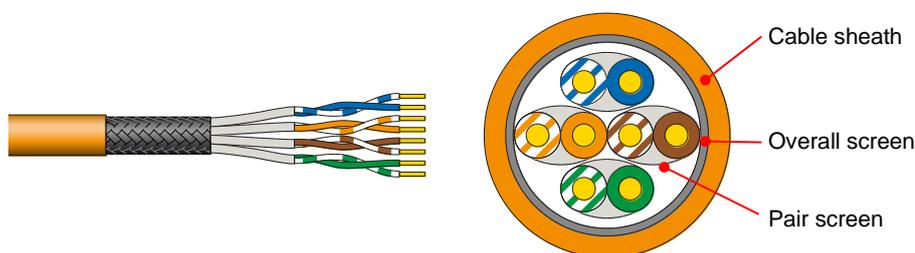


<b>Cable reference</b>	<b>Part number</b>	R949706
	<b>Source code</b>	V
	<b>R&amp;M positioning</b>	Cat.7 <sub>A</sub> ,
	<b>EAN / GTIN</b>	7611821076124

<b>Cable construction</b>	<b>Conductor</b>	Bare solid copper wire AWG22
	<b>Insulation</b>	Polyethylene ≤ Ø 1.5 mm
	<b>Twisting</b>	2 wires to the pair
	<b>Cable lay up</b>	4 pairs to the core
	<b>Pair screen</b>	Alu / polyester tape
	<b>Overall screen</b>	Tin plated copper braid (>30% coverage)
	<b>Sheath</b>	LSFRZH, orange RAL 2003



<b>Application</b>	Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
	IEEE 802.3an: 10Base-T; 100Base-TX; 1000Base-T; 10GBase-T ; 25GBase-T IEEE 802.5 16 MB; ISDN; TPDDI; ATM IEEE 802.3af / IEEE 802.3at / IEEE 802.3bt Conforms to European regulation "CPR" EN 50575

<b>Standards</b>	ISO/IEC 11801 2nd ed.; EN 50173-1
	IEC 61156-5; EN 50288-9-1
	Power over Ethernet (PoE) / Type 1-4

<b>Fire rating</b>	LSFRZH
	IEC 60332-3; IEC 60754-2; IEC 61034
	EN50575; Cca-s1a,d1,a1; DOP C7595

<b>Technical Data</b>	<b>Cable designation</b>	S/FTP Cat.7 <sub>A</sub> 1300MHz 4PxAWG22
	<b>Packaging</b>	Ring 100 m
	<b>Outer diameter</b>	Nominal 7.7 mm
	<b>Weight</b>	66 kg / km
	<b>Thermal load</b>	623 MJ / km
	<b>Segregation class</b>	D
	<b>Tensile force</b>	160 N

<b>Mechanical Properties</b>	<b>Bending radius</b>	≥ 35 mm during operation (without load)
		≥ 70 mm during installation (with load)
	<b>Temperature range</b>	During operation -20°C...+ 70°C
	During installation 0°C...+ 50°C	

## Electrical Properties (at 20°C ± 5°C)

<b>DC loop resistance</b>		≤ 12.8 Ω / 100 m
<b>Resistance unbalance</b>		≤ 2 %
<b>Test voltage</b>	DC, 1 min, core/core	1000 V
<b>Insulation resistance</b>	500 V	≥ 5000 MΩ * km
<b>Capacitance</b>		43 pF / m nom.
<b>Capacitance unbalance</b>		≤ 1500 pF / km
<b>Mean characteristic impedance at 100 MHz</b>		100 ± 5 Ω
<b>Nominal velocity of propagation</b>		Approx. 76 %
<b>Propagation delay</b>	At 1 MHz	≤ 500 ns / 100 m
<b>Delay skew</b>		≤ 25 ns / 100 m
<b>Coupling attenuation</b>		≥ 80 dB
<b>Transfer impedance</b>	At 1 MHz	≤ 12 mΩ / m
	At 10 MHz	≤ 10 mΩ / m
	At 100 MHz	≤ 30 mΩ / m
<b>Balance TCL</b>	At 1 MHz	≥ 40 dB
	At 10 MHz	≥ 30 dB
	At 100 MHz	≥ 20 dB
<b>PS-Alien NEXT</b>	At 100 MHz	Min. 75 dB
		Typ. 80 dB

## Typical transmission characteristics (at 20°C)

f (MHz)	Attenuation (dB/100m)		NEXT (dB)		PS-NEXT (dB)		ACR-F <sup>1)</sup> (dB/100m)		PS-ACR-F <sup>1)</sup> (dB/100m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
4	3.7	3.3	78.0	100	75.0	97	78.0	97	75.0	94	23	27
10	5.8	5.1	78.0	100	75.0	97	78.0	95	75.0	92	25	30
20	8.2	7.3	78.0	93	75.0	90	78.0	90	75.0	87	25	30
62.5	14.6	13.2	78.0	93	75.0	90	69.4	85	66.4	82	21.5	30
100	18.5	16.7	75.4	90	72.4	87	65.3	80	62.3	77	20.1	30
250	29.7	26.8	69.4	90	66.4	87	57.3	69	54.3	66	17.3	25
500	42.8	38.9	64.9	86	61.9	83	51.3	63	48.3	60	17.3	25
600	47.1	41.8	63.7	85	60.7	82	49.7	45	46.7	42	17.3	20
1000	61.9	54.3	60.4	83	57.4	80	45.5	40	42.3	37	15.1	17
1200	-	61.6	-	83	-	80	-	35	-	32	-	16
1300	-	60.0	-	80	-	77	-	32	-	29	-	15

<sup>1)</sup> ACR-F was formerly known as ELFEXT.

## Recommended connection technique

Module	Perm. Link Class D	Perm. Link Class E	Channel Class E <sub>A</sub>	Perm. Link Class E <sub>A</sub>	Short Link Class E <sub>A</sub>
	Cat.5e/s	✓	-	-	-
	Cat.6/s	✓	✓	✓	-
	Cat.6 <sub>A</sub> /s	✓	✓	✓	✓
	Cat.6 <sub>A</sub> EL/s	✓	✓	✓	✓