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SALE ENGINEERING DEPARTMENT
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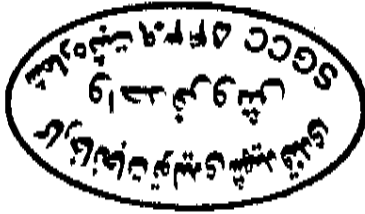
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TECHNICAL SPECIFICATION FOR
DATA CABLE
(CAT6-FTP)
(Experimental Cable)

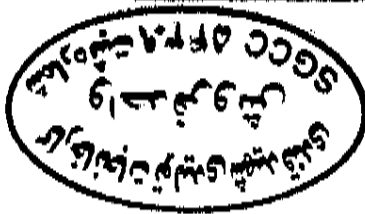
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**SPECIFICATION FOR
DATA CABLE
(CAT6 - FTP)**





| Number Pairs | Color Coded |
|--------------|-------------------------|
| 1 | White - Blue / Blue |
| 2 | White - Orange / Orange |
| 3 | White - Green / Green |
| 4 | White - Brown / Brown |

Table 1

Each conductor is uniformly covered with solid polyethylene conforming to ASTM D-1248, Type III class A category 4 or 5 Grade E8. Insulation contains a suitable antioxidant system including a copper inhibitor. The insulation will be uniform, smooth and have non-porous surface.

The insulation colors are in accordance with the following table (1).

5 - CONDUCTOR INSULATION

The nominal conductor diameters may be 0.58 mm.

measured at 20 ± 2 °C.

Each conductor is a solid wire of commercially pure annealed copper, smoothly drawn, circular in cross section, uniform in quality and free from defects. Conductors meet the quality requirements of ASTM B3. The maximum resistance for a cross section area of 1 mm² and a length of 1 km is 17.241 ohms when

4 - CONDUCTOR

range of -40 to +70 °C.

The cables shall without detriment, perform suitably throughout a temperature

3 - TEMPERATURE AND ENVIRONMENT

specified.

This specification is in accordance with REA/ASTM (American society for testing and material), BS (British Standard Institute), IP (Institute of Petroleum), ISO (International Organization for Standardization) and TIA/EIA 568B has been

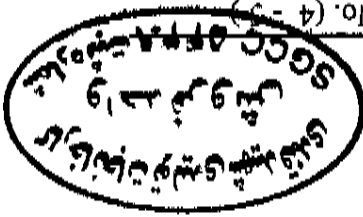
2 - ASSOCIATED DOCUMENTS

frequencies up to 250 MHz.

This specification details the construction of Category 6 network cable. The conductors are solid copper, covered with a solid plastic insulating compound. The insulated conductors (four twisted pairs) are inside cable core. The cable structure is completed with aluminum foil, PVC jacket, glass yarn and HDPE jacket. The cable is fully color coded so that each insulated conductor in the cable is distinguishable from other insulated conductor. Cat-6 cable supports

1 - GENERAL





NOTE: Other method as request

Each length of the cable shall be permanently identified as to the manufacturer, year of manufacture and cable type. The marking will be printed on the outer jacket.

11 - IDENTIFICATION MARKING

The outer jacket is a black polyethylene conforming to ASTM D-1248 type III class C category 4 or 5 grade J-3. The nominal jacket thickness is 1.2mm. The average thickness at any cross section shall not be less than 90% and minimum spot thickness shall not be less than 70% of the nominal thickness. The nominal jacket thickness will be 1 mm. The outer jacket color is Black.

12 - OUTER JACKET

A layer of Glass yarn will be used in cable structure to provide protection against rodents.

11 - INTERMEDIATE PROTECTION LAYER

A PVC compound will be applied on the cable core. The nominal jacket thickness will be 0.5mm.

10 - INNER JACKET

The rip cords will be placed under the inner jacket and over the glass yarn under the outer jacket and must be strong and flexible enough to be able to strip or the jackets easily.

9 - RIP CORD

An aluminum foil with copolymer coating on one side will be applied longitudinally with 3 mm overlap at least. The Aluminum thickness is 35 micron. A drain wire as earth continuity will be applied under the aluminum foil with diameter of 0.5 mm.

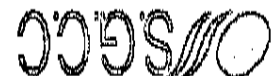
8 - ALUMINUM SHIELD

The pairs colored according to the table (1) with cross web (separator) are stranded to form a cylindrical core. Stranding may be accomplished by using a concentric stranding where the pairs will change positions according to the change in direction of lay.

7 - STRANDING

Two appropriately colored insulated conductors are uniformly twisted together to form a pair. The lays of all pairs are in the same direction and different for each pair in a unit.

6 - TWISTING



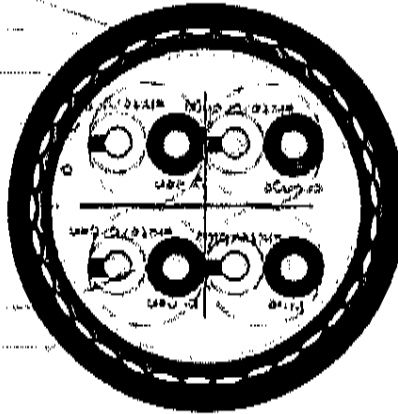


* All data in table are ideal and the real test results may deviate from the above table.

| MHz | Attenuation Max | Return Loss Min | NEXT Min | PS. NEXT Min | PS. ACR Min | PS. ELFEXT Min | ELFEXT Min |
|---------|-----------------|-----------------|----------|--------------|-------------|----------------|------------|
| DB/100m | DB | DB | DB | DB | DB | DB/100m | DB/100m |
| 1 | 2.0 | 20.0 | 76.3 | 74.3 | 72.3 | 64.8 | 67.8 |
| 4 | 3.8 | 23.0 | 67.3 | 65.3 | 61.5 | 52.7 | 55.7 |
| 8 | 5.3 | 24.5 | 62.8 | 60.8 | 55.5 | 46.7 | 49.7 |
| 10 | 6.0 | 25.0 | 61.3 | 59.3 | 53.3 | 44.8 | 47.8 |
| 16 | 7.6 | 25.0 | 58.3 | 56.3 | 48.7 | 40.7 | 43.7 |
| 20 | 8.5 | 25.0 | 56.8 | 54.8 | 46.3 | 38.7 | 41.7 |
| 25 | 9.5 | 24.3 | 55.3 | 53.3 | 43.8 | 36.8 | 39.8 |
| 31.25 | 10.7 | 23.6 | 53.9 | 51.9 | 41.2 | 34.9 | 37.9 |
| 62.5 | 15.4 | 21.5 | 49.4 | 47.4 | 32.0 | 28.8 | 31.8 |
| 100 | 19.8 | 20.1 | 46.3 | 44.3 | 24.5 | 24.8 | 27.8 |
| 155 | 25.1 | 18.8 | 43.5 | 41.5 | 16.4 | 20.9 | 23.9 |
| 200 | 29.0 | 18.0 | 41.8 | 39.8 | 10.8 | 16.7 | 21.7 |
| 250 | 32.8 | 17.3 | 40.3 | 38.3 | 5.5 | 16.8 | 19.8 |

13 - ELECTRICAL PARAMETERS

- Outer Jacket
- Glass Yarn
- Inner Jacket
- Drain Wire
- Rip Cord
- Cross
- Conductor
- Insulation
- Al.Mylar



FTP

12 - CABLE FORMATION

