



CAN Bus, SAE J1939, DeviceNet & CC-Link Cables

CC-Link

Fieldbus Cable

CLPA Ver. 1.10 / 2.0 $110 \Omega \pm 15 \Omega$ 3×20 AWG (0.5 mm²) Blue/White/Yellow CC-Link fieldbus



CLPA Ver. 1.10 & Ver. 2.0

 $110 \Omega \pm 15 \Omega \cdot 3 \times 20 \text{ AWG (DA/DB/DG)}$

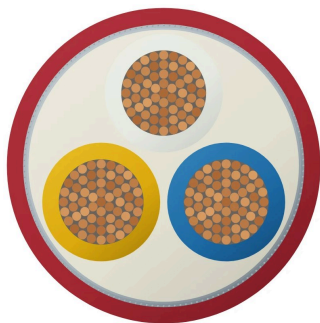
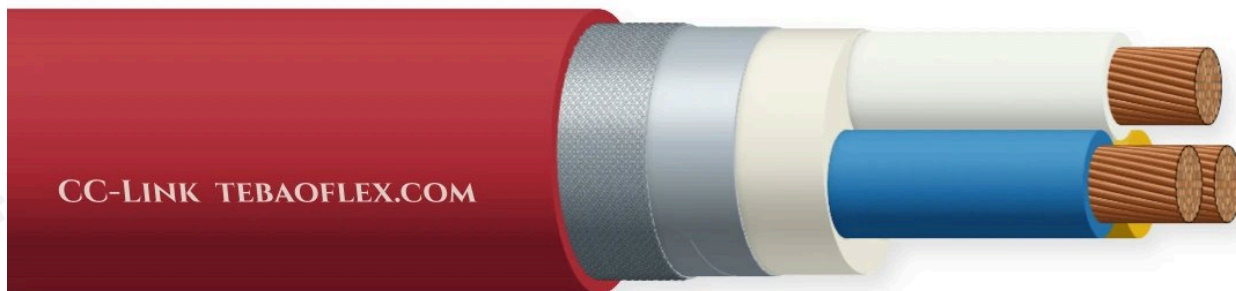
10 Mbps (100m) to 156 kbps (1200m)

Application

CC-Link Fieldbus Cable is the CLPA Ver. 1.10 and Ver. 2.0 compliant $110 \Omega \pm 15 \Omega$ (10 MHz) 3-core RS-485 fieldbus cable (156 kbps up to 1,200 m; 10 Mbps up to 100 m), built with three 20 AWG (0.50 mm²) tinned or bare copper conductors — DA (Blue), DB

Typical uses: Automotive body-in-white & stamping, Semiconductor, FPD & OLED cleanrooms, Lithium-ion cell & pack assembly, Machine tool & PLC remote I/O islands

Construction



Cross-section, not to scale

1	3 × 20 AWG stranded copper conductors	CLPA Ver. 1.10
2	Foamed polyethylene (FPE) dielectric	CLPA Ver. 1.10
3	Al/PET foil + drain wire	CLPA Ver. 1.10
4	High-density tinned copper braid	CLPA Ver. 1.10
5	Outer sheath (7.7 mm OD)	UL 20276 / CL2 / CM

Technical data

Typical values

Characteristic impedance Z0	110 Ω ± 15 Ω at 10 MHz (130 Ω ± 15 Ω at 1	Max. conductor DC resistance @ 20 °C	≤ 37.8 Ω/km per core (≤ 75.6 Ω/km loop)
Mutual capacitance @ 1 kHz	≈ 52 pF/m (CLPA limit < 60 pF/m)	Velocity of propagation (VoP)	≈ 75 % (0.75 c) · delay ≤ 4.5 ns/m
Attenuation (1 MHz / 5 MHz)	≤ 1.6 dB/100m @ 1 MHz · ≤ 4.8 dB/100m @ 5 MHz	Operating / test voltage	300 V UL · 2.0 kV AC / 1 min dielectric test
Operating temp. (fixed / chain)	-30 °C to +80 °C fixed · -20 °C to +75 °C	Storage temperature	-40 °C to +80 °C
Nominal outer diameter	7.7 mm ± 0.3 mm (standard 3×20 AWG)	Min. bending radius	6 × D fixed · 10 × D drag-chain
Oil & coolant resistance	UL Oil Res 80 °C · EN 60811-404	Flame retardancy	UL 1581 VW-1 / CL2 / CM · IEC 60332-1-2
Standards	CLPA CC-Link Cable Specification Ver. 1.10		

Sizes

5 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 CC-Link configurations 5 sizes						
☐ CC-Link Ver. 1.10 Fixed PVC 3×20 AWG (0.5 mm ²)	3×20 AWG (Fixed PVC 7.7 mm)	0.50 mm ² (20 AWG)	7.7	36	78	46
☐ CC-Link Ver. 1.10 Movable Flex Oil-PVC 3×20 AWG	3×20 AWG (Flex Oil-PVC)	0.50 mm ² (20 AWG)	7.7	37	80	46
☐ CC-Link Ver. 1.10 Drag-Chain PUR 3×20 AWG	3×20 AWG (Drag-Chain PUR)	0.50 mm ² (20 AWG)	7.8	38	76	47
☐ CC-Link Ver. 1.10 Compact Patch 3×22 AWG (0.34 mm ²)	3×22 AWG (Compact Patch)	0.34 mm ² (22 AWG)	6.5	27	56	39
☐ CC-Link Ver. 1.10 + Power Hybrid (3×20 AWG + 2×18 AWG)	3×20 AWG + 2×18 AWG (Power Hybrid)	0.50 + 0.75 mm ²	9.6	56	124	58

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per CLPA CC-Link Specification Ver. 1.10 / Ver. 2.0.

Impedance, capacitance & attenuation

5 sizes

Configuration	Impedance Z0	Max. DC R @ 20 °C Ω/km	Mutual C pF/m ≈	VoP %	Attenuation @ 20 °C dB/100m	Dielectric test V
3×20 AWG (Fixed PVC 7.7 mm)	110 Ω	75.6	52.0	75	1.6 @ 1 · 4.8 @ 5 · 6.9 @ 10 MHz	2,000
3×20 AWG (Flex Oil-PVC)	110 Ω	78.0	52.0	75	1.7 @ 1 · 5.0 @ 5 · 7.2 @ 10 MHz	2,000
3×20 AWG (Drag-Chain PUR)	110 Ω	78.0	52.0	75	1.7 @ 1 · 5.0 @ 5 · 7.2 @ 10 MHz	2,000
3×22 AWG (Compact Patch)	110 Ω	110.0	54.0	74	2.2 @ 1 · 6.4 @ 5 · 9.2 @ 10 MHz	1,500
3×20 AWG + 2×18 AWG (Power Hybrid)	110 Ω	75.6	52.0	75	1.6 @ 1 · 4.8 @ 5 · 6.9 @ 10 MHz	2,000

– Transmission values (characteristic impedance Z0, mutual capacitance, VoP, and attenuation) are measured at +20 °C per CLPA CC-Link Specification Ver. 1.10 / Ver. 2.0.

Standards and approvals

- ✓ CLPA Ver. 1.10 / Ver. 2.0
- ✓ UL AWM 20276 / CL2 / CM
- ✓ CE / RoHS

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/cc-link-fieldbus-cable



Typical values for this cable type, based on CLPA CC-Link Specification Ver. 1.10 / Ver. 2.0. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.