



2.92mm



2.4mm



1.85mm

# High Frequency Color-Coded Adapters



Upgrade Your Testing Workflow With Delta's  
High Performance, Color-Coded Adapters



## Color-Coded Adapter Benefits



## Introducing Delta's New Color-Coded Adapters



**Optimize Your Testing Workflow**



**Train Your Team More Efficiently**



**Organize Your Testing Workspace**



**Reduce Damage From Mismatching**

**This product only available through these authorized Delta distributors.**

## Color-Coded Adapters Introduction

Delta Electronics ([www.deltarf.com](http://www.deltarf.com)) is a world-class provider of reliable RF, microwave, and millimeter-wave interconnect solutions. As the world increases its need for wireless radio-frequency bandwidth at higher and higher frequencies, for such things as 5G smart phones and radars in self-driving cars, Delta Electronics is ready with a wide range of low-loss, coaxial connectors. And they now offer color-coded coaxial connector adapters to mate different coaxial connectors. The adapters reach as high as 110 GHz in frequency, with each color identifying a type of connector/adaptor and its frequency range.

Coaxial interconnections from Delta Electronics support many markets, including communications, industrial, medical, military, test and measurement, and transportation applications. They are built with the highest quality, produced at a vertically integrated global headquarters in Beverly, MA and the company's world-class manufacturing facility in Nanjing, China. Along with a strategic partner in Taiwan, lean manufacturing methods deliver outstanding performance for all interconnection products from Delta Electronics, with the latest coaxial adapters using color to make coaxial mating simpler and safer even at millimeter-wave frequencies.

The color-coded adapters work with small connectors: 1.0-, 1.85-, 2.4-, and 2.92-mm coaxial connectors. By matching an adapter's color to its connector, the right interconnections are made. The wear and tear on the connector is minimized, resulting in less signal degradation in a high-frequency interconnection such as on test equipment. The life of each millimeter-wave connector is extended by proper connector/adaptor mating.

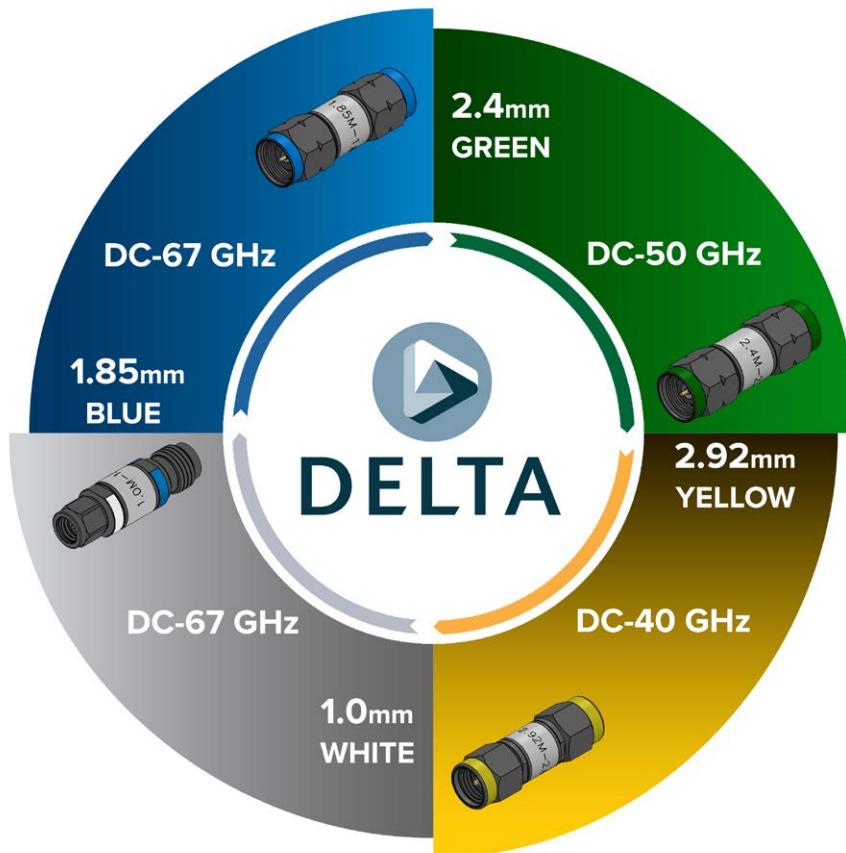
This brochure highlights the color-coded coaxial adapters and the difference that color can make when setting up and running a high-frequency test setup with multiple coaxial interconnections. Let color be your guide to smarter, more efficient measurements at millimeter-wave frequencies.





## Color-Coded Adapters Technical Information

### IEEE Frequencies



### Torque Values

Per the IEC 61169 definitions for each interface the recommended mating torques are as follows:

1.85 mm: .8 Nm to 1.1 Nm  
 2.92 mm: .8 Nm to 1.1 Nm  
 2.4 mm: .8 Nm to 1.1 Nm  
 1.0 mm: .3 Nm to .41 Nm

### Construction

**Housing & Coupling Nut:** Stainless Steel, Passivated  
**Contact:** Beryllium Copper (BeCu) Gold plated  
**Dielectric:** Noryl EN265, Polyphenylene Oxide (PPO), Per ASTM D - 4349 PPE220B50541 F13 G1106  
**Locking Ring:** Beryllium Copper (BeCu)  
**Bushing:** Brass Per ASTM B16, C36000 Alloy

- ▶ Coaxial adapters are critical components used to make reliable transitions from one connector interface to another.
- ▶ Delta's adapters are designed in accordance with IEC 61169-35 (2.92mm), IEC 61169-40 (2.4mm), IEC 61169-32 (1.85mm) & IEC 61169-31 (1.0mm).
- ▶ Each adapter has a critical visual indicator, a color code, which matches the IEEE working group color scheme.
- ▶ The color code promotes proper mating and quick identification.
- ▶ Delta's color-coded adapters will prevent damage and save both cost and time.
- ▶ Delta's franchised distributors stock 2.92 mm, 2.4 mm and 1.85 mm within series adapters.



## Color-Coded Adapters Index

### Within Series Adapters

### Between Series Adapters

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1.85mm DC-67GHz



#### 1.0mm - 1.85mm - White/Blue-- Page 9

1.0mm-1.85mm



#### 2.4mm - Green ----- Page 7

2.4mm DC-50 GHz



#### 1.85mm - 2.92mm - Blue/Yellow-- Pages 10-11

1.85mm-2.92mm



#### 2.92mm - Yellow ----- Page 8

2.92mm DC-40 GHz

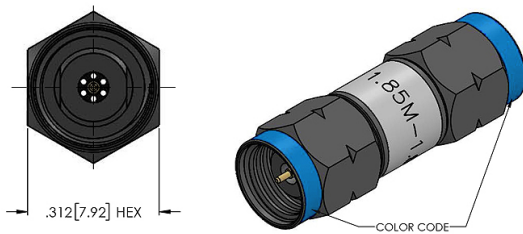
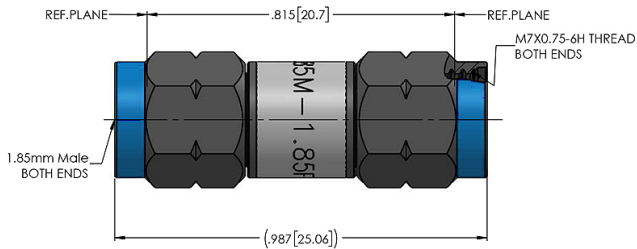


## 1.85mm Color-Coded Adapters

### 8127000K001-803-C

#### 1.85mm Male To 1.85mm Male

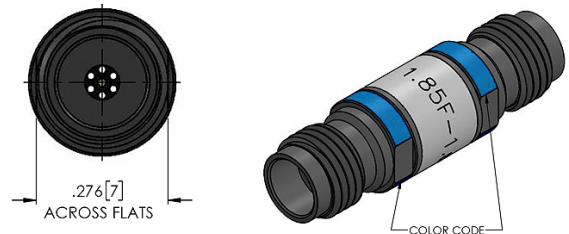
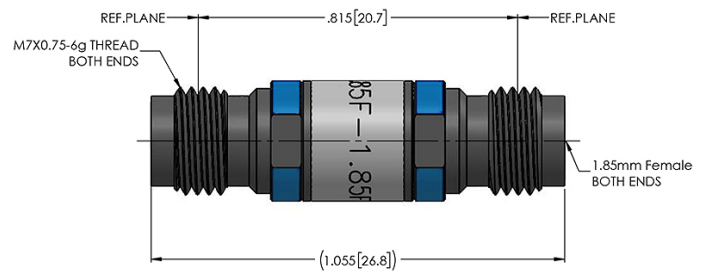
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 8128000K001-803-C

#### 1.85mm Female To 1.85mm Female

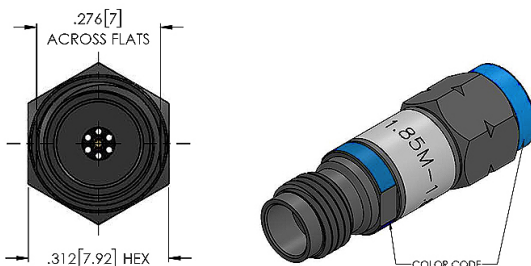
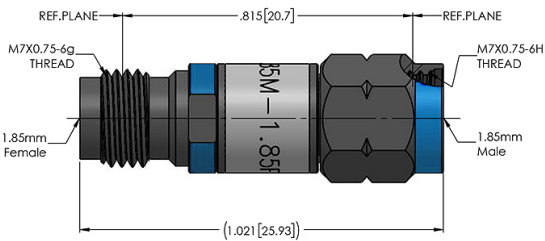
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 8134000K001-802-C

#### 1.85mm Female To 1.85mm Male

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### 1.85mm - BLUE Within Series Adapters DC-67 GHz

#### Electrical Specifications

Frequency Range

DC-65 GHz

VSWR

1.35 Max @ 65 GHz

Insertion Loss

0.50dB Max 65 GHz

Working Voltage @ Sea Level

150 Vrms

DWV@Sea Level

500 Vrms

Insulation Resistance

5000MΩ

#### Mechanical Specifications

Durability

500 Cycles Min

Coupling Nut Torque

7-10 In. LBS [0.8-1.1 N.m]

Contact Captivation

≥4.5 LBS [20N]

#### Environmental Specifications

Temp Range

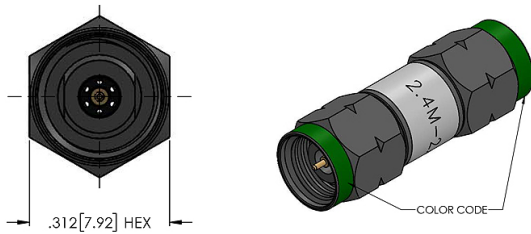
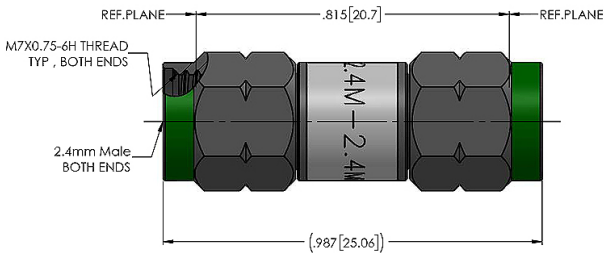
-55° to +125°C

## 2.4mm Color-Coded Adapters

### 8027000K001-803-C

#### 2.4mm Male To 2.4mm Male

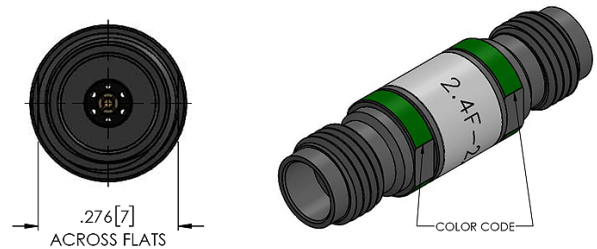
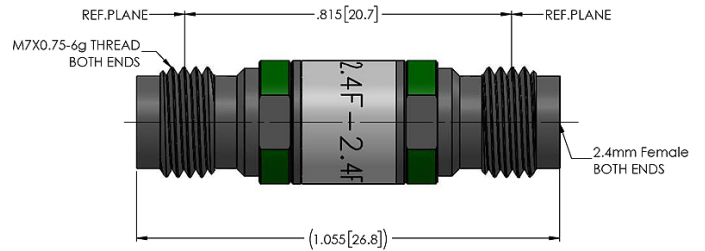
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 8028000K001-803-C

#### 2.4mm Female To 2.4mm Female

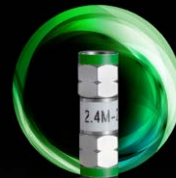
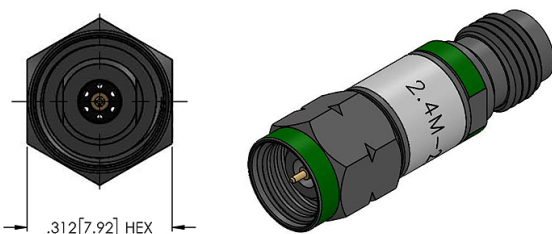
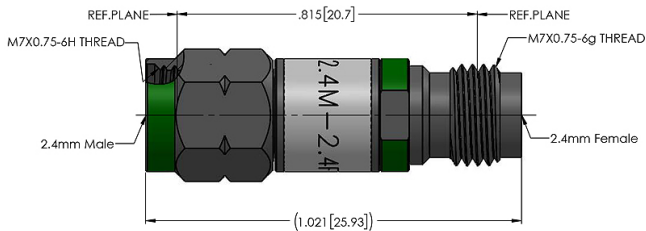
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### 8034000K001-803-C

#### 2.4mm Male To 2.4mm Female

All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 2.4mm - GREEN Within Series Adapters DC-50 GHz

#### Electrical Specifications

Frequency Range	DC-50 GHz
VSWR	1.30 Max @ 50 GHz
Insertion Loss	0.45dB Max 50 GHz
Working Voltage @ Sea Level	335 Vrms
DWV@Sea Level	500 Vrms
Insulation Resistance	1000MΩ

#### Mechanical Specifications

Durability	500 Cycles Min
Coupling Nut Torque	7-10 In. LBS [0.8-1.1 N.m]
Contact Captivation	≥4.5 LBS [20N]

#### Environmental Specifications

Temp Range	-55° to +125°C
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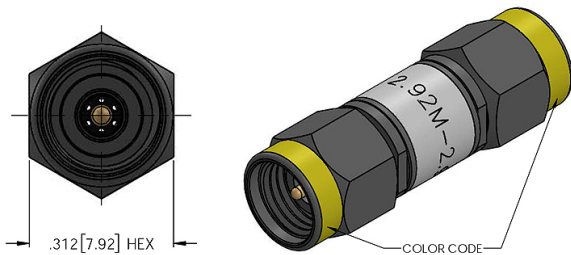
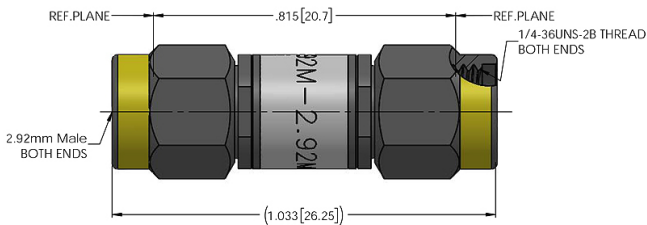


## 2.92mm Color-Coded Adapters

### 7927000K001-805-C

#### 2.92mm Male To 2.92mm Male

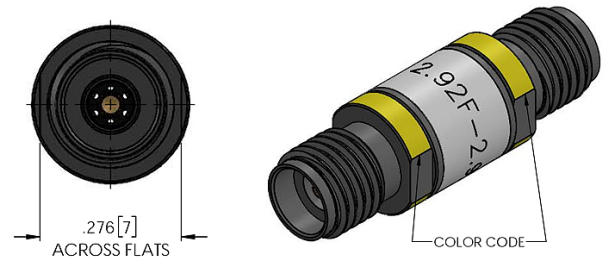
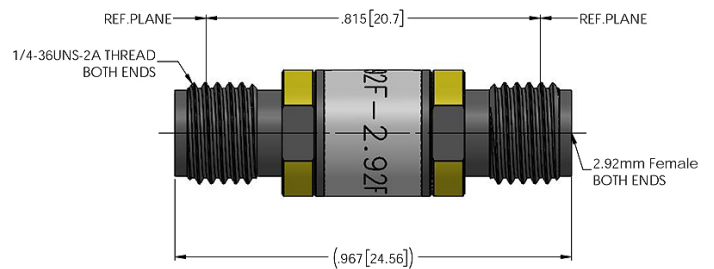
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### 7928000K001-803-C

#### 2.92mm Female To 2.92mm Female

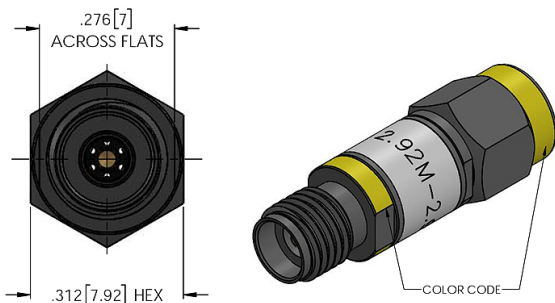
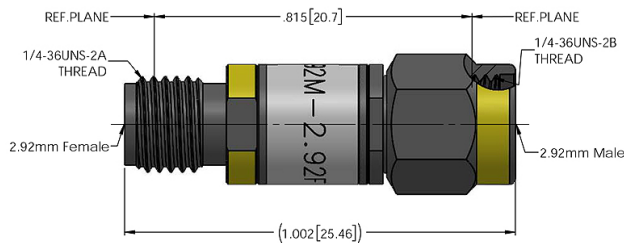
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 7934000K001-802-C

#### 2.92mm Female To 2.92mm Male

All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



#### 2.92mm - YELLOW Within Series Adapters DC-40 GHz

##### Electrical Specifications

Frequency Range

DC-40 GHz

VSWR

1.25 Max @ 40 GHz

Insertion Loss

0.38dB Max 40 GHz

Working Voltage @ Sea Level

250 Vrms

DWV@Sea Level

750 Vrms

Insulation Resistance

5000MΩ

##### Mechanical Specifications

Durability

500 Cycles Min

Coupling Nut Torque

7-10 In. LBS [0.8-1.1 N.m]

Contact Captivation

≥4.5 LBS [20N]

##### Environmental Specifications

Temp Range

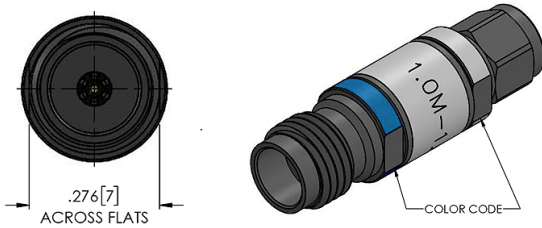
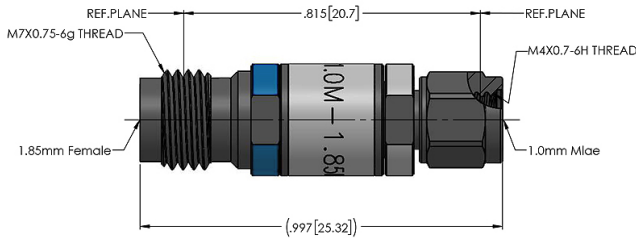
-55° to +125°C

## 1.85mm to 1.0mm Color-Coded Adapters

### 2234000K001-835-C

#### 1.85mm Female To 1.0mm Male

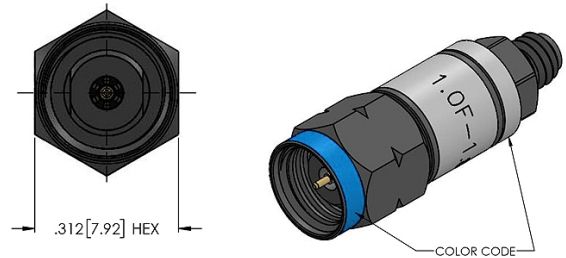
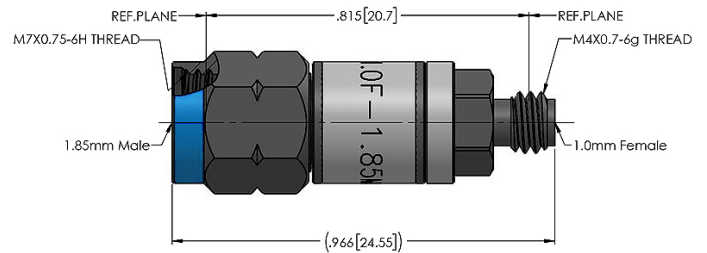
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 2234000K001-836-C

#### 1.85mm Male To 1.0mm Female

All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



**1.0mm - WHITE & 1.85mm BLUE  
Within Series Adapters  
DC-67 GHz**

#### Electrical Specifications

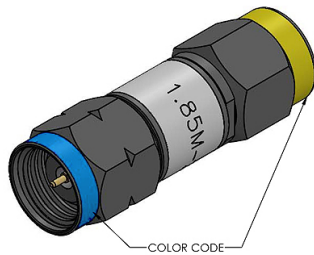
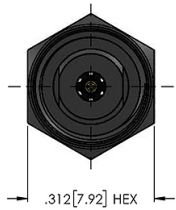
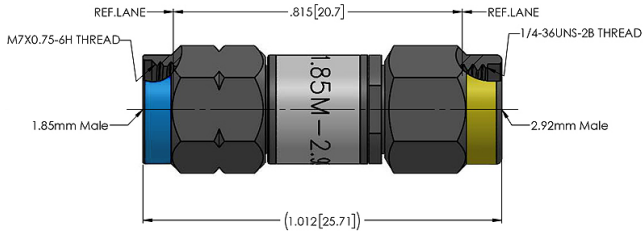
Frequency Range	DC-67 GHz
VSWR	1.35 Max @ 67 GHz
Insertion Loss	0.50dB Max 67 GHz
Working Voltage @ Sea Level	150 Vrms
DWV@Sea Level	500 Vrms
Insulation Resistance	5000MΩ
<b>Mechanical Specifications</b>	
Durability	500 Cycles Min
Coupling Nut Torque	2.6-3.6 In. LBS [0.3-0.41 N.m]
Contact Captivation	≥2.25 LBS [10N]
<b>Environmental Specifications</b>	
Temp Range	-55° to +125°C

## 1.85mm to 2.92 Color-Coded Adapters

### 2227000K001-815-C

#### 1.85mm Male To 2.92mm Male

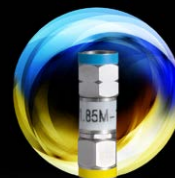
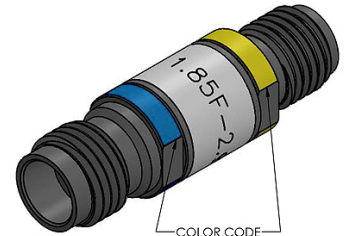
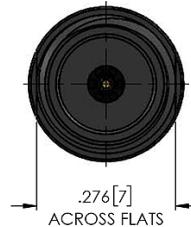
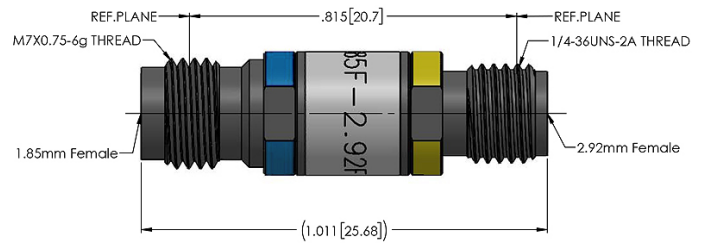
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 2228000K001-820-C

#### 1.85mm Female To 2.92mm Female

All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



### 2.92mm - YELLOW & 1.85mm BLUE Within Series Adapters DC-40 GHz

#### Electrical Specifications

Frequency Range	DC-40 GHz
VSWR	1.25 Max @ 40 GHz
Insertion Loss	0.38dB Max 40 GHz
Working Voltage @ Sea Level	150 Vrms
DWV@Sea Level	500 Vrms
Insulation Resistance	5000MΩ

#### Mechanical Specifications

Durability	500 Cycles Min
Coupling Nut Torque	7-10 In. LBS [0.8-1.1 N.m]
Contact Captivation	≥4.5 LBS [20N]

#### Environmental Specifications

Temp Range	-55° to +125°C
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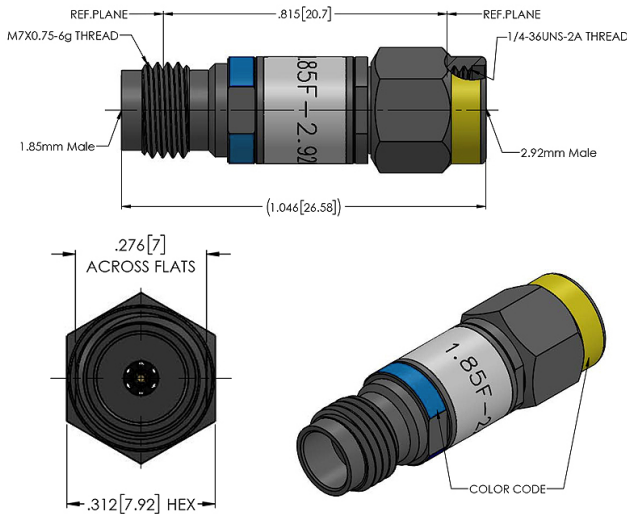


## 1.85mm to 2.92 Color-Coded Adapters

### 2234000K001-833-C

#### 1.85mm Female To 2.92mm Male

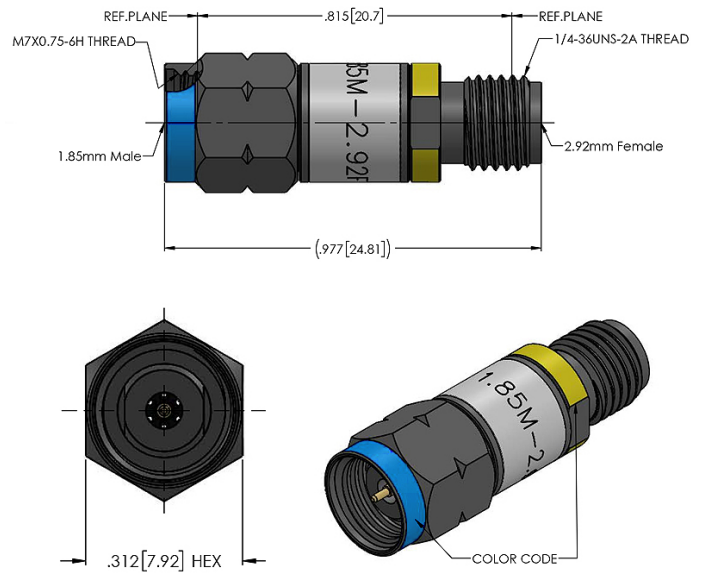
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only




### 2234000K001-834-C

#### 1.85mm Male To 2.92mm Female

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What's your coaxial engineering challenge?

Try  **DELTA's** Cost Effective  
RF/Microwave/mmWave  
Customizable Gang  
Mounts, Interconnects  
& Cable Assemblies.

