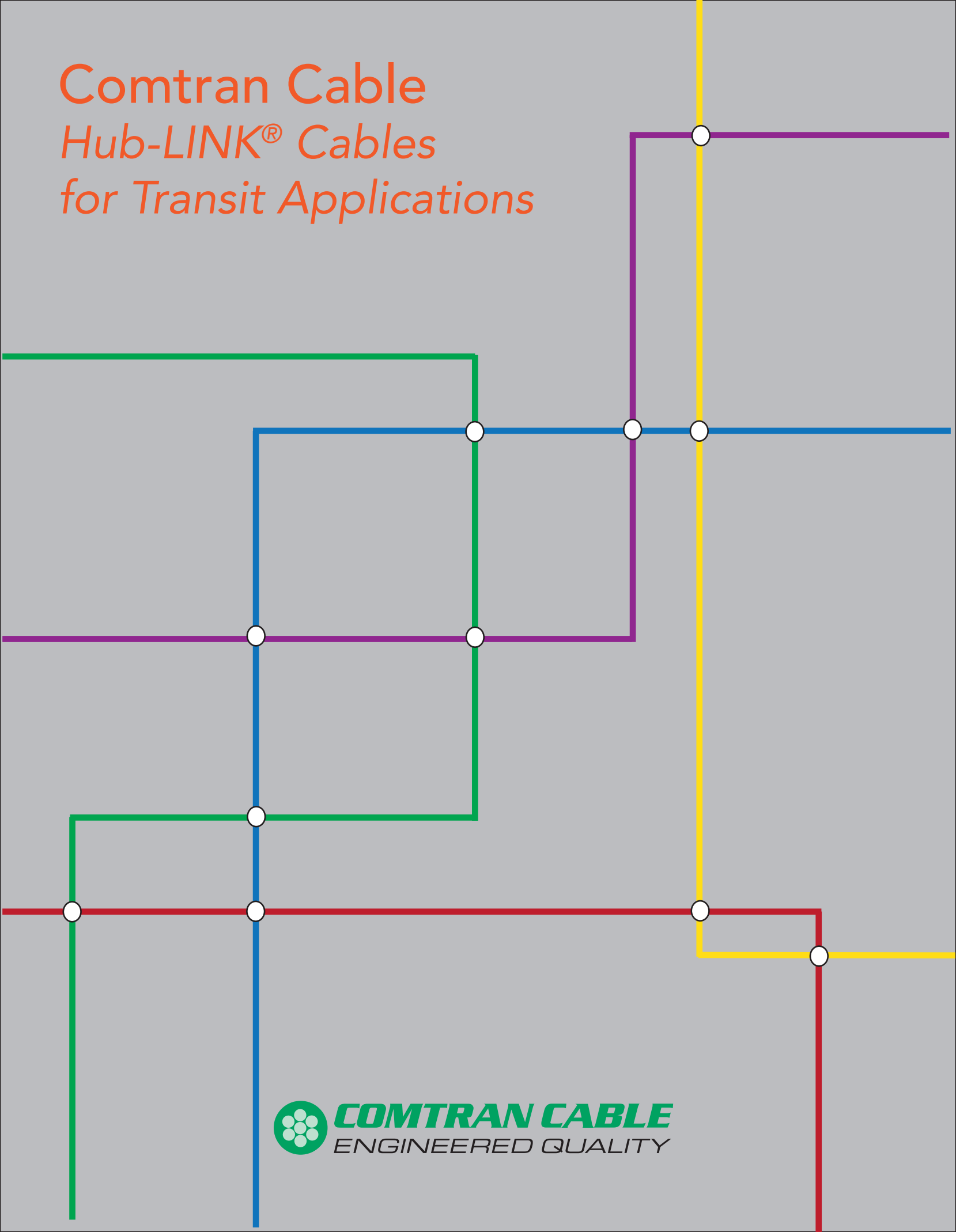


Comtran Cable

*Hub-LINK[®] Cables
for Transit Applications*



Overview

Hub-LINK® rail transit cables are designed to resist the rugged conditions of the underground and at-grade environments, including:

- Temperature extremes
- Moisture
- Petrochemicals
- Salt air
- Rodent damage
- Sunlight

Hub-LINK® cables must meet strict specifications for flame propagation, smoke density, halogen content, and toxicity to maximize passenger safety in the event of a fire. They are routed through conduits, duct banks, cable trays, or hung by messenger wire.

These cables provide the medium to transmit analog and digital data at low voltage power to support various telephone circuits and general communication services throughout the transit infrastructure, as well as other outside and tunnel applications.



Success Stories



Hub-LINK® cables have proven success with installations in major transportation systems throughout the country. These include:

- Honolulu Area Rapid Transit (HART)
- BART Santa Clara Valley Berryessa Extension (SVBX) project in San Jose
- L.A. Metro Crenshaw Station
- SR 99 Tunnel in Seattle
- Silver Line Dulles Corridor project in Washington D.C.
- Various Superstorm Sandy Rebuild Projects in New York City (East River, Queens Midtown Tunnel)
- 7-Line Extension/Javits Center in New York City
- World Trade Center in New York City
- Hudson Yards in New York City
- Amtrak Hudson River Tunnels in New York City

New York City Transit (NYCT) Approved

HUB-LINK® TRANSIT COMMUNICATIONS APPROVED FOR NYCT PRODUCT CLASS 20 GROUP 72

Comtran Part Number	Number of Pairs	AWG	NYCT Stock Number	Maximum O.D. (inches)	Nominal Weight (lbs./1000 ft.)
36071	12	22	20-72-0426	0.67"	224
36053	25	22	20-72-0726	0.83"	310
36054	50	22	20-72-0826	1.02"	485
36055	75	22	20-72-0926	1.20"	595
36040	100	22	20-72-1026	1.32"	695
36056	150	22	20-72-1126	1.57"	1035
36061	200	22	20-72-1226	1.74"	1280

ADDITIONAL NYCT TC-7 PRODUCT TYPES

- Cat 5e/6/6e Shielded & Unshielded Data Communications Cables
- Twisted-Pair Telephone Wire (cross-connect)
- Communications Cable - 16, 19, 22 AWG
- Power Supervisory Communications Cable
- Multiple-Pair Inside Telephone Cable (Riser & Plenum)
- Inside-Outside Telephone Station Wire
- 1 Hour and 2 Hour VITALink® Circuit Integrity Cables
- High-Temperature Fan Control Cables

ARMORED CABLES

The use of armored cables is increasing, due to their added mechanical and fluid protection and their conduit-free installation. Types of armored cables offered by Comtran include but are not limited to:

- Copper Clad and Welded (CCW) RS485 cables for security and intrusion detection applications
- Aluminum Interlock Armor (AIA) Trackside multi-pair telecom cables for telephone, DSL, VoIP, and 10BaseT Ethernet
- CCW Signal Code ("Code") cables for switch and signal communications
- CCW, ACW, or AIA Cat 6 cables for data network, Power over Ethernet (PoE, IoT), Point of Sale, and surveillance camera applications
- One through nine-pair 14 AWG Circuit Integrity (CI) fire resistant cables in accordance with UL 2196 and NFPA 130

All of these cables are available with our without an overall jacket, marked in accordance with NYCT specifications. Custom configurations including combined power, copper communication, and fiber optic components are available.



Additional Applications

HUB-LINK® LSZH TELECOMMUNICATIONS

Applications: Fixed guideway or passenger railway tunnels and stations, cable trays in airports, or any mass transit hub location where reduced toxins and flame spread are required.

Part Number	Number of Pairs	AWG	Jacket Color	Nominal O.D. (inches)
35957	2	22	Gray	.270"
35958	4	22	Gray	.310"
35959	6	22	Gray	.360"
35960	12	22	Gray	.440"
35961	25	22	Gray	.570"
35962	50	22	Gray	.725"
35963	100	22	Gray	.970"

HUB-LINK® LSZH DATA COMMUNICATIONS

Applications: Fixed guideway or passenger railway tunnels and stations, cable trays in airports, or any mass transit hub location where reduced toxins and flame spread are required.

Part Number	Number of Pairs	AWG	Jacket Color	Nominal O.D. (inches)
35977 (Cat 6)	4	23	Gray	.265"
35978 (Cat 5e)	4	24	Gray	.288"

HUB-LINK® LSZH LOW VOLTAGE LIGHTING

Applications: New and rebuilt bridges, tunnels, walkways, and passenger platforms.

Part Number	Number of Conductors	AWG	Jacket Color	Nominal O.D. (inches)
36385	2	18	Black	.249"

HUB-LINK® LSZH INDIVIDUALLY SHIELDED

Applications: Control and monitoring functions for corrosion protection systems.

Part Number	Number of Conductors	AWG	Jacket Color	Nominal O.D. (inches)
36372	4	12	Black	.394"



NFPA CODES AND STANDARDS:

All Hub-LINK® cables are in conformance with NFPA 130 for fixed guideway transit systems and NFPA 502 for road tunnels, bridges, and other limited access highways. These standards call out the following:

- FT-4/IEEE 1202 Flame Test Conformance
- Low Smoke Insulation Systems
- UL or NRTL Listing per NFPA 70

UNDERWRITERS LABORATORIES (UL) TESTING:

C(UL)US Type CMR-LS, CMG-LS, and CM-LS products have undergone extensive physical testing per UL 444 (Communications Cables) and burn testing per UL 1666 (test for flame propagation height of electrical cables installed vertically in shafts). They have also successfully passed the Limited Smoke testing to FT-4/IEEE 1202 to carry the additional "LS" marking which is above and beyond NYCT TC-7 requirements.

ADDITIONAL PHYSICAL/SMOKE/TOXICITY TESTING (TC-7):

- Fluid Immersion (Lubricating and Hydraulic Oil, Gas, and Water)
- Tear Resistance
- Smoke Generation (Flaming/Non-Flaming)
- Smoke and Toxicity Index
- Acid Gas
- Halogen Content
- Horizontal Abrasion
- Light Absorption (UV) & Water Absorption
- Environmental Stress Crack Resistance
- Cold/Hot Bend
- Cable Impact
- Jacket Shrink-back
- Heat Distortion

ELECTRICAL TESTING PER ANSI/TIA-568-C.2 (CATEGORY 3):

- Conductor Tolerances
- DC Resistance
- Attenuation
- Impedance
- Capacitance
- Mutual Capacitance
- Capacitance Unbalance (pair to pair and pair to ground)
- Crosstalk
- Insulation Resistance
- Conductor-to-Conductor Proof Test
- Core-to-Shield DC Proof
- Shield Resistance
- Continuity

Global Leader of Specialty Communications Cable Solutions



Want to learn more?

Contact us:

Toll Free: 800-842-7809

Email: sales@comtrancorp.com

www.comtrancorp.com



Like us on Facebook:

facebook.com/comtrancable



Follow us on LinkedIn:

linkedin.com/company/comtran-cable-llc



Follow us on Twitter:

twitter.com/comtrancable



A Marmon Wire & Cable/Berkshire Hathaway Company