

Pin	Wire Color (T568A)	Wire Color (T568B)	10/100 Mbps	1/10/40 Gbps
1	Green/White	Orange/White	Tx+	BixA+
2	Green	Orange	Tx-	BixA-
3	Orange/White	Green/White	Rx+	BixB+
4	Blue	Blue		BixB-
5	Blue/White	Blue/White		BixC+
6	Orange	Green	Rx-	BixC-
7	Brown/White	Brown/White		BixD+
8	Brown	Brown		BixD-



Cat 7 and Cat 8 are so sensitive to noise that the secondary wire in each pair is solid white with no stripe, as the coloring process reduces the effectiveness of the insulation.

Cat/Class	Cable Type	Network Application	Max. Distance	Frequency	Connector
3	UTP	10BASE-T	100 m (328 ft)	16 MHz	RJ-45
5	UTP	100BASE-TX	100 m (328 ft)	100 MHz	RJ-45
5e (Class D)	UTP or F/UTP	1000BASE-T	100 m (328 ft)	100 MHz	RJ-45
6 (Class E)	UTP, F/UTP, or U/FTP	1000BASE-T	100 m (328 ft)	250 MHz	RJ-45
		10GBASE-T	55 m (180 ft)		
6a (Class Ea)	UTP, F/UTP, U/FTP, or S/FTP	10GBASE-T	100 m (328 ft)	500 MHz	RJ-45
7 (Class F)	S/FTP or F/FTP	10GBASE-Tv	100 m (328 ft)	600 MHz	GG45/ TERA
8/8.1 (Class I)	U/FTP or F/UTP	40GBASE-T	30 m (100 ft)	2000 MHz	RJ-45
8.2 (Class II)	F/FTP or S/FTP	40GBASE-T	30 m (100 ft)	2000 MHz	GG45/ TERA



For 1000BASE-T, Cat 5 is also acceptable (if properly installed), but Cat 5 cable is no longer available commercially. Unlike Ethernet and Fast Ethernet, Gigabit Ethernet uses all four pairs for transmission and is thus more sensitive to crosstalk between the wire pairs.