



75 Ω Broadcast, Video & CATV Coaxial Cables

Broadcast Camera Triaxial Cable

IEC 61196-1 · 75 $\Omega \pm 2 \Omega$ · $\varnothing$ 8.4 / 11.0 / 14.5 mm · SPC center · Foam PE (82 % VoP)



75 $\Omega \pm 2 \Omega$ Camera Triax

$\varnothing$ 8.4 / 11.0 / 14.5 mm

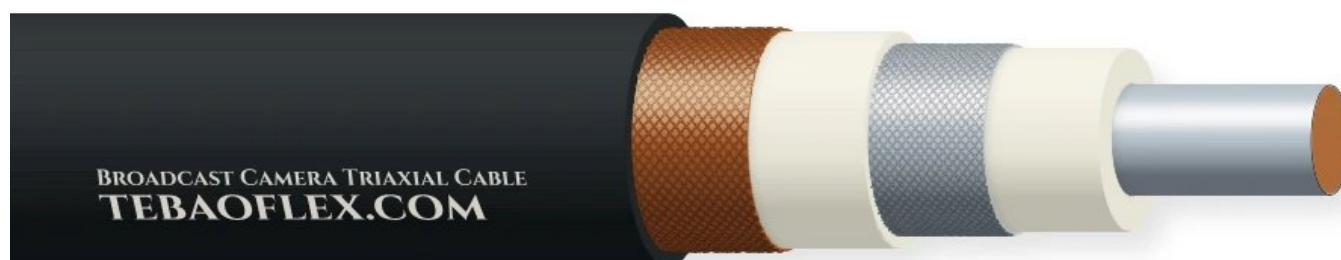
Video + Telemetry + Power

Application

Broadcast Camera Triaxial Cable is a precision 75 $\Omega \pm 2 \Omega$ triaxial system cable that simultaneously transports multiplexed HD/UHD camera video, teleprompter, intercom, tally, return video, and up to 300–600 V camera power between studio CCUs (Camera

Typical uses: Outside Broadcast (OB) Trucks & Stadiums, Television Studios & CCU Infrastructure, Live Concert & Event Video Production, Parliamentary & Auditorium Camera Grids, Remote Pan-Tilt-Zoom (PTZ) Broadcast

Construction



Cross-section, not to scale

1	Silver-plated copper center conductor	IEC 61196-1
2	Gas-injected cellular foam PE dielectric	IEC 61196-1
3	Inner signal return braid (Screen 1)	IEC 61196-1
4	Inter-shield insulating jacket	IEC 61196-1
5	Outer protective earth & EMC braid	IEC 61196-1
6	Mobile PUR or Studio FRNC/LSZH sheath	IEC 61196-1

Technical data

Typical values

Characteristic impedance Z_0	75 $\Omega \pm 2 \Omega$ (center to inner screen)
Velocity of propagation (VoP)	82.0 %
Inner screen DC resistance (8.4)	$\leq 9.5 / \leq 6.5 / \leq 4.2 \Omega/\text{km}$ at 20 °C
Operating temperature (fixed)	-40 °C to +80 °C
Studio fire performance (FRNC)	IEC 60332-1-2 / IEC 60332-3-24 LSZH
Cold-flex endurance (PUR)	-40 °C outdoor winter OB deployment
Outer diameters (3 standard sizes)	8.4 mm, 11.0 mm, and 14.5 mm
Min. bend radius (fixed / reeling)	5 × D (fixed) / 10 × D (mobile reeling)
Max. pulling tension (8.4 / 11)	250 N / 450 N / 800 N
Cut, notch & vehicle run-over (PUR)	High-tear-strength polyether PUR sheath over (PUR)
UV & outdoor weather	Weatherproof for outdoor sports & concerts
Low-friction reeling	Matte non-stick surface finishes
Standards	IEC 61196-1

Nominal capacitance (center / inner)	54.0 pF/m (16.5 pF/ft)
Center DC resistance (8.4 / 11)	$\leq 22.5 / \leq 11.5 / \leq 4.6 \Omega/\text{km}$ at 20 °C
Max. operating / test voltage	400–600 V rms / 2.0 kV rms test voltage
Operating temperature (mobile OB)	-30 °C to +70 °C
Halogen & smoke rating (FRNC)	IEC 60754-1/2 & IEC 61034
Soldering / termination rating	Compatible with crimp/clamp triax plugs
Dielectric diameters	4.6 mm (8.4), 6.5 mm (11.0), 9.7 mm (14.5)
Nominal cable weight (8.4 / 11)	92 / 155 / 265 kg/km
Connector compatibility	Fischer 1051, LEMO 3T/4M, Kings Tri-Loc
Oil, mud & turf chemicals	Resistant to hydraulic oils & stadium chemicals
EMC & ground-loop isolation	Isolated outer braid blocks SCR dimmer hum
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 Broadcast Camera Triaxial Cable variants 4 sizes						
☐ Triax 8.4 mm Mobile PUR ($\varnothing$ 1.0 SPC)	75 Ω Dual Isolated Braids (PUR)	$\varnothing$ 1.00 mm (0.78 mm ²)	8.40	45.0	92.0	42
☐ Triax 11.0 mm Mobile PUR ($\varnothing$ 1.4 SPC)	75 Ω Dual Isolated Braids (PUR)	$\varnothing$ 1.40 mm (1.54 mm ²)	11.00	78.0	155.0	55
☐ Triax 14.5 mm Long-Haul PUR ($\varnothing$ 2.2 SPC)	75 Ω Dual Isolated Braids (PUR)	$\varnothing$ 2.20 mm (3.80 mm ²)	14.50	145.0	265.0	72
☐ Triax 11.0 mm Studio FRNC/LSZH	75 Ω Dual Isolated Braids (LSZH)	$\varnothing$ 1.40 mm (1.54 mm ²)	11.00	78.0	164.0	55

– Dimensions and weights are nominal production values subject to manufacturing tolerances per IEC 61196-1 / SMPTE Camera Triax.

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 $Z_0 \Omega$	Velocity VoP %
1 MHz (CCU Power / Audio)	0.7	0.21	1,200	75	82.0
10 MHz (Intercom / Teleprompter)	1.9	0.58	650	75	82.0
50 MHz (Multiplexed IF Carrier)	4.3	1.31	350	75	82.0
100 MHz (Return Video / Tally)	6.2	1.89	240	75	82.0
300 MHz (UHD/HD RF Carrier)	11.2	3.41	135	75	82.0
600 MHz (Wideband Triax Multiplex)	16.5	5.03	90	75	82.0

– Attenuation values apply at +20 °C ambient into a matched 75 Ω load; CW power ratings assume VSWR 1.0:1 at +40 °C ambient.

Standards and approvals

- ✓ IEC 61196-1
- ✓ IEC 60332-1-2 / 60754
- ✓ 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/broadcast-camera-triaxial-cable



Typical values for this cable type, based on IEC 61196-1 / SMPTE Camera Triax. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.