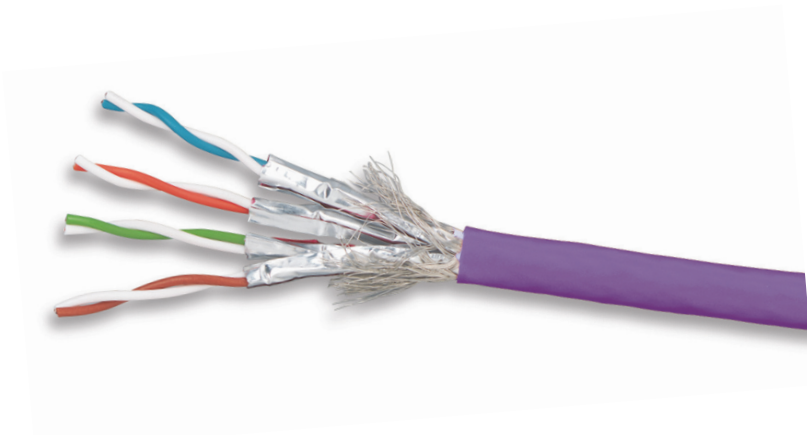


CATEGORY 8.2 E20 CABLE (Global)

Siemon's Category 8.2 cable exceeds the transmission performance requirements of IEC 61156-9 up to 2000 MHz. This fully shielded cable supports 30-meter Class II channels to meet IEEE 802.3bq 25 Gb/s (25GBASE-T) and 40 Gb/s (40GBASE-T) applications in the data center. As part of a Class II twisted-pair cabling system which shares open and common specifications, interoperability and backwards compatibility are ensured with the reach to support a broad range of architectures for switch-to-server connections, including switches placed in top of rack (ToR), middle of row (MoR) and end of row (EoR). With a cable jacket qualified for mechanical reliability in high temperature environments up to 75°C, Siemon's S/FTP Category 8.2 cable features individual foils around each pair and a high screen coverage outer braid to provide superior noise immunity and coupling attenuation performance.



Jacket

- LSOH - 8.3mm (0.327 in.)
- PVC - CMR - 8.5mm (0.335 in.)

Outer Shield

Tinned Copper Wire Braid

Individual Shield

Aluminum Bonded Polyester Tape

Conductor

- 0.63mm (0.25 in.) 22 AWG, Solid

Insulation

- Conductor Insulation:
Cellular PE

CABLE FEATURES:

- S/FTP
- LSOH Nominal Jacket OD: 8.3 (0.327 in.)
- CMR Nominal Jacket OD: 8.5 (0.335 in.)
- 22 AWG 0.63 (0.025 in.) solid bare copper
- Pairs individually shielded with aluminum bonded polyester tape
- 75° temperature rating

STANDARDS COMPLIANCE:

- ISO/IEC 11801-1
- EN 50173-1
- IEC 61156-9
- UL CMR
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 61034, IEC 60754,
- LSOH: EN 50575 Class Dca, s2, d2, a1

APPLICATIONS SUPPORT

- 10BASE-T to 40GBASE-T
- IEEE 802.3 af (Type 1 PoE)
- IEEE 802.3 at (Type 2 PoE)
- IEEE 802.3 bt (Type 3 PoE)
- IEEE 802.3 bt (Type 4 PoE)
- Power Over HDBaseT (PoH)

PRODUCT INFORMATION

ELECTRICAL SPECIFICATIONS

DC Resistance	< 2.1 Ω/30m
DC Resistance Unbalance	within pairs ≤ 2%
	between pairs ≤ 5%
NVP	74%
TCL	≥ 50-15 x log (f)dB
Delay Skew	≤ 7.5ns/30m

PHYSICAL PROPERTIES

	LSOH	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	66.4mm (2.61 in.)	68mm (2.67 in.)
Installation Temperature	0 to 75°C (32 to 167°F)	0 to 75°C (32 to 167°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)

TRANSMISSION PERFORMANCE

GUARANTEED WORST CASE

SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB/30m)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical	Guaranteed Worst Case	Siemon Typical
1	1.1	0.7	78.0	80.9	75.0	88.0	76.9	80.2	73.9	87.4	78.0	85.6	75.0	84.1	20.0	21.6	171.0	144.0
4	1.1	1.1	78.0	91.3	75.0	96.2	76.9	90.2	73.9	95.1	78.0	92.7	75.0	90.7	23.1	31.8	165.4	140.0
10	1.8	1.6	78.0	99.6	75.0	96.2	76.2	98.0	73.2	94.6	78.0	97.3	75.0	95.5	25.0	35.9	163.4	138.0
16	2.2	2.1	78.0	101.0	75.0	89.6	75.8	98.9	72.8	87.5	76.5	101.0	73.5	95.8	25.0	29.8	162.8	137.0
20	2.5	2.3	78.0	98.1	75.0	96.5	75.5	95.8	72.5	94.2	74.7	95.9	71.6	94.2	25.0	30.6	162.5	137.0
31.25	3.2	3.0	78.0	98.2	75.0	97.9	74.8	95.2	71.8	94.9	70.7	95.2	67.7	92.5	25.0	30.2	162.0	136.0
62.5	4.5	4.2	78.0	101.0	75.0	92.2	73.5	96.8	70.5	88.0	64.7	93.9	61.7	89.8	23.6	32.5	161.4	136.0
100	5.5	5.1	75.4	100.0	72.4	94.7	69.9	94.9	66.9	89.6	60.6	92.7	57.6	89.4	22.2	34.6	161.1	136.0
200	7.9	7.3	70.9	101.0	67.9	89.5	63.0	93.7	60.0	82.2	54.6	91.0	51.6	85.2	20.1	30.8	160.8	135.0
250	8.9	8.2	69.4	99.1	66.4	88.2	60.5	90.9	57.5	80.0	52.6	88.3	49.6	85.6	19.4	26.6	160.7	135.0
300	9.8	9.0	68.2	99.3	65.2	88.7	58.4	90.3	55.4	79.7	51.1	86.0	48.1	84.3	18.8	20.4	160.6	135.0
350	10.6	9.8	67.2	97.2	64.2	86.1	56.6	87.4	53.6	76.3	49.7	84.1	46.7	81.6	18.4	29.4	160.6	135.0
400	11.4	10.4	66.4	101.0	63.4	88.3	55.0	90.6	52.0	77.9	48.6	85.2	45.6	80.8	18.0	26.6	160.6	135.0
550	13.5	12.3	64.3	97.3	61.3	85.5	50.8	85.0	47.8	73.2	45.8	80.9	42.8	80.4	17.0	29.5	160.5	135.0
600	14.1	12.9	63.7	99.5	60.7	84.8	49.6	86.6	46.6	71.9	45.0	80.0	42.0	80.0	16.8	23.1	160.5	135.0
800	16.5	14.9	61.8	93.9	58.9	81.0	45.3	79.0	42.4	66.1	42.5	78.2	39.5	74.1	15.9	26.0	160.4	135.0
900	17.6	17.6	61.1	97.3	58.1	78.7	43.5	79.7	40.5	61.1	41.5	77.4	38.5	73.6	15.5	28.5	160.4	135.0
1000	18.6	16.7	60.4	96.1	57.4	79.9	41.8	79.4	38.8	63.2	40.6	76.5	37.6	72.7	15.2	32.7	160.3	135.0
1600	24.0	21.6	57.3	97.5	54.3	74.1	33.3	75.9	30.3	52.5	36.5	69.7	33.5	67.6	13.8	19.5	160.3	135.0
2000	27.2	24.6	55.9	87.9	52.9	64.9	28.7	63.3	25.7	40.3	34.6	64.2	31.6	63.3	13.1	19.4	160.3	135.0

All performance based on 30 meters

Ordering Information:

Part #	Description
9T82L4-E2008R1A	LSOH (IEC 60332-3-22), Violet Jacket, 305m, Reel
9T82R4-E2006R1A	CMR, Blue Jacket, 305m, Reel

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

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