

Hybrid cable SCALA Cat.6A U/FTP 4 pairs + 4xSML, PE Outdoor, Fca

Category 6A U/FTP 4 pairs + 4xSML G.657.A1, PE, CPR Fca, Outdoor.

SCAO46429EB50, Rev.00, Date 2022-05-09



Description



Standards of reference and applications

Indoor LAN horizontal cabling (max. 90m)

EIA/TIA 568.2-D, ISO/IEC 11801, IEC61156-5, IEEE 802.3af/at/bt (POE++)

Installation Features

Store at: -0 to +50 °C

Install at: -15 to +50 °C. **Bend minimum:** 180 mm.

Operate at: -40 to +60 °C. **Bend minimum:** 270 mm.

Design

DATA CABLE (Cat.6A U/FTP)

Conductor: solid bare copper AWG23 (0.57 mm nom.)

Insulation: SFS PE Ø 1.35 mm (nom.)

Pair: 2 insulated conductors stranded together

Screen: aluminium foil

Core: 4 screened pairs twisted together

Outer Jacket: black LDPE Ø 7.40 mm (nom.)

- Color code:**
- 1.White – White/blue
 - 2.White – White/orange
 - 3. White – White/green
 - 4. White – White/brown

FIBER OPTIC CABLE (4xSML G.657.A1)

Optic fiber: single mode 9/125 G.657.A1

Core: 4 fibers

Buffer: loose tube, jelly filled

Strength element: glass yarns

Outer Jacket: black MDPE (nom. Ø 4.0 mm)

Color code: 1. Blue, 2. White, 3. Yellow, 4. Green

ASSEMBLY

Stranding: data and fiber optic cables stranded together with 2 PP fillers

Wrapping: PET

Inner jacket: black MDPE (nom. Ø 13.5 mm)

Armour: corrugated steel tape

Outer jacket: black MDPE (nom. Ø 18.0 mm)

Marking: APS Finland – SCAO46429EB50 – CAT.6A U/FTP 4 PR AWG 23/1 + 4xSML G.657.A1 – PE – Fca – OUTDOOR

HYBRID CABLE – lot no. – w/y – xxx m

Environmental properties and Fire Performances

CPR Class: Fca

RoHS: 2011/65/EU

REACH: EC 1907/2006

Electrical & transmission characteristics

(CAT.6A U/FTP)

Conductor resistance: ≤ 9.5 Ω/100m

Insulation resistance: ≥ 5000 MOhm/km

Mutual capacitance: ≤ 56 pF/m

Capacitance unbalance pair/pair: ≤ 330 pF/100m

Average characteristic impedance: 100 ± 5 Ω @ 100MHz

Velocity of propagation (NVP): 74%

Voltage (max): 90W (PoE only)

Dielectric strength: DC.1kV.1min (no breakdown)

(4xSML G.657.A1)

Attenuation (dB/km): ≤ 0.35 @ 1310 nm, ≤ 0.21 @1550 nm

Mode field diameter: 9.2 ± 0.4 µm @1310 nm

Cladding non-circularity: ≤ 1.0 %

Cladding diameter: 124.8 ± 0.3 µm

Coating diameter: 245 ± 5 µm

Frequency (MHz) :	4	8	10	16	20	25	100	250	400	500
Return loss (dB)	23.0	24.5	25.0	25.0	25.0	24.3	20.1	17.3	15.9	15.2
Attenuation (dB/100m)	3.8	5.3	5.9	7.5	8.4	9.4	19.1	31.1	40.1	45.3
NEXT (dB)	65.3	60.8	59.3	56.2	54.8	53.3	44.3	38.3	35.3	33.8
PS NEXT (dB)	63.3	58.8	57.3	54.2	52.8	51.3	42.3	36.3	33.3	31.8
EL FEXT (dB/100m)	55.8	49.7	47.8	43.7	41.8	39.8	27.8	19.8	15.8	13.8
PS EL FEXT (dB/100m)	52.8	46.7	44.8	40.7	38.8	36.8	24.8	16.8	12.8	10.8

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Ordering and delivery information

Pair count	P/N	O.D. [mm]	Weight [kg/km]	Retail packaging	Wholesale packaging	STK Electrical No.	GTIN
4 pairs + 4xSML G.657.A1	SCAO46429EB50	18.0 (nom.)	334,0	500 m (drum)	6 000 m (pallet)	02 331 23	6410002331233

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Recommended connectivity

	APS		Kerman		System warranty
Keystone jack (tool type)	-	-	XA	72 093 83	not included
Keystone jack (toolless)	GSCAT6AL-S24	72 058 75	XG6S24	72 477 02	not included
Patch panel	PPE24SU	72 265 11	KRM24H	72 094 07	not included
Field connector RJ45 (toolless)	AKLRJ456AS	72 493 25	KRJ45U	72 093 79	not included
Pigtail G.657.A1 or OS2					not included

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Extended system warranty

The APS System Warranty assures the compliance of the system performance to the applicable class of cabling for a period of 25 years. The warranty may be applied for by an accredited APS Partner who has designed and/or installed the entire system.
[Read more.](#)

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