

Empowered by Innovation

**NEC**

*Aspila*  
**TOPAZ**  
Intelligent Hybrid System

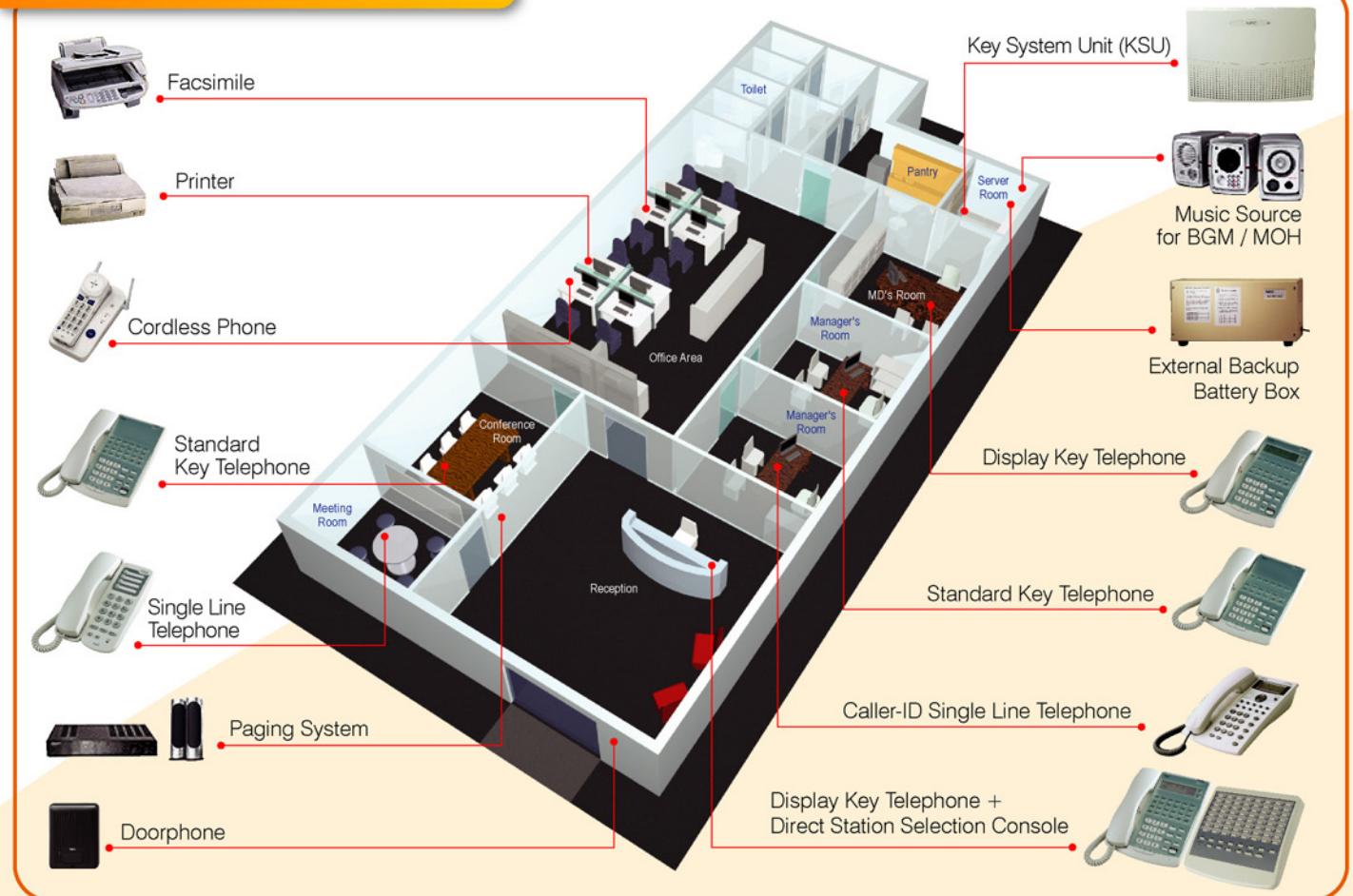
The affordable, expandable solution for  
expanding small and medium businesses



# Aspila Topaz - Smart Solutions, Simply Affordable

Aspila Topaz is a cutting-edge Digital Key Telephone System that accommodates immediate and emerging business requirements of the small and medium enterprises (SMEs), small offices and home offices (SOHOs). The scalable intelligent telecommunication tool is designed to effectively and cost-efficiently meet the increasing needs of growing SMEs / SOHOs.

## System Connection Diagram



## High-performance Design



### Scalability

Aspila Topaz allows for expansion from the minimum of 3 trunks / lines and 8 extensions to the maximum of 27 trunks / lines and 72 extensions without compromising efficiency as your company grows.



### Full Hybrid Ports

Aspila Topaz's Full Hybrid Ports allow seamless integration of single line telephones, proprietary key telephones, modems, facsimiles, answering machines and more. You have the choice to select the type of terminals that best fits your needs.



### Digital Architecture

Aspila Topaz's Non-Blocking System uses high performance digital switching architecture that allows limitless extension to extension and intercom calls simultaneously. It also supports Euro-ISDN BRI (Integrated Services Digital Network Basic Rate Interface)\* that allows for the integration of voice and data via telephone networks.



### Voice over Internet Protocol (VoIP)

Aspila Topaz's VoIP\* feature is ready to take advantage of the converging world between voice and data communication by integrating and transmitting voice, fax and data over packet-switched IP-based networks.

Aspila Topaz supports both commonly used standards in IP communications, namely H323 and Session Initiation Protocol (SIP)\*\*.

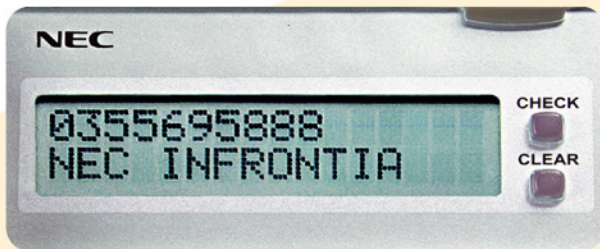
\* VoIP features require optional items.

\*\* Compatibility of SIP is subject to the carrier network subscribed.

## Expert Call Handling

### Built-In Caller-ID

Caller-ID feature enables your proprietary display key telephone or Caller-ID single line telephone to show the caller's number and/or name before you answer an incoming call. You can review the historical records of up to 20 received / missed calls for each proprietary display key telephone.



### Least Cost Routing (LCR) / Automatic Route Selection (ARS)

If you engage more than one telephone service provider, Aspila Topaz will automatically utilize pre-programmed LCR / ARS table and type of operation to identify the most competitive call rates when routing outgoing calls.

### Call Forwarding

Call Forwarding feature enables incoming calls to be redirected automatically to another extension or an external number (mobile phone, home and etc.) when you are not available to answer the calls. You may select the type of call forwarding condition (Immediate / when Busy / when No-Answer), designated number and activate it easily from your extension.

In addition, you may choose to redirect an incoming call manually to a pre-assigned extension by simply pressing a Function Key without answering the call.

### Group Listening

Group Listening function allows you to broadcast your conversations via built-in speaker on the proprietary display key telephone. This enables your surrounding parties to listen to the conversation.



### Hotline

This function allows you to call a pre-assigned extension or external number by just lifting the handset without dialing any numbers. This is an ideal feature for lobby phones, security guard houses, parking attendants, and etc.

### Day / Night Mode

Aspila Topaz provides up to 8 system modes which can be switched either automatically or manually. Each mode can be configured to redirect calls towards specified extensions or groups that match your requirements effectively.

### Multiple Ring Tones

Aspila Topaz key telephone comes with 13 ring tones which can be selected to personalize the ring tone of your extension and distinguish external calls from internal calls.

### Virtual Extension

Virtual Extension feature enables one proprietary key telephone to have multiple extension numbers and it may be shared by multiple users. Each Virtual Extension number is distinguishable by assigning a different ring tone.

### Conference

Conference function allows you to setup a teleconference between internal and/or external parties. You may establish a multiple party teleconference up to total of 32 participants simultaneously in multiple groups with a maximum of 8 participants per group.

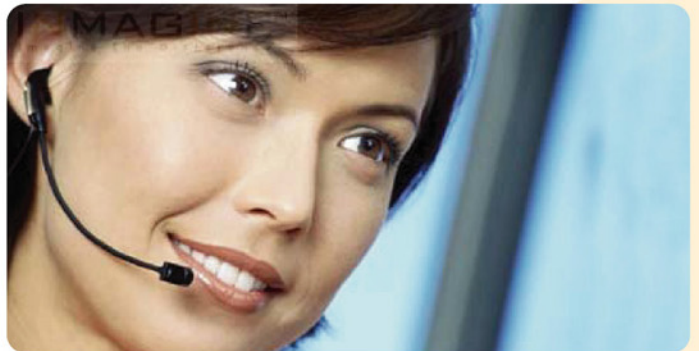
There are two methods of organizing a teleconference; you may call and invite each participant or you may request all participants to dial a given designated Conference Number to join the teleconference\*.

*\*Optional item (DSPDB) is required.*

### Uniform Call Distribution (UCD)

Uniform Call Distribution (UCD) feature handles incoming calls efficiently by distributing them to extension groups uniformly. Users may turn on "Break Mode" to avoid incoming calls temporarily and redirect the incoming calls to another available extension automatically. In the event that all extensions are busy, the system has an option to announce a queuing message\* to the callers while the calls are being queued.

*\*Optional item (DSPDB) is required.*



### Computer Telephony Integration (CTI)

Aspila Topaz's Computer Telephony Integration (CTI) readiness allows you to connect your phone system to your personal computer (PC) via the Local Area Network (LAN) by using Telephony Application Program Interface (TAPI) and enables the connected PC as a CTI terminal.

With the CTI capabilities of Aspila Topaz, you will be able to view your callers contact details before you answer the call.

*\*CTI features require optional items.*



## Enriched Hospitality

### Hotel / Motel Features\*

Aspila Topaz has the features to meet the hospitality services needs of a small hotel or motel. Some of the innovative features are Check-in/Check-out, Wake-up Call, Message Waiting, Do Not Disturb, Single Digit Access, Toll Restriction Class Change of each room, Room-to-Room Call Restriction, Room Status Indication, Room Status Output and Room Monitoring.

\*Software License is required to activate these features.



### Music On Hold (MOH)

MOH (Music On Hold) sends music to calls on hold to inform your caller that their call has been put on hold and not forgotten. You may use one of the 3 built-in music or record your own music or announcement\* to have a more personal touch for your callers. Alternatively, you may also connect the system to an external music device such as a radio or CD player as the source of MOH.\*\*

\*Optional item (DSPDB) is required.

\*\*Optional item (2PGDU) is required.

Disclaimer: In accordance with copyright law, a license may be required if radio, television broadcasts or music other than material not in the public domain are transmitted through the Music On Hold (MOH) feature of telecommunication systems. NEC Infrontia Asia Pacific hereby disclaims any liability arising out of the failure to obtain such a license.

## Cost Management & Security

### Toll Restriction

Toll Restriction feature prohibits specified extensions from accessing unauthorized numbers which have been pre-programmed into the restriction table. A total of 15 restriction classes can be assigned to each extension.

### Walking Toll Restriction

Walking Toll Restriction feature allows specific users to override Toll Restriction Class temporarily by entering their Walking Toll Restriction password. A maximum of 500 Passwords may be registered for multiple users.

### Extension Lock (Dial Block)

Extension Lock (Dial Block) feature prevents unauthorized personnel from making calls from your extension while you are away from your desk. You may switch on or off this feature by entering a security code.

### Long Conversation Alarm / Cut-off

Long Conversation Alarm feature provides callers a beeping reminder tone periodically during a long continuous telephone conversation. The Long Conversation Cut-off feature is used to disconnect external calls forcefully after the pre-programmed time limit. Both of these features enable you to manage your communication cost effectively.

### Station Message Detail Recording (SMDR)\*

SMDR feature enables the system to record the information of incoming, outgoing and transferred calls such as date, time, dialed number and call duration. These call information may be output to printers and/or personal computers to monitor telephone usage and user's productivity as well as manage communication cost.

\* Optional item (EXIFU) is required.

## Interactive Voice Assistance

### Voice Response System (VRS)\*

Voice Response System (VRS) provides various voice facilities namely Automated Attendant, Voice Announcement, Greetings, and others to increase your productivity and efficiency.

Aspila Topaz provides multiple levels of Automated Attendant\*\* that guides callers to reach the desired extension or group without going through a telephone operator. You may personalize the message by recording it from your extension. This feature will improve the efficiency of handling incoming calls and overall customer service.

\*Optional item (DSPDB) is required.

\*\*Not more than 48 Greeting Messages

### Voice Mail\*

Aspila Topaz has an option to add on the Voice Mail features which allow up to approximately 10 hours of total recording time and handle up to 8 accesses simultaneously. In addition, Aspila Topaz's Voice Mail provides comprehensive features such as Conversation Recording and Message Notification.

### Message Notification

When an external caller leave a voice message to your extension, Aspila Topaz automatically places a call to your pre-assigned number (another extension, mobile phone, home, etc) and sends a notification informing you to retrieve the new message in your Voice Mail Box.

### Conversation Recording

You may record and store your telephone conversations with external callers into your Voice Mail Box and playback the recorded conversations anytime.

\*Optional Items (DSPDB and CF-B1) are required.

## Easy Maintenance

### Web Based Configuration Manager (Administrator/User)

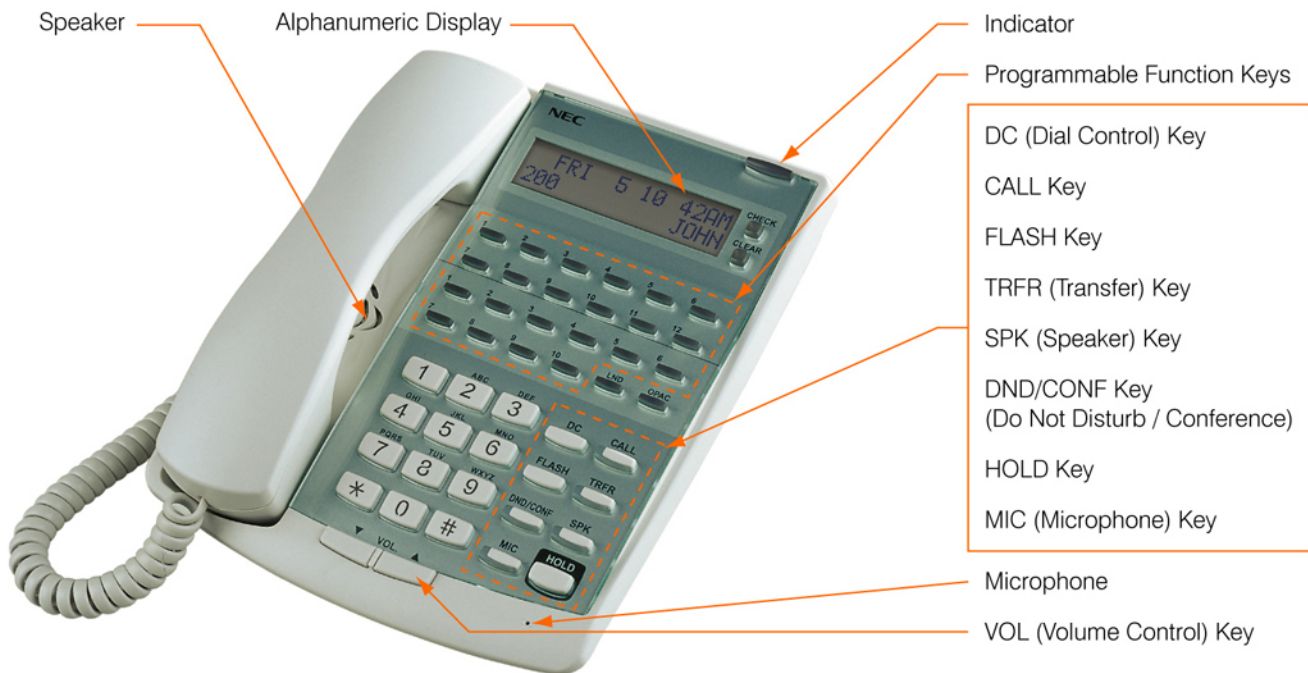
Administration of the system has never been easier with the intuitive Graphical User Interface (GUI). Aspila Topaz comes equipped with 2 types of Web Based System Configuration Manager. One for the administrator and the other for extension users.

This web based software enables administrators and extension users to manage settings from virtually anywhere with a network connection. The user-friendly GUI allows users to configure or change the settings easily without any experience of system programming.



## Terminals

### Features & Functions



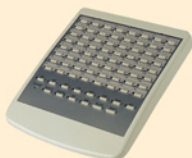
| Functionality                            | 16 Button Standard Key Telephone | 16 Button Display Key Telephone | 22 Button Standard Key Telephone | 22 Button Display Key Telephone |
|--|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Alphanumeric Display (Lines x Character) | No                               | Yes (2 x 16)                    | No                               | Yes (2 x 16)                    |
| Additional PRG Keys                      | 10                               | 10                              | 10                               | 10                              |
| Programmable Keys                        | 6                                | 6                               | 12                               | 12                              |
| Handsfree                                | No (Talk Back)                   | Yes                             | No (Talk Back)                   | Yes                             |
| Clear / Check Key                        | No                               | Yes                             | No                               | Yes                             |
| Compatible with DLS / DSS Console        | No                               | Yes                             | No                               | Yes                             |
| Wall Mount Kit                           | Yes (Built-In)                   | Yes (Built-In)                  | Yes (Built-In)                   | Yes (Built-In)                  |
| Adjustable Legs                          | Yes (Built-In)                   | Yes (Built-In)                  | Yes (Built-In)                   | Yes (Built-In)                  |

Note: BLF (Busy Lamp Field) on the Additional Programmable Keys is not available on standard type keyphones (12TD / 6TD).

## Terminals Accessories



24 Button Direct Line Console  
\*Connects direct to Display Type Key Telephone



64 Button Direct Station Selection Console  
\*Connects direct to KSU extension port



AT-40 Single Line Telephone



AT-35 Caller-ID  
Single Line Telephone

## Features List

|  |  |
|--|--|
| Abbreviated Dialing                            | Line Preference                            |
| Account Codes                                  | Long Conversation Alarm Cutoff             |
| Alarm  | Loop Keys                                  |
| Alphanumeric Display                           | Meet Me                                    |
| Attendant Call Queuing                         | - Conference                               |
| Automatic Route Selection (F-Route)            | - Paging                                   |
| Background Music                               | - Paging Transfer                          |
| * Barge In                                     | Memo Dial                                  |
| Call Forwarding                                | Message Waiting                            |
| - Fixed  | Microphone Cutoff                          |
| - Off-Premise                                  | Multiple Directory Numbers / Call Coverage |
| - Abbreviated Dial                             | Multiple Ring Tone                         |
| - Follow Me                                    | Music on Hold                              |
| Call Forward for Centrex                       | Name Storing                               |
| Call Forwarding / Do Not Disturb Override      | Night Service                              |
| Call Redirect                                  | Off Hook Signaling                         |
| Call Timer                                     | * Paging, External                         |
| Call Waiting / Camp On                         | Paging, Internal                           |
| Callback                                       | Park Hold                                  |
| Caller ID                                      | PBX Compatibility                          |
| Central Office Calls, Answering                | Prime Line Selection                       |
| Central Office Calls, Placing                  | Private Line                               |
| Class of Service                               | Programmable Function Keys                 |
| Conference (Max 8 conference calls x 4 groups) | Pulse to Tone Conversion                   |
| Conference, Voice Call / Privacy Release       | Repeat Dial                                |
| Continued Dialing                              | Remote Conference                          |
| Conversation Recording                         | Remote Maintenance                         |
| Day / Night Mode                               | Ring Groups                                |
| Department Calling                             | Ringdown Extension, Internal / External    |
| Department Step Calling                        | Room Monitor                               |
| Dial Number Preview                            | Save Number Dialed                         |
| Dial Pad Confirmation Tone                     | Secretary Call (Buzzer)                    |
| Dial Tone Detection                            | Secretary Call Pickup                      |
| Direct Inward Line (DIL)                       | Selectable Display Messaging               |
| Direct Inward System Access (DISA)             | Serial Call                                |
| * Direct Station Selection                     | * Station Message Detail Recording         |
| (DSS) Console                                  | Tandem Trunking (Unsupervised Conference)  |
| Directed Call Pickup                           | Time and Date                              |
| Do Not Disturb                                 | Toll Restriction                           |
| * Door Box                                     | - Dial Block                               |
| Extension Lock                                 | - Override                                 |
| Fax Machine Compatibility                      | Transfer                                   |
| Flash  | Trunk Group Routing                        |
| Flexible System Numbering                      | Trunk Groups                               |
| Forced Trunk Disconnect                        | Trunk Queuing / Camp On                    |
| Group Call Pickup                              | Uniform Call Distribution (UCD)            |
| Group Listening                                | User Programming                           |
| Handsfree and Monitor                          | Virtue Extensions                          |
| Handsfree Answerback / Forced Intercom Ringing | * Voice Mail                               |
| * Headset Operation                            | * Voice Response System (VRS)              |
| Hold   | Volume Controls                            |
| Hotline  | Warning Tone For Long Conversation         |
| Intercom                                       | Web Based Configuration Manager            |
| Last Number Redial                             |  |
| Least Cost Routing (LCR)                       |  |

\* Optional Features

## Specifications

| Item                    | Main KSU        | Main KSU + 1 Exp. KSU | Main KSU + 2 Exp. KSU |
|-------------------------|-----------------|-----------------------|-----------------------|
| Analog Trunk            | 9               | 18                    | 27                    |
| Key Telephone           | (24)            | (48)                  | (72)                  |
| Single Line Telephone   | (24) 24 (Total) | (48) 48 (Total)       | (72) 72 (Total)       |
| DSS Console             | (3)             | (6)                   | (9)                   |
| Virtual Extension       | 50              | 50                    | 50                    |
| Euro-ISDN (BRI)         | 8 (16ch)        | 16 (32ch)             | 24 (48ch)             |
| DLS Console             | 24              | 48                    | 72                    |
| Doorphone Box           | 2               | 4                     | 6                     |
| External Paging Output  | (2)             | (4)                   | (6)                   |
| External MOH Input      | (2) 2 (Total)   | (2) 4 (Total)         | (2) 6 (Total)         |
| BGM Input               | (2)             | (2)                   | (2)                   |
| Power Failure Transfer  | 3               | 6                     | 9                     |
| External Backup Battery | 1               | 2                     | 3                     |

## Mechanical Specifications

| Item               | Width (mm) | Depth (mm) | Height (mm) | Weight (kg)        |
|--------------------|------------|------------|-------------|--------------------|
| 924M/924ME KSU     | 360        | 90         | 275         | 2.8 fully equipped |
| OPBOX              | 130        | 86         | 279         | 1.1 fully equipped |
| Backup Battery Box | 384        | 99         | 182         | 5.2 fully equipped |

## Electrical Specifications

|                           |                            |
|---------------------------|----------------------------|
| Input Voltage (Frequency) | 100 / 240 VAC (50 / 60 Hz) |
| Power Consumption         | 120W                       |

## Environmental Specifications

|                              |  |
|------------------------------|--|
| KSU, PCBs and Key Telephones | Temperature : 0 ~ +40 degree (32 ~ 104 degree F)<br>Humidity : 10 ~ 90% (non-condensing)   |
| Doorphone Box                | Temperature : -20 ~ +60 degree (-4 ~ 140 degree F)<br>Humidity : 20 ~ 80% (non-condensing) |

## Accessories List

| Item                                    | Description  |
|---|--|
| <b>MAIN EQUIPMENT c/w 3 COs, 8 EXTs</b> |  |
| 924M KSU                                | Main KSU   |
| 924ME KSU                               | Expansion KSU  |
| <b>ANALOG TRUNK / EXTENSION CARDS</b>   |  |
| 308E-A1                                 | 3 Trunks + 8 Hybrid Extension Interface                  |
| 008E-A1                                 | 8 Hybrid Extension Interface                             |
| <b>KEY TELEPHONE SETS AND CONSOLES</b>  |  |
| 6TD TEL (WH)                            | 16 Programmable Keys, Standard Type Key Telephone        |
| 6TXD TEL (WH)                           | 16 Programmable Keys, 2 lines Display Type Key Telephone |
| 12TD TEL (WH)                           | 22 Programmable Keys, Standard Type Key Telephone        |
| 12TXD TEL (WH)                          | 22 Programmable Keys, 2 lines Display Type Key Telephone |
| 64D DSS (WH)                            | 64 Keys DSS Console                                      |
| 24DL DLS (WH)                           | 24 Keys DLS Console                                      |
| <b>SINGLE LINE TELEPHONES</b>           |  |
| AT35                                    | Caller-ID Single Line Telephone                          |
| AT40                                    | Single Line Telephone without Message Waiting Lamp       |
| AT45*                                   | Single Line Telephone with Lamp                          |

\* Aspia Topaz does not support MW Lamp indication on SLT.  
The Intercom Dial Tone will be changed when message waiting is set.

| Item                                | Description   |
|-------------------------------------|---|
| <b>ISDN INTERFACE CARDS</b>         |   |
| 2BRIU-S1                            | ISDN BRI (4 channels)*  |
| 4BRIU-S1                            | ISDN BRI (8 channels)*  |
| <b>VoIP GATEWAY INTERFACE CARDS</b> |   |
| 4VOIPU-S1                           | 4 VoIP Media Gateway*   |
| 4VOIPDB-S1                          | 4 VoIP Media Gateway Daughter Board*  |
| <b>OPTIONAL ACCESSORIES</b>         |   |
| EXIFU-A1                            | Expansion Connectors, Station Message Detail Recording Interface, Local Area Network Port                     |
| EXIFU-B1                            | Station Message Detail Recording Interface  |
| 2PGDU-A1                            | 2 doorphone Interface, 2 Door Unlock Relay, 2 Audio Input/Output Interface (ExMOH/BGM/2 External Paging)      |
| DSPDB-B1                            | Digital Signal Processing, Voice Response System / Automated Attendance Interface Card w/o Compact Flash Card |
| CF-A0                               | 4 channels Voice Response System / Automated Attendance Compact Flash Card                                    |
| CF-A1                               | 16 channels Voice Response System / Automated Attendance Compact Flash Card                                   |
| CF-B1                               | 16 channels Voice Response System / Automated Attendance with 8 channels Voice Mail Compact Flash Card        |
| 2OPBOX                              | Additional Box for Optional Interface Cards (2 Slots)   |
| DX2E-32/NX7E Battery Box            | External Backup Battery Box   |
| DX.E ABB_CARD SET                   | Stand type Abbreviated Dial Number Card Set   |
| DX4NA DOORPHONE                     | Doorphone   |
| DESIGNATION LABEL                   | Plain white, for Key Telephone Sets   |

\* Require 2OPBOX

### Guaranteed NEC INFRONTIA Quality

When you buy Aspia Topaz products, you also buy part of the NEC INFRONTIA legacy that began in 1918. As a worldwide manufacturer of telecommunications and electronic systems, we produce all of our products with performance and reliability in mind.

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