

# **TIA TELECOMMUNICATIONS SYSTEMS BULLETIN**

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## **Telecommunications – Telephone Terminal Equipment – Labeling Requirements**

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### **TSB-168-A**

(Revision of TSB-168)

AUGUST 2003

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**TELECOMMUNICATIONS INDUSTRY ASSOCIATION**



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## Contents

<b>1. SCOPE .....</b>	<b>1</b>
<b>2. NORMATIVE REFERENCES .....</b>	<b>1</b>
<b>3. DEFINITIONS .....</b>	<b>1</b>
<b>4. LABEL CONTENT AND FORMAT .....</b>	<b>3</b>
4.1. CONTENT .....	3
4.2. FORMAT .....	3
<b>5. LABEL PHYSICAL CHARACTERISTICS .....</b>	<b>4</b>
<b>6. LABELING CONTINUITY AND CHANGES .....</b>	<b>4</b>
<b>7. LABEL PLACEMENT .....</b>	<b>4</b>
<b>8. DOCUMENTATION FOR U. S. CUSTOMS .....</b>	<b>5</b>
<b>ANNEX A - EQUIPMENT CLASSIFICATIONS (NORMATIVE) .....</b>	<b>6</b>
A.1. GENERAL .....	6
A.1.1. <i>New Approvals</i> .....	6
A.1.2. <i>Grandfather Provisions</i> .....	6
A.1.3. <i>Selection of Code</i> .....	6
A.2. TERMINAL DEVICES .....	7
A.3. FULLY PROTECTED SYSTEMS .....	8
A.4. UNPROTECTED SYSTEMS .....	9
A.5. TOTALLY PROTECTED SYSTEMS .....	9
A.6. SYSTEMS DESIGNED FOR INSTALLATION BY THE UNTRAINED .....	9
A.7. SYSTEM ADJUNCTS .....	9
A.8. DIGITAL EQUIPMENT .....	10
A.9. PROTECTIVE CIRCUITS .....	10
<b>ANNEX B - RESERVED EQUIPMENT CLASSIFICATIONS (NORMATIVE) .....</b>	<b>11</b>
B.1. GENERAL .....	11
B.2. TERMINAL DEVICES .....	11
B.3. FULLY PROTECTED SYSTEMS .....	11
<b>ANNEX C - OBSOLETE DEFINITIONS (INFORMATIVE) .....</b>	<b>12</b>
C.1. GENERAL .....	12
C.2. TERMINAL DEVICES .....	12
C.3. FULLY PROTECTED SYSTEMS .....	12
C.4. UNPROTECTED SYSTEMS .....	12
C.5. TOTALLY PROTECTED SYSTEMS .....	13
C.6. SYSTEMS DESIGNED FOR INSTALLATION BY THE UNTRAINED .....	13
C.7. SYSTEM ADJUNCTS .....	13
<b>ANNEX D - BIBLIOGRAPHY (INFORMATIVE) .....</b>	<b>15</b>

## Foreword

The Federal Communications Commission (FCC), in its Report & Order, FCC 00-400, on CC Docket No. 99-216, mandated creation of the Administrative Council for Terminal Attachments (ACTA). In 47 CFR § 68.612 the ACTA was charged to establish labeling requirements.

The first version of this document modified the labeling requirements in Part 68 of Title 47 of the Code of Federal Regulations at the time the Report & Order was issued, and it was adopted by the ACTA. The following additional changes have been made in this version:

1. Some equipment codes were removed from the pool of valid codes. Provision is made for equipment using these codes.
2. Some definitions associated with equipment codes were changed. Provision is made for equipment using these codes.
3. Some equipment codes were moved from Terminal Devices to Digital Equipment.
4. Definitions were added.
5. Minor editorial corrections and clarifications were made.

Currently adopted ACTA documents can be found at: <http://www.part68.org>.

The Telecommunications Systems Bulletin (TSB) was produced by a task group of Subcommittee TR-41.11, Administrative Regulatory Considerations. The document was developed in accordance with ANSI and TIA/EIA procedural guidelines, and represents the consensus position of the task group and its parent Subcommittee, which served as the formulating group. It has also received the concurrence of Engineering Committee TR-41, User Premises Telecommunications Requirements. Committee approval of this TSB does not necessarily imply that all members voted for its approval. TR-41.11 acknowledges the contributions made by the members of the task group in the development of this TSB.

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## 1. Scope

This Telecommunications Systems Bulletin (TSB) specifies the labeling requirements for terminal equipment approved by a Telecommunications Certification Body or a Supplier's Declaration of Conformity for connection to the telephone network in accordance with 47 CFR 68.

Other labeling requirements may be applicable to terminal equipment for other reasons (e.g., U.S. Customs Service, safety, EMC); however, such requirements do not fall under the scope of this TSB.

The definitions of *terminal equipment* and *responsible party* (RP) found in 47 CFR 68.3 shall apply for the purposes of this document.

In this TSB the word "shall" denotes a mandatory requirement.

## 2. Normative References

The following document contains provisions that, through reference in this text, constitute provisions of this TSB. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this TSB are encouraged to investigate the possibility of applying the most recent editions of the documents published by them.

47 CFR 68, Connection of Terminal Equipment to the Telephone Network. A current copy may be obtained from: <http://www.access.gpo.gov/ecfr/>.

## 3. Definitions

For the purposes of this TSB, the following definitions apply.

**Adjunct** - Equipment intended for use in conjunction with a variety of terminal equipment from various responsible parties. May connect directly to the network, or not.

**Ancillary** - Equipment designed to work with and primarily offered as a component (mandatory or optional) of specific host equipment by the same responsible party. May connect directly to the network, or not.

**Component** - A subassembly of a larger entity.

**Component Approval** - Product approval in accordance with Clause 9, TIA/TSB-129-A.

**Equipment Classification** - One equipment code and its definition (one line in one table below). A classification may be referred to by its equipment code (e.g., CN).

**Facility Interface Code (FIC)** - Tells the telecommunications service provider which interface to provide to the line to which the CPE will be connected.

**Fully Protected Equipment** - Fully Protected Equipment demonstrates compliance with all aspects of Part 68 only if approved equipment is connected to it. Fully Protected Equipment does not provide voiceband signal power limiting or billing protection or both for the equipment connected to it.

**Hybrid System** - A system providing both manual and pooled access for outgoing calls. During installation, either pooled or manual access is selected.

**Key Telephone System** - A system providing manual access (manual direct selection of lines) to the PSTN for outgoing calls.

**Line (equipment)** - Tip and ring connection to a service provider.

**PBX** - A system providing pooled (automated) access to the PSTN for outgoing calls.

**Reserved Classification** - A classification that has been removed from Annex A, the pool of classifications valid for newly approved equipment.

**System** - Equipment capable of serving four or more lines. NOTE: normally, systems are professionally installed. A specific code exists for systems that are not professionally installed (see A.6).

**Telephone** (also "phone") - Voice terminal device performing all four basic telephone functions: a) alerting; b) network addressing; c) transmitting acoustic signals in electrical form; and d) receiving electrical signals and converting them to acoustic form. May also perform other functions. May use analog or digital transmission and signaling.

**Totally Protected Equipment**- Totally Protected Equipment demonstrates compliance with all aspects of Part 68 regardless of the equipment connected to it.

**Unprotected** - Unprotected equipment does not comply with the definitions for "Totally Protected" or "Fully Protected." Connection to the telephone network is to be in accordance with 47 CFR 68.



## 4. Label Content and Format

### 4.1. Content

Approved terminal equipment and approved protective circuitry shall prominently display the following information using the format specified in 4.2:

1. Responsible party.
2. Product identification.
3. Equipment Code.
4. Ringer Equivalence
5. Ringer Type
6. Indication that the product meets the requirements of 47 CFR Part 68.

The information required by the first five items shall correspond to the records in the ACTA database of approved equipment. The responsible party or his agent provides this information.

All the items in this list are included in the number format of section 4.2 and do not need to be separately stated on the product.

### 4.2. Format

The information required in 4.1 shall be encoded in the following format:

**US: AAAEQ##TXXX**

Where:

*US*: is a fixed field that indicates the equipment meets all requirements of 47 CFR Part 68 (including the requirements published by ACTA).

*AAA* represents the responsible party's Grantee Code obtained from ACTA (if obtained prior to 23 July 2001, from what was then the FCC's Common Carrier Bureau).

*EQ* represents the Equipment Code indicating to the service provider signal handling or billing requirements. Valid Equipment Codes are listed in Annex A.

*##* represents the Ringer Equivalence Number without a decimal point, 00 through 50. Exceptions: a) in the case of equipment with a "Z" ringer, "ZZ" shall appear; b) in the case of equipment not connecting to circuits with analog ringing supplied then "NA" shall appear. Equipment without a network interface (intended for use behind a host system) shall be labeled with the numerical REN code or with ZZ.

*T* represents the ringer type letter, "A," "B" or "Z," associated with the Ringer Equivalence Number. Exception: in the case of equipment not connecting to circuits with analog ringing supplied, the letter "N" shall appear.

Examples for ##T:

- REN 1.0A is shown as "10A"
- REN 0.3B is shown as "03B"
- REN Z is shown as "ZZZ"
- where REN is not applicable the REN code is "NAN"

*XXX* represents the product identifier, unique when combined with the Responsible Party (formerly "Grantee") Code. The product identifier consists of at least one and up to nine

alphanumeric characters (including one or more dashes ("-") if desired. A dash shall not appear as the first or last character nor shall the identifier consist entirely of dashes).

Note: The FCC has additional marking requirements for terminal equipment as specified in 47 CFR § 68.300(b). These requirements apply both to hearing aid compatible and non-hearing aid compatible equipment.

## **5. Label Physical Characteristics**

The information required above shall be permanently affixed and legible without magnification. It may be etched, engraved, stamped, indelibly printed or otherwise permanently marked. Alternatively, the required information may be permanently marked on a nameplate of metal, plastic or other material fastened to the enclosure by welding, riveting or with a permanent adhesive. Such marking shall be able to last for the expected lifetime of the equipment and shall not be readily detachable.

## **6. Labeling Continuity and Changes**

The labeling content and format requirements in effect when a product was approved shall be effective for the life of the product except as described herein.

Changes to products using the labeling format of section 4 that change the information encoded in the approval number require a new number.

Changes to products using the old FCC labeling format that invalidate any of the information below, require the use of the label content and format of section 4. Other changes to the product do not require a change from the original FCC labeling format

- Ringer Equivalence Number (REN)
- any of the following information encoded in the registration number
  - applicant code/grantee code
  - manufacturer code/country of origin code/MUL
  - equipment code
  - signaling type

The responsible party shall have the option of changing a product's labeling to the content and format requirements of section 4 at any time.

## **7. Label Placement**

The label shall be placed in one of the following locations where it is readily accessible (*i.e.*, where it can be found after installation of the product):

- on an outside surface;
- inside a readily accessible door or panel;
- on another readily accessible surface.

For wall-mounted devices, the label shall not be placed on a wall-mounted surface unless it is readily accessible. Example: for equipment intended for both wall and desk mounting, and where the wall mount allows for consumer unmounting operations without use of a tool, the label may be placed on the wall-mounted surface.

## **8. Documentation for U. S. Customs**

For imported proprietary telephones, consoles, modems and other separate adjuncts listed in the approval “envelope” of a specified system, importers may be required to provide U. S. Customs inspectors with a copy of the Telecommunication Certification Body Certificate or Supplier’s Declaration of Conformity that lists these items.

## Annex A - Equipment Classifications (normative)

### A.1. General

Significant changes were made to equipment classifications in this issue of this document. The following summarizes the changes made.

#### CHANGED DEFINITIONS

Some definitions were changed in an effort to provide more precise definitions. Where significant changes were made, the old definitions are preserved in Annex C.

#### MOVED CLASSIFICATIONS

Three classifications were moved to a different table within this Annex, and remain in use.

Code	Short Name	Former Location	New Location
DL	xDSL Modem	Terminal Devices	Digital Equipment
HN	Home Networking	Terminal Devices	Digital Equipment
TD	Digital Telephone	Terminal Devices	Digital Equipment

#### RESERVED CLASSIFICATIONS

Some classifications were reserved. They are preserved for reference in Annex B. New equipment which would have been given those codes now will be given other codes. For example, equipment which in the past would have been given the WD code for digital modulated cordless phones operating in ISM bands (and all other cordless phones) now will be given W4, cordless phone.

The former classifications for refurbished equipment were reserved. If the original responsible party or his authorized agent refurbishes equipment, it may keep the original approval number. If a different RP refurbishes equipment, the equipment keeps the original equipment code (if still the most appropriate code per Annex A) and REN value. In this case there shall be a new approval, and a new *US*: number which includes the RP code of the refurbisher.

#### A.1.1. New Approvals

New equipment approvals shall use the equipment codes in Annex A.

#### A.1.2. Grandfather Provisions

Equipment approved with a code that was reserved or re-defined in this document shall maintain its code, unless the equipment is changed and must be approved again according to section 6.

Obsolete information is preserved in Annex B, Reserved Equipment Classifications, and Annex C, Obsolete Definitions.

#### A.1.3. Selection of Code

There is intended to be one, and only one, obvious choice of equipment classification and associated equipment code for each product. A product should be given the most specific code that completely and accurately describes it. The most specific code that completely covers the functionality of the equipment should be used. Although the equipment classification tables are named (e.g., digital equipment), for practical reasons the most appropriate equipment code might be in a table that does not have the most obviously relevant name). In case of a question on selection of an equipment code please contact ACTA ([www.part68.org](http://www.part68.org)). NOTE: in some cases tariff requirements must be considered.

## A.2. Terminal Devices

Except as noted, the table below covers one to three line terminal devices. It also covers analog call distributors up to and including ten lines in size and private network to telco facilities interfaces. NOTE: paging systems of all sizes are covered in A.3.

### Computer Cards

Cards for computers are approved using one of two groups of equipment codes. Traditional types of approvals use a code other than CE and CN. Use the CE or CN code only for a card approved under Component Approval (described in detail in TIA/TSB-129-A, clause 9).

### Reserved Codes

In the tables below, the text: "Reserved. New equipment normally takes the XX code," means: "New equipment of a type formerly using this code might best be described by the XX code, but if another definition in Annex A is the most accurate, the corresponding code shall be used."

### Code Definition

AD	Specialty adapter using one or more mechanical switch, electromechanical relay, semiconductor, etc. NOTE: Historically, Electrically transparent adapters and extension cords have not required approval.
AL	Alarm dialing equipment (fire, intrusion, equipment failure, medical emergency, etc.).
AN	Standalone answering machine or an answering machine card for use in a computer.
BR	Conferencing bridge.
CC	Reserved. New equipment now uses the most appropriate current code.
CD	Small call distributor. Call distributors serving one to 10 CO lines. NOTES: a) eleven line systems and larger take system classifications. b) a fully protected call distributor using ground-start facilities is classified as MF or PF.
CE	Computer-based card connecting to CN network interface card(s). For Component Approval only. Does not provide network interface circuitry.
CI	Call diverter (call forwarder) adjunct.
CN	Computer-based card providing network interface circuitry (Loop Start, Ground Start, Direct Inward Dialing, etc.). For Component Approval only.
CO	Coin operated device or coin and card operated device, central office implemented.
CX	Coin or card operated device, instrument implemented.
CZ	Reserved. New equipment normally takes the CO code.
DI	Repertory dialer adjunct or dialing computer card. Provides a network interface and dialing, and possibly memory, but no other function. NOTES: a) some repertory dialers with additional functions might best fit the generic adjunct classification, TX; b) telemarketing devices making use of answering machine adjuncts take code MA.
DL	Moved to A.8, Digital Equipment.
DM	Reserved. New equipment normally takes the MM code.
DT	Reserved. New equipment normally takes the MM code.
FA	Facsimile equipment. May include a telephone handset or other features, or not. Subject to the FCC Fax Branding requirements, 68.318(d). NOTE: computer fax cards normally take the MM code.
FB	Reserved. New equipment normally takes the MM code.
FC	Reserved. New equipment normally takes the MM code.
HN	Moved to A.8, Digital Equipment.
LA	Local area data channel modem.
M5	Reserved. New equipment normally takes the MM code.
MA	Telemarketing adjunct with answering machine, repertory dialer, or both. Other new equipment takes the most appropriate code.
MD	Reserved. New equipment normally takes the MM code.
MO	Line monitoring equipment. Example: cut-line monitor.

**Code Definition**

MM	Modem providing one or more of data/fax/video/voice. Includes equipment with additional functions. Does not include LADC modems (code LA).
MR	Utility meter reading device operating in the off-hook mode.
MS	Multimedia server.
MT	Reserved. New equipment normally takes the TE code.
MU	Music on hold adjunct.
ND	Reserved. New equipment normally takes the TX code.
NI	Private Network to Telco Facilities Interface (Analog and/or Digital).
OT	"Other," miscellaneous types of terminal equipment not classified elsewhere.
PT	Computer-based telephony card permitting dialing, speakerphone, or similar functions, but no fax or data modem function (see codes FA, MM).
RC	Conversation recorder. Does not include answering machines.
RG	Reserved. New equipment normally takes the TX code.
RT	Traffic recorder: fixed, bench or portable.
SP	Reserved. New equipment normally takes TX or another adjunct code.
TD	This classification moved to A.8, Digital Equipment.
TE	Telephone with or without other features. Note: except phone with fax feature (see code FA) or phone with modem feature (code MM)
TF	Reserved. For new equipment consider the re-defined TE code.
TM	Reserved. New equipment normally takes the MM code.
TQ	Test equipment for on-going maintenance capable of inserting tones into the network or for receiving tones, or both. Excludes traffic recorders (see RT).
TR	Toll restrictor adjunct.
TX	Generic classification for one to three line adjunct, e.g. caller ID, used with analog telephones. NOTE: if the product qualifies for a more specific single adjunct code, such as: AD; AL; AN; BR; CD; CE; CI; CN; DI; LA; MA; MO; MM; MR; MS; MU; NI; PT; RC; RT; TQ; TR or WS, it takes the more specific code.
VT	Reserved. New equipment normally takes the MM code.
W4	Cordless device (unless it incorporates a modem, in which case normally choose WS).
W9	Reserved. New equipment normally takes the W4 code.
WC	Reserved. New equipment normally takes the W4 code.
WD	Reserved. New equipment normally takes the W4 code.
WI	Reserved. New equipment normally takes the W4 code.
WN	Reserved. New equipment normally takes the W4 code.
WS	Wireless data modem connecting to the network
WT	Reserved. New equipment normally takes the W4 code.
XF	Temporary field trial equipment connectable per agreement between vendor and service provider in accordance with FCC Public Notices L5953, March 30, 1979; and 14953, March 30, 1979, updated Feb. 28, 1989.
XT	Government use only, subject to direct authorization by the FCC under 47 CFR 68.2(b).

**A.3. Fully Protected Systems**

This table covers fully protected systems, fully protected call distributors capable of serving eleven lines and more, and all fully protected paging equipment.

**Code Definition**

CF	Centrex switch, or line monitoring or answering console used with Centrex service.
KD	Key system including analog data capability. This classification is not for a key system with only voice capability.
KF	Generic fully protected key system. This classification is not for a key system with any built-in data capability. Includes fully protected manual access call distributors having more than 10 CO lines.

**Code Definition**

KG	Reserved. New equipment normally takes the KF or KH code.
MF	Fully protected hybrid system. Typically KTS/PBX hybrids. Includes fully protected hybrid call distributors having more than 10 CO lines.
MH	Modular hybrid telephone system.
PA	Paging equipment. May connect directly to the network or behind a host system. NOTE: Pagers for connection only to the station side of host equipment may be classified KX.
PF	Generic fully protected PBX. Includes fully protected pooled access call distributors having more than 10 CO lines.
PG	Reserved. New equipment normally takes the PF or PH code.
PH	Modular PBX.

## A.4. Unprotected Systems

**Code Definition**

KN	Unprotected key telephone system. Includes unprotected manual access call distributors serving more than ten lines.
PN	Unprotected PBX. Includes unprotected pooled access call distributors serving more than ten lines.

## A.5. Totally Protected Systems

**Code Definition**

KY	Totally protected key system. Includes totally protected manual access call distributors serving more than ten lines.
MY	Totally protected hybrid system. Includes totally protected selectable manual and pooled access call distributors serving more than ten lines.
PY	Totally protected PBX. Includes totally protected pooled access call distributors serving more than ten lines.

## A.6. Systems Designed For Installation By The Untrained

**Code Definition**

KH	User installed key system. NOTE: Equipment with system features using one to three lines are approved under the TE code.
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## A.7. System Adjuncts

**Code Definition**

CT	Analog concentrator as typically used by answering services.
DV	On-premises analog data-over-voice equipment. A low-pass filter may be used to prevent out-of-band signals from entering the network, or not.
KX	Adjunct, ancillary equipment or component used with host system <sup>1</sup> . NOTE: Caller ID displays not associated with host systems that were given KX or ND normally should on re-approval take the TX classification.
LR	Least cost routing equipment (example: "trunk-side" dialer).

<sup>1</sup> Typically, these include multiline key sets, line cards only for 1A2 type systems, phones with Z-ringer equivalence rated message waiting lights, pagers used behind host systems; modems, conversation recorders, special handsets that connect through the handset connection of a telephone; and fax, telephone, modem line switches that connect ahead of host equipment. Some caller ID devices were given the KX code. New caller ID devices require the TX code.

**Code Definition**

PX	Ancillary Equipment used with specified hybrid and PBX systems.
VM	Voicemail system. Connects behind a host system or, if totally protected it may be connected directly to the network.
XP	External surge protector.

## A.8. Digital Equipment

**Code Definition**

DD	Equipment providing CSU or NT1 functions. Encoded analog content and billing protection provided.
DE	Equipment providing CSU or NT1 functions but not encoded analog content and billing protection.
DF	Multiline digital equipment (T1, PRI, BRI, subrate), with one or more types of digital interfaces, including T1-DSX, PRI-S/T, BRI-S/T, T1-CSU, subrate DSU, PRI-U, BRI-U, etc, coexisting in the same chassis, with switching capabilities to approved analog ports. Encoded analog content and billing protection provided.
DL	xDSL modem.
DS	Crossconnect switch for digital transmission media (no analog involvement).
DW	Multiline digital equipment (T1, PRI, BRI, subrate), with one or more types of digital interfaces including T1-DSX, PRI-S/T, BRI-S/T, T1-CSU, subrate DSU, PRI-U, BRI-U, etc, coexisting in the same chassis, with switching capabilities to approved analog ports. No protection provided for encoded analog content or billing.
DX	Adjunct device for digital service applications such as remote diagnostics.
DY	Multiline digital equipment (T1, PRI, BRI, subrate) with one or more types of digital interfaces including T1-DSX, PRI-S/T, BRI-S/T, T1-CSU, subrate DSU, PRI-U, BRI-U etc, coexisting in the same chassis, with switching capabilities to approved analog ports. Equipment qualifies as totally protected.
HN	Home networking equipment. Equipment of any technology connecting to the PSTN but serving the customer premises only. Equipment does not communicate with the network service provider. NOTE: Although this equipment does not communicate with the network, it does directly connect to the network, so it could cause harm.
IP	VoIP phone or other VoIP device with handset or headset capable of providing access and telecommunication via gateway(s) with the PSTN.
IS	VoIP system (e.g., VoIP PBX) with gateway(s) to the PSTN.
IT	VoIP terminal adapter (e.g., terminal adapter for the connection of analog or digital telephones to IP networks) capable of providing access and telecommunication via gateway(s) with the PSTN.
TD	Reserved: Telephone equipment with digital connection (except IP telephone).
XD	Multiplexer, channel bank or similar device connecting to approved CSUs. System port connecting to CSUs. ISDN terminal equipment connecting to the S/T interface.

## A.9. Protective Circuits

**Code Definition**

DP	Data protective circuit used on analog networks. Provides total protection. The DP classification is for equipment with both analog voice and data applications.
VP	Provides total protection for analog voiceband applications. NOTE: Coin-operated, customer-owned telephones (COCOTS), Key Systems, PBXs, and other systems using VP couplers must be separately approved using the appropriate code.
WP	Wiring protector.



## Annex B - Reserved Equipment Classifications (normative)

### B.1. General

These equipment classifications have been reserved. They are no longer available for use with new equipment. New equipment is classified in Annex A. This annex preserves the old codes and definitions for reference.

### B.2. Terminal Devices

#### Code Definition

CC	Credit card terminals for placing calls. (Phones, FAXs, etc). Credit card verification devices are classified as specialized data terminals using the DT category.
CZ	Coin phones connected to telephone company coin service lines
DM	Non-dialing modems. Dialing types are in the MD category.
DT	Data terminals that have a unique one-of-a-kind data modem.
FB	Fax modem cards used in computers or in printers.
FC	Fax with cordless telephone.
MD	Multifunction data devices including dialing type modems.
MT	Multifunction telephones. Single and two-line phones with additional features, such as clock radios, speakerphones, repertory dialers, but not intercoms. See TF category.
M5	56 kbps PCM analog modem.
ND	Number display devices, call identifiers. Note: These were previously approved as KX devices.
RG	Standalone ringers, chimes, bells, ring relays, visual indicators.
SP	Non-dialing speakerphones.
TF	Single or two-line phones with "system" features, intercom, hold, conferencing, line status indicators, etc.
TM	Telephone with modem.
VT	Video telephones.
WC	Cordless phone equipment used with CT2 facilities.
WD	Digital modulated cordless phones operating in ISM bands.
WI	Spread spectrum cordless phones operating in ISM frequency bands.
WN	Cordless phone with 900 MHz I/F For Voice/Data Equipment Connection to Digital Networks
WT	Conventional 43/49 MHz cordless phones.
W9	902-928 MHz non-spread spectrum (modulation) cordless phones.

### B.3. Fully Protected Systems

#### Code Definition

KG	Refurbished key telephone systems.
PG	Refurbished PBX

## Annex C - Obsolete Definitions (informative)

### C.1. General

These equipment definitions were changed significantly, although the codes remain in use. New equipment is classified according to Annex A. This annex preserves the previous definitions for reference.

### C.2. Terminal Devices

#### Code Former Definition

CE	PC-based cards using MVIP, SSCA or H.110 bus protocols and connected to CN network interface cards. Does not provide network interface circuitry.
CN	PC-based cards using MVIP, SSCA or H.110 bus protocols and providing network interface circuitry (LS, GS, DID, etc.).
CO	Central-Office implemented coin telephones.
CX	Coin operated devices such as instrument-implemented coin phones.
DI	Repertory dialers. Telemarketing devices are usually given the MA classification because they often make use of answering machine adjuncts.
FA	Facsimile machines.
MA	Multifunction ancillary devices. Including but not limited to telemarketing devices with answering machine adjuncts.
MM	Multimedia modem devices that provide any combination of data/fax/video.
PT	Single or two-line computer-based telephony cards that permit dialing, speakerphone, and similar functions. They can include fax and data modem functions. (See also the CE, CN codes for computer-based operations that make use of SSCA and MVIP bus facilities.).
RT	Traffic recorders.
TE	Simple single or two-line telephones (includes those with last number redial).
TQ	Test equipment for on-going maintenance capable of inserting tones into the network or for receiving tones. Includes portable traffic recorders.
TX	Adjuncts used with one and two line telephones.
W4	43-49MHz 25-channel, channel-seeking cordless phones.
XF	Limited use terminal devices
XT	Special use devices

### C.3. Fully Protected Systems

#### Code Former Definition

KD	Key systems for analog data applications.
KF	Fully protected key systems. Note - A key system provides manual access (i.e. direct selection) to the PSTN for outgoing calls. May include call distributors having more than 10 CO lines.

### C.4. Unprotected Systems

#### Code Former Definition

KN	Unprotected key systems.
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**Code    Former Definition**

PN      Unprotected PBX.

## C.5.      Totally Protected Systems

**Code    Former Definition**

KY      Totally protected key systems.

MY      Totally protected hybrid systems.

PY      Totally protected PBXs.

## C.6.      Systems Designed For Installation By The Untrained

**Code    Former Definition**

KH      User installed key systems. Systems using one or two lines are approved under the TF code.

## C.7.      System Adjuncts

**Code    Former Definition**

KX      Adjuncts and components used with host systems<sup>2</sup>. Caller ID displays not associated with host systems that were given KX shall on re-approval take the ND classification.

VM      Voicemail systems that connect directly to the network or behind host systems.

## C.8.      Digital Equipment

**Code    Former Definition**

DD      Equipment providing CSU functions. Encoded analog and billing protection provided.

DE      Equipment providing CSU functions but not encoded analog content and billing protection.

DF      Multiline digital equipment (T1, PR ISDN, BR ISDN, subrate), with different types of digital interfaces, which would include T1-DSX PR S/T, BR S/T, T-CSU), subrate DSU, PR U, BR U, etc., coexisting in the same chassis, with switching capabilities to approved analog ports. Encoded analog and billing protection provided.

DW      Multiline digital equipment (T1, PR ISDN, BR ISDN, subrate, with different types of digital interfaces that would include T1-DSX, PR S/T, BR S/T, T1-CSU, subrate DSU, Pr U, BR U, etc., coexisting in the same chassis, with switching capabilities to approved analog ports. No encoded analog content or billing protection provided.

DY      Multiline digital equipment (T1, PR ISDN, BR ISDN, subrate) with different

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<sup>2</sup> Typically, these include multiline key sets, line cards only for 1A2 type systems, phones with Z-ringer equivalence rated message waiting lights, pagers used behind host systems; modems, conversation recorders, special handsets that connect through the handset connection of a telephone; and fax, telephone, modem line switches that connect ahead of host equipment. Some caller ID devices were given the KX code. New caller ID devices require the ND code.

**Code    Former Definition**

types of digital interfaces that would include TI-DSX,PR S/T, BR S/T, T 1 - CSU, subrate DSU,PR U, BR U, etc., coexisting in the same chassis, with switching capabilities to approved analog ports. Total Part 68 protection (signal power protection through limiter or AGC circuitry) from any audio.

HN    Home networking equipment.

TD    Telephones with digital throughput.

## **Annex D - Bibliography (informative)**

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