NEC

Release Notes

NEAX®2000 IPS
NEAX®IPS^DM

Business / CCIS

3200 Series Software R6.1 Release

1. Overview

3200 Series R6.1 Software is being introduced, along with NEAX®2000 IVS upgrade to NEAX®2000 and NEAX® IPS DM. In addition, 3200 Series R6.1 Software also introduces new features and hardware to the NEAX® 2000 IPS platform and provides enhancements to the existing feature set.

2. New Business & CCIS Features

2.1 SP20 Soft-Phone (support)

Support for the SP20 Soft-Phone. The use of SP20 Soft-Phone requires IP 8 Seat License (150641) and SP 4 Seat License (150496).

2.2 INASET (support)

Support INASET basic applications without OAI. The use of INASET requires IP 8 Seat License (150641).

2.3 Bandwidth Control

This feature allows assigning an available bandwidth threshold for VoIP Traffic within a location and between locations, and to restrict Outgoing/Incoming Calls when the VoIP Traffic exceeds the threshold. When the VoIP Traffic over CCIS exceeds the threshold, the call can be routed to Legacy Trunks (TDM Network). When exceeding the threshold, the system can store fault information and provide external alarm indication.

2.4 Dterm IP Security (MD5)

When the IP Enabled Dterm is registered in the NEAX 2000 IPS, the Login Code (Station Number) and Password entered from the terminal can be encrypted.

Login Code: Proprietary algorithm
Password: Proprietary Algorithm or MD5 Algorithm

MD5 is an algorithm defined in RFC 1321 from the IETF. The Encryption Algorithm can be assigned on a system-wide basis by system programming. The encryption is available in both Login Method (with password protected) and Automatic Login Method (MAC Address Authentication).

2.5 SNMP Support

Simple Network Management Protocol (SNMP) is a standard protocol for TCP/IP Network Management, which enables Network Management Application Software to query a Management Agent (network device such as router, PC Host, and Hub) using a supported Management Information Base (MIB). The MIB is a database of network performance information that is stored on network devices. The IPS can support SNMP and standard MIB (MIB-II, defined in IETF RFC 1213).

2.6 VLAN Tagging

NEAX 2000 IPS supports VLAN-based on IEEE 802.1Q (Tag VLAN), Tag-VLAN provides identifier called "TAG" in the MAC header of the IP packet and virtually divides the broadcast domain by using this identifier. VLAN lessons the possibility of packet collision and prevents voice quality degradation from lack of available bandwidth.

2.7   PS Location Indication- Dterm LCD

Allows the assignment of up to 16-digit name that is associated with CS/ZT assigned in CM10.   This name can then be displayed on LCD of Dterm and Attcon to identify the location of the PS user.

2.8   Supports Dterm Series-i (Mode 75 & 85)

Mode 75 provides Dterm Series III button layout.
Mode 85 adds the following new functions:
• Adjustment bar appears on LCD Display when adjusting Ringer Volume.
• Adjustment bar appears on LCD Display when adjusting LCD Contrast.
• Power saving mode (Not available in DtermIP)
• Ring Tone patterns increased from 3 patterns to 8 patterns. Selection of ringer tones is accomplished by pressing Feature key + 3 on the keypad. Repeated pressing of 3 on the keypad will advance through tone selection. Tone selection is heard on speaker, volume can be adjusted while tone is present.
• Three new dedicated function keys:
       Directory: Dial by Name for Station Speed Dialing
       Message: Message Waiting Search
       MIC: Microphone On/Off key with LED

2.9   Dterm IP Program Download

This feature provides the method to download the latest firmware program of IP Enabled Dterm from the FTP/TFTP server automatically via system programming.
Program download can be activated by:
• Appointed Time
• Time of Login
• Designated Terminals

3.   Enhanced Business and CCIS Features

3.1   Enhanced IP PAD

32IPLAA IP PAD-B (151247) is a new version of IP PAD with integrated G.711 that does not require the 16VCT. 16VCT is only required to support G.723 or G.729 compression, and the new IP PAD will provide up to 32 G.711 channels.

Previously – IP PAD (151227) requires the 16VCT (151226) to support 16 channels of G.711, G.723 and G.729.

3.2   Wireless PS Roaming over Peer to Peer CCIS & IP Trunk CCIS

Supports PS Roaming over Peer-Peer CCIS to have the same function and features as T1 CCIS & IP Trunk CCIS PS Roaming.

Previously – PS Roaming only supported via T1 CCIS.

3.3   IP Terminal Registration

This enhancement provides backup of registration data and automatic registration when the PBX system is reset.

Previously – If system reset occurs, the IP Terminal needs to manually login again.

3.4   Call Forwarding at IP Logout

This feature allows the user to set Call Forward destination (via Feature Access Code) when IP Terminal is in Logout status. Available for Dterm IP, INASET and SP20.

Previously – When IP Terminal is in Logout status, calling party receives RBT.

3.5   Call Forward – PS Out of Zone

This feature allows the PS user via access code to assign Call Forward destination when out of zone or power off occurs.

Previously – Only one destination per tenant can be assigned via system data.

3.6   3 / 4 Party Conference

This enhancement allows two incoming and one outgoing call to be conference with the Dterm user.

Previously – Only one incoming call and up to two out going calls can be conference with the Dterm user.

3.7   Scrolling Directories

This enhancement extends the time out from 10 to 30 seconds when entering name. Also provides system data setting to generate/not generate tone when entering name and number,

Previously – Time out for name registration is fixed at 10 seconds. When name/number is registered, the system always generates tone.

3.8   Name Display Analog Station – CCIS

This enhancement will provide for calling name display to analog device over CCIS.

Previously – Only calling number display was provided to analog stations over CCIS.

3.9   ISDN Name Display for DMS 100/250 (Canada)

Provides Calling Name Display from DMS Central Office.

Previously – Only Calling Number Display was provided from DMS Central Office.

3.10 Whisper Page

Enhancement was made to allow Whisper Page to be activated to a Terminal that has Call Forward-Busy set. Operating Procedure for Whisper Page has been changed. (Off-Hook + Whisper Page Feature Code + Station Number)

Previously – When dialing a busy station that had Call Forward-Busy set, the call would forward to the destination. (Off-Hook + Station Number + Receive Busy + Whisper Page Feature Code)

3.11 Direct Privacy Release

This feature allows entry to line key that is in the P-RLS state, without first being on a My Line or Sub Line.

Previously – Currently you must be on a My Line or Sub Line before entering a line key that is in the P-RLS state.

3.12 H.323 Trunk

NEAX 2000 IPS supports connection to an IP Network with H.323 Protocol via IPT Card and 4VCT Cards. For Voice over IP (H.323), the NEC GK1000 H.323 Gatekeeper software running on an external server is required for converting between IP Address and Station Number.

Required Hardware –150135 SPN-IPTB-B(H323) max 8 per system, 150136 SPN-4VCTI-B(H323) max 3 per IPTB/ 96 channels per system, CCIS Link software key and IPT software key per IPTB. Also required is NEC GK1000 server software.

Previously – IP Trunk card supported Point to Multipoint CCIS networking.

System Outline of H.323 Connection
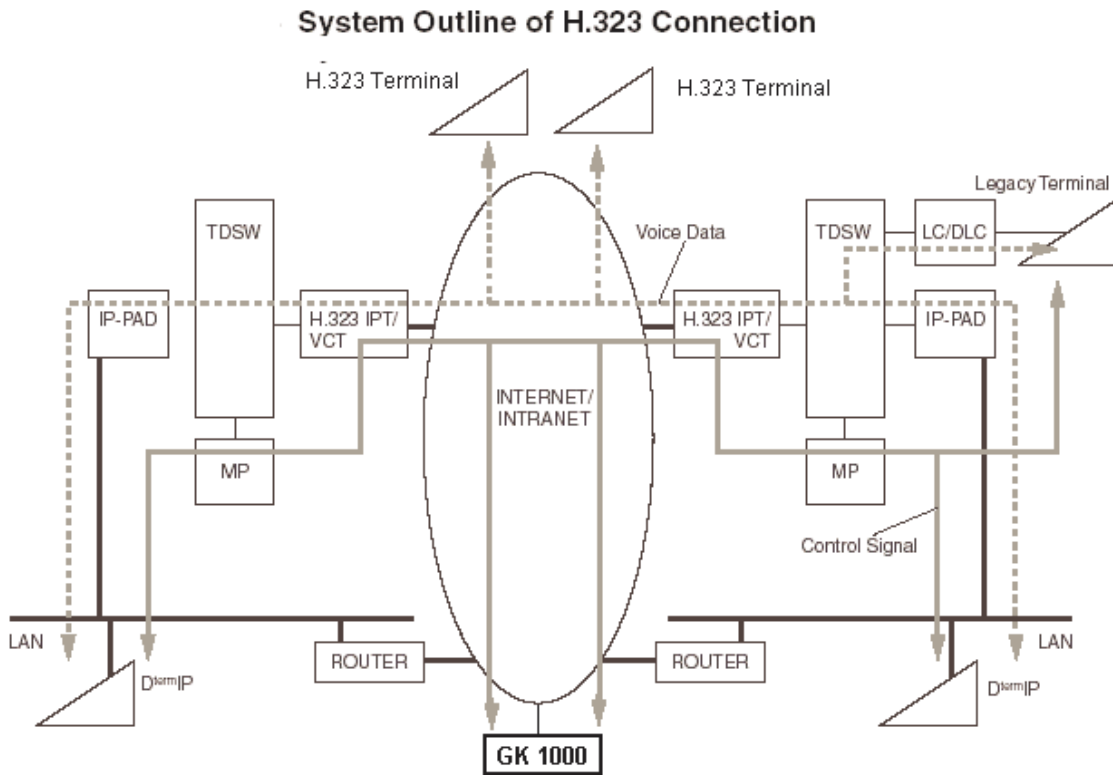
4. New Software & Hardware

Part Number	Description	Comments
New Software		
150495	**64-Port System Software 3200 Series R6.1 (FD)**	The software supports 5 ISDN DCH (PRI), 48 ISDN BRI Trunk Spans, 5 T1/E1 Span, (3) Remote PIMs and 48 LT Ports.
150496	**Soft-Phone 4 Seat License**	Each 150496 can support up to four simultaneous sessions via the SP-20 Soft-Phone. The SP20 Soft-Phone also requires IP 8 Seat License (150641), i.e. to support eight simultaneous soft-phone sessions would require quantity of two 150496 plus quantity of one 150641.
New Hardware		
151247	**SPN-32IPLAA IP PAD-B**	IP to TDM gateway, with integrated G.711 CODEC. Can be used in conjunction with 16VCTA (151226) and 16VCTAA (151236)
151236	**SPN-16VCTAA IP PAD-A**	Optional compression card supports G.723.1, G.729a. Can be used in conjunction with 32IPLA (151227) and 32IPLAA (151247)
150135	**SPN-IPTB-B (H323)**	H.323 IP Trunk supports up to 12 channels. Max 96 channels eight IPTB per system. Also requires CCIS and IPT key per IPTB and NEC GK1000 software.
150136	**SPN-4VCTI-B (H323)**	H.323 Voice Channel Translator with IP Trunk Bus Cable. Used with SPN-IPTB-B (H323). Max three VCTI-B per IPTB-B.
151230	**SPN-AP00B DBM (AP)**	Database for CCIS wireless roaming supporting T1 CCIS, IP Trunk CCIS and Peer-to-Peer CCIS.
151293	**SPN-4BRTA-C (AP)**	4-port BRI Trunk (ST) requires NTI interface

5. IP PAD Compatibility Table

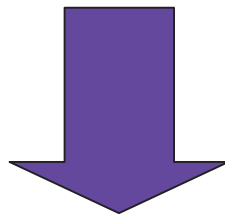|	151226 SPN-16VCTA IP PAD	151236 SPN-16VCTAA IP PAD-A
151227 SPN-32IPLA IP PAD	Required G711/G.729/G.723	Required G711/G.729/G.723
151237 SPN-32IPLA IP PAD-A Supports G.711	Optional G711/G.729/G.723	Optional G711/G.729/G.723
151247 SPN-32IPLAA IP PAD-B Supports G.711	Optional G711/G.729/G.723	Optional G711/G.729/G.723
151226 SPN-16VCTA IP PAD	Yes	Yes
151236 SPN-16VCTAA IP PAD-A	Yes	Yes

5.1 32IPLA IP PAD

You can mix 151226 SPN-16VCTA IP PAD with 151236 SPN-16VCTAA IP PAD-A on the same SPN-32IPLA card. Each SPN-32IPLA card in the system can accommodate up to quantity two of 151236 SPN-16VCTA IP PAD or 151236 SPN- 16VCTAA IP PAD-A.

6. IP-TDM Gateway Function

IP-TDM Gateway function with PBX software version 3000 Series R4.1		
	151226 SPN-16VCTA IP PAD Or 151236 SPN-16VCTAA IP PAD-A	151226 SPN-16VCTA IP PAD Or 151236 SPN-16VCTAA IP PAD-A
151227 SPN-32IPLA IP PAD Non functional with out SPN-16VCTA	**Required** Qty 1 for combination of 16 G711, G.729a, and G.723.1 Channels	**Required** Qty 2 for combination of 32 G711, G.729a, and G.723.1 Channels

IP-TDM Gateway Function With PBX Software Version 3200 Series R6.1		
	151226 SPN-16VCTA IP PAD Or 151236 SPN-16VCTAA IP PAD-A	151226 SPN-16VCTA IP PAD Or 151236 SPN-16VCTAA IP PAD-A
151247 SPN-32IPLAA IP PAD-B Or 151237 SPN-32IPLA IP PAD-A Supports 32 G.711 Channels	**Optional** Qty 1 for combination of 16 G.729a, G.723.1 Channels and 16 G.711 Channels	**Optional** Qty 2 for combination of 32 G.729a, G.723.1 Channels

7. New Sales Support Documentation

Part Number	Description	Comments
152050	**NEAX 2000 IPS RFP GUIDE**	(Perfect Bound) Request For Proposal Guide
152051	**NEAX 2000 IPS CONFIGURATION GUIDE**	(Three Ring Binder) Configuration Guide
152052	**NEAX 2000 IPS GENERAL DESCRIPTION**	(Three Ring Binder) General Description (capacities, features, etc.)

8. New Technical Documentation

Part Number	Description	Comments
152033	NEAX 2000 IPS SYSTEM MANUAL	(Perfect Bound) Installation manual contains VoIP programming information.
152034	NEAX 2000 IPS UPGRADE GUIDE	(Loose Leaf Shrink Wrapped w/Tab) Guide for upgrading NEAX 2000 IVS^2 to NEAX 2000 IPS
152035	NEAX 2000 IPS OAI SYS MANUAL	(Loose Leaf Shrink Wrapped w/Tab) Open Application Interface manual
152036	NEAX 2000 IPS CCIS FEATURE & SPEC	(Loose Leaf Shrink Wrapped w/Tab) Networking CCIS features
152037	NEAX 2000 IPS ISDN FEATURE & SPEC	(Loose Leaf Shrink Wrapped w/Tab) ISDN features
152038	NEAX 2000 IPS WCS FEATURE & SPEC	(Loose Leaf Shrink Wrapped w/Tab) Wireless features
152039	NEAX 2000 IPS BUS/HOTEL/DATA FEAT & SPEC	(Loose Leaf Shrink Wrapped w/Tab) Business/Hotel features
152040	NEAX 2000 IPS CCIS SYS MANUAL	(Perfect Bound) CCIS Systems and Programming manual
152041	NEAX 2000 IPS COMMAND MANUAL	(Three Ring Binder) List of COMMAND for 2000 IPS
152043	NEAX 2000 IPS FEATURE PROGRAM	(Three Ring Binder) Programming manual for Business/Hotel features
152044	NEAX 2000 IPS INSTALL MANUAL	(Perfect Bound) Installation guide
152048	NEAX 2000 IPS RETROFIT SYS GUIDE	(Loose Leaf Shrink Wrapped w/Tab) Guide for upgrading NEAX 2000 IVS to NEAX 2000 IPS
152025	NEAX 2000 IPS DM INSTALLATION	(Perfect Bound) Distributed Model Installation Guide.
152055	NEAX 2000 IPS WCS SYS MAN (PCS)	(Perfect Bound) Wireless Systems and Programming manual

9. NEAX® 2000 IVS Upgrade to NEAX® 2000 IPS

9.1 IVS to IPS Upgrade Overview

3200 Series R6.1 Software provides the ability to migrate their NEAX®1000 IVS or NEAX®2000 IVS to the new software platform released with the NEAX®2000 IPS. The upgrade will provide the path for our customer to take advantage of future software enhancements. Future upgrades for a upgraded systems will be performed by simply loading new 64 Port System Software (FD).

The migration to the Series 2000 platform is made possible by replacement of the Main Processor (MP) and Firmware Processor (FP) cards in the NEAX®1000 IVS or NEAX®2000 IVS system.   The following table provides information on which boards must be replaced.

9.2 IVS Board Replacement Table

The Following IVS Boards Must Be Replaced		
Description	**NEAX 2000 IVS Board**	**NEAX 2000 IPS Board**
Main Processor	SPN-CP00 /SPN-CP03 →	SPN-CP26A
Firmware Processor	SPN-CP01 →	SPN-CP17
SMDR/MCI/PMS/H&M	SPN-AP00A →	SPN-AP00B
TCP/IP Application Processor	SPN-AP01 SPN-CC00 /SPN-CC01 →	PZ-M606A
The Following IVS Board Replacement is Optional		
CS/ZT Handler *Note 1*	SPN-SCO3 8CSH (AP) →	SPN-SCO3B 8CSH-A (AP)
ISDN PRI Handler *Note 2*	SPN-SCO1 DCH-C (AP) →	SPN-24PRTA-C (AP)
1.5M Digital Trunk *Note 2*	SPN-24DTAA-C (AP) →	

Note 1: Optionally replace SC03 if "Short Text Message" for wireless PS is required. All new feature development will be applied to SPN-SC03B 8CSH-A (AP)

Note 2: Optionally replace DCH and 24DTAA if "ISDN PRI Name Display" is required. All new feature development will be applied to SPN-24PRTA-C (AP)

9.3 IVS Upgrade Kits

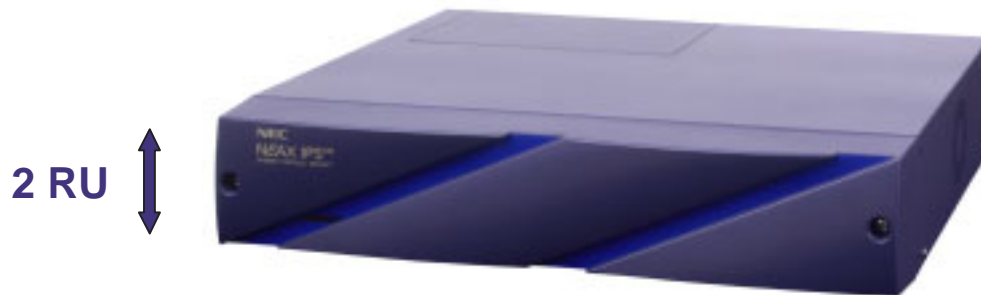| Part Number	Description
150653	**IVS to IPS TDM UPGRADE KIT (512)** SPN-CP26A (CPU) 64 Port Sys Software - 3200 Series R6.1 KEY KEEPER (FD) LT Port 48/64 to 512 IPS RETROFIT SYSTEM GUIDE MATWorX STUDIO MATWorX-2000 MATWorX-NEAX2000 IVS Clipboard

150654	**IVS to IPS 16 Seat IP UPGRADE KIT (512)**
	
	SPN-CP26A (CPU)
	
	64 Port Sys Software - 3200 Series R6.1
	
	PZ-M606-A
	
	SPN-32IPLAA IP PAD-B
	
	KEY KEEPER (FD)
	
	    LT Port 48/64 to 512
	
	    16 Seat Licenses
	
	IPS RETROFIT SYSTEM GUIDE
	
	MATWorX STUDIO
	
	MATWorX-2000
	
	MATWorX-NEAX2000 IVS Clipboard

10. NEAX® IPS DM

10.1 NEAX® IPS DM Overview

The NEAX Internet Protocol Server Distributed Model (IPS^{DM}) is the complementary counterpart of the NEAX® 2000 IPS. Whereas the NEAX® 2000 IPS was designed primarily for a mixed (i.e., TDM and IP) converged IP network, the IPS DM was designed primarily for pure converged IP networks. It supports peer-to-peer IP Telephony connectivity both within the LAN and across the WAN.
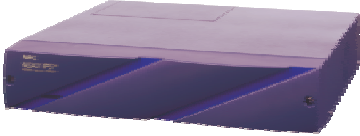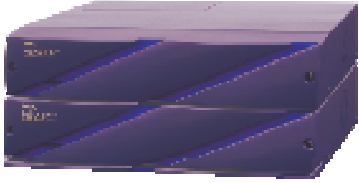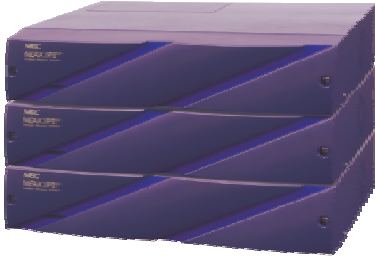
10.2 Advanced Voice Services, Flexible Networking

The NEAX® IPS^{DM} supports all the same features and functionality of the NEAX® 2000 IPS, providing voice communication services and features superior to today's IP based telephone systems. It is designed primarily for IP Networking but also supports traditional analog trunks and digital trunks for connection to the PSTN. Pure IP switching provides communications between IP D*terms* and also provides CCIS network connections with up to 255 NEAX® 2000 IPS and other IPS^{DM} systems. TDM switching provides for communication between legacy stations and trunks.

10.3 Scalable - Voice-Over-IP & Legacy TDM

The IPS^{DM} supports up to 448 peer to peer IP stations and 40 legacy TDM ports in a single modular chassis. Up to three chassis can be stacked providing maximum capacity of 120 legacy TDM ports while still supporting as many as 320 peer to peer IP stations. It uses the same CPU, line/trunk cards, application processor cards and software of the NEAX® 2000 IPS and comes equipped for 19" rack mounting.

2 RU

Virtual PIM 448 IP Ports		Virtual PIM 384 IP Ports		Virtual PIM 320 IP Ports		
				40 LT Ports	24 Virtual LT Ports	PIM 2
		40 LT Ports	24 Virtual LT Ports	40 LT Ports	24 Virtual LT Ports	PIM 1
40 LT Ports	24 Virtual LT Ports	40 LT Ports	24 Virtual LT Ports	40 LT Ports	24 Virtual LT Ports	PIM 0

256 AP Ports

256 Virtual Stations

10.4 NEAX® IPS^DM Product Line-Up

Part Number	Description	Comments
System / Expansion Packages		
150082	**IPS DM 8 SEAT IP SYS PKG** IPS DM PIMMF AC CORD-E-U RACK MOUNT KIT (U) SPN-CP26A (CPU) PZ-M606-A SPN-32IPLAA IP PAD-B 64 Port Sys Software - 3200 Series R6.1 KEY KEEPER (FD) 8 Seat Licenses MATWorX STUDIO MATWorX-2000	Provides for up to 32 Legacy ports and 448 IP stations per system. Comes with 8 IP Seat Licenses. Additional IP Seat Licenses are required beyond 8.
150083	**IPS DM EXPANSION MODULE 1** IPS DM PIMMF AC CORD-E-U RACK MOUNT KIT (U) JOINT BRACKET KIT BUS-0.4 CA-PA KEY KEEPER (FD) LT Port 48/64 to 256	Adds 40 additional Legacy ports for a total of 72 and supports up to 384 IP station per system
150084	**IPS DM EXPANSION MODULE 2** IPS DM PIMMF AC CORD-E-U RACK MOUNT KIT (U) JOINT BRACKET KIT BUS-0.4 CA-PA PN-CP19	Adds 40 additional Legacy ports for a total of 112 and supports up to 320 IP station per system

Part Number	Description	Comments
New Hardware		
150137	**PN-4LCAA**	4 Circuit Analog Station Card with onboard Ring Generator. For use with NEAX IPS DM only, not for use with NEAX1000/ 2000 IVS/IVS2/IPS systems.
151493	**PZ-4PFTA**	4 Circuit Power Fail Transfer, one can be mounted in each IPS DM PIMMF (includes mounting hardware and POWER CA-PFT.)
151236	**SPN-16VCTAA IP PAD-A**	Voice Channel Translator supports G.729a and G.723.1 compression. Two can be mounted with each SPN-32IPLA IP PAD. Maximum two per Module six per system.
151039	**BATT CA-P5**	External Battery Back-Up Cable
Replacement Hardware (Included with System Package/ Expansion Modules)		

150008	**IPS DM PIMMF**
	    PZ-PW131
	    109P0624H7D09 FAN
		Port Interface Module (PIM) without Ringer. Each PIM supports 40 physical ports (5 LT/AP card slots). Maximum three PIM's per system. One PIMMF is included with System Package and each Expansion Module.

151037	**AC CORD-E-U**	AC cable, one is included with each PIMMF
151038	**BUS-0.4 CA-PA**	Bus Cable connects between IPS DM PIMMF. One is included in Expansion Module 1 and Expansion Module 2.
151377	**RACK MOUNT KIT (U)**	Two 19" rack-mounting ears, quantity two 1" ears. One set is included with System Package and each Expansion Module. Note wall mounting is not available.
151378	**JOINT BRACKET KIT**	Brackets for joining multiple PIMMF together. For use when not rack mounting. One set is included in Expansion Module 1 and Expansion Module 2. Note wall mounting is not available.

Part Number	Description	Comments
151494	**PZ-PW131**	Main Power Supply without Generator and Message Waiting. One is included in each PIMMF.
151306	**109P0624H7D09 FAN**	Cooling FAN, one included in each PIMMF
151434	**SPN-CP24A (CPU)**	Main Processor, provides LAN control function, DRS, built-in FP/OAI/SMDR/DAT/DK/PLO/PB receivers and IPT. One included with System Package.
151434	**PN-CP19**	Firmware Processor, mounts in third PIMMF. One included with Expansion Module 2. For use with NEAX IPS DM only, not for use with NEAX1000/ 2000 IVS/IVS2/IPS systems.
151492	**PZ-M606-A**	Ethernet Control Card, mounts on SPN-CP24A to transmit/receive signals of TCP/IP protocol. cc
151247	**SPN-32IPLAA IP PAD-B**	32 Channel IP PAD supports G.711 and provides gateway function between legacy line/trunk and IP stations. One can be mounted in each PIMMF, maximum three per system. Has RJ45 receiver for connection of 10/100 Base-T. One is included with System Package.
New Technical Documentation		
152025	**NEAX IPS^{DM} INSTALLATION GUIDE**	Installation guide providing installation instructions. Use NEAX 2000 IPS manuals for programming and applications.

10.5 IPS DM PIMMF Layout

REAR VIEW

LTC1 LTC0

FAN Access

AC Input

Power On/Off

BUS0 connects PIM0 to PIM1 BUS1

BUS1

BUS2 connects PIM0 to PIM2 BUS2

FRONT VIEW

LT1/AP1	LT4/AP4
LT0/AP0	LT3/AP3
MP/FP	LT2/AP2

Main Processor / Firmware Processor Card Slot

Line & Trunk / Application Processor Card Slots

PZ-4PFTA mounts in rear of PIM

LTC0 cable to MDF

AC Input Cable

4PFTA 4 PF

Cables from CP-24A and 32IPLA IP PAD to LAN

10.6 IPS DM Specifications

ITEM	SPECIFICATIONS
Dimensions (unit: inches)	17" Wide x 13" Deep x 3.5" High (each PIM = 2RU)
Weight	Approximately 15.5 lbs with all card slots occupied
Input Power	AC 100V – 240V 50 Hz/60 Hz (Automatically adjusted)
Output Power	-27Vdc 3A, +5Vdc 5.5A (No Ring Generator, no /MW Supply)
Card Slots	6 slots per PIM (1 slot for MP/FP, 5 slots for LT/AP)
Operating conditions	Ambient Temperature: 41º F to 104º F Relative Humidity: 20% to 80%
Cooling	Cooling FAN
Safety Standard	Complies with UL60950, CSA22.2 No.950, EN60950, AS3260
EMC	Complies with VCCI Class A, FCC Part 15 Class A, EN55022 Class A, AS/NZS 3548 Class A.
FCC Part 68 Registration	PBX = AY5USA-21582-PF-E Hybrid = AY5USA-21583-MF-E Key System = AY5USA-21584-KF-E
Ringer Equivalence	(REN) is 1.6B; the required USOC jacks are RJ21X, RJ2EX, RJ2GX, and RJ49C.

10.7 Circuit Card Conditions

The NEAX® IPS^{DM} is designed as an IP Communication System configured in a compact sized module. The IPS^{DM} utilizes the Control Cards, Line Cards, Trunk Cards and Application Processor Cards of the NEAX® 2000 IPS. The NEAX® IPS^{DM} supports legacy Time Division Switching (TDM) and can accommodate a limited amount of legacy terminals. This section outlines cards which cannot be used on the IPS^{DM} and conditions that differ from the NEAX® 2000 IPS.

- ♦ The following cards cannot be used in the IPS DM;
  - PN-4LLCB (Analog Caller ID station Card)
  - PN-4RSTF (Analog Caller ID Register Sender)
  - PZ-PW122 (-48vdc Power Card)
  - PN-8PFTB (Power Fail Transfer)

- ♦ Wireless ZT must use local power.

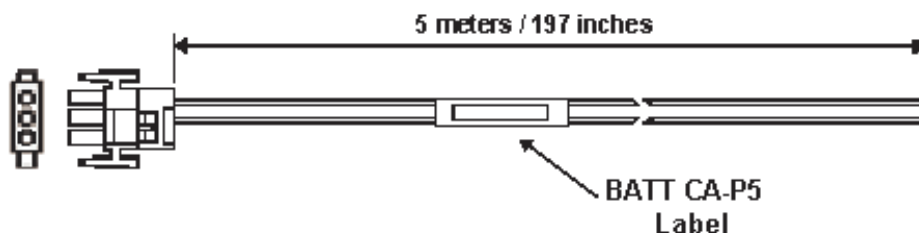- ♦ SN716 Desk Console can be used with PZ-PW00 or local power.

A new single line station card (PN-4LCAA) was designed specifically for use in the IPS^{DM}. The PN-4LCAA has an on board ring generator that can be provided to the Backplane Wiring Board (BWB) via a jumper on the PN-4LCAA. Max one mounted per PIM with jumper on, with jumper off you can populate all available slots with PN-4LCAA. With this jumper in the on position it allows the use of PN-4LCAA plus PN-8LCAA card(s) for higher density of analog stations. Applications requiring Message Waiting (MW) can be accommodated by use of PN-4LCAA and PN-4LCD-A (4LCD-A has on board MW supply).
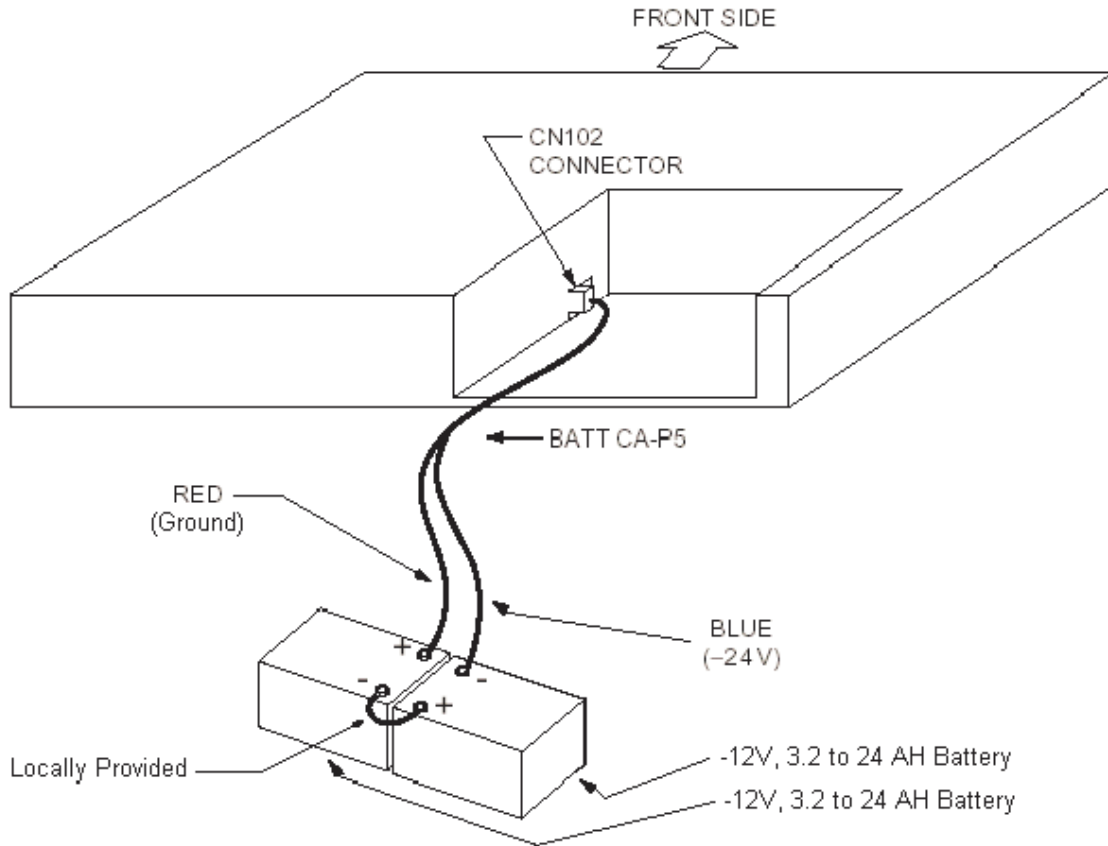
10.8 Battery Back-Up

The NEAX® IPS^{DM} is designed to be used with a UPS system, for battery backup connect two 12V batteries totaling -24V external to each PIM. The CN102 connector of PZ-PW131 is for connecting the BATT CA-P5. The BATT CA-P5 comes with opened ends to connect external batteries.
- Batteries should be sealed type only and are to be locally provided.
- Use locally provided solder less terminal connectors for the ends of BATT CA-P5.

Recommended 12V Batteries		
30 to 120 minutes (3.2 to 3.4 AH)	YUASA	Type NPH-3.2-12
	MATSUSHITA	Type LCR-2V3.4NE
120 to 360 minutes (24 AH)	YUASA	Type NP-24-12B
	MATSUSHITA	Type LCL-12V-24

5 meters / 197 inches

BATT CA-P5
Label

Without Power Fail Transfer Mounted

FRONT SIDE

CN102 CONNECTOR

BATT CA-P5

RED (Ground)

BLUE (−24 V)

Locally Provided

-12V, 3.2 to 24 AH Battery

-12V, 3.2 to 24 AH Battery

With Power Fail Transfer Mounted

CN102 CONNECTOR

POWER CA-PFT

PFT1 CONNECTOR

PZ-4PFTA

CN102 CONNECTOR

PZ-4PFTA

BATT CA-P5

FRONT SIDE

CARD SLOTS

CARD SLOTS

LTC1

LTC0

AC/DC POWER

PZ-4PFTA

CHAMP CONNECTOR

Battery Connector

MDF CABLE

BATT CA-P5

TO MDF (INSTALLATION CABLE)