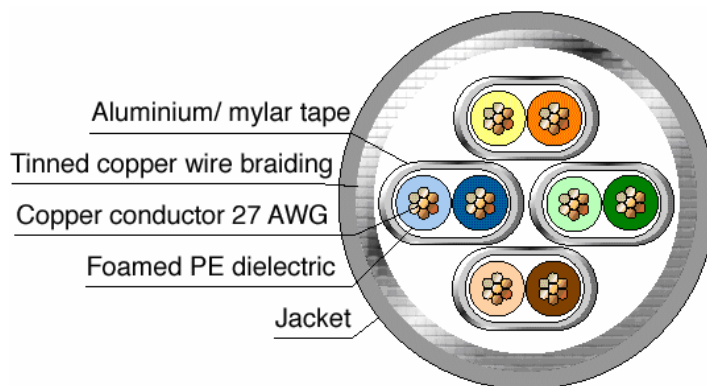


GBM Series	S/FTP Patch Cat.6A
Cable: 4 Pair 27AWG Patch---LSZH	



Reference Standards
Fire Rating

ISO/IEC 11801; IEC 61156-6; EN50173; EN50288-5-2; TIA/EIA -568B.2-10
IEC 60332-1

Construction

Conductor	Stranded anneal copper wire nom. 7x 0.142mm (AWG27)
Insulation	Foamed PE ,nom. 1.02 mm
Twisting	4 twisted pairs, 2 single conductors paired, Twisted pair color code: 1: white / blue 2: white / orange 3: white / green 4: white / brown
Individual Shielding	A layer of aluminum-foil laminated tape will be wrapped over the twinning, the aluminum side face- out.
Cable lay up	4 pairs with different pitches
Shielding	Tinned copper wire braiding, normally with min. 60% coverage
Outer jacket	LSZH
Outer diameter	nom.5.7 mm

Mechanical Properties

Bending radius	$\geq 4 \times \text{OD}$ without load $\geq 8 \times \text{OD}$ with load
Temperature range,	
during operation	-20°C up to 60°C
during installation	0°C up to 50°C

Electrical Properties (at 20°C ± 5°C)

DC resistance	max.18.3 Ω / 100 m at 20 °C
Resistance unbalance	max. 2 % at 20 °C
Insulation resistance (500V)	min. 150 MΩ/Km at 20 °C
Mutual capacitance	nom. 4.6 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 330 pf / 100 m at 1 kHz
Nominal velocity of propagation	nom. 78 %
Test voltage (DC, 1 min)	750 V / 1 min

S/FTP Patch Cat.6A
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Transmission performance acc. to TIA/EIA-568B.2-10 Cat.6A (at 20 °C)

Frequency (MHz)	Impedance (Ω)	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.	
1	100 ± 15	*(3.1)	74.3	72.3	67.8	64.8	
4		5.7	65.3	63.3	55.8	52.8	
10		9.0	59.3	57.3	47.8	44.8	
16		11.4	56.3	54.3	43.7	40.7	
20		12.7	54.8	52.8	41.8	38.8	
31.25		16.0	51.9	49.9	37.9	34.9	
62.5		23.1	47.4	45.4	31.9	28.9	
100		29.7	44.3	42.3	27.8	24.8	
125		100 ±22	33.6	42.8	40.8	25.9	22.9
200			43.5	39.8	37.8	21.8	18.8
250	49.2		38.3	36.3	19.8	16.8	
500	100±25	73.3	33.8	31.8	13.8	10.8	

Frequency (MHz)	Return Loss (dB) Min.	Propagation Delay (ns) Max.	Delay Skew (ns) Max.
1	*(20.0)	570.0	45
4	23.0	552.0	
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	18.1	537.2	
200	16.4	536.6	
250	15.6	536.3	
500	13.0	535.6	

*Values shown on tables above are for reference purpose only.