



industrial data rf cable series

Star-Quad Low-Noise Mic

Miniature Star-Quad Double-Shielded Low-Noise Microphone & Bio-Signal Cable

Ø 2.92 mm (.115") 4×28 AWG silver-plated copper-alloy miniature Star-Quad low-noise cable



4 × 28 AWG (19×40) Ag-Cu-Alloy

Ø 2.92 mm (.115") Sub-Miniature

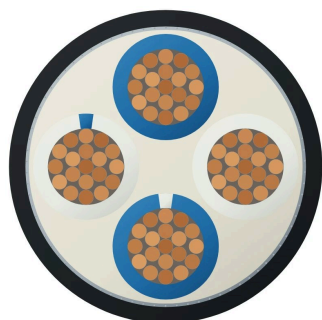
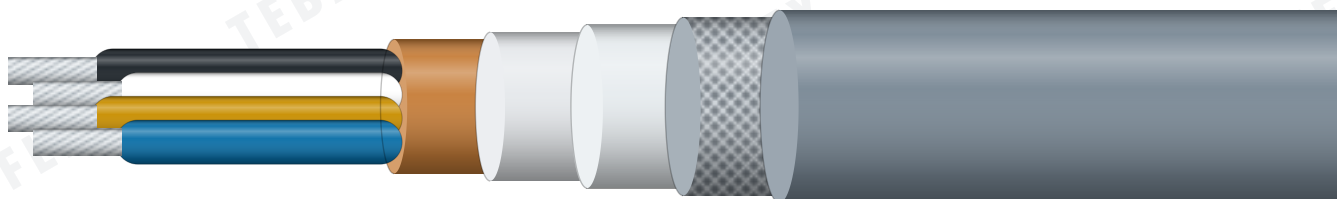
> 25 dB Magnetic Hum Cancel

Application

Sub-miniature Ø 2.92 mm double-shielded Star-Quad low-noise microphone and bio-signal cable (1804A) with 4×28 AWG (19×40) silver-plated copper-alloy cores, polypropylene insulation, and dual ≥ 90 % SPC braids (> 95 dB shielding) under a PVC jacket.

Typical uses: Broadcast, Film & Theatre Lavalier Mics, EMG / EEG / ECG Neurophysiology Systems, Aerospace & Wind-Tunnel Strain Gauges, Precision Load Cells & Bridge Sensors, Acoustic Array & Hydrophone Pre-Amps

Construction



Cross-section, not to scale

- 1 28 AWG silver-plated high-strength copper-alloy
- 2 Thin-wall CADP / Polypropylene Star-Quad cores
- 3 Central yarn spline & low-friction tissue wrap
- 4 95 % French-braid / double-spiral tinned copper shield
- 5 Matte flexible PVC or bio-compatible PUR jacket

Technical data

Typical values

Characteristic impedance	42 Ω (Star-Quad paired) · 76 Ω (single pair)	Quad capacitance (Hi to Lo)	157.5 pF/m (48.0 pF/ft) with diagonal cores tied
Conductor-to-shield cap.	295.3 pF/m (90.0 pF/ft) quad-to-shield	Conductor DC resistance @ 20 °C	223 Ω/km single core · 111.5 Ω/km diagonal quad pair
Shield DC resistance @ 20 °C	44.0 Ω/km (95 % Sn-Cu shield + 30 AWG drain)	Velocity of propagation	66 % nominal (inductance 0.49 μH/m)
Operating temperature range	-30 °C to +75 °C (PVC) · -40 to +80 °C (PUR)	Max. operating voltage	300 V RMS (100 mA max current per core at +25 °C)
Dielectric withstand voltage	1,000 V AC rms	Conductor stranding	4 × 28 AWG (19×40 AWG, 0.09 mm²) Ag-Cu-alloy
Overall cable diameter	2.92 mm (0.115 in) · Weight 14.9 kg/km	Min. bending radius	29 mm (1.15 in) installation · 15 mm static loop
Max. pulling tension	131 N (29.5 lbf)	Magnetic hum rejection	> 25 dB improvement over standard 2-conductor shielded
Handling & triboelectric noise	Low-noise separator & tight quad lay reduce microphonics	Disinfectant resistance (PUR)	Resists IPA alcohol & quaternary ammonium wipes
Standards	ASTM B624 High-Strength Silver-Coated Copper Alloy		

Sizes

8 standard constructions

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

Order designation	Impedance / size	Conductor & dielectric	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard Star-Quad 1804A configurations 8 sizes							
☐ 1804A Sub-Mini Star-Quad	4×28 AWG (Ø 2.92 mm)	19×40 SPC Alloy + 95% Braid	0.42	2.92	6.8	14.9	29
☐ 1804A-PUR Bio-Signal	4×28 AWG (Ø 2.95 mm)	19×40 SPC Alloy + PUR	0.43	2.95	6.8	14.5	25
☐ 1804A-DS Double-Shield	4×28 AWG (Ø 3.25 mm)	19×40 SPC + 2×Spiral Shield	0.45	3.25	9.5	18.5	28
☐ Star-Quad Nano 4×30 AWG	4×30 AWG (Ø 2.35 mm)	19×42 SPC Alloy + Spiral	0.35	2.35	4.5	9.8	20
☐ Star-Quad Mini 4×26 AWG	4×26 AWG (Ø 3.80 mm)	19×38 Tinned Cu + 95% Braid	0.55	3.80	11.2	24.0	35
☐ 1192A-M Compact 4×24 AWG	4×24 AWG (Ø 4.85 mm)	42×40 Bare Cu + 95% Braid	0.70	4.85	18.5	38.0	45
☐ 1192A Standard 4×24 AWG	4×24 AWG (Ø 6.15 mm)	42×40 Bare Cu + PE + PVC	0.95	6.15	23.0	55.0	55
☐ 1804A-FEP Cryo/Vacuum	4×28 AWG (Ø 2.75 mm)	19×40 SPC Alloy + FEP	0.35	2.75	6.8	15.2	28

- Outer diameters and weights are nominal engineering values for Star-Quad 1804A subject to standard manufacturing tolerances per UL AWM Style 2094 / IEC 60268-11 (Sub-Miniature 4×28 AWG Star-Quad).

RF & electrical data

8 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Char. Z0 Ω	Velocity VoP / L (% or nH/m)	Dielectric test V AC rms
1804A Sub-Mini Star-Quad (4×28 AWG (Ø 2.92 mm))	111.50	42.0	66.0	1,000
1804A-PUR Bio-Signal (4×28 AWG (Ø 2.95 mm))	111.50	42.0	66.0	1,000
1804A-DS Double-Shield (4×28 AWG (Ø 3.25 mm))	111.50	42.0	66.0	1,000
Star-Quad Nano 4×30 AWG (4×30 AWG (Ø 2.35 mm))	175.00	44.0	66.0	800
Star-Quad Mini 4×26 AWG (4×26 AWG (Ø 3.80 mm))	72.00	44.0	66.0	1,200
1192A-M Compact 4×24 AWG (4×24 AWG (Ø 4.85 mm))	43.00	44.0	66.0	1,500
1192A Standard 4×24 AWG (4×24 AWG (Ø 6.15 mm))	43.00	40.0	66.0	1,500
1804A-FEP Cryo/Vacuum (4×28 AWG (Ø 2.75 mm))	111.50	48.0	70.0	1,200

- Characteristic impedance, propagation velocity, DC resistance at +20 °C, and dielectric withstand voltages verified per UL AWM Style 2094 / IEC 60268-11 (Sub-Miniature 4×28 AWG Star-Quad).

Standards and approvals

- ✓ UL AWM Style 2094 / IEC 60268-11 (Sub-Miniature 4×28 AWG Star-Quad)
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

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

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Email

info@tebaoflex.com

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tebaoflex.com/cables/miniature-star-quad-double-shielded-low-noise-microphone-bio-signal-cable



Typical values for this cable type, based on UL AWM Style 2094 / IEC 60268-11 (Sub-Miniature 4×28 AWG Star-Quad). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.