



VISIONULTRA

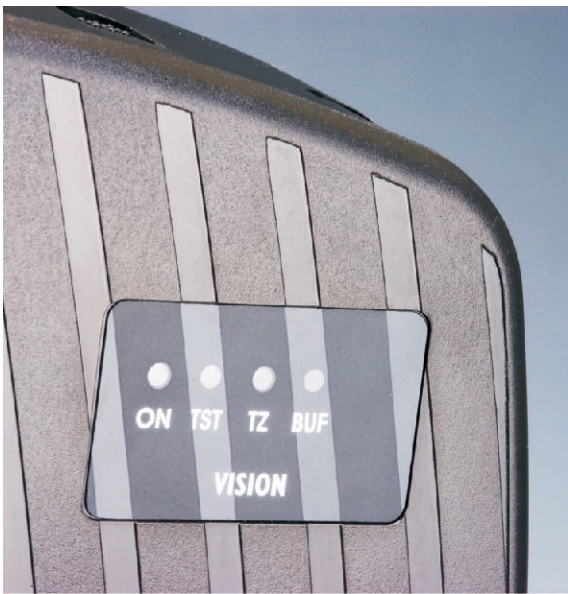
The Office PBX

The Growth Accelerator

Modern offices require a unique and completely integrated communication solution. Presenting: Matrix VisionUltra, a premium, feature packed PBX specially designed for modern offices. It has unique features that are powered by microcontroller. Designed after a study of the way in which modern businesses operate; Matrix VisionUltra offers integrated solutions for your communication problems.

SMT hardware design ensures a very compact design and low power consumption. SLIC used for the extension interface ensures robust, reliable and maintenance free performance. The unique features provided in the system ensure smooth and efficient call management. Special features are provided that give professional response to the callers, hence enhancing the image of the organisation. Matrix VisionUltra is "The PBX for Office", designed for people who don't compromise.

Get the power of Matrix VisionUltra for your office. Because those who compromise cannot have accelerated growth!



■ KEY FEATURES

Allowed and Denied Lists

This function prevents misuse of long distance and international dialing to control telephone cost. A comprehensive list of numbers can be included in the Allowed and Denied Lists. However, it allows dialing of a few fixed numbers and restricts dialing of other numbers in the same area. For example, an extension can dial only '22-628-5738' but not any other number starting with '22'.

Alternate Number Dialing

Whenever redial or auto redial is used, the VisionUltra dials out the next alternative number instead of the same number that is found engaged.

Auto Redial - Multiple Numbers

This feature redials a busy number till it gets through. The user is free to concentrate on his work while the system is trying a busy number. The extension gets a ring and the number connected to is displayed on the telephone when the call goes through. Each user can submit upto 3 busy numbers for auto redial.

Battery Charger

The system has a built-in battery charger circuit which can be connected to 24 V DC, 7 A.h battery. It gives a back-up time of 3 hours. In case of power failure, the system automatically transfers to battery and is transferred back when the power supply resumes.

CLI (Caller Line Identification-Both FSK and DTMF)

This function identifies the phone number of the caller and displays it on the telephone. The CLI is displayed for both internal and external caller. Even in case of a call being transferred from one extension to another, the system informs both the numbers.

CLI Based ECF (External Call Forwarding)

The system offers the facility of forwarding selective incoming calls to a desired external number. Selective call forwarding is possible by defining a string of numbers. For example, the system could be programmed such that all numbers with a prefix '22' are forwarded to the residence number, however a very important number '22-628-5738' is forwarded to the mobile.

■ Matrix VisionUltra is available in four models:
(1) VisionUltra206P, PBX for 2 trunk lines-6 extensions
(2) VisionUltra308P, PBX for 3 trunk lines- 8 extensions
(3) VisionUltra412P, PBX for 4 trunk lines -12 extensions
(4) VisionUltra616P, PBX for 6 trunk lines-16 extensions. These models offer optional connectivity of Door Phone Port, Digital Output Ports and Remote Status Display Unit.

Matrix VisionUltra is built around microcontroller based architecture and utilises state-of-the-art Surface Mount Technology (SMT). Coupled with SLIC based design, the system ensures robust, reliable and maintenance free performance.

The system offers built-in features like Auto Attendant, Security Dialer, Internet Port, DTMF and FSK CLI, Digital Input Port, Analog Input Port, Analog Output Port, Remote programming, etc. that normally are not available, and even if available, they warrant additional investment in most other systems.

VisionUltra offers efficient call management by way of Alternate Number Dialing, Auto Attendant and CLI based Routing. It can have a complete control over telephone cost through its intelligent features like Allowed and Denied Lists, Least Cost Routing, SMDR Reports and Live Call Supervision. It also helps in enhancing image of the organisation through its unique features like Name Programming and Dial by Name.

All in all, a premium and futuristic PBX! Make the winning difference for your organisation by switching to Matrix VisionUltra because only those grow faster who don't compromise!

Auto Attendant

This feature allows the caller to directly reach an extension without the help of an operator. The system has a built-in Auto Attendant playing different messages like welcome message, dial by name, dial extension, busy, no reply, wrong number dialed, transferring to operator etc. These messages can be recorded in a 4-minute voice module. It also allows the caller to reach a desired extension by dialing the name of the extension user.



CLI Based Routing

The system can be programmed such that particular numbers land at a specified extensions directly without the assistance of an operator, thus saving time and cost for the callers. Of great utility in case of long distance calls.

Digital Output Ports

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

External Music Port

This port can be used to play a desired piece of music to the caller on hold. An external music source like a CD player or FM radio can be connected to this port.

Fax Homing

Voice and fax calls can be received on the same trunk. If an incoming call is a fax call, VisionUltra directs the call on an extension where a fax machine is connected.

Inbound Call Analysis

500 incoming calls can be stored in the memory with details like caller number, trunk, extension, date and time of the call, duration of the speech, etc. These calls can be analysed based on multiple filters like caller number, extension, missed calls, duration, etc. Results of the analysis can be sent to a computer through the communication i.e. RS-232C port.

Internet Ready (e-port)

A special port is provided to connect a modem to VisionUltra. This port connects the modem directly to the trunk line eliminating noise and hence improving data transfer speed. Further, this e-port is an extra port leaving all regular extension ports for voice calls.

Jeeves

Matrix VisionUltra comes along-with Jeeves-a Windows based Graphic User Interface (GUI) software tool for programming the system. It is intuitive, user friendly and supports languages like English, French, Spanish, German, Russian, Portuguese and Italian. Jeeves makes programming of VisionUltra a child's play!

Least Cost Routing

The system can be programmed to ensure least cost incurred for each call by choosing specific trunk lines based on their prevailing tariffs. This function has a great utility now with the presence of multiple basic service providers offering different tariffs for different destinations during different hours.

Live Call Supervision

A security feature, it lets the supervisor know the phone number with whom an extension user is talking.

Resettable Fuse

The system is accompanied with an auto-resettable fuse on trunk and extension lines. Hence VisionUltra assures complete protection against high voltages from trunk as well as extension lines thereby increasing reliability of the system.

Scheduled Dialing

The system can be programmed to dial a number at a pre-specified time. This facility is of great utility and can be used to lock long distance calling facility at fixed timings avoiding misuse.

Security Dialer

A highly effective security feature that dials 3 different numbers and plays a pre-recorded message in case of an emergency. For example, it could dial the police station and play an emergency message giving the address of the office. VisionUltra can be connected to any emergency switch like movement detector, smoke detector, magnetic contact, glass break sensor etc. The system can also be used to activate a hooter in case of an emergency.

SLIC Based Design

SLIC based design assures excellent loop resistance and improved speech performance. With no moving parts, the durability of the system increases, besides, it also leads to low stand-by power consumption.

Station and Trunk Name Display

Each time you get a call, the caller's name shall be displayed on your extension. Hence no need to guess the caller on the basis of the extension number. This feature is available on all single line telephones (extensions) and not just on trunk lines.



FEATURES

| | |
|------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Abbreviated Dialing (Global & Personal) | External Call Forward (All, Selective) |
| Alarms (Duration, Remote, Daily, Time) | External Music Port |
| Allowed and Denied Lists | Fax Homing |
| Alternate Number Dialing | Flash Timer |
| Analog Input Port (AIP) | Flexible Numbers |
| Analog Output Port (AOP) | Hold |
| Auto Attendant | Hotline (Immediate, Delayed) |
| Auto Call Back (All, Busy, No Reply) | Internet Ready Port |
| Auto Redial (Multiple Numbers) | Interrupt Request |
| Automated Control Applications (Three)* | Last Number Redial |
| Barge-In | Least Cost Routing (Time, Number, Combined, Carrier Pre-Selection) |
| Battery Back-up | Live Call Supervision |
| Behind the PBX Applications | Music on Hold (Internal, External, Voice Module) |
| Boss Ring | Operator |
| Call Duration Control (All, Selective calls) | Paging |
| Call Forward (All, Busy, No reply) | Power Down Mode |
| Call Park | Privacy |
| Call Pick Up (Group, Selective) | Programming the System (Using SLT, Serial Port, Jeeves) |
| Call Progress Tones | Raid |
| Call Splitting | Real Time Clock |
| Call Transfer (Screened, While Ringing, On Busy, Trunk to Trunk) | Remote Programming (from Landline or Mobile) |
| Calling Line Identification and Presentation (CLIP- both FSK and DTMF) | Remote Status Display* |
| Class Of Service (COS) | Scheduled Dialing |
| CLI (Trunk, Station) | Security Dialer (Three Numbers) |
| CLI based External Call Forwarding | Station Group |
| CLI based Routing | Station Message Detail Recording (SMDR-Incoming) |
| Communication Port | Station Message Detail Recording (SMDR-Outgoing) |
| Computer Connectivity | Station and Trunk Name Display |
| Conference (Supervised, Unsupervised) | System Security (Passwords) |
| Configuration Reports | System Timers |
| Continued Dialing | Time Table |
| Country Settings (Indian, American, European) | Toll Control |
| Day-Night Mode (Auto, Manual) | Trunk Access Groups |
| Department Call | Trunk Landing Groups |
| Dial by Name | User Security (Password) |
| Digital Input Port (DIP) | Voice Greetings for Alarms |
| Digital Output Port (DOP) | Voice Guided help for DOSA & DID (Busy, No reply, Transfer, Wrong Dial) |
| Direct Inward Dialing (DID) | Voice Message for Auto Redial |
| Direct Outward System Access (DOSA) | Voice Greetings for Day & Night |
| Distinctive Rings | Voice Message for Security Dialer |
| Door Phone (2 wire or 4 wire)* | Walk-in Class of Service |
| Door Lock* | |
| Dynamic Lock (Auto, Manual) | |
| Emergency Dialing (American version only) | * Optional |

Neo10

Speakerphone for VisionUltra with customised one-touch keys.



Neo10 is a feature packed single line telephone with hi-quality speakerphone and LCD display. Neo10 is available with 10 pre-programmed one-touch keys which offers easy access to VisionUltra system features. Color variants available: Black and White

Winning Features of VisionUltra

| Features | VisionUltra | Any other PBX |
|--------------------------------------|-------------|---------------|
| American, European version available | ✓ | × |
| Alternate Number Dialing | ✓ | × |
| Auto Attendant | ✓ | × |
| Auto Redial - Multiple | ✓ | × |
| CLI - DTMF and FSK | ✓ | × |
| CLI Based ECF | ✓ | × |
| CLI Based Routing | ✓ | × |
| Dial By Name | ✓ | × |
| Digital Output Ports (Three) | ✓ | × |
| Door Phone (2 wire or 4 wire) | ✓ | × |
| Inbound Call Analysis | ✓ | × |
| Internet Ready Port | ✓ | × |
| Least Cost Routing (Four Types) | ✓ | × |
| Live Call Supervision | ✓ | × |
| Most Compact System | ✓ | × |
| Name Programming | ✓ | × |
| Recordable Music On Hold | ✓ | × |
| Remote Status Display Unit | ✓ | × |
| Scheduled Dialing | ✓ | × |
| Security Dialer | ✓ | × |
| Sensor/Panic Switch Connectivity | ✓ | × |
| SLIC Based Design | ✓ | × |
| Universal Power Supply | ✓ | × |
| Voice Module (240 seconds) | ✓ | × |

■ TECHNICAL SPECIFICATIONS

CO Lines (FXO)

| | |
|----------------------------|---------------------------------------------------------|
| Off Hook Line Impedance | : 600 Ω |
| Loop Limit | : 1500 Ω |
| Pulse Dialing | : 10 PPS +/- 5%, Make/Break = 33:67, 40:60, 50:50 |
| DTMF Dialing and Reception | : As per ITU-T Q.23 & Q.24 |
| CLI Reception | : DTMF, FSK ITU-T V.23 and FSK Bellcore 202 |
| Call Maturity Protection | : Delay Type |
| Connection | : Built-in Secondary Protection as per EN55024 Standard |
| | : Push-Type (Single Pair Wire, 0.5 mm/0.019 ") |

Stations Lines (FXS)

| | |
|-------------------------|---------------------------------------------------------|
| Loop Limit | : 270 Ω Max. (Excluding Telephone) |
| Loop Current | : 39 mA Max. |
| Ring Voltage | : 50 Vrms, 25Hz |
| Off Hook Line Impedance | : 600 Ω |
| Pulse Detection | : 10 PPS +/-10%, Make/Break = 33:67 |
| DTMF Detection | : As per ITU-T Q.24 |
| CLI Presentation | : DTMF, FSK ITU-T V.23 and FSK Bellcore 202 |
| Protection | : Built-in Secondary Protection as per EN55024 Standard |
| Connection | : Push-Type (Single Pair Wire, 0.5 mm/0.019 ") |

Transmission

| | |
|--------------------------|-----------------------|
| Return Loss | : More than 18 dB |
| Insertion Loss | : Less than 1 dB |
| Inter-Channel Cross-Talk | : Less than -65 dBm |
| Idle Channel Noise | : Less than -70 dBmOp |
| Longitudinal Balance | : Better than 40 dB |

| | |
|----------------------------------|-------------------------------------------------------------------------------------------|
| Analog Input Port | : 0.7 Vrms, Isolated, 1 k Ω , Push-Type Connector |
| Analog Output Port | : 0.7 Vrms, Isolated, Push-Type Connector |
| Digital Input Port | : Loop Sensing-Open/Close, 5 mA, Push-Type Connector |
| Digital Output Port | : VDC max = 60 V DC, IDC max = 0.15 A, Push-Type Connector |
| Power Failure Transfer Switching | : All CO Lines to Fixed Stations |
| Control Architecture | : Space Division (CMOS Crosspoint) : CMOS Micro-controller with Stored Program Control |

Mechanical

| | |
|------------------------|-------------------------------------------------|
| Dimensions (W x H x D) | : 25.0 x 32.5 x 7.0 cm (9.8 " x 12.8 " x 2.7 ") |
| Unit Weight | : 1.8 kg (3.9 lb) |
| Shipping Weight | : 3.6 kg (7.9 lb) |
| Installation | : Wall Mount |

Environmental

| | |
|-----------------------|--------------------------------------|
| 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 |

Power Supply

| | |
|-----------------------------|--------------------------|
| Mains | : 90-265 V AC, 47-65 Hz, |
| Power Consumption (Typical) | : 20 W |
| Battery Rating | : 24 V DC, 7-10 A.h |

Compliances

Immunity

| | |
|--------------------------------|-----------------|
| ESD | : IEC 61000-4-2 |
| EFT | : EN 55024 |
| Surge | : EN 55024 |
| Conducted Disturbance | : IEC 61000-4-6 |
| Radiated Immunity | : IEC 61000-4-3 |
| Power Frequency Magnetic Field | : EN 61000-4-8 |
| Voltage Interruption and DIPS | : EN 55024 |

EMC (Emissions)

| | |
|---------------------------|--------------------|
| Conducted Emission | : CISPR 22 Class A |
| Radiated Emission | : CISPR 22 Class A |
| Harmonic Current Emission | : BS EN 61000-3-2 |
| Voltage Flicker | : BS EN 61000-3-3 |

Safety

IEC 60950



SYSTEM CAPACITY

| Hardware | Application | VisionUltra 206P | VisionUltra 308P | VisionUltra 412P | VisionUltra 616P |
|---------------------------------|---------------------------------------------------|------------------|------------------|------------------|------------------|
| CO Lines (FXO) | Analog PSTN/CO Line Connectivity | 2 | 3 | 4 | 6 |
| Stations (FXS) | Phone, Modem, Fax Connectivity | 7 | 9 | 13 | 17 |
| Internet Port | Direct Trunk Connection for External Modem | 1 | 1 | 1 | 1 |
| Com (RS-232C) Port | Computer Connectivity | 1 | 1 | 1 | 1 |
| Analog Input Port | External Music | 1 | 1 | 1 | 1 |
| Analog Output Port | Public Address System | 1 | 1 | 1 | 1 |
| Digital Input Port | Sensors/Panic Switches | 1 | 1 | 1 | 1 |
| Digital Output Port | Door Lock, Relay Port, Etc | 3 | 3 | 3 | 3 |
| Security Dialer | Emergency Dialing | 1 | 1 | 1 | 1 |
| Door Phone Port (2 Wire/4 Wire) | Door Phone (2W Convertible to Extra SLT Port) | 1 | 1 | 1 | 1 |
| Voice Module | Auto Attendant and Other Voice based Applications | 240 sec | 240 sec | 240 sec | 240 sec |
| RSD Port | Remote Status Display | 6 | 6 | 6 | 6 |
| Real Time Clock (RTC) | LCR, Alarms, Scheduled Dialing, Day/Night Mode | 1 | 1 | 1 | 1 |
| DTMF Decoders | | 2+2 | 3+2 | 4+4 | 4+6 |
| DTMF Encoders | | 1 | 1 | 2 | 4 |
| Speech Paths | | 7 | 7 | 7 | 7 |

MATRIX SMB PBX PRODUCTS

| | |
|-----------------|--------------------------------------------------------------------------|
| Proton103 | 1 Trunk Line and 3 Extension Lines PBX |
| Proton205 | 2 Trunk Lines and 5 Extension Lines PBX |
| Proton206 | 2 Trunk Lines and 6 Extension Lines PBX |
| Proton308 | 3 Trunk Lines and 8 Extension Lines PBX |
| Vision206S | 2 Trunk Lines and 6 Extension Lines PBX with Standard Features |
| Vision308S | 3 Trunk Lines and 8 Extension Lines PBX with Standard Features |
| Vision309P | 3 Trunk Lines and 9 Extension Lines PBX with Premium Features |
| VisionUltra206P | 2 Trunk Lines and 6 Extension Lines PBX with Premium Features |
| VisionUltra308P | 3 Trunk Lines and 8 Extension Lines PBX with Premium Features |
| VisionUltra412P | 4 Trunk Lines and 12 Extension Lines PBX with Premium Features |
| VisionUltra616P | 6 Trunk Lines and 16 Extension Lines PBX with Premium Features |
| Cosine32P | Digital Key Phone System for Mid-size Business Expandable up to 32 Ports |
| Cosine64P | Digital Key Phone System for Mid-size Business Expandable up to 64 Ports |

ABOUT MATRIX



An ISO 9001 Company, Matrix is a leader in the 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 Digital and ISDN Key Phone Systems, Digital PBXs, Voice Messaging Products, GSM Products, VoIP Products, Intercom Security Products and PLCC EPAXs. With over 1,000,000 line units installed and growing by over 1000 line units per day, the installed base of Matrix connects over 10,000,000 calls everyday. Thus, Matrix has gained the trust and admiration from users representing the entire spectrum of industries. No wonder, Matrix has won awards for the Best PBX and Key Phone System Company.

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