



## ETERNITY PE

An Enterprise-Grade Business PBX-KTS

The modern growing businesses often face bigger challenges than those faced by the established and large entities. These small and mid-size organizations need to be more agile and more productive with limited resources. Further, these businesses are more dynamic due to the continuous evolution and growth. Any such small-midsize business needs communication system that can help it to respond faster, boost its productivity and reduce its acquisition and operational costs. In short, the communication platform should offer all the functions of a large and expensive system minus the price tag.

Presenting Matrix ETERNITY PE – an all-integrated communication platform designed specifically for mid-size businesses destined to become tomorrow's enterprises. The ETERNITY PE offers interfaces to all the matured and new-generation networks like POTS, ISDN, GSM/CDMA/3G, VoIP, etc. The range and depth of productivity-boosting features offered by the ETERNITY PE matches the best-of-breed PBXs in the market. Further, the Matrix ETERNITY PE is flexible enough to grow effortlessly to meet future expansions of growing businesses.

Let versatility, intelligence and integration of Matrix ETERNITY PE help you to grow your business to tomorrow's enterprise.



## UNIQUE ADVANTAGES

### Technology

It is designed with unique distributed processing architecture with intelligent local processing units for each card. The main processor, it employs powerful 32-Bit ARM RISC processor. Integrated DSP based SLIC and DAA are used for FXS and FXO interfaces. Best-of-breed software protocol stacks are used for digital interfaces like ISDN BRI, T1/E1, ISDN PRI and VoIP.

### Connectivity

It comes with various interfaces to meet diverse application needs. Following traditional and new-generation telecom interfaces are supported.

- 2-Wire Analog Interfaces (TWT and SLT)
- 2-Wire Digital Interfaces for Key-Phones and Operators Consoles
- ISDN BRI
- ISDN T1/E1/ PRI
- GSM/CDMA/3G
- VoIP

### Integration

Many of the value-added functions like Caller ID, Auto-Attendant, Conference, External Music Port, and Public Announcement Port (PAS) are always provided by default without any additional cost. This makes ETERNITY PE one of the most integrated communication systems available in the market and lowers overall acquisition cost for its owners.

### Flexibility and Scalability

It comes in three variants: ETERNITY PE3SS, ETERNITY PE3SP and ETERNITY PE6SP. All these variants use the same power-supply and interface cards allowing easy and cost-effective expansion. Interface cards with mixed personalities are offered for optimized use of resources.

### Features and Functionalities

Matrix ETERNITY PE is a feature-packed communication system with range of useful features to meet any demanding application scenario. Not only the features range, but each feature has depth in terms of the flexibility it offers. Refer key features for more details.

### Easy to Install

Matrix ETERNITY PE is easy to install and configure. Industry standard RJ45 connectors are provided for various ports. As common with all modern networking products, built-in web-server is used for local and remote configuration.

### Reliability

Matrix ETERNITY PE is designed for 24x7, continuous operation and to provide carrier-grade reliability.

### Application Areas

- Small and Medium Businesses
- Offices, Factories, Branch Offices
- Consultants, Doctors, Architects, Chartered Accountants
- Small Hotels, Motels and Guest Houses
- Banks, Hospitals and Schools
- Government Organisations

## ETERNITY PE MODELS

- ETERNITY PE3SS (3 Universal Slots and Up to 24 User Ports)
- ETERNITY PE3SP (3 Universal Slots and Up to 24 User Ports)
- ETERNITY PE6SP (6 Universal Slots and Up to 48 User Ports)

## ETERNITY PE INTERFACE OPTIONS

- Single Line Telephone (SLT)
- Digital Key Phones (DKP)
- Analog CO Lines (TWT)
- ISDN BRI (TE/NT)<sup>#</sup>
- ISDN T1/E1/PRI(TE/NT)<sup>#</sup>
- Mobile (GSM/CDMA/3G)
- VoIP Trunks
- Door Phone

<sup>#</sup> Available with ETERNITY PE3SP and PE6SP



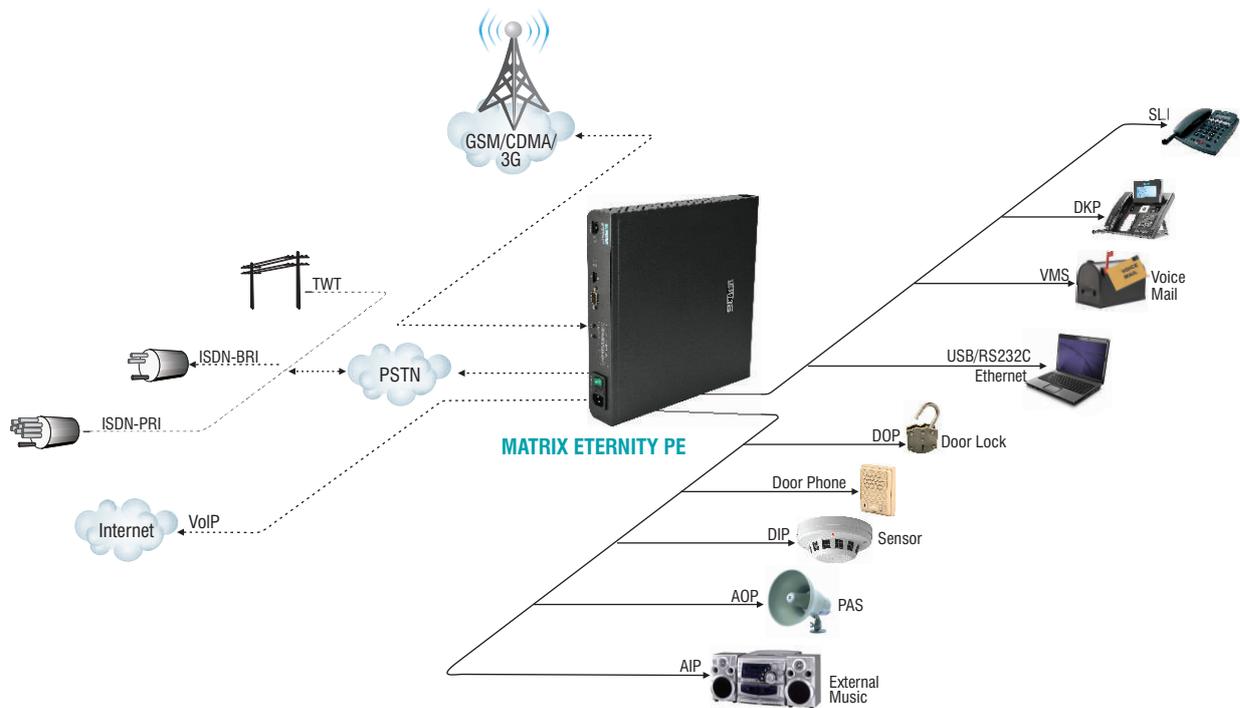
ETERNITY PE3SS



ETERNITY PE3SP



ETERNITY PE6SP



## ETERNITY PE CONNECTIVITY

### KEY FEATURES

#### Auto-Attendant

Auto-Attendant allows the caller to directly reach an extension without an operator assistance. Different messages like Welcome Message, Dial by Name, Dial Extension, Busy, No Reply, Wrong Number Dialed and Transferring to the Operator are played according to the situation. ETERNITY PE can handle 5 callers simultaneously, a virtually impossible feat to accomplish for a human operator.

#### Call Budget on Trunk

Service providers offering different schemes to enhance their services. For example, customer can make call free for first 500 minutes, every month. In such cases, ETERNITY PE allows you to define call budget in terms of amount and minutes on Trunks i.e. TWT, DS1, BRI, Mobile and SIP. Once budget gets exhausted, it will not allow making further outgoing calls. Amount and minutes consumed on each trunk port can be cleared either manually or automatically on specified date of every month, to a specified value.

#### CLI based Routing

The dedicated code detector circuits identify the Caller Line (trunk call) and route the incoming call directly to the respective users (DKP or SLT), if the incoming number matches with CLI table entries. As many as 400 such external numbers can be programmed. Users with DKP can have display of caller name, if programmed accordingly.

#### Parallel Ringing

It allows you to attend your desk calls on Mobile. Simultaneous ringing on Internal as well as on Mobile, whichever answers first, other disconnects. It is a boon to people who keeps on traveling and yet can attend their desk calls. This feature is not applicable when outgoing call is routed through TWT and E&M.

#### Schedule Dial Facility

Matrix ETERNITY PE can be programmed to enable/disable dialing trunks at a pre-specified time. This facility is of great use to lock long distance and international lines at set timings, thereby preventing misuse. For example, Matrix ETERNITY PE can be set to lock the long distance or international calling facility every day after 6.00 pm, to avoid misuse of telephone line, even if it has been left open accidentally.

#### DISA -CLI based Authentication

It allows a user to access the system's resources from a remote location, to make calls to and from any of the stations, activate/deactivate features of any station, and even program or administer the system from a remote location without dialing a DISA login code, station number and password. Such 1000 numbers can be programmed.

#### Multiple Participants Conference

Matrix ETERNITY PE6SP supports 15 participants while ETERNITY PE3S supports 6 participants in a single conference without affecting the speech levels. The unique design of this feature also allows multiple conferences to be conducted simultaneously.

#### Call Back on Mobile Port

This Feature is used to respond to the specific incoming call on the mobile port which was disconnected by the caller (Missed Calls). In case of an Incoming call on mobile port is disconnected by the caller during period, 'Call Back Timer' configured in the system, the system will initiate the call back if the caller's CLI is matching and prefix configured in the 'Trusted Caller List'.

#### Logical Partitioning

In some countries, Calls from VoIP to PSTN or Mobile Network are not allowed, whereas other countries, it is allowed. To fulfill these telecom regulatory requirement of different countries, Matrix ETERNITY implemented feature 'Logical Partitioning', by which calls from VoIP and other Trunk ports, like TWT, DS1, BRI, E&M and Mobile calls can be restricted.

#### QSIG

QSIG is an ISDN switching protocol used for signaling between two PBXs in a private Network. It allows transparency of features between two or more PBXs of different make. QSIG offers its users the convenience of sharing telecom resources and also helpful for conditional expansion of System Capacity. Thus it is more flexible in converging telecom resources and offers a world of convenience.

#### Call Budgeting

ETERNITY PE allows you to set monthly call budget for individual users in order to control the usage. Users with DKP can use the Call Cost Display feature to find allocated and consumed budget values after every call they make. The station is locked by the system if the user exceeds the call budget value.

### Call Duration Control

This cost control feature allows you to have user-specific Call Duration Control with multiple options for each type of call. This feature includes: disconnection of incoming, outgoing, intercom calls, selective long distance or international calls after a pre-defined duration.

### Conference Dial-in

This unique feature allows participants of a conference to dial into a live conference at a scheduled time just by dialing a code. Certainly, a great time-saving feature!

### Emergency Call Detection and Reporting

Matrix ETERNITY PE allows you to program the emergency number and can be dialed from any extension, even from those that do not have trunk access. If any user from the organization dials an emergency number, for example, '911', the operator is immediately informed about the extension from which the number was dialed. This helps the operator to take necessary action.

### Flexible Numbering

This feature allows you to define the extension numbers as per your choice and convenience. You have the flexibility to program extension numbers up to 6 digits.

### Least Cost Routing

This unique function, design using structured programming, selects the most cost effective trunks to make outgoing calls depending upon the time of call and the destination number, resulting in major savings.

The Three options for least cost routing are based on:

1. Time
2. Number
3. Combination of Time and Number

Even combinations of the above parameters can be defined for least cost routing. For example, you can program the system to select only a particular trunk line for making STD calls and another trunk to make all local calls during day time, but a different trunk for making local calls during night time. All this happens automatically! With ETERNITY PE, you can rest assured that every call being made outside your organization is always at the least cost!

### Live Call Supervision

A great monitoring-cum-security feature, it lets the supervisor know the phone number which an extension user is currently talking to.

### Paging

Messages can be announced to a larger number of people just by lifting the phone and dialing a code. Mass communication at its best!

### Priority

It allows certain important calls such as from CEO, call from special or private trunk line, call on hot line, etc. a higher priority of access over others, such that calls from the senior executives get priority over others while waiting to get connected to a station.

### Security Dialing and Reporting

Matrix ETERNITY PE provides an option for the users to connect any type of sensor like glass break sensor, magnetic sensor, smoke detector etc. to the Digital Input Port. In case emergency, this feature dials 3 different numbers and plays a pre-recorded message. The called person can also be asked to confirm that the message has been heard.

### Call Detail Record (12000 Calls)

The advanced search module allows detail report generation and printing for all outgoing, incoming and internal calls with strong filtering capability and separate buffer capacity of 6000 outgoing, 5000 incoming and 1000 internal calls.

### Time Tables

Time table allows the user to program the system to work differently depending upon the time and day of the week. It allows flexible programming for 3 time zones:

1. Working hours
2. Break hours
3. Non-working hours

Each day of week can be programmed with different time zone limits. Thus long distance dialing access may be denied to certain stations after working hours or trunk calls may directly reach the security office after the office closes, or a specific message may be played on a holiday.

### Caller Line Identification Presentation (CLIP)

Matrix ETERNITY PE offers CLI features on both DKP and SLT. It offers the facility to detect CLI on normal telephone lines, ISDN lines, GSM lines and VoIP lines. It can detect both, DTMF and FSK signals for CLI. You can get CLI of external number, internal number and also CLI on transfer of calls. If programmed, even the name of the caller can be displayed on the DKP. The CLI feature can be programmed for each extension individually.

### Caller Line Identification Restriction (CLIR)

Matrix ETERNITY PE offers the facility of calling line identity restriction. Selected users can deny disclosing their extension identity to others. This is applicable only for internal extensions.

### Direct Inward Dialing (DID)

Direct inward dialing feature performs the task of an operator by greeting the external caller and transferring call to the desired station. Five callers can be handled simultaneously.

### Direct Inward System Access (DISA)

DISA allows a user to access the system's resources from a remote location, to make calls to and from any of the stations, activate/deactivate features of any station, and even program or administer the system.

### System Administration Mode

System Administrator (SA) mode is one of the different programming modes which ETERNITY PE provides for security purpose. SA mode is used to program the features like SMDR generation, Setting Report Filters, Class of Service, Hotel-Motel features, etc. SA mode is password protected to prevent unauthorized access of the system.

### Remote Programming

It is engineered for change in its programming from a remote location by means of SLT, DKP, Mobile or Internet.

### Upgrading Software

The programming of the software can be conveniently upgraded through a CD. What is more, the software can be upgraded even with a file transferred through mail.

### Web based Programming

Matrix ETERNITY PE incorporates the built-in Web-Server functionality, which allows the user to access and program it through the web browser. This web based programming feature allows the user to configure it remotely from any part of the world, provided internet connectivity is extended.



## HARDWARE FEATURES

### Compact and Sturdy

Matrix ETERNITY PE's compact design leads to smaller foot-print. The rack and wall mountable design is easy to maintain and occupies lesser space. Besides, all the parts have been fixed in specified slots. This 'no moving parts' design leads to higher reliability.

### Dedicated DTMF

It offers dedicated DTMF circuit for each user making it 100% non-blocking, even while dialing. This is a critical parameter for organizations expecting heavy call traffic. This is what makes ETERNITY PE a truly 100% non-blocking digital system.

### Door Phone Port

ETERNITY PE provides an option of connecting three 4-Wire door phones. When a visitor presses the door phone button, the internal extension or external number programmed rings allowing the extension or Mobile user to talk to the visitor. If a Door Lock Release device is connected with DOP, the user can open the door and let the visitor in.

### External Music Port

The External Music Port (AIP) allows an external music source to be connected to Matrix ETERNITY PE. Desired music or jingle can be played while a person is kept on hold.

### Expandability

All models of Matrix ETERNITY PE are expandable that allow you to keep adding extra cards to increase the number of stations as your organization grows. The greatest advantage is that the same expansion cards can be used for all models of ETERNITY PE.

## VOICE MAIL SYSTEM

Matrix ETERNITY PE supports Voice Mail System (VMS) through an optional VMS card. An efficient Voice Mail System provides efficient call management and accurate messaging, saves precious time of employees and offers non-interfering work environment.

### Message Wait Indication

Indication can be provided to the extension (both DKP and SLT) user regarding any new message in the mailbox.

### E-mail Notification

It offers an option to the user to send Voice Mail as an attachment along with notification message to his e-mail.

### Conversation Recording

The user can use VMS to record his conversation in his mailbox. This helps the user to keep record of the points discussed and agreed upon with business associates. This feature should be used in accordance with the local laws.

### Live Call Screening

The Customised Information Exchange Protocol allows DKP users to listen an incoming voice mail message for the first few moments. This feature lets the user determine whether it requires his attention or not, giving him the option to either talk to the caller or store the message in the mailbox for later retrieval.

### Voice Mail Features

- Auto-Attendant
- Broadcast Message
- Call Taping
- Call Transfer Types
- Conversation Recording
- Customised Mailbox Size
- Dial By Name
- Distribution Lists
- E-mail Notification
- Flexible Graph
- General Mailbox
- Individual Mailboxes
- Information Node
- Live Call Screening
- Menu Node
- Message Forward
- Message Notification
- Message Verification
- Message Wait Indication
- Multiple Mailboxes on a Single Extension
- Password
- Personalized Greetings
- Redirecting Messages
- Remote Access
- Transfer Node
- Voice Greetings

## EONSOFT - PC based Digital Key Phone

An innovation from Matrix, the EONSOFT offers integration of your PC with your PBX. A feature of great utility to those techno-savvy people who have a computer on their desks and do not wish to keep a separate telephone.



### Multiple Digital Output Ports

ETERNITY PE provides the option to connect 3 Digital Output Ports (DOP), thus enabling 3 electrical devices like door lock, relay port, fan, etc. to be operated simultaneously. These 3 non-energized DOP can be switched ON/OFF manually or automatically. These DOPs can be operated locally as well as remotely.

### Public Address System (PAS)

The Public Address System Port (AOP) allows any station user to make announcements on external speakers.

### Universal Slots

All the expansion slots of Matrix ETERNITY PE are universal in nature. Any interface card can be inserted in any slot and the system will configure it automatically. This scheme eliminates configuration bottle-necks because any slot can be used for SLT, DKP, Analog Trunk, ISDN BRI, ISDN T1/E1/PRI, GSM/CDMA/3G, VoIP and Door Phone connectivity.

## DIGITAL KEY PHONES

'EON', the Digital Key Phone, is a versatile, feature-rich, easy to use station. It supports a host of additional features providing the user fast access to the functions of Matrix ETERNITY at a single touch of a button. Matrix Digital Key Phone (DKP) is available in three models - EON48P, EON48S and EON42S. All models are available in two colour variants - Black and White.



EON48P



EON48S



EON42S

## DSS CONSOLE

DSS16x4 is an attachment to EON48P and EON48S. It offers 64 Direct Station Selection Keys.



## FEATURES LIST

- Abbreviated Dialing (Global & Personal)
- Access Codes (Programmable)
- Account Codes
- Account Codes (Forced)
- Alarms (Time, Daily, Future Date & Time, Remote)
- Alarm-Snooze
- Alarm-Multiple
- Allowed and Denied Lists
- Alternate Number Dialing
- Analog Input Port
- Analog Output Port
- Auto-Attendant
- Auto Call Back (Busy, No Reply)
- Auto Redial
- Automated Control Applications
- Background Music (DKP and SLT)
- Backup SMDR
- Backup-System Configuration
- Backup-System Software
- Barge-In
- Behind the PBX Applications
- Boss Ring
- Call Accounting System (CAS) Interface
- Call Back on Mobile Port
- Call Budget
- Call Budget on Trunk
- Call Chaining
- Call Cost Calculation
- Call Cost Display
- Call Duration Control
- Call Follow Me
- Call Forward (Busy, No Reply, Dual Ring and To External Number)
- Call Park (General and Personal Orbit)
- Call Pick Up (Group and Selective)
- Call Progress Tones (Programmable)
- Call Splitting
- Call Taping
- Call Transfer (Screened, On Busy, While Ringing, Trunk to Trunk)
- Calling Line Identification & Presentation (CLIP)
- Calling Line Identity Restriction (CLIR)
- Cancel All Station Features
- CLI based DISA
- CLI based Routing
- Class of Service (COS)
- Closed User Group (With/Without Exchange ID)
- Conference – 15 Participants
- Conference – Dial-in
- Conference – Multiple Participants
- Conflict Dialing
- Continued Dialing
- Conversation Recording
- Customer Emergency Services Identification Dialing (CESID)
- Customer Name
- Date and Time Format
- Daylight Saving Time
- Department Call
- Dialed Number Directory
- Digital Output Port (Multiple)
- Digital Input Port
- Direct Inward Dialing (DID)
- Direct Dialing-In
- Direct Inward System Access (DISA)
- Direct Outward System Access (DOSA)
- Distinctive Rings
- Do Not Disturb (DND)
- Do Not Disturb (Remote)
- Door Phone Connectivity
- Dynamic Lock (Auto and Manual)
- E1 Connectivity
- Emergency Calls – Detection and Reporting
- Emergency Dialing
- Error Alarm
- External Call
- External Call Forward (ECF)
- External Music Port
- Field Programmable
- Flash Timer
- Flexible Numbers
- Floor Service
- Forced Answer
- Forced Call Disconnection
- GPAX Applications
- Help Desk
- Hold
- Hot Desking
- Hotline (Immediate and With Delay)
- Hot Outward Dialing (With/Without number, With/Without Delay)
- Hotel/Motel Features
- Incoming Call Management
- Internal Call Restriction
- Internal Call
- Interrupt Request
- ISDN-BRI Connectivity
- ISDN-PRI Connectivity
- Key Board Macro
- Last Caller Recall
- Last Number Redial
- Least Cost Routing (Number, Time and Service Provider to Service Provider, Carrier Pre-Selection)
- Live Call Screening
- Live Call Supervision
- Logical Partitioning
- Master Time Zone
- Maturity (Polarity Reversal, Delay, CPD)
- Meet Me Paging
- Message Wait Indication (LED, Shattered Dial tone, Voice Message)
- Mobile Port (GSM Port)
- Multi-Stage Dialing
- Music-on-Hold
- Mute
- Name Programming (Station, Trunk)
- Operator (Single, Multiple)
- Override
- Parallel Ringing
- Paging (Internal and External)
- PMS Interface
- Priority (Intercom and Trunk)
- Privacy
- Programmable Access Codes
- Programmable Call Progress Tones & Rings
- Programming the System (Using SLT, DKP, Ethernet Port, Serial Port and Mobile)
- Public Address System Port (PAS)
- QSIG
- Quick Dial
- Raid
- Real Time Clock
- Real Time Clock Synchronization
- Region Code
- Remote alarm
- Remote Call forward
- Remote Programming
- Room Monitor
- Routing Group
- RS232C Port
- Security Dialing and reporting
- Selective Trunk Access
- Self ring test
- Station groups
- Station In-Service/Out-Service
- Station Message Detail Recording(incoming, Outgoing and Internal)
- Station Name
- Suite Services
- System Activity Log and Display
- System Security (Passwords)
- Tenant Service
- Time Tables
- Time Zone Display
- Toll Control
- Trunk Access Groups
- Trunk Auto Answer
- Trunk Connectivity (BRI)
- Trunk Connectivity (T1/E1/PRI)
- Trunk Connectivity (GSM/CDMA/3G)
- Trunk Connectivity (PSTN)
- Trunk Connectivity (VoIP)
- Trunk Landing Group
- Trunk Parameters
- Trunk Reservation
- Upgrading the Software
- Virtual Station
- Voice Help
- Voice Mail Integration
- Voice Message Applications
- Voice Prompts for Tones
- Walk-in Class of Service
- Web Based Jeeves

## EXPANSION CARDS

ETERNITY PE Cards	Description
SLT8	8 SLT Ports Card to Connect 8 Single Line Telephones
DKP8	8 DKP Ports Card to Connect 8 Digital Key Phones
TWT4+SLT4	4 TWT Ports and 4 SLT Ports Card to Connect 4 Two Wire Trunk Lines and 4 Single Line Telephones
TWT4+DKP4	4 TWT Ports and 4 DKP Ports Card to Connect 4 Two Wire Trunk Lines and 4 Digital Key Phones
DKP4+SLT4	4 DKP Ports and 4 SLT Ports Card to Connect 4 Digital Key Phones and 4 Single Line Telephones
TWT2+DKP2+SLT4	2 TWT Ports, 2 DKP Ports and 4 SLT Ports Card to Connect 2 Two Wire Trunk Lines, 2 Digital Key Phones and 4 Single Line Telephones
TWT8	8 TWT Ports Card to Connect 8 Two Wire Trunk Lines
BRI2	2 BRI Ports Card to Connect 2 ISDN BRI Lines or ISDN Compatible Devices
T1E1PRI SINGLE	Single Port T1/E1/PRI Card with QSIG Support to Connect T1/E1/PRI Line or Compatible Device
GSM4	4 GSM Ports Card to Insert 4 GSM SIM Cards for GSM Network Connectivity
VoIP8	VoIP Card to Connect IP Network for Making VoIP Calls. Support 8 VoIP(SIP) Channels per Card
Door Phone3	1 DIP, 3 DOP and 3 Door Phone Ports Card to Connect 1 Sensor/Panic Switch, 3 Digital Output Ports and 3 Door Phones
VMS16	16 Channels Voice Mail System with 512 Mail Boxes

## TECHNICAL SPECIFICATIONS

### TECHNOLOGY

Type of Switching	: PCM/TDM Digital Switching (100% Non-blocking)
Processor	: 32-Bit RISC
Architecture	: Distributed Processing
Slots	: Universal

### SLT (ANALOG STATION)

Signaling	: Loop start
Dialing	: DTMF and Pulse (10/20PPS)
Off Hook AC impedance	: 600/900/Complex
Off Hook Current	: 39mA max
Loop Limit	: 1800Ω Max (Excluding Telephone)
On-Hook Voltage (Tip/Ring)	: -48V Nominal
DTMF Detection	: ITU-T Q.24
Return Loss	: > 18dB
Longitudinal Balance	: > 50dB
Transmission Level Adjust	: Tx Gain: -3dB to 6dB, Rx Gain: -3dB to 6dB
Ringing	: Trapezoidal 60Vrms/25Hz and Sinusoidal 52Vrms/25Hz
REN	: 3
CLI Presentation	: DTMF, FSK ITU-T V.23 and FSK Bellcore 202
Protection	: Over Voltage Secondary Protection
Physical Connector	: RJ45

### DKP (DIGITAL STATION)

Signaling	: Proprietary Digital (2B+D)
Interface	: Single pair for Speech, Signaling and Power
Loop Limit	: 100Ω
Speech level	: Adjustable Tx and Rx Gain for Handset and Hands-free
Protection	: Over Voltage Secondary Protection
Physical Connector	: RJ45

### TWT (2-WIRE TRUNK)

Signaling	: Loop Start
Loop Limit	: 1200Ω
Off Hook AC Impedance	: 600/900/Complex
Pulse Dialing	: 10/20 PPS
DTMF Dialing and Reception	: ITU-T Q.23 & Q.24
Return Loss	: > 18dB
Longitudinal Balance	: > 50dB
Transmission Level Adjust	: Tx Gain: -15dB to 10dB, Rx Gain: -15dB to 10dB
CLI Reception	: DTMF, FSK ITU-T V.23 and FSK Bellcore 202
Call Maturity	: Delay and Polarity Reversal
Protection	: Over Voltage and Over Current Secondary Protection
Physical Connector	: RJ45

### GSM

GSM Band (MHz)	: Quad-band: GSM850, EGSM900, DCS1800, PCS1900
Compliant	: ETSI GSM Phase2/2+
SIM Card	: One SIM per GSM Port
SIM Interface	: 1.8V, 3V
Transmission Power	: Class 4 (2W) at GSM850 MHz and EGSM900 MHz band Class 1 (1W) at DCS1800 MHz and PCS1900 MHz Band
RF Sensitivity	: Better than -102dBm
Protocol	: At Command Interface
External Antenna	: One Antenna per 4 GSM Ports, 1.8/3.0 dBi, 50Ω SMA (Male) Connector, Omni Directional with Cable of 3 Meters Length

### VoIP

VoIP Protocols	: SIP v2, SDP, RTP (RFC 2833)
Network Protocol	: IPv4, TCP, UDP, DHCP, STUN
SIP	: Maximum 32 SIP Accounts per System, Out Bound Proxy Support, Display Name, User Name, Password, URL, Proxy URL, Register URL, Register Interval
NAT/Firewall Support	: PPPoE
Voice Codecs	: G.711 (A-Law, $\mu$ -Law), G.723, G.729AB, GSM-FR, GSM-EFR, iLBC
Line Echo Cancellation	: G.168 with 64/128ms Tail Length
Call Progress Tones	: Dial Tone, Ring Back Tone, Busy Tone, Error Tone

Voice	: Dynamic Jitter Buffer (Adaptive), Comfort Noise Generation and Voice Activity Detection
Fax	: T.38 and Pass-Through
Data Network	: Ethernet (RJ45) Port, Auto MDIX (10/100 BaseT)
Quality of Service	: Layer 3 Diffserv and TOS

### AUXILIARY PORTS

Analog Input Port	: 0.7 Vrms, Isolated, Push-Type Connector
Analog Output Port	: 0.7 Vrms, Isolated, Push-Type Connector
Digital Input Port	: Loop Current - 13mA Max. Cable Length - Up to 1000Ω
Digital Output Port	: Power Relay Resistive Load - 1.5A 120VAC/150VDC Operation Time - 8ms (Max.)
Door Phone Port	: Speaker Output - 1.41Vrms (Max.) Mic. Input - 1.34Vrms (Max.)

### POWER SUPPLY

Input	: 100-240VAC, 47-63Hz
Power Consumption (Typical)	: ETERNITY PE3SS - 25W ETERNITY PE3SP - 25W ETERNITY PE6SP - 40W
LED Indication	: 2 LEDs for System Status

### ENVIRONMENT

Operating Temperature	: -10°C to +50°C (+14°F to +122°F)
Operating Humidity	: 5-95% RH, Non-Condensing
Storage Temperature	: -40°C to +85°C (-40°F to +185°F)
Storage Humidity	: 0-95% RH, Non-Condensing

### MECHANICAL (Dimensions WxHxD)

ETERNITY PE3SS	: 29.8x5.2x30.0cm (11.73"x2.04"x11.8")
ETERNITY PE3SP	: 29.8x5.2x30.0cm (11.73"x2.04"x11.8")
ETERNITY PE6SP	: 43.9x5.2x30.0cm (17.28"x2.04"x11.8")

### MECHANICAL (Unit Weight)

ETERNITY PE3SS	: 1.55kg (3.41lbs)
ETERNITY PE3SP	: 1.57kg (3.45lbs)
ETERNITY PE6SP	: 2.51kg (5.52lbs)

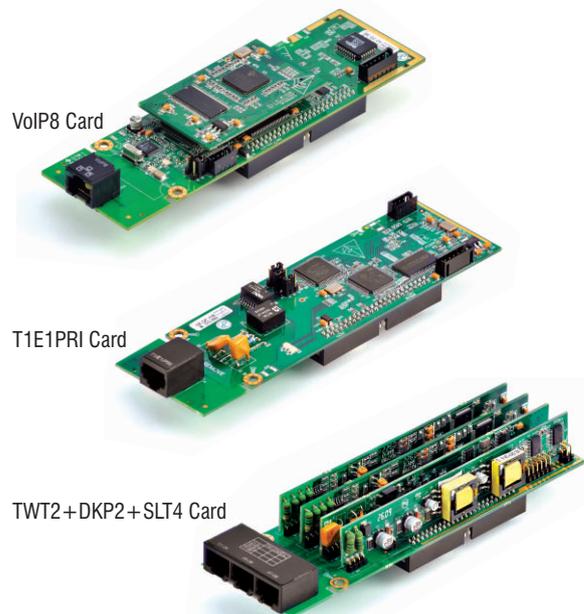
### MECHANICAL (Shipping Weight)

ETERNITY PE3SS	: 4.0kg (8.8lbs)
ETERNITY PE3SP	: 4.2kg (9.2lbs)
ETERNITY PE6SP	: 4.9kg (10.8lbs)

### MECHANICAL (Installation)

ETERNITY PE3SS	: Wall Mount, Table Top
ETERNITY PE3SP	: Wall Mount, Table Top
ETERNITY PE6SP	: Wall Mount, Table Top, 19" Rack Mount

\* Depends on GSM Frequency Band



## SYSTEM RESOURCES

System Resources	Description	ETERNITY PE		
		3SS	3SP	6SP
Universal Slots	Maximum Physical Card Slots	3	3	6
Total User Ports	Maximum Physical Ports Available	24	24	48

## BUILT-IN INTERFACES

System Resources	Description	ETERNITY PE		
		3SS	3SP	6SP
Analog Input Port (AIP)	To Connect External Music Device	-	1	1
Analog Output Port (AOP)	To Connect Public Address System	-	1	1
RS232C (COM) Port	To Connect Computer for SMDR	-	1	1
USB Port	Reserved for Future Application	-	1	1
Conference	Multiple Participants Conference	6	6	15
Voice Module (16 Seconds Each)	Auto-Attendant and other Voice Based Applications	6	6	6
Ethernet Port	To Access Web based Programming and PMS Interface	1	1	1

## OPTIONAL INTERFACES

System Resources	Description	ETERNITY PE		
		3SS	3SP	6SP
SLT Ports	To Connect Single Line Analog Telephones	24	24	48
DKP/DSS Ports	To Connect Proprietary Digital Key Phones or DSS Consoles	24	24	48
TWT Ports	To Connect Two Wire Trunk Lines	8	8	16
BRI Ports	To Connect to ISDN BRI Network or ISDN Compatible Devices	-	6	12
T1/E1/PRI Ports	To Connect to T1 or E1 or ISDN PRI Network or Compatible Device	-	3	6
GSM Ports	To Connect to GSM Network	12	12	24
VoIP Channels	To Make VoIP (SIP) Calls Using Internet or Intranet Connectivity	24	24	48
Digital Input Port (DIP)	To Connect Sensor or Panic Switch	1	1	1
Digital Output Port (DOP)	To Connect To External Devices Door Lock or Relay Port	3	3	3
Door Phone Ports	To Connect 4-Wire Door Phone	3	3	3
Voice Mail System (16 Channels)	To Configure as Voice Mail System Up to 512 Mail Boxes	1	1	1



## ABOUT MATRIX

An ISO 9001 Company, Matrix is a leader in the VoIP, GSM, Key Phone System and PBX market. An innovative, technology driven and customer focused organization; the company is committed to keep pace with revolutions in the telecom industry. This has resulted in bringing forth cutting edge products like VoIP Phones, VoIP Gateways, VoIP ATA, GSM FCT, GSM Gateways, SMB PBX, Enterprise PBX, Hotel PBX, Voice Messaging Products, Communication Security Products and PLCC Switches. With over 1,500,000 line units installed and growing by over 1500 line units per day, the installed base of Matrix connects over 15,000,000 calls everyday. Thus, Matrix has gained the trust and admiration of users representing the entire spectrum of industries. Matrix has won many awards for its innovative products.



For further information contact:



 **MATRIX**  
**TELECOM SOLUTIONS**

**MATRIX TELECOM PVT. LTD.**

394-GIDC, Makarpura,  
Vadodara-390010, India.  
Phone: +91 265 2630555  
Fax: +91 265 2636598  
Email: Inquiry@MatrixTeleSol.com  
www.MatrixTeleSol.com  
SMS 'MATRIX' to 99987 55555

*Due to continuous technology upgradations, product specifications are subject to change without notice.*