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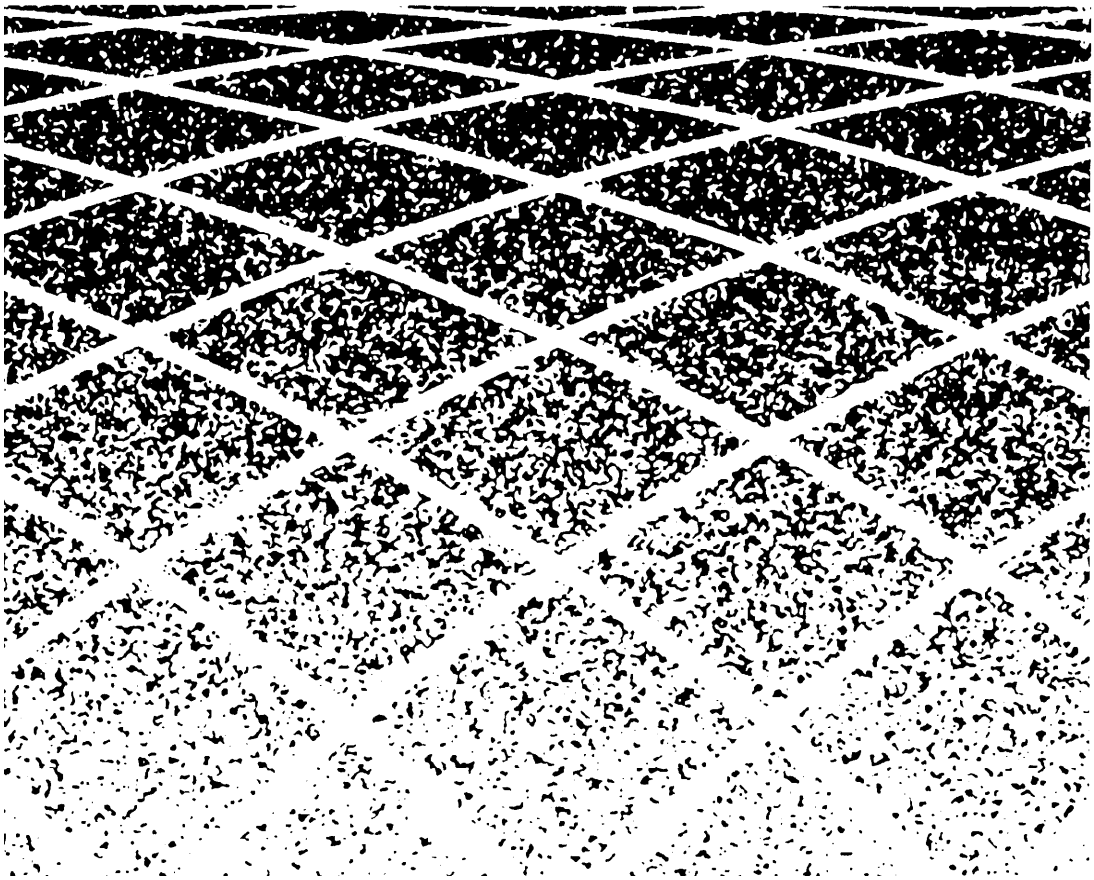
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DEFINITY® Communications System
Generic 3
Pocket Reference



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INTRODUCTION

The Pocket Reference is intended to be used as a quick reference for the following systems:

- DEFINITY® Communications System Generic 3i/r Version 2 (multicarrier cabinet)
- DEFINITY Communications System Generic 3s/vs/i/r Version 2 (single-carrier cabinet)

Note: This document is intended for an audience that is familiar with the systems discussed. Consequently, it employs many abbreviations for commonly used terms.

The DEFINITY Generic 3rV2 (G3rV2) Processor Port Network (PPN) can only be housed in a multicarrier cabinet (MCC). DEFINITY Generic 3r Expansion Port Networks (EPNs) can be housed in MCCs or single-carrier cabinets (SCCs).

The DEFINITY Generic 3sV2 and 3vsV2 (G3sV2 and G3vsV2) systems can only be housed in a single-carrier cabinet (MCC).

Information in this document applies to all versions and types of the listed systems unless **specifically noted otherwise** in parentheses. GsV2, G3vsV2, G3iV2, or G3rV2 shown in parentheses in the remainder of this document (except in table headings) refers to both the DEFINITY Communications System multicarrier cabinet (MCC) **and** single-carrier cabinet (SCC) systems for the specified version, unless otherwise noted.

This issue replaces all previous issues of this document. The reason for reissue is to cover Version 2 enhancements to the DEFINITY Communications System.

SYSTEMS OVERVIEW

This document describes four types of DEFINITY systems:

- DEFINITY Communications System Generic 3s Version 2
- DEFINITY Communications System Generic 3vs Version 2
- DEFINITY Communications System Generic 3i Version 2
- DEFINITY Communications System Generic 3r Version 2

Fundamental differences between the four types of system lie in the:

- Features supported
- Capacities
- Hardware used
- Line sizes
- Processors
- Port Networks

DESIGN BENEFITS

System management permits user friendly design, implementation, and administration by the customer

Multiple Port Network—The Processor Port Network (PPN) containing the system's control, software, and trunk/terminal circuit packs and one or up to two (G3iV2) or up to twenty-one (G3rV2) Expansion Port Network(s) (EPN) containing the interface to the PPN and additional trunk and terminal circuit packs (the Center Stage Switch is used with the G3rV2 to interconnect four or more cabinets)

Two or three (G3iV2 and G3rV2) multicarrier cabinets or three (G3iV2) single carrier cabinet stacks serving up to 1600 (G3iV2) or 10,000 (G3r) lines and up to 400 (G3iV2) or up to 4000 (G3rV2) trunks

One (G3sV2 or G3vsV2) single carrier cabinet stack serving up to 100 lines or up to 200 trunks

Two (G3iV2) single carrier cabinet stacks serving up to 1200 lines and 400 trunks (G3rV2 requires a multicarrier cabinet for the PPN and G3sV2 and G3vsV2 may have a maximum of one single carrier cabinet stack)

Universal port hardware for smooth, seamless system growth and a high degree of investment protection

Duplication of the most critical system components, providing highly available and highly reliable call processing

User access to a wide variety of public and private network services and facilities through connection to an Integrated Services Digital Network (ISDN)

Greater connectivity and conformance with international standards

Modular system architecture for easier growth, layered software, and integrated pooled modems

Integrated voice/data switching of voice and data at rates up to 64 kbps

Digital TDM — Dual 2.048 MHz buses with distributed processing down to port level

Voice gain and conference capability resident in port circuit

Connectivity to other System 75, System 85, DIMENSION ® PBX Switches, DEFINITY Generic 1 (G1), DEFINITY Generic 2 (G2), and DEFINITY Generic 3 Version 1 (G3V1) and Version 2 (G3V2)

High reliability design and distributed power

DS1 interface

FEDERAL COMMUNICATIONS COMMISSION (FCC) INFORMATION

The system FCC registration number is **AS593M-13283-MF-E.** The ringer equivalent is 0.5 ampere.

FEATURES

The following table lists features available with each G3 system.

The following notation is used to indicate feature availability:

LEGEND:

S	Standard
O	Optional
N/A	Not Available
V2/V2†	Only available with G3V2 or G3V1.1. Not available with G3V1. Please note that feature availability between G3V1.1 is somewhat different. Any feature identified as V2† is NOT available with G3V1.1 except as an upgrade.
GD	Available with G3i-Global and G3iV2. Not available with G3iV1

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
AAR/ARS Partitioning	S	S	S	S	S	S
AAR/ARS Digit Conversion	O	O	O	O	S	S
Abandoned Call Search	S	S	S	S	S	S
Abbreviated Dialing	S [1]	S [2]	S [1]	S [2]	S [2]	S [2]
Abbreviated Dialing (Enhanced)	N/A	O	N/A	O	O	O
Administrable Language Displays	V2	V2	V2	V2	GD	V2
Administered Connections	N/A	S	N/A	S	S	S
Administration Without Hardware	S	S	S	S	S	S
Agent Call Handling	O [3]	O [4]	O [3]	O [4]	O [4]	O [4]
Alphanumeric Dialing	S	S	S	S	S	S
Alternate Facility Restriction Levels	V2	V2	V2	V2	V2	O
Answer Detection by Call Classifier	N/A	O	N/A	O	O	S
Attendant Auto-Manual Splitting	S	S	S	S	S	S
Attendant Call Waiting	S	S	S	S	S	S
Attendant Control of Trunk Group Access	S	S	S	S	S	S

1. Abbreviated Dialing is a standard feature; however, Enhanced Abbreviated Dialing is not available with the Advantage Business Package.
2. Abbreviated Dialing is a standard feature; however, Enhanced Abbreviated Dialing is a Premier Business Package, G3i, and G3r option.
3. Available when the Basic Call Center Option is purchased.
4. Available when ACD software is purchased.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Attendant Direct Extension Selection With Busy Lamp Field	S	S	S	S	S	S
Attendant Direct Group Selection	S	S	S	S	S	S
Attendant Display	S	S	S	S	S	S
Attendant Intrusion (Call Offer)	V2	V2	V2	V2	GD	S
Attendant Override of Diversion Features	V2	V2	V2	V2	GD	S
Attendant Priority Queue	V2	V2	V2	V2	GD	S
Attendant Recall	S	S	S	S	S	S
Attendant Release Loop Operation	S	S	S	S	S	S
Attendant Serial Calling	V2	V2	V2	V2	GD	S
Audible Message Waiting	V2	V2	V2	V2	V2	S
Audio Information Exchange (AUDIX®) Interface	S	S	S	S	S	S
Authorization Codes	O	O	O	O	O	O
Automatic Alternate Routing (AAR)	N/A	O [5]	N/A	O [5]	O [5]	O [5]
Automatic Callback	S	S	S	S	S	S
Automatic Call Distribution (ACD)	O [6]	O	O [6]	O	O	O

5. Available when PNA software is purchased.

6. Available when the Basic Call Center Option is purchased.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
ACD Auto-Available Split (AAS)	V2	V2	V2	V2	V2	S
Automatic Circuit Assurance	S	S	S	S	S	S
Automatic Hold	V2	V2	V2	V2	GD	S
Automatic Incoming Call Display	S	S	S	S	S	S
Automatic Route Selection (ARS)	O	O	O	O	O	O
Automatic Transmission Measurement System	V2†	V2†	V2†	V2†	V2†	S
Automatic Wakeup	S	S	S	S	S	S
Auto-Start/Don't Split	V2	V2	V2	V2	GD	S
Basic Call Management System (BCMS)	O [6]	O	O [6]	O	O	O
Bridged Call Appearance — Multi-Appearance Voice Terminal	S	S	S	S	S	S
Bridged Call Appearance — Single-Line Voice Terminal	S	S	S	S	S	S
Busy Verification of Terminals and Trunks	S	S	S	S	S	S
Call-By-Call Service Selection	N/A	O [7]	N/A	O [7]	O [7]	O [7]
Call Coverage	S [8]	S	S [8]	S	S	S

7. Available as an option when ISDN-PRI software is purchased for public and private networking.

8. Linked Call Coverage Paths are not standard. However, Linked Call Coverage Paths are available as part of the Voice Mail Application Support Option package.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Call Detail Recording (CDR)	S	S	S	S	S	S
Call Forwarding All Calls	S	S	S	S	S	S
Call Management System (CMS)	O [9]	O [9]	O [9]	O [9]	O [9]	O [9]
Call Park	S	S	S	S	S	S
Call Pickup	S	S	S	S	S	S
Call Prompting	N/A	O	N/A	O	O	O
Call Vectoring	N/A	O	N/A	O	O	O
CallVisor Adjunct/Switch Application Interface (ASAI)	N/A	N/A	N/A	O	O	O
Call Waiting Termination	S	S	S	S	S	S
Centralized Attendant Service (CAS)	N/A	O	N/A	O	O	O
Class of Restriction (COR)	S	S	S	S	S	S
Class of Service (COS)	S	S	S	S	S	S
CDR Account Code Dialing	S	S	S	S	S	S
Code Calling Access	S	S	S	S	S	S
Conference — Attendant	S	S	S	S	S	S
Conference — Terminal	S	S	S	S	S	S

9. CMS is optionally available as an adjunct.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Consult	S	S	S	S	S	S
Coverage Callback	S	S	S	S	S	S
Coverage Incoming Call Identification (ICI)	S	S	S	S	S	S
Customer-Provided Equipment (CPE) Alarm	S	S	S	S	S	S
Data Call Setup	S	S	S	S	S	S
Data Hot Line	S	S	S	S	S	S
Data-Only Off-Premises Extensions	S	S	S	S	S	S
Data Privacy	S	S	S	S	S	S
Data Restriction	S	S	S	S	S	S
DCS Alphanumeric Display for Terminals	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Attendant Control of of Trunk Group Access	N/A	O [11]	N/A	O [11]	O [11]	O [11]
DCS Attendant Direct Trunk Group Selection	N/A	O [11]	N/A	O [11]	O [11]	O [11]
DCS Attendant Display	N/A	O [11]	N/A	O [10]	N/A	O [10]
DCS Automatic Callback	N/A	O [11]	N/A	O [10]	O [10]	O [10]
DCS Automatic Circuit Assurance (ACA)	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Busy Verification of Terminals and Trunks	N/A	O [11]	N/A	O [11]	O [11]	O [11]
DCS Call Forwarding All Calls	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Call Waiting	N/A	O [10]	N/A	O [10]	O [10]	O [10]

10. Available when DCS software is purchased.

11. Available when DCS is purchased, but not available with DCS over PRI D-channel when the PRI D-channel is connected to the public network.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
DCS Distinctive Ringing	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Leave Word Calling	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Multi-Appearance Conference/Transfer	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Over ISDN-PRI D-channel	N/A	O [10]	N/A	O [10]	O [10]	O [10]
DCS Trunk Group Busy/Warning Indication	N/A	O [10]	N/A	O [10]	O [10]	O [10]
Default Dialing	S	S	S	S	S	S
Dial Access to Attendant	S	S	S	S	S	S
Dial Plan	S	S	S	S	S	S
Digital Multiplexed Interface	S	S	S	S	S	S
Direct Department Calling (DDC) and Uniform Call Distribution (UCD)	S	S	S	S	S	S
Direct Inward Dialing (DID)	S	S	S	S	S	S
Direct Inward and Outward Dialing (DIOD) — International	S	S	S	S	S	S
Direct Outward Dialing (DOD)	S	S	S	S	S	S
Distinctive Ringing	S	S	S	S	S	S
Do Not Disturb	S	S	S	S	S	S
DS1 Trunk Service	S	S	S	S	S	S

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
E1 Trunk Service	V2	V2	V2	V2	GD	V2
EIA Interface	S	S	S	S	S	S
Emergency Access to the Attendant	S	S	S	S	S	S
Enhanced DCS (EDCS)	V2	V2	V2	V2	GD	V2
End-to-End Signaling	V2	V2	V2	V2	GD	V2
Expert Agent Selection	V2†	V2†	V2†	V2†	V2†	V2†
Extension Number Portability	V2	V2	V2	V2	V2	S
Extended Trunk Access	V2	V2	V2	V2	V2	S
Facility and Non-Facility Associated Signaling	N/A	O [12]	N/A	O [12]	O [12]	O [12]
Facility Busy Indication	S	S	S	S	S	S
Facility Restriction Levels (FRLs)	S	S	S	S	S	S
Facility Test Calls	S	S	S	S	S	S
Forced Entry of Account Codes	N/A	O	N/A	O	O	O
Generalized Route Selection	N/A	O [12]	N/A	O [12]	O [12]	O [12]
Go to Cover	S	S	S	S	S	S
Hold	S	S	S	S	S	S
Hold—Automatic	V2	V2	V2	V2	GD	S
Hot Line Service	S	S	S	S	S	S
Hunting	S	S	S	S	S	S
Inbound Call Management	N/A	O	N/A	O	O	O
Individual Attendant Access	S	S	S	S	S	S

12. Available when ISDN-PRI software is purchased for public and private networking.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Information System Network (ISN) Interface	S	S	S	S	S	S
Integrated Directory	S	S	S	S	S	S
Integrated Services Digital Network — Basic Rate Interface	N/A	N/A	S	S	S	S
Integrated Services Digital Network — Primary Rate Interface	N/A	O	N/A	O	O	O
Intercept Treatment	S	S	S	S	S	S
Intercom — Automatic	S	S	S	S	S	S
Intercom — Dial	S	S	S	S	S	S
Internal Automatic Answer	S	S	S	S	S	V2
Inter-PBX Attendant Calls	S	S	S	S	S	S
Intraflow and Interflow	O [13]	O [14]	O [13]	O [14]	O [14]	O [14]
Last Number Dialed	S	S	S	S	S	S
Leave Word Calling	O [15]	S	O [15]	S	S	S
Line Lockout	S	S	S	S	S	S
Look Ahead Interflow	N/A	O	N/A	O	O	O
Loudspeaker Paging Access	S	S	S	S	S	S
Loudspeaker Paging Access—Deluxe	S	S	S	S	S	S
Malicious Call Trace	V2	V2	V2	V2	V2	S
Manual Message Waiting	S	S	S	S	S	S

13. Available when the Basic Call Center Option is purchased.
14. Available when ACD software is purchased.
15. Available when the Voice Mail Application Support Option is purchased.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Manual Originating Line Service	S	S	S	S	S	S
Manual Signaling	S	S	S	S	S:S	
MERLIN®/System 25 — Voice Terminal Support (731xH Series)	S	S	S	S	S	V2
Modem Pooling	S	S	S	S	S	S
Move Agents from CMS	O [16]	O [16]	O [16]	O [16]	O [16]	O [16]
Multi-Appearance Preselection and Preference	S	S	S	S	S	S
Multiple Listed Directory Numbers	S	S	S	S	S	S
Music-on-Hold Access	S	S	S	S	S	S
Names Registration	S	S	S	S	S	S
Network Access —Private	S	S	S	S	S	S
Network Access —Public	S	S	S	S	S	S
Night Service —Hunt Group	S	S	S	S	S	S
Night Service —Night Console Service	S	S	S	S	S	S
Night Service —Night Station Service	S	S	S	S	S	S
Night Service —Trunk Answer from Any Station	S	S	S	S	S	S
Night Service —Trunk Group	S	S	S	S	S	S

16. CMS is optionally available as an adjunct. Move Agents from CMS is only available if CMS is selected.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Off-Premises Station	S	S	S	S	S	S
PC Interface	S	S	S	S	S	S
PC/PBX Connection	S	S	S	S	S	S
Personal Central Office Line (PCOL)	S	S	S	S	S	S
Personalized Ringing	S	S	S	S	S	S
Power Failure Transfer	S	S	S	S	S	S
Priority Calling	S	S	S	S	S	S
Privacy — Attendant Lockout	S	S	S	S	S	S
Privacy — Manual Exclusion	S	S	S	S	S	S
Property Management System Interface	S	S	S	S	S	S
Pull Transfer	V2	V2	V2	V2	GD	V2
Queue Status Indications	S	S	S	S	S	S
Recall Signaling	S	S	S	S	S	S
Recent Change History	S	S	S	S	S	S
Recorded Announcement	S	S	S	S	S	S
Recorded Telephone Dictation Access	S	S	S	S	S	S
Redirection On No Answer (RONA)	V2	V2	V2	V2	V2	V2
Remote Access	S	S	S	S	S	S
Report Scheduler and System Printer	S	S	S	S	S	S
Restriction — Controlled	S	S	S	S	S	S
Restriction — Fully Restricted Service	V2	V2	V2	V2	GD	S
Restriction — Miscellaneous Terminal	S	S	S	S	S	S

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Restriction — Miscellaneous Trunk	S	S	S	S	S	S
Restriction — Toll	S	S	S	S	S	S
Restriction — Voice Terminal—Inward	S	S	S	S	S	S
Restriction — Voice Terminal — Manual Terminating Line	S	S	S	S	S	S
Restriction — Voice Terminal—Origination	S	S	S	S	S	S
Restriction — Voice Terminal—Outward	S	S	S	S	S	S
Restriction — Voice Terminal—Public	V2	V2	V2	V2	GD	V2
Restriction — Voice Terminal—Termination	S	S	S	S	S	S
Ringback Queuing	S	S	S	S	S	S
Ringer Cutoff	S	S	S	S	S	S
Rotary Dialing	S	S	S	S	S	S
R2-MFC	V2	V2	V2	V2	GD	V2
Security Violation Notification (SVN)	S	S	S	S	S	S
Send All Calls	S	S	S	S	S	S
Senderized Operation	S	S	S	S	S	S
Service Observing	S	S	S	S	S	S
Single-Digit Dialing and Mixed Station Numbering	S	S	S	S	S	S
Straightforward Outward Completion	S	S	S	S	S	S
Subnet Trunking	S	S	S	S	S	S
System Measurements	O [17]	S	O [17]	S	S	S

17. Available when the System Measurements Option package or the Basic Call Center Option package is purchased.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
System Status Report	S	S	S	S	S	S
Temporary Bridged Appearance	S	S	S	S	S	S
Terminal Translation Initialization	V2	V2	V2	V2	V2	S
Terminating Extension Group	S	S	S	S	S	S
Through Dialing	S	S	S	S	S	S
Time of Day Routing	O [18]	O [18]	O [18]	O [18]	O [18]	O [18]
Timed Reminder and Attendant Timers	S [19]	S [19]	S [19]	S [19]	S [19]	S [19]
Touch-Tone Dialing	S	S	S	S	S	S
Transfer	S	S	S	S	S	S
Transfer Outgoing Trunk to Outgoing Trunk	V 2 [20]	V2	V 2 [20]	V2	V2	S
Traveling Class Marks (TCMs)	N/A	O	N/A	O	0	0
Trunk Flash	S	S	S	S	S	S
Trunk Group Busy/Warning Indicators to Attendant	S	S	S	S	S	S
Trunk Identification By Attendant	S	S	S	S	S	S
Trunk-to-Trunk Transfer	S	S	S	S	S	S
Uniform Dial Plan (UDP)	N/A	O	N/A	O	O	O

18. Available when ARS or PNA is purchased.

19. Timed Reminder and Attendant Timers held call timer transfer to "aatd." Standard in G3vs/G3sABP, G3vs/G3sPBP, G3i, and G3r.

20. Transfer Outgoing Trunk to Outgoing Trunk is not available with G3vs/G3s ABP.

Feature	G3vs ABP	G3vs PBP	G3s ABP	G3s PBP	G3i	G3r
Unrestricted Uniform Dial Plan (UDP)	NA	V2	NA	V2	V2	O
Visually Impaired Attendant Services (VIAS)	V2	V2	V2	V2	GD	V2
Voice Message Retrieval	S	S	S	S	S	S
Voice Response Integration	V2†	V2†	V2†	V2†	V2†	V2†
Voice Terminal Alerting Options	V2	V2	V2	V2	V2	V2
Voice Terminal Display	S	S	S	S	S	S
Wideband Switching	V2†	V2†	V2†	V2†	V2†	V2†
World Class Tone Detection	V2	V2	V2	V2	GD	V2
World Class Tone Generation	V2	V2	V2	V2	GD	V2

The following table describes which features require additional hardware.

Feature	Hardware
Abandoned Call Search	TN747B CO trunk circuit pack.
Abbreviated Dialing	Requires additional 748B tone detectors if the special “wait” character is used frequently.
ACCUNET® Service	Modular processor data module (MPDM) AP Demand Print+An AP, an MPDM, and a printer.
Administered Connections	Access endpoint circuit packs used: TN767 DS1 interface or TN760B tie trunk. Data endpoint circuit packs used: TN726 data line or TN754 digital line. Trunk circuit packs used: TN767 DS1 interface and TN760 tie trunk. TN758 pooled modem circuit pack. Data modules used: 700A or 700D PDM or MPDM, 700B, C, or E TDM or MTDM, 7400D series voice terminal or 7400B with PC/PBC.
Answer Detection	TN744 call classifier circuit pack.
Attendant Direct Extension Selection With Busy Lamp Field	A selector console is used.

Feature	Hardware
Audio Information Exchange (AUDIX)	TN742 or TN746B analog line circuit pack. TN765 processor interface, MPDM for 2CA6 AUDIX. If PI is used, one port on a TN754 digital line, and an MTDM and MPDM.
Automatic Call Distr-bution (ACD)	One port on a TN742, TN746B, or TN769 analog line circuit pack per auxiliary queue warning level lamp. Each analog announcement requires announcement equipment and one port on an Analog Line circuit pack. Each integrated announcement, which is accessed by a call, requires one port on a TN750 integrated announcement circuit pack. If music is to be heard after the delay announcement, a music source and a port on a TN763B auxiliary trunk circuit pack is required.
Automatic Circuit Assurance	Display-equipped voice terminal. If the destination is not the terminal, a TN725 speech synthesis circuit pack is used.
Automatic Incoming Call Display	A display-equipped voice terminal, or a voice terminal capable of displaying information through an attached data terminal.
Automatic Route Selection	When this feature is used in a private network, additional TN748C tone detectors, as well as tie trunks can be required.

Feature	Hardware
Automatic Wakeup	If voice prompting is used, a TN725B voice synthesizer circuit pack is required. Each circuit pack has four ports to provide voice prompting. If voice synthesis announcements are used, two ports must be reserved for announcements. A Cook Electronic Recorder/Announcer or an Audichron® Company model HQD614B Recorder/Announcer and power supply is installed in the auxiliary cabinet. Either recorder/announcer requires a TN763B.
BCMS	Any of the following connections can be used to connect an asynchronous printer to the system: the EIA port on the processor circuit pack; PDM to a digital port; ADU to a data line port.
Call-by-Call Service Selection	A TN767 DS1 interface circuit pack is used for a signaling link, and up to 23 ISDN-PRI trunk group members. A TN741 or TN768 tone-clock circuit pack, and a TN765 processor interface circuit pack are used.

Feature	Hardware
Call Detail Recording (CDR)	Hardware requirements depend on the type of output device used for SMDR. A printer, personal computer or tape unit (Data Terminal Equipment) — An MPDM to a port on a TN754 digital line circuit pack or a 212A-type modem to a port on a TN742 analog line circuit pack. In the latter case, a standard pooled modem is required for the data path. Host computer — A private line terminated at the System 85 with a trunk data module (TDM). Also, a private line modem if the computer is off-premises. A TN726 data line circuit pack can be used in conjunction with an Asynchronous Data Unit (ADU) to connect a printer.
Call Prompting	Each announcement requires a port on a TN750 integrated announcement circuit pack or announcement equipment and a port on a TN742 or TN746B analog line. A maximum of 10 TN744 call classifier circuit packs can be used.
CallVisor® ASAI interface	The following circuit packs are used: TN744 tone detectors when an ASAI application makes switch classified calls (such as a predictive dialing outbound call management application); TN7556 ISDN-BRI for use with an ASAI BRI link; TN778 packet control for G3i and G3s and TN1655 packet control for G3r. A TN750 EI is used if there is an EPN.

Feature	Hardware
Centralized Attendant Service (CAS) (Branch or Main)	A TN760D tie trunk circuit pack is used. Either a TN722B DS1 tie trunk circuit pack or a TN767B DS1 interface circuit pack can also be used for the release link trunks of the CAS network.
Code Calling Access	Loudspeaker paging equipment and one port on a TN763B auxiliary trunk circuit pack per zone. These hardware requirements can be shared with the Loudspeaker Paging Access feature. A 278A adapter is used if the customer's equipment is not FCC-registered.
Data Call Setup	Each data module requires one port on a TN754 digital line circuit pack. A digital terminal data module (DTDM) shares the port with a voice terminal. Each AT&T personal computer (PC) requires one port on a TN754 digital line circuit pack for shared use of voice and data. Each 7401D, 7404D, 7406D, or 7407D voice terminal requires one port on a TN754 digital line circuit pack for shared use of voice and data. Each modem requires one port on a TN742 analog line circuit pack.

Feature	Hardware
Data Call Setup (continued)	Modem pooling requires either a TN758 modem pool circuit pack or one digital port with a TDM or MTDM, and one analog port with analog modem for each conversion resource. Keyboard Dialing to off-premises (out-of-building) data endpoints requires the use of a TN748C tone detector circuit pack. Extensive use of features and services using tone detection may require additional TN748C circuit packs. Several other features also use a TN748C.
Data-Only Off-Premises Extensions	A TDM and one port on a TN754 digital line circuit pack.
Distributed Communications System (DCS) Features	DCS interface hardware.
Digital Multiplexed Interface (DMI)	One of the following can be used: TN722B DS1 circuit pack per 24 DMI trunks; one TN767B; one TN464.
Direct Department Calling and Uniform Call Distribution	One port on a TN742 analog line circuit pack per queue warning level lamp is used with announcement equipment. If music is to be heard after the delay announcement, a music source and a port on a TN763B auxiliary trunk circuit pack is used. A TN750 announcement circuit pack provides up to 64 different announcements.

Feature	Hardware
Direct Department Calling and Uniform Call Distribution (continued)	Announcements, and a TN750B circuit pack provides up to 128 different announcements.
Direct Inward Dialing (DID)	One port on a TN753 DID trunk circuit pack for each DID trunk.
Direct Outward Dialing (DOD)	One port on a TN747B CO trunk circuit pack or TN767B DS1 interface circuit pack (used for ground and loop-start trunks) for each assigned trunk.
Do Not Disturb	If voice prompting is used, a TN725B voice synthesizer circuit pack is required. Each circuit pack has four ports.
DS1 Tie Trunk Service	One TN722B DS1 tie trunk, TN767B DS1 interface, or TN464C DS1 interface (Universal) circuit pack per 24 voice-grade DS1 tie trunks required or per 23 AVD DS1 tie trunks. A TN768 tone generator/clock circuit pack for synchronization of the DS1 tie trunks.
Electronic Industries Association (EIA) Interface	One TN726 data line circuit pack per eight EIA interfaces. One ADU per port on the circuit pack.
Information System Network (ISN) Interface	One TN726 data line circuit pack per eight ISN interfaces.

Feature	Hardware
Intercept Treatment	Announcement equipment and one port on a TN742, TN746B or TN769 analog line circuit pack per analog announcement. A TN750 announcement circuit pack can provide up to 64 different announcements, which can be recorded directly onto the TN750 circuit pack. A TN750B can also provide up to 128 different announcements.
Inter-PBX Attendant Calls	A tie trunk group between the branch and main locations.
Loudspeaker Paging Access	Loudspeaker paging equipment and one port on a TN763B auxiliary trunk circuit pack per zone. Paging interface equipment, consisting of a 278A adapter (only if equipment is not FCC-registered) and a 24-v power supply, per zone. This hardware can be shared with the Code Calling Access feature. The paging equipment can be: PagePac® 20, Power Mate®, Talk Mate®, Music Mate®, Zone Mate® 9 (optional), Zone Mate 10 (optional), and Common Control Unit® (used when Zone Mate 9 or Zone mate 10 is used). If PagePac paging system equipment is used, one port on a TN747B CO trunk circuit pack, one port on a TN742 or TN746B analog line circuit pack, or one port on a TN763B auxiliary trunk circuit (depending on the PagePac arrangement) is used.

Feature	Hardware
Malicious Call Trace (MCT)	16 maximum voice recorders (audio cassette decks with remote start/stop), one 278A adapter, one D0181321 power kit per voice recorder, and a TN763 auxiliary trunk curcuit pack.
Modem Pooling	One TN758 pooled modem circuit pack per two integrated conversion resources is provided. Each combined conversion resource requires one port on the Digital Line circuit pack and one port on an Analog Line circuit pack, along with an analog modem and MTDM. The following modems are supported: 103JR, 202SR, 201CR, 208BR, 212AR, 2224A, 2224G, 2248A, and 2296A.
Move Agents From CMS	A CMS vehicle.
Music-on-Hold Access	A music source and one port on a TN763B auxiliary trunk circuit pack. Also, a 36A voice coupler if the system is not FCC-registered.
Names Registration	A PMS is connected to either of the following: an MPDM and a digital line circuit pack, or an ADU and a port on a data line circuit pack.
Network Access - Private	One port on a TN760D tie trunk, TN722B DS1 tie trunk, TN767B DS1 interface, or TN464C DS1 interface circuit pack for each assigned trunk.
Network Access - Public	One port on a TN747B CO trunk circuit pack is used for each assigned trunk.

Feature	Hardware
Night Service	A ringing device and one port on a TN742, TN746B, or TN769 analog line.
Off-Premises Station	Cross-connecting capabilities and one port on a TN742, TN746B, or TN769 analog line circuit pack, or a TN767 DS1 interface circuit pack.
PC PBX Connection	A port on a TN754 digital line circuit pack for each PC.
Personal Central Office Line	One port on a TN747B CO trunk circuit pack or TN767B DS1 interface circuit pack for each CO, FX, or WATS trunk assigned as a PCOL.
Power Failure Transfer	One emergency transfer panel per five or six trunks assigned to Power Failure Transfer. Two panels are available: Z1A panel — Each unit serves up to six power failure transfer terminals. A ground-start key is required at each preselected voice terminal when ground-start trunks are used. PORTA SYSTEMS® model 574-5 panel — Each unit serves up to five failure transfer terminals and provides ground-start or loop-start. 808A emergency transfer unit.

Feature	Hardware
Property Management System	Either a TN726 data line circuit pack with an ADU or a data module (MPDM, DTDM, 7400A, and 7400B) port on a TN754 digital line circuit pack.
Queue Status Indication	One port on a TN742, TN746B, or TN769 analog line circuit pack for each auxiliary queue warning lamp (such as a 21C-49).
Recorded Announcement	Announcements are either analog or integrated. Each analog announcement requires announcement equipment (such as a Cook Electric recorded announcement device) and a port on a TN742 or TN746B analog line circuit pack. Each integrated announcement accessed by a call uses a port on a TN750 or TN750B announcement circuit pack. The following number of announcements can be recorded: up to 64 on a TN750 and up to 128 on a TN750B.
Recorded Telephone Dictation Access	Telephone dictation machines and, depending on the type of machine, one port on a TN742 analog line circuit pack or one port on a TN763B auxiliary trunk circuit pack for each machine assigned.
Remote Access	Dedicated trunks, if Remote Access is not available via DID.

Feature	Hardware
Report Scheduler/System Printer	An asynchronous printer is connected to any of the following: directly to the EIA port on the processor circuit pack; via an MPDM or 7400A data module and a port on a TN754 digital line circuit pack; via an ADU and a port on a TN726 data line circuit pack.
Station Message Detail Recording (SMDR)	MPDM (with a TN754B digital line circuit pack in a PPN or EPN cabinet) connected to an AT&T Call Detail Recording Utility (CDRU). MTDM (with a TN754B digital line circuit pack in a PPN or EPN cabinet) connected to a host computer.
Subnet Trunking	Additional TN748C circuit packs, if Routing Patterns containing "wait" symbols are used heavily, and if dial tone detection is preferable to waiting for interval time-out.
Uniform Dial Plan	DCS interface hardware for DCS applications.
Voice Message Retrieval	A TN725B speech synthesizer circuit pack. Each circuit pack has four ports to provide Voice Message Retrieval. Traffic engineering is required to determine the number of circuit packs.
Voice Terminal Display	A display-equipped voice terminal and one port on a TN754B digital line circuit pack.

SYSTEM PARAMETERS

The following table describes maximum system capacities for all Generic 3 Version 2 systems.

Note: Not all features are available for G3V1.1. In cases where a feature is not available for V1.1, capacity number reflects V2 capacity only. G3V2 is not available on the 286 platform.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Abbreviated Dialing (AD)					
AD Lists Per System	1,600	200	200	2,400	5,000
AD List Entry Size	24	24	24	24	24
AD Entries Per System	10,000	2,000	2,000	12,000	50,000
Enhanced List (System List)	1	NA/1	NA/1	1	1
Max. entries	1,000	NA/1,000	NA/1,000	1,000	1,000
Group Lists	100	100	100	100	1,000
Max. entries	90	90	90	90	90
Group lists/extension	3	3	3	3	3
System List	1	1	1	1	1
Max. entries	90	90	90	90	90
Personal Lists	1,600	200	200	2,400	5,000
Max. entries	10	10	10	10	10
Personal lists/extension	3	3	3	3	3
Applications Adjuncts					
CallVisor ASAI Adjuncts	8	NA/NA	NA/4	8	8
Asynchronous Links (RS232)	5	5	5	5	10
CDR Output Devices	2	2	2	2	2
Journal:System Printer	2:1	2:1	2:1	2:1	2:1
Property Mgt Systems	1	1	1	1	1
BX.25 Physical Links(1)6	8	4	4	8	16
App. Processors(i.e.,3B2-MCS)	1	1	1	1	7
AUDIX Adjuncts	1	1	1	1	8
CMS Adjuncts	1	1	1	1	1
ICM Adjuncts					
ISDN Gateway	1	NA/1	NA/1	1	1
BX.25 Processor Channels	64	64	64	64	128
Hop Channels	64	64	64	64	128

1. In the case of SCC, only four BX.25 physical links are supported in G3sV2 and G3iV2.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
ARS/AAR (2) (3)					
AAR/ARS Patterns (Shared)	254	20/40	20/40	254	640
ARS/AAR Table Entries (NPA,NXX,RXX,HNPA,FNPA)	2,000	2,000	2,000	2,000	2,000
Choices per RHNPA Table	12	12	12	12	12
Digit Conversion Entries	400	400	400	400	400
AAR/ARS Digit Conversion					
Digits Deleted for ARS/AAR	23	23	23	23	23
Digits Inserted for ARS/AAR	18	18	18	18	18
AAR/ARS Sub-Net Trunking					
Digits Deleted for ARS/AAR	23	23	23	23	23
Digits Inserted for ARS/AAR	36	36	36	36	36
Entries in HNPA & RHNPA Tables	1,000	1,000	1,000	1,000	1,000
FRLs	8	8	8	8	8
Inserted Digit Strings (4)	1,200	450	450	1,200	3,000
Patterns for Measurement					
Shared Patterns for Measurement	20	20	20	20	25
RHNPA Tables	32	32	32	32	32
Routing Plans	8	8	8	8	8
Toll Tables	32	32	32	32	32
Entries per Toll Table	800	800	800	800	800
Trunk Groups in an ARS/AAR Pattern	6	6	6	6	16
UDP (Entries)	240	NA/240	NA/240	10,000	50,000
TOD Charts	8	8	8	8	8

2. AAR is **not an optional feature** in G3sV2 ABP.
3. ARS is available in G3s if the Automatic Route Selection Option is selected.
4. This is the number of 12 character inserted-digit-strings available for AAR/ARS preferences.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Attendant Service					
Attendant Consoles(day:night)(5)	15:1	4:1	6:1	15:1	27:1
Attendant Console 100s	20	20	20	20	20
Groups/Attendant					
Attendant Control Restriction Groups	96	96	96	96	96
Centralized Attendant Service					
Release Link Trunks at Branch	99	NA/99	NA/99	99	255
Release Link Trk Grp at Branch	1	NA/1	NA/1	1	1
Release Link Trunks at Main	400	NA/100	NA/100	400	4,000
Release Link Trk Grp at Main (6)	99	NA/32	NA/32	99	666
Other Access Queues					
Max. Number of Queues	12	12	12	12	
Max. Number of Queue Slots (7)	80	30	30	80	80
Size range of Reserved Queue	2-75	2-25	2-25	2-75	2-75
Reserved Queue Default Size	5	5	5	5	5
Queue Length	80	30	30	80	300
Switched Loops/Console	6	6	6	6	6
Authorization					
Authorization Codes	5,000	1,500	1.500	5,000	90,000
Classes of Restriction	96	96	96	96	96
Classes of Service	16	16	16	16	16
Length of Authorization Code	4-7	4-7	4-7	4-7	4-7
Length of Barrier Code	4-7	4-7	4-7	4-7	4-7
Length of Forced Entry	1-15	NA/1-15	NA/1-15	1-15	1-15
Account Codes					
Restricted Call List	1	1	1	1	1

5. For G3vs, there can be four day consoles if there are no night consoles. Three of the four must be powered by auxiliary power.

6. The number of “Release Link Trunk Groups at Main” is the same as the number of trunk groups in the system.

7. The “Maximum number of queue slots” is referred to as “emergency access queue length” in G1.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Remote Access Barrier Codes	10	10	10	10	10
CDR Forced Entry Account Code List	1	NA/1	NA/1	1	1
Toll Call List	1	1	1	1	1
Unresticted/Allowed Call Lists	10	10	10	10	10
Total Call List Entries	1,000	1,000	1,000	1,000	1,000
Automatic Callback Calls	160	20	20	240	1,500
Automatic Wakeup					
Simultaneous Display Requests	10	10	10	10	30
Wakeup Requests per System	1,200	200	200	2,400	15,000
Wakeup Request per Extension	1	1	1	1	1
Wakeup Requests per 15 min Interval	300	150	150	450	950
Basic CMS					
Daily Summary Reports	7	7	7	7	7
Measured Agents	200	75	75	200	200
Measured Splits	99	12/24	12/24	99	99
Measured Trunk Groups	32	16/32	16/32	32	32
Measured VDNs	99	NA/24	NA/24	99	512
Reporting Periods (30 or 60 min)	25	25	25	25	25
Number of Terminals User IDs	5	5	5	5	8
Cabinets					
EPN					
MCC(8)	2	NA	NA	2	21
SCC(8)	8	NA	NA	8	80
Small (Upgrades only)(9)	2	NA	NA	2	20

8. The EPNs in G3r can be DS1-remote EPNs.
9. Small systems refer to the two-carrier cabinet systems that are no longer sold to new customers.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Inter-Port Network Connectivity					
Port Networks	3	1	1	3	22
Max No. of Port Networks/Cabinet	1	1	1	1	2
Switch Node Carriers (Simplex)	NA	NA	NA	NA	2
Switch Node Carriers (Duplex)	NA	NA	NA	NA	4
DS1 Converter Complex (Simplex)	NA	NA	NA	NA	20
DS1 Converter Complex (Duplex)	NA	NA	NA	NA	40
PPN					
MCC (10)	1	NA	NA	1	1
SCC/ESCC	4	NA	4	4	NA
CSCC	NA	1	NA	NA	NA
Remote Modules					
Remote Port Network	2	NA	NA	2	21
Call Appearances					
Bridged Images/Appearance	7	7	7	7	15
Call Appearances/Station(11)	54	54	54	54	54
Max. Appearances per Ext.	10	10	10	10	10
Min. Appearances per Ext.	2	2	2	2	2
Total Bridged Appearances	1,600	200	200	2,400	25,000
Max.Simultaneous Off-Hook per Call (12)	5	5	5	5	5
Call Coverage					
Coverage Answer Groups (CAG)	200	30	30	200	750

10. MCC includes Medium Cabinet.
11. The number of call appearances is the sum of primary and bridged appearances; at most 10 can be primary. A maximum of 54 administrable buttons are supported for the 7434D terminal—34 buttons in the basic terminal and an additional 20 buttons in the coverage module.
12. Does not apply to conferencing.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Coverage Paths	600	150	150	600	7,500
With Hospitality Parameter Reduction	5	NA/5	NA/5	5	5
Coverage Paths Incl. in Call Covg.Report	100	100	100	100	100
Coverage Path per Station (13)	4	4	4	4	4
Coverage Points in a Path	3	3	3	3	3
Max Users/Coverage Path(14)	2900	500	500	3,500	36,065
Members per CAG	8	8	8	8	8
Call Detail Recording					
CDRU Trackable Extensions	1,600	200	200	2,400	25,000
Intra-switch Call Trackable Extensions	100	100	100	100	500
No. of CDRUs/System (15)	1	1	1	1	1
Call Forwarding (Follow-me)					
Call Forwarded Digits (off-net)	16	16	16	16	16
Call Forwarded Numbers	1,600	200	200	2,400	25,000
Call Park					
Attnd.Grp. Common Shared Exten.Nos.	10	10	10	10	80
No. of Parked Calls	723	180	180	723	5,302
Call Pickup Groups					
Call Pickup Members/Group	50	50	50	50	50
Call Pickup Members/System	1,600	200	200	2,400	25,000
No. of Groups	800	100	100	800	5,000
With Hosptality Parameter Reduction	5	NA/5	NA/5	5	5

13. Only available with ABP when AT&T Voice Power adjunct (AUDIX, AUDIX Voice Power, AUDIX Voice Power Lodging, and DEFINITY AUDIX) are used.

14. The maximum number of users per coverage path equals the number of dial plan extensions (including hunt groups, TEGs, etc.).

15. The CDRU adjunct capacity is 40,000 calls per hour, and exceeds the system call capacity for all systems except for G3r.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Call Vectoring/Call Prompting					
Expert Agent Selection					
Skill Groups	NA	NA/24	NA/24	99	255
VDN Skill Preferences	NA	NA/3	NA/3	3	3
Multiple Skills per Call	NA	NA/3	NA/3	3	3
Multiple Skills per Agent	4	NA/4	NA/4	4	4
Agent Login IDs	NA	NA/450	NA/450	1,500	10,000
Multiple Splits per Call	3	NA/3	NA/3	3	3
Priority Levels	4	NA/4	NA/4	4	4
Recorded Announcement	128	NA/128	NA/128	128	256
Steps per Vector	32	NA/32	NA/32	32	32
Vector Directory Numbers	500	NA/100	NA/100	512	20,000
Measured VDNs	500	NA/100	NA/100	512	2,000
Vectors per System	256	NA/48	NA/48	256	512
CallVisor ASAI					
Active Station Controlling Assoc.	2,000	NA	NA/250	2,000	6,000
Call Controllers per Call	1	NA	NA/1	1	1
Call Monitors per Call	1	NA	NA/1	1	1
Extension Controllers per Station Domain	2	NA	NA/2	2	2
Max. Simultaneous Call Classif.	40	NA	NA/40	40	400
No. of ASAI Links	8	NA	NA/4	8	8
Notification Requests	170	NA	NA/50	170	460
Simultaneous Active Adj. Controlled Calls	300	NA	NA/75	300	3,000
Switch to Adjunct Associations	127	NA	NA/127	127	127

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Conference Parties	6	6	6	6	6
Simultaneous three-way Conf. Calls (16)	483	161	161	483	3,542
Simultaneous six-way Conf. Calls (17)	240	80	80	240	1,760
Data Parameters					
Administered Connections	128	NA/24	NA/24	128	128
Permanent Switched Call	NA	NA	NA	NA	NA
Alphanumeric Dialing					
Max. entries	200	50	50	200	1,250
Characters/Entry	22	22	22	22	22
Digital Data Endpoints	800	75	75	800	7,500
Dial Plan					
DID LDNs	8	8	8	8	20
Extensions (18)	2900	500	500	3,500	36,065
Extension No. Portability (19)	240	NA/240	NA/240	10,000	50,000
Feature Dial Access Codes					
No. of Access Codes	70	70	70	70	70
No. of Digits	1-4	1-4	1-4	1-4	1-4
Integrated Directory Entries	1,616	207	207	2,416	25,028
Max Extension Size	5	5	5	5	5

16. Simultaneous three-way Conference Call=(483 / 3)* number PNs. Simultaneous three-way Conference Call is limited by the number of Simultaneous Circuit-Switched Calls of 180 in G3sV2.

17. Simultaneous six-way Conference Call=(483 / 6)* number PNs.

18. Extensions include stations, data endpoints, hunt groups, announcements, TEGs, VDNs, common shared extensions, and code calling IDs.

19. The numbers shown in “Extension Number Portability” are Uniform Dialing Plan (UDP) entries.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Min Extension Size	1	1	1	1	1
Miscellaneous Extensions (20)	900	150	150	900	3317
Names					
No. of names (21)	3,615	448/464	448/464	4,215	36,511
No. of characters in a name	15	15	15	15	15
Non-DID LDNs	50	50	50	50	666
Prefix Extensions	Yes	Yes	Yes	Yes	Yes
Trunk Dial Access Codes					
No. of Access Codes	157	49/65	49/65	317	884
No. of digits	1-4	1-4	1-4	1-4	1-4
Do Not Disturb (DND)					
DND Requests per System	1,600	200	200	2,400	25,000
Simultaneous Display Requests	30	10	10	10	30
Facility Busy Indicators					
Buttons per Tracked Resource	100	100	100	100	100
No. of Indicators (Station & Trk Grps)	2400	450	450	3,600	5,000
Hunt Groups or Splits					
Announcements per Group	2	2	2	2	2
Announcements per System	128	128	128	128	256
Groups and/or Splits	99	12/24	12/24	99	255
With Hospitality Parameter Reduction	5	NA/5	NA/5	5	5
Group Members per Group/Split	200	150	150	200	999
Group Members per System	500	150	150	500	5200

20. Used for PCOL groups, common shared extensions, access endpoints, administered TSCs, code calling IDs, VDNs, LDNs, hunt groups, announcements, and TEGs.

21. The Number of Names = number of stations + attendant consoles + trunk groups + digital data endpoints + miscellaneous extensions.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Measured ACD Agents (Switch Limits)					
Agents Logged in per System	400	150	150	500	5200
Logged-In Splits per Agent	4	4	4	4	4
ACD Supervisor Assist Per System (22)	99	12/24	12/24	99	255
Queue Slots per Group	200	200	200	200	999
Queue Slots per System	1000	200	200	1,000	10,500
Intercom Translation Table (ICOM)					
Automatic/Manual and Dial					
ICOM groups per system	32	10	10	32	256
Auto/Manual	32	10	10	32	256
Dial	32	10	10	32	256
Members per ICOM group					
Auto	32	32	32	32	32
Dial	32	32	32	32	32
Members per System	1,024	320	320	1,024	8,192
Last Number Dialed					
Entries/System (23)	2,416	282	282	3,216	32,528
Number of Digits	24	24	24	24	24
Leave Word Calling (Switch-Based) (24)					
Messages Stored	2,000	450	450	2,000	2,000
Messages per User	10	10	10	10	16

22. One supervisor assist per split.

23. Last Number Dialed Entries = Stations + Digital Data Endpoints.

24. Leave Word Calling is available with G3s ABP only if the Voice Mail Application Support Option is purchased.

ITEM	G3iV1.1 - 286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Remote Message Waiting Indicators					
Per Extension	80	80	80	80	80
Per System	80	80	80	80	500
Simultaneous Message Retrievers	60	60	60	60	400
System-wide Message Retrievers	10	10	10	10	10
Malicious Call Trace					
Max.Simultaneous Traces	16	16	16	16	16
MLDN					
Via DID	8	8	8	8	20
Via CO	50	50	50	50	50
Modem Pool Groups					
Mode 2/Analog					
Group members per system	160	64	64	160	2,016
Number of groups	5	2	2	5	63
Members per group	32	32	32	32	32
Networking					
CAS Nodes	99	NA/99	NA/99	99	99
DCS Nodes					
BX.25	20	NA/20	NA/20	20	20
ISDN PRI	63	NA/63	NA/63	63	63
Hybrid	63	NA/63	NA/63	63	63
UDP Nodes	240	NA/240	NA/240	240	999
Partitions					
Attendant Partition	1	1	1	1	1
Ext.Partition Group	8	8	8	8	8
Extension Partition	8	8	8	8	8
Paging					
Code Calling IDs	125	125	125	125	125
Loudspeaker Zones	9	9	9	9	9

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Personal CO Lines (PCOL)					
PCOL Appearances	4	4	4	4	16
PCOL Lines (Trunk Groups)	40	15	15	200	200
PCOL Trunks Per Trunk Group	1	1	1	1	1
Port Circuit Pack Slots (25)					
Per EPN					
MCC Simplex	99	NA	NA	99	99
MCC Duplex	98	NA	NA	98	98
SCC Simplex	71	NA	NA	71	71
SCC Duplex	70	NA	NA	70	70
Small Cabinet Simplex (Upgrade only)	39	NA	NA	39	39
Small Cabinet Duplex (Upgrade only)	38	NA	NA	38	38
Per PPN					
MCC Simplex	89	NA	NA	89	80
MCC Duplex	78	NA	NA	78	60
SCC Simplex	64	NA	NA	64	NA
SCC Duplex	56	NA	NA	56	NA
ESCC Simplex	NA	70	70	70	NA
ESCC Duplex	NA	NA	NA	68	NA
CSCC Simplex	NA	10	NA	NA	NA
Recorded Announcements					
Analog Queue Slots per Annc.	150	50	50	150	1,000
Analog Queue Slots per System	150	50	50	150	1,000

25. Only port slots are included in this count. For example, there are 99 port slots per MCC EPN cabinet. One slot in the cabinet is already dedicated for the Tone/Clock board. Other service circuits may be required which would further reduce the number of port slots available. In G3 carriers, a 21st slot of MCC port carriers may be equipped with service boards that do not require tip and ring connections.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Calls Connected per Annc.					
Integrated Annc. or Aux. Trunk	5	5	5	25	255
Analog Ports	5	5	5	25	128
Channels per Integrated Annc. Circuit Pack	16	16	16	16	16
Integrated Annc. Circuit Pack	1	1	1	1	1
Integrated Annc. Recording Time(Min:Sec)					
16 KB recording	8:32	8:32	8:32	8:32	8:32
32KB	4:16	4:16	4:16	4:16	4:16
Integrated Queue Slots per System	50	50	50	50	1,000
Recorded Announcements	128	128	128	128	256
System Administration					
Admin History File Entries	250	50	50	250	1,250
Simultaneous Administration Command	1	1	1	1	5
Simultaneous Maintenance Command	1	1	1	1	5
Simultaneous SM Sessions	5	3	3	5	8
Printer Queue Size	50	50	50	50	50
Speech Synthesis Circuit Packs	6	6	6	6	40
Channels per Speech Circuit Pack	4	4	4	4	4
Terminating Extension Groups					
TEGs	32	32	32	32	32
Users That May Share a TEG	4	4	4	4	4
Time Slots					
Simultaneous Ckt Switched Calls (26)	723	180	180	723	5,302
Total Slots (27)	1536	512	512	1,536	11,264

26. 241 Simultaneous Circuit-Switched Calls per port network, except for G3s, where the maximum is 180.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
Total Slots (27)	1536	512	512	1,536	11,264
Time Slots for Voice & Data (28)	1449	483	483	1,449	10,604
Time Slots per Port Network	512	512	512	512	512
Tone Classifiers					
Call Classifier Boards	10	NA/10	NA/10	10	50
Call Progress/Touch Tone Receivers	80	NA/80	NA/80	80	400
Tone Detector Boards	20	10	20	20	50
General Purpose Tone Detectors	40	20	40	40	100
Touch-Tone Receivers	80	80	80	80	200
Prompting TTR Queue Size	80	NA/80	NA/80	80	80
TTR Queue Size	4	4	4	4	4
Trunks					
DS1 Circuit Packs	30	8	8	30	166
Queue Slots for Trunks	198	32/64	32/64	198	1,332
PRI Interfaces via PI (29)	8	NA/4	NA/4	8	NA
PRI Interfaces via PKTINT	NA	NA	NA	NA	166
PRI Temporary Signaling Connections					

27. 512 time slots per port network.

28. 483 time slots for Voice and Data per port network. Even though an EPN is supported in G3sV2, giving a total of two port networks, G3sV2 is engineered to support only 180 Simultaneous Circuit-Switched Calls.

29. Only one PI board is supported in G3vs/G3s (both MCC and SCC), and therefore a total of four physical links, used for BX.25 or PRI, are available.

    In G3i, two PI boards can be supported in the MCC, and therefore a total of eight physical links (used for BX.25 or PRI) are available.

Since the SCC can only support one PI board, a total of four physical links (used for BX.25 or PRI) are available in the SCC 286 and Medium configurations.

ITEM	G3iV1.1-286	G3vsV2 ABP/PBP	G3sV2 ABP/PBP	G3iV2-386	G3rV2
TSCs in System	656	NA/164	NA/164	656	4,256
Call Associated TSCs	400	NA/100	NA/100	400	4,000
Non Call Associated TSCs	256	NA/64	NA/64	256	256
Administered TSCs	128	NA/32	NA/32	128	128
Ringback Queue Slots	198	32/64	32/64	198	1,332
Total PRI Interfaces (30)	8	NA/4	NA/4	8	166
Trunk Groups Hourly Measurements	25	25	25	25	75
Trunk Groups in the System	99	16/32	16/32	99	666
Trunk Members in a Trunk Group	99	50/99	50/99	99	255
Trunks in System (incl Rem Access) (32)	400	50/100	50/100	400	4,000
With Hospitality Parameter Reduction	50	NA/50	NA/50	50	50
Measured Trunks in System	400	50/100	50/100	400	4000
Voice Terminals					
Associated Data Modules (e.g.,DTDMs)	800	75	75	800	7,500
BRI Stations (31)	1,000	NA	50	1,000	7,000
Digital Stations (32)	1,600	200	200	2,400	25,000
Stations (32)	1,600	200	200	2,400	25,000
Station Button Capacity (K units) (33)	410.4	68.4	68.4	547.2	5,260

30. All digital stations can be display stations.

31. All BRI stations can be display stations.

32. G3vs has the same software capacities for stations and trunks as does G3s. However, these software capacities are limited by the cabinet hardware. A typical switch would probably have 20 to 50 stations with 10 to 20 trunks. Station capacities can be reached only by administration without hardware (AWOH). This includes extensions administered without associated hardware.

33. In G3, “Station Button Capacity (units) ‘replaces’ Maximum Button Modules.”

    The following examples show how these units can be used. The assumption is that only three call appearances are assigned to the sets (except analog sets which have no call appearances).

    - Analog sets (for example, 7104A): G3r, 76 units; all other releases, 62 units.
    - Digital sets with 10 buttons (for example, 7403D): G3r, 124 units; all other releases, 102 units.
    - Digital sets with 34 buttons, without display (for example, 7405D): 3r, 412 units; all other releases, 342 units.
    - Digital sets with 34 buttons, with display (for example, 7405D): G3r, 568 units; all other releases, 472 units.
    - 7406D Digital sets with display: G3r, 412 units; all other releases, 342 units.
    - BRI sets with 17 buttons, with display (for example, 7506D): G3r, 304 units; all other releases, 250 units.

    The station button capacity can support all stations equipped as 7406D digital sets with display.
    For example, a total of 342 * 1200 = 410.4K units for the G3iV1.1-286.

SYSTEM CABINET CONFIGURATIONS

A G3iV2 system configuration can consist of a PPN alone or a PPN with up to two EPNs. A G3rV2 system can be configured with up to 21 EPNs. The system is available in a multicarrier cabinet (MCC) configuration, a single-carrier cabinet (SCC) configuration, or a combination of MCC(s) and SCC(s). In a system with two EPNs, one EPN can be an SCC and one an MCC. The system can be configured with or without duplication. G3sV2 and G3vsV2 only support one SCC stack and do not support duplication.

The configurations for systems without duplication are as follows:

- MCC PPN (stand-alone)
- MCC PPN with MCC EPN
- MCC PPN with maximum of 2 MCC EPNs (G3iV2 only) or maximum of 21 MCC EPNs (G3rV2 only)
- MCC PPN with maximum of one MCC EPN and one SCC EPN (G3iV2 only) or up to 21 SCC and MCC EPNs mixed (G3rV2 only)
- MCC PPN with SCC EPN
- MCC PPN with maximum of 2 SCC EPNs (G3iV2 only) or maximum of 21 SCC EPNs (G3rV2 only)
- SCC PPN (stand-alone) - G3sV2, G3vsV2, and G3iV2 only
- SCC PPN with MCC EPN - G3iV2 only
- SCC PPN with MCC EPNs (max. of 2 EPNs) - G3iV2 only
- SCC PPN with MCC EPN and SCC EPN (max. of 2 EPNs) - G3iV2 only

- SCC PPN with SCC EPN - G3iV2
- SCC PPN with SCC EPNs (max. of 2 EPNs) - G3iV2 only

Configurations for a system with duplication are basically the same as for a system without duplication, except a duplicated control carrier replaces a port carrier in the EPN of a system with duplication. G3sV2 and G3vsV2 systems cannot be duplicated.

CIRCUIT PACKS

The following table lists the circuit packs for the G3sV2 and G3iV2.

Code	Name	Type
None	DEFINITY AUDIX System	Port
631DA1	Power Unit (AC)	Power
631DB1	Power Unit (AC)	Power
644A1	Power Unit (DC)	Power
645B1	Power Unit (DC)	Power
676B	Power Supply (DC)	Power
982LS	Current Limiter	Power
CFY1B	Current Limiter	Power
CPP1	Expansion Memory	Control
TN413	Digital Line	Port
TN417	Auxiliary Trunk	Port
TN419B	Tone-clock	Service
TN420B/C	Tone Detector	Service
TN429	DiOD Trunk	Port
TN433	Speech Synthesizer	Service
TN436B	DID Trunk	Port
TN437	Tie Trunk	Port
TN438B	CO Trunk	Port
TN439	Tie Trunk	Port
TN447	CO Trunk	Port
TN457	Speech Synthesizer	

Code	Name	Type
TN458	Tie Trunk	Port
TN459B	DID Trunk	Port
TN464C	DS1/E1 Interface	Port
TN464D	DS1/E1	Port
TN465	CO Trunk	Port
TN467, TN468B	Analog Line	Port
TN479	Analog Line	Port
TN497	Tie Trunk	Port
TN556	ISDN BRI Line	Port
TN566B	ISDN BRI Line (A-Law)	Port
TN570	Expansion Interface (EI)	Port
TN725B	Speech Synthesizer	Service
TN726B	Data Line	Port
TN735	MET Line	Port
TN742	Analog Line	Port
TN744	Call Classifier	Service
TN746, B	Analog Line	Port
TN747B	CO Trunk	Port
TN748C/D	Tone Detector	Service
TN750, B	Announcement	Service
TN753	DID Trunk	Port
TN754, B	Digital Line	Port
TN755B	Power Unit, Neon	Power
TN756	Tone Detector	Service
TN758	Pooled Modem	Port

Code	Name	Type
TN760D	Tie Trunk	Port
TN762B	Hybrid Line	Port
TN763B, C, D	Auxiliary Trunk	Port
TN765	Processor Interface	Control
TN767B	DS1/E1 Interface	Port
TN768	Tone-clock	Service
TN769	Analog Line	Port
TN771D	Maintenance/Test	Service
TN772	Duplication Interface	Control
TN775B	Maintenance	Service
TN776	Expansion Interface (EI)	Port
TN777B	Network Control	Control
TN778	Packet Control	Control
TN780	Tone-clock	Service
TN786B	Processor	Control
TN2135	Analog Line	Port
TN2136	Digital Line	Port
TN2138	CO Trunk	Port
TN2139	DID Trunk	Port
TN2140	Tie Trunk	Port
TN2144	Analog Line	Port
TN2146	DID Trunk	Port
TN2147	CO Trunk	Port
TN2149	Analog Line	Port
WP-91153	Power Supply (AC)	Power

The following table lists the circuit packs for the G3rV2.

Code	Name	Type
None	DEFINITY AUDIX System	Port
631DA1	Power Unit (AC)	Power
631DB1	Power Unit (AC)	Power
644A1	Power Unit (DC)	Power
645B1	Power Unit (DC)	Power
676B	Power Supply (DC)	Power
CFY1B	Current Limiter	Power
TN464C	DS1/E1 Interface	Port
TN464D	DS1/E1	Port
TN553	Packet Data Line	Port
TN556	ISDN BRI Line	Port
TN570	Expansion Interface (EI)	Port
TN572	SN Clock	Service
TN573	SN Interface	Control
TN574	DS1 Converter	Port
TN577	Packet Gateway	Port
TN722B	DS1/E1 Tie Trunk	Port
TN725B	Speech Synthesizer	Service
TN726B	Data Line	Port
TN735	MET Line	Port
TN742	Analog Line	Port
TN744	Call Classifier	Service

Code	Name	Type
TN746, B	Analog Line	Port
TN747B	CO Trunk	Port
TN748C, D	Tone Detector	Service
TN750, B	Announcement	Service
TN753	DID Trunk	Port
TN754, B	Digital Line	Port
TN755B	Power Unit, Neon	Power
TN758	Pooled Modem	Service
TN760D	Tie Trunk	Port
TN762B	Hybrid Line	Port
TN763B, C, D	Auxiliary Trunk	Port
TN767B	DS1/E1 Interface	Port
TN768	Tone-clock	Service
TN769	Analog Line	Port
TN771D	Maintenance/Test	Service
TN775B	Maintenance	Service
TN780	Tone-clock	Service
TN1648	System Access/Maintenance	Service
TN1650B	Memory	Control
TN1655	Packet Interface	Control

Code	Name	Type
TN1656	Tape Drive	Control
TN1657	Disk Drive	Control
UN330B	Duplicaton Interface	Control
UN331B	Processor	Control
UN332	Mass Storage/Network Control	Control
WP-91153	Power Supply (AC)	Power

CONTROL CIRCUIT PACKS

Call Classifier TN744 (G3V2)

Provides 8 ports for touch-tone reception and call classification. It is required with OCM and call prompting applications.

One TN748C Tone Detector is required in each port network to support maintenance test tones when using the TN744 circuit pack.

Current Limiter Card 94782LS (G3iV2)

The 982LS connects to the back of the processor board slot. It provides current limited accessory 48 volts, emergency transfer logic, current limited 5 volts to trip the main circuit breaker in a high temperature condition, and duplicated 48 volts for the fan units in the EPN cabinet.

Current Limiter CFY1B

The CFY1B connects to the back of the maintenance board slot. It provides current limited accessory 48 volts, emergency transfer logic, current limited 5 volts to trip the main circuit breaker in a high temperature condition, and duplicated 48 volts for the fan units in the EPN cabinet.

Disk Drive TN1657 (G3rV2)

Contains a small computer system interface (SCSI) disk drive that provides mass data storage. The TN1657 reduces the system boot time. Optional for direct connection between carriers; required for using CSS.

Duplication Interface TN772 (G3iV2)

Selects the active processing element (control complex) in a duplicated system and coordinates the interchange of processing elements. Controls and provides the memory shadowing function with the duplication option. Terminates the environmental sensors and controls the integrated battery supply and charging circuits. Selects the active tone-clock circuit pack. Provides the G3-Management Terminal interface in place of the processor. A second Duplication Interface circuit pack resides in the duplicated control carrier/cabinet. It requires a cable connection to the Duplication Interface circuit pack in the basic control carrier/cabinet.

Duplication Interface UN330B (G3rV2)

In a duplicated system, which has two switch processing elements (SPEs), one UN330B resides in each SPE and is connected to the other UN330B. These provide control and communication paths between the SPEs to keep the redundant standby (inactive) SPE ready to assume control of the active SPE fails. The UN330Bs provide the following functions:

- Selects active/standby mode for the two SPEs
- Shadows (copies) the active SPE’s memory writes into the standby SPE memory
- Supports inter-SPE communication such as two-way general purpose mailbox

Memory shadowing is a bidirectional high-speed path between the two SPEs. When memory shadowing is activated, all shadowed memory writes on the active processor's bus are sent across the link and written into the standby processor's memory. Standby memory writes are not sent to the active processor.

Expansion Interface TN776 (G3iV2)

Provides for the extension of the TDM bus from the PPN cabinet to the TDM bus of the EPN cabinet. Packages the TDM control channel with LAPD control for transmission over the fiber link between cabinets. Provides the time slot interchange between cabinets. A system with ASAI/BRI requires TN570 Expansion Interface circuit packs instead of TN776 Expansion Interface circuit packs to connect the TDM bus and packet bus of the PPN to the TDM bus and packet bus of the EPN(s).

Expansion Interface TN570 (G3iV2 and G3rV2)

TN570 is an interface in the fiber-optic links that interconnect cabinets. It is used in a port network in the following cabinet connections:

- Between a port network and another port network in a directly-connected system
- Between a port network and a Switch Node Interface in a switch node carrier in a Center Stage Switch-connected system.

The TN570 also provides control channel connectivity and time slot interchanging between the PPN and the EPNs.

The TN570 carries the following information: circuit-switched data, packet-switched data, network control, timing control, and DS1 control.

Lightwave Transceivers (4-Type or 9823-Type)

Mount on an I/O connector located on the backplanes of multicarrier cabinet (MCC) and single-carrier cabinet (SCC) systems requiring an Expansion Port Network.

Terminates the fiber optic link(s) between the PPN cabinet and the EPN cabinet.

Maintenance TN775 (G3sV2, G3vsV2, G3iV2)

The TN775B is used for system maintenance and performs the following functions:

- Monitors power failure signals
- Monitors the clock
- Provides two serial links to communicate with expansion interface circuit packs
- Contains a three-position switch that controls emergency power transfer
- Monitors and controls power supplies and battery charger
- Monitors air flow and high temperature sensors
- Provides an EIA-232 interface for connection to an administration terminal.

Maintenance/Test TN771D (G3V2)

The TN771C performs the following maintenance functions:

- Packet bus reconfiguration, which allows diagnosis and correction of recoverable packet bus failures before the link-access procedure on the D-channel (LAPD) links, which use the bus, fail. LAPD is a link-layer protocol on the ISDN-BRI and ISDN-PRI data link layer (level 2). LAPD provides data transfer between two devices, and error and flow control on multiple logic links. It recovers packet bus failures involving up to three malfunctioning leads (one or two data or parity leads, and one control lead) by swapping spare leads with malfunctioning leads.

- ISDN-PRI testing, which makes test calls that originate and terminate loop-back tests on the ISDN facilities. It provides bit and block error rate information that can be used to indicate ISDN facility quality.

Memory (CPP1) (G3iV2 and G3rV2)

The CPP1 accommodates an additional 4 megabytes of DRAM and 2 megabytes of Flash ROM. The CPP1 includes byte parity and has the same access time as the memory on the Processor circuit pack.

Mass Storage System/Network Control UN332 (G3rV2)

Provides a small computer system interface (SCSI) between the processing element and the mass storage system (MSS), which consists of tape and disk drives. Provides network control for the SPE. Terminates one end of the processor-multiplexed bus.

Memory TN770 (G3sV2, G3vsV2, G3iV2)

Contains system translations including addresses of equipment connected to the switch through the port circuit packs and call processing software. Provides 6 Mbytes of dynamic RAM with single-bit error correction and double-bit error detection.

Memory TN1650B (G3rV2)

Provides 32 Mbytes of dynamic RAM. It has error detection and correction circuitry to ensure information integrity and uses 4 Mbit RAM chips.

Network Control TN777B (G3sV2, G3vsV2, G3iV2)

The TN777B provides the following functions

- Communicates control channel messages between the processor circuit pack and the distributed network of port circuit packs on the Time Division Bus (TDM).
- Controls the four channels that process and route information directly from the processor circuit pack to the customer connected equipment. Some of the possible equipment connections are Data Services facilities, Station Message Detail Recording devices, an on-premises remote pooled modem or administration terminal, or an off-premises administration terminal. Some of these connections require modems as a Modular Processor Data Module (MPDM) or a Modular Trunk Data Module (MTDM).
- Provides the time of day clock with battery back-up for power failure or low voltage conditions. This circuit pack also provides the system with a 24-hour clock used with record keeping and system maintenance.
- Monitors the status of system clocks and alerts the processor circuit pack in the event of a failure of any clock.
- Supports the duplicated processor option and handles all control channel messages from the PPN or EPN networks over the TDM.

Packet Control TN778 (G3iV2)

Interfaces the packet bus with the SPE and terminates LAPD links. Supports packet bus signaling for ISDN D-channel signaling for ASAI applications and for packet bus maintenance.

Packet Data Line TN553 (G3rV2)

In conjunction with a TN726B circuit pack, provides connections to system ports.

Packet Gateway TN577 (G3rV2)

TN577 is an X.25 protocol interface between the system and adjuncts. For example, the TN577 serves as the interface between AUDIX and the system.

Packet Interface TN1655 (G3rV2)

Provides the communication path between the SPE and the LAN bus in the PPN. This path is used by the EPNs and the CSS, via EI circuit packs in the PPN, to communicate with the processor (RISC).

The TN1655 also provides LAPD terminations of communication links across the LAN bus that go to the RISC. The following major links are terminated:

- ISDN-BRI and ISDN-PRI signaling links
- Expansion archangel links that connect the RISC to the expansion archangels on EI circuit packs in each PN
- Center stage control network links that connect the RISC with the switch node interface circuit packs in the CSS
- DCS links (Station Message Detail Recording (SMDR) and adjuncts such as AUDIX)
- Firmware downloading

Processor (TN786B) (G3vsV2, G3sV2, G3iV2)

The TN786B provides the means for storing and executing the software which operates the system features. The Processor circuit pack consists of:

- A 80386SX Intel processor
- 6 megabytes of Flash ROM
- 4 megabytes of DRAM
- An interface to the MBUS
- Logic to support the shadowing function in duplicated systems

In addition, the Processor performs maintenance functions such as:

- Monitoring the sanity of the system Processor
- Reporting system Processor failures
- Releasing or resetting the system Processor on duplicated systems
- Monitoring and controlling cabinet level power supplies
- Managing the alarm panel LED indicators.

Processor UN331B (G3rV2)

The UN331B is the main processor that manages the G3rV2 system. The processor operates at 33 MHz and uses a MIPS RISC 3000 central processing unit (CPU) chip. The processor's instruction set is stored in a 256-Kbyte cache memory on the UN331B.

Switch Node Clock TN572 (G3rV2)

Distributes all of the timing signals that synchronize the switch node carrier in which it resides. Also receives maintenance data.

Switch Node Interface TN573 (G3rV2)

Terminates a fiber-optic link from a Switch Node Interface (SNI) in a switch node to:

- SNI in another switch node carrier
- El in a PPN
- EI in an EPN

System Access and Maintenance TN1648 (G3rV2)

The TN1648 is an SPE component used for system maintenance. A processor on the TN1648 runs control routines that connect to maintenance software running on the RISC processor.

The TN1648 has two EIA-232 interfaces: one for the administration terminal and, when there is duplication, one for a terminal connected to the off-line processor.

The TN1648 has the following attributes:

- Connection to G3-MT for system administration
- Alarm monitors and outputs
- Power supply controls
- Reserve power monitors
- Emergency Transfer control
- Sanity timer for SPE software sanity
- Time-of-day clock used for application software and time-stamping
- Alarm panel
- Connects to and terminates one end of the processor-multiplexed bus

Tape Drive TN1656

The TN1656 stores the software information for the system. It contains a tape drive that provides 120 Mb of storage space and provides an LED that monitors the activity of the tape drive.

Tone-Clock (TN419B) — non-US Installations

The TN419B supplies call progress tones, touch tones, answer-back tones, and trunk transmission test tones. The TN419B provides 2 MHz and 160 kHz clocks, and the 8 kHz frame clock. This circuit pack can transmit the system clock and tones on either TDM bus A, TDM bus B, or both TDM bus A and TDM bus B. This circuit pack contains a ring voltage alarm detection circuit.

Tone-Clock TN768 (standard in multicarrier cabinet—optional in single-carrier cabinet)

Supplies timing, which includes Stratum 4 timing, to the port network in which it resides. It also provides the following tones: call progress, touch-tones, answer-back, and trunk transmission test. The TN768 provides the following clocks: 2 MHz, 160 kHz, and 8 kHz.

Tone-Clock TN780 (G3V2)

Connects to an optional Stratum 3 clock and monitors it. It also couples the Stratum 3's output to local clocks.

The TN780 provides the following tones: call progress, touch-tones, answer-back, and trunk transmission test. It also provides the following clocks: 2 MHz, 160 kHz, and 8 kHz.

Tone Detector (TN420C) — non-US Installations

The TN420C can be administered to detect and analyze tones on the TDM bus. The TN420C has two network processing elements (NPEs) with eight channels that provide the following: four dual tone multifrequency receiver (DTMF) ports, two general purpose tone detector (GPTD) ports, and two digital loop-around ports.

Tone Detector TN748C

The TN748C has four touch-tone receivers and two general-purpose tone receivers that detect the following: call progress tones, modem answer-back tones, transmission test tones, and noise. Also provides detection required for the following: Automatic Route Selection (ARS), off-premises (out-of-building) keyboard dialing, and off-premises abbreviated dialing.

Tone Detector/Generator TN756 (single-carrier cabinet)

Provides four touch-tone receiver ports, two tone detector ports, tone generation, and clock generation It is used instead of TN768 and TN748C in systems without DS1, EPN, or DO.

PORT CIRCUIT PACKS

Analog Line (8-port)	TN467
Analog Line (8-port)	TN468B
Analog Line (8-port)	TN742
Analog Line (8-port)	TN769
Analog Line (16 port)	TN479
Analog Line (16-port)	TN746B
Analog Line (16 port)	TN2135
Analog Line (16 port)	TN2144
Analog Line (16 port)	TN2149
Announcement	TN750 or TN750B
Auxiliary Trunk	TN417
Auxiliary Trunk	TN763B/C/D
CO Trunk	TN438B
CO Trunk	TN447
CO Trunk	TN465 or TN465B
CO Trunk	TN747 or TN747B/C
CO Trunk	TN2138
CO Trunk	TN2147
Data Line (EIA)	TN726
DID Trunk	TN436B
DID Trunk	TN459B
DID Trunk	TN753
DID Trunk	TN2139
DID Trunk	TN2146
DIOD Trunk	TN429
Digital Line	TN754 or TN754B
Digital Line	TN2136
DS1 Interface	TN767B
DS1 Interface	TN464C
DS1 Converter	TN574
DS1 Tie Trunk	TN722B
Hybrid Line	TN762 or TN762B
ISDN Line	TN556

MET Line	TN735
Pooled Modem	TN758
Speech Synthesizer	TN433
Speech Synthesizer	TN457
Speech Synthesizer	TN725 or TN725B
Tie Trunk	TN437
Tie Trunk	TN439
Tie Trunk	TN458
Tie Trunk	TN497
Tie Trunk	TN760D
Tie Trunk	TN2140

Analog Line (TN467) — non-US Installations

The TN467 provides eight ports for an interface between analog voice terminals and the TDM bus. The TN467 has administrable A-law companding, µ-law companding and complex input impedance. This circuit pack provides secondary lightning protection.

Analog Line (TN468B) — non-US Installations

The TN468B provides 16 analog line ports. Each port has tip and ring signal leads. The TN468B is defaulted to A-law companding and allows a down-link message to override the default and choose µ-law companding (depending on how it is administered). The TN468B has administrable ring patterns and secondary lightning protection.

Analog Line TN742, TN769, TN746, TN746B, and TN479

These circuit packs provide the interface between analog voice terminals and the system. The TN742 and TN769 each has 8 ports. The TN746, TN746B, and TN479 each has 16 ports. Each port has the following signal leads: tip (T) and ring (R).

Feature	Analog Line Circuit Packs	
	TN742	TN769
Number of Ports	8	8
Neon Message Waiting Indicators	No	Yes
LED Terminals	Yes	Yes
Feed Voltage	-48 V	-48 V
Hard Bridging	Yes	Yes
Station Adjunct	Yes	Yes
Secondary Lightning Protection	Yes	Yes
Same Premises—Out-of-Building	Yes	Yes
Terminals	500-Type 2500-Type 7100 Series	500-Type 2500-Type 7100 Series
Range With 500-Type/ 2500-Type/7102A Terminals† (24-Gauge Wire)	20,000 Feet	20,000 Feet
Range With 7101A/7103A Terminals (24-Gauge Wire)	15,200 Feet	15,200 Feet
Ringer Loads	3	3
Simultaneous Ports Ringing Ringing	4	4

Feature	Analog Line Circuit Packs		
	TN746	TN746B	TN479
Number of Ports	16	16	16
Neon Message Waiting Indicators	Yes	Yes	Yes
LED Terminals	Yes	Yes	Yes
Feed Voltage	-24 V	-48 V	-24V
Hard Bridging	No	Yes	No
Station Adjunct	No	Yes	No
Secondary Lightning Protection	No	Yes	No
Same Premises—Out-of-Building	No	Yes	No
Terminals	500-Type 2500-Type 7102A*	500-Type 2500-Type 7100 Series	500-Type 2500-Type 7100 Series
Range With 500-Type/ 2500-Type/7102A Terminals† (24-Gauge Wire)	3,100 Feet	20,000 Feet	3,000 Feet
Range With 7101A/ 7103A Terminals (24-Gauge Wire)	Not Supported	15,200 Feet	Not Supported
Ringer Loads	3	3	3
Simultaneous Ports Ringing	4	8 †	4

* The TN746 circuit pack supports the 7102A terminal, but does not support the 7101A or 7103A terminals.

† The TN746B circuit pack allows ringing on four ports of each half of the circuit pack (for a maximum of eight simultaneous ports ringing). A user attempting to ring one half of the circuit pack when all four ports are busy receives the busy tone.

Analog Line (TN2135) — non-US Installations

The TN2135 provides 16 analog line ports and ground key detection. Each port has tip and ring signal leads. The TN2135 is defaulted to A-law companding and allows a down-link message to override the default and choose µ-law companding. The TN2135 has administrable ring patterns and secondary lightning protection.

Analog Line (TN2144) — non-US Installations

The TN2144 provides 16 analog line ports and ground key detection. Each port has tip and ring signal leads. The TN2144 is defaulted to A-law companding and allows a down-link message to override the default and choose µ-law companding. The TN2144 has administrable ring patterns and secondary lightning protection.

Analog Line (TN2149) — non-US Installations

The TN2149 provides 16 analog line ports. Each port has tip and ring signal leads. The TN2149 is defaulted to A-law companding and allows a down-link message to override the default and choose µ-law companding. The TN2149 has administrable ring patterns and secondary lightning protection.

Announcement TN750 or TN750B

The TN750 and TN750B record and store announcements that can be played back on demand as part of a calling feature. The TN750 can record up to four minutes and 16 seconds of announcement time, and the TN750B can record up to eight minutes and 32 seconds of announcement time. The TN750B can record messages from on- or off-premisis voice terminals and store up to 128 recorded announcements of eight maximum minutes each.

Auxiliary Trunk (TN417) — non-US Installations

The TN417 provides four ports for on-premises trunk applications such as Music-on-Hold, Loudspeaker Paging, Code Calling, and Recorded Telephone Dictation Access. The TN417 supports Audichron® announcement equipment. TN417 hardware and firmware are identical to that in the TN763C, except that the TN417 has A-law companding on the pulse code modulation (PCM) signal and the TN763C has µ-law companding on the PCM signal.

Each port has the following signal leads: T, R, SZ, SZ1, S, S1.

Auxiliary Trunk (TN763B, C, and D)

The TN763B, C and D has four ports used for on-premises applications such as: music-on-hold, loudspeaker paging, code calling, and recorded telephone dictation access. The TN763C supports recorded announcement equipment. The TN763D can be administered to select A-law or µ-law companding. Each port has the following signal leads: T, R, SZ, SZ1, S, and S1.

CO Trunk Circuit Pack (TN438B) — non-US Installations

The TN438B provides eight ports for loop-start CO trunks and has the following attributes:

- Detection of 12Khz and 50Hz periodic metering pulses sent from the CO
- Call still held timing
- Automatic guard fault detection circuitry

Each port has the following signal leads: T, R.

CO Trunk (TN447) — non-US Installations

The TN447 provides eight analog CO trunk ports. Each port has tip and ring signal leads and connects to a two-wire analog line. The TN447 has the following attributes:

- Ground-start trunk signaling
- 50 Hz periodic pulse metering (PPM) detection and counting
- Administrable timers

CO Trunk (TN465 and TN465B) — non-US Installations

The TN465 provides eight analog CO trunk ports and has the following attributes:

- Loop-start trunk signaling
- 16 kHz PPM detection and counting
- Administrable timers

The TN465B also provides battery reversed signaling.

CO Trunk TN747 or TN747B or C

Provides eight ports for loop-start or ground-start central office (CO), foreign exchange (FX) and Wide Area Telecommunications (WATS) trunks. A port can also be connected to a PagePac paging system. Supports the Abandoned Call Search feature in automatic call distribution (ACD) applications.

CO Trunk (TN2138) — non-US Installations

The TN2138 provides eight analog CO trunk ports. Each port has tip and ring signal leads. The TN2138 has 50Hz, 12kHz, and 16kHz PPM.

CO Trunk (TN2147) — non-US Installations

The TN2147 provides eight analog CO trunk ports. Each port has tip and ring signal leads.

The TN2147 uses four (one for each pair of ports) dual subscriber line audio processing circuits (DSLACs) that can be administered to meet the following transmission and DC signaling requirements:

- Loop-start signaling
- Earth-calling and loop-calling guarded clearing signaling

The DSLACs convert analog signals to digital signals and digital signals to analog signals in order to interface the analog CO trunks to the system's digital TDM bus.

Data Line (EIA) TN726

Provides eight serial asynchronous Electronics Industries Association (EIA) ports with modem interfaces that can be connected through ADUs to EIA ports (such as RS-232C) on data terminal equipment (DTE). The TN726B uses Mode 2 or Mode 3 data transfer protocol. The DTE can be adjuncts and peripheral equipment, such as: data terminals, printers, host computers, PCs, graphics and facsimile systems, and call detail acquisition and processing systems. The TN726B works in conjunction with a TN553 Packet Data Line circuit pack.

DID Trunk (TN436B) — non-US Installations

The TN436B provides eight ports that independently connect to a public network. Each port is an interface between a two-wire analog PBX line from a CO and the four-wire TDM network in the system. The TN436B has administrable timers.

DID Trunk (TN459B) — non-US Installations

The TN459B provides eight ports for immediate-start or wink-start DID trunks. Each port is an interface between a two-wire analog PBX line from a CO and the four-wire TDM network in the system. The TN459B has administrable timers and a backward busy circuit that complies with signaling requirements. A TN495B has the following signal leads on each port: T, R.

Direct Inward Dial (DID) Trunk TN753

Provides eight ports used for immediate-start and wink-start DID trunks. Each port on a TN753 has transmit and receive leads.

DIOD Trunk (TN429) — non-US Installations

The TN429 provides eight ports for DIOD trunks. Each port has the following signal leads: T, R.

DID Trunk (TN2139) — non-US Installations

The TN2139 provides eight analog DID trunk ports for analog DID signaling. Each port has tip and ring signal leads. The TN2139 has zero dB loss digital transmission.

DID Trunk (TN2146) — non-US Installations

The TN2146 provides eight analog DID trunk ports. Each port has tip and ring signal leads. The TN2146 uses four (one for each pair of ports) dual subscriber line audio processing circuits (DSLACs) that can be administered to meet trunk transmission characteristics. The DSLACs can be set to either a resistive or complex balance impedance in the voice or AC talk path on the trunk interfaces. The DSLACs convert analog signals to digital signals and vice-versa to match the analog DID trunks to the system's digital TDM bus.

Companding in the TN2146 firmware is programmed to the default A-law; however, the firmware can be administered to select µ-law companding.

Digital Line TN754 or TN754B

Provides eight asynchronous digital communications protocol (DCP) ports that can be connected to the following equipment: 7400 series digital voice terminals, attendant consoles, 510D personal terminals, MT 515 business communications terminals, and data modules.

Digital Line (TN2136) — non-US Installations

The TN2136 provides eight ports for connecting the system to the following DCP endpoints: data adapter modules and digital telephone models one and two. Each port can be connected to a two-wire digital line. The TN2136 has administrable A-law andµ-law companding.

Digital Service (DS1) Converter TN574 (G3rV2)

The TN574 in a port network terminates communication carried across a T1 facility from another port network. The TN574 can terminate from one to four full-duplex links. The TN574s installed in two port networks allow the communication distance to be 100 miles (station-to-station) between them.

DS1 Interface TN767B

Allows DS1 and ISDN-PRI signaling to be remoted over DS1 facilities. It also allows the ISDN-PRI signaling to be carried on any of the 24 trunk ports between the TDM bus and the DS1 facility. It performs robbed-bit signaling using CO, TIE, DID, and OPS signaling protocol in any remaining ports.

DS1 Tie Trunk TN722B

Provides connections to a 1.544 Mbps DS1 facility as 24, independent trunks. Each trunk transmits data of 64 kbps. The TN722B provides three types of digital tie trunk interface:

- Voice-grade DS1
- Alternate Voice/Data (AVD) DS1 tie trunks
- Digital-Multiplexed Interface (DMI)

It also provides bit-oriented signaling in the following trunks: automatic, immediate-start, delay-dial, and release-link.

DS1 Interface Universal TN464

The TN464 acts as a DS1 interface and an ISDN-PRI interface. It can be installed in any port slot in the system.

Hybrid Line TN762 or TN762B

Has eight ports that can be connected only to AT&T 7300 series, multiappearance hybrid analog and digital voice terminals. A TN762B has the following leads:

- VT and VR, which are used for analog voice
- CT, CR, P-, and P+, which are used for digital signals that control terminals

ISDN Line TN556

Has 12 ports that can be connected to ISDN-BRI terminals. Each port operates at 192 kbps and has two B-channels and one D-channel. It allows eight ports to provide interface links for ASAI/CVS applications with the Incoming Call Management feature and requires a Packet Control circuit pack (TN778).

Multi-button Electronic Telephone (MET) Line TN735

The TN735 has four ports that connect to MET sets. Each port has the following signal leads:

- T and R, which handle analog voice
- BT, BR, LT and LR, which handle digital signals that control terminals

Pooled Modem TN758

Provides two conversion resources ports (such as a trunk data module) for switched connections between digital data endpoints (data modules) and analog data endpoints (modems).

Speech Synthesizer (TN433) — non-US Installations

The TN433 provides four ports that retrieve fixed messages for Leave Word Calling, Automatic Wakeup, and Visually Impaired Attendant Console features. Examples of the the messages are good morning, time-of-day, and extension number. Each of the ports has touch-tone detection. The TN433 has administrable μ-law companding and A-law companding.

Speech Synthesizer (TN457) — non-US Installations

The TN457 provides four ports that retrieve fixed UK-accent spoken messages for Leave Word Calling, Automatic Wakeup, and Visually Impaired Attendant Console features. Examples of the the messages are: good morning, time-of-day, and extension number. Each of the ports has touch-tone detection. The TN457 has administrable μ-law companding and A-law companding.

Speech Synthesizer TN725 or TN725B

Has four ports that send voice message information to voice terminals to activate Leave Word Calling, Automatic Wakeup, Voice Message Retrieval, and Do Not Disturb features. The ports can detect tones.

Tie Trunk (TN437) — non-US Installations

The TN437 provides four ports for four-wire E&M lead signaling tie trunks. The TN437 has selectable trunk type, administrable timers, A-law companding, selectable standard reliability Type 5 signaling or E&M Type 5 signaling.

Tie Trunk (TN439) — non-US Installations

The TN439 provides four ports for two-wire tie trunks with loop disconnect signaling. The TN439 has administrable A-law companding, µ-law companding and timers.

Tie Trunk (TN458) — non-US Installations

The TN458 provides four ports for four-wire E&M lead signaling tie trunks. The TN458 has administrable A-law companding,µ-law companding and timers. The TN458 can be administered on each port for connection to Type 1 E&M standard and compatible (unprotected), Type 1 E&M compatible (protected), and Type 5 simplex.

Tie Trunk (TN497) — non-US Installations

The TN497 provides four ports for two-wire tie trunks with loop disconnect signaling. Each port can be administered for: A-law companding and µ-law companding, and timers, translatore giunzione uscente (TGU), which means “outgoing tie,” translatore giunzione entrante (TGE), which means “incoming tie,” and translatore giunzione interno (TGI), which means “internal tie.”

Tie Trunk TN760D

Has four ports used for Type 1 or Type 5 four-wire E&M lead signaling tie trunks. These trunks can be automatic, immediate-start, wink-start, and delay-dial. The TN760D serves the release link trunks required for Centralized Attendant Service.

Tie Trunk (TN2140) — non-US Installations

The TN2140 provides four ports for four-wire E&M lead signaling tie trunks. The TN2140 has continuous and dicontinuous E&M signaling, administrable A-law and µ-law companding, zero dB digital loss, and standard Type 1 and Type 5 signaling.

INTERFACE CIRCUIT PACKS

Processor Interface TN765 (G3sV2, G3vsV2, and G3iV2)

Provides four data links to interface to the 3B2 Message Server Adjunct (MSA), DCS, ISDN, and AUDIX service. Terminates BX.25 and ISDN (LAPD) protocols. The multicarrier cabinet supports two Processor Interface circuit packs that provide a total of eight links. A single carrier system supports one such circuit pack and provides four links to the processor.

POWER UNITS

631DA1 Power Unit

Provides +5 volt DC 60-amp power on the backplane on the control carrier and the port carriers.

631DB1 Power Unit

Provides -48 volt DC 8-amp and -5 volt 6-amp power on the back-planes of the carriers.

644A1 Power Unit

Provides +5 volt DC 60-amp power on the backplane on the control carrier and the port carriers of -48 volt DC powered cabinets.

645B1 Power Unit

Provides -48 volt DC 8-amp and -5 volt DC 6-amp power on the backplanes of the carriers of -48 volt DC powered cabinets.

The control carrier contains one 645B Power Unit to power both the control and port circuit packs.

WP-91153 L3 Power Supply

Provides +5 volt DC power, -5 volt DC power, -48 volt DC power, +12 volt DC power, ringing voltage, and battery charge voltage for single-carrier cabinets.

Provides circuit breakers and EMI filtering.

TN755B Power Unit

Supports applications requiring neon message waiting lamps.

676B Power Unit

Provides +5 volt DC power, -5 volt DC power, -48 volt DC power, +12 volt DC power, and ringing voltage for -48 volt DC powered single-carrier cabinets.

DUPLICATION OPTION

G3iV2, the Duplication Option provides:

- A duplicated control carrier (multicarrier cabinet) or a duplicated control cabinet (single-carrier cabinet) that houses a second Switch Processing Element (SPE). The SPE includes the following:
  - — Processor Circuit Pack TN773
  - — Network Control Circuit Pack TN777B
  - — Packet Control Circuit Pack TN778 (G3V2)
  - — Memory Circuit Pack(s) TN770
- Power source to the fans from both the control carrier and duplicated control carrier.
- Duplicated Tone-Clock circuit packs TN768 that allow the system clock to be generated from either tone-clock circuit pack. Note that if Stratum 3 Interface is required, the TN780 replaces the TN768.
- Duplicated lightguide cable between the Processor Port Network (PPN) cabinet and the Expansion Port Network (EPN) cabinets. Duplicated 9823-type lightwave transceivers at both the PPN and EPN cabinets to terminate the fiber-optic links.

For G3rV2, the Duplication Option provides the above options or a duplicated processor-only system, as follows:

- Two control carriers located in the PPN cabinet, which contain duplicate SPEs and tone-clock circuit packs
- One tone-clock circuit pack per EPN
- Duplicate expansion interface circuit packs in the PPN (for DEFINITY G3rV2 with CSS)

- Port networks interconnected by single cables
- Duplicate switch node circuit packs in the switch node carrier

In a fully-duplicated G3rV2 system, there is also, in addition to the items mentioned for the G3iV2 system, a CSS.

ENVIRONMENTAL REQUIREMENTS

(Multicarrier Cabinet)

CABINET

Fully Loaded 5-Carrier (PPN or EPN)	800 Lbs	70”x32”x28”

HEAT DISSIPATION

8000 BTU/HR	Fully Loaded 5-Carrier
5000 BTU/HR	Average 5-Carrier

AC POWER REQUIREMENTS

120 volts	60Hz	50 Amps MCC
208 volts (3-wire)	60Hz	30 Amps MCC
208/240 volts (4-wire)	60Hz	25 Amps MCC

DC POWER REQUIREMENTS

-48 volts	75 Amps

TEMPERATURE/ROOM HUMIDITY RANGE

40° To 120°F.
10% to 95% Relative Humidity at 84°F
10% to 45% Relative Humidity at 110°F

SHIPPING CARTON DIMENSIONS AND WEIGHT

42” x 32” x 76”	600 to 900 lbs

(Single-Carrier Cabinet)

CABINET

Control - Basic and Duplicated	130 Lbs	20”x27”x22”
Port or Expansion (4 cabinet stack)	500 Lbs	77’’x27”x22”

Each Port or Expansion	125 Lbs	19”x27”x22”

HEAT DISSIPATION

6800 BTU/HR	Fully Loaded 4-Cabinet System (requirements are same for PPN and EPN)
1700 BTU/HR	Average for a Single Cabinet

AC POWER REQUIREMENTS

120 volts 50-60Hz	15 Amps	1-Cabinet System
120 volts 50-60Hz	Two 15 Amps or 20 Amps	2-Cabinet System
120 volts 50-60Hz	Three 15 Amps or 20 Amps and 15 Amps	3-Cabinet System
120 volts 50-60Hz	Two 15 Amps and 20 Amps or Two 20 Amps	4-Cabinet System

DC POWER REQUIREMENTS

-48 volts 25 Amps Power Source is required for each cabinet

TEMPERATURE/ROOM HUMIDITY RANGE

(Same as multicarrier cabinet)

SHIPPING CARTON DIMENSIONS AND WEIGHT (Shipped as a single cabinet)

32” x 29.5” x 36”	180 to 200 lbs

MAXIMUM CABLING DISTANCES

Equipment	24-Gauge Wire (0.5106 mm)		26-Gauge Wire (0.4049 mm)	
	Feet	Meters	Feet	Meters
Attendant console (301A)	2400	732	1500	457
Enhanced attendant console (302A)				
With selector console				
Phantom powered	800	244	500	152
Locally powered	5000	1524	3400	1037
Without selector console				
Phantom powered	1400	427	900	274
Locally powered	5000	1524	3400	1037
510D or 515 terminals	3000	914	2200	670
513, 610 BCT, or 615 MT, 4410 or 4425 terminals (see also “data module” or “EIA interface”) 50-ft. maximum distance from terminal or BCT to module or ADU	-	-	-	-
Data modules:				
Z702AL1-DSU data module base	5000	1524	4000	1219
Z703AL1-DSU data module base	5000	1524	4000	1219
7404D data module	5000	1524	4000	1219
DTDM	3400	1037	2200	670
MPDM	5000	1524	4000	1219
MTDM	5000	1524	4000	1219
3270 data module	5000	1524	4000	1219

Equipment	24-Gauge Wire (0.5106 mm)		26-Gauge Wire (0.4049 mm)	
	Feet	Meters	Feet	Meters
EIA interface (data line circuit pack and ADU):				
19.2 kbps	2000	610	2000	610
9.6 kbps	5000	1524	4000	1219
4.8 kbps	7000	2130	6000	1827
2.4 kbps	12000	3654	10000	3050
1.2 kbps	20000	6100	16000	4875
0.3 kbps	40000	12200	30000	9150
Voice terminals:				
Analog				
8-port circuit pack (TN742, TN769), on-premises or out-of-building — same premises (notes 1 and 2)				
500- or 2500- type (note 3)	20000	6100	13000	3962
7100 series	15200	4633	10000	3050
16-port circuit pack (TN746), on-premises only — no out-of-building or bridging (note 1)				
AT&T 500 or 2500 type terminals without adjuncts	3100	945	2000	610
16-port circuit pack (TN746B), on-premises or out-of-building — same premises (notes 1 and 2)				
500- or 2500-type (note 3)	20000	6100	13000	3962
7100 series	15200	4633	10000	3050
Hybrid (TN762)				
7300 series (without aux power)	1000	305	750	229
7300 Series (with aux power)	2000	610	2000	610
Digital (TN754B) (Note 4)				
7400D series				
Phantom powered	3400	1037	2200	670
Locally powered	5000	1524	4000	1219
Digital (TN754)				
7400D series				
On-premises-only terminals	3000	914	2200	670
Out-of-bldg. same premises terminals (note 4)	2400	732	1300	396

MAXIMUM CABLING DISTANCES

Equipment	24-Gauge Wire (0.5106 mm)		26-Gauge Wire (0.4049 mm)	
	Feet	Meters	Feet	Meters
ISDN (TN556) (note 5)				
7500 series (point-to-point)				
Termination resistor (3 feet)	1900	579	1600	488
Termination resistor (250 feet)	1600	488	1300	396
8503 Set	1600	487	1330	405
MET sets (TN735)	1000	305	650	198

Notes:

1. An out-of-building, same-premises, analog terminal installation requires a carbon block, gas tube, or equivalent solid state device at each end of the interbuilding cable.
2. Only AT&T 500- or 2500-type terminals can be used off-premises to a CO.
3. Point-to-point connections and terminals are within 33 feet of the jack.

PPN CABINET TO EPN CABINET MAXIMUM CABLING DISTANCES

The maximum length of the fiber-optic cable between the PPN cabinet and the EPN cabinet is approximately 7.6 km (25,000 feet) depending on installation requirements. The requirements that determine the maximum fiber link distance for an installation are:

- The mean loss and the length of the outside plant fiber cable
- The mean loss and the length of fiber cable shipped with the cabinet (including any fiber riser cable)
- The mean loss of a lightguide cable connector ST® and the number of ST connections
- The mean loss of a rotary mechanical splice and the number of splices
- Higher order mode loss

The Premises Service Consultant (PSC) must always be consulted in the fiber link design for any remote EPN configuration.

The speed of the fiber optic cable link between the PPN cabinet and the EPN cabinet is 32.788 Mb per second.

PROTOCOLS

Protocol	Applications	Max. Data Rate (kbps)	Max. Distance (Feet)
DCP	Digital Switch to Data Endpoints	64.0	5000 (1524m) for data 3000 (915m) for voice
EIA RS-232C	PDM to AP Switch to Admin. Term. PDM to Host Computer AP to Data Set (M)PDM to Printer	19.2	50 (15.2m)
	EIA Interface (Data Line to ADU)	64 19.2 9.6 4.8 2.4 1.2 0.3	17 (5.9m) 2000 (610m) 5000 (1524m) 7000 (2134m) 12000 (3658m) 20000 (6100m) 40000 (12192m)
DS1	PBX to CO PBX to PBX PBX to Gateway PBX to Multiplexor DACs	64 kbps	1000 ft (30.4 m)
EIA RS-449	AP to AP	19.2 9.6 4.8 2.4	200 (61m) 400 (122m) 800 (244m) 1600 (488m)

Protocol	Applications	Max. Data Rate (kbps)	Max. Distance (Feet)
SSI	500 BCT to AP 400 Series Printers to AP	56.0	5000 (1524m)
BISYNC	AP Line Controller to Host Computer for Terminal Emulation (9.6)	2.4 4.8 9.6	
BX.25	Communications Interface to DCS, MSA, ISDN, or AUDIX	9.6	(See Note)
	Communications Links Between Multiple APs and With Net 1000	9.6	(See Note)
SDCPI	(M)PDM to AP	64.0	17 (5.9m)
EIA RS-366	Host Computer to ACU MTDM to ACU	64.0 64.0	50 (15.2m) 17 (5.9m)
V.35	MPDM to Data Endpoints	56.0	50 (15.2m)
Category A Coaxial	3270 Data Modules to 3270-Type Terminals or Cluster Controller	64.0	500 (152m)
	3270A Data Module in ASCII Emulation Mode	9.6	500 (152m)

Protocol	Applications	Max. Data Rate (kbps)	Max. Distance (Feet)
ISDN-PRI	Communication Interface to ISDN Interface	64*	655 (199.3m) to Network or Repeater 1310 (399.3m) PBX to PBX
ISDN-BRI	Communication Interface to ISDN Interface	64*	1000 (304m) to Network

Note: Data endpoint determines distance limitation.

* The ISDN PRI sends digitized voice and digital data in T1 frames at a 1.544 Mbps rate. Each frame consists of twenty-four 64 kbps channels plus 8 kbps for framing. This represents 23 Bearer (or B) channels plus 1 Data (or D) channel. The maximum user rate is 64 kbps for voice and data.

TRUNK SPECIFICATIONS

Letters have been left off at the end of the circuit pack specifications (for example, TN767B is called simply TN767). Assume the latest version for each case.

TRUNK TYPE	CIRCUIT PACK	SPECIFICATIONS
Central Office (CO)	TN747	Capacity:8 Circuits Transmission: 1-Way In, 1-Way Out, or 2-Way 2-Wire 600 Ohms or RC Balance Network Signaling: Ground Start or Loop Start
Auxiliary Trunk	TN763	Capacity: 4 Circuits Transmission: 1-Way In, 1-Way Out, or 2-Way 2-Wire Signaling: Loop Start on Tip and Ring; Two Additional Pairs Provide Seizure and Answer Supervision and/or Make Busy Information
Direct Inward Dialing (DID)	TN753	Capacity: 8 Circuits Transmission: 1-Way Incoming Fixed Impedance to DID Trunk Signaling: Wink or Immediate Start Accepts Touch-Tone Dialing
Tie Trunk	TN760	Capacity: 4 Circuits Transmission: 4-Wire Tip and Ring Signaling: E&M signaling.
DS1 Trunk	TN722	Capacity: 24 Trunks for Voice Grade Service 23 Trunks for Alternate Voice/Data Service or DMI, One Trunk Used for Signaling. Mode: Multiplexes 24 or 23 Trunks onto 1 Facility and Demultiplexes 1 Facility into 24 or 23 Trunks Speed: Trunks at 64 kbps, 1 Facility at 1.544 Mbps Signaling: DS1 Over 4-Wire

TRUNK TYPE	CIRCUIT PACK	SPECIFICATIONS
ISDN PRI DS1 Interface	TN767	Capacity: 24 Trunks for Voice Grade Service 23 Trunks for Alternate Voice/Data Service or DMI, One Trunk Used for Signaling. TN767 can transmit ISDN PRI I.451 signaling on any of the 24 channels transparently. Mode: Multiplexes 24 or 23 Trunks onto 1 Facility and Demultiplexes 1 Facility into 24 or 23 Trunks Speed: Trunks at 64 kbps, 1 Facility at 1.544 Mbps Signaling: DS1 Over 4-Wire
32 Channel DS1 Interface	TN464	Capacity: 32 channels for Voice Grade Service 30 channels for Alternate Voice/Data Service with Channel Associated Signaling, with Channel 16 for signaling and Channel 0 for framing Mode: A-Law or μ-Law; Multiplexes to Connect μ-Law 24 Channel Facilities with A-Law 32 Channel Facilities Speed: 2.048 Mbps Signaling: DS1 Over 4-Wire

REFERENCES

An abbreviated listing of documents for DEFINITY Communications System Generic 1 and Generic 3 is given on the following pages.

Document Number	Document Title
555-000-010	Business Communications Systems Publications Catalog
555-230-204	DEFINITY Communications System Generic 3 Feature Description
555-230-700	DEFINITY Communications System Generic 1 and Generic 3 Console Operations
555-230-104	DEFINITY Communications System Generic 1 and Generic 3 Installation & Test
555-230-511	DEFINITY Communications System Generic 3 Version 2 Traffic Reports
555-230-107	DEFINITY Communications System Generic 3 Version 1.1 and Version 2 Upgrades and Generic 3 Additions

Document Number	Document Title
555-204-105	DEFINITY Communications System Generic 3i/s/vs Maintenance Manual
555-230-105	DEFINITY Communications System Generic 3r Version 1 and Version 2 Maintenance Manual
555-230-206	DEFINITY Communications System Generic 3 System Description and Specifications
555-204-654	DEFINITY Communications System Generic 1 Implementation
555-230-653/653B	DEFINITY Communications System Generic 3 Version 2 Implementation
555-230-703	DEFINITY Communications System Generic 3 Basic Call Management Operations
555-230-498	DEFINITY Communications System Generic 3 Version 2 Transition Reference

Document Number	Document Title
555-230-496	DEFINITY Communications System Generic 3 Version 2 Capabilities
555-025-107	DEFINITY Communications System Generic 2.2 and Generic 3 Version 2 DS1/CEPT1/ISDN PRI Reference
555-230-723	DEFINITY Communications System Generic 3 Hospitality Operations
555-230-520	DEFINITY Communications System Generic 3 Call Vectoring and Expert Agent Selection
555-230-222	DEFINITY Communications System Generic 3 CallVisor ASAI Planning
555-230-220	DEFINITY Communications System Generic 3 CallVisor ASAI Technical Reference
555-230-230	DEFINITY Communications System Generic 3 Version 2 Wideband Technical Reference

Document Number	Document Title
555-230-722	DEFINITY Communications System Generic 1 and Generic 3 ACD Agent
555-230-724	DEFINITY Communications System Generic 1 and Generic 3 ACD Supervisor
555-230-601	DEFINITY Communications System Generic 3 Planning and Configuration
555-025-101	DEFINITY Communications System and System 75 and System 85 DS1/DMI/ISDN-PRI Reference

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NOTES:

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