

**MIL-DTL-17 50 Ω & 75 Ω RF Coaxial Cables**

RG-179

Miniature Coaxial Cable

MIL-DTL-17 M17/94-RG179 (RG-179B/U) 75 $\Omega \pm 3 \Omega$ 7×0.10 mm SCCS + PTFE + FEP $\varnothing$ 2.54 mm



MIL-DTL-17 · M17/94-RG179

75 $\Omega \pm 3 \Omega$ · $\varnothing$ 2.54 mm

64 pF/m · PTFE/FEP -55 to +200 °C

Application

RG-179 Miniature Coaxial Cable (MIL-DTL-17 M17/94-RG179 / RG-179B/U) is a miniature $\varnothing$ 2.54 mm (0.100 in) 75 $\Omega \pm 3 \Omega$ high-temperature (-55 °C to +200 °C) RF, digital video (SDI / CoaXPress), and telecom coaxial cable featuring a 30 AWG (7×0.102 mm) stranded

Typical uses: 75 Ω SDI, HD-BNC & DIN 1.0/2.3 patch bays, Aerospace, UAV & marine thermal cameras, CoaXPress & industrial vision inspection, Telecom DS3/E3 & synchronization clocks

Construction



Cross-section, not to scale

1	7-strand SCCS centre conductor (30 AWG)	MIL-DTL-17 M17/94-RG179
2	Extruded PTFE dielectric ($\varnothing$ 1.60 mm)	MIL-DTL-17 Type F-1
3	38 AWG silver-plated copper braid	MIL-DTL-17
4	FEP fluoropolymer jacket ($\varnothing$ 2.54 mm)	MIL-DTL-17 Type IX

Technical data

Typical values

Characteristic impedance Z0	75 Ω ± 3 Ω	Mutual capacitance	64.0 pF/m (19.5 pF/ft)
Velocity of propagation (VoP)	70 % (0.70 c) · time delay 4.76 ns/m	Attenuation (10 / 100 / 400 / 1000	11.5 / 32.8 / 68.9 / 108.0 / 205.0 dB/100m
Max. DC conductor resistance @ 20 °C	≤ 800 Ω/km (30 AWG SCCS) · Braid ≤ 28 Ω/km	Operating / dielectric test voltage	1,200 V RMS working · 2,000 V RMS
Operating temperature range	-55 °C to +200 °C continuous	CW power rating (100 / 400 / 1000	320 W / 145 W / 78 W CW @ 40 °C
Nominal dimensions (Core / PTFE	0.30 mm / 1.60 mm / 2.54 mm ± 0.13 mm	Min. bending radius	5 × D (12.7 mm) static · 10 × D (25 mm)
Chemical, oil & solvent immunity	FEP jacket impervious to jet fuel	Flame retardancy	UL 910 CMP / VW-1 · FAR 25.853 aerospace
Standards	MIL-DTL-17 / M17/94-RG179 (RG-179B/U)		

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	Configuration	Conductor size	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard RG-179 configurations 4 sizes						
☐ M17/94-RG179 (RG-179B/U) 30 AWG SCCS 75 Ω	7×0.102 mm SCCS + PTFE + AgCu	30 AWG (0.057 mm ²)	2.5	6	16	12
☐ RG-179 Double-Silver-Braided (RG-179 DS) 75 Ω	7×0.102 mm SCCS + PTFE + 2×AgCu	30 AWG (0.057 mm ²)	3.0	11	24	15
☐ RG-179 LSZH Jacketed Industrial Video 75 Ω	7×0.102 mm SCCS + PTFE + LSZH	30 AWG (0.057 mm ²)	2.6	6	15	13
☐ M17/95-RG180 (RG-180B/U) 95 Ω Step-Up PTFE/FEP	7×0.102 mm SCCS + Ø 2.60 PTFE (95 Ω)	30 AWG (0.057 mm ²)	3.7	9	29	18

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per MIL-DTL-17/94-RG179 (M17/94-RG179 / RG-179B/U).

Impedance, capacitance & attenuation

4 sizes

Configuration	Impedance Z0	Max. DC R @ 20 °C Ω/km	Mutual C pF/m ≈	VoP %	Attenuation @ 20 °C dB/100m	Dielectric test V
7×0.102 mm SCCS + PTFE + AgCu	75 Ω	800.0	64.0	70	11.5 @ 10 · 32.8 @ 100 · 68.9 @ 400 · 108 @ 1000 MHz	2,000
7×0.102 mm SCCS + PTFE + 2×AgCu	75 Ω	800.0	64.0	70	11.5 @ 10 · 32.8 @ 100 · 68.9 @ 400 · 108 @ 1000 MHz	2,000
7×0.102 mm SCCS + PTFE + LSZH	75 Ω	800.0	64.0	70	11.5 @ 10 · 32.8 @ 100 · 68.9 @ 400 · 108 @ 1000 MHz	2,000
7×0.102 mm SCCS + Ø 2.60 PTFE (95 Ω)	95 Ω	800.0	50.5	70	8.5 @ 10 · 21.0 @ 100 · 46.0 @ 400 · 75.0 @ 1000 MHz	2,000

– Transmission values (characteristic impedance Z0, mutual capacitance, VoP, and attenuation) are measured at +20 °C per MIL-DTL-17/94-RG179 (M17/94-RG179 / RG-179B/U).

Standards and approvals

- ✓ MIL-DTL-17 / M17/94-RG179
- ✓ UL 910 / FAR 25.853
- ✓ RoHS / REACH

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-179-miniature-coaxial-cable



Typical values for this cable type, based on MIL-DTL-17/94-RG179 (M17/94-RG179 / RG-179B/U). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.