

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**

**Available Only
Through Authorized
Delta Distributors**



Color Coded Adapters Introduction

Delta Electronics (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.

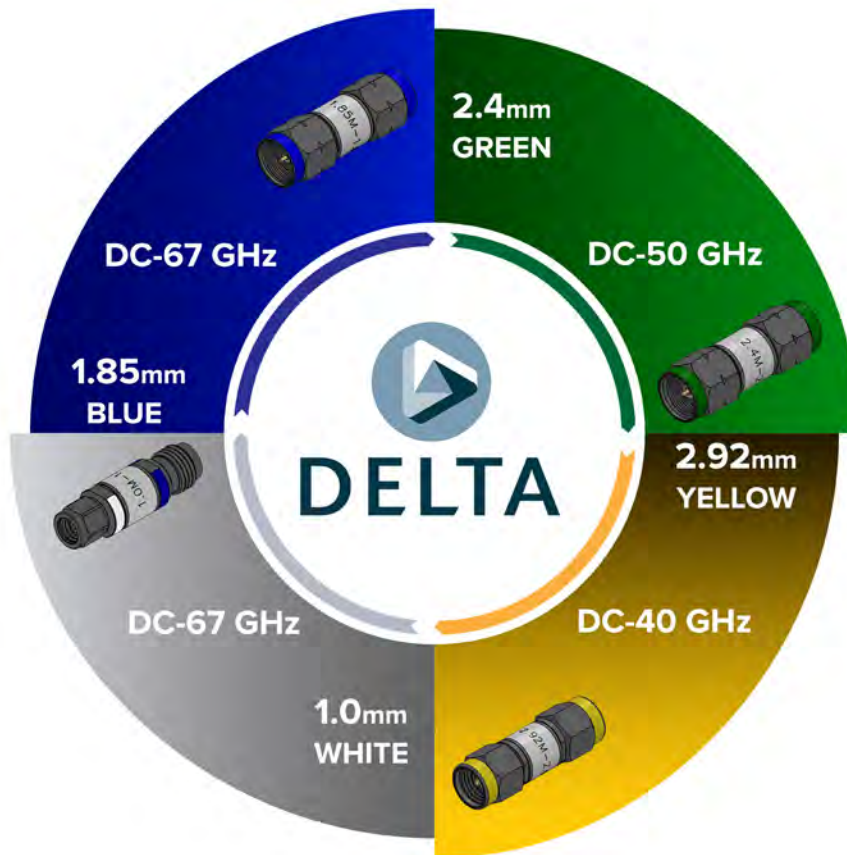
The color-coded adapters work with small connectors: 1.0-, 1.85-, 2.4-, and 2.92-mm coaxial connectors. By matching an adapter's color to its connector, the right interconnections are made. The wear and tear on the connector is minimized, resulting in less signal degradation in a high-frequency interconnection 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

1.85mm - Blue ----- Page 6



8127000K001-803-C
 1.85mm MALE To 1.85mm MALE



8128000K001-803-C
 1.85mm FEMALE To 1.85mm FEMALE



8134000K001-802-C
 1.85mm MALE To 1.85mm FEMALE

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



2234000K001-835-C
 1.0mm MALE TO 1.85mm FEMALE



2234000K001-836-C
 1.0mm FEMALE TO 1.85mm MALE

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



2227000K001-815-C
 1.85mm MALE To 2.92mm MALE



2228000K001-820-C
 1.85mm FEMALE To 2.92mm FEMALE



2234000K001-833-C
 1.85mm FEMALE TO 2.92mm MALE



2234000K001-834-C
 1.85mm MALE TO 2.92mm FEMALE

2.4mm - Green ----- Page 7



8027000K001-803-C
 2.4mm MALE To 2.4mm MALE



8028000K001-803-C
 2.4mm FEMALE To 2.4mm FEMALE



8034000K001-803-C
 2.4mm MALE To 2.4mm FEMALE

2.92mm - Yellow ----- Page 8



7927000K001-805-C
 2.92mm MALE To 2.92mm MALE



7928000K001-803-C
 2.92mm FEMALE To 2.92mm FEMALE



7934000K001-802-C
 2.92mm MALE To 2.92mm FEMALE

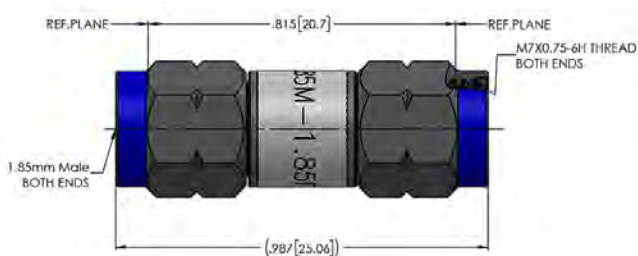


1.85mm Color Coded Adapters

8127000K001-803-C

1.85mm Male To 1.85mm Male

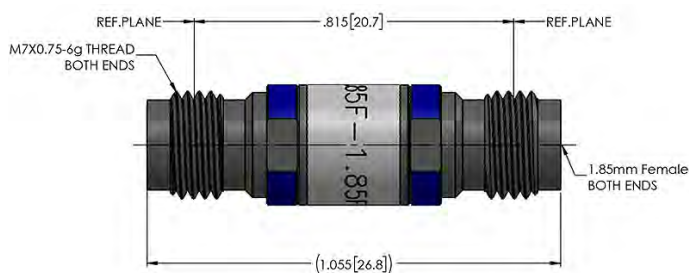
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



8128000K001-803-C

1.85mm Female To 1.85mm Female

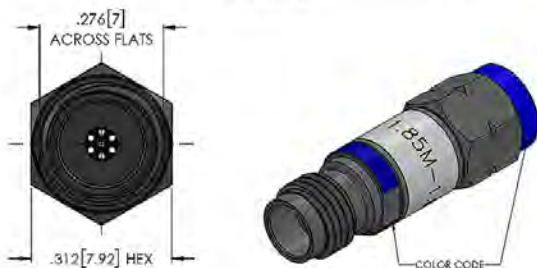
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



8134000K001-802-C

1.85mm Female To 1.85mm Male

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



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

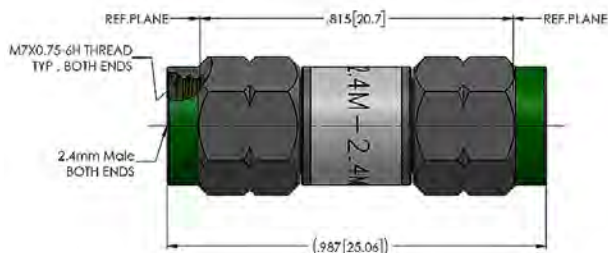
Temp Range -55° to +125°C

2.4mm Color Coded Adapters

8027000K001-803-C

2.4mm Male To 2.4mm Male

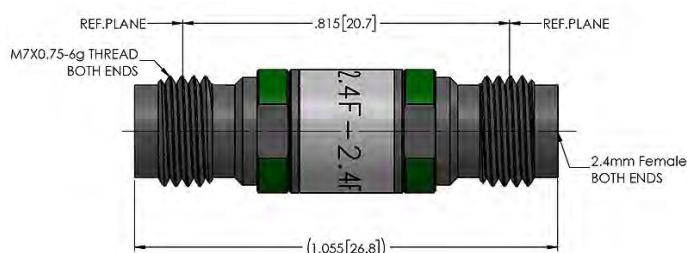
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



8028000K001-803-C

2.4mm Female To 2.4mm Female

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



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
------------	----------------

2.92mm Color Coded Adapters

7927000K001-805-C

2.92mm Male To 2.92mm Male

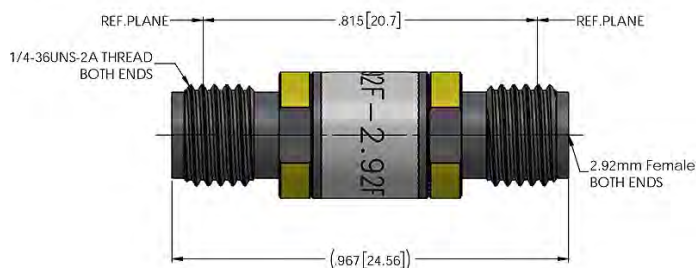
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



7928000K001-803-C

2.92mm Female To 2.92mm Female

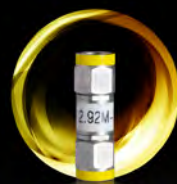
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



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

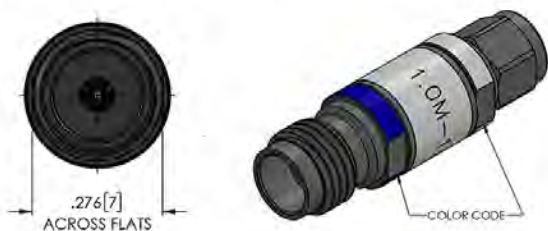
Frequency Range	DC-40 GHz
VSWR	1.25 Max @ 40 GHz
Insertion Loss	0.38dB Max 40 GHz
Working Voltage @ Sea Level	250 Vrms
DWV@Sea Level	750 Vrms
Insulation Resistance	5000MΩ
Mechanical Specifications	
Durability	500 Cycles Min
Coupling Nut Torque	7-10 In. LBS [0.8-1.1 N.m]
Contact Captivation	≥4.5 LBS [20N]
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

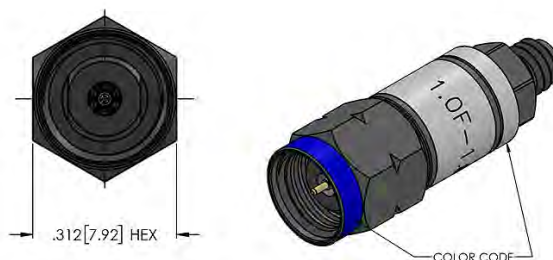
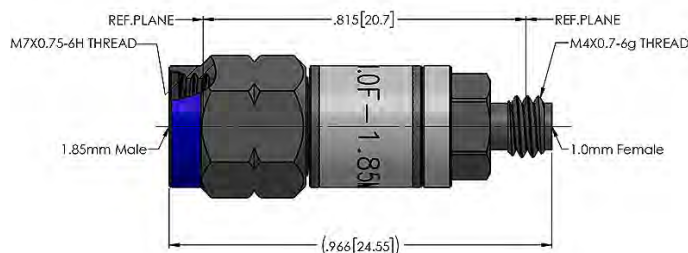
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



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

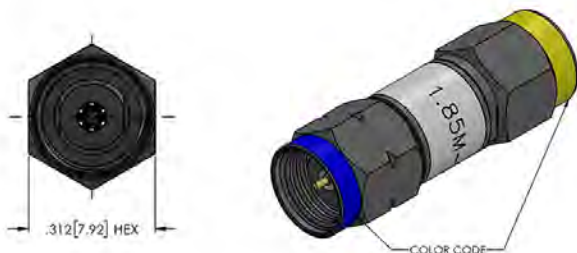
Frequency Range	DC-67 GHz
VSWR	1.35 Max @ 67 GHz
Insertion Loss	0.50dB Max 67 GHz
Working Voltage @ Sea Level	150 Vrms
DWV@Sea Level	500 Vrms
Insulation Resistance	5000MΩ
Mechanical Specifications	
Durability	500 Cycles Min
Coupling Nut Torque	2.6-3.6 In. LBS [0.3-0.41 N.m]
Contact Captivation	≥2.25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

1.85mm to 2.92 Color Coded Adapters

2227000K001-815-C

1.85mm Male To 2.92mm Male

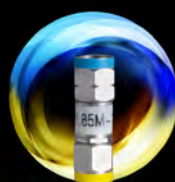
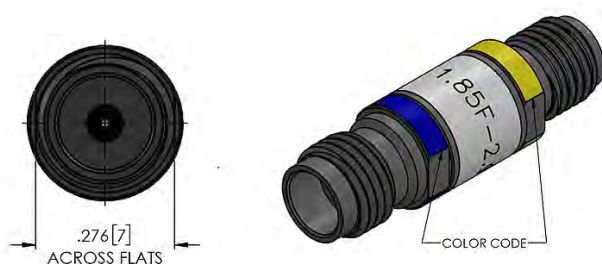
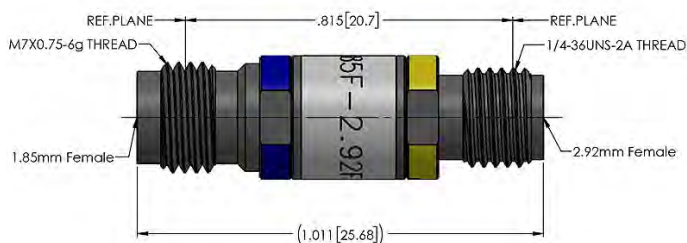
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



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
SWR	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

1.85mm to 2.92 Color Coded Adapters

2234000K001-833-C

1.85mm Female To 2.92mm Male

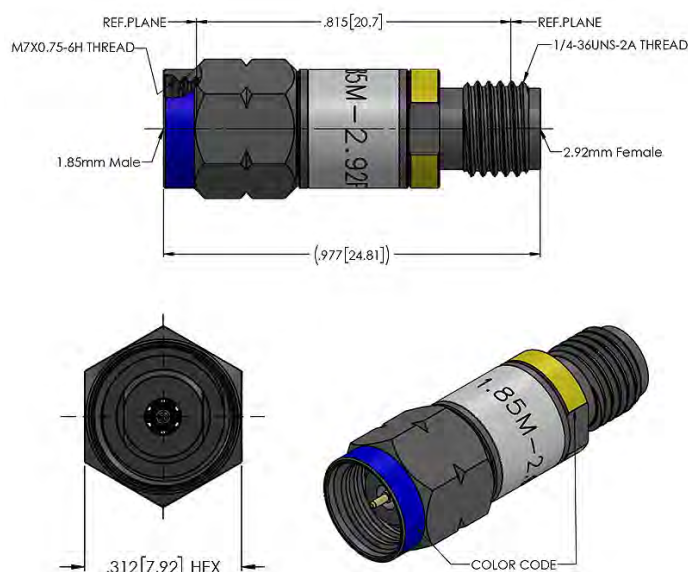
All Dimensions In Brackets Are In MM And Are For Reference Purpose Only



2234000K001-834-C

1.85mm Male To 2.92mm Female

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



Delta Color Coded DX-Test Cable Assemblies




Order your custom, made to order, color coded, high frequency test cable through Delta directly to go with your color coded adapters.

Available in 1.0mm, 1.85mm, 2.4mm, and 2.92mm interfaces.

Contact
 Delta Electronics
sales@deltarf.com
 (978)927-1060

What's your coaxial engineering challenge?

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

