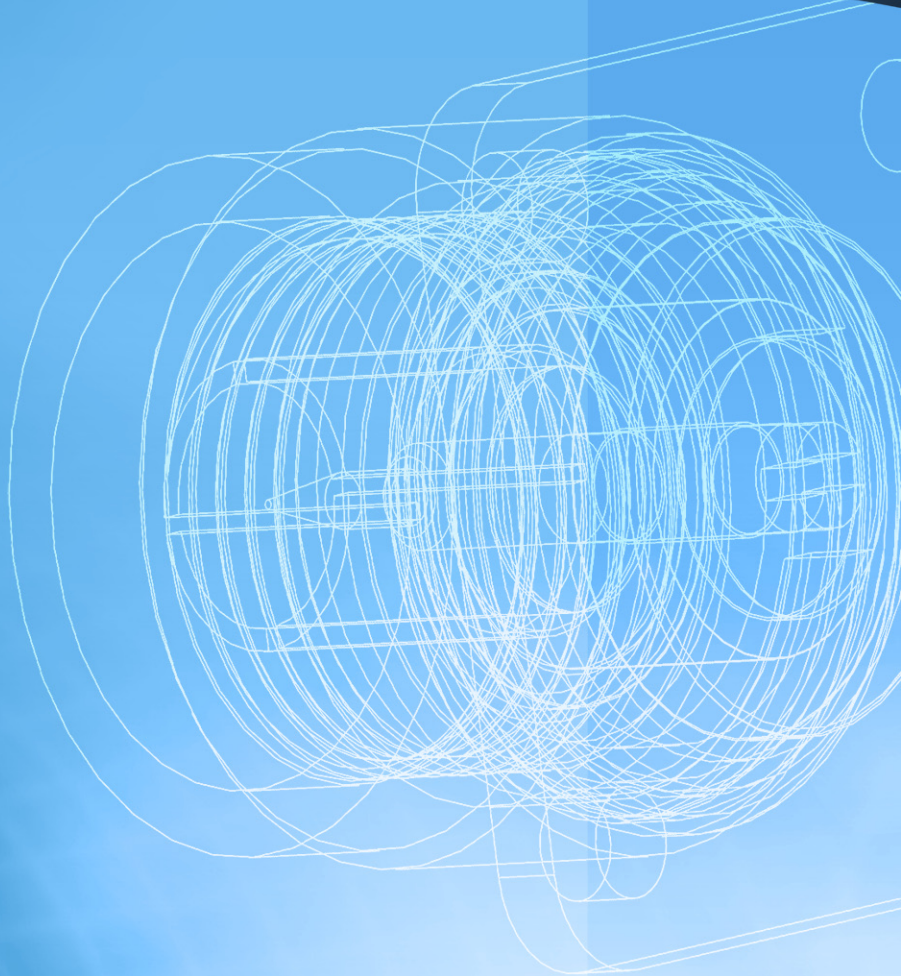


UHF



**UHF Connectors**



## **UHF Connector Series**

### **Description**

Invented in the 1930's by an Amphenol Engineer named E. Clark Quackenbush, UHF coaxial connectors are general purpose units developed for use in low frequency systems from DC – 300 MHz. Invented for use in the radio industry, UHF is an acronym for Ultra High Frequency. UHF connectors feature a threaded coupling. Because these connectors are low-cost, the impedance is variable.

Amphenol's commercial grade connector offering carries the part number designation "RFX" for easy recognition. These low-cost connectors typically utilize die cast and molded components. While performance will not be equal to the industrial or military grade products, these connectors are ideal for use on a variety of commercial applications.

### **Features/Benefits**

- Optional reducing adapters accommodate a wide range of popular coaxial cables
- Solder termination types require no special assembly tools
- Crimp termination types provide a lower cost installation method
- Large-size threaded coupling is rugged design
- Non-demanding specifications and low cost

### **Applications**

- Antennas
- Cable Assembly
- Low Frequency Applications
- Public Address Systems
- CB Radios

## UHF Specifications

### Electrical

Impedance	Non-constant
Frequency range	DC - 300 Hz (usable to 500 Hz)
Voltage rating (at sea level)	≤ 500 V peak (depending on cable)
Insulation resistance	5,000 MΩ minimum
Dielectric withstanding voltage	1,000 Vrms (at sea level)

### Mechanical

Mating	5/8-24 Threaded coupling
Center conductor cable affixment	Braid solder, set screw, clamp and crimp
Durability (matings)	500 cycles minimum

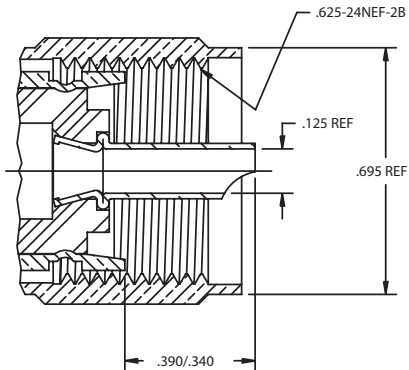
### Environmental

Temperature range	-65°C to +165°C
- copolymer of styrene:	-55°C to +85°C
Thermal shock	MIL-STD-202, method 107, cond. A
Corrosion	MIL-STD-202, method 101, cond. B
Vibration	MIL-STD-202, method 204, cond. A
Mechanical shock	MIL-STD-202, method 213, cond. 1

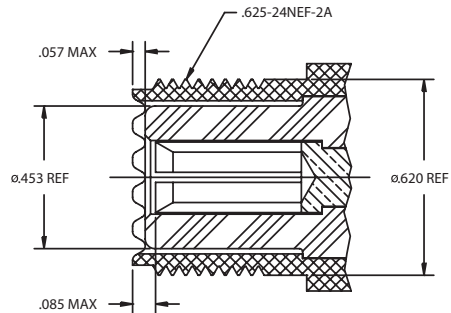
### Material

Body and outer contacts	Bodies: brass or zinc alloy
Male contact	Brass, silver plated
Female contact	Beryllium copper, silver plated
Crimp ferrule	Copper or brass
Other metal parts	Brass, nickel plated
Insulator	PTFE, copolymer of styrene, or mica-filled phenolic

### Plug

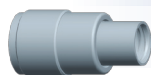


### Jack



## Cable Connectors

### Straight Plugs



Cable Group	Part Number	Body	Plating		Termination	
			Contact	Body	Contact	
C	083-58FCP	Nickel	Nickel	Crimp	Crimp	
C	083-58FCP-RFX	Nickel	Gold	Crimp	Crimp	
C	083-58SP	Nickel	Silver	Crimp	Solder	
C1	083-58SP-1002	Nickel	Silver	Crimp	Solder	
E	083-59SP	Nickel	Silver	Crimp	Solder	
G4	083-1SP	Silver	Silver	Solder	Solder	
G4	083-1SP-1050	Nickel	Silver	Solder	Solder	
G4	083-1SP-15RFX	Nickel	Silver	Solder	Solder	
G4	083-822	Nickel	Silver	Solder	Solder	
G4	083-8SP-RFX	Nickel	Silver	Crimp	Solder	
G4	083-1SP-4051	Nickel	Silver	Solder	Solder	
G4	083-1SPB-15RFX	Nickel	Silver	Solder	Solder	
G4	083-886	Nickel	Silver	Solder	Solder	
G4	083-886-2050	Silver	Silver	Solder	Solder	

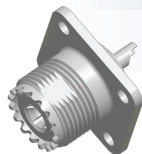
### Angle Plugs



Cable Group	Part Number	Body	Plating		Termination	
			Contact	Body	Contact	
G4	083-67	Nickel	Silver	Solder	Solder	
G4	083-59	Nickel	Silver	Solder	Solder	

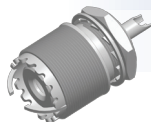
## Receptacles

### Panel Jacks



Part Number	Body	Plating		Description
		Contact	Body	
083-1R	Nickel	Silver	Solder Cup	4-hole Square Flange
083-1R-RFX	Nickel	Silver	Solder Cup	4-hole Square Flange
083-798	Nickel	Silver		4-hole Square Flange

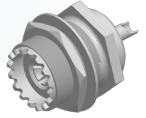
### Front Mount Bulkhead Jacks



Part Number	Body	Plating	
		Contact	Body
083-875	Nickel	Silver	
083-875-1002	Nickel	Silver	

## Rear Mount Bulkhead Jacks

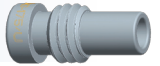
Part Number	Body	Plating	Contact
083-878	Nickel		Silver
083-878-RFX	Nickel		Silver



## Adapters

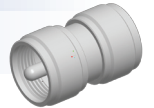
### Reducing Adapters

Cable Group	Part Number	Body Plating
C	083-185 (UG 175/U)	Nickel
C	083-185-RFX	Nickel
E	083-168 (UG 176/U)	Nickel
E	083-168-RFX	Nickel



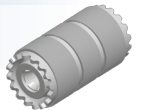
### Straight Plug-Plug

Part Number	Body	Plating	Contact
083-877	Nickel		Silver



### Straight Jack-Jack

Part Number	Body	Plating	Contact
083-1J	Nickel		Silver



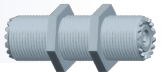
### Angle Jack-Plug

Part Number	Body	Plating	Contact
083-1AP	Nickel		Silver



### Bulkhead Jack-Jack

Part Number	Body	Plating	Contact
083-1F	Nickel		Silver



### T-Adapters, Jack-Plug-Jack

Part Number	Body	Plating	Contact
083-1T	Nickel		Silver





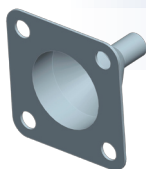
## Accessories

### Male Cap & Chain



Part Number	Description
083-1AC-RFX	UHF Cap & Chain
083-1AC	UHF Cap & Chain

### In-Series Adapters: Hoods



Part Number	Description
083-1H	4-Hole Flange Hood - Adapts Panel Receptacle 83-1R to RG-8, 10, 11, 12, 63, 79, 115, 149, 213, 215 cables
083-765	4-Hole Flange Hood - Adapts Panel Receptacle 83-1R to RG-58, 141 cables
083-909	4-Hole Flange Hood – Adapts Panel Receptacle 83-1R to RG-55, 142, 223, 400 cables.

# Notes

<b>Cable Group</b>	<b>Cable Type</b>
A	RG-178, 196
B	RG-174, 188A, 316, Belden 7805
B1	RG-179, 187, Belden 9221
B2	RD-188/U, RD-316/U
B3	RD-179/U, AT&T 19224L2
C	RG-58, 58A, 58C, 141, 303, LMR195, Belden 7806A, 9907
C1	RG-55, 142, 223, 400
C2	LMR200, Belden 7807A
D	RG-58/U Plenum, Thinnet, RG-122/U, Belden 88240, 89907
E	RG-59, 62, 140, 210, Belden 8241, 8263, 8279, 9209
E1	RG-59/U 20 AWG center conductor, Belden 1426A, 1505A, 9100, 9278
E2	RD-59/U, Belden 8281, 9141, 9231
E3	RG-59/U Quad Shield, Belden 1152A
F	RG-59/U Plenum, Belden 1560A, 9259, 82259, 89259, 88241
F1	RG-59/U Plenum 20 AWG center conductor, Belden 82108
G1	RG-6, 143, 212
G2	8X, LMR240, Belden 7808A, 9258
G3	LMR400, Belden 7810A, 8214, 9913
G4	RG-8, 8A, 9, 87A, 213, 214, 225, 393
G5	RD-6/U
H	RG-11
H1	Belden 1694A, 9248
H2	Belden 1859A, 7731, 8213, 9292
H3	RG-54A/U
I	AT&T 734A, Belden 1505A
I2	AT&T 735A, Belden 735A1
J	Quad 59 headend cable
K	LMR600
K2	Belden 1695A
K3	RG-122, 180, 195, Belden 1855, 1865A, 8218
L	.141 semi-rigid, RG-402/U
L2	.085, .086, .087 semi-rigid, RG-405/U
L3	.250 semi-rigid
L4	.047 semi-rigid, Belden 1674
M	1/2 inch annular corrugated
M1	1 1/4 inch annular corrugated
M2	1 5/8 inch annular corrugated
M3	7/8 inch annular corrugated
N	1/4 Helical
N1	3/8 Helical
N2	1/2 Helical
N3	7/8 inch SFC
P1	.81 mm OD micro-cable
P2	1.13 mm OD micro-cable, TCB-068
P3	1.32 mm OD micro-cable
P4	1.37 mm OD micro-cable