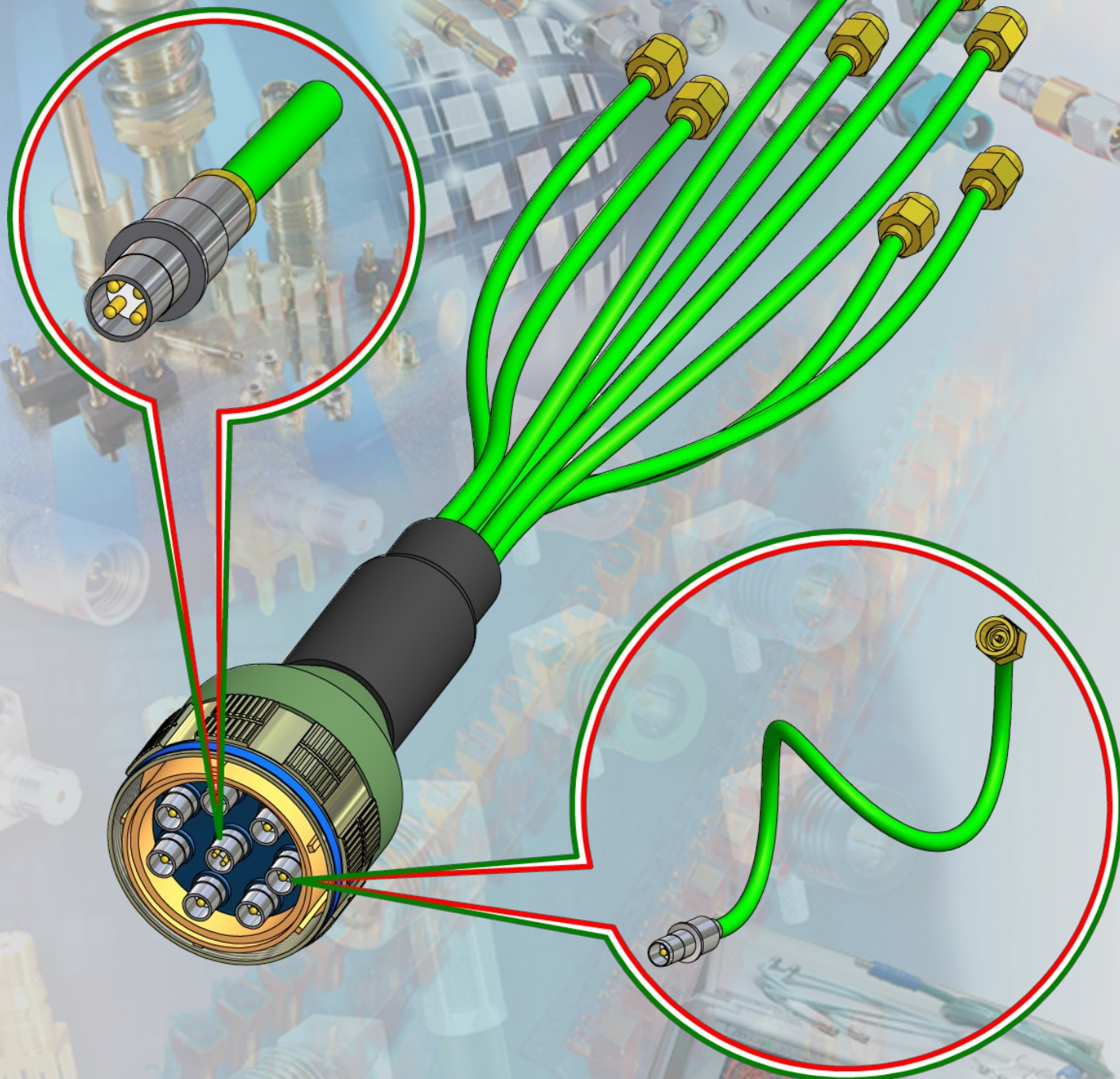




Advantage your connection

Componenti Professionali  
per l' Elettronica



**MIL-STD-38999**

**MICROWAVE**

**MULTIPIN SOLUTIONS**

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## CPE AT A GLANCE

CPE Italia S.p.A. is a private company founded in 1978 and based in Italy at Milan.

CPE started his activity as trading company in the Telecommunication and in the Installing sectors, subsequently expanded his own know how in the sectors of Defence, Broadcasting, Communication Infrastructure, Medical, Transports, Institutes of Nuclear Physics (INFN and CERN), Oceanographic Installations, Power.

Today CPE is a specialized company in harness cables of any kind, from the most complex to the most critical to be obtained in terms of performances, being of very high frequency or very high pressure.

CPE can count on internal design competences capable to develop customized connectors with a very high level of complexity, for sectors like the Military, with a profound and specialistic knowledge.

Thanks to the experience and the competences of the 19 Partner Companies CPE is capable to offer a huge gamma of solutions to the many typical problems of the connections.

To better serve his customers the company has been structured on a global scale with manufacturing plants in Italy, Romania, China and Brazil and with branch offices in USA and India.

## R&D CAPABILITIES

- 2D and 3D drawing;
- Signal and power integrity measurements;
- Time domain;
- Frequency domain;
- Impedance;
- Cross talk;
- Transfer function;
- Eye diagram;
- 3D electromagnetic simulation;
- PCB testing.

And also...

- Vibration test;
- Sinusoidal;
- Random

## QUALITY

- UNI EN ISO 9001;
- UNI EN ISO 9100;
- UNI EN ISO 14001;
- UL ZPFW2, UL ZPFW8:  
“wiring harness for cable  
and harness assembly”



# MIL-STD-38999 MULTIPIN COAX CONNECTORS

CPE Italia can supply what it is necessary to connect at the same time several coaxial contact mounted in a standard MIL 38999 serie III circular connector housing.

The advantage is to have a fast and easy blindmate connection, also if you are in constricted in space for mating and unmating from four to eleven connectors in one shot having a consistent time reduction.

You can choose between several different insert number for frequency application up to 18 GHz or 40 GHz using a size 8 coax insert or 65 GHz using a size 12 coax insert with flexible coaxial cable or with high performance microwave low loss cable with very good phase stability.

As option phase matched cable assemblies are available and to protect the cables you can ask for a heat shrink tube or for a conduit also with an additional screen to protect the cable from interferences.

The Mil 38999 circular connector is supplied with N polarization, other polarization are available upon request.

If you need an insert for a data protocol with a Cat.6 type cable you can use the MIL 38999 Quadrax contacts.

## MIL-STD-38999 TECHNICAL INFORMATION

### Materials

Shell: Aluminium

Insulator: Rigid plastic silicone rubber

### Standard Plating Finishes

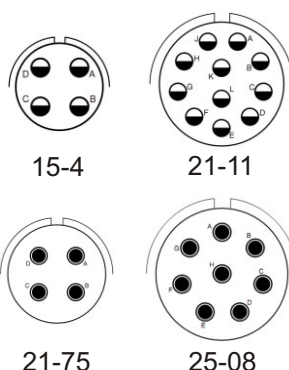
Aluminium parts: Olive drab



CV CONNECTOR



INSERT ARRANGEMENTS

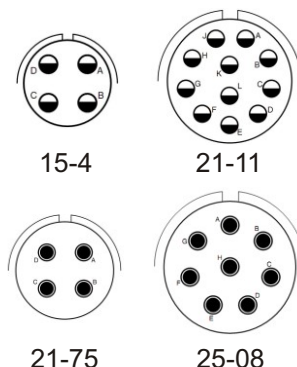


CONNECTOR TYPE	SHELL SIZE	POLARIZATION	CONTACT SIZE/NUMBER	CONTACT TYPE	ORDER P/N
CV	15	N	12 / 04	PIN	CV-15-04-PN
	21	N	12 / 11	PIN	CV-21-11-PN
	21	N	08 / 04	PIN	CV-21-75-PN
	25	N	08 / 08	PIN	CV-25-08-PN
	15	N	12 / 04	SOCKET	CV-15-04-SN
	21	N	12 / 11	SOCKET	CV-21-11-SN
	21	N	08 / 04	SOCKET	CV-21-75-SN
	25	N	08 / 08	SOCKET	CV-25-08-SN

CVR CONNECTOR

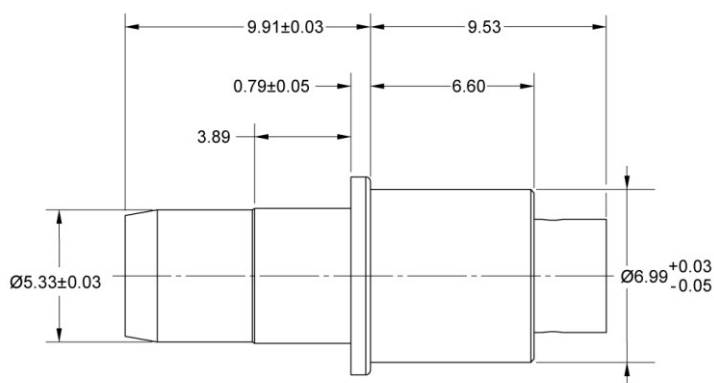


INSERT ARRANGEMENTS

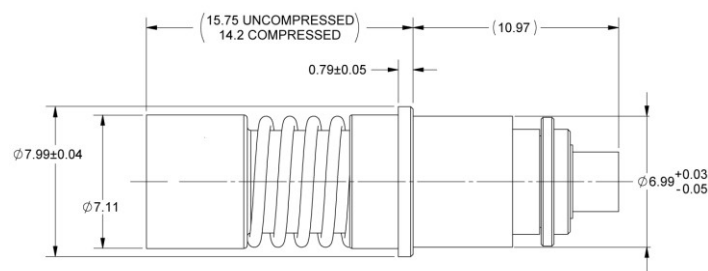


CONNECTOR TYPE	SHELL SIZE	POLARIZATION	CONTACT SIZE/NUMBER	CONTACT TYPE	ORDER P/N
CVR	15	N	12 / 04	PIN	CVR-15-04-PN
	21	N	12 / 11	PIN	CVR-21-11-PN
	21	N	08 / 04	PIN	CVR-21-75-PN
	25	N	08 / 08	PIN	CVR-25-08-PN
	15	N	12 / 04	SOCKET	CVR-15-04-SN
	21	N	12 / 11	SOCKET	CVR-21-11-SN
	21	N	08 / 04	SOCKET	CVR-21-75-SN
	25	N	08 / 08	SOCKET	CVR-25-08-SN

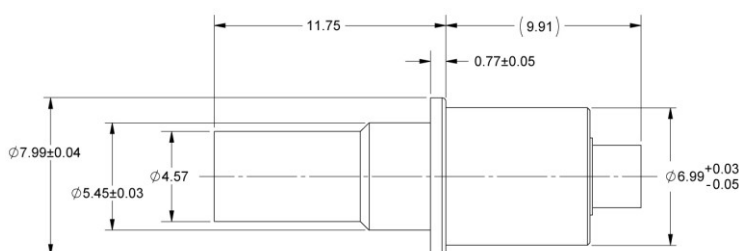
# MIL-STD-38999 HF COAXIAL CONTACTS



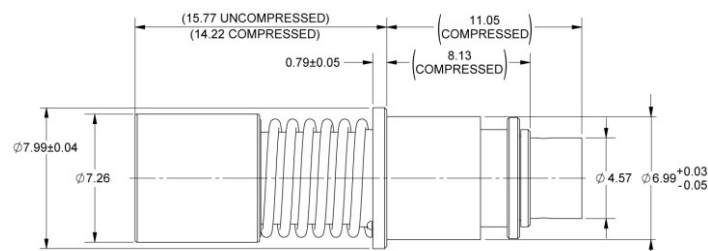
Interface	Max Freq. GHz	P/N	Cable Type
BMA Plug	26,5	22.900.101-462	C-157 / C-163



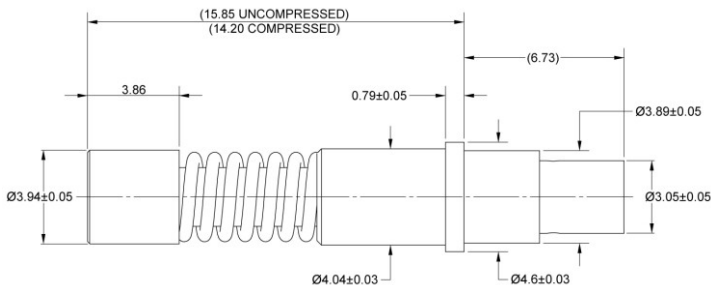
Interface	Max Freq. GHz	P/N	Cable Type
BMA Jack	26,5	22.300.341-459	C-157 / C-163



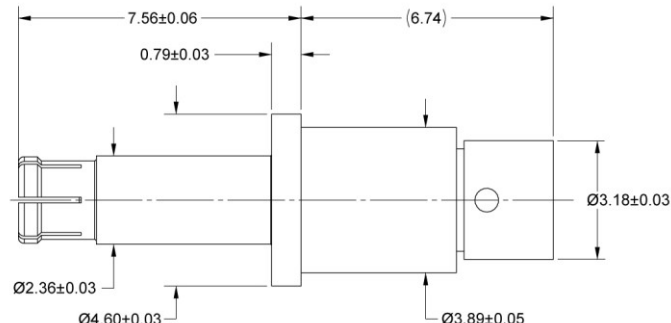
Interface	Max Freq. GHz	P/N	Cable Type
Mod. BMZ Plug	40	22.900.101-461	C-085 / C-097



Interface	Max Freq. GHz	P/N	Cable Type
Mod. BMZ Jack	40	22.900.001-460	C-085 / C-097



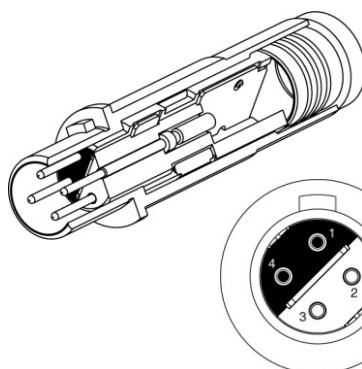
Interface	Max Freq. GHz	P/N	Cable Type
SSMP Plug	65	21.100.101-290	C-085 / C-097



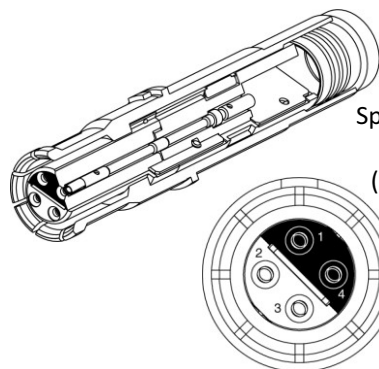
Interface	Max Freq. GHz	P/N	Cable Type
SSMP Jack	65	21.100.001-291	C-085 / C-097

Note: Other HF contacts are available upon request.

# MIL-STD-38999 QUADRIX CONTACTS FOR CAT.6A



Split-Pair Quadrix  
Plug Contact  
(22 to 26 AWG)



Split-Pair Quadrix  
Jack Contact  
(22 to 26 AWG)

Note: Other contacts are available upon request;

Pay Attention: Quadrix Contacts requires modification of MIL-STD-38999 connector to accomodate key polarized contacts.

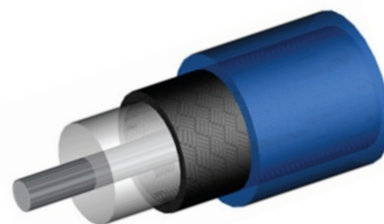
# HIGH FREQUENCY COAXIAL CABLES

## C-157



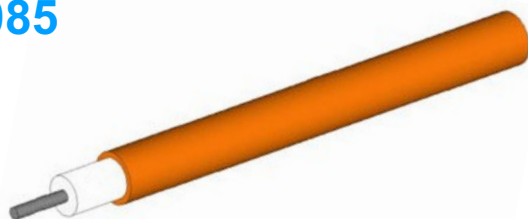
Construction	Materials & Finishings	O.D.(mm)
Center Conductor	Solid silver-plated copper	0.91
Dielectric	Low density PTFE	2.74
Tape	Helically-wrapped silver-plated copper	2.95
Braid	Silver-plated round copper	3.38
Jacket	Solid FEP, Green	3.86

## C-163



Construction	Materials & Finishings	O.D.(mm)
Center Conductor	Silver-plated copper covered steel	0.92
Dielectric	Solid PTFE	2.99
Tape	Silver-plated copper	3.15
Braid	Silver-plated copper	3.58
Jacket	FEP, Blue	4.14

## C-085



Construction	Materials & Finishings	O.D.(mm)
Center Conductor	Silver-plated copper wire	0.51
Dielectric	PTFE	1.68
Jacket	Copper	2.20

## C-097



Construction	Materials & Finishings	O.D.(mm)
Center Conductor	Solid silver-plated copper	0.51
Dielectric	Low density PTFE	1.54
Tape	Helically-wrapped silver-plated copper	1.74
Braid	Silver-plated round copper	1.96
Jacket	Solid FEP, Green	2.36

*Note: Other HF cables are available upon request.*

## CAT.6A CABLE



Size: from 22 to 26 AWG.

Construction	Materials & Finishings
Center Conductor	Annealed copper wire
Dielectric	PE
Braid	Tin-plated copper
Jacket	PVC

*Note: Other cables are available upon request.*



CPE WORLDWIDE



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