

CAT 6A PUR

RamCAT6A - solid
AWG 23/1 - SF/UTP - PUR

- 4x 2x 0.57 mm (AWG 23/1) low loss solid conductors
- compression resistant construction due to a PE cross
- stabilizing inner jacket
- SF/UTP (double overall shielding)
- robust PUR jacket
- 10GBase-T links (channel E_A) up to 100 m
- analog and digital audio signals
- digital media over IP

The RamCAT6A cable RC6A-SB1X for data transmission in mobile operation is designed for a frequency of 500 MHz and is therefore suitable for data transmission rates of up to 10 Gbit/s on up to 100 m link length. It is preferably used for data transmission of the Ethernet applications 1000Base-T and 10GBase-T on cable drums. The robust data cable with a characteristic impedance of 100 Ohm has four stranded pairs with AWG 23/1 solid conductors and is therefore the ‚big brother' of our topseller and ‚universal cable' RC5-SB1X. The matched lay lengths of the individual pairs and the ingenious overall stranding using a PE stranding element ensure extremely low NEXT (near-end) and FEXT (far-end crosstalk) values. Thanks to the cross-shaped PE stranding element, the stabilising intermediate sheath and the abrasion-resistant PUR outer sheath, the cable is suitable for mobile road use (touring grade). Double shielding (SF/UTP) reliably prevents electromagnetic interference. We recommend the metal Telegärtner MFP8 IE series as a suitable connector, available from us with article number RJ45SAT-FS. The RamCAT6A cable is available both as bulk cable and as premade cable with and without cable drum. Ideal for the following possible applications such as digital media: SMPTE 2110, AVB, NDI, BLULink or audio: analog (MIC,LINE) AES/EBU, AES67, RAVENNA, Dante, AES50, AVB, MILAN, MADI, GigaACE, Ethersound, RockNet and many other multimedia applications.

design

conductor	solid bare copper, Ø 0.57 mm (AWG23/1)
core insulation	polyolefin, nom. Ø 1.1 mm
core stranding	2 cores twisted to a pair
cable stranding	4 pairs twisted within a central PE cross
inner jacket	LSZH, halogen-free
overall shield	AL/PET foil + tinned copper braid (85% coverage)
outer jacket	PUR, black
outer diameter	8.6 mm

electric

conductor resistance	79 Ω/km
mutual capacitance	48 pF/m
characteristic impedance	100 Ω ± 15%
signal speed	0.66 c
propagation delay	< 555 ns/100m
delay skew	50 ns/100m

mechanical & thermal characteristics

emperature range	
operation	-30°C / +80°C
installation	-30°C / +80°C
min. bending radius	
installed	8x overall diameter
operation	12x overall diameter
no hazardous substances	acc. to EU directivo RoHS 2015/863/CE
CE conformity	acc. to EU directivo LVD 2014/35/EU
oil resistant	acc. to IEC 60811-2-1, ASTM IRM 901 Std
UV resistance	acc. to UL 1581 §1200 standard requirement
halogen-free	acc. to IEC 60754-1
flame retardancy	acc. to IEC 60332-1-2

frequency [MHz]	attenuation [dB/100m]		PS NEXT [dB]		PS ACR-N [dB] @ 100 m		PS ACR-F [dB] @ 100m		RL [dB]	
	typical	channel E_A MAX	typical	channel E_A MIN	typical	channel E_A MIN	typical	channel E_A MIN	typical	channel E_A MIN
1	2.0	4.0	80	62.0	78	58.0	73	60.3	30	19
10	5.7	6.5	65	54.0	59	47.5	55	40.3	38	19
100	18.0	20.9	47	37.1	29	16.2	34	20.3	35	12
250	28.7	33.9	41	30.2	12	-3.7	29	12.3	32	8
500	41.6	49.3	33	24.8	-9	-24.5	21	6.3	27	6

order code	type	outer jacket	cable color	weight kg/m	standard lengths m
RC6A-SB1X	SF/UTP	PUR	black	0.08	50 / 100 / 300 / 500

technical specifications are subject to change

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