

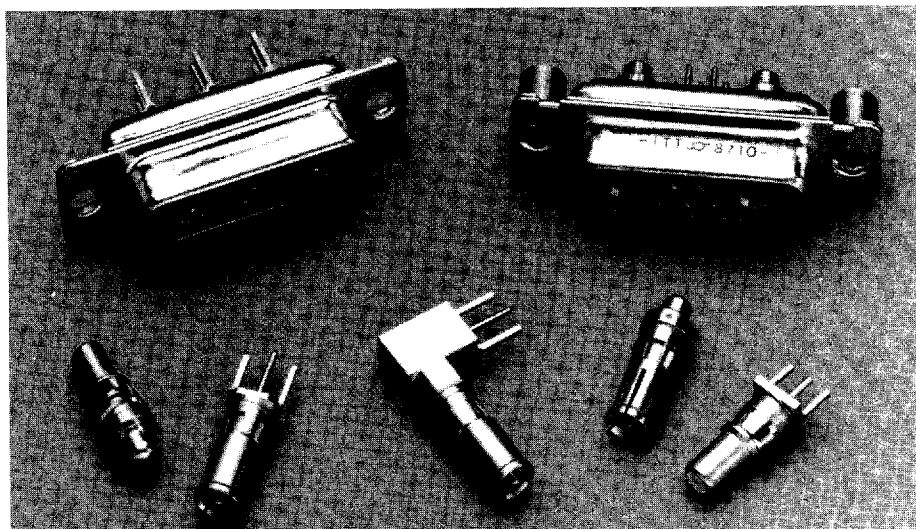
# Combo D®

Combination D Subminiature connectors are the fastest growing segment of the D Subminiature market. ITT Cannon engineering teams, in keeping pace with the demands of the industry, have developed the broadest selection of combination D Subminiatures available.

We offer the ability to integrate signal and coax, high power, and high voltage. You can mix red, green, and blue video lines with signal and up to 40 amps of power in the same package.

Design variations of the new Combo D connector, versus other packaging methods, include the proven ITT Cannon polarized "D" shape to prevent mis-mating; dense, space-saving packaging; and diverse mounting options. Choose from a variety of cable and printed wiring board selections. Printed wiring board combos come pre-assembled with fixed contacts eliminating the need to buy several components.

This new line of connectors offers you **unlimited design versatility**.



Straight and right angle printed wiring board contacts are available in both coax and high power versions.

## Performance and Material Specifications

### CONNECTOR ASSEMBLIES

Description	Material	Finish
Shell	Steel or Brass	Yellow Chromate over Cadmium or Gold over Nickel
Insulator	Thermoplastic or Diallyl Phthalate, UL 94V-0 rated.	None
Size 20 contacts when applicable	Copper alloy	50μ inches gold over copper or 100μ inches gold over copper.
Bracket	Steel	Yellow Chromate over Cadmium.
Rivnut	Steel or Copper alloy	

### COAXIAL ASSEMBLY

Contacts and shells	Copper alloy	Gold over nickel or 50μ inches gold over copper.
Ring, retaining	Copper alloy	Nickel or Gold
Insulator	Teflon	None

U.L. File Number: E8572

### DIELECTRIC WITHSTANDING VOLTAGE

Type of Contact		Altitude (feet/m)							
		Sea Level		20,000/6096		50,000/15240		70,000/1336	
		90°	Straight	90°	Straight	90°	Straight	90°	Straight
Center Conductor to Coaxial Shell	Average Flashover	1200	1500	900	1000	600	700	400	500
	Test	800	1000	600	650	400	475	275	325
Coaxial Shell to Nearest Standard Solder Pot Contact	Average Flashover	•	1500	•	1500	•	900	•	650
	Test	•	1000	•	1000	•	600	•	425
High Power contact and/or Coaxial Shell to Plug Shell	Average Flashover	1500	1500	1000	1000	500	500	500	500
	Test	1000	1000	650	650	325	325	325	325
#20 Signal	Average Flashover	1700		1000		650		500	
	Test	1250		750		475		375	
HV Contact to Nearest Contact or to Shell	Average Flashover	3800	3800	2300	2300	900	900	650	650
	Test	2800	2800	1700	1700	675	675	475	475

All voltage figures are rms AC 60 rms cps, measured at approximately +25°C, 50% rh.

Impedance: 50 ohm

### PERFORMANCE DATA

Signal Contact Current Rating	5 Amp
Temperature Rating	-65°C to +150°C
Signal Contact Resistance millivolt max.	55 @ 7.5 Amp test current
Coax Impedance	50 ohm
Coax VSWR	Less than 1.3-1.0 up to 500 megahertz
Coax Insertion Loss	.1 db loss at 500 megahertz.

See *Commercial D Subminiature* catalog for additional Combo D options, including 75 ohm Coax.

# ITT Cannon

For technical assistance, price or delivery information, call your local technical sales office or distributor.

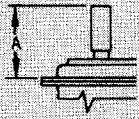
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# Combo D® – Coaxial/50 Ohm

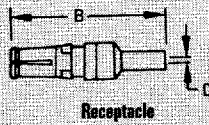
## Cable Combinations – 50 Ohm Coaxial Contacts

Color Code: Receptacle - Blue; Plug - Red

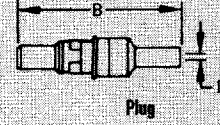
### Straight Crimp Braid



(Dimensions include outer sleeve.)



Receptacle

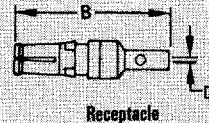
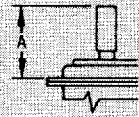


Plug

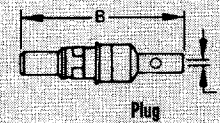
	Crimp/Crimp Gold Over Ni	Gold Over Nickel	50μ in. Gold Over Copper	NM – Non-Magnetic 50μ in. Gold Over Copper	A Max.	B Max.	D Min.	RG Cable No.	
								Old	New
Plug		DM53740	DM53740-17		.739 (18.8)	.945 (24.00)	.040 (1.00)	196/U	1788/U
Plug	DM53740-37*	DM53740-1	DM53740-15	DM53740-36	.739 (18.8)	.945 (24.00)	.067 (1.70)	187/U	1798/U
Plug		DM53740-35	—		.739 (18.8)	.945 (24.00)	.067 (1.70)	—	RD316
Plug		DM53740-3	DM53740-16		.847 (21.5)	1.037 (26.34)	.110 (2.79)	195/U	1808/U
Plug		DM53740-5	DM53740-18		.847 (21.5)	1.037 (26.34)	.125 (3.18)	58/U	588/U
Receptacle		DM53742	DM53742-18		.739 (18.8)	.945 (24.00)	.040 (1.00)	196/U	1788/U
Receptacle	DM53742-38*	DM53742-1	DM53742-16	DM53742-37	.739 (18.8)	.945 (24.00)	.067 (1.70)	187/U	1798/U
Receptacle		DM53742-36	—		.739 (18.8)	.945 (24.00)	.067 (1.70)	—	RD316
Receptacle		DM53742-3	DM53742-17		.847 (21.5)	1.037 (26.34)	.110 (2.79)	195/U	1808/U
Receptacle		DM53742-5	DM53742-19		.847 (21.5)	1.037 (26.34)	.125 (3.18)	58/U	588/U

\* Consult factory for center contact crimp tooling.

### Straight Solder Braid



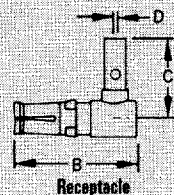
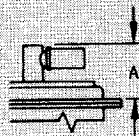
Receptacle



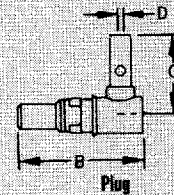
Plug

		Gold Over Nickel	50μ in. Gold Over Copper	NM – Non-Magnetic 50μ in. Gold Over Copper	A Max.	B Max.	D Min.	RG Cable No.	
								Old	New
Plug		DM53740-5008	DM53740-5105		.739 (18.8)	.945 (24.00)	.040 (1.00)	196/U	1788/U
Plug		DM53740-5001	DM53740-5099	DM53740-5147	.739 (18.8)	.945 (24.00)	.067 (1.70)	187/U	1798/U
Plug		DM53740-5145	—		.739 (18.8)	.945 (24.00)	.067 (1.70)	—	RD316
Plug		DM53740-5002	DM53740-5104		.847 (21.5)	1.037 (26.34)	.110 (2.79)	195/U	1808/U
Plug		DM53740-5005	DM53740-5101		.847 (21.5)	1.037 (26.34)	.125 (3.18)	58/U	58/U
Receptacle		DM53742-5006	DM53742-5092		.739 (18.8)	.945 (24.00)	.040 (1.00)	196/U	1788/U
Receptacle		DM53742-5001	DM53742-5089	DM53742-5127	.739 (18.8)	.945 (24.00)	.067 (1.70)	187/U	1798/U
Receptacle		DM53742-5126	—		.739 (18.8)	.945 (24.00)	.067 (1.70)	—	RD316
Receptacle		DM53742-5002	DM53742-5091		.847 (21.5)	1.037 (26.34)	.110 (2.79)	195/U	1808/U
Receptacle		DM53742-5004	DM53742-5086		.847 (21.5)	1.037 (26.34)	.125 (3.18)	58/U	58/U
Plug (Short Type)		DM53740-5000	DM53740-5100	.670 (17.0)	.874 (22.20)	.045 (1.14)	.196/U	1788/U	1788/U
Receptacle (Short Type)		DM53742-5000	DM53742-5085	.670 (17.0)	.874 (22.20)	.045 (1.14)	.196/U	1788/U	1788/U

### Right Angle Solder Braid



Receptacle



Plug

	Gold Over Nickel	50μ in. Gold Over Copper	A Max.	B Max.	C	D Min.	RG Cable No.	
							Old	New
Plug	DM53741-5000	DM53741-5059	.530 (13.46)	.745 (18.92)	.544 (15.10)	.040 (1.00)	196/U	1788/U
Plug	DM53741-5001	DM53741-5062	.530 (13.46)	.745 (18.92)	.544 (15.10)	.067 (1.70)	187/U 188/U	1798/U 3168/U
Plug	DM53741-5003	DM53741-5063	.530 (13.46)	.745 (18.92)	.630 (16.00)	.110 (2.79)	195/U	1808/U
Plug	DM53741-5004	DM53741-5060	.530 (13.46)	.745 (18.92)	.630 (16.00)	.125 (3.18)	58/U	58/U
Receptacle	DM53743-5000	DM53743-5073	.530 (13.46)	.745 (18.92)	.594 (15.09)	.040 (1.00)	196/U	1788/U
Receptacle	DM53743-5001	DM53743-5076	.530 (13.46)	.745 (18.92)	.594 (15.09)	.067 (1.70)	187/U 188/U	1798/U 3168/U
Receptacle	DM53743-5003	DM53743-5077	.530 (13.46)	.745 (18.92)	.630 (16.00)	.110 (2.79)	195/U	1808/U
Receptacle	DM53743-5004	DM53743-5074	.530 (13.46)	.745 (18.92)	.630 (16.00)	.125 (3.18)	58/U	588/U

Highlighted part numbers indicate standard product; usually available with shorter lead times.

See *Commercial D Subminiature* catalog for additional Combo D options, including 75 ohm Coax.

# ITT Cannon

Dimensions are shown in inches (millimeters).  
Dimensions subject to change.

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D Subminiature Connectors