

10 Gigabit Ethernet for Server Connectivity

Mid 1980's

Mid 1990's

Early 2000's

Late 2000's

10Mb

100Mb

1Gb

10Gb

UTP Cat 3

UTP Cat 5

UTP Cat 5
MMF, SMF

UTP Cat6a
MMF, SMF, CX4
SFP+ TwinAx

10G Options

| Connector (Media) | Cable | Distance | Power (each side) | Transceiver Latency (link) | Standard |
|------------------------------------|----------------------------|--------------------|-------------------------------|----------------------------|--------------|
| SFP+ CU* copper | Twinax | <10m | ~ 0.1W | ~ 0.1µs | SFF 8431** |
| X2 CX4 copper | Twinax | 15m | 4W | ~ 1µs | IEEE 802.3ak |
| SFP+ USR MMF, ultra short reach | MM OM2 MM OM3 | 10m 100m | 1W | ~ 0 | none |
| SFP+ SR MMF, short reach | MM OM2 MM OM3 | 82m 300m | 1W | ~ 0 | IEEE 802.3ae |
| RJ45 10GBASE-T copper | Cat6 Cat6a/7 Cat6a/7 | 55m 100m 30m | ~ 6W*** ~ 6W*** ~ 4W*** | 2.5µs 2.5µs 1.5µs | IEEE 802.3an |

* Terminated cable

** Draft 3.0, Not Final

*** As of 2008; expected to decrease over time