

# Category 7<sub>A</sub> 1000 MHz Cable - International

Siemon's fully shielded Category 7<sub>A</sub> 1000 MHz end-to-end cabling solution is the highest-performing, most secure twisted-pair copper cabling system available. Siemon's Category 7<sub>A</sub> 1000 MHz SFTP cable perfectly complements the performance of the TERA outlet exceeding all ISO/IEC requirements for Category 7<sub>A</sub>/Class F<sub>A</sub> transmission performance. A fully shielded cable with individual foils around each pair coupled with a high screen coverage outer braid provides perfect immunity from outside interferences. In addition, the cable jacket has been qualified for mechanical reliability in high temperature environments up to 75°C. In PoE remote power applications, this cable can be installed in environments up to 60°C and will not experience degradation due to heat rise inside the cable bundle. Further, this 7A cable is capable of running multiple lower speed applications, known as cable sharing, from one drop. Siemon cable is the ideal way to ensure optimum channel performance and is essential for a complete end-to-end warranted solution.

## COMPLIANCE

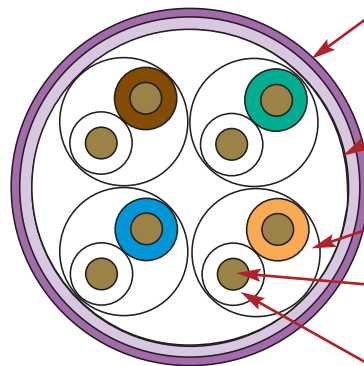
- ISO/IEC 11801: Ed 2.2 (Class F<sub>A</sub>)
- IEC 61156-5 Ed 2.1 (Category 7<sub>A</sub>)
- EN 50288 • EN 55022
- EN 50173 • EN 55024
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 60754, and IEC 61034
- EN50575 Class D<sub>ca</sub>S<sub>1</sub>d<sub>1</sub>a<sub>1</sub>

## CABLE CONSTRUCTION

- S/FTP
- Nominal jacket OD: 7.7mm (0.30 in.)
- 0.57mm (0.022 in.) solid (non-tinned) copper
- Sequential measurement markings on jacket
- Pairs individually shielded with aluminum-polyester foil
- Overall tinned-copper braid
- 75° C temperature rating

## APPLICATIONS SUPPORT

- 10GBASE-T
- 1000BASE-T
- 100BASE-T
- 10BASE-T
- IEEE 802.3af (Type 1 Poe)
- IEEE 802.3at (Type 2 Poe)
- IEEE 802.3bt (Type 3 Poe)
- IEEE 802.3bt (Type 4 Poe)
- Power over HDBaseT (PoH)



### Jacket

- Nominal Cable O.D: 7.7mm
- Jacket Material: LSOH

### Outer Shield

- Copper Braid

### Individual Shield

Aluminum Foil Tape

### Conductor

- 0.57mm (0.022 in.)  
23 AWG solid bare copper

### Insulation

- Conductor Insulation:  
HDPE, FRPE

# Product Information

## ELECTRICAL SPECIFICATIONS

DC Resistance	<7.32 Ω/100m
DC Resistance Unbalance	≤ 2%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	≤160 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-250 MHz: 100 ± 22% 250-1000 MHz: 100 ± 25%
NVP	70%
TCL	40-10 x log(f)dB
Delay Skew	25ns/100m

## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)
Installation Temperature	0 to 75°C (+32 to 167°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL	LSOH	SIEMON TYPICAL
1.0*	1.9	1.6	78.0	105.0	75.0	102.0	76.1	103.0	73.1	100.0	77.0	96.0	75.0	94.0	20.0	31.0	536	512
4.0	3.5	3.0	78.0	105.0	75.0	102.0	74.6	102.0	71.6	99.0	77.0	96.0	75.0	94.0	23.0	34.0	518	494
10.0	5.4	4.9	78.0	105.0	75.0	102.0	72.6	100.0	69.6	97.0	74.0	96.0	71.0	94.0	25.0	35.0	511	487
16.0	6.8	6.3	78.0	105.0	75.0	102.0	71.2	99.0	68.2	96.0	70.0	96.0	67.0	94.0	25.0	35.0	509	485
20.0	7.5	7.0	78.0	105.0	75.0	102.0	70.3	98.0	67.4	95.0	68.0	96.0	65.0	94.0	25.0	35.0	508	484
31.25	9.6	8.9	78.0	105.0	75.0	102.0	68.5	96.0	65.5	93.0	64.0	93.0	61.0	91.0	23.6	34.0	506	482
62.5	13.7	12.8	78.0	105.0	75.0	102.0	64.3	92.0	61.3	89.0	58.0	88.0	55.0	86.0	21.5	32.0	505	481
100.0	17.5	16.5	76.0	105.0	73.0	102.0	58.5	89.0	55.5	86.0	54.0	82.0	51.0	80.0	20.1	31.0	504	480
200.0	25.3	23.5	71.0	102.0	68.0	100.0	46.2	79.0	43.2	77.0	48.0	78.0	45.0	75.0	18.0	29.0	503	479
250.0	28.5	28.2	70.0	102.0	67.0	100.0	41.5	74.0	38.5	72.0	46.0	75.0	43.0	70.0	17.3	28.0	502	502
300.0	31.5	28.9	69.0	102.0	66.0	97.0	37.3	73.0	34.3	68.0	44.0	70.0	41.0	68.0	17.3	28.0	502	478
350.0	34.3	31.5	68.0	100.0	65.0	97.0	33.6	69.0	30.6	66.0	43.0	70.0	40.0	63.0	17.3	28.0	502	478
400.0	36.9	33.1	67.0	95.0	64.0	93.0	30.1	62.0	27.1	60.0	42.0	66.0	39.0	59.0	17.3	28.0	502	478
550.0	44.1	40.2	65.0	95.0	62.0	93.0	20.8	55.0	17.8	53.0	39.0	60.0	36.0	56.0	17.3	28.0	502	478
600.0	46.3	41.7	64.0	95.0	61.0	93.0	18.0	53.0	15.0	51.0	38.0	55.0	35.0	53.0	17.3	28.0	502	478
800.0	54.5	47.6	62.0	90.0	59.0	87.0	7.9	42.0	4.9	39.0	36.0	47.0	33.0	44.0	16.1	28.0	501	477
1000.0	62.0	54.5	61.0	85.0	58.0	83.0	-1.0	31.0	-4.0	29.0	34.0	40.0	31.0	38.0	15.5	27.0	501	477
1200.0*		59.8		80.0		77.0		20.0		17.0		35.0		33.0		27.0		477

\*Values below 4 MHz are for information only.

All performance based on 100 meters (328 ft.)

\*\*Values for IEC 61156-5 above 1000 MHz are for information only.

## Ordering Information

Part #	Description
9T7L4-E10 . . . . .	LSOH (IEC 60332-1), (IEC 60332-3-22), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , 305m (1000 ft.)
9T7L4-E10-5CR . . . . .	LSOH (IEC 60332-1), (IEC 60332-3-22), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , 500m (1640 ft.)
9T7L4-E10-1KR . . . . .	LSOH (IEC 60332-1), (IEC 60332-3-22), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , 1000m (3281 ft.)



Because we continuously improve our products, Siemon reserves the right to change specifications and availability without prior notice.

**Worldwide Headquarters**  
**North America**  
 Watertown, CT USA  
 Phone (1) 860 945 4200

**Regional Headquarters**  
**Europe Russia Africa**  
 Chertsey, Surrey, England  
 Phone (44) 0 1932 571771

**Regional Headquarters**  
**China**  
 Shanghai, P.R. China  
 Phone (86) 215385 0303

**Regional Headquarters**  
**Latin America**  
 Bogota, Colombia  
 Phone (571) 657 1950/51/52

**Regional Headquarters**  
**India Middle East**  
 Dubai, United Arab Emirates  
 Phone (971) 4 3689743

**Regional Headquarters**  
**Asia Pacific**  
 Sydney, Australia  
 Phone (61) 2 8977 7500

**Siemon Interconnect Solutions**  
**Watertown, CT USA**  
 Phone (1) 860 945 4213 US  
 www.siemon.com/SIS