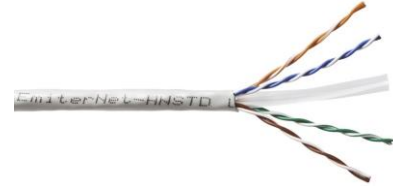## *Data Sheet*

Emiter Net UTP (U/UTP) cable Cat. 6 450MHz, solid-core cable, standard, PVC, grey,
code: K/EMITERNET-UTP6PVC-STD.

Description and Technical Characteristics of the Product:

Category 6 four-pair unshielded cable is designed for ICT data transmission systems in in-building installations.

The cable design is based on a central separator that separates the individual pairs to reduce near-end crosstalk. The separator is made of PVC and takes the form of a cross. The cable has 4 pairs of wires twisted together in such a way as to reduce near-end crosstalk. Thus, using this cable, it is possible to achieve a GigabitEthernet connection.
The cable tested up to 450MHz.
The outer sleeving of the cable is made of PVC.
The cable has 4 pairs of colour-coded wires.
The manufacturer's designation is printed on the cable, as well as standards compliance and length marking (EmiterNet -HNSTD U/UTP Cat.6 PCV 4PR, Verified to EN/PL 50173 ISO/IEC 11801   EIA/TIA 568-C.2 Reaction to fire: Eca MM/YY xxxm), where MM/YY is the month and year, xx is the length marking.

Products compatible with the cable:
panels:
19" panel 24xRJ45 UTP Cat.6 (1U) with shelf, code: EMS/FA-652KR-248-C6
19" panel 24xRJ45 UTP Cat.6 (1U) with shelf, code: FU/FA-652KR-248-C6
ICT sockets:
UTP RJ45 socket Cat.6 keystone white, code: FU/FA-2630AK-8-C6
UTP RJ45 socket Cat.6 with adapter 1-module, white, low, code: DCN/TS-868K-8-C6

Technical parameters:

Outer diameter of the cable	6.0mm +/- 0.5mm
Diameter of a single strand	0.57mm +/- 0.05mm
Outer insulation of the cable	PCV
Colour of external insulation	grey
Strand insulation	PE
Wave impedance	100Ω +/- 15Ω for 1–250MHz
Resistance of any pair for DC voltage	95Ω/km
NVP	69.00%
Insulation resistance of any strand (min)	5000 MΩ/km
Mutual capacitance of any pair (f=1kHz)	330pF/100m
Bending radius when laying	60mm
Bending radius during operation	30mm
Operating temperature	-20ºC - +60 ºC
Temperature during laying	0ºC - +50 ºC
Weight	40.7 kg/km
Packaging	cardboard box, 305m

Data Sheet

PARAMETERS				
Dynamic parameters:				
Frequency	*Return Loss*	*Attenuation*	*NEXT*	*ACR*
(MHz)	(dB)	(dB/100m)	(dB)	(dB)
1	20.0	2.0	74.3	72
4	23.0	3.8	66.3	61
8	24.5	5.3	61.8	55
10	25.0	6.0	60.3	53
16	25.0	7.6	57.2	49
20	25.0	8.5	55.8	46
25	24.3	9.5	54.3	44
31.25	23.6	10.7	52.9	41
62.5	21.5	15.4	48.4	32
100	20.1	19.8	45.3	25
150	18.9	24.7	40.8	16.9
200	18	29.0	39.3	10.8
250	17.3	32.8	66.3	5.5

Frequency	*PSNEXT*	*ELFEXT*	*PSELFEXT*	*Delay*
(MHz)	(dB)	(dB/100m)	(dB/100m)	(ns/100m)
1	72.3	67.8	64.8	570.0
4	63.3	56	53	552.0
8	58.8	49.9	46.9	546.7
10	57.3	48	45	545.4
16	54.2	43.9	40.9	543.0
20	52.8	42	39	542.0
25	51.3	40	37	541.2
31.25	49.9	38.1	35.1	540.4
62.5	45.4	32.1	29.1	538.6
100	42.3	28	25	537.6
150	39.7	22	19	536.9
200	37.8	20	17	536.5
250	36.3	56	53	536.3

The cable meets the requirements of PN-EN50575.
Class of reaction to fire (flammability): Eca*
*according to tests performed by VDE Testing and Certification Institute according to EN-13501-6/EN 50575 and EN60332-1-2 standards

Declarations: CE-Declaration of Conformity, Declaration of Performance (DoP)

Product warranty 5 years from the date of purchase. Designed for installation with EmiterNet standard series products. For installations with an extended 25-year System Warranty, we recommend our K/EMITERNET-UTP6LSOH product. Emiter Net UTP (U/UTP) cable Cat. 6 450MHz, solid-core cable 4 x 2 x 23 AWG, LS0H

We have made every effort to ensure that the information presented is accurate and complete. However, we are not responsible for the accuracy and completeness of the data and, in particular, we cannot guarantee that this specification does not contain errors or mistakes. The information contained in this specification may be changed at any time without notice.