# **D-Subminiature connectors with metal face and EMI/RFI shield**

#### The Problem:

Stray Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) emitted from unshielded cables, connectors, and assemblies can affect the performance of electronic devices within the range of these emissions. The Federal Communications Commission requires EMI/RFI shielding to standards defined in F.C.C. Docket 20780, Part 15 on all newly manufactured equipment. Connectors, cable, and assemblies, if an integral part of this equipment, are within the scope of the F.C.C. decree and must be appropriately shielded.

#### The CW Solution:

CW makes available a choice of two solutions. Select the system that best solves your EMI/RFI emission problem.

METAL-FACED D-SUBMINIATURE-A metal face forms the front of your D-Subminiature connector and shields high-frequency radiation that eminates principally from the point of external interconnection. These connectors also mate with traditional metal-faced D connectors.

EMI/RFI SHIELD-A bright tin-plated metal shield can be added to the METAL-FACED connector to form a complete metal enclosure. Laboratory tests show that our Subminiature D connector enclosed in our assembled shield can reduce strays by up to 80dB. Performance comparison and test results are indicated graphically in the chart at right. When terminated to jacketed-and-shielded flat cable, properly stripped to expose an external conductive surface, the shielding interfaces redundantly with CW's conductive shield placing the entire assembly at "ground". CW's shield can be used on either cable end terminations or in "daisy chain" terminations along the cable. METAL SHIELDS are available to cover 9, 15, 25, and 37 pin or socket Subminiature D connectors. CW's METAL SHIELDS are designed for easy and rapid assembly to our METAL-FACED Subminiature D-connectors. No supplemental fasteners or assembly tools are required.

## **Test Results**

Radiated Emission Comparison Unshielded vs. CW Shielded D-Subminiatures Assemblies



### CW metal-faced D-Subminiature connector with assembled EMI/RFI shield





# Assemble an EMI/RFI shield to our D-Subminiature connector in a snap

After terminating the connector to C-03-021 or C-03-031 style jacketed and shielded flat cable, slide the D-Subminiature connector with metal face into the preassembled shield.



Jacketed and

shielded cable

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Hook the remaining

side plate into place



#### EMI/RFI Shielded (Bright tin-plated C.R.S.)



NO. CONTS.	А	В	С	D
9	1.284	.984	.830	.550
	(32.61)	(24.99)	(21.08)	(13.97)
15	1.612	1.312	1.158	.856
	(40.94)	(33.32)	(29.41)	(21.74)
25	2.152	1.852	1.698	1.366
	(54.66)	(47.04)	(43.13)	(34.70)
37	2.800	2.500	2.346	1.978
	(71.12)	(63.50)	(59.59)	(50.24)

Note: EMI/RFI shield will accept either pin or socket connector in standard (Fig. 1) or recessed (Fig. 2) mounting configurations, as shown.

### Hardware Mounting Kits for Metal Faced D-Connectors



# How to Order D-Subminiature Connectors with Metal Face



terminations