



110 Ω Digital Audio (AES/EBU) & DMX512 Cables

AES/EBU 110 Ω Digital Audio

AES/EBU 110 Ω Flexible Digital Audio Twisted-Pair Cable

AES3 / IEC 60958 / USITT DMX512 · 110 $\Omega \pm 10 \Omega$ · 1×2×24 AWG (42×0.08) · Foam HDPE (42.6



AES3 / EBU 110 $\Omega \pm 10 \Omega$

42×40 AWG Touring Flex

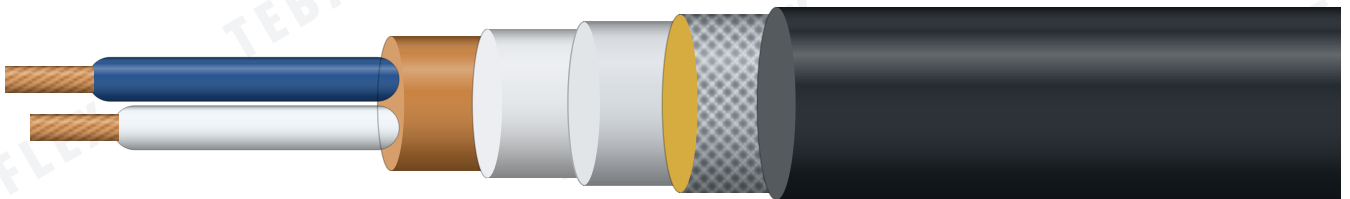
42.6 pF/m · 95 % French Braid

Application

AES/EBU 110 Ω Flexible Digital Audio Twisted-Pair Cable (engineered to the touring-standard 1800F geometry and AES3 / IEC 60958 Type I / EBU Tech 3250) delivers ultra-low jitter 24-bit/192 kHz digital audio, AES67/word-clock sync, and USITT DMX512-A

Typical uses: Live Concert Touring & Stage Snakes, Broadcast Studio & OB Audio Trucks, Recording & Mastering Facilities, USITT DMX512-A & RDM Stage Lighting, Opera House, Theatre & Arena Sound

Construction



Cross-section, not to scale

1	Ultra-flexible 24 AWG bare OFC pair	AES3 / IEC 60958
2	Gas-injected foam HDPE dielectric (76	AES3 / EBU 3250
3	Non-hygroscopic fillers & tissue	1800F Geometry
4	95 % bare copper French Braid + drain	1800F Geometry
5	Matte flexible stage PVC / PUR / LSZH	UL CM / IEC 60332

Technical data

Typical values

Characteristic impedance Z_0	110 $\Omega \pm 10 \Omega$ (0.1 to 25 MHz)
Conductor-to-shield capacitance	75.5 pF/m (23.0 pF/ft)
Conductor / shield DC resistance	$\leq 77.8 \Omega/\text{km}$ / $\leq 16.7 \Omega/\text{km}$ at 20 °C
Operating temperature range	-30 °C to +75 °C (-40 to +80 °C on PUR)
Flame retardance	UL 1685 CM / CSA FT1 / IEC 60332-1-2
Operating voltage rating	300 V rms (UL CM)
Pair count & conductor gauge	1 pair $\times$ 24 AWG (0.22 mm ² , 42 $\times$ 0.08 mm)
Outer jacket diameter	5.33 mm $\pm$ 0.13 mm (0.210 in)
Max. pulling tension	142 N (32 lbf)
Stage coiling & kink immunity	42-strand Cu + French Braid lays flat
SCR dimmer & RF rejection	95 % French Braid + balanced CMRR
UV & outdoor festival readiness	Black UV-stabilised outer sheath
Standards	AES3-2009 / IEC 60958 Type I / EBU Tech 3250

Mutual pair capacitance	42.6 pF/m (13.0 pF/ft)
Velocity of propagation (VoP)	76.0 % (4.38 ns/m delay)
Attenuation (1 MHz / 6 MHz / 12 MHz)	1.6 / 3.6 / 5.2 dB/100m
Stage cold-flex temperature	-30 °C without stiffening
LSZH venue option	IEC 60332-3-24 & IEC 60754-1/2
Soldering compatibility	24 AWG drain wire + bare Cu braid
Insulated core diameter	1.57 mm $\pm$ 0.05 mm (0.062 in)
Min. bend radius (fixed / stage)	27 mm (5 $\times$ D) / 50 mm (9.5 $\times$ D)
Nominal cable weight	37.2 kg/km (25 lb/1000 ft)
Microphonic / triboelectric noise	Low-noise tissue wrap & tight pair lay
Abrasion & stage-boot crush	Resilient matte PVC or polyether PUR
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 AES-EBU 1800F variants 4 sizes						
☐ 1800F Touring Flex 1 $\times$ 2 $\times$ 24 AWG (Matte PVC)	1 Pair + 95% French Braid + Drain	24 AWG (42 $\times$ 0.08 Cu)	5.33	14.5	37.2	27
☐ 1800F-PUR Heavy Stage Reel 1 $\times$ 2 $\times$ 24 AWG (PUR)	1 Pair + 95% French Braid + Drain	24 AWG (42 $\times$ 0.08 Cu)	5.33	14.5	36.0	27
☐ 1800B Studio Install 1 $\times$ 2 $\times$ 24 AWG (Foil + Drain)	1 Pair + 100% Foil + Drain (PVC/LSZH)	24 AWG (7 $\times$ 0.20 TC)	4.57	8.5	27.0	23
☐ AES/EBU 8-Pair Digital Snake 8 $\times$ 2 $\times$ 24 AWG	8 Ind. Shielded 110 Ω Pairs + Overall	8 $\times$ 2 $\times$ 24 AWG	14.20	82.0	225.0	71

– Dimensions and weights are nominal production values subject to manufacturing tolerances per AES3-2009 / IEC 60958 Type I / EBU Tech 3250.

Impedance, capacitance & electrical data

4 sizes

Configuration	Max. conductor DC R Ω / km @ 20 °C	Characteristic Z_0 Ω	Capacitance pF / m	Velocity VoP %	Test voltage V rms
1 Pair + 95% French Braid + Drain	366.7	110	48.0	76	1,500
1 Pair + 95% French Braid + Drain	366.7	110	48.0	76	1,500
1 Pair + 100% Foil + Drain (PVC/LSZH)	275.0	110	48.0	76	1,500
8 Ind. Shielded 110 Ω Pairs + Overall	2.3	110	48.0	76	1,500

– Transmission parameters measured at 1–100 MHz (+20 °C) in accordance with AES3-2009 / IEC 60958 Type I / EBU Tech 3250.

Standards and approvals

- ✓ AES3-2009 / EBU Tech 3250
- ✓ ANSI E1.11 USITT DMX512-A
- ✓ UL 1685 CM / RoHS 3

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/aes-ebu-110-ohm-flexible-digital-audio-twisted-pair-cable



Typical values for this cable type, based on AES3-2009 / IEC 60958 Type I / EBU Tech 3250. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.