

CAT
6

PUR

RamCAT6-Flex**AWG 26/19 - SF/UTP - PUR**

- 4x 2x 0.15 mm² (AWG 26/19) - 100 Ohm
- compression resistant construction due to a PE cross
- robust PUR overall jacket
- low-temperature-flexible down to -40 °C
- compatible to most standard RJ45 connectors
- 10GBase-T links up to 60 m
- analog and digital audio signals
- digital media over IP

The RAMCAT6-flex cable is designed for data transfer in mobile operation. Developed for a frequency of 500 MHz, it is suitable for data transfer rates of up to 10 Gbit/s. The RAMCAT6 is the cable of choice for data transfer in the Ethernet applications 1000BaseT and 10GBase-T where drag chains and cable drums are used. The rugged data cable offers characteristic impedance of 100 Ohm and has four twisted pairs with copper cores (19x 0.10 mm). The matched lay lengths of the individual pairs and the sophisticated cable stranding with central PE cross are designed to maximize NEXT (near-end crosstalk) and FEXT (far-end crosstalk) values. With a cross-shaped PE central filler and abrasion-proof PUR jacket, the cable is ideal for mobile use on the road. Dual shielding reliably protects against electromagnetic interference. 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, MAD1, GigaACE, Ethersound, RockNet and many other multimedia applications.

design

conductor	stranded bare copper, 19x 0.10 mm (AWG 26/19)
core insulation	foam-skin PE, nominal diameter 1.0 mm
core stranding	2 cores twisted to a pair
twisting	4 pairs twisted within a central PE cross
overall shield	AL/PET foil + tinned copper braid (85% coverage)
outer jacket	PUR, black
overall diameter	7.0 mm

electric

conductor resistance	< 150 Ω/km
mutual capacitance	47 pF/m
characteristic impedance	100 Ω ± 15%
signal speed	0.72 c
propagation delay	≤ 520 ns/100m @ 100 MHz
delay skew	≤ 40 ns/100m @ 100 MHz

mechanical & thermal characteristics

temperature range	
operation	-30°C / +70°C
installation	-40°C / +80°C
min. bending radius	
installation	6x overall diameter
operation	8x overall diameter
no hazardous substances	acc. to EU directive RoHS 2011/65/EU from 08.06.2011
CE conformity	acc. to EU directive LVD 2006/95/EG
oil resistant	acc. to IEC 60811-2-1, ICEA S-82-552 and ASTM-oil 1 standard requirement
UV resistance	acc. to UL 1581 §1200 standard requirement
ozone resistance	acc. to VDE 0472 §1 standard requirement
microbiological resistant	acc. to IEC 60754-1
halogen-free	acc. to IEC 60754-2
non corrosive	acc. to IEC 60332-1-2
flame retardancy	862 kJ/m
heat of combustion	

frequency [MHz]	attenuation [dB/100m]		PS NEXT [dB]		PS ACR-F [dB]		RL [dB]	
	typical	CAT6 ^A MAX	typical	CAT6 MIN	typical	CAT6 MIN	typical	CAT6 MIN
1	2.5	3.1	84	72.3	77	65.0	28	-
4	5.0	5.8	75	63.3	69	53.0	30	23.0
10	8.3	9.0	69	57.3	62	45.0	31	25.0
16	10.6	11.4	66	54.2	55	40.9	31	25.0
20	11.7	12.8	60	52.8	51	39.0	31	25.0
31.25	15.0	16.1	57	49.9	46	35.1	29	23.3
62.5	21.9	23.3	51	45.4	37	29.1	28	20.7
100	28.6	29.9	49	42.3	32	25.0	27	19.0
200	42.1	43.8	42	37.8	27	19.0	23	16.4
250	47.7	49.7	41	36.3	24	17.0	22	15.6

order code	type	outer jacket	cable color	weight kg/m	standard lengths m
RC6-LB1RJ	SF/UTP	PUR	black	0,06	100 / 300 / 500

technical specifications are subject to change