



Product: [BE46831](#)

MarineTuff SPE 40mGb 22AWG STP SF/UTP SHF2

Product Description

MarineTuff Ethernet 1 Pair x 22AWG, STP, Stranded Tinned Copper Conductor, XLPE Insulation, SHF2 Outer Jacket

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | 1 single pair Ethernet up to 600 MHz, IEC 60092-376 |
|------------------------|---|

Construction Details

Conductor

| Size | Stranding | Material | Number of Pairs |
|------|-----------|--------------------|-----------------|
| 22 | Stranded | TC - Tinned Copper | 1 |

Insulation

| Material | Nom. Insulation Diameter | Color Code |
|------------------|--------------------------|----------------------------------|
| XLPE, XLPO, XLPE | 2.15 mm (0.0846 in) | Nature & Nature with blue stripe |

Outer Shield

| Shield Type | Material |
|-------------|-------------------------|
| Tape | Bi-Laminate (Alum+Poly) |
| Braid | Tinned Copper (TC) |

Outer Jacket

| Material | Nom. Diameter |
|--|---------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant, Thermoset) | 6.20 mm |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|----------------------------|-------------------------------|
| 59.4 Ohm/km | 1,600 pF/km | 100 Ohm |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) [dB] | Min. RL (Return Loss) [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|--|----------------------------|---------------|------------------|
| 1 | 3.1 | 20 | 40 | 40 |
| 4 | 5.6 | 23 | 40 | 28 |
| 10 | 8.7 | 25 | 35 | 20 |
| 20 | 12.3 | 25 | 30.5 | 14 |
| 62.5 | 21.9 | 20.7 | 23.1 | 5 |
| 100 | 27.8 | 19 | 20 | 5 |
| 250 | 44.6 | 15.6 | 14 | 5 |
| 500 | 64.1 | 15.6 | 9.5 | 5 |
| 600 | 70.7 | 15.6 | 8.3 | 5 |

| | |
|---------------------------|---------|
| Transfer Impedance Class: | Grade 2 |
|---------------------------|---------|

Voltage

| |
|--------------------------|
| UL Voltage Rating |
| 300 V |

Mechanical Characteristics

Temperature

| |
|------------------|
| Operating |
| -40°C to + 105°C |

Standards and Compliance

| | |
|----------------------------------|--|
| Flammability / Reaction to Fire: | FT2, IEC 60332-1-2, IEC 60332-3A |
| ISO/IEC Compliance: | IEC 61156-12, IEC 61034-2 - Smoke Density Min Transmittance = 70% |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = 0.5 %, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |

History

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| Update and Revision: | Revision Number: 0.30 Revision Date: 04-08-2022 |
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