

Quick Reference Guide **RF Coaxial Connectors**



COAXIAL RF PRODUCTS: QUICK VIEW

Product	Operating Frequency (Max.)	Impedance	VSWR	Durability (Mating Cycles)	Operating Temp.	Coupling Style
Standard						
7/16	7 GHz	50 Ω	1.02 + 0.03f up to 7 GHz	500	-55°C to 155°C	Thread
N	11 GHz	50 Ω	1.3 @ 11 GHz	500	-55°C to 85°C Commercial; -65°C to 165°C Military	Thread
Miniature						
BNC	4 GHz	50 Ω, 75 Ω	1.3 @ 4 GHz	500	-55°C to 85°C	Bayonet
Mini BNC	2 GHz	75 Ω	1.16 @1 GHz	500	-40°C to 85°C	Bayonet
TNC	11 GHz	50 Ω, 75 Ω	1.30 @ 11 GHz	500	55°C to 85°C Commercial; -65°C to 165°C Military	Thread
F and G Series	1 GHz	75 Ω	1.10-1.30	600	-55°C to 85°C	Thread
Subminiature						
SMA	26 GHz	50 Ω	1.2 @ 11 GHz Dependent on Cable Type	500	-65°C to 165°C	Thread
QMA	6 GHz	50 Ω	1.15 @ 6 GHz	100	-40°C to 125°C	Snap-On
SMB	4 GHz	50 Ω, 75 Ω	1.25 + 0.04f up to 4 GHz	500	-65°C to 165°C	Snap-Fit
OSP	22 GHz	50 Ω	1.25 @ 22 GHz	5000	-65°C to 125°C	Blindmate Push-On
OSSP	28 GHz	50 Ω	1.33 @ 28 GHz	1000	-65°C to 125°C	Blindmate Push-On
DIN 1.0/2.3	10 GHz	50 Ω	1.35 @ 10 GHz	- 500	-40°C to 85°C	Screw, Slide-In, and Quick Lock
DIN 1.0/2.3	2 GHz	75 Ω	1.20 @ 2 GHz	500		
DIN 1.6/5.6	8 GHz	75 Ω	1.20 @ 8 GHz	500	-40°C to 85°C	Screw, Slide-In, and Quick Lock
Siemax, DIN 1.0/ 2.3 Interface	5 GHz	75 Ω	1.2 @ 1GHz 1.4 @ 5GHz	500	-40°C to 85°C	Push-On
мсх	6 GHz	50 Ω	1.25 @ 4 GHz 1.35 @ 6 GHz	500	-65°C to 165°C	Snap-On
Microminiature						
ммсх	6 GHz	50 Ω	1.25 @ 6 GHz	500	-55°C to 155°C	Snap-On
SMP	40 GHz	50 Ω	1.1 @ 23 GHz, 1.15 @ 23-26 GHz 1.40 @ 26-40 GHz	100	-65°C to 165°C	Push-On
SSMT/OSMT	6 GHz	50 Ω	1.40 @ 6 GHz	100	-40°C to 125°C	Snap-On
QSL	6 GHz	50 Ω	1.3 @ 3 GHz 1.5 @ 6 GHz	250	-40°C to 125°C	Push-Pull
Compression Coax	6 GHz	50 Ω	1.25 @ 6 GHz	25	-40°C to 125°C	Surface Mount
имсс	6 GHz	50 Ω	1.3 @ 3 GHz 1.4 @ 3-6 GHz	30	-40°C to 90°C	Snap-On
Switching Coax	2.4 GHz	50 Ω	1.20 @ 2 GHz	30,000	-40°C to 85°C	Snap-On
Contacts for Multipos	sition Connect	ors				
Type C Inserts	2 GHz	50 Ω, 75 Ω	1.20 @ 2 GHz	500	-55°C to 125°C	Pin/Socket



7/16 CONNECTORS



Designed for high power applications where a more rugged interface is required.

General Applications

- Cellular base stations
- Control components
- Antenna broadcast applications

Product Offering

- Straight plugs and jacks
- Elbow plugs
- Crimp and solder contacts
- Panel and bulkhead jacks
- Silver and white bronze plating to reduce intermodulation

Performance Specifications

- Frequency: DC to 7 GHz
- Impedance: 50 ohms
- VSWR: 1.02 + 0.03f
- Durability: 500 cycles
- Temperature Rating: -55°C to +155°C
- Intermatable per CECC 22 190 and IEC 168-4

Cable-Applied Crimp Connectors		
Screw-Mount Jack	619455-1	
Screw-Mount Plug	619456-1	
Panel Plug	1460052-2	

Please visit www.te.com for more part numbers.

N SERIES CONNECTORS



Medium sized connector for highvoltage applications. Highly suited for critical applications and environments.

General Applications

- High-performance connector for cellular and PCS base stations, telephony and broadcast applications
- Cable-to-cable, and cable-to-panel, semi-rigid and flexible cable options

Product Offering

- RG plug and jack
- Semi-rigid cable and RG/RD cable
- Panel and bulkhead jack
- PCB mount

Performance Specifications

- Frequency: DC to 11 GHz
- Impedance: 50 ohm
- Durability: 500 cycles
 VSWR (Max.): 1.3:1 for straight plug or jack
- 1.35 up to 9 GHz 1.5 @ 9 to 11 GHz for right-angle plug
- Temperature Rating: -65°C to +165°C for military type -55°C to +85°C for commercial
- Designated connectors meet the requirements of MIL-PRF-39012, IEC 169-16 and CECC 22 210

Cable-Applied Crimp Connectors		
Bulkhead Jack	1-1337625-0	
Panel Jack	1-1478212-0	
Straight Plug	1-1337416-0	
Right-Angle Plug	225014-3	
Panel Plug, Military	1057275-1	

Cable-Applied Solder Connectors		
_	Straight Solder Jack	1-1337406-0

Please visit **www.te.com** for more part numbers.

BNC CONNECTORS



Miniature connector series ideally suited for CATV applications.

General Applications

- Broadband, networking, signal management
- Video distribution, including HDTV
- Industry standard interface, commercial and military aerospace

Product Offering

- Cable Applied: Hex and O crimp, solder/clamp for flex cable
- PCB: vertical or right angle; through hole, compliant pin, press fit or surface mount
- PBT body or all-metal body
- Solder receptacles
- Adapters

Performance Specifications

- Operating Frequency: DC to 4 GHz (50 ohms) DC to 2 GHz (75 ohms)
- Nominal Impedance: 50 and 75 ohms
- VSWR (max.):
 1.30 @ 4 GHz (50 ohms)
- Durability: 500 cycles
- Temperature Rating: -65°C to 165°C military
 -55°C to 85°C commercial

Board-Mount SMT Connecto	rs
Right-Angle Jack	5413879-1
Vertical Jack	5-1634503-1
Right-Angle Jack, 75 ohms	5413558-1

tors
5332342
5332225-5
5225395-7



MINI BNC CONNECTORS



Smaller version of the popular BNC series, allowing 40% more connections in the same area as standard BNC connector.

General Applications

- Telecommunications and broadband applications
- Instrumentation, computers/LANs
- Base stations
- Telco DS3 networks

Product Offering

- · Straight and right angle plugs and jacks
- Flexible cable
- PCB jack and bulkhead jack
- Stacked PCB receptacles

Performance Specifications

- Operating Frequency: DC to 2 GHz
- Nominal Impedance: 75 ohms
- VSWR (Max.): 1.16 to 1 GHz
- Durability: 500 cycles
- Temperature Rating: -40°C to +85°C

Board-Mount Connectors	
Vertical Jack	1274571-1
Right-Angle Bulkhead Jack	1274584-1
Right-Angle Jack	1274572-1

Cable-Applied Crimp Connectors	
Straight Plug	1274563-1
Right-Angle Plug	1274566-1
Bulkhead Jack	1274568-1

Please visit www.te.com for more part numbers.

TNC CONNECTORS



Miniature connector with threaded coupling. Highly suited for critical applications and environments.

General Applications

• High-vibration/low-noise, antenna, and test & measurement

Product Offering

- Cable Applied: Hex and O crimp, solder/clamp for flexible cable, crimp of solder for semi-rigid cable
- PCB: Vertical or right angle, with PBT or all-metal body
- Solder receptacles
- Adapters

Performance Specifications

- Operating Frequency: DC to 11 GHz (50 ohms) DC to 2 GHz (75 ohms)
- Nominal Impedance: 50 and 75 ohms
- VSWR: 1.30 @ 11 GHz (50 ohms)
- Durability: 500 cycles
- Temperature Rating: -65°C to +165°C military -55°C to +85°C commercial

Board-Mount Connectors	
Right-Angle Jack	5227818-1
Cable-Applied Connectors	
Straight Plug, Crimp	5222506-5
Right-Angle Plug, Crimp	1-225554-1
Straight Jack, Crimp	5414171-3
Straight Jack, Solder	1057676-1
Straight Jack, Panel, Solder	1057775-1



F AND G SERIES CONNECTORS



Miniature connector series ideally suited for CATV applications.

General Applications

- Broadband, CATV
- Line amplifiers, multiport taps
- Cable modems

Product Offering

- Cable Applied: Crimp (plugs or bulkhead jacks)
- PCB: Vertical or right angle, through hole and surface mount
- Edge-mount bulkhead solder jack
- Adapters
- Splash resistant and sealed versions available
- F Series: threaded coupling
- G Series: Quick-lock coupling

Performance Specifications

- Operating Frequency: DC to 1 GHz (specific designs support up to 2GHz)
- Nominal Impedance: 75 ohms
- VSWR: 1.10-1.30
- Durability: 600 cycles
- Temperature Rating: -55°C to +85°C
- Designs compliant with SCTE & UL/CSA standards

F Series	
Straight Plug, Crimp	5-1814821-1
Straight Plug, Crimp, RG-179 Cable	5415226-1
Bulkhead Jack, Crimp	5-1814826-1
Right-Angle PCB Mount Jack	5-1634540-1

G Series	
Vertical PCB-Mount Jack	5415332-1
Vertical PCB-Mount Plug	6274045-1

Please visit www.te.com for more part numbers.

SMA CONNECTORS



Subminiature connector with threaded coupling designed for performance through 18 GHz.

General Applications

- Wireless base stations (CDMA, TDMA, PCS)
- Satellite communications/mini cell
- Test and measurement/aerospace

Product Offering

- PCB: Through hole, compliant pin, surface mount, edge mount
- Cable applied: hex crimp, solder and clamp for flex cable, solder, clamp and compression crimp for semi-rigid cable
- Solder receptacles
- Adapters (in series and between series)

Performance Specifications

- Operating Frequency: Up to 26.5 GHz (Most are 12.4 to 18 GHz)
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.20 @ 11 GHz Dependent on termination method
- Durability: 500 cycles
- Temperature Rating: -65°C to +165°C
- Meets all performance requirements for MIL-PRF-39012

5-1814832-1
5-1814400-1
2081005-1
2081170-1

4-1478924-1
1-1478916-0



QMA CONNECTORS



Subminiature connector with quick lock coupling designed for performance through 18 GHz.

General Applications

- Wireless base stations
- Distributed antenna systems (DAS)
- Satellite communications/mini cell

Product Offering

- Intermatable with QLF (competitive) QMA products
- Cable and PCB versions available
- Brass body, nickel plated
- Center contact: beryllium copper, gold plated
- Force to engage: 27 N (6 lb.)
- Force to disengage: 20 N (4.5 lb.)

Performance Specifications

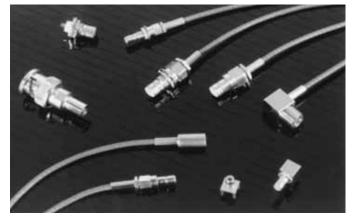
- Frequency: DC to 6 GHz
- Impedance: 50 ohms
- VSWR (Max.): 1.15 @ 6 GHz
- 1.22 for right angle
- Durability: 100 cycles
- Temperature Rating: -40°C to +125°C

1408463-1
1408337-1
2081026-1

Cable-Applied Crimp Connectors	
Right-Angle Plug, RG-402 Cable	1408347-1
Straight Jack, RG-58 Cable	1408338-7

Please visit **www.te.com** for more part numbers.

SMB/TYPE 43 CONNECTORS



Subminiature series connectors with snap-on coupling. Smaller alternative to SMA.

General Applications

- GPS
- Telephony
- CATV

Product Offering

- Cable and PCB
- · Brass and zinc die cast shells
- Mini 75-ohm SMB same size as 50-ohm SMB

Performance Specifications

- Frequency: DC to 4 GHz
- Impedance: 50 and 75 ohms
- VSWR: 1.20 up to 4 GHz
- Durability: 500 cycles
- Temperature Rating: -65°C to +165°C

Right-Angle Plug	
	5414338-1
Vertical Jack	1-1337482-0
Right-Angle Jack	1-1337481-0

Cable-Applied Crimp Connectors	
Straight Plug	1-1337597-0
Right-Angle Elbow Plug	1-1337478-0
Straight Jack	1-1337477-0



OSP/OSSP CONNECTORS



Modular blindmate series with interface designed for multiple interconnects.

General Applications

- Module to module
- Module to motherboard
- Rack and panel

Product Offering

- Plug and receptacles (rigid and float mount)
- Panel, flange and cable mount
- Semi-rigid and flexible cable
- PCB mount
- Adapters
- Hermetic

Performance Specifications

- Operating Frequency: 22 GHz OSP
 28 GHz OSSP
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.25 OSP 1.33 OSSP
- Durability: 5000 cycles (OSP) 1000 cycloes (OSSP)
- Temperature Rating: -65°C to +125°C

Board-Mount Connectors	
Vertical Jack, OSP	1059681-1
Vertical Plug, OSP	1059684-1

Cable-Applied Crimp Connectors	
Straight Plug, OSP	1059402-1
Straight Jack, OSP	1059540-1
Straight Plug, OSSP	1059857-1
Straight Jack, OSSP	1059868-1

Please visit www.te.com for more part numbers.

DIN COAX 1.0/2.3 CONNECTORS



Connector series for high density board-to-board and I/O connections.

General Applications

 High density board-to-board and I/O connections on transmission, access, mobile and data communication equipment

Product Offering

- Different styles with screw, slide-in and latching (quick lock) coupling
- Cable, THT and press-in termination
- Full crimp cable termination
- SMT multicontact (see Siemax)
- Adapters to Series 1.6/5.6

Performance Specifications

- Nominal Impedance: 50 or 75 ohms
- Operating Frequency: Up to 10 GHz (50-ohm connectors) Up to 2 GHz (75-ohm connectors)
- VSWR (Max.): 1.35 up to 10 GHz (50-ohm connectors) 1.20 up to 2 GHz (75-ohm connectors)
- Durability: 500 cycles
- Temperature Rating: -40°C to +85°C
- Interface: Snap-On (IEC 169-29 and CECC 222000)

Board-Mount HD Connectors	
Straight Bulkhead Jack, Slide-In	3-1393670-4
Straight Bulkhead Jack, Snap-On, 75 Ohms	8-1393670-3
Right-Angle Bulkhead Jack	1274544-1

Cable-Applied Crimp Connectors	
Right-Angle Plug, Snap-On	1460817-1



DIN COAX 1.6/5.6 CONNECTORS



High-performance version of DIN 1.0/2.3 connector series. Highly suitable for transmission of high bit rates.

General Applications

 Used primarily as I/O connector in transmission and access equipment outside USA; used in USA for export businesses

Product Offering

- Screw, snap-on, slide-in and latching (quick lock) coupling
- Full crimp and IDC cable termination
- Board lock and standard THT termination
- Press In termination
- Adapters to Series 1.0/2.3 and BNC (both 75 ohm)

Performance Specifications

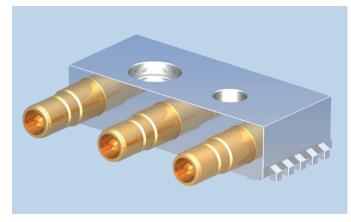
- Operating Frequency: Up to 8 GHz
- Nominal Impedance: 75 ohms
- VSWR (max.): 1.20
- Durability: 500 cycles
- Temperature Rating: -40°C to +85°C
- Interface: CECC 22240

Board-Mount Connectors	
Right-Angle Jack	2-1393681-2
Cable-Applied Crimp Connectors	

Straight Jack	1-1393672-4
Right-Angle Jack	3-1393680-0
Straight Plug	1393672-3
Right-Angle Plug	1-1393680-6

Please visit www.te.com for more part numbers.

SIEMAX CONNECTORS



Surface mount multi coax connector designed for highdensity board-to-board and board-to-cable applications.

General Applications

- PCB connector in SMT, for I/O and board-to-board application in communications and automotive
- Interfaces DIN 1.0/2.3

Product Offering

• Jacks, Series 1.0/2.3, 75 ohms

Performance Specification (Series 1.0/2.3):

- Operating Frequency: Up to 2 GHz
- Nominal Impedance: 75 ohms
- VSWR (Max.): 1.20 @ 2 GHz
- Durability: 250 cycles
- Temperature Rating: -40°C to +85°C

Board-Mount Connectors	
Right-Angle Jack, 2 Port	619400-1
Right-Angle Jack, 3 Port	619401-1



MCX CONNECTORS



Snap on subminiature connector series. Smaller alternative to SMB.

General Applications

- GPS, automotive and wireless communication
- Handheld devices: pagers, PCs, cellular phones, tablets

Product Offering

- Snap on connector 30% smaller than SMB
- Cable-to-cable and cable-to-PCB versions, straight and right angle
- Brass and zinc die-cast shells available
- Gold- and nickel-plated shell and outer contact options available

Performance Specification

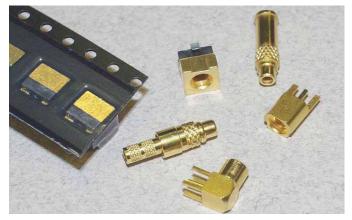
- Operating Frequency: DC to 6 GHz
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.25 @ 3 GHz
 1.35 @ 6 GHz
- Durability: 500 cycles
- Temperature Rating: -65°C to +165°C
- Interface Snap-On (MIL-PRF-39012 and CECC 22220)

1075221-1
6-1337586-2
1060985-1

Cable-Applied Crimp Connectors	
Straight Plug	1-1337580-0
Right-Angle Plug	1-1337584-0
Straight Bulkhead Jack	1-1337588-1

Please visit www.te.com for more part numbers.

MMCX CONNECTORS



35% smaller than MCX, this connector series is used in board-to-board and cable-to-board applications where space is a driving issue.

General Applications

- Instrumentation
- Handheld devices: pagers, PCs, cellular phones, tablets

Product Offering

- Cable-to-cable and cable-to-PCB versions, straight and right angle
- Crimp, solder, and surface mount
- Tape and reel for high-volume assembly

Performance Specification

- Operating Frequency: DC to 6 GHz
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.25:1 @ 6 GHz
- Durability: 500 cycles
- Temperature Rating: -55°C to +155°C
- Interface: Snap-On (CECC 22340)

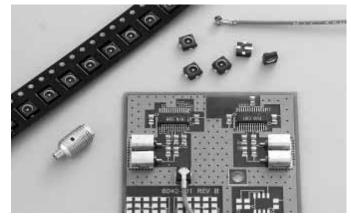
Board-Mount SMT Connectors

Vertical Plug	1-1634007-0
Right-Angle Jack	619285-1
Vertical Jack	1-1634004-0

Cable-Applied Crimp Connectors	
Straight Plug	1-1634001-0
Right-Angle Plug	1-1634003-0
Straight Jack	1-1634004-0



SSMT—OSMT CONNECTORS



Microminiature surface mount cable assembly system designed to provide the performance of much larger industry-standard connectors.

General Applications

- Wireless communication applications, Base Stations, antenna and hand held devices
- Designed for use with many standard interfaces (i.e., SMA, SMB, MCX, MMCX, BNC)

Product Offering

- Mated height off PC: SSMT: 2.8 mm OSMT: 3.1 mm
- Assortment of cable configurations available including intra-RF series assemblies
- Available with both high-temp and standard PVC cable

Performance Specifications

- Operating Frequency: DC to 6 GHz
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.40:1 @ 6 GHz
- Durability: 100 cycles
- Temperature Rating: -40°C to +125°C

Board-Mount Connectors	
OSMT Plug, Reel and Tape Mounted, Brass Body	1055689-1
OSMT Plug, Brass Body	1055687-1
OSMT Plug, Polyphenylene Body	1055690-1

Please visit www.te.com for more part numbers.

QSL CONNECTORS



Low-profile multiport RF connector interface connector with push/pull mating.

General Applications

- Wireless communication systems
- Mobile antennas, GPS
- Automotive telematics
- Computers

Product Offering

- Surface mount compatible, panel mount
- 1 x 3 ports configuration
- Cable plugs can be keyed for security applications
- 3-port configuration uses less space than typical SMA, QMA, or other PCB product types on a board layout

Performance Specifications

- Frequency: DC to 6 GHz
- Impedance: 50 ohms
- VSWR (Max.): 1.3 max @ 3 GHz
 1.5 max to 6 GHz
- Durability: 250 cycles
- Temperature Rating: -40°C to +125°C
- Engagement Force: 30 N (6.7 lb.) max.

Board-Mount Through-Hole Connectors, Right Angle	
3-Port Jack with Flanges	1274824-2
3-Port Jack without Flanges	2016032-1



SWITCHING COAX CONNECTORS FOR MOBILE PHONE (CONSUMER)



Mobile phone connector, which provides signal switching function between internal phone antenna and external car antenna.

General Applications

- Mobile handsets
- Diagnostic test

Product Offering

- SMD switching connector family with three main heights: 3.5, 4.5 and 6.0 mm
- SMD switching connector with direct contact to the phone antenna
- Right-angle cable plugs for RG-174 cable
- Excellent signal transmission due to short distance between power elements and antenna or switch, no internal cables

Performance Specifications

- Operating Frequency: Up to 2.4 GHz
- Nominal Impedance: 50 ohms
- VSWR (Max.): 1.15:1 @ 1 GHz
 - <1.20:1 @ 2 GHz
- Insertion Loss: -0.30 dB max. @ 2 GHz
- Durability: 30,000 cycles
- Temperature Rating: -40°C to +85°C

COAXIAL INSERTS (TYPE C)



High current inserts for board-to-board applications.

General Applications

- With low-frequency connectors Siedecon, DIN 41612 (Style M)
- Z-PACK connectors

Product Offering

- Cable, THT and press-in termination
- SMT "pin through paste" termination
- Full crimp cable termination
- Adapters to Series SMA and 1.6/5.6
- High-current contacts also available
- Compatible with Eurocard, Siedecon, Z-PACK and HM connectors

Performance Specifications

- Operating Frequency: Up to 2 GHz
- Nominal Impedance: 50 or 75 ohms
- VSWR (Max.): 1.20 up to 2GHz
- Durability: 500 cycles
- Temperature Rating: -55°C to +125°C
- Meets requirements of DIN 41626 and CECC 22330

Board-Mount Connectors (50 Ohms)	
Right-Angle Pin	5148386-1
Vertical Socket	5148385-1

Cable-Applied Crimp Connectors (50 Ohms)

Straight Jack

Please visit www.te.com for more part numbers.

BETWEEN SERIES ADAPTERS

- Cost effective solution for those applications requiring the mating of two separate RF interfaces
- Performance limited to the RF interfaces used, but adapter designs provide a minimum length consistent with good electrical performance
- Applications include communications equipment of all types, in-house test and measurement



1392020-1

FOR MORE INFORMATION

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