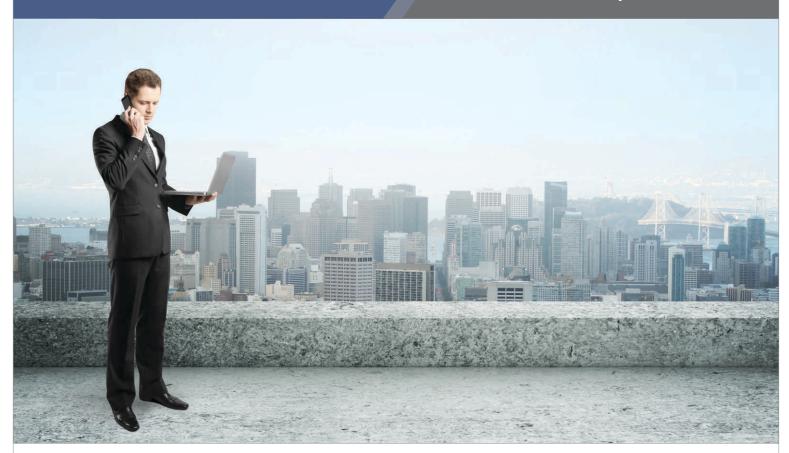
Gateways Built for Speed, Traffic and Flexibility

GATEWAYS PRODUCT CATALOGUE



- Universal Gateways
- VoIP Gateways
- GSM/3G Gateways
- GSM/3G FCTs



MATRIX R&D

All Matrix products are indigenously designed passing through the various product development stages beginning with Product Conceptualization, Hardware Design Section, Software Designing and Engineering. With more than 40% of its human resources dedicated to the development of new products, Matrix R&D is the foundation of its growth and sustenance. The R&D team designs products conforming to relevant international standards. Matrix makes substantial investment in R&D tools and equipment to stay abreast of the latest technological changes. The Indian Ministry of Science and Technology has granted DSIR (Department of Scientific & Industrial Research) recognition to the Matrix R&D Centre for its contribution to the Industry.



MATRIX MANUFACTURING

Based at Vadodara in India, Matrix Manufacturing unit is operated and managed by a team of professionally qualified and dedicated engineers. The structure houses various sections like Production, Quality Control and Supply Management with a production capacity of about 1,000,000 ports per annum. With more than 50 products, Matrix Manufacturing has been delivering cutting-edge technology products for more than two decades now.



MATRIX MARKETING

The Marketing Team at Matrix strongly believes in value-based marketing and strong networking. Right from product conceptualization, designing to the commercial marketing, Matrix adopts a completely global approach. Backed by an extensive network of more than 500 channel partners across the globe, Matrix ensures that the products serve the customer needs-Faster and Longer. Various Marketing Tools and activities including strong marketing collaterals, solution designing, online and print media communication, promotional and networking activities form very elemental to Matrix Marketing.



MATRIX TECHNICAL SUPPORT

A full-fledged Technical Support Centre offers 24x7 support to Matrix Customers and Channel Partners. Manned by trained and efficient engineers the Technical Support Centre offers upfront, proactive and prompt assistance. Dedicated regional support teams expertize in offering local support services. Latest CRM tools are used for faster problem solving and assistance. The support technicians conduct regular in-house and field training, providing hands-on the product and its features.

MATRIX PRODUCT RANGE

Matrix serves diverse communication needs of customers with its comprehensive range of gateways and business communication systems. Matrix delivers cutting-edge technology products rich in features and functionalities. Matrix gateways seamlessly integrate traditional telephony interfaces to the varied networks and help to lower day-to-day communication cost. These gateways are ideal for

corporate offices, factories, sales organizations, call centers, branch offices, public call offices, remote project sites and residences. The business communication systems offer absolute communication solutions to businesses of all sizes right from SOHOs to SMBs, SMEs and enterprises.

GATEWAY PRODUCT RANGE

| UNIVERSAL GATEWAYS | | |
|--|--|--|
| ETERNITY GE Medium-Density Universal Gateway | | |
| ETERNITY ME High-Density Universal Gateway | | |

| GSM/3G GATEWAYS | | |
|-----------------|---------------------|--|
| SIMADO GBR | GSM/3G-BRI Gateways | |
| SIMADO GFX | GSM/3G-FXS Gateways | |

| GSM/3G FCTs | | |
|--|--|--|
| SIMADO GFX11 GSM/3G Fixed Cellular Terminal for Voice Applications | | |
| SIMADO GFX11E | FX11E GSM Fixed Cellular Terminal for Elevator Emergency Applications | |

| VOIP GATEWAYS | | |
|--|-----------------------|--|
| SETU VGFX VoIP-GSM/3G-FXO-FXS Gateways | | |
| SETU VGB VoIP-ISDN BRI Gateways | | |
| SETU VTEP VoIP-T1/E1 PRI Gateways | | |
| SETU VFXTH | VoIP-FXO-FXS Gateways | |
| SETU VFX | VoIP-FXS Gateways | |

| OFFICE-IN-A-BOX | |
|-----------------|---|
| NAVAN CNX | Single Box Solution for All Office Communication Needs |

BUSINESS COMMUNICATION SYSTEMS

| BUSINESS IP-PBXs | | |
|--|---|--|
| ETERNITY LE IP-PBX for Large Enterprises | | |
| ETERNITY ME | IP-PBX for Enterprises with Universal Connectivity | |
| ETERNITY GE | IP-PBX for SMEs with Universal Connectivity | |
| ETERNITY PE | IP-PBX for SMBs with Universal Connectivity | |
| ETERNITY NE | IP-PBX for Small Businesses | |

| HOSPITALITY PBX | | |
|-----------------|---|--|
| ETERNITY ME | Hospitality PBX for Large Hotels | |
| ETERNITY GE | Hospitality PBX for Small to Medium Hotels | |
| ETERNITY PE | Hospitality PBX for Small Hotels | |

| PLCC EPAX | | | |
|--|--|--|--|
| ETERNITY ME PLCC Express Switch with 512 Ports | | | |
| ETERNITY GE PLCC Express Switch with 120 Ports | | | |

| BUILDING INTERCOM | | |
|-------------------|---------------------------------|--|
| ETERNITY ME | Intercom System Up to 512 Ports | |
| ETERNITY GE | Intercom System Up to 240 Ports | |

UNIVERSAL GATEWAYS

Matrix universal gateways offer connectivity to POTS, GSM/3G, ISDN BRI, T1/E1 PRI and VoIP networks. Based on industry standard protocols, the gateway transparently route calls between various networks for better service, convenience and cost savings. The Least Cost Routing feature ensures that call being routed through most cost-effective network.

ETERNITY ME16S

High-Density Universal Gateway

Matrix ETERNITY ME10S is a High-Density universal gateway offering integrated interfaces for VoIP, GSM/3G, ISDN and POTS networks. The universal gateway seamlessly routes calls from one network to another. The modular architecture with universal slot

architecture offers complete flexibility while scaling-up the configuration. Redundancy offers round-the-clock operation without any disruption of services. All the interface cards are hotswappable, eliminating unnecessary system down-time.



Key Features

- 64 GSM/3G SIMs
- 512 VoIP Channels
- 8 T1/E1 PRI
- 32 ISDN BRI
- 128 FXO and 320 FXS
- Automatic Number Translation
- Call Detail Records
- Direct Dial-In
- Hot Swap

- · Multi-stage Dialing
- Mobile Network/Base Station Lock
- QSIG over T1/E1 PRI
- Quad-Band Support
- Redundancy
- SIM Balance Inquiry and Recharge
- TLS and SRTP Support
- Universal Routing with Least Cost
- Web based Management

ETERNITY GE12S

Medium-Density Universal Gateway

Matrix ETERNITY GE12S is medium-density universal gateway offering integrated interfaces for VoIP, GSM /3G, ISDN and POTS networks. The universal gateway allows the users to make and receive calls on all the networks transparently. It supports flexible and intelligent Least Cost Routing (LCR) options providing

significant cost savings and round-the-clock connectivity. This allows them to dynamically select one of the networks on per-call basis for obvious benefits of reach, cost and quality of service.

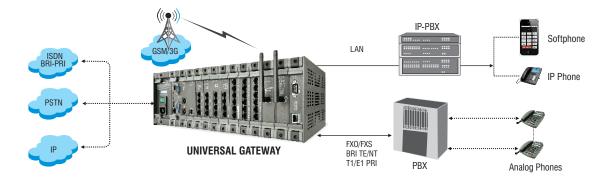


Key Features

- 40 GSM/3G SIMs
- 384 VoIP Channels
- 8 T1/E1 PRI
- 32 ISDN BRI
- 128 FXO and 240 FXS
- Automatic Number Translation
- · Call Detail Records
- Direct Dial-In

- · Multi-stage Dialing
- · Mobile Network/Base Station Lock
- QSIG over T1/E1 PRI
- · Quad-Band Support
- SIM Balance Enquiry and Recharge
- TLS and SRTP Support
- Universal Routing with Least Cost
- · Web based Management

The gateway interfaces with an existing PBX system via FXO/FXS, BRI, PRI or over IP. The gateways work as an adjunct to existing telephony infrastructure, with no need to replace any existing equipment. This not only saves additional investment on acquiring new equipment, but also saves time and efforts required for re-installation of the system and re-training to users. When connected with any existing PBX, the gateways remain completely transparent to all users and allow them to make and receives calls and also use PBX features as previously.



VOIP GATEWAYS

Enterprises are inclined to avail benefits of IP networks while protecting their existing investment against changing communication technologies. The new-age Matrix SETU Gateways interface VoIP with GSM/3G, POTS, ISDN networks to provide an integrated platform.

SETU VGFX

Multi-Port VoIP to GSM/3G, FXO and FXS Gateway for Voice and Internet Applications

Matrix SETU VGFX is a feature-rich gateway offering VoIP, GSM/3G and POTS connectivity on a single platform. It is compatible with any SIP infrastructure like Soft Switches, IP-PBXs and Proxies. Apart from providing voice services, it also offers high speed data accessibility over 3G/HSPA internet data networks. This makes the gateways a perfect solution for offices and businesses in remote location with less or no fixed line IP connectivity.

SETU VGFX8422 VoIP Gateway with 8 VoIP Channels, 4 GSM/3G Channels, 2 FXO Ports and 2 FXS Ports

SETU VGFX8404 VoIP Gateway with 8 VoIP Channels, 4 GSM/3G Channels and 4 FXS Ports

FXS/FX0



SETU VGEX

Key Features

PSTN

- · Auto Provisioning for Mass Deployments (TR-069)
- Auto PSTN Fallback for Assured Connectivity

SETU VGFX

- Automatic Number Translation
- · Call Detail Records
- . DHCP Server and Client
- Fax over IP (T.38 and Pass-Through)
- · Internet Accessibility over 3G/HSPA
- Message Wait Indication
- Peer-to-Peer Calling

PBX

- Port Forwarding and DMZ
- SIM Balance Inquiry and Recharge

Users

- SNMP Monitoring
- TLS and SRTP Support
- VLAN Tagging

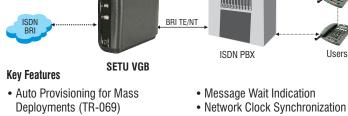
SETU VGB

Multi-Port VoIP to ISDN BRI Gateway

Matrix SETU VGB is compact and feature-rich gateway offering VoIP and ISDN BRI connectivity on a single platform. It can be deployed with any SIP Infrastructure like soft switches, IP-PBXs, Registrars and Proxies. Easily integrating with an ISDN PBX, it grants access to the new-age VoIP telephony. The 3G wireless network offers data connectivity to the users behind the LAN and also facilitates VoIP

calling making it a perfect solution for offices and business units in remote locations, where fixed-line IP connectivity may not be available easily.

SETU VGB802 VoIP Gateway with 8 VoIP Channels and 2 ISDN BRI **Ports**





- Automatic Number Translation
- · Call Detail Records
- · Configurable TE/NT BRI Ports
- DHCP Server and Client
- Fax over IP (T.38 and Pass-Through)
- Internet Accessibility over 3G/HSPA
- · Message Wait Indication
- · Port Forwarding and DMZ
- · Peer-to-Peer Calling
- · SIM Balance Inquiry and Recharge
- SNMP Monitoring
- TLS and SRTP Support

SETU VTEP

VoIP to T1/E1 PRI Gateway

Matrix SETU VTEP is a dedicated gateway between T1/E1 PRI and VoIP networks. Its compact design, plug-n-play configuration and support for all standard network protocols make it the best-fit device for varied applications. For an existing ISDN PBX it acts as a VoIP access device and for an IP-PBX it offers connectivity to the

ISDN network. The gateway easily integrates with any existing infrastructure.

SETU VTEP VoIP to T1/E1 PRI Gateway with 32 VoIP Channels and 1 T1/E1 PRI Line







Key Features

- Auto Provisioning for Mass Deployments (TR-069)
- Automatic Number Translation
- · Call Detail Records
- DHCP Client
- Dynamic DNS
- Fax over IP (T.38 and Pass-Through)
- · Least Cost Routing
- Network Clock Synchronization
- Peer-to-Peer Calling
- SNMP Monitoring
- VLAN Tagging
- Web based Programming

SETU VFX

Low-Density Multi-Port VoIP-FXO-FXS Gateway

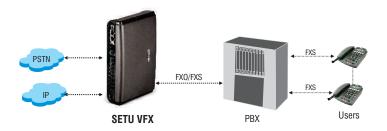
Matrix SETU VFX is a single-box gateway solution, offering seamless connectivity between VoIP and POTS networks. It is a compact, SIP based gateway suitable for any enterprise application. SETU VFX supports flexible and intelligent call routing options to ensure communication through the most cost effective network.

SETU VFX440 VoIP Gateway with 4 FXO Ports

SETU VFX404 VoIP Gateway with 4 FXS and 1 FXO (PSTN Pass-Through) Port

SETU VFX880 VoIP Gateway with 8 FXO Ports

SETU VFX808 VoIP Gateway with 8 FXS and 1 FXO (PSTN Pass-Through) Port

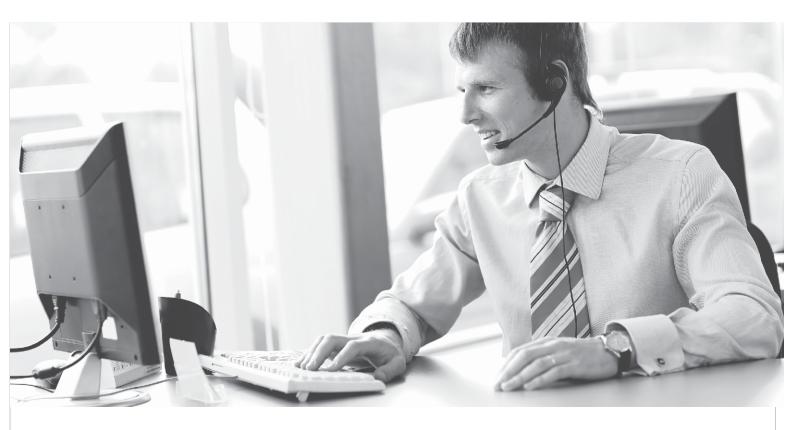




- Auto Provisioning for Mass Deployments (TR-069)
- Automatic Number Translation
- · Call Detail Records
- CLI Display
- DHCP, PPPoE, NAT and STUN
- Fax over IP (T.38 and Pass-Through)
- Hotline
- · Lifeline Fallback to PSTN

- Message Wait Indication
- Peer-to-Peer Calling
- Port Forwarding and DMZ
- SNMP Monitoring
- TLS and SRTP Support
- Web based Programming





SETU VFXTH

VoIP-FXO-FXS Gateways

Matrix SETU VFXTH is a single-box gateway solution, offering seamless connectivity between VoIP and POTS (FXO and FXS) networks. It is compatible with any SIP Infrastructure like Soft Switches, IP-PBXs, Registrars and Proxies. SETU VFXTH supports

flexible and intelligent call routing options to ensure that communication always through the most cost effective network. It is available in 5 different in configurations with varied combinations of FXO/FXS ports.



Key Features

- Automatic Number Translation
- Auto PSTN Fall-Back for Assured Connectivity
- · Built-in PBX Functionality
- Call Detail Record (CDR)
- CLI Display
- Call Progress Tones and Rings
- DHCP, PPPoE, NAT and STUN
- Digest Authentication
- Emergency Number Dialing
- Fax over IP (T.38 and Pass-Through)
- Group Call-Pickup
- · Message Wait Indication
- Hotline
- Peer-to-Peer Calling
- SRTP/TLS over SIP
- Supplementary Calling Features
- Web based Management



| Model Name | VoIP Channels | FXO Ports | FXS Ports |
|----------------|------------------|--------------|--------------|
| SETU VFXTH0808 | 16 | 8 | 8 |
| SETU VFXTH0016 | 16 | - | 16 |
| SETU VFXTH0024 | 24 | - | 24 |
| SETU VFXTH0032 | 32 | - | 32 |
| SETU VFXTH3200 | 32 | 32 | - |

SETU VG

Multi-SIM VoIP to GSM/3G Gateway

Matrix SETU VG is a compact VoIP-GSM gateway with up to 4/8 GSM and 3G SIM support. Integrated GSM/3G connectivity and open standard SIP support enables SETU VG gateway to easily connect with leading IP phone systems, software based IP-PBXs, hosted and SIP trunking services. SETU VG is a suitable GSM trunking solution for enterprises, call terminators and areas with limited landline and internet connectivity such as remote project offices, rural and educational institutions.

SETU VG4 VoIP Gateway with 8 VoIP Channels and 4 GSM/3G SIM Slots

SETU VG8 VoIP Gateway with 12 VoIP Channels and 8 GSM/3G SIM Slots

Key Features



Up to 8 GSM/3G SIM Ports

Save recurring fixed-to-mobile costs and maintain business continuity during PSTN and IP Network outage



Hot Swappable SIM Cards

Leverage time and region specific calling plans and zero down time



3G Internet Access

Avail high-speed internet for areas with limited fixed line connectivity. Speed up to 14.4 Mbps DL /5.76 Mbps UL



SMS Notification

Send SMS notifications for critical events such as WAN link down, change of IP address, calling minutes, data usage, SIM balance



Penta band 3G/UMTS

Get easily connected with 3G voice and internet service providers across the globe



Call Details Record

Record call details of up to 2000 calls



TR-069 Auto-Configuration

Automate remote management for mass deployments



SNMP Monitoring

Monitor usage and health of network entities



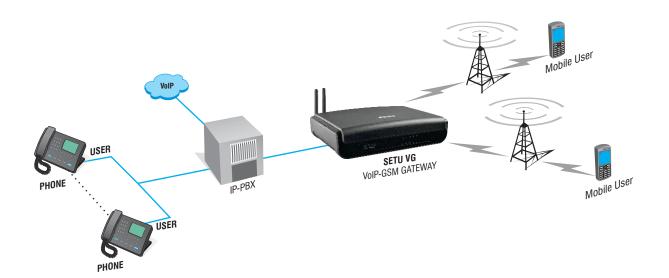
TLS/SRTP Security

Ensure VoIP call security over IP network



Peer-to-Peer Calls

Place calls between multiple locations over IP networks



GSM/3G GATEWAYS

GSM/3G has emerged as a superior alternative to the fixed-line networks and offer wider coverage and cost benefit. Today's businesses expect the specific benefits from GSM/3G networks without sacrificing existing POTS/ISDN connectivity. Matrix SIMADO is a family of integrated GSM/3G Gateways, interfacing the GSM/3G networks with the wired POTS and ISDN networks.

SIMADO GBR

Multi-Port GSM/3G to ISDN BRI Gateway

Matrix SIMADO GBR42 is a cost-effective solution for SOHOs and enterprises to connect existing ISDN PBX to the GSM networks through BRI ports. The stand-alone device supports flexible and intelligent Least Cost Routing options providing significant cost savings and round-the-clock connectivity.

SIMADO GBR21 GSM-BRI Gateway with 2 GSM/3G and 1 ISDN BRI Port

SIMADO GBR42 GSM-BRI Gateway with 4 GSM/3G and 2 ISDN BRI Ports





SIMADO GBR

Key Features

- · Allowed and Denied Lists
- Automatic Number Translation
- Built-in Antenna Splitter
- · Call Detail Records
- · Call Progress Tones and Rings
- Configurable TE/NT BRI Ports
- · Least Cost Routing
- Network Clock Synchronization
- Quad-Band Support
- Table-Top, Wall-Mount
- · Windows based Programming

SIMADO GFX44

Multi-Port GSM to FXS Gateways

Matrix SIMADO GFX44 is gateway offering interfaces for multiple GSM/3G and FXS ports. It can be used with any existing PBX without changing their existing telephony infrastructure or even in a standalone mode. The Matrix SIMADO GFX44 works as an

adjunct and supports flexible routing options providing significant cost saving and round-the-clock connectivity.

SIMADO GFX44 GSM-FXS Gateway with 4 GSM/3G Ports and 4 FXS Ports





Key Features

- · Allowed and Denied Lists
- Automatic Number Translation
- Built-in Antenna Splitter
- · Call Detail Records
- · Call Progress Tones and Rings
- · Emergency Number Dialing
- Least Cost Routing
- Quad-Band Support
- · Windows based Programming

GSM/3G FCTs

SIMADO range of FCTs support voice applications over the GSM/3G network. The GSM/3G FCTs can be used as stand-alone units or directly interfaced to a PBX, allowing users to dynamically select between GSM/3G and POTS networks, on per-call basis.

SIMADO GFX11

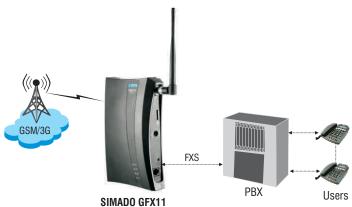
Fixed Cellular Terminal for Voice Applications

Matrix SIMADO GFX11 is GSM FCT with single port interface for GSM and FXS. It is a perfect solution for connecting the existing PBX infrastructure to the GSM network. Matrix SIMADO GFX11 3G offers accessibility of 3G networks for Voice communication. SIMADO GFX11 is available in following configurations:

SIMADO GFX11 GSM FCT for Voice Applications with 1 GSM Port and 1 FXS Port

 $\bf SIMADO\ GFX11\ 3G\ \ 3G\ FCT$ for Voice Applications with 1 3G Port and 1 FXS Port





Key Features

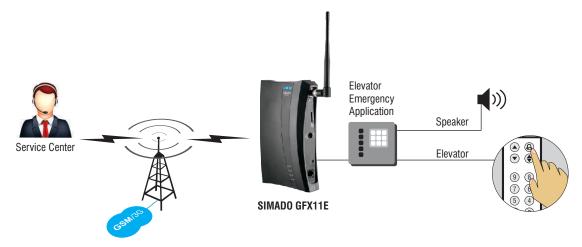
- · Allowed and Denied Lists
- Automatic Number Translation (ANT)
- CLI Display
- Compact and Sturdy
- Signal Strength Indication
- · Hot Line
- · Multi-stage Dialing
- Network Selection
- Polarity Reversal
- Quad-Band Support

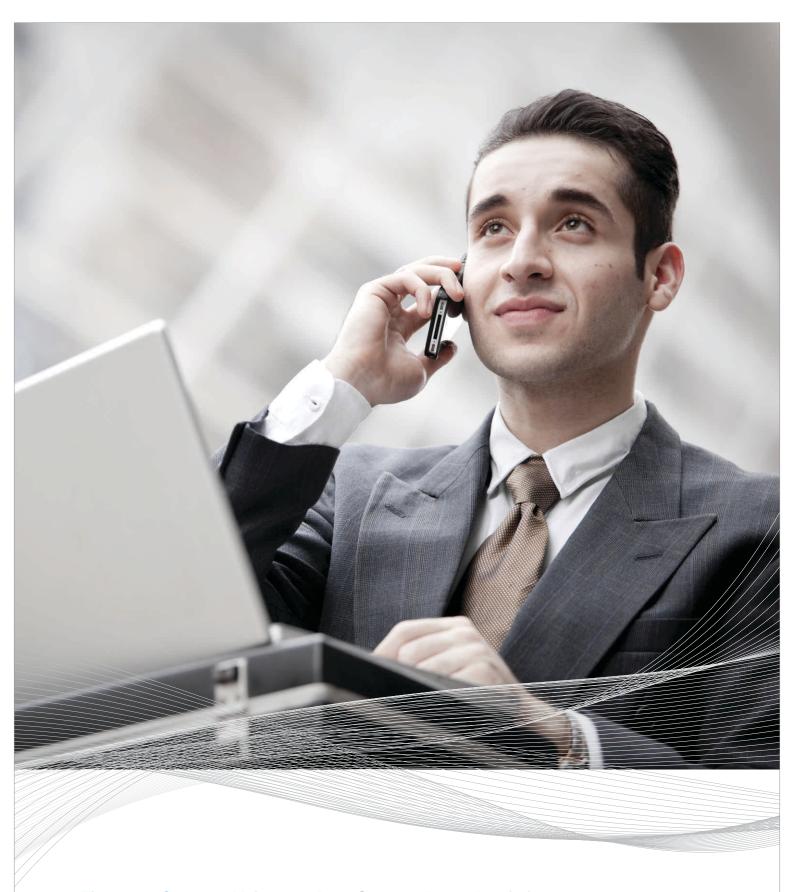
SIMADO GFX11E

Fixed Cellular Terminal for Elevator Emergency Applications

SIMADO GFX11E is a specialized GSM FCT that enables critical communication during emergency situations such as elevator break-down and power cuts. GFX11E establishes communication link with the help center to allow the user in trouble to get immediate

help. SIMADO GFX11E can be used in various application areas such as Elevators, ATM Centers, Arcades, Hospitals, Shopping Malls and senior citizen's homes.





Fixed and Scalable Voice and Data Support Large Portfolio
Easy Integration Connectivity Convenience Cost Branch Office Solutions

MATRIX NETWORK



MATRIX CUSTOMERS

- ABB
- · Adani Group
- Airtel
- · American Express
- Amoli Organics
- Apollo Hospitals
- Bajaj Auto
- Bharat Petroleum
- Blue Dart Express
- Brakes India
- Cadila Pharmaceuticals
- Celtyc systems
- Chemcon Chemicals
- · China Ecotek

- · China Steel
- Cipla
- DIC Fine Chemical
- Domino's Pizza
- Dr. Reddy's Foundation
- DSM Nutrition
- Du-Pont
- Garnier Laboratories
- GEC Alstom
- GETCO Ahmedabad
- Glenmark Pharmaceuticals
- Haier
- · Hindustan Unilever
- Hyundai Motors

- Indian Oil Corporation
- INOX Air Products
- Investis
- Johnson & Johnson
- Kurlon
- L&T
- LindeL'Oreal India
- Micromax
- NETAFIM
- Pepsi
- Price Waterhouse Coopers
- Raheja Construction
- Raychem RPG

- Raymond
- · Reliance Industries
- · Reserve Bank of India
- Schneider
- Seforge
- Shapoorji Pallonji
- State Bank of India
- Steel Authority of IndiaSun Pharmaceutical
- Tata Steel
- Tata Tele Services
- TBEA
- Vodafone
- Wipro

ABOUT MATRIX



Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; Matrix is committed to keep pace with the revolutions in the telecom and security industries. With more than 40% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like Video Surveillance solutions, Access Control, Time-Attendance, IP-PBX, Universal Gateways, Terminals, Convergence solution, VoIP Gateways and GSM Gateways. These solutions are feature-rich, reliable and conform to the international standards. Having global foot-prints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.

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