



MIL-DTL-17 PE/PVC RF Coaxial Cables

RG-174

Miniature Flexible Coaxial Cable

MIL-DTL-17/119 · 50 Ω ± 2 Ω · Ø 2.79 mm · 26 AWG (7×0.16) CCS/Cu · Solid PE · Tinned Cu



MIL-DTL-17/119

50 Ω · DC-1 GHz

Ø 2.79 mm Miniature Coax

Application

RG-174 (RG-174/U and RG-174A/U, MIL-DTL-17/119) is a miniature, highly flexible 50 Ω coaxial cable with a 2.79 mm outer diameter for GNSS/GPS active antennas, cellular/IoT pigtails, automotive FAKRA harnesses, and test instrument leads up to 1000 MHz.

Typical uses: Automotive FAKRA & GNSS Harnesses, IoT, Sub-GHz & Cellular Antenna Leads, Oscilloscope & Test Instrument Probes, Industrial Telemetry & SCADA Radios, Medical Patient Monitoring Leads

Construction



Cross-section, not to scale

1	Stranded 26 AWG center conductor	MIL-DTL-17/119
2	Solid polyethylene (PE) dielectric	MIL-DTL-17/119
3	Tinned copper wire braid shield	MIL-DTL-17/119
4	Non-contaminating PVC outer jacket	MIL-DTL-17/119

Technical data

Typical values

Characteristic impedance $50 \Omega \pm 2 \Omega$
 Z_0

Velocity of propagation (VoP) 66.0 %

Max. operating voltage 1,100 V rms

Operating temperature range -40 °C to +80 °C (+105 °C automotive)

Dielectric softening point +85 °C (solid polyethylene)

Cold-bend temperature -40 °C per MIL-DTL-17

Center conductor stranding $7 \times 0.16 \text{ mm}$ (26 AWG, $\varnothing 0.48 \text{ mm}$)

Outer jacket diameter $2.79 \text{ mm} \pm 0.10 \text{ mm}$ (0.110 in)

Nominal cable weight 12.5 kg/km (8.4 lb/1000 ft)

Abrasion & flex durability Supple matte PVC Type IIA jacket

UV & outdoor weather Black UV-stabilised jacket

LSZH option IEC 60754-1/2 halogen-free version

Standards MIL-DTL-17/119-RG174 & M17/196

Nominal capacitance 101.0 pF/m (30.8 pF/ft)

Propagation delay 5.05 ns/m (1.54 ns/ft)

Dielectric withstand test 2.0 kV rms at 60 Hz

Installation temperature range -20 °C to +70 °C

Flame retardance IEC 60332-1-2 / UL VW-1

Thermal upgrade alternative RG-316 (-55 to +200 °C PTFE/FEP)

Dielectric diameter $1.52 \text{ mm} \pm 0.05 \text{ mm}$ (0.060 in)

Min. bend radius (fixed / flex) 12 mm (4xD) / 25 mm (9xD)

Connector compatibility SMA, FAKRA, SMB, SMC, MCX, BNC

Oil & splash resistance Resistant to light mineral oil splash

Plasticizer non-contamination Type IIA non-migrating PVC

RoHS / REACH status RoHS 3 compliant

Sizes

4 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Construction / Variant	Conductor	Outer $\varnothing \approx$ mm	Metal kg/km	Weight $\approx$ kg/km	Min. bend R fixed mm
Standard RG-174 variants 4 sizes						
☐ RG-174/U (MIL CCS Conductor, PVC)	50 Ω Tinned Cu Braid (PVC)	26 AWG (7 $\times$ 0.16 CCS)	2.79	5.8	12.5	11
☐ RG-174A/U (Pure Cu Conductor, PVC)	50 Ω Tinned Cu Braid (PVC)	26 AWG (7 $\times$ 0.16 Cu)	2.79	6.2	12.8	11
☐ RG-174-LL Low-Loss Foam PE (FAKRA)	50 Ω Foil + Tinned Cu Braid	26 AWG (7 $\times$ 0.16 Cu)	2.80	6.8	11.8	11
☐ RG-174-LSZH Halogen-Free	50 Ω Tinned Cu Braid (LSZH)	26 AWG (7 $\times$ 0.16 Cu)	2.80	6.2	13.2	11

– Dimensions and weights are nominal production values subject to manufacturing tolerances per MIL-DTL-17/119-RG174 (M17/196).

Attenuation & RF power handling

6 sizes

Frequency	Nominal attenuation dB / 100 m	Nominal attenuation dB / 100 ft	Max. CW RF power W (@ 40 °C)	Impedance Z_0 Ω	Velocity VoP %
10 MHz	11.2	3.41	240	50	66.0
50 MHz	21.7	6.61	110	50	66.0
100 MHz	29.5	8.99	78	50	66.0
200 MHz	42.7	13.01	52	50	66.0
400 MHz	62.3	18.99	35	50	66.0
1000 MHz (1 GHz)	105.0	32.00	20	50	66.0

– Attenuation values apply at +20 °C ambient into a matched 50 Ω load; CW power ratings assume VSWR 1.0:1 at +40 °C ambient.

Standards and approvals

- ✓ MIL-DTL-17/119-RG174
- ✓ UL VW-1 / IEC 60332-1-2
- ✓ RoHS 3 / CE

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/rg-174-miniature-flexible-coaxial-cable



Typical values for this cable type, based on MIL-DTL-17/119-RG174 (M17/196). Values for your order are confirmed in the quotation. Subject to change without notice.
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