

INTRODUCING CAT7 RAIL DATA CABLE

- Offer a full range of cables to meet all rail high speed data requirements
- Expand design capabilities for broader bandwidth Ethernet connections with increased speed



TE Connectivity (TE) introduces Cat7 rail data cables, high performance, networking cables for railway Ethernet applications. TE's Cat7 rail data cables reach data rates up to 10Gbps, expanding design capabilities into broader bandwidth Ethernet applications. The enhanced design enables designers to balance performance requirements with installation time, helping to lower total costs and to ensure system performance.

BENEFITS

- Offer a full range of cables to meet all rail high-speed data requirements
- Obtain data rates of up to 10Gbps
- Offer standard cat 5e quad designs as well as cat 7a four pairs
- Expand design capabilities for broader bandwidth Ethernet connections with increased speed
- Extend cable application use with stranded conductors
- Improve EMI shielding effectiveness, prevent external interference to signals and reduce noise
- Improve harsh environment life time performance with rugged zero halogen jacket
- Comply to railway regulations with high performance rail approval to EN45545-2

MECHANICAL

- Operating temp range: -20°C to +80°C
- Max. recommended pulling tension: 80 N
- Min. bend radius (Install): 8 x O.D.
- Tensile strength: >9 MPa
- Elongation: >100%
- Ageing condition: 100oC x 168hrs
- After ageing tensile strength: >70% of Unaging
- After ageing elongation: >50% of Unaging
- Cold bend: No cracks (-20°C/4hrs)

APPLICATIONS

- Railway CCTV/ passenger information
- Trackside control cabinets
- Entertainment systems
- Industrial switches, routers, servers, hubs
- Sensor systems
- Video link
- Track inspection cameras

STANDARDS & SPECIFICATIONS

- NFPA 130 – 2010
- BSS2388
- BSS2389

ELECTRICAL

- Nom. mutual capacitance: < 56 pF/m (@1kHz)
- Pair-ground capacitance unbalance: <160 pF/100m
- Nominal velocity of propagation: 65%
- Max. delay skew: 25 ns/100m
- Max. conductor resistance unbalance: 2%
- Min. insulation resistance: 5000 MΩ·km
- Max. operating voltage - UL: 300 V

MATERIALS

- Structure:
 - Construction: S/FTP
 - Number of pairs: 4
 - Conductor material: Stranded Tinned Copper
- Insulation:
 - Insulation material: Foamed PE
- Cabling:
 - Twisting lay length: < 30mm
 - Cabling lay length: < 200mm
- Shield:
 - Individual shield and material: AL-Foil
- Outer Jacket:
 - Outer jacket material: LSFRZH
 - Outer jacket thickness (mm): 1.0mm Nom.
 - Outer jacket color: TE Blue

LEARN MORE

- [Cat7 Rail Cable Flyer](#)
- [Cat7 Landing Page](#)
- [Cat7 Parts List](#)