1.85mm

1.85mm connectors are precision connectors designed to perform to 65 GHz. The 1.85mm connector is often referred to as a "V" connector. Their overall size is similar to SMA connectors, but they are not intermateable. The 1.85mm connector is mechanically compatible and intermateable with the 2.4mm connector family. The center contact pin of both the 1.85mm and 2.4mm connectors is .020" (.51mm).

The 1.85mm connectors are used in test and measurement applications where reliability in performance is crucial for repeatable and critical high frequency testing.

The 1.85mm interface is designed to insure the outer conductors engage and align before the center contacts engage preventing damage to the center contact. The 1.85mm connector is mechanically compatible with the 2.4mm connector series.

Technical Characteristics

Electrical

Impedance		50Ω
Frequency Range		0 – 67 GHz
Insertion Loss		0.6 dB max.
VSWR		1.5 max.
Contact Resistance	Center Contact	4 milliΩ max
	Outer Contact	2.5 milliΩ max

Material

Connector Body Parts	Stainless Steel	Passivated Finish
Center Contacts	Male: Phosphor Bronze	Gold 15 µin.
	Female: Beryllium copper	Gold 15 µin.
Insulators	PPO	

37-185-13-PGP

Adapter, 1.85mm Male to 1.85mm Male, PPO Insulation, Gold Pin, Passivated Finish Body, Hex Shell

37-185-09-PGP

Adapter, 1.85mm Female to 1.85mm Female, PPO Insulation, Gold Pin, Passivated Finish Body

37-185-15-PGP

Adapter, 1.85mm Female to 1.85mm Male, PPO Insulation, Gold Pin, Passivated Finish Body, Hex Shell

2.4mm

The 2.4mm connector is designed for superior higher frequency performance with ,an operating frequency of 50 Ghz.

The 2.4mm connector is mechanically compatible and intermateable with the 1.85mm connector family. The 2.4mm connector is mechanically compatible and intermateable with the 1.85mm connector family.

The primary application for this connector is for use as a port interface on test & measurement equipment or components that require superior performance at extended high frequencies

Technical Characteristics

Electrical

Impedance		50Ω
Frequency Range		0 – 50 GHz
Insertion Loss		0.6 dB max.
VSWR		1.35 max.
Contact Resistance	Center Contact	4 milliΩ max
	Outer Contact	2.5 milliΩ max

Material

Connector Body Parts	Stainless Steel	Passivated Finish
Center Contacts	Male: Phosphor Bronze	Gold 15 µin.
	Female: Beryllium copper	Gold 15 µin.
Insulators	PPO	

37-240-13-PGP

Adapter, 2.4mm Male to 2.4mm Male, PPO Insulation, Gold Pin, Passivated Finish Body, Hex Shell

37-240-09-PGP

Adapter, 2.4mm Female to 2.4mm Female, PPO Insulation, Gold Pin, Passivated Finish Body

37-240-15-PGP

Adapter, 2.4mm Female to 2.4mm Male, PPO Insulation, Gold Pin, Passivated Finish Body, Hex Shell

2.92mm

2.92mm connector also named "K" connector or simply 2.9 millimeter, it's a precision connector designed to perform mode free to 40GHz. Their interface is similar to SMA connectors, but utilizes an air dielectric and a smaller internal body diameter support for higher cutoff frequency.

The outer conductor measures 2.92mm with a strong outer body wall compared to dielectric loaded interfaces of comparable size.

2.92mm connectors are mechanically compatible with SMA and 3.5mm connectors, but the male center pin is, shortened to allow outer conductor engagement before the center contacts mate, preventing damage to the female contact pins.

Our current line offers 2.92mm connectors for semi-rigid and flexible cable, receptacles and precision adapters which may be adapted for custom applications.

Technical Characteristics

Electrical

Impedance		50Ω
Frequency Range		0 – 40 GHz
Working Voltage		250 VRMS max.
Dielectric Withstanding Voltage		750 VRMS max.
VSWR	Straight	1.2 max.
	Right Angle	1.4 max.
Contact Resistance	Center Contact	4 milliΩ max
	Outer Contact	2.5 milliΩ max
Insulator Resistance		5000 megΩ min.

Material

Connector Body Parts	Stainless Steel	Passivated Finish
Center Contacts	Male Phosphor Bronze	Gold 15 µin.
	Female Beryllium copper	Gold 15 µin.
Insulators	PPO	
Clamp Gaskets	Silicone Rubber	

37-292-01S1-PGP

2.92mm Straight Male Solder, PPO Insulation, Gold Pin, Passivated Finish Body, Passivated Finish Hex Shell for TCC Cable Group S1

37-292-01S2-PGP

2.92mm Straight Male Solder, PPO Insulation, Gold Pin, Passivated Finish Body, Passivated Finish Hex Shell for TCC Cable Group S2

37-292-03S1-PGP

2.92mm Straight Female Solder, PPO Insulation, Gold Pin, Passivated Finish Body, for TCC Cable Group S1

2.92mm

37-292-03S2-PGP

2.92mm Straight Female Solder, PPO Insulation, Gold Pin, Passivated Finish Body, for TCC Cable Group S2

37-292-11-PGP

2.92mm Male 4 Hole Panel Mount, PPO Insulation, Gold Pin, Passivated Finish Body, Passivated Finish Hex Shell

37-292-12-PGP

2.92mm Female 4 Hole Panel Mount, PPO Insulation, Gold Pin, Passivated Finish Body

37-292-15-PGP

Adapter, 2.92mm Male to 2.92mm Male, PPO Insulation, Gold Pin, Gold Finish Body, Passivated Finish Hex Shell

37-292-16-PGP

Adapter, 2.92mm Female to 2.92mm Female, PPO Insulation, Gold Pin, Gold Finish Body

37-292-17-PGP

Adapter, 2.92mm Male to 2.92mm Female, PPO Insulation, Gold Pin, Gold Finish Body, Passivated Hex Shell.

SMP

SMP subminiature connectors offer excellent performance from DC to 40 GHz. It is commonly used in miniaturized high frequency coaxial modules and is offered in both push-on and snap-on mating styles. The PCB mount, cable mount and in-series adapters provide an interconnect application for board-to-board and blind mate applications while maintaining package density.

The SMP interface styles provides three different levels of retention force, Full Detent (FD) for maximum retention, Limited Detent (LD) for medium retention and Smooth Bore (SB) for minimum retention, to cover a wide range of applications.

Technical Characteristics

Electrical

Impedance			50Ω
Frequency Range	Connectors for Semi-Rigid Cable		0 – 40 GHz
	In-Series Adaptors, End Launch		0 – 18 GHz
	PCB Mount		0 – 12 GHz
Insertion Loss			5000 megΩ min.
VSWR			1.30 : 1 max.
VSWR	Connectors for Semi-Rigid Cable		1.2 max 0 - 18 GHz 1.35 max 18 - 26.5 GHz 1.7 max 26.5 - 40 GHz
Contact Resistance	Center Contact		6 milliΩ max
	Outer Contact		2 milliΩ max

Material

Connector Body Parts	Brass		Gold
Center Contacts	Male	Brass	Gold
	Female	Beryllium copper	Gold
Insulators	Teflon		
Crimp Ferrules	Annealed Copper or Brass		Finish same as Body

37-SMP-02S1-TGG

SMP Straight Female, Solder, Teflon Insulation, Gold Pin Gold finish Body, for TCC Cable Group S1

37-SMP-03S1-TGG

SMP Right Angle Female, Solder, Teflon Insulation, Gold Pin, Gold finish Body for TCC Cable Group S1

37-SMP-07-TGG

SMP Male, Straight, Edge Mount Plug Receptacle, Teflon Insulation, Gold Pin Gold Finish Body

37-SMP-09-TGG

Adapter, SMP Female to SMP Female, Teflon Insulation, Gold Pin Gold Finish Body

37-SMP-11-TGG

SMP Male Straight for PCB Mount, Teflon Insulation, Gold Pin Gold Finish Body

37-SMP-13-TGG

Adapter, SMP Male to SMP Male, Teflon Insulation, Gold Pin Gold Finish Body

High Frequency

3.5mm

SMA 3.5mm and 2.92 connectors, these three connector styles use air dielectric, and will mate with each other as well as the cheaper SMA styles. The 3.5 mm connector is the next upgrade from using SMA, it performs well up to 34 Ghz.

Our current line offers 2.92mm connectors for semi-rigid and flexible cable, receptacles and precision adapters which may be adapted for custom applications.

Technical Characteristics

Electrical

Impedance		50Ω
Frequency Range		0 – 34 GHz
Insertion Loss		0.3 dB max.
VSWR		1.2 max.
Contact Resistance	Center Contact	3 milliΩ max
	Outer Contact	2 milliΩ max

Material

Connector Body Parts	Stainless Steel	Passivated Finish
Center Contacts	Male: Phosphor Bronze	Gold 15 µin.
	Female: Beryllium copper	Gold 15 µin.
Insulators	PPO	

37-350-13-PGP

Adapter, 3.5mm Male to 3.5mm Male, PPO Insulation, Gold Pin, Gold Finish Body, Passivated Finish Hex Shell

37-350-09-PGP

Adapter, 3.5mm Female to 3.5mm Female, PPO Insulation, Gold Pin, Gold Finish Body

37-350-15-PGP

Adapter, 3.5mm Female to 3.5mm Male, PPO Insulation, Gold Pin, Gold Finish Body, Passivated Finish Hex Shell