimp Contact
Part # 610 102 109

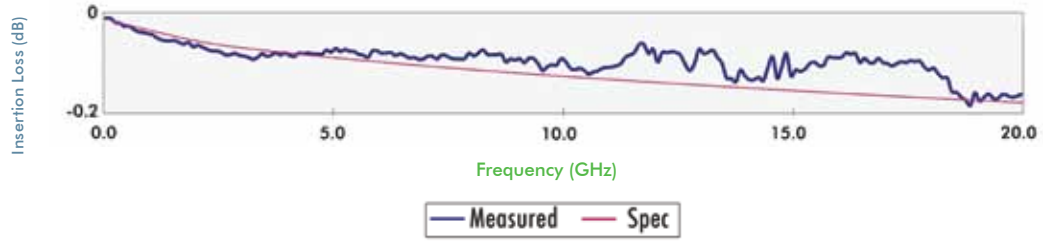
ITA Solder Contact
Part # 610 102 118

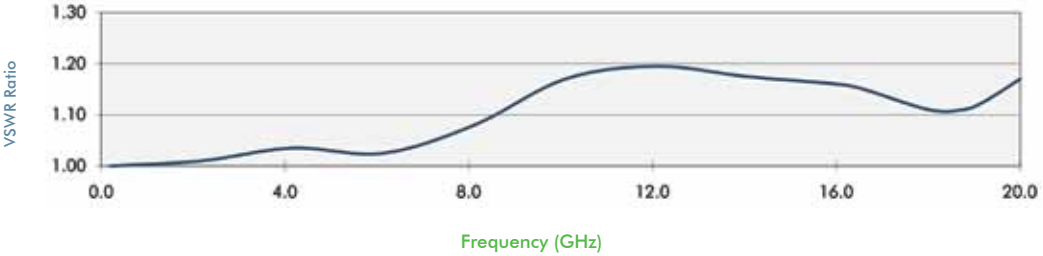


Receiver Solder Contact
Part # 610 102 119

For applications in which a more flexible cable is needed, use Flex 402 patchcords. Flex 402 cable has half the minimum bend radius as SF142. When flexibility is not as important, use our crimp contact with SF142 cable.

**20/26 GHz Coaxial RF Response**
50 Ohm impedance
SF142 style de-embedded cable (contact only)



# 20/26 GHz Coaxial Contacts and Patchcords

20/26 GHz Coaxial Receiver Patchcord • SF142B

20/26 GHz Coaxial ITA Patchcord • SF142B

20/26 GHz Coaxial Receiver Patchcord • Flex 402

20/26 GHz Coaxial ITA Patchcord • Flex 402

| Part # | Description | Used in Module |
|---|---|---|
| **20/26 GHZ COAXIAL RECEIVER CONTACTS** | | |
| 610 102 109 | Coaxial Contact, Receiver, 20/26 GHz, SF142B, Crimp/Clamp | 510 104 251 |
| 610 102 119 | Coaxial Contact, Receiver, 20/26 GHz, Flex 402, Solder (available only in patchcords) | 510 104 251/289<br>510 160 114/115 |
| **20/26 GHZ COAXIAL ITA CONTACTS** | | |
| 610 102 110 | Coaxial Contact, ITA, 20/26 GHz, SF142B, Crimp/Clamp | 510 108 179<br>510 161 114/115 |
| 610 102 118 | Coaxial Contact, ITA, 20/26 GHz, Flex 402, Solder (available only in patchcords) | 510 108 179<br>510 161 114/115 |
| **20/26 GHZ COAXIAL RECEIVER AND ITA PATCHCORDS** | | |
| 7-384 143 000-036 | 20/26 GHz Coaxial Patchcord, Receiver, 50 Ohm, 36", SF142B, Single Ended | 510 104 251 |
| 7-388 102 000-036 | 20/26 GHz Coaxial Patchcord, Receiver, 50 Ohm, 36", Flex 402, Single Ended | 510 104 251<br>510 160 114/115 |
| 7-383 143 000-036 | 20/26 GHz Coaxial Patchcord, ITA, 50 Ohm, 36", SF142B, Single Ended | 510 108 179 |
| 7-387 102 000-036 | 20/26 GHz Coaxial Patchcord, ITA, 50 Ohm, 36", Flex 402, Single Ended | 510 108 179<br>510 161 114/115 |

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

**CRIMP TOOL**

| | |
|---|---|
| 910 101 124 | Tool, Crimp, 20/26 GHz Coaxial Contacts, Receiver and ITA |

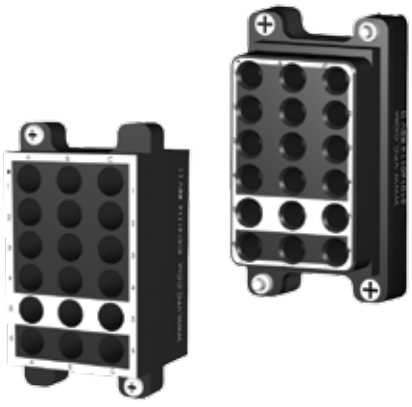
**EXTRACTION TOOL**

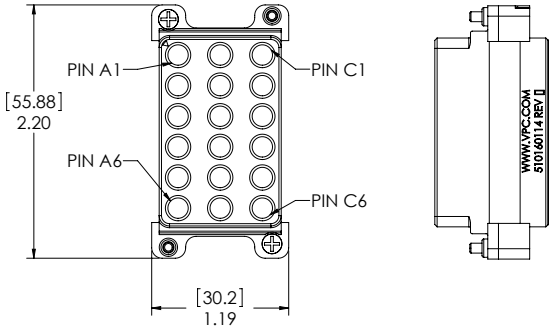
| | |
|---|---|
| 910 112 117 | Tool, Extraction, 75 Ohm and 20/26 GHz Coaxial Contacts, Receiver and ITA |

# 18 Position 20/26 GHz and 75 Ohm HD Coaxial Modules

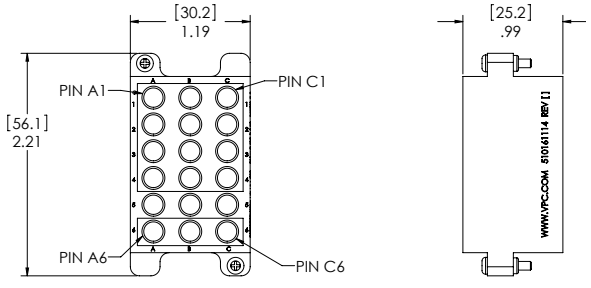
## Module Specifications

| | |
|---|---|
| Material | G10 epoxy glass |
| Temperature | Operating • -55°C to 125°C<br>Non-operating • -55°C to 140°C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 18 |
| Module Positions Needed | 1 |






MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 114** | **ITA • Part # 510 161 114**

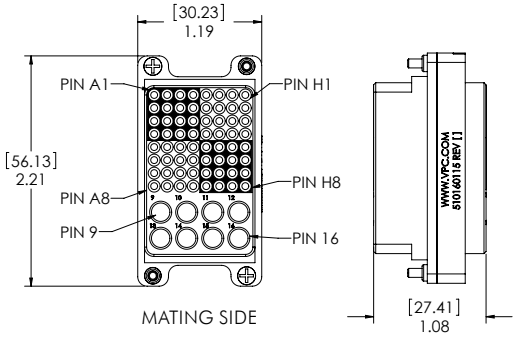
| Part # | Description | Contacts Used 20/26 GHz | Contacts Used 75 OHM HD |
|---|---|---|---|
| ICON RECEIVER 20/26 GHZ AND 75 OHM HD COAXIAL MODULE | | | |
| 510 160 114 | Coaxial Module, Receiver, iCon, 20/26 GHz/75 Ohm HD, 18 Position | 610 102 119 (patchcord only) | 610 102 133 |
| ICON ITA 20/26 GHZ AND 75 OHM HD COAXIAL MODULE | | | |
| 510 161 114 | Coaxial Module, ITA, iCon, 20/26 GHz/75 Ohm HD, 18 Position | 610 102 118 (patchcord only) | 610 102 132 |

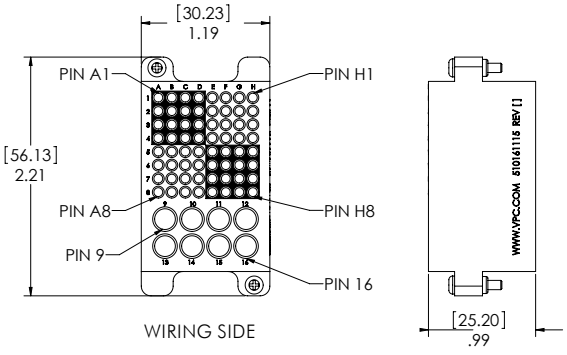
*NOTE: Refer to User's Manual for power applications with this module.*

# 64/8 TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Modules

## Module Specifications

| | |
|---|---|
| Material | G10 epoxy glass |
| Temperature | Operating • -55°C to 125°C<br>Non-operating • -55°C to 140°C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 64/8 |
| Module Positions Needed | 1 |




**Receiver • Part # 510 160 115** | **ITA • Part # 510 161 115**

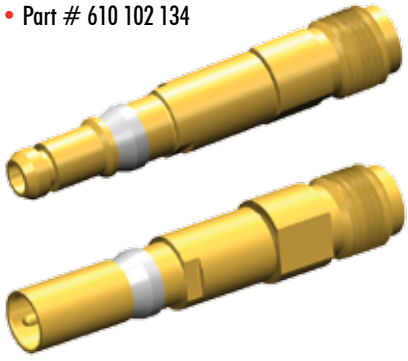
| Part # | Description | Contacts Used | | |
|---|---|---|---|---|
| | | TRIPADDLE | 20/26 GHz | 75 OHM HD |
| ICON RECEIVER TRIPADDLE SIGNAL / 20/26 GHZ & 75 OHM HD COAXIAL MODULE | | | | |
| 510 160 115 | TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Module, Receiver, iCon, 64/8 Position | 610 110 101<br>610 110 128<br>610 110 167<br>610 110 177<br>610 110 179 | 610 102 119<br>(patchcord only) | 610 102 133 |
| ICON ITA TRIPADDLE SIGNAL / 20/26 GHZ COAXIAL MODULE | | | | |
| 510 161 115 | TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Module, ITA, iCon, 64/8 Position | 610 110 108<br>610 110 113<br>610 110 129<br>610 110 169 | 610 102 118<br>(patchcord only) | 610 102 132 |

# 20/26 GHz Coaxial SMA Contacts

## Contact Specifications

| | |
|---|---|
| Characteristic Impedance | 50 Ω |
| Frequency Range | DC to 26 GHz |
| Insertion Loss | .06 x√f(GHz) dB |
| VSWR | 1.15 + .01 (f) GHz |
| Operating Current | 5 Amp DC max. continuous |
| Contact Isolation | > –90 dB over frequency range |
| Mating Force | 4.0 lbs max. [1.81 kg] |
| Contact Resistance | 5 mΩ max. center conductor<br>3 mΩ max. shield |
| Dielectric Withstanding Voltage (DWV) | 800 volts RMS shield to center contact<br>1000 volts RMS contact to contact |
| Insulation Resistance | 2000 MΩ min. |
| Contact Body Material | Shield – brass<br>Center conductor – BeCu |
| Contact Plating | 30μ" Au over 100μ" Ni |
| Cycle Life | 20,000 cycles |

ITA Contact • Part # 610 102 134



Receiver Contact • Part # 610 102 135

| 20/26 GHz Coaxial SMA Receiver Patchcord | 20/26 GHz Coaxial SMA ITA Patchcord |
|---|---|

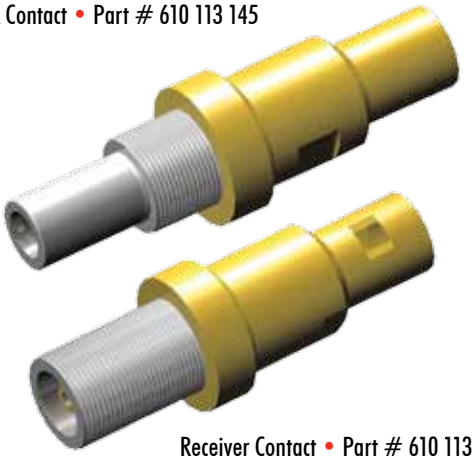
| Part # | Description | Used in Module |
|---|---|---|
| 20/26 GHZ COAXIAL RECEIVER CONTACT | | |
| 610 102 135 | Coaxial Contact, Receiver, 20/26 GHz with SMA Adapter | 510 104 287 |
| 20/26 GHZ COAXIAL ITA CONTACT | | |
| 610 102 134 | Coaxial Contact, ITA, 20/26 GHz with SMA Adapter | 510 108 240 |
| 20/26 GHZ COAXIAL SMA PATCHCORDS | | |
| 7-528 143 000-036 | Coaxial Patchcord, SMA Plug, 36", SF142B Tan, Single Ended | |
| 7-531 102 000-036 | Coaxial Patchcord, SMA Plug, 36", Flex 402 Blue, Single Ended | |

# Twinaxial Contacts and Patchcords

## Contact Specifications

| | |
|---|---|
| **Operating Current and Voltage** | 3 amp max. continuous<br>480 RMS |
| **Contact Resistance** | Center contact is < 6.5 mΩ;<br>Intermediate contact is < 3 mΩ;<br>Outer contact is < 3.5 mΩ |
| **Insertion Loss** | −0.044 dB @ 0.2 GHz |
| **VSWR** | Approximately 1.1:1 @ 100 MHz |
| **Insulation Resistance** | 106 MΩ min. |
| **Mating Force** | 3.5 lbs max. [1.59 kg] |
| **Contact Body Material** | Outer shell • brass<br>Inner shield • bronze<br>Male contact • brass |
| **Contact Plating** | 40μ" Au over 130μ" Ni |
| **Cycle Life** | 20,000 cycles |

ITA Contact • Part # 610 113 145



Receiver Contact • Part # 610 113 144

| Twinaxial Receiver Patchcord | Twinaxial ITA Patchcord |
|---|---|

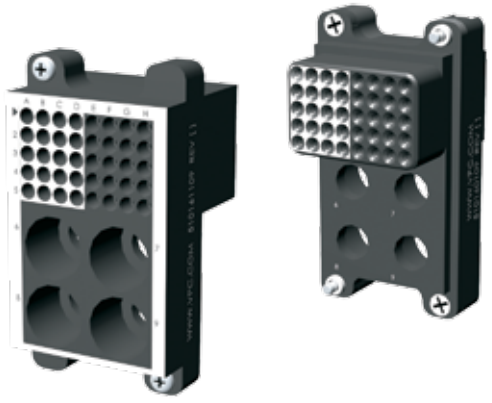
| Part # | Description | Used in Module |
|---|---|---|
| TWINAXIAL RECEIVER CONTACT | | |
| 610 113 144 | Twinaxial Contact, Receiver | 510 104 155<br>510 160 109 |
| TWINAXIAL ITA CONTACT | | |
| 610 113 145 | Twinaxial Contact, ITA | 510 108 138<br>510 161 109 |
| TWINAXIAL RECEIVER AND ITA PATCHCORDS | | |
| 7-402 423 000-036 | Twinaxial Patchcord, Receiver, 3 Amp, 36", 22 AWG Shielded Twisted Pair, Single Ended | 510 104 155<br>510 160 109 |
| 7-401 423 000-036 | Twinaxial Patchcord, ITA, 3 Amp, 36", 22 AWG Shielded Twisted Pair, Single Ended | 510 108 138<br>510 161 109 |

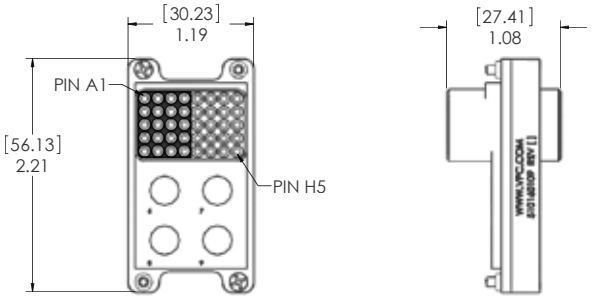
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

# 40/4 Position TriPaddle/Twinaxial Modules

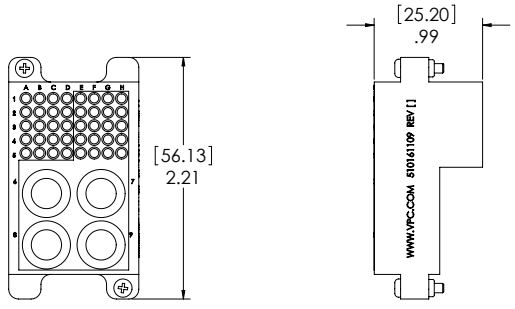
## Module Specifications

| | |
|---|---|
| Material | G10 epoxy glass |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -55° C to 140° C |
| Dielectric Withstanding Voltage (DWV) | 1500 VDC min. |
| Available Contact Positions | 40/4 |
| Module Positions Needed | 1 |






MATING SIDE




WIRING SIDE

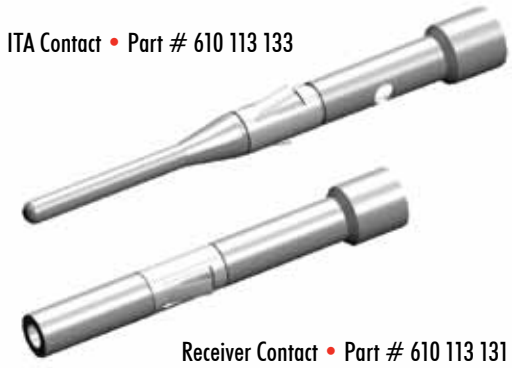
**Receiver • Part # 510 160 109** | **ITA • Part # 510 161 109**

| Part # | Description | Contacts Used | |
|---|---|---|---|
| | | TRIPADDLE | TWINAXIAL |
| ICON RECEIVER TRIPADDLE/TWINAXIAL MODULE | | | |
| 510 160 109 | TriPaddle Signal/Twinaxial Module, Receiver, iCon, 40/4 Position | 610 110 101<br>610 110 104<br>610 110 128<br>610 110 167 | 610 113 144 |
| ICON ITA TRIPADDLE/TWINAXIAL MODULE | | | |
| 510 161 109 | TriPaddle Signal/Twinaxial Module, ITA, iCon, 40/4 Position | 610 110 108<br>610 110 113<br>610 110 129<br>610 110 169 | 610 113 145 |

# Thermocouple Patchcords and Contacts

## Contact Specifications

| | |
|---|---|
| ANSI Type | K |
| Thermocouple Pair Materials | Chromel®<br>Alumel® |
| Polarity | Chromel® +<br>Alumel® – |
| Material Type | Base |
| TC Temperature Range | Chromel® & Alumel®<br>–200° C to 1250° C |
| EMF (mV) | –5.97 to +50.63 |
| Cycle Life | 20,000 cycles |



| Thermocouple Receiver Patchcord | Thermocouple ITA Patchcord |
|---|---|

| Part # | Description | Used in Module |
|---|---|---|
| **THERMOCOUPLE RECEIVER CONTACTS** | | |
| 610 113 131 | Thermocouple Contact, Receiver, Chromel | 510 104 133/261<br>510 160 110 |
| 610 113 132 | Thermocouple Contact, Receiver, Alumel | 510 104 133/261<br>510 160 110 |
| **THERMOCOUPLE ITA CONTACTS** | | |
| 610 113 133 | Thermocouple Contact, ITA, Chromel | 510 108 124/245<br>510 161 110 |
| 610 113 134 | Thermocouple Contact, ITA, Alumel | 510 108 124/245<br>510 161 110 |
| NOTE: The Chromel-Alumel thermocouple is composed of a positive Chromel wire and a negative Alumel wire. | | |
| **THERMOCOUPLE RECEIVER AND ITA PATCHCORDS** | | |
| 7-410 803 000-036 | Thermocouple Patchcord, Receiver, 36", 24 AWG, Chromel and Alumel, Single Ended | 510 104 133/261<br>510 160 110 |
| 7-409 803 000-036 | Thermocouple Patchcord, ITA, 36", 24 AWG, Chromel and Alumel, Single Ended | 510 108 124/245<br>510 161 110 |

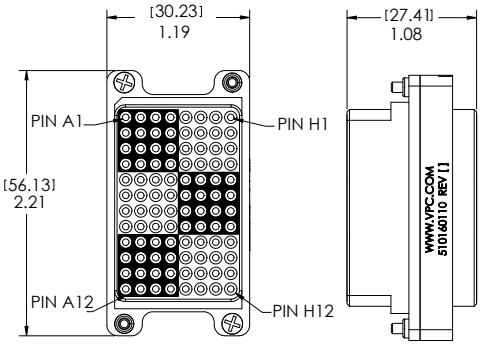
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

| | |
|---|---|
| **TOOLS AND LOCATORS** | |
| 910 101 102 | Tool, Crimp, 10 Amp TriPaddle, Thermocouple, Micro Power, Receiver and ITA, Locator Required |
| 910 104 134 | Tool, Locator, Thermocouple, Receiver |
| 910 104 135 | Tool, Locator, Thermocouple, ITA |
| 910 110 102 | Tool, Extraction, TriPaddle and Thermocouple, Receiver and ITA |

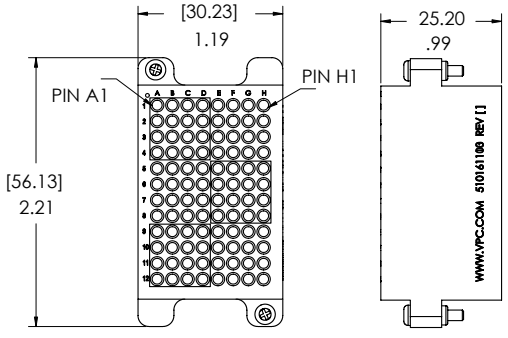
# 96 Position Thermocouple Modules

## Module Specifications

| | |
|---|---|
| Material | G10 epoxy glass |
| Temperature | Operating • -55° C to 125° C<br>Non-operating • -55° C to 140° C |
| Available Contact Positions | 96 |
| Module Positions Needed | 1 |




MATING SIDE




WIRING SIDE

**Receiver • Part # 510 160 110**

**ITA • Part # 510 161 110**

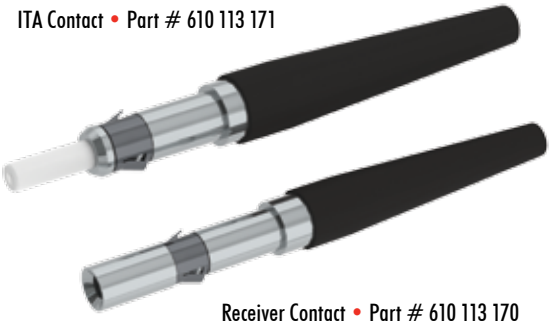
| Part # | Description | Contacts Used | |
|---|---|---|---|
| | | CHROMEL | ALUMEL |
| ICON RECEIVER THERMOCOUPLE MODULE | | | |
| 510 160 110 | Thermocouple Module, Receiver, iCon, 96 Position | 610 113 131 | 610 113 132 |
| ICON ITA THERMOCOUPLE MODULE | | | |
| 510 161 110 | Thermocouple Module, ITA, iCon, 96 Position | 610 113 133 | 610 113 134 |

# Mini Fiber Optic Patchcords - POF

## Contact Specifications

| | |
|---|---|
| Insertion Loss | –4.0 dB max. / mated pair |
| Mating Force | 1.5 lbs [.68 kg] |
| Polymer Optical Fiber (POF) | 980/1000 $\mu$" |
| Contact Body Material | Nickel silver |
| Cycle Life | 5,000 cycles |

ITA Contact • Part # 610 113 171



Receiver Contact • Part # 610 113 170

| Fiber POF Receiver Patchcord | Fiber POF ITA Patchcord |
|---|---|

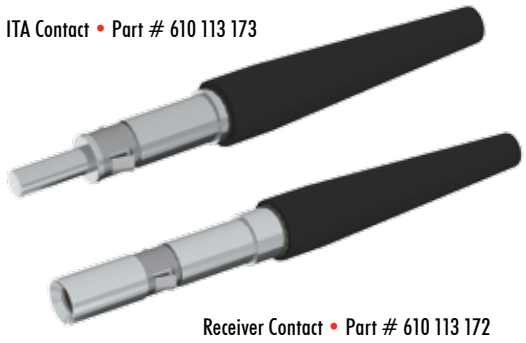
| Part # | Description | Used in Module |
|---|---|---|
| **POLYMER OPTICAL FIBER RECEIVER PATCHCORDS** | | |
| 7-414 845 000-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Polymer Optic Fiber, Single Ended | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-414 845 504-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Polymer Optic Fiber, to FC with PC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-414 845 510-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Polymer Optic Fiber, to SC with PC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| **POLYMER OPTICAL FIBER ITA PATCHCORDS** | | |
| 7-413 845 000-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Polymer Optic Fiber, Single Ended | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-413 845 504-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Polymer Optic Fiber, to FC with PC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-413 845 510-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Polymer Optic Fiber, to SC with PC Finish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| **FIBER OPTIC ACCESSORIES** | | |
| 910 112 125 | Tool, Extraction, Mini Fiber Optic, Receiver and ITA | |

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner*

# Mini Fiber Optic Patchcords - Multimode

## Contact Specifications

| | |
|---|---|
| Insertion Loss | –1.5 dB max / mated pair |
| Mating Force | 2.8 lbs [1.3 kg] |
| Glass Fiber | Multimode 62.5/125 |
| Contact Body Material | Ceramic and nickel silver |
| Cycle Life | 5,000 cycles |



| Fiber Mini Multimode Receiver Patchcord | Fiber Mini Multimode ITA Patchcord |
|---|---|

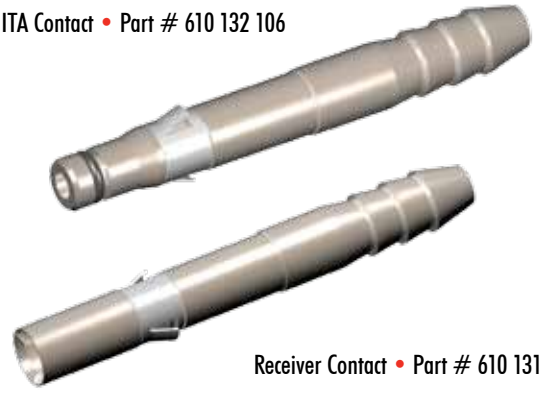
| Part # | Description | Used in Module |
|---|---|---|
| **MINI MULTIMODE FIBER RECEIVER PATCHCORDS** | | |
| 7-416 804 000-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, Single Ended | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-416 804 503-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, to FC with SPC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-416 804 506-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, to ST with SPC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-416 804 509-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, to SC with SPC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-416 804 512-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, to LC with SPC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| 7-416 804 663-036 | Fiber Optic Patchcord, Receiver, Mini Fiber Optic, 36", Multimode Glass Fiber, to SMA-F with SPC Polish | 510 104 120/150/243/301<br>510 160 102/103/104 |
| **MINI MULTIMODE FIBER ITA PATCHCORDS** | | |
| 7-415 804 000-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, Single Ended | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-415 804 503-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, to FC with SPC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-415 804 506-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, to ST with SPC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-415 804 509-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, to SC with SPC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-415 804 512-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, to LC with SPC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| 7-415 804 663-036 | Fiber Optic Patchcord, ITA, Mini Fiber Optic, 36", Multimode Glass Fiber, to SMA-F with SPC Polish | 510 108 111/132/210/276<br>510 161 102/103/104 |
| **FIBER OPTIC ACCESSORIES** | | |
| 910 112 125 | Tool, Extraction, Mini Fiber Optic, Receiver and ITA | |
| 910 121 192 | Tool, Fiber Optic Cleaning Pen, Multimode Glass Fiber, Receiver/ITA | |

# Mini Pneumatic Contacts

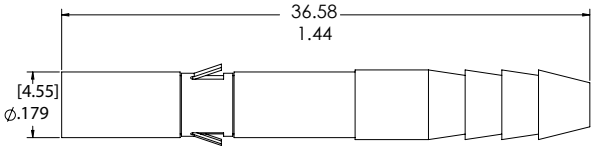
## Contact Specifications • .075" Flow [1.9 mm]

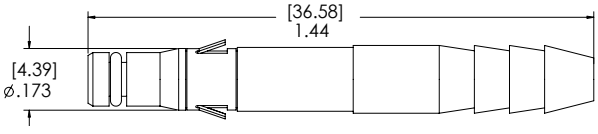
| | |
|---|---|
| Pressure/Vacuum Rated | 100 psi (6.9 bar) |
| Contact Body Material | Nickel plated brass |
| Cycle Life | 20,000 cycles |

ITA Contact • Part # 610 132 106



Receiver Contact • Part # 610 131 108




Receiver • **Part # 610 131 108**

ITA • **Part # 610 132 106**

| Part # | Description | Used in Module |
|---|---|---|
| MINI PNEUMATIC RECEIVER CONTACT | | |
| 610 131 108 | Mini Pneumatic Contact, Receiver, Hose Barb for 0.125" [3.2mm] ID Tubing, Fits Mini Coaxial or Mini Power Modules | 510 104 123<br>510 104 206<br>510 104 120<br>510 104 150<br>510 104 243<br>510 160 102/103/104 |
| MINI PNEUMATIC ITA CONTACT | | |
| 610 132 106 | Mini Pneumatic Contact, ITA, Hose Barb for 0.125" [3.2mm] ID Tubing, Fits Mini Coaxial or Mini Power Modules | 510 108 115<br>510 108 178<br>510 108 111<br>510 108 132<br>510 108 210<br>510 161 102/103/104 |
| EXTRACTION TOOL | | |
| 910 112 104 | Tool, Extraction, Mini Power/Mini Coaxial Contacts, Receiver and ITA | |

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