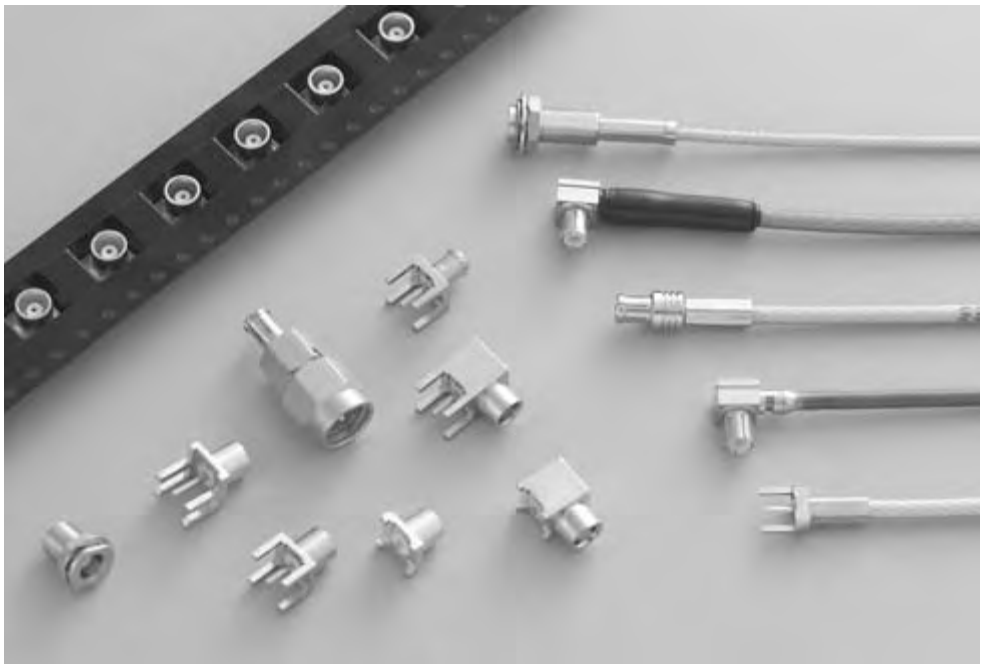
MCX Connectors

Product Facts

- **Snap-on interface facilitates assembly**
- **Conforms to CECC interface specifications for MCX**
- **30% smaller than SMB connectors**
- **Surface mount tape and reel for high volume**
- **50 and 75 ohm versions available**



Between Series Adapters

For MCX Between Series Adapters, see pages 251-260.

Tyco Electronics MCX microminiature snap-on connectors offer an excellent blend of size, durability and performance for emerging applications in GPS, automotive and wireless communications. MCX connectors are 30% smaller than traditional snap-on SMB connectors, offering greater packaging density and weight reduction. MCX connectors are mechanically robust with beryllium copper spring fingers rated at a minimum of 500 mating cycles. The snap-on interface facilitates assembly, eliminating the need for a threaded connection, and ensuring full engagement. The forces to engage and disengage have been optimized to ensure ease of mating as well as to prevent damage to PCB solder connections. MCX connectors are designed for broad band performance, DC-6 GHz, and can be utilized for future system upgrades without concerns for performance degradation. Tyco Electronics MCX connectors are fully mateable with standard MCX connectors and conform to the CECC interface specifications.

MCX connectors are available in a broad range of standard configurations for commercial applications. Tape and reel packaging for MCX surface mount straight and right-angle PCB receptacles is available to facilitate high volume pick and place manufacturing. MCX surface mount connectors are designed to withstand infrared reflow, convection and vapor phase soldering and provide a .254 [.010] standoff for optimal board cleaning. MCX plug and jack PCB receptacles also offer a direct board to board solution providing a nominal 7.11 [0.28] separation.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

MCX Connectors (Continued)

Specifications

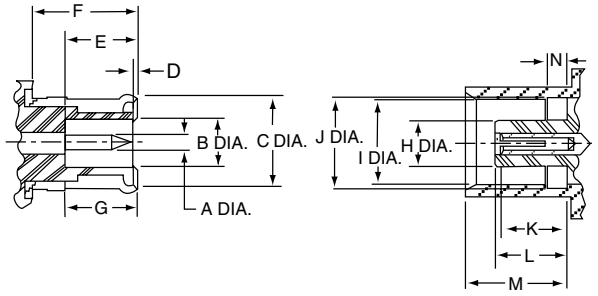
General	CECC 22220 PARA		
Materials	—	Brass alloys UNS C36000 (ASTM-B16) or C38500 per QQ-B626, Beryllium copper per ASTM B-196, PTFE fluorocarbon per ASTM-D-1710	
Finish	—	Center Contacts:	Gold plated (ASTM-B488) over nickel plate (QQ-N-290)
	—	Outer Contacts:	Gold plated (ASTM-B488) over nickel plate (OO-N-290)
	—	Housings:	Nickel plated (QQ-N-290), tin (ASTM-B488) or Gold plated (ASTM-B488)
	—	All other metal parts shall be furnished so as to provide a connector which meets corrosion requirements of CECC 22220 PARA 4.6.10	
Design	—	The design shall be such that the outline and interface dimensions shown in this catalog and the requirements of CECC 22220 PARA are met	

Electrical	CECC 22220 PARA	(General requirements performance may vary by cable)
Frequency	—	dc - 6 GHz
Nominal Impedance	—	50 ohms
Voltage Rating	—	335 Volts (VRMS Maximum) @ Sea Level
VSWR	4.4.1	1.25:1 Maximum @ 4 GHz
	—	1.35:1 Maximum @ 6 GHz
Insulation Resistance	4.4.4	10,000 Megohms Minimum
Insertion Loss	—	.1dB Maximum/1000 MHz
Dielectric Withstanding Voltage	4.4.5	1000 Volts (VRMS Minimum) @ Sea Level
Contact Resistance		
Center Contact	4.4.2	5.0 Milliohms Maximum
Outer Contact	4.4.3	1.0 Milliohms Maximum
Corona 70,000 ft.	—	250 Volts (VRMS Minimum) @ MHz
RF High Potential @ Sea Level	—	670 Volts (VRMS Minimum) @ MHz
Contact Current	—	1.5 ADC Max

Mechanical	CECC 22220 PARA	
Force to Engage	4.5.4	15.5 N [3.4 lbs.] Maximum
Force to Disengage	—	8 – 20 N [1.8 – 4.5 lbs.]
Contact Captivation	4.5.2	Designed to maintain MCX interface when mating 10 N [2.2 lbs.] axial
Connector Durability	4.7.1	500 insertion and withdrawal cycles

Environmental	CECC 22220 PARA	
Temperature Rating	—	–65˚C + 165˚C
Vibration	4.6.3	See CECC 22220
Moisture Resistance	4.6.4	See CECC 22220
Corrosion	4.6.10	See CECC 22220
Thermal Shock	4.6.7	See CECC 22220

Meets or exceeds requirements of CECC 22220. Tyco Electronics has design control and all data contained herein is subject to change without notice. Contact Tyco Electronics for specifications on other connector types.



Plug

Letter	Minimum	Maximum
A	**0.48** [.0189]	**0.53** [.0208]
B	**2.00** [.0788]	—
C	—	**3.8** [.148]
D	**0.00** [.000]	**0.30** [.0118]
E	**2.80** [.111]	**3.20** [.125]
F	**4.15** [.164]	—
G	**2.80** [.111]	—

Jack

Letter	Minimum	Maximum
H	—	**1.98** [.077]
I	**3.42** [.135]	**3.48** [.137]
J	**3.60** [.142]	**3.75** [.147]
K	**2.30** [.091]	**2.80** [.110]
L	**2.60** [.103]	**2.80** [.110]
M	**4.00** [.158]	**4.12** [.162]
N	**0.75** [.0296]	**0.85** [.0334]

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

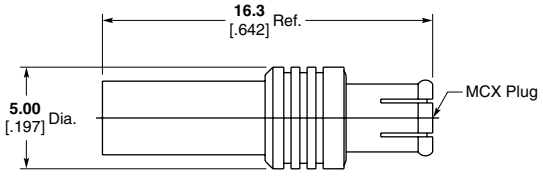
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

MCX Connectors (Continued)

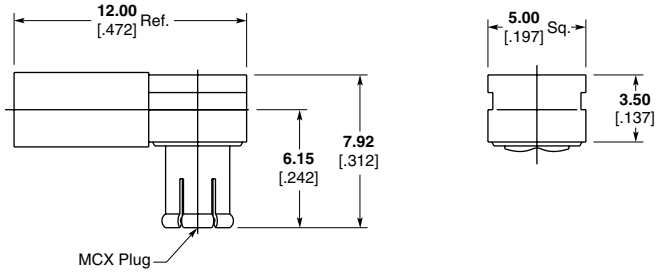
Straight Cable Plug, Crimp



Cable	Plating	Part No.
RG 178/U, 196/U	Nickel	**1060869-1**
RG 174/U, 188/U, 316/U	Nickel	**1060872-1**
	Gold	**1060871-1**
RD-316	Nickel	**1060875-1**
	Gold	**1060875-2**

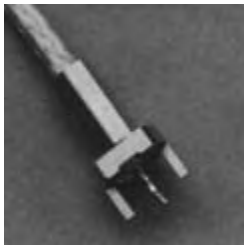
Note: For full crimp attachment consult Tyco Electronics at the numbers listed below.

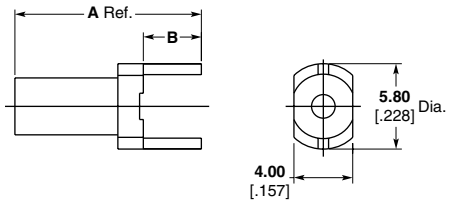
Right-Angle Cable Plug, Crimp



Cable	Plating	Part No.
RG 178/U, 196/U	Nickel	**1329293-1**
RG 188/U, 316/U RG 179/U, RG 187/U	Nickel	**1330723-1**
RD-316	Nickel	**1363301-1**
	Gold	**1363301-2**

Straight Cable Terminal, PC Board, Without Center Contact





Cable	Dim. A	Dim. B	Plating	Part No.
RG 174/U, 188/U, 316/U	**11.76** .463	**3.94** .155	Nickel	**1060811-1**
			Gold	**1060811-2**
	10.74 .423	**2.92** .115	Gold	**1060813-2**

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

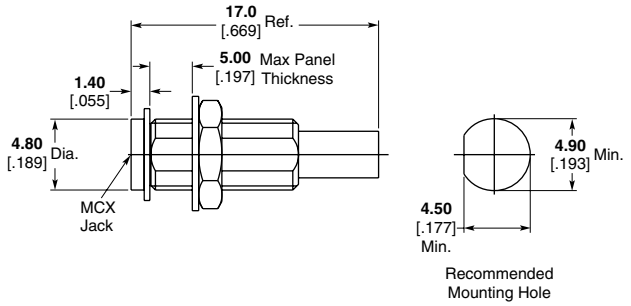
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

MCX Connectors (Continued)

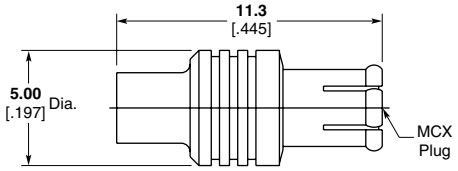
Bulkhead Cable Jack



Cable	Plating	Part No.
RG 188/U, RG 316/U	Nickel	**1060883-1**

Straight Cable Plug, Direct Solder Attachment

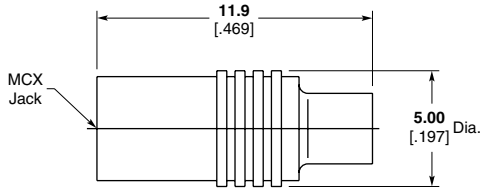
For Semi-Rigid Cable



Cable	Plating	Part No.
RG 405/U [.085]	Gold	**1060772-1**
.047	Gold	**1060772-2**

Straight Cable Jack, Direct Solder Attachment

For Semi-Rigid Cable



Cable	Plating	Part No.
RG 405/U [.085]	Gold	**1060774-1**
.047	Gold	**1060774-2**

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

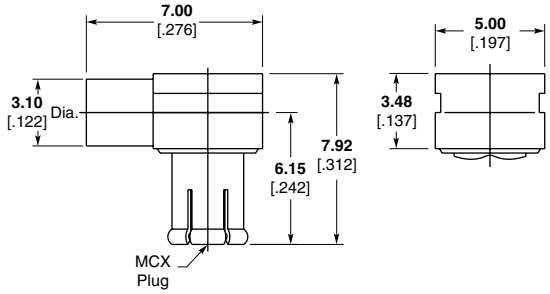
USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

MCX Connectors (Continued)

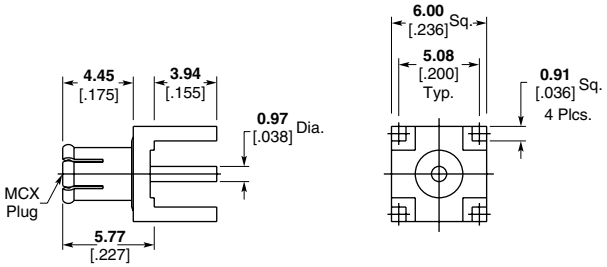
Right-Angle Plug Receptacle, Direct Solder Attachment

For Semi-Rigid Cable



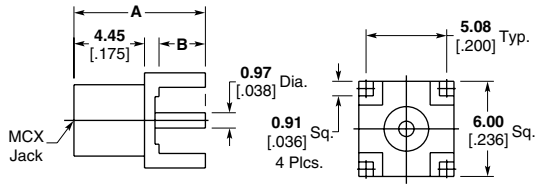
Cable	Plating	Part No.
RG 405/U	Gold	**1060787-1**

Vertical Plug Receptacle, PC Board



Plating	Part No.
Nickel	**1061015-1**
Gold	**1085221-1**

Vertical Jack Receptacle, PC Board



Dim. A	Dim. B	Plating	Part No.
8.28 .326	**2.92** .115	Nickel	**1060985-1**
		Gold	**1060984-1**
9.30 .366	**3.94** .155	Nickel	**1060989-1**
		Gold	**1330126-1**
7.09 .279	**1.73** .068	Nickel	**1060996-1**
		Gold	**1060995-1**

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

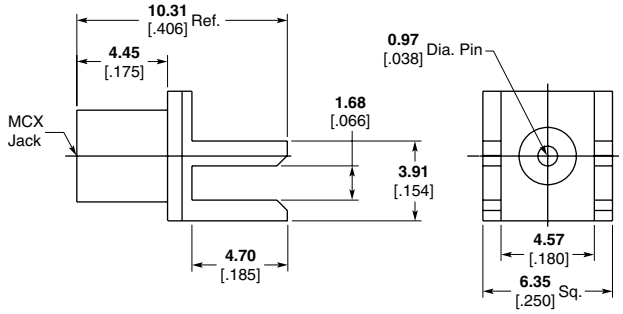
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

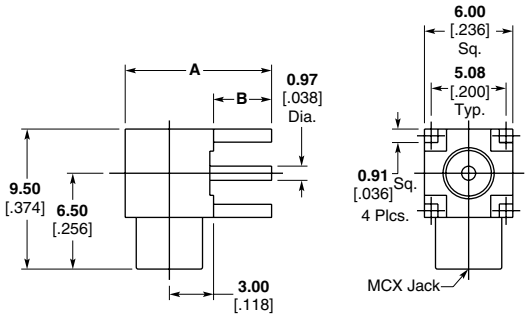
MCX Connectors (Continued)

Vertical End Launch, PC Board



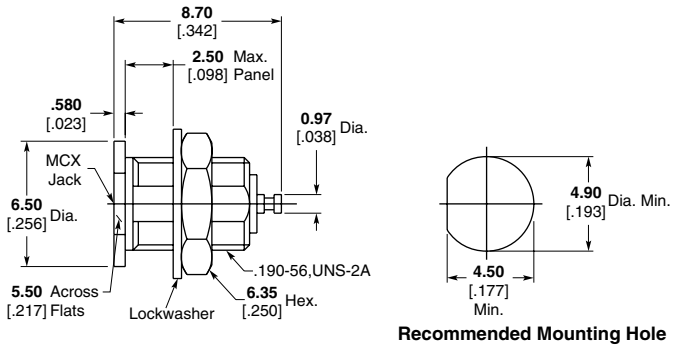
Plating	Part No.
Tin	**1061007-1**

Right-Angle Jack Receptacle, PC Board



Dim. A	Dim. B	Plating	Part No.
9.93 [.391]	**3.94** [.155]	Nickel	**1061023-1**
		Gold	**1061022-1**
7.72 [.304]	**1.73** [.068]	Nickel	**1061027-1**
		Gold	**1061026-1**
8.92 [.351]	**2.92** [.115]	Nickel	**1061030-1**
		Gold	**1061029-1**

Jack Receptacle, Bulkhead Feedthrough



Plating	Part No.
Nickel	**1060960-1**
Gold	**1060959-1**

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

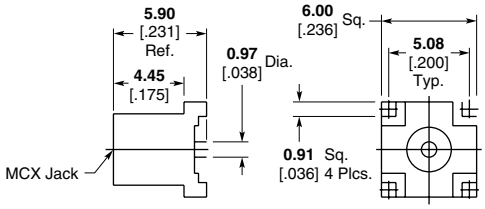
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

MCX Connectors (Continued)

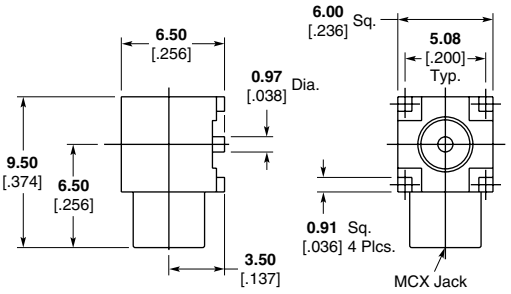
Vertical Jack Receptacle, Surface Mount



Plating	Part No.
Tin	6061002-1
	6061092-1[1]

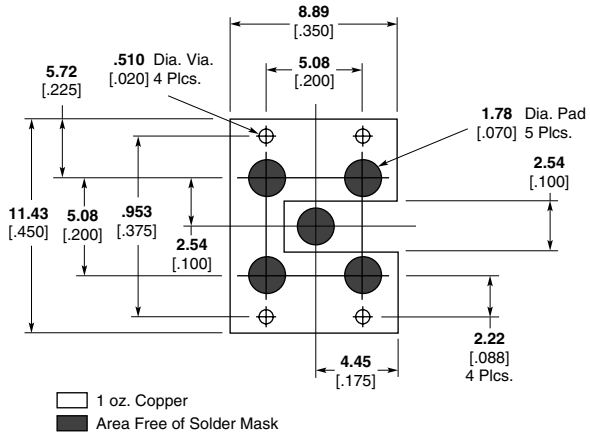
[1]Tape and Reel packaging. 900 connectors per reel (carrier width 16mm, carrier pitch 12mm).

Right-Angle Jack Receptacle, Surface Mount



Plating	Part No.
Tin	6061035-1
Tin	6061094-1[1]

[1]Tape and reel packaging. 750 connectors per reel (carrier width 24mm carrier pitch 12mm).



Recommended Mounting Pattern for Microstrip Line

Notes:
1. Printed circuit board material: glass epoxy FR-4 or similar; relative permittivity: 4.8, 1 oz. copper clad both sides.
2. These dimensions valid for 1.58 [.062] board thickness.
3. Decimal inch equivalents are shown in parentheses for general information only.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

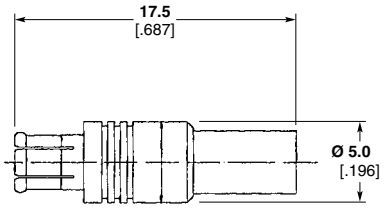
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

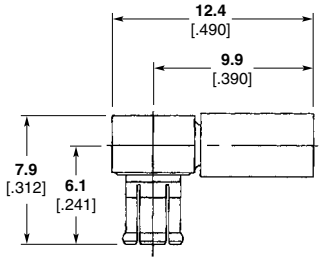
MCX Connectors (Continued)

Straight Cable Plug, Crimp, 75 Ohm



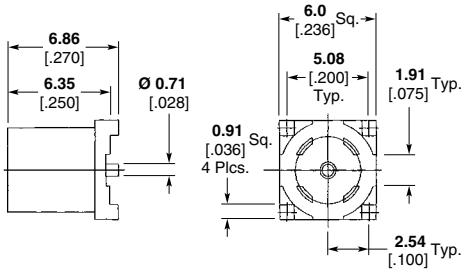
Cable	Plating	Part No.
RG 179/U	Nickel	**1362990-1**

Right-Angle Cable Plug, Crimp, 75 Ohm



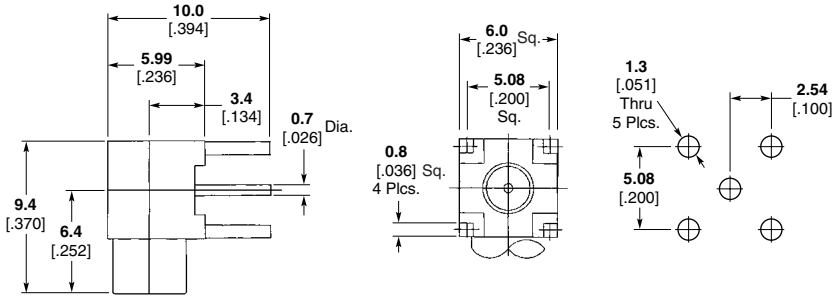
Cable	Plating	Part No.
RG 179/U	Nickel	**1362991-1**

Vertical Plug, PC Board, 75 Ohm



Plating	Part No.
Nickel	**1361169-1**

Vertical Jack, PC Board, 75 Ohm



Plating	Part No.
Gold	**1363106-1**

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 1307191
Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9