



SWIF M'PAR is a Windows CE based computing platform with an array of features and peripherals. Built-in touch screen, thermal printer, keypad, USB, Serial Port, Finger Print Scanner, RFID reader/writer, Magnetic swipe card reader, Dual Smart-Card Reader, GSM/GPRS, GPS, Audio Facility and Barcode Reader Interface make M'PAR a highly versatile technology tool.

M'PAR delivers the performance and flexibility that is required for high volume transactions in e-government, micro finance, public distribution system, MGNREGA, retail, and other such application areas.

With the Windows CE based operating environment, the M'PAR platform supports standard windows applications. This makes the software development and customization easy without requiring any special development tools or cross-compilers.

Salient Features

- Device dramatically simplifies data transmission task with GSM / GPRS connection
- Dual authentication with finger sensor & card reader, link in to UID
- In-built speaker (audio facility) for announcements
- Thermal Printer for receipt printing
- RFID (contactless smart card) for Customer Loyalty / Authentication
- SD Card for ease of data storage, USB Host, USB Device interfaces for attaching USB Drives, Barcode Readers, etc.
- Global Positioning System (GPS) for Location tracking
- Windows CE operating system with QVGA color LCD with Touch screen capability
- Compact portable design for end user ease, Uninterrupted, trouble-free day-long operation

- IDEAL FOR :**
- Public Distribution System
 - Banking
 - Financial Institutions
 - Medical & Healthcare
 - Micro-Finance
 - MGNREGA
 - Mobility Applications
 - Petrol Pumps
 - Police Challan

Benefits OF M'PAR

Improved Response Times

Mobility improves sales response through real-time availability of information via GPRS and business tools (Card reader, data-entry terminal, USB, printer, etc.)

Unique Identification

Dual Smart Cards, Biometrics and RFID based access control improves Reliability in access control.

Location Accuracy, Mobility and Accountability

GPS Based location tracking of the terminal and wireless technology and built-in peripherals reduce operational overheads, while enhancing personnel accountability.

Single Device Simplicity

Business becomes mobile with a PDA, a supply-chain terminal, payment terminal, receipt printer and Unique Identification system all combined in a single compact device.

Customizable, Real-time Computing

Provides a window into existing systems and exposes pertinent data housed in different repositories to the user in various customizable ways; as dashboards for client-servicing, marketing, portfolio-management, or data - logging and reporting - all in real time.

Technical Specifications

Application Areas

Basic Features

- 32 Bit Arm Processor (ARM 9 Processor)
- Portable Hand-Held Terminal
- 3.5 Inch Color TFT Touch-Screen LCD Display
- Windows CE Operating system
- 30+ Keys on Key-pad
- Rechargeable High Capacity 7.4V@1700mAh Lithium Ion Battery

External Interface

- USB device interface
- RS232C serial communication port

Environmental Specifications

- Operating Temperature: 0 to 55 deg C
- Storage Temperature: -20 to 60 deg C

RFID

- 5 V operating voltage from 0 to 40 mhz

Magnetic Swap Card Reader

- ISO 7811/7812 Conformance
- Read single, dual & triple track
- Life time: 500,000 pass
- Max current: 7.3 mA
- 10 cm ~ 180 cm/sec
- f/2f decoding
- Reading avg current – 10 mA

Smart Card

- Power supply : regulated 5V DC
- Supply current : <100 mA (without smart card)
- Interface : serial communication & USB
- Dimensions : (67.0 (L) X 91.6(W) X 16.9(H)) mm

Built -In Optional Peripheral Support

- Magnetic Card Reader interface
- Bio-Metric Reader & RFID card Interface
- Dual Smart Card Reader Interface
- Thermal Receipt Printer Interface
- GPS (Global Positioning System)
- SAM slot
- AC'97 compatible Audio Interface
- 2-inch Thermal Printer

Memory & Storage

- 64MB Flash for OS
- 256MB SDRAM

Physical Specifications

- Maximum Dimensions (18 X20 X6) cm
- Maximum Weight: 700 gm.

GPRS

- Tri band (900, 1800, 1900 hz).
- GPRS type B, Multi slot Class 10.
- Antenna Type: external

GPS

- Tracking Channel : 16
- L1 Frequency : 1575.42 MHz

Biometric

World's best authentication performance (ranked No. 1 in FVC2004)

- High speed fingerprint verification
- Supports various communication interfaces
- Supports fingerprint data encryption
- Operates with a single 3.3v dc supply
- Sensor technology: Optical
- Sensing area: 16.0mm x 19.0mm
- Image size (pixels): 272x320
- Image Resolution: 500 dpi

Network Support

- On-board Support for GSM/GPRS Modem
- Wi-Fi (Wireless LAN) Enabled (optional)
- 10/100 Base-T Ethernet LAN Interface (optional)

Print

- Printing Method: Thermal Line
- Printing Speed: 50mm/sec
- Resolution: 8dots/mm, 384dots/line, 203dpi
- Effective Printing Width: 48mm

Paper Specifications

- Paper Type: Thermal paper
- Paper Width: 57.5, 0.5mm
- Paper Roll Diameter: Max: 40.0mm
- Roll Core Inner Diameter: 13mm (min.)

Characters/Fonts

- Print Font: ANK: 12*24, 9*24
- Character per Line: 32/42
- Barcodes
- 1-D: UPC-A UPC-E EAN-13 EAN-8 CODE39
- ITF25 CODABAR CODE93 CODE128
- 2-D:PDF417 QR code DATA Matrix

GSM /GPS / GPRS

- Connect wirelessly anywhere in the world
- Get precise location information in Lat/Long.
- Browse the Internet
- Make Payments online
- Instantly upload transaction information to server
- Access own web server for specific applications



Ticketing Application / Receipt Generation

- Ticketing and toll applications through Printer, RFID, Payment gateways



Finger Print Identification / Access Control / Attendance

- Accurate user identification through biometric Finger-print
- Ideal for PDS & E- Governance applications
- Smooth link to unique Identification



RFID / Dual Smart Card Enabled Asset or Customer Loyalty Management

- Smart card based applications (pre- paid card payments)
- Loyalty cards for shops
- Toll Applications
- Access management via authorized card access
- Inventory / Asset Tracking



.Net Based S/W Application Development

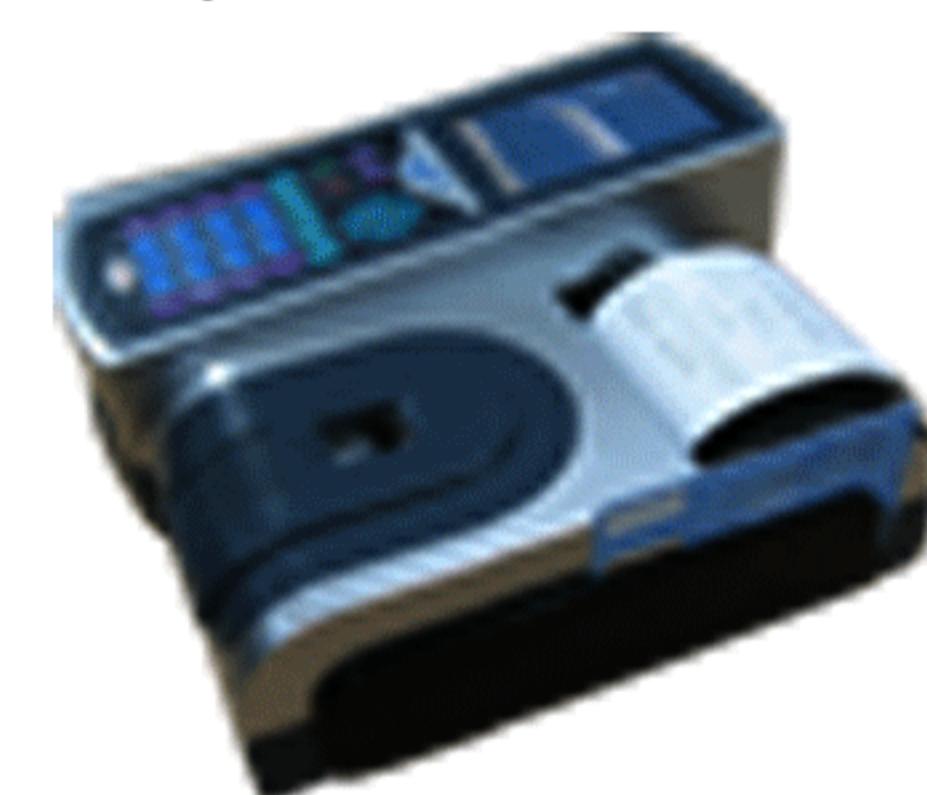
- Quick and easy applications development platform
- Enables instant customization of terminal to suit specific needs



Payment Terminal / Retail

Retailers now have the power to instantly locate items, pricing, receive payments, update transactions and print receipts

- Receive credit / debit card payment
- Issue bills / receipts via printer
- Access payment gateways to make online payments
- On the spot card payment removes threat of card misuse
- Cashier Unique Identification



Note: The physical dimensions and net weight of the terminal are subject to change in order to suite different configurations and user requirements.

AEM is the leading provider of indigenously designed & built technology solutions in India. We have addressed the most challenging real-time communication & collaboration needs of defense and industrial market customers: securely, cost effectively, since 1975.

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