

# CATEGORY 8.2 E20 LSFROH S/FTP CABLE (International)

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 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 an LSFROH 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.

## CABLE FEATURES:

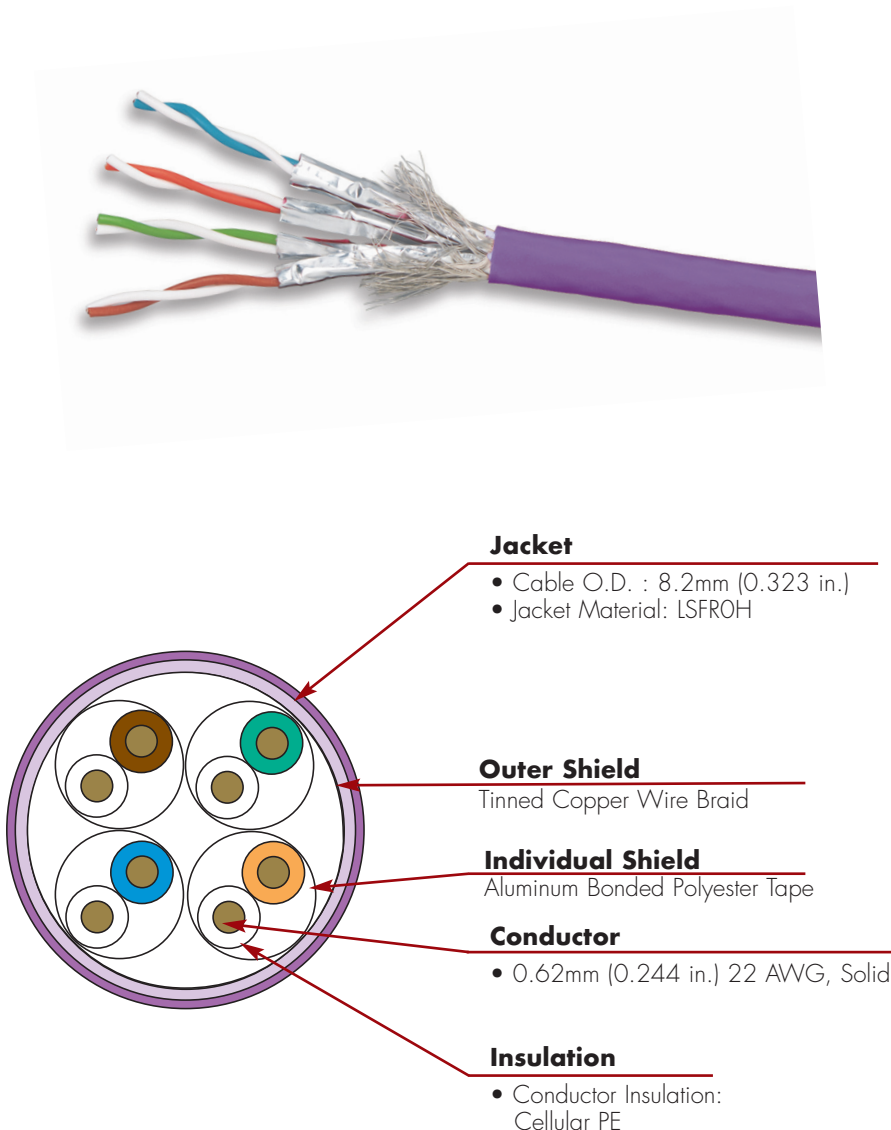
- S/FTP
- LSFROH Nominal Jacket OD: 8.2 (0.323 in.)
- 22 AWG 0.62mm (0.0244 in.) solid bare copper
- Pairs individually shielded with aluminum bonded polyester tape
- 75° temperature rating

## STANDARDS COMPLIANCE:

- ISO/IEC 11801-1
- EN 50173-1
- IEC 61156-9
- LSFROH: ISO/IEC 60332-3-24, IEC 60754 and IEC 61034
- 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%
Mutual Capacitance	1.29 pF/30m
Characteristic Impedance (ohms)	100 MHz: 100 ± 5%
NVP	76%
TCL	≥ 50-15 x log (f)dB
Delay Skew	≤ 7.5ns/30m

## PHYSICAL PROPERTIES

	<b>LSFROH</b>
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	32mm (1.3 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/30m)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	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
9T82H4-E2008R1N	LSFROH (IEC 60332-3-24), Violet Jacket, 305m
9T82H4-E2008R2N	LSFROH (IEC 60332-3-24), Violet Jacket, 500m

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