

Data sheet

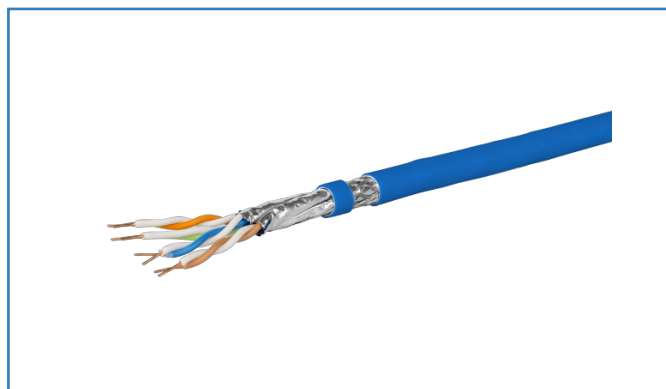
**MC GC1500 pro22 Cat.7_A S/FTP 4P LSHF-FR,
class D_{ca} s2 d1 a1**

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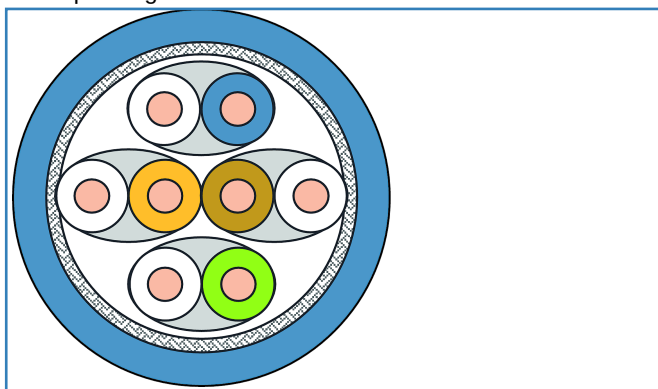
P/N
1308427A3414M
EAN 4250184175353

2018-01-02

Illustrations



Principle diagram



See enlarged drawings at the end of document



Product specification

- 25 GBit / 10 GBit installation cable, simplex
- installation cable Cat.7_A AWG 22 S/FTP with wires shielded in pairs
- 4 pairs (PIMF)
- pair shield: plastic foil with aluminum coating
- overall shield: tinned copper braid
- outer diameter 8.5 mm
- color of the cable jacket: blue
- coupling attenuation not less than 85 dB
- applicable standards: EN 50173-1:2011-09; ISO/IEC 11801 Ed.2.2:2011-06; EN50288-9-1; IEC61156-5 and IEC61156-7
- cable jacket: LSHF-FR (LSOH-FR)
- flame-retardant to IEC 60332-1; IEC 60332-3-24; IEC 60754-2 and IEC 61034
- multimedia capable
- suitable for the following areas of use: primary (campus), secondary (riser), tertiary (horizontal), IEEE 802.5, IEEE 802.3, 10Base-T, 100Base-T, 1000Base-T, 10GBase-T, ISDN, TPDDI, ATM CATV, broadband video, SOHO cabling
- fire behaviour: Class D_{ca} s2 d1 a1 acc. to EN 50399 (classification acc. to EN 13501-6)

Shipping Units:

sold by the meter	on drum
3280 ft (1000 m)	on drum

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Technical Data

General Data

Design	Installation cables
Shielding	shielded
Transmission technology	Copper
Cable Type	S/FTP
Number of twisting elements	4
Twisting element	Pair
Color coding fiber/ wire(s)	white, orange, white, green, white, brown, white, blue
Color	blue
Weight	73 kg/km

Transmission characteristics

Category (ISO)	7 _A
PoE	IEEE 802.3af
PoE plus	IEEE 802.3at
Transmission rate up to 10 GBit (Gigabit-Ethernet)	IEEE 802.3an
Transmission rate up to 25 GBit (Fast Ethernet)	IEEE 802.3bq
Transmission values (nominal)	see table

Connections/interfaces

Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 22/1
Conductor diameter, solid wire (bare copper)	0.64 mm
Conductor diameter, solid wire (bare copper)	0.025 in.
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	1.6 mm
Core diameter (conductor with insulation)	0.063 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	8.5 mm
Cable sheath diameter	0.335 in.
Copper index	45 kg/km

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Electrical characteristics

Loop resistance	max. 110 Ohm/km
Transfer impedance 1 MHz	max. 5 mOhm/m
Transfer impedance 10 MHz	max. 5 mOhm/m
Transfer impedance 30 MHz	max. 10 mOhm/m
Transfer impedance 100 MHz	max. 20 mOhm/m
Resistance unbalance	max. 2 %
Coupling attenuation	min. 85 dB
Capacitance at 800 Hz	Nom. 43 nF/km
Capacitance unbalance pair to ground	max. 1200 pF/km
Nominal velocity of propagation	ca. 74 %
Signal propagation delay	450 ns/100 m
Delay skew	15 ns/100 m
Dielectric strength conductor-conductor (primarily)	1000 V DC
Dielectric strength conductor-conductor (secondary)	1000 V DC
Dielectric strength conductor-shield	1000 V DC
Segregation classification	D

Mechanical characteristics

Tensile force	340 N
Fire load	0.187 kWh/m
Fire load	674 MJ/km

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	LSHF-FR (LSOH-FR)
Material - Pair shield	plastic film
Material - Pair shield finish	Al (Aluminium)
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	yes
Halogen free	yes



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Environmental conditions

Temperature (min. - max.)

Temperature - Storage °C	-20 - 60 °C
Temperature - Storage °F	-4 - 140 °F
Temperature - Operating °C	-20 - 60 °C
Temperature - Operating °F	-4 - 140 °F
Temperature - Installation °C	0 - 50 °C
Temperature - Installation °F	32 - 122 °F

Approvals

RoHS compliant

The product meets the following standards

Generic cabling systems

General requirements ISO/IEC 11801 Ed.2.2:2011-06 | DIN EN 50173-1:2011-09

Multi-element metallic cables used in analogue and digital communication and control DIN EN 50288-9-1

Common test methods for cables under fire conditions

Fire behaviour - class   Klasse D_{ca} s2 d1 a1 nach EN 50399 (Klassifizierung nach EN 13501-6)

Test for vertical flame propagation for a single insulated wire or cable IEC 60332-1

Test for vertical flame spread of vertically-mounted bunched wires or cables IEC 60332-3-24

Measurement of smoke density of cables burning IEC 61034

Determination of acidity (by measuring the pH value) and conductivity IEC 60754-2

Classifications

ETIM 5.0 EC000830

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Packing details

Type of packaging	100 meter / drum
Packaging dimension (W x H x D)	850.00 x 700.00 x 850.00 mm
Packaging dimension (W x H x D)	33.465 x 27.559 x 33.465 in.



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Accessories

P/N	Designation
140302-01-E	Jokari dismantle tool



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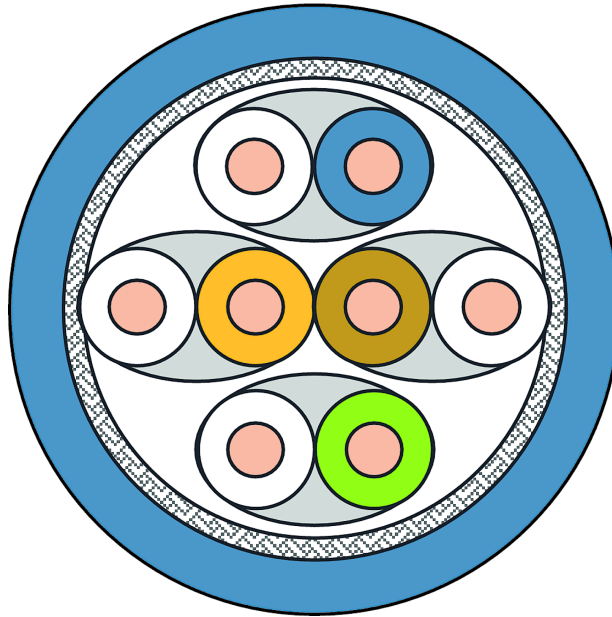
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Transmission values (nominal) as per Cat. 7_A (at 20°C)

FREQ MHz	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (dB)
1.0	1.7	100	97	98	95	100	97	23
4.0	3.3	100	97	97	94	97	94	26
10.0	5.1	100	97	95	92	95	92	28
16.0	6.5	100	92	94	91	90	87	28
20.0	7.3	100	90	93	90	90	87	28
31.25	9.1	100	90	91	88	90	87	27
62.50	12.8	100	90	87	84	85	82	25
100.0	16.3	100	87	83	80	80	77	23
155.0	20.3	95	87	75	72	78	75	21
200.0	23.0	95	87	72	69	75	72	21
250.0	25.8	90	87	64	61	69	66	20
300.0	28.3	89	85	61	58	65	62	20
600.0	40.2	85	82	45	42	45	42	20
1000.0	52.1	83	80	31	28	40	37	20
1200.0	57.1	83	80	26	23	35	32	18
1400.0	61.3	81	78	21	18	30	27	16
1500.0	64.1	80	77	16	13	28	25	16

