SPECIFICATION

for

THOMTRONIC-LAN S/FTP Cat.7 26AWG X 4P

Tech Spec. No. : TCC-SPEC-089/2021

Issued date : 4th. May. 2021

Revised No. : -

Revised date : -

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Thomas

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Description : THOMTRONIC-LAN S/FTP Cat.7 26AWG X 4P

Rated voltage : 60V (DC)

Construction

Conductor
Stranded plain annealed bare copper wire

Insulation
Foamed PE

Core identification
1p : White-Blue, 2p : White-Orange
3p : White-Green, 4p : White-Brown

Pair
26AWG Cores twisted to pair (different pitches)

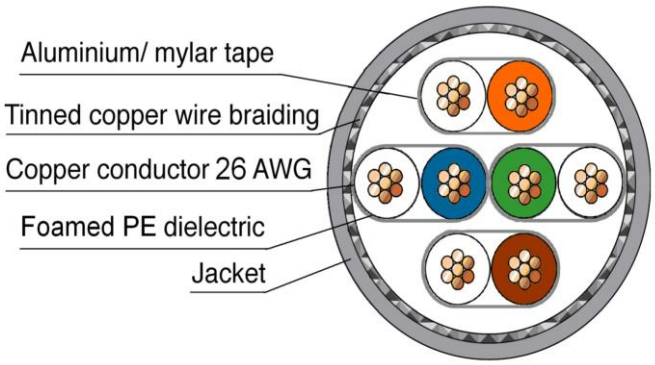
Individual Shield
AL-Mylar tape

Assembly
Required pairs shall be assemble
with suitable binder

Overall Shield
Tinned copper wire braiding (min. cov. 30%)

Sheath
LSZH, Light Grey (RAL 7035)

Drawing



Cable marking

- Marking method & Interval : Black ink printing with max. 1,000㎜ interval

- Marking content

THOMAS CABLE THOMTRONIC-LAN S/FTP Cat.7 26AWG X 4P =M=

Construction & Electrical table

No. of pair and AWG (Pr. x AWG)	Diameter of conductor (nom.) (㎜)	Diameter of insulation (nom.) (㎜)	Overall diameter (㎜)	Cable weight (approx.) (kg/㎞)	Test voltage (d.c) (kV/1min)	Remark
4 x 2 x 26	0.5	1.1	5.8 ± 0.3	35.5	1.0	IEC 60332-1-2

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Electrical Properties (at 20°C ± 5°C)

DC resistance	max. 14.5Ω / 100m at 20°C
Resistance unbalanc	max. 2% at 20°C
Insulation resistance (500V)	min. 5000MΩ/km at 20°C
Mutual capacitance	nom. 4.6nF / 100m at 1kHz
Capacitance unbalance (pair to ground)	max. 160pF / 100m at 1kHz
Nominal velocity of propagation	nom. 78%
Test voltage (DC, 1 min)	1kV / 1min
Rated voltage (DC)	60V

Transmission Performance acc. to IEC 61156-6 Cat.7 (at 20 ℃)

Frequency (MHz)	**Impedance** (Ω)	**Attenuation** (dB)	**NEXT** (dB)	**PSNEXT** (dB)	**ACRF** (dB)	**PSACRF** (dB)
4	100 ± 15	5.6	78.0	75.0	78.0	75.0
10		8.8	78.0	75.0	74.0	71.0
16		11.1	78.0	75.0	69.9	66.9
20		12.4	78.0	75.0	68.0	65.0
31.25		15.6	78.0	75.0	64.1	61.1
62.5		22.3	75.5	72.5	58.1	55.1
100	100 ± 22	28.5	72.4	69.4	54.0	51.0
125		32.1	70.9	67.9	52.1	49.1
200	100 ± 25	41.2	67.9	64.9	48.0	45.0
250		46.5	66.4	63.4	46.0	43.0
300		51.3	65.2	62.2	44.5	41.5
500		75.1	60.7	57.7	38.4	35.4

Frequency (MHz)	**Return Loss** (dB)	**Propagation Delay** (ns)	**Delay Skew** (ns)
4	23.0	552.0	25
10	25.0	545.4	
16	25.0	543.0	
20	25.0	542.0	
31.25	23.3	540.4	
62.5	20.7	538.6	
100	19.0	537.6	
125	18.2	537.2	
200	16.4	536.5	
250	15.6	536.3	
300	15.6	536.1	
500	15.6	535.6	

***NOTE If FEXT loss is greater than 70 dB, ACRF loss may not be measured**