

The DAndY EFT/POS Terminal

POS ART

*D'Art
is your
solution*



DAndY has been developed to meet the customers' needs in terms of ergonomics, security, functionalities and affordability. These features secure the terminal's acceptance which is compatible with the majority of cards and merchants' environments.

Security and Applications in one chip!

- ▶ DAndY is based on USIP® that provides a large set of security and cryptographic features. It facilitates software and hardware developments and enhances the security level to the latest requirements of payment transactions (PCI, ZKA).
- ▶ This terminal provides a wide range of communication options: GPRS, ISDN, Ethernet, High speed PSTN modem, Wi-fi and Bluetooth.
- ▶ DAndY incorporates many features for user's convenience that were collected with the experience of more than one million daily users of its parent terminals. This includes keyboard touch and feel, display view, paper roll substitution, cabling facilities, etc. that make DAndY an user-friendly device.
- ▶ The DAndY terminal can be handed over to the customer for PIN entry or can be equipped with a separate Pin Entry Device such as DAndY Pad.

Microprocessor

Innovacard USIP Chip based on 32-bit RISC processor (MIPS32® 4Ksd) from MIPS® Technologies.

- ▶ 1.35 MIPS/MHz (Dhystone) / 129.6 MIPS at 96MHz
- ▶ Secure Memory Management Unit (MMU)
- ▶ Unique chip Serial Number (USN)
- ▶ True Random Number Generator: NIST and DIEHARD tests passed
- ▶ AES crypto processor
- ▶ Efficient on-the-fly encryption of memories based on the NIST FIPS-197 Standard AES
- ▶ Protected Storage Area

Microcomputer system

USIP® Professional secure System-on-Chip (SoC)

Embedded Memories:

- ▶ 128 KBytes SRAM
- ▶ 128 KBytes ROM
- ▶ 256 KBytes with locked features FLASH
- ▶ 256 Bytes OTP

External Memories:

- ▶ 512Kbyte SRAM
- ▶ 8 Mbyte Flash
- ▶ 16 Mbyte SDRAM

Software

- ▶ Secure Boot Loader with dynamic authentication based on AES
- ▶ Secure Linux 2.6.17
- ▶ EMV L1 Library
- ▶ EMV L2 Library
- ▶ Secure Middleware
- ▶ Crypto Library secured against side-channels (DPA, SPA, timing attacks) and fault attacks while being very efficient. (RSA up to 2048-bit, DES, 3DES, AES-128, SHA-1, SHA-256, RIPEMD-160, MD5, MD2, HMAC, TRNG, ECC, Key generation)
- ▶ Multi Applications
- ▶ SDK for OEM Development

Communication

- ▶ Modem PSTN V32Bis
- ▶ N.2 - RS232 interface baud rate 115.2 Kbps (TX, RX, CTS, RTS) - Un-powered
- ▶ N.1 - RS232 8V Powered interface baud rate 115.2 Kbps (TX, RX, CTS, RTS)

Printer

- ▶ Fast loading printer (15 lines/sec.)

Magnetic Stripe Reader

- ▶ Longitudinal two tracks magstripe card reader Track 2 & 3

Display

- ▶ 128 x 64 FSTN Graphic Display · Backlight
- ▶ Black Dot on White Glass

Keyboard

- 18 keys Rubber Keyboard
- ▶ 10 Numeric 3 Soft Keys
- ▶ Confirm, Clear, Cancel
- ▶ 2 Functional Keys

Smart Card Reader

- ▶ Synchronous and asynchronous ICC Card Reader: ISO7816/1-2-3
- ▶ EMV L1 4.0 Approved

Sound: Monophonic Buzzer

Power Supply: Nominal operating voltage: 8 V

Dimensions

213mm x 94mm x 68mm (LxWxH)
Weight: 320 gr.

Temperature Range

- ▶ Temperature in normal functional conditions + 0° C + +50°C
- ▶ Temperature in storage conditions -20°C + 80°C



Options

- ▶ USB OTG USB 2.0 full-speed / low-speed (12Mb/s / 1.5Mb/s)
- ▶ 5V Powered Rs-232 channels
- ▶ Triple Track MSR
- ▶ Wi-Fi
- ▶ ISDN
- ▶ GPRS - Easy access to SIM Slot on board
- ▶ Fast speed PSTN Modem
- ▶ Blue Tooth

- ▶ LAN 10/100 Mbit (SSL-3 Support)
- ▶ Up to two SAM Slot available (ISO7816/3 T=0 and T=1)
- ▶ Up to 4 Mbyte SRAM
- ▶ Up to 16Mbyte Flash
- ▶ Up to 32 Mbyte SDRAM
- ▶ PP4000
- ▶ Secure Terminal Management System