

NE4225UTP

DOCUMENT STATUS Issued for technical reference	PRODUCT FAMILY S/UTP Cat 6 network cable	NOMINAL BUILD 4 × 2 × AWG23/1	REVISION 06/2026 — Rev. A
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CONSTRUCTION

Conductor	Solid bare copper conductor, AWG23 (23/1). Nominal conductor diameter approx. 0.57 mm. Single solid-wire build for stable, repeatable transmission performance.
Insulation	Polyolefin dielectric with excellent high-frequency properties for low attenuation and consistent impedance. Nominal insulation diameter approx. 1.00 mm.
Colour code	Four twisted pairs: green / white-green, orange / white-orange, blue / white-blue, brown / white-brown.
Core assembly	Pairs twisted together around a central filler to maintain stable geometry and consistent electrical characteristics during handling and routing.
Binder tape	Overlapping mylar (polyester) binder tape applied over the assembled core.
Inner jacket	PVC compound, black. Nominal diameter over the inner jacket approx. 6.2 mm.
Shield	Tinned copper braid with nominal coverage > 80 % for effective EMI screening.
Outer jacket	Polyurethane (PUR) compound, matt black, for enhanced abrasion and mechanical resistance. Nominal overall diameter approx. 8.0 mm.

Shielded S/UTP Category 6 data cable with a tough PUR up-jacket, engineered for demanding professional and industrial environments — broadcast, live events, AV-over-IP, stage and mobile installations — where mechanical robustness, effective EMI screening and reliable high-speed data transmission up to 250 MHz are essential.

SECTION VIEW



MECHANICAL

Service temperature range	-20 °C to +80 °C
Fixed installation range	-40 °C to +80 °C
Minimum bend radius (in service)	15 × overall diameter
Minimum bend radius (fixed)	10 × overall diameter
Approx. cable weight	85 kg/km

ELECTRICAL

Conductor resistance	< 70 Ohm/km
Mutual capacitance	76 pF/m
Characteristic impedance (1–250 MHz)	100 Ohm
Insulation resistance	> 10 000 Ohm × km
Performance category	Category 6 (Class E), tested 1–250 MHz

TRANSMISSION PERFORMANCE — Category 6, 1 to 250 MHz

Frequency [MHz]	Attenuation [dB/100m]	NEXT [dB]	PS NEXT [dB]	ELFEXT [dB]	PSELFEXT [dB]	ACR-N [dB]	PS ACR-N [dB]	Return Loss [dB/100m]
1,00	1,9	89,3	72,6	76,4	71,5	88,9	83,3	30,3
4,00	3,5	79,3	67,9	60,9	57,2	69,6	65,4	28,5
8,00	5,0	71,7	61,9	54,4	51,2	59,9	56,4	27,6
10,00	5,4	69,3	60,1	52,4	49,4	56,8	53,6	27,3
16,00	6,9	64,7	56,5	48,5	45,8	50,2	47,5	26,7
20,00	7,8	62,6	54,9	46,8	44,2	47,1	44,6	26,4
25,00	8,8	60,6	53,3	45,1	42,6	44,0	41,7	26,2
31,25	9,9	58,7	51,7	43,5	41,1	40,9	38,8	25,9
62,50	14,3	53,0	47,2	38,8	36,8	31,2	29,9	25,1
100,00	18,4	49,4	44,4	35,9	34,1	24,6	23,8	24,5
200,00	27,1	44,6	40,5	32,1	30,5	14,9	14,8	23,8
250,00	30,8	43,2	39,3	30,9	29,4	11,8	12,0	23,5

COMPLIANCE

RoHS	Directive 2011/65/EU, including subsequent amendments.
REACH	Regulation (EC) No. 1907/2006, including current SVHC list.
Transmission performance	Category 6 component performance referenced to ISO/IEC 11801 / EN 50173 (Class E).
CE / EU market conformity	Designed for use in assemblies and systems placed on the EU market in accordance with applicable directives and product-level obligations, including examples such as 2014/30/EU (EMC) where relevant.