

PRODUCT SPECIFICATION DRAWING

Proprietary Information not to be reproduced

Product Title: 2 PR 22 AWG CAT 5E, STRANDED T.C. COND., SHIELDED, LSZH THERMOSET INSULATION, THERMOSET EXANE-ZH LSZH JACKET, TRANSIT CATEGORY 5E CABLE, ROHS AND REACH COMPLIANT

4.0 JACKET: Black, Irradiation Cross-Linked LSZH Exane-ZH
 Wall Thickness .025 inches, Nom. 0.310 7.874
Minimum Diameter: 0.305 7.747
Maximum Diameter: 0.315 8.000

5.0 MARKING: Jacket is printed in **White** ink as follows:
“RSCC TD-009511 2 PR 22 AWG 7/30 CAT 5E SHIELDED 100 OHMS 125°C EXANE ZH JACKET 600V AC or DC ED04022-004 (year of manufacture, shop order, sequential footage)”

6.0 ELECTRICAL TESTS:

6.1 Individual insulated conductors will be tested using a high frequency spark tester at 3.0 KV(AC).

7.0 TECH DATA:

7.1 Impedance: 100 Ohms +/- 15% from 1.0MHz to 100 MHz
 7.2 Temperature Rating: -55°C to +90°C
 7.3 Conductor Resistance: 17.54 Ohms/1,000 ft at 20°C, Nom.
 7.4 Mutual Capacitance: 15 pF/ft, Nominal.
 7.5 Velocity of Propagation: 66%, Nominal.
 7.6 Propagation Delay: 538 ns/100 m, Max. at 100 MHz.
 7.7 Bend Radii: Based on Overall Diameter and Refers to Inside Radius Of Bend and not to the Neutral Axis:
 Static = 3.15 in (80 mm), Min.
 Dynamic = 6.30 in (160 mm), Min.
 7.8 Weight: 53 lbs./1000 ft
 7.9 Transmission Data:

MHz	Max. Attenuation dB/100m	Min. NEXT dB	Min. PSNEXT dB	Min. ACR dB	Min. PSACR dB	Min. Return Loss dB	Min. ELFEXT dB
1	2.4	65.3	62.3	63.8	60.8	20.0	63.8
4	4.9	56.3	53.3	51.8	48.8	23.0	51.7
8	7.0	51.8	48.8	45.7	42.7	24.5	45.7
10	7.8	50.3	47.3	43.8	40.8	25.0	43.8
16	9.8	47.3	44.2	39.7	36.7	25.0	39.7
20	11.1	45.8	42.8	37.8	34.8	25.0	37.7
25	12.5	44.3	41.3	35.8	32.8	24.3	35.8
31.25	14.0	42.9	39.9	33.9	30.9	23.6	33.9
62.5	20.4	38.4	35.4	27.9	24.9	21.5	27.8
100	26.4	35.3	32.3	23.8	20.8	20.1	23.8



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Part No.:
 ED04022-004

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8.0 SPECIFICATION:

8.1 EIA/TIA 568-C.2 for Category 5e cables. Special features include stranded Tinned Copper conductors to provide flexibility, thermoset cross linked insulation, Exane-ZH LSZH Jacket to meet the requirements for transit application for Flame, Smoke & Toxicity. The cable is **ROHS** and **REACH** compliant.

9.0 FLAME & SMOKE (NFPA 130-2010, 2014, 2017):

Passes the spread of fire and smoke emissions test requirements for low voltage wire and cable in accordance with NFPA 130-2010, 2014, 2017 Article 8.6.7.1.1 for transit vehicle application.

9.1 Passes the 70,000 Btu/hr Vertical Cable Tray Flame Test, FT4/IEEE 1202 by having a flame travel distance that does not exceed 1.5 m (4 ft 11 in).

9.2 The total smoke released is $\leq 150 \text{ m}^2$ (1615 ft²).

9.3 The peak smoke release rate is $\leq 0.40 \text{ m}^2/\text{s}$ (4.3 ft²/s).

10.0 FLAME: Passes the flame test requirement of 49Code of Federal Regulations (CFR), Part 238 Appendix B, in accordance with NEMA WC 3/ICEA S-19-81, paragraph 6.19.6.

11.0 SMOKE: Passes the smoke test requirement of 49Code of Federal Regulations (CFR), Part 238 Appendix B, in accordance with ASTM E662-97:

Flaming D _s (4.0 minutes)	≤ 200
Non-Flaming D _s (4.0 minutes)	≤ 75

12.0 TOXICITY: Passes Toxicity Test requirements when tested in accordance with Boeing Specification Support Standard (BSS) 7239:

<u>Chemical</u>	<u>Requirement (Max.)</u>
Carbon Dioxide (CO ₂)	90,000 ppm
Carbon Monoxide (CO)	2,500 ppm
Hydrogen Fluoride (HF)	150 ppm
Hydrochloric Acid (HCL)	300 ppm
Nitrous Fumes (NO ₂)	100 ppm
Sulfur Dioxide (SO ₂)	100 ppm
Hydrocyanic Acid (HCN)	100 ppm