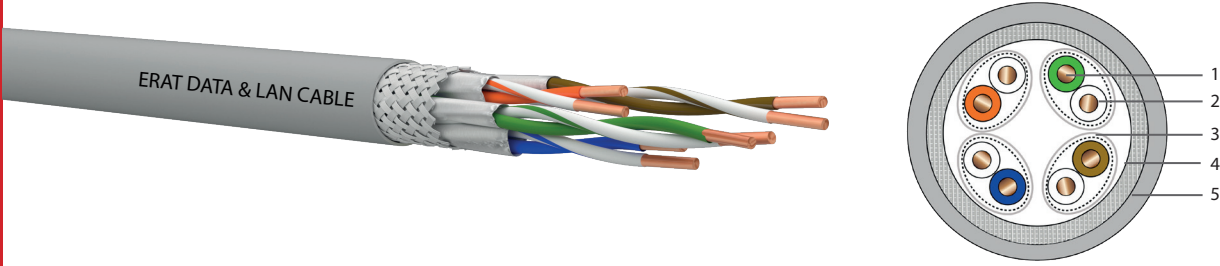


CAT 7 S-FTP 23 AWG 600 MHZ DATA CABLE

IEC 61156-5+A1, ISO/IEC 11801, TS EN 60332-1-2, EN 50173



AREAS OF USE / FEATURES	CABLE CONSTRUCTION
ERAT CAT 7 cables are designed for the transmission of digital and analog voice, data, video, and PoE signals. ERAT CAT 7 S/FTP cables support data transmission rates of up to 10,000 Mbps with an operating bandwidth of 600 MHz. The cables are available with LSZH, HFFR, or PVC outer jackets to meet specific customer requirements. • 10000BASE-TX Gigabit Ethernet • 10000BASE-T Gigabit Ethernet • 1000BASE-TX Gigabit Ethernet • 1000BASE-T Gigabit Ethernet • ATM 155 / ATM 25 • 100BASE-T "Fast Ethernet" • 100BASE-T2/ 100BASE-T4 • 100BASE-TX • 10BASE-T Ethernet • ISDN, TPDDI, TP-PMD • Power Over Ethernet (PoE)	1. Copper Conductor 2. LSZH / PVC Isolated 3. Aluminum Foil 4. Tinned Copper Braid 5. Outer Sheath

PHYSICAL PROPERTIES	
Conductor	Pure, annealed copper
Conductor Diameter	23 AWG
Isolated	Polyolefin
Number of Isolates	8, in 4 twisted pairs
Internal Shielding	Laminated aluminum foil providing 100% opacity (foil side facing outwards)
External Shielding	Tinned Copper Braid
Outer Sheath	LSZH (Low Smoke Zero Halogen) flame-retardant or PVC compound
Jacket Color	Grey (RAL 7040). (Different colors can be produced upon customer request.)
CPR	B2ca
Performance Guarantee	A 25-year system performance guarantee is offered when end-to-end ERAT-branded products are used.
Cable Labeling Information	Brand, Cable type, Relevant standards, Date, Serial number, Meters

MECHANICAL AND ENVIRONMENTAL PROPERTIES	
Tensile Force	50 N / mm ² max
Bending Radius (Short-Term)	4 x Cable Diameter
Bending Radius (Long-Term)	8 x Cable Diameter
Operating Temperature	-40 to +70 °C
Installation Temperature	-10 to +50 °C
Storage Temperature	-40 to +70 °C

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PACKAGING, DIMENSIONS & WEIGHT

Packaging Type	Outer Diameter (mm)	Approximate Weight (kg)
500 m Plywood Reel	7.4±0.3	29.8
1000 m Plywood Reel	7.4±0.3	59.2

ELECTRICAL PROPERTIES

Impedance Characteristic	100±6 Ohm @ 1-600 MHz
DC Resistance	76 Ohm/km max.
Resistance Imbalance	2% max.
Effective Capacity	45 pF/m nom. @ 1 KHz
Capacitance Imbalance (to Ground)	1600 pF/km max. @ 1 KHz.
Voltage	72 Vdc max.
Dielectric Strength	1500 Volts / 1 minute min. RMS
Signal Speed (NVP)	Min. %77 - 80
Signal Transmission Time (Propagation Delay)	534 + 36/f ^{1/2} @ 1-600 MHz
Inter-lane Signal Skew	25 nS/100m max @ 1-600 MHz
Insulation Resistance	5000 MegaOhm•km min. @ 500 Vdc
Joint Attenuation	55 dB min @ 30-100 MHz 55-20Log(f/100) @100-600 MHz
Transfer Impedance	10 mOhm/m max @ 1-30 MHz 30 MOhm/m max @ 30-100 MHz

Frequency (MHz)	Return Loss (dB)	Insertion Loss (dB/100m)	NEXT Loss (dB)	PS NEXT Loss (dB)	PS ELFEXT (dB/100m)
1	20,0	2,0	78,0	75,0	-
4	23,0	3,7	78,0	75,0	75,0
8	24,5	5,2	78,0	75,0	72,9
10	25,0	5,9	78,0	75,0	71,0
16	25,0	7,4	78,0	75,0	66,9
20	25,0	8,3	78,0	75,0	65,0
25	24,3	9,3	78,0	75,0	63,0
31,25	23,6	10,4	78,0	75,0	61,1
62,5	21,5	14,9	75,5	72,5	55,1
100	20,1	19,0	72,4	69,4	51,0
200	18,0	27,5	67,9	64,9	45,0
250	17,3	31,0	66,4	63,4	43,0
300	17,3	34,2	65,2	62,2	41,5
400	17,3	40,0	63,4	60,4	39,0
500	17,3	45,3	61,9	58,9	37,0
600	17,3	50,1	60,7	57,7	35,4

ISOLATED COLORS

							
Blue	White	Orange	White	Yellow	White	Brown	White