



Cheminax COAXIAL Cables

200°C rated

Small, lightweight coaxial cables

Cheminax controlled electrical cables are used in the aircraft and aerospace industries. They have a wide range of applications in missiles, avionics, radio frequency and microwave systems, computers, security & surveillance systems and communications.

Cheminax coaxial cables were designed to solve interconnect problems in electronic systems, such as computers, military equipment and other areas of high-density packing, where cables are required to perform to more exacting specifications than standard radio grade (RG) or UL recognised (UR) constructions.

Cheminax coaxial cables offer a smaller and lighter solution than standard RG and UR cables.

Standard Cable Jacket for Cheminax

The table below represents a selection of standard Thermorad jacketed cables, other jacket materials are available, see following pages.

Thermorad is a general purpose jacket material which is unaffected by most common chemicals and solvents and is suitable for use during N.B.C. decontamination. Thermorad is highly flame retardant and has an overall balance of physical and chemical properties.

Features & Benefits

- Small size, light weight
- Low capacitance and attenuation
- High velocity of propagation
- High flexibility

Operating Temperature

- -65°C to +200°C

Other Cheminax coaxial cable options are available, for additional information please refer to the following pages for part number configuration.

Standard coax cables - dimensions and electrical properties

Part Number	Impedance (Ohms)	Capacitance (pF/m)	Attenuation (dB/100m)		Conductor (mm)	Nom Dielectric Dia. (mm)	Nom. Cable Dia. (mm)	Nom. Weight (kg/100m)
			100MHz	400MHz				
5020A1311-0	50 Ω	84.0	15.84	34.45	19/0.20	2.70	3.80	2.2
5024A1311-0	50 Ω	83.7	23.76	50.34	19/0.127	1.70	2.70	1.1
5026A1311-0	50 Ω	85.3	30.98	64.79	7/0.15	1.20	2.10	0.9
5028A1317-0	50 Ω	87.9	38.92	79.70	7/0.127	0.97	1.85	0.6
7524A1311-0	75 Ω	56.4	14.53	31.84	19/0.127	2.80	3.80	1.9
7528A1317-0	75 Ω	56.0	22.81	48.38	7/0.127	1.65	2.60	1.0
7530A1317-9	75 Ω	57.0	28.00	58.84	7/0.10	1.35	2.30	0.8
0024A0311-0	100 Ω	44.3	46.32	-	19/0.127	1.40	3.99	2.4

Cheminax COAXIAL cable

Building your part number

Small lightweight coaxial cables

1

PART NUMBER EXAMPLE

75 26 A 1 3 1 4 - 0

IMPEDANCE

Always two digits - If 100Ω or higher, use last two digits (eg 00).

CONDUCTOR SIZE (AWG)

Always two digits

VARIATION

Letter assigned

CONSTRUCTION

- | | | | |
|---|-----------------------|---|--------------------|
| 1 | = Single round shield | 6 | = Triax-other |
| 2 | = Single flat shield | 7 | = n/a |
| 3 | = Double round shield | 8 | = Composite shield |
| 4 | = Two shield (other) | 9 | = Core only |
| 5 | = Triax-round shield | 0 | = Other |

JACKET

- | | | | |
|---|------------------------|---|------------------------------|
| 1 | = General purpose PVF2 | 6 | = Spec 55 (modified XL-ETFE) |
| 2 | = Outer space PVF2 | 7 | = Flexline |
| 3 | = Thermorad | 8 | = Zerohal |
| 4 | = FEP | 9 | = None |
| 5 | = Uncross-linked ETFE | 0 | = Other |

DIELECTRIC

- | | | | |
|---|-------------|---|------------------------------|
| 1 | = Rayfoam L | 4 | = FEP (solid) |
| 2 | = Rayfoam H | 6 | = Spec 55 (modified XL-ETFE) |
| 3 | = Rayolin F | 0 | = Other |

CONDUCTOR TYPE

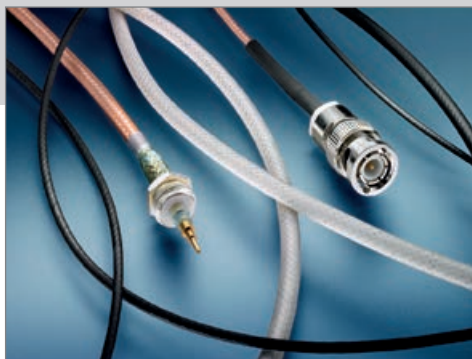
- | | | | |
|---|--|---|--|
| 1 | = Tin plated copper | 6 | = Nickel plated high-strength Cu alloy |
| 2 | = Silver plated copper | 7 | = Tin plated copper-clad steel |
| 3 | = Nickel plated copper | 8 | = Silver plated copper clad steel |
| 4 | = Silver plated high-strength Cu alloy | 9 | = Bare copper |
| 5 | = n/a | A | = CS95 |

JACKET COLOUR

- | | | | |
|---|----------|----|---------------------|
| 0 | = Black | 6 | = Blue |
| 1 | = Brown | 7 | = Violet |
| 2 | = Red | 8 | = Grey |
| 3 | = Orange | 9 | = White |
| 4 | = Yellow | 9X | = Transparent white |
| 5 | = Green | | |

Note: Users should independently evaluate the suitability of the product for their application.

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Cheminax COAXIAL Cables

Alternatives to RG cables

High performance option to standard cables

Alternative Solutions

The comprehensive lists below and on the following page is provided as a quick guide for high performance upgrades to standard RG & UR cables, with a brief comment on benefits and key features.

To complement the mechanical and electrical features of Cheminax miniature coaxial cables please refer to the electrical interconnect section of this catalogue.

RG/U	Alternatives	Comments
4	5020A3311-0	Small, light
	5018D3311-0	Improved electricals
5	5018D3311-0	Small, light
8	5012E1339-0	Dimensionally similar
11	7518A1311-0	Small, light
29	5020A1311-0	Small, light
31	5012E1339-0	Dimensionally similar
55	5020A3311-0	Small, light
	5018D3311-0	Improved electricals
58	5021D1331-0	Dimensionally similar
	5020A1311-0	Small, light
	5018A1311-0	Improved electricals
59	7523D1331-0	Dimensionally similar
	7524A1311-0	Small, light
	7520A1311-0	Improved electricals
62	9524A1311-0	Small, light
63	2524A1311-0	Small, light
87	5012A3311-0	Small, light
89	5012A3311-0	Small, light
115	5012A3311-0	Small, light
122	5020A1311-0	Improved electricals
124	7524A1311-0	Small, light
133	9524A1311-0	Small, light
140	7524A1311-0	Small, light
141	5020A1311-0	Small, light
142	5019D3318-0	Small, light
	5018D3311-0	Improved electricals
144	7518A1311-0	Small, light
149	7518A1311-0	Small, light

RG/U	Alternatives	Comments
159	5020A1311-0	Small, light
174	5026A1311-0	Small, light
	5024A1311-0	Improved electricals
178	5030A1317-0	Small, light
	5028A1317-0	Improved electricals
179	7530A1317-0	Small, light
	7528A1317-0	Improved electricals
180	9530E1014-0	Small, light
	9527A1318-9	Improved electricals
188	5026A1311-0	Small, light
	5024A1311-0	Improved electricals
210	9524A1311-0	Small, light
213	5012E1339-0	Dimensionally similar
214	5012A3311-0	Small, light
223	5019D3318-0	Small, light
	5018D3311-0	Improved electricals
225	5012A3311-0	Small, light
235	5012A3311-0	Small, light
279	7524A1311-0	Dimensionally similar
282	5024A1311-0	Small, light
302	7524A1311-0	Small, light
303	5020A1311-0	Small, light
304	5018A1311-0	Small, light
316	5026A1311-0	Small, light
	5024A1311-0	Improved electricals
393	5012A3311-0	Small, light
400	5020A3311-0	Small, light
	5018D3311-0	Improved electricals
403	5030A5314-0	Small, light

Cheminax COAXIAL cable

Alternatives to UR cables

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1

UR	Alternatives	Comments
43	5020A1311-0	Small, light
57	7518A1311-0	Small, light
65	7518A1311-0	Small, light
67	5012E1339-0	Dimensionally similar
70	7524A1311-0	Small, light
72	5020A1311-0	Small, light
76	5020A1311-0	Small, light
84	7524A1311-0	Small, light
90	7522A1311-0	Small, light
95	5026A1311-0	Small, light
96	9524A1311-0	Dimensionally similar
102	5012E1339-0	Dimensionally similar
104	7522A1311-0	Small, light
105	7518A1311-0	Small, light
106	7222A1311-0	Small, light
107	5012E1339-0	Small, light
108	5020A1311-0	Small, light
109	5026A1311-0	Small, light
110	5030A1317-0	Small, light
111	7530A1317-0	Small, light
112	5012A3311-0	Small, light
113	7518A1311-0	Small, light
116	5026A1311-0	Small, light
117	7524A1311-0	Small, light
200	7524A1311-0	Dimensionally similar
201	7522A1311-0	Dimensionally similar
202	7522A1311-0	Dimensionally similar
203	7520A1311-0	Small, light
204	7518A1311-0	Dimensionally similar
205	7518A1311-0	Dimensionally similar
207	7524A1311-0	Small, light
208	7524A1311-0	Small, light
210	7524A1311-0	Small, light
301	5020A1311-0	Small, light
306	7524A1311-0	Small, light

Note: To complement the mechanical and electrical features of Cheminax miniature coaxial cables please refer to the electrical interconnect section of this catalogue.