

Category 8.2 E20 Cable - Global

Simon'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 middle of row (MoR) and end of row (EoR) deployments. With a cable jacket qualified for mechanical reliability in high temperature environments up to 75°C, Simon'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.



Simon's **PowerGUARD** technology with a 75°C operating temperature improves heat dissipation for reduced length derating and bundling requirements in remote powering applications, including PoE and power over HDBaseT (POH).



CABLE FEATURES

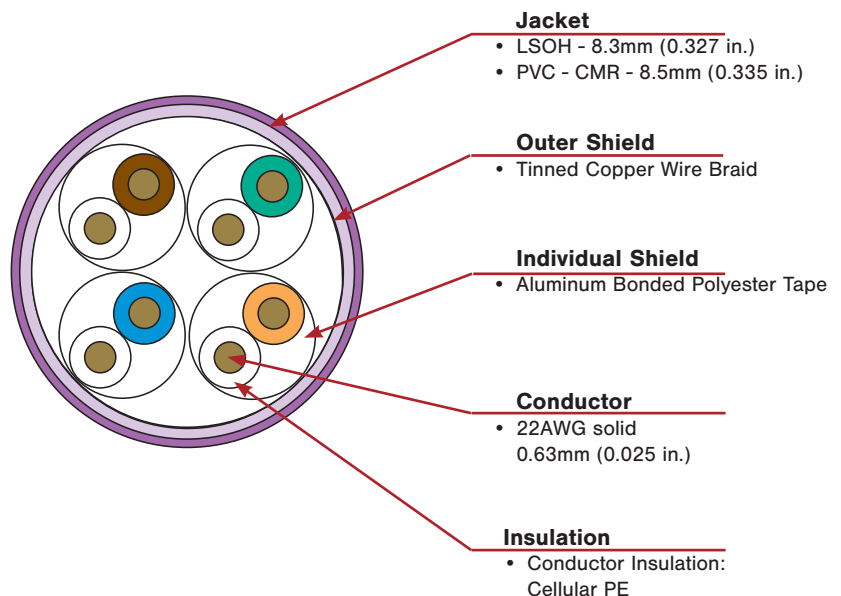
- S/FTP
- LSOH Nominal Jacket OD: 8.3 (0.327 in.)
- CMR Nominal Jacket OD: 8.5 (0.335 in.)
- 22 AWG 0.63 (0.025 in.) solid bare copper
- Pairs individually shielded with aluminum bonded polyester tape
- 75° temperature rating

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 D_{ca}, 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/100)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR	LSOH	CMR
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 100 meters (328 ft.).

Ordering Information

Part Number Description

9T82L4-E2008R1A...LSOH (IEC 60332-3-22), Class Dca, s2, d2, a1 Violet Jacket, 305m, Reel

9T82R4-E2006R1A...CMR, Blue Jacket, 305m, Reel

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