

FTP Cat5E Specification

Description	Electrical characteristics (20°)								
Solid annealed copper conductor Polyethylene insulation Twisted pair color confirm to IEC61156-1:2001 and ANSI/EIA/TIA-568-B.2-2001 With one rip cord Overall Beldfoil shield With one drain wire Sunlight- and oil-resistant PVC sheath No breaking and confusing wire	<table border="0"> <tr> <td data-bbox="812 436 1364 468">Single conductor resistance</td> <td data-bbox="1372 436 1539 468">9.5Ω/100m</td> </tr> <tr> <td data-bbox="812 499 1364 531">Pair DC resistance unbalance</td> <td data-bbox="1372 499 1539 531">2.5%</td> </tr> <tr> <td data-bbox="812 562 1364 657">Dielectric intensity between conductors, DC, 1min</td> <td data-bbox="1372 562 1539 657">1kV</td> </tr> <tr> <td data-bbox="812 688 1364 783">Dielectric intensity between conductors, DC, 2min</td> <td data-bbox="1372 688 1539 783">5.6nF/100m</td> </tr> </table>	Single conductor resistance	9.5Ω/100m	Pair DC resistance unbalance	2.5%	Dielectric intensity between conductors, DC, 1min	1kV	Dielectric intensity between conductors, DC, 2min	5.6nF/100m
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Construction

Conductor	
Material	Solid annealed copper conductor
Nominal diameter (mm)	24AWG
Insulation	
Material	Polyethylene
Normal thickness (mm)	0.21
Insulation nominal outer diameter (mm)	0.90
Twisted Pair:	
Chromatogram	
1. White (Blue) Blue	3. White (Green) Green
2. White (Orange) Orange	4. White (Brown) Brown
Stranding construction	
1*4	
Lay	100mm
Screen	
Aluminum foil	
Thickness (mm)	0.05
Drain wire	
Tinned copper wire	
Nominal diameter (mm)	24AWG
Sheath	
Material	PVC
Minimum average thickness (mm)	0.5
Cable maximum diameter (mm)	6.5

Transmission Characteristics

<i>Frequency MHz</i>	<i>Attenuation dB/100m</i>	<i>NEXT dB/100m</i>	<i>EL-NEXT dB/100m</i>
1	2	65	64
4	4.1	56	51.9
8	-	-	45.9
10	6.5	50	44
16	8.2	47	39.9
20	9.2	46	37.9
25	-	-	36
31.25	11.7	43	34.1
62.5	17	38	28
100	22	35	24

Mechanical Characteristics (20°)

Conductor breaking elongation rate	≥10%
Insulation tension	≥16MPa
Insulation breaking elongation	≥300%
Tension before aging	≥12.5MPa
Insulation breaking elongation before aging	≥125%
Tension after aging	≥12.5MPa
Insulation breaking elongation after aging	≥125%
Insulation peeling strength	No conductor / Insulation harm

