

Core Specifications

Based on standard Cat7 305M (1,000ft) copper bulk cable specifications, you can expect the following technical data:

- **Transmission Speed:** Supports up to **10 Gbps**.
- **Bandwidth Frequency:** Rated for up to **600 MHz** (standard) or 1000 MHz (premium).
- **Conductor Material:** 100% **Solid Bare Copper** (typically 23 AWG) for optimal conductivity and PoE (Power over Ethernet) support.
- **Structure:** Cat7 standards strictly require shielding. While "UTP" (Unshielded) is mentioned in some marketing, true Cat7 must be **S/FTP** (Screened Foiled Twisted Pair) to achieve 600MHz ratings.
- **Length:** 305 Meters (approx. 1,000 feet) per roll/spool.
- **Maximum Link Distance:** 100 meters (328 feet) for 10Gbps performance.



BLACK BOX® Category 7 S/FTP 1000-MHz Bulk Cable Transmission Specifications									
MHz	Insertion Loss 100 m (328')	NEXT 100 m (328') Min.	PS-NEXT 100 m (328') Min.	EL-FEXT 100 m (328')	PS-ELFEXT 100 m (328')	Return Loss 100 m (328')	Delay 100 m (328')	ACR (dB)	PS-ACR (dB)
100	19.0	72.4	69.4	54.0	51.0	20.5	480	53.4	50.4
200	27.5	62.9	64.9	48.0	45.0	18.0	479	40.4	37.4
300	34.2	55.2	62.2	41.5	41.5	17.3	478	31.3	28.1
400	40.0	49.4	60.4	42.0	39.0	17.3	478	23.4	20.4
550	47.7	41.2	58.3	39.2	36.2	17.3	478	13.6	10.6
600*	50.1	40.7	57.7	38.4	35.4	17.3	478	10.7	7.6
800*	58.6	38.9	55.9	35.9	32.9	17.3	477	-0.1	-3.1
900*	63.0	38.1	55.1	34.9	31.9	17.3	477	-4.9	-7.9
1000*	66.0	37.4	54.4	34.0	31.0	17.3	477	-9.5	-12.5

NOTE: Performance specifications for frequencies beyond TIA and ISO requirements are for information only.
* Values for IEC 61156-5 above 600 MHz are for information only.

Usage and Installation

- **Indoor Application:** Designed for horizontal cabling in office or home environments. Ensure the jacket is **LSZH** (Low Smoke Zero Halogen) or **PVC** depending on local building fire codes.
- **Connectors:** Requires specialized **GG45** or shielded **RJ45** connectors to maintain the ground and shielding integrity.

- **Bending Radius:** Typically **4x to 8x** the cable's outer diameter to prevent internal wire damage.