



TE CONNECTIVITY RF CONNECTORS & CABLE ASSEMBLIES FOR TEST & MEASUREMENT

TE Connectivity (TE) has over 60 years of experience with RF products for test and measurement (T&M) applications, with in-depth knowledge of industrial measurement technology; from data transmission to connector and system design, and high-quality manufacturing. A very high degree of in-house production helps us ensure the quality and cost effectiveness of our products. Our portfolio of RF products for T&M has a legacy of reliable performance in the RF testing space. After years of partnership with global high-end enterprises specializing in electronic testing technology, we have consistently won the trust of customers with our product quality, technical performance and service excellence. Our RF testing products are widely used in communication testing, laboratory testing, industrial testing, and instrumentation and equipment supporting military and aerospace.











ADAPTORS

TE offers a variety of in-series and between-series port adapters, including SMA, SMP, SMPM, 3.5mm, 2.92mm, 2.4mm, 1.85mm, 1.35mm, 1.00mm, QMA and coaxial adapters. Depending on the application environment, our adapters are divided into two main categories: standard adapters and precision connectors. Standard adapters are mainly suitable for general industrial applications. Precision adapters have higher frequency and better electrical performance, in order to be used in precise experimental equipment, instruments, laboratories and other high-precision application environments.



Adaptor parts

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
SMA(f)-SMA(f)*	1053492-1	18	1.05+.005F	
SMA(f)-SMA(f)**	1053488-1	18	1.05+.005F	
SMA(f)-SMA(f)	1053489-1	18	1.05+.005F	
SMA(f)-SMA(f)	1053514-1	18	1.05+.005F	
SMA(f)-SMA(f)***	1054869-1	18	1.05+.005F	
SMA(f)-SMA(f)****	1054880-1/1054868-1	18	1.05+.005F	
SMA(f)-SMA(f)	1054881-1	18	1.05+.005F	
SMA(f)-SMA(f)	1054874-1	18	1.05+.005F	
SMA(f)-SMA(f)	1054875-1	18	1.05+.005F	
SMA(f)-SMA(f)	221643-1	18	1.05+.005F	
SMA(f)-SMA(f)	1055018-1	18	1.15+.015F	
SMA(m)-SMA(f)	1054425-1	18	1.05+.005F	
SMA(m)-SMA(f)	1054426-1	18	1.05+.005F	
SMA(m)-SMA(f)	1053780-1	18	1.05+.005F	
SMA(m)-SMA(f)	1055064-1	18	1.15+.015F	
SMA(m)-SMA(f)	1055065-1	18	1.15+.015F	
SMA(m)-SMA(m)	1053634-1	18	1.05+.006F	


















* Without epoxy

** With epoxy

*** Stainless steel with passivation



















**** 1054880-1 stainless steel with gold plating (without epoxy); 1054868-1 stainless steel with gold plating (with epoxy)

Adaptor parts(2)



















Type	TE Part Number	Frequency (GHz)	VSWR	Picture
SMA(m)-SMA(m)	1053635-1	18	1.05+.006F	
SMA(m)-SMA(m)	1055047-1	18	1.15+.015F	
SMA(f)-SMA(f)*	1056333-1	27	1.05+.005F	
SMA(f)-SMA(f)	1056334-1	27	1.05+.005F	
EPSMA(f)-EPSMA(f)	2081889-1	27	1.15	
EPSMA(m)-EPSMA(f)	2081888-1	27	1.15	
EPSMA(m)-EPSMA(m)	2081890-1	27	1.15	
3.5mm(f)-3.5mm(f)	2081921-1	32	1.2	
EP3.5mm(f)-3.5mm(f)	2381985-1	32	1.2	
EP3.5mm(m)-3.5mm(f)	2381984-1	32	1.2	
3.5mm(f)-3.5mm(m)	2081922-1	32	1.2	
3.5mm(m)-3.5mm(m)	2081920-1	32	1.2	
2.92mm(f)-2.92mm(f)	2081945-1	40	1.2	
2.92mm(f)-2.92mm(f)	2081945-2	40	1.2	
2.92mm(f)-2.92mm(f)	2081945-3	40	1.2	
2.92mm(f)-2.92mm(m)	2081946-1	40	1.2	
2.92mm(m)-2.92mm(m)	2081944-1	40	1.2	

* Stainless steel with gold plating






Adaptor parts(3)

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
2.92mm(f)-2.4mm(f)	2081930-1	40	1.2	
2.92mm(f)-2.4mm(m)	2081931-1	40	1.2	
2.92mm(m)-2.4mm(f)	2081932-1	40	1.2	
2.92mm(m)-2.4mm(m)	2081933-1	40	1.2	
2.92mm(f)-1.85mm(f)	2081926-1	40	1.2	
2.92mm(f)-1.85mm(m)	2081927-1	40	1.2	
2.92mm(m)-1.85mm(f)	2081928-1	40	1.2	
2.92mm(m)-1.85mm(m)	2081929-1	40	1.2	
2.92mm(f)-SMP(f)	2081917-4	40	1.2	
2.92mm(f)-SMP(m)	2081916-4	40	1.2	
2.92mm(m)-SMP(f)	2081915-4	40	1.2	
2.92mm(m)-SMP(m)	2081914-4	40	1.2	
2.92mm(f)-SMPM(f)	2081917-3	40	1.2	
2.92mm(f)-SMPM(m)	2081916-3	40	1.2	
2.92mm(m)-SMPM(f)	2081915-3	40	1.2	
2.92mm(m)-SMPM(m)	2081914-3	40	1.2	
2.4mm(f)-2.4mm(f)	2081585-1	50	1.2	
2.4mm(f)-2.4mm(f)	2081593-1	50	1.2	

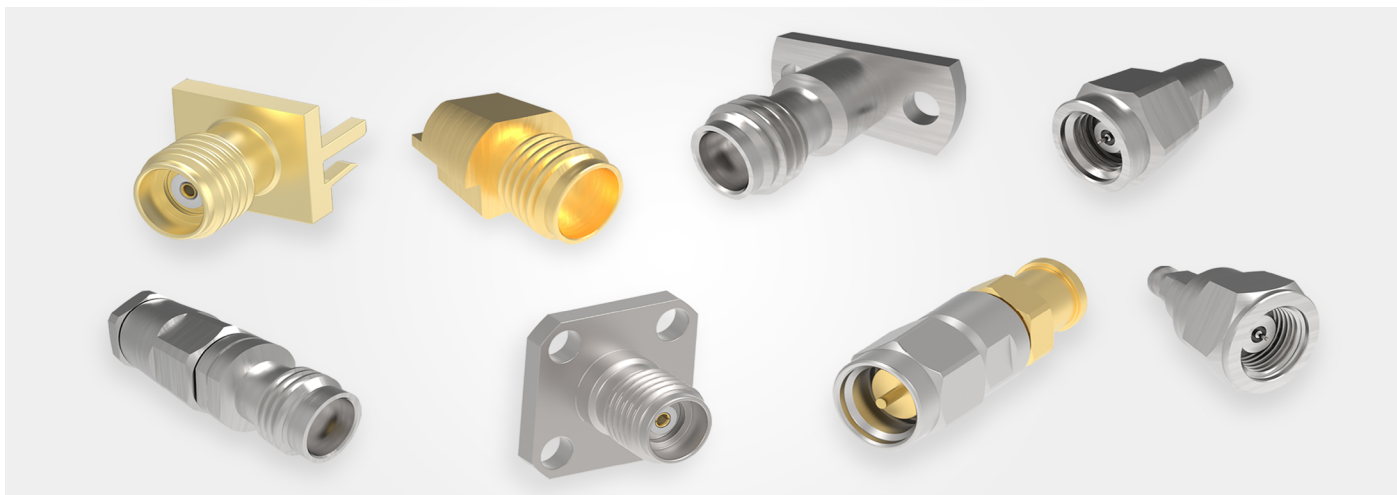
Adaptor parts(4)

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
2.4mm(f)-2.4mm(m)	2081586-1	50	1.2	
2.4mm(m)-2.4mm(m)	2081584-1	50	1.2	
2.4mm(f)-SMP(f)	2081917-2	40	1.2	
2.4mm(f)-SMP(m)	2081916-2	40	1.2	
2.4mm(m)-SMP(f)	2081915-2	40	1.2	
2.4mm(m)-SMP(m)	2081914-2	40	1.2	
2.4mm(f)-SMPM(f)	2081917-1	50	1.25	
2.4mm(f)-SMPM(m)	2081916-1	50	1.25	
2.4mm(m)-SMPM(f)	2081915-1	50	1.25	
2.4mm(m)-SMPM(m)	2081914-1	50	1.25	
2.4mm(f)-1.85mm(f)	2081926-2	50	1.2	
2.4mm(f)-1.85mm(m)	2081927-2	50	1.2	
2.4mm(m)-1.85mm(f)	2081928-2	50	1.2	
2.4mm(m)-1.85mm(f)	2081552-1	50	1.2	
2.4mm(m)-1.85mm(m)	2081929-2	50	1.2	
2.4mm(m)-1.85mm(m)	2081551-1	50	1.2	
1.85mm(f)-1.85mm(f)	2081924-1	67	1.25	
1.85mm(f)-1.85mm(f)	2081550-1	67	1.25	


Adaptor parts(5)

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
1.85mm(f)-1.85mm(m)	2081925-1	67	1.25	
1.85mm(m)-1.85mm(m)	2081923-1	67	1.25	
1.85mm(m)-1.85mm(m)	2081549-1	67	1.25	
1.35mm (m) to 1.35mm (m)	2385342-1	90	1.33	
1.35mm (f) to 1.35mm (f)	2385343-1	90	1.33	
1.35mm (m) to 1.35mm (f)	2385344-1	90	1.33	
1.35mm (f) to 1.0mm (m)	2385345-1	90	1.35	
1.35mm (f) to 1.0mm (f)	2385346-1	90	1.35	
1.35mm (f) to 1.0mm (f)	2385347-1	90	1.35	
1.35mm (m) to 1.0mm (m)	2385349-1	90	1.35	
1.85mm (m) to 1.35mm (m)	2385340-1	67	1.33	
1.85mm (m) to 1.35mm (f)	2385341-1	67	1.33	
1.0mm(m) to 1.0mm(f)	2081774-1	110	1.35	
1.0mm(m) to 1.0mm(m)	2081773-1	110	1.35	



















CONNECTORS



Connector parts

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
EPSMA Jack Receptacle Solderless	619550-1	27	1.05+.005F	
EPSMA Jack Receptacle accept pin 0.23	2081891-1	27	1.2	
EPSMA Plug Receptacle accept pin 0.23	2081892-1	27	1.2	
EPSMA Jack Receptacle End Launch	2081880-1	27	1.3	
EPSMA Plug for 086 Cable	2081884-1	27	1.3	
EPSMA Jack for 086 Cable	2081885-1	27	1.3	
EPSMA Plug for 141 Cable	2081886-1	27	1.3	
EPSMA Jack for 141 Cable	2081887-1	27	1.3	
2.92mm Jack Receptacle Solderless	2081570-1	40	1.2	
2.92mm Jack Receptacle Solderless	2081570-2	40	1.2	
2.92mm Jack PCB End launch	2081934-1	40	1.2	

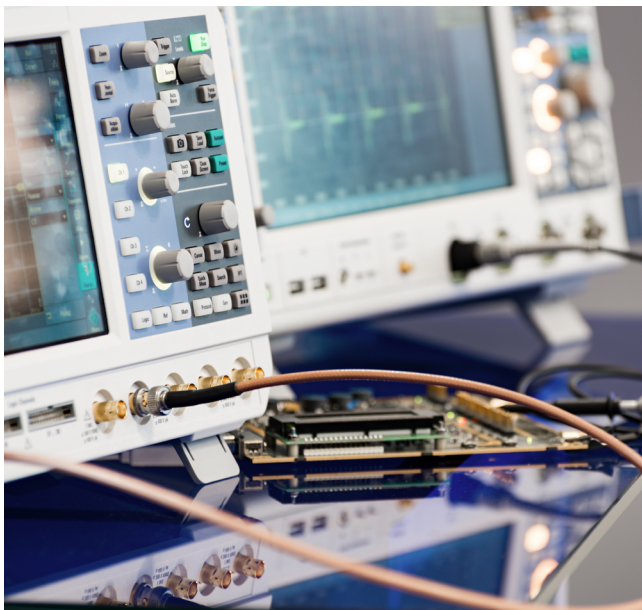
Connector parts(2)

Type	TE Part Number	Frequency (GHz)	VSWR	Picture
2.92mm Jack PCB End launch	2081588-1	40	1.2	
2.92mm Jack for 3.6mm cable	2081911-2	40	1.2	
2.92mm Plug for 3.6mm cable	2081912-2	40	1.2	
2.4mm Jack Receptacle Solderless	2081936-1	50	1.2	
2.4mm Jack Receptacle accept Pin 0.3	2081598-1	50	1.2	
2.4mm Jack Receptacle End Launch	2081935-1	50	1.2	
2.4mm Jack for 2.2mm cable	2081911-1	50	1.2	
2.4mm Plug for 2.2mm cable	2081912-1	50	1.2	
1.85mm Jack Receptacle Solderless	2081937-1	67	1.2	
1.85mm Jack for 2.2mm cable	2081911-3	67	1.2	
1.85mm Plug for 2.2mm cable	2081912-3	67	1.2	
1.35mm Male S/T connector for SPB-160	2385350-1	90	1.33	
1.35mm Female S/T connector for SPB-160	2385351-1	90	1.33	
1.35mm Female S/T for PCB	2385352-1	90	1.33	
1.35mm Female end launch connector	2385353-1	90	1.33	
1.0 mm Female receptacle with 2 holes flange	2081775-1	110	1.35	
1.0 mm Female connector, solder	2081776-1	110	1.35	
1.0 mm Male connector, solder	2081777-1	110	1.35	



TESTING CABLE ASSEMBLIES










TE's testing cable assemblies are made of our precision connectors and high-performance test cables. These assemblies provide excellent reliability, amplitude, phase stability, and low loss. Our cable assemblies are suitable for a variety of different usage environments and design requirements. We offer 18GHz, 26.5GHz, 40GHz, 50GHz and 70GHz high-frequency, stable-amplitude and stable-phase cables to meet customer's design needs. The cable assembly part numbers on the next page are offered based on popular cable lengths. Custom cable lengths are also available.



PRODUCT FEATURES

- Industry leading Voltage Standing Wave Ratio
- Best in class amplitude and phase characteristics
- Good flatness within the band
- Cable assembly has soft structure and a unique joint connection to withstand testing over long periods
- Spot inventory, timely delivery (1-2 weeks delivery)

Cable Assembly Parts

TE Part Number	Frequency	Connector A	Cable	Connector B	Phase (degree)	Amplitude (dB)	VSWR	Picture
2016658	18GHz	EP-N male	EPC with armor	EP-N male	+/-5°	+/-0.1	1.3	
2016656	18GHz	EP-SMA male	EPC with armor	EP-SMA male	+/-5°	+/-0.1	1.3	
2016657	18GHz	EP-N male	EPC without armor	EP-N male	+/-5°	+/-0.1	1.3	
2016655	18GHz	EP-SMA male	EPC without armor	EP-SMA male	+/-5°	+/-0.1	1.3	
2016703	18GHz	EP-N male	EPC with armor	EP-SMA male	+/-5°	+/-0.1	1.3	
2016663	26.5GHz	EP-3.5 male	EPC with armor	EP-3.5 male	+/-5°	+/-0.1	1.3	
2016662	40GHz	EP-2.92 male	EPC with armor	EP-2.92 male	+/-5°	+/-0.1	1.3	
2016661	50GHz	EP-2.40 male	EPC with armor	EP-2.40 male	+/-5°	+/-0.1	1.3	
2016659	67GHz	EP-1.85 Female	EPC with armor	EP-1.85 Female	+/-5°	+/-0.1	1.3	

- Cable assembly Insertion Loss: $IL = \{ [K1 \times \sqrt{f} + K2 \times f] \times \text{Length} + 0.05 \times \sqrt{F} \}$ dB (Typical)
F is GHz, f is MHz, K1 & K2 is loss constant

CABLE	EPC-18	EPC-19	EPC-21	EPC-24
K1	1.044	1.141	1.371	1.950
K2	0.0024	0.003936	0.00044	0.00145

ASSOCIATED PRODUCTS AND RESOURCES

Antennas

Landing Page: www.te.com/antennas

Catalog – Ruggedized Antennas: 1-1773953-3

Catalog – Telematics and M2M Antennas: 1-1773960-1

Board Level Shields (BLS)

Landing Page: www.te.com/bls

Quick Reference Guide: 9-1773700-1

Grounding (Spring Fingers)

Landing Page: www.te.com/products/spring-fingers

Quick Reference Guide: 6-1773460-8

Discrete Wire Connectors

Landing pages: www.te.com/products/ct

www.te.com/products/minict

<http://www.te.com/products/hpi>

<http://www.te.com/lowpowerdrawer>

Quick Reference Guides: 1-1773455-8, 6-1773454-5,
1-1773713-2, 1-1773888-2

SIM Card Connectors

Landing page: www.te.com/products/sim

Quick Reference Guide: 2-1773464-0

Fine Pitch Board-to-Board Connectors

Landing page: www.te.com/products/fine-pitch

Quick Reference Guide: 1-1773839-9

RF & Coax Connectors

Landing page: www.te.com/rf

Quick Reference Guide: 1-1773725-8

Battery Connectors

Landing Pages: www.te.com/products/mobile-battery-connector

www.te.com/products/batterypack

Quick Reference Guides: 1-1773839-5, 1-1773839-4

Flexible Printed Circuit (FPC) Connectors

Landing page: www.te.com/products/fpc

Quick Reference Guides: 5-1773461-0, 8-1773459-2

High Frequency Relays

Landing page: www.te.com/hf-relays

USB-C and micro-USB

Landing pages: www.te.com/products/micro-usb

www.te.com/products/usb-type-c

Quick Reference Guides: 1-1773972-9, 1-1773973-2

Switches

Landing page: www.te.com/alcoswitch

Catalog: 8-1773450-9

Sensors

Landing Page: www.te.com/sensors

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