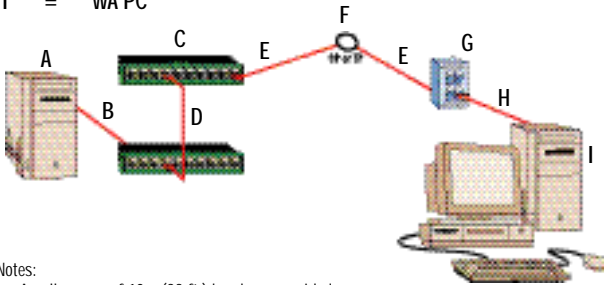


Horizontal Cabling System Structure

The horizontal cabling system extends from the telecommunications outlet in the work area to the horizontal cross-connect in the telecommunications closet. It includes the telecommunications outlet, an optional consolidation point or transition point connector, horizontal cable, and the mechanical terminations and patch cords (or jumpers) that comprise the horizontal cross-connect.

TELECOMMUNICATIONS CLOSET (TC)

- A = Customer Premises Equipment
- B = HC Equipment Cord
- C = Patch Panel
- D = Patch cords/cross-connect jumpers used in the HC, including equipment cables/cords, should not exceed 6m (20 ft.)
- E = Horizontal Cable 90m (295 ft.) max. total
- F = CP or TP (optional)
- G = Telecommunications Outlet/Connector (TO)
- H = WA Equipment Cord
- I = WA PC



Notes:

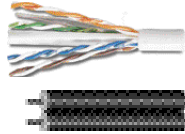
- An allowance of 10m (33 ft.) has been provided for the combined length of patch cords/cross-connect jumpers and equipment cables/cords in the HC, including the WA equipment cords.
- An allowance is made for WA equipment cords of 3m (9.8 ft.)

Horizontal Cabling System Structure

WORK AREA (WA)

Some points specified for the horizontal cabling subsystem include:

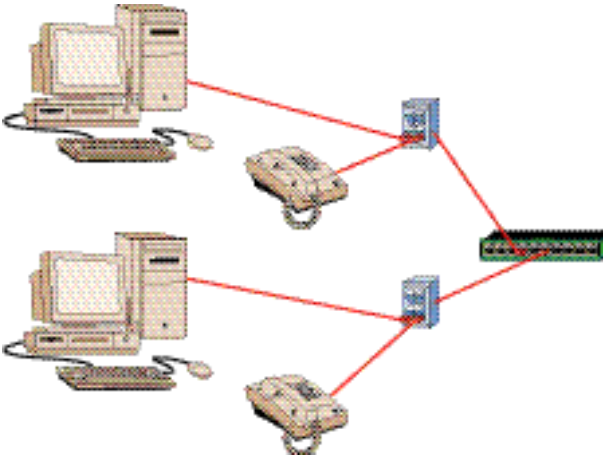
- Recognized Horizontal Cables:
 - 4-pair 100 unshielded twisted-pair (UTP) or screened twisted-pair (ScTP)
 - 2-fiber (duplex) 62.5/125 μm or 50/125 μm
- Multi-pair and multi-unit cables are allowed, provided that they satisfy the hybrid and bundled cable requirements of TIA/EIA-568-A-3.
- Grounding must conform to applicable building codes, as well as ANSI/TIA/EIA-607.
- A minimum of two telecommunications outlets are required for each individual work area per TIA/EIA-568-B.
 - First outlet:** 100 Category 3 twisted-pair (Category 5e is recommended).
 - Second outlet:** 100 Category 5e twisted-pair or two-fiber multimode optical fiber either 62.5/125 μm or 50/125 μm .
- One transition point (TP) is allowed between different forms of the same cable type (i.e. where undercarpet cable connects to round cable).
- 50 coax and 150 STP-A cabling is not recommended for new installations.
- Additional outlets may be provided. These outlets are in addition to and may not replace the minimum requirements of the standard.
- Bridged taps and splices are not allowed for copper-based horizontal cabling. (Splices are allowed for fiber.)
- Application specific components shall not be installed as part of the horizontal cabling. When needed, they must be placed external to the telecommunications outlet or horizontal cross-connect (eg. splitters, baluns).
- The proximity of horizontal cabling to sources of electromagnetic interference (EMI) shall be taken into account.



Horizontal Cabling System Structure

Star Topology

Horizontal cabling shall be configured in a star topology, with each work area outlet connected to a horizontal cross-connect (HC) in a telecommunications closet (TC).



Home-Run Cabling

A distribution method in which individual cables are run directly from the network interface device to each communications outlet in different rooms.

