ANSI/TIA/EIA-606 (CSA T528)

Administration Standard for the Telecommunications Infrastructure of Commercial Buildings



Scope of ANSI/TIA/EIA-606 (CSA T528)

OBJECTIVE OF ANSI TIA/EIA-606 (CSA T528)

The primary objective of the administration standard is to provide a uniform administration scheme that is independent of applications.

• Applications are expected to change several times during the lifetime of the premises.

AREAS OF ADMINISTRATION

Five areas are the focus of the administration standard.

- Telecommunications spaces are the areas where terminations are located.
 - Work areas
 - Telecommunications rooms
 - Equipment rooms
 - Entrance facilities
 - · Manholes and handholes.
- Telecommunications pathways are pathways between terminations containing transmission media
 - · Horizontal distribution pathway
 - Intrabuilding backbone distribution pathway
 - · Interbuilding backbone distribution pathway
 - · Grounding system pathway
 - Entrance pathway.
- Telecommunications transmission media is the media between terminations
- Horizontal distribution cable
- · Intrabuilding backbone distribution cable
- Interbuilding backbone distribution cable
- Entrance cable.

- Termination hardware includes termination positions of transmission media
 - Horizontal cross-connect hardware and termination positions
 - Main/intermediate cross-connect hardware and termination positions
- Splice information.
- Bonding and grounding as it applies to the telecommunications infrastructure
 - Equipment bonding conductors
 - · Grounding busbars
 - Main grounding busbar.

End-user and application specific devices are not included in this specification.

ADMINISTRATION CONCEPTS

ANSI/TIA/EIA-606 (CSA T528) is based on three administration concepts.

- Unique Identifiers
- Records
- Linkages.

Each component of the telecommunications infrastructure is assigned a unique "label" linking the component to its corresponding record.

Records contain information about or are related to a specific component. All records contain required information, required linkages, optional information and other linkages.

Linkages are considered to be the "logical" connection between identifiers and records as well as linking one record to another.

COLOR CODING OF TERMINATION FIELDS

Color coding of termination fields can simplify telecommunication cabling system administration.

Color coding is based on the two level hierarchical star configuration of backbone cabling.

The first level includes cabling from the main cross-connect to a TR in the same building or to an intermediate cross-connect in a remote building, such as in a campus environment.

The second level includes cabling between two TRs in a building containing the main cross-connect or between an intermediate cross-connect and a TR in a remote building.



Standards

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All cabling system components must be identified and labeled. There is a minimum amount of information to be collected and recorded for each component with required information and linkages to other records.

SUMMARY OF REQUIRED RECORD INFORMATION

Component record	Required information	Required linkages	
Spaces	Space identifier Space type	Pathway records Cable records Grounding records	
Pathways	Pathway identifierCable recordsPathway typeSpace recordsPathway fill(both ends and access spaces)Pathway loadingOther pathway recordsGrounding records		
Cable	Cable identifier Cable type Unterminated pair/conductor numbers Damaged pair/conductor numbers Available pair/conductor numbers	Termination position records (both ends) Splice records Pathway records Grounding record	
Termination hardware	Termination hardware identifier Termination hardware type Damaged position numbers	Termination position records Space records Grounding records	
Termination position	Termination position identifier Termination position type User code Cable pair/conductor numbers	position identifier Cable records position type Other termination position records productor numbers Space records	
Splice	Splice identifierCable records (both cables)Splice typeSpace records		
Telecommunications Main Grounding Busbar (TMGB)	TMGB identifier Busbar type Grounding conductor identifier Resistance to earth Date measurement taken	Bonding conductor records Space records	
Bonding conductor	Bonding conductor identifier Conductor type Busbar identifier	Grounding busbar records Pathway records	
Telecommunications Grounding Busbar (TGB)	Busbar identifier Busbar type	Bonding conductor records Space records	

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GENERAL RULES:

Termination labels identifying two ends of the same cable must be the same color.

Cross-connections are generally made between termination fields of two different colors.

COLOR SPECIFICATIONS

Colors are specified using Pantone numbers. These colors or their equivalent are to be used.

Color	Pantone number	Element identified
Orange	Pantone 150C	Demarcation point (central office termination)
Green	Pantone 353C	Termination of network connections on the customer side of the demarcation point
Purple (in USA) White/Silver (in Canada)	Pantone 264C	Termination of cables originating from common equipment (PBXs, computers, LANs and multiplexers)
White (in USA) Purple (in Canada)	Pantone 264C	First-level backbone telecommunications media termination in the building containing the main cross-connect (main cross-connect to TR or main cross-connect to local intermediate cross-connect)
Gray	Pantone 433C	Second-level backbone telecommunications media termination in the building containing the main cross-connect (local intermediate cross-connect to TR)
		Purple (in USA) or white (in Canada) may be used to identify second-level backbone terminations in buildings not containing the main cross-connect
Blue	Pantone 291C	Termination of station telecommunications media; required only at the TR and equipment room end of the cable, not at the telecommunications outlet
Brown	Pantone 465C	Interbuilding backbone cable terminations (main cross-connect to remote intermediate cross-connect)
Yellow	Pantone 101C	Termination of auxiliary circuits, alarms, maintenance, security and other miscellaneous circuits
Red	Pantone 184C	Termination of key telephone systems

