High-temperature RF coaxial & avionics data

M17/176-00002 PFA Twinax

MIL-DTL-17 M17/176-00002 77 Ω PFA Twinax Data Cable

200 °C MIL-STD-1553B avionics 77 Ω shielded PFA twisted-pair twinax



MIL-DTL-17/176-00002 | 300 V · +200 °C | Fluoropolymer HT

Application

M17/176-00002 PFA Twinax delivers two 24 AWG silver-plated high-strength copper-alloy conductors in PTFE insulation, ≥ 90% silver-plated copper braid, and a blue PFA jacket built for MIL-STD-1553B avionics data buses.

Typical uses: Commercial & military aircraft avionics bays, Radar, electronic warfare & satellite transceivers, MIL-STD-1553B airborne multiplex data networks, High-temperature RF test benches & telemetry

Construction





Cross-section, not to scale

1	**Conductor**	ASTM B298 Class K stranded silver-plated annealed copper · ASTM B298 Silver Cu
2	**Dielectric / core insulation**	Extruded PTFE fluoropolymer (white & blue 77 Ω pair) · MIL-DTL-17/176-00002
3	**Core assembly & separator**	Concentric cabled core assembly with low-friction fleece/polyester separator tape · MIL-DTL-17/176-00002
4	**Metallic EMC screen**	Overall ≥ 90% silver-plated copper wire braid shield · EMC ≥ 85% shield
5	**Outer sheath**	Blue 200 °C chemical-resistant extruded PFA outer jacket · 200 °C Continuous PFA

Technical data

Typical values

Rated voltage	300 V	Test voltage	1 kV AC
Conductor	Silver-Plated Cu	Insulation	Extruded PTFE fluoropolymer (white & blue
Impedance / insulation	77 Ω ± 7 Ω · MIL-STD-1553B	Temp. range (fixed)	-65 °C to +200 °C
Temp. range (flexing)	-55 °C to +200 °C	Peak / short-circuit	+220 °C (short-term)
Min. bending radius	10 × OD (fixed)	Flame / fire rating	200 °C Continuous PFA
Thermal / chemical	≥ 90% Silver-Cu Braid	Mechanical / special	Avionics Multiplex Bus
Outer finish	Blue 200 °C chemical-resistant extruded		

Sizes

4 standard constructions

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

Impedance · Pair	Outer Ø ≈ mm	Max. R20 Ω/km	Metal index kg/km	Weight ≈ kg/km	Min. bend R 10×D mm
☐ 77 Ω · 2×24 AWG (MIL-STD-1553B)	3.3	98.00	16	30	33
☐ 77 Ω · 2×22 AWG (Extended Run)	3.9	62.00	23	42	39
☐ 77 Ω · 2×20 AWG (Long Bus)	4.6	39.00	32	58	46
☐ 77 Ω · 2×26 AWG (Lightweight)	2.8	155.00	12	23	28

- Conductor DC resistance R20 at 20 °C per ASTM B298 Silver Cu.
- Minimum bending radius calculated at 10 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- ✓ MIL-DTL-17/176-00002
- ✓ MIL-STD-1553B
- ✓ 77 Ω ± 7 Ω Twinax
- ✓ EN 10204 3.1 Factory Test Certificate
- ✓ CE, RoHS 2 (2011/65/EU) & 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/m17-176-00002-77-ohm-mil-std-1553b-pfa-twinax-cable

Typical values for this cable type, based on MIL-DTL-17/176-00002 · MIL-STD-1553B · 77 Ω ± 7 Ω Twinax. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.