

Retail 2011

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[ TIPRO® ]

## About TIPRO

Since 1985, TIPRO has specialised in designing human/machine interface, made for specific application and customized for specific partner. With complete "idea to product" process in house, TIPRO is in control of all stages from marketing and development to logistics and production. Understanding the requirements for reliability neither we make a compromise in design and component selection nor we take risks of outsourcing. The modular concept enables flexibility, future upgrades and economical maintenance. The solution is tailored to meet function, performance, quality and design requirements while minimizing total cost of ownership.

## INTRODUCTION

Quick, simple and reliable POS systems – essential to keep customers happy and secure them coming back. Every part of the system, especially operator and customer interface, must fit.

### What makes TIPRO different?

- » modularity and programmability – combine and configure your own system or user interface
- » a variety of available modules/functions
- » customization – a solution tailored for you
- » know-how and experience – 25 years of tradition in the design and manufacturing of human interface devices

We make the user interface do exactly what you want and how you want it, fit where you want it, look the way you like it and be as reliable and durable as it must be.

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# 15" MODULAR TOUCHCOMPUTER

## BeFREE



### Features:

- » Low profile design – no obstruction of the view
- » Modular - expandable with FREEmodular keypads, card readers, audio modules, ID modules ...
- » Slide-in exchangeable computer unit
- » Cable management - hidden and secured, but accessible
- » Low energy consumption with different energy saving options (Atom only)
- » High brightness TFT LCD with 5-wire resistive ELO touchscreen
- » Built in TIPRO controller enables modularity with all FREE and FREE+ modules

### Application:

- » Point-of-sale (fashion stores, pharmacies, ...)
- » Hospitality (hotel reception, restaurants, bars, ...)

#### Atom D510 standard – the allrounder

: Balanced performance and features

#### Atom D510 powered – equipped for retail

: 2 powered USB ports, 3 powered COM ports, dual Cash drawer port, 24V output  
: Control of powered ports (ON/OFF) with overcurrent protection

#### Atom D510 fanless – silent & reliable

: No moving parts  
: Solid state disk

#### C2D powered

: Processing power  
: Extensive connectivity

## Technical specification

	Atom D510 standard	Atom D510 powered	Atom D510 fanless	C2D powered
Processor	Intel® Atom D510 Dual Core, 1 MB L2 cache, ICH8M southbridge, 2 GB RAM			Intel® Core2Duo, 1.83 GHz, 2MB cache (T5600), 1 GB RAM
Dual independent display support	yes			
TIPRO Power Bus	yes			
Integrated TIPRO controller features	: Optional connection of additional FREE/FREE+ modules : Brightness adjustment : Backlight ON/OFF control : Touchscreen disable/enable control : Control of powered outputs (ON/OFF) : Programmable LED indicators			optional connection of additional FREE/FREE+ modules
Dual Gigabit LAN	yes, teaming supported			yes
USB	4 x 2.0, 2 x 1.1			2 x 2.0
Powered USB		1 x 12V, 1 x 24V		1 x 12V, 1 x 24V
COM	1 and 2 (opt 5V/12V on pin 9)	1 and 2 (opt 5V/12V on pin 9), 3 and 4 (opt 5V/12V/24V on pin 9)	1 and 2 (opt 5V/12V on pin 9)	1 and 2 (opt 5V/12V on pin 9), 3 and 4 (opt 5V/12V/24V on pin 9)
Other		cash drawer ( 24V), 24V output		cash drawer ( 24V), 24V output, PS/2
Mass storage	SATA hard disk 2.5" form factor, 160 GB, optional 2nd disk		Solid State Disk (SSD) 2,5" form factor, capacity: 30+GB (SATA), optional 2nd disk	SATA hard disk 2,5" form factor, capacity: 160 GB, optional 2nd disk, RAID supported
Power supply (included)	12V/80W	12V/150W	12V/80W	24V/150W
TFT LCD	: Native resolution: 1024 x 768 (XGA) : Luminance/Brightness: ≥ 400 cd/m2 : Contrast ratio: ≥ 400 : 1 : Backlight lifetime: ≥ 50,000 hours			
Touchscreen	"AccuTouch" of Elo			
Weight	5.7 kg	6.7 kg	6.6 kg	6.7 kg
Dimensions (including side covers)	409 x 331 x 112 mm		409 x 344 x 112 mm	

## Housing colours

Standard colours:

: C15 black

: C5 aluminium (only for upper part of housing)

Other colours and special finishings are available on request.



# 15" MODULAR TOUCHMONITOR

## FREE+ 15



### Features:

- » Low profile design
- » Modular - expandable with FREEmodular keypads, card readers, audio modules, ID modules ...
- » Cable management - hidden and secured, but accessible
- » High brightness TFT LCD with 5-wire resistive ELO touchscreen
- » Built in TIPRO controller enables modularity with all FREE and FREE+ modules

### Application:

- » POS terminals (fashion, speciality stores)
- » Hospitality
- » Front desk terminals
- » Point of information

### Technical specification

- : 15" touchmonitor with built-in Tipro controller and multiple interface options
- : Integrated USB hub
- : Internal audio option (2x1W loudspeakers with a special microphone amplifier for an external electret microphone – e.g. TM-AGx module)
- : Power supply: 12V± 5% (from an external AC/DC adapter TM-VPB)
- : Different support mechanisms with variable inclination available
- : Dimensions: 389x312x112 mm, 4.85 kg

### TFT LCD

- : Native resolution: 1024 x 768 (XGA)
- : Luminance/Brightness (typical): ≥ 400 cd/m<sup>2</sup>
- : Contrast ratio (typical): ≥ 400 : 1
- : Backlight lifetime (typical): ≥ 50,000 hours

**Touchscreen** "AccuTouch" of Elo

### Housing colours

- : Standard colours:
  - **C15** black
- : Option:
  - **C5** aluminium (only for upper part of housing)
- : Other colours and special finishings are available on request.



# STABILE & ADJUSTABLE 17" TOUCHMONITOR

## BLUE+ 17



### Features:

- » Heavy stabile metal stand for comfortable operation
- » Easy adjustable inclination from vertical to horizontal position
- » Hidden and secured cabling
- » Dual interface video and touchscreen controller
- » Integrated USB hub (option)
- » VESA mounting option
- » Optional non-touch version

### Application:

- » Point-of-sale (retail, fashion stores, pharmacies)
- » Hospitality (restaurants, bars)
- » Point of service (hotel receptions, public administration)

### Technical specification

- : 17.0" touchmonitor
- : Wide tilting range, 0° - 90°
- : Provision for VESA 100 mounting
- : Dual-interface (VGA and DVI-D) video controller
- : Dual-interface (RS232 and USB) touchscreen controller
- : Optional full-speed USB hub with 2 downstream ports
- : Power supply 12V± 5% (from an external AC/DC adapter, e.g. TM-VPB)
- : Net dimensions: 395x190x361 (W/D/H) [mm]
- : Weight: 7.90 kg
- : Net dimensions (VESA-Mount): 395 x 57 x 317 (W/D/H) [mm]
- : Weight (VESA-Mount): 5.00 kg

### TFT LCD

- : Native resolution: 1280 x 1024 (SXGA)
- : Luminance/Brightness: 300 cd/m<sup>2</sup> (typical)
- : Contrast ratio: 500 : 1 (typical)
- : Backlight lifetime: 50,000 hours (typical)

### Touchscreen 5-wire resistive

### Housing colours

- : Standard colours:
  - **C15** black
- : Option:
  - **C5** aluminium (only for upper part of housing)
- : Other colours and special finishings are available on request.



# 10" CASH TRAY

## BLUE+ 10



### Features:

- » Multifunctional - customer information / advertising / money handling
- » Easy integration - second screen via USB
- » Compact 10"
- » Horizontal, inclined or vertical positioning
- » Table-Top and VESA 75 mount version

### Application:

- » Privacy customer information
- » Cash tray
- » Information point
- » Advertising display
- » Pharmacies & banks (privacy)
- » Petrol stations, tobacco shops
- » Hotels, public places

### Technical specification

- : 10.2" wide-screen TFT LCD protected by glass:
  - Resolution 1024 x 600
  - Brightness/Luminance (typical):  $\geq 200$  cd/m<sup>2</sup>
  - Contrast ratio (typical):  $\geq 300:1$
  - Backlight lifetime (minimal): 20,000 hours
- : USB version:
  - high-speed USB video device
  - secondary display operating in "Extended Desktop" mode
  - more than 100 displays can be connected to a single computer
  - DVD quality video playback
  - supported operating systems: Windows XP (32-bit), Windows 7 (32-bit and 64-bit), Windows Server 2003 (32-bit),
- : Mounting/Integration:
  - as a CashTray
  - as a desktop customer display
  - as a VESA mount display
- : Dimensions: 299x194x56 (W/D/H) [mm]
- : Weight: 1.55 kg

### Housing colours

- : Standard colours:
  - **C15C5** black/aluminium
- : Other colours and special finishings are available on request.



# SPECIALIZED COMPACT 8.0" MONITOR

## BLUE+ 8



### Features:

- » Wide tilt and swivel range to adjust display position
- » Hidden cabling
- » VGA or USB ( Table-Top and VESA mount only) interface
- » Table-Top (Stand-Alone), Table-Through, VESA 75 mount and FCX keyboard mount versions

### Application:

- » Customer display (retail & hospitality)
- » Information display (public, administration, banking)
- » Advertising (retail, point of service...)

### Technical specification

- : 8.0" TFT LCD with SVGA:
  - Resolution: 800 x 600
  - Brightness/Luminance (typical):  $\geq 200$  cd/m<sup>2</sup>
  - Contrast ratio (typical): 300:1
  - Backlight lifetime (minimal):  $\geq 20,000$  hours
- : Display rotation in vertical and horizontal plane: tilt -15° to +70°, swivel -60° to +60°
- : Different installation variants:
  - Table-Top (Stand-Alone), Table-Through, VESA 75 mount
  - FCX keyboard mount
- : Power supply voltage: 12V $\pm$  5%
- : Current consumption: up to 550 mA (350 mA<sub>TYP</sub>)
- : Power consumption: up to 7.0 W (4.2 W<sub>TYP</sub>)
- : Net dimensions (display only): 243x171x48 (W/D/H) [mm]
- : Weight:
  - VESA mount variant: 1.25 kg, Table-Top variant: 2.15 kg, Table-Through variant: 1.75 kg
  - FCX-060 keyboard with LCD monitor: 2.95 kg, FCX-080 keyboard with LCD monitor: 3.20 kg

### Housing colours

- : Standard colours:
  - **C15C10** black/light grey
  - **C15** black
- : Option:
  - **C5** aluminium (only for front part of housing)
- : Other colours and special finishings are available on request.



## ALPHANUMERIC CUSTOMER DISPLAY



### Features:

- » 2x20 large font or 4x40 small font displays
- » Blue/white LCD with low energy consumption
- » Stand alone or a part of FREE+/BeFREE configuration
- » Adjustable inclination / tilt and swivel
- » External TIPRO bus (as module of TIPRO configuration), USB or RS232 interfaces

### Application:

- » POS terminals

### Technical specification

- : Adjustable inclination (-5° to +15°)
- : LCD 2 lines by 20 large font characters (9.6 mm) or 4 lines by 40 small font characters (4.9 mm) with LED backlight
- : White characters at blue background (Blue/White) or dark grey characters on the yellow-green background (Yellow/Green)
- : Connection: internal Tipro bus, RS232 or USB (as virtual COM)
- : Additional +5V power supply required (e.g. TM-VPA) only in case of Yellow/Green displays when the primary keyboard interface is PS/2

### Housing colours

Please refer to page 11.

## MODULAR PROGRAMMABLE KEYBOARD

### FREE



### Features:

- » Truly modular (even on end user level)
- » Wide choice of keyboard sizes (from 32 to more than a thousand)
- » Adaptable to your application by simple and powerful programming tool
- » Programming content stored in non-volatile controller memory
- » Versatile add-on modules (readers, user ID, pointing devices)
- » Robust construction with metal inner frame and mechanical key switches
- » Factory built in options (touchpad between the keys, alphanumeric operator display)

### Application:

- » POS terminals
- » Retail banking
- » Toll booth
- » Office/administration
- » Factory automation
- » Hospitality systems





## Technical specification

### » Keyboard modules

- : Available as matrix (row / column), qwerty and numeric
- : Programmable in 4 layers (qwerty and numeric pre-programmed in 2 layers, can be changed)
- : Available in various national layouts
- : Connection: left and right side internal Tipro bus connectors
- : KBX128 module with short travel OMRON mechanical switches and double membrane protection (lower for keyboard, upper for label sheet)



Module	Qwerty / Numeric	Programmable keys (row x column)
KMQ128A	qwerty in lower 5 rows	48 (3 x 16)
KMP128A	qwerty in lower 5 rows	48 (3 x 16)
KMR128A	qwerty in upper 3 rows	80 (5 x 16)
KMX128A	-	128 (8 x 16)
KMX096A	-	96 (8 x 12)
KMX064A	-	64 (8 x 8)
KMX032A	-	32 (8 x 4)
KMX032A numeric	numeric in lower 5 rows	12 (3 x 4)
KBX128A	-	128 (8 x 16)

### » Controllers

- : Contains programming content of the keyboard - only a single controller is needed for any combination of modules.
- : All modules connect to the controller via the internal Tipro bus.

### » Common features:

- : Built-in buzzer for keyclick and warning tones
- : Non-volatile memory:
  - 1) PS/2 + RS232 version: 8 kB
  - 2) USB version: 32 kB
- : Re-programmable
- : 7 LEDs (4 for layer indication, Caps, Num and Scroll lock indication)
- : 4 possible programmable layers
- : One internal Tipro bus connector
- : Supports up to 14 modules
- : Integrated protect functionality (USB version only)

## Factory built-in options for FREE keyboards

### » Alphanumeric Operator Display

- : Available for customizations only
- : Adjustable inclination (-20° to +45°)
- : LCD 2 x 20 large font (9.6 mm) or 4x40 small font (4.9 mm) with LED backlight, white/blue or yellow/green (yellow/green requires additional +5V power supply if the primary keyboard interface is PS/2)
- : Connection: internal Tipro bus
- : Other standard interfaces: RS232 or USB (as virtual COM)

### » Full-size Touchpad

- : PS/2 or USB interface
- : Connection:
  - 1) USB (to the hub of the Tipro controller)
  - 2) PS/2 integrated cable with PS/2 (MiniDIN6) connection
- : Replaces 3x4 keys
- : Left and right mouse buttons integrated
- : Plug and play
- : Extra features like scrolling when touchpad driver installed

### » Mini Touchpad

- : PS/2 interface only
- : Connection: integrated cable with PS/2 (MiniDIN6) connection
- : Replaces 2x2 keys
- : Left and right mouse buttons integrated
- : Plug and play
- : Extra features like scrolling when touchpad driver installed

## Housing colours

- : Standard colours:
  - **C10** light grey
  - **C15** black
- : Other colours and special finishings are available on request.



# ADD-ON MODULES



## Identification modules

### » Keylock module

- : 8-position keylock
- : Programmable content for each keylock position
- : Connection: internal Tipro bus connector
- : Dimensions: 62 x 222 x 42 mm, 120 g

### » iButton® reader

- : Programmable events: insertion (header, terminator), removal (header, terminator)
- : Each event can be programmed to:
  - send a specific content sequence to the computer
  - change active keyboard layer
  - change the securitylevel (only with USB keyboards)
- : Connection: internal Tipro bus connector
- : Dimensions: 62 x 222 x 42 mm, 120 g

### » RF ID module

- : Reading distance up to 7 cm (5 cm with wristband)
- : Frequency: 125 kHz
- : Supported tags: EM400x compatible read-only tags and V4050 compatible read/write tags
- : Programmable event descriptions: success and fail codes, insertion header and terminator
- : Each can be programmed: to send a specific code sequence to the computer or to change active keyboard layer or to switch the security level (only with USB controller)
- : Connection: internal Tipro bus connector
- : Dimensions: 62 x 222 x 42 mm, 120 g

## Pointing device modules

### » Trackball module

- : 16 mm trackball
- : PS/2 or USB interface
- : Left and right mouse key
- : No drivers needed
- : Connection: integrated cable with PS/2 (MiniDIN6) or USB (Type A)
- : Dimensions: 62 x 222 x 42 mm, 180 g

### » Touchpad module

- : PS/2 interface only
- : Left and right mouse key
- : No drivers needed
- : Connection: integrated cable with PS/2 (MiniDIN6) connector
- : Dimensions: 62 x 222 x 42 mm, 180 g

## Card readers

### » Magnetic stripe card readers

- : Conform to ISO7811 standard
- : Head operating life: typically 1 million card swipes
- : Programmable: header, terminator and separator for each track, success and fail codes
- : Single or multiple track reading
- : Bidirectional reading
- : Reader for ISO tracks 1+2, ISO tracks 2+3 or ISO tracks 1+2+3
- : Connection: internal Tipro bus connector
- : Dimensions: 54 x 222 x 52 mm, 180 g

### » Bar code slot reader

- : Programmable header and terminator, success and fail codes
- : Supported bar codes:
  - 1) By default: all types of UPC/EAN/JAN, Code 3 of 9, Code 128, Codabar
  - 2) On request: Code 3 of 9 full ASCII, Code 93, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, MSI/Plessey, Code 11
- : Card thickness: up to 1.8 mm
- : Feeding speed range: 100 - 1000 mm/s (3.9 - 39.0 inch/s)
- : Bidirectional reading
- : Connection: internal Tipro bus connector
- : Dimensions: 54 x 222 x 52 mm, 180 g

## Housing colours

- : Standard colours:
  - **C10** light grey
  - **C15** black
- : Other colours and special finishings are available on request.



# PROGRAMMABLE KEYBOARD

## FCX



### Features:

- » Compact footprint
- » 60 or 80 key version
- » Optional MCR, user ID, alphanumeric or graphic 8" display, pointing device
- » Adaptable to your application by simple and powerful programming tool
- » Programming content stored in non-volatile controller memory
- » Robust construction with metal inner frame and mechanical key switches

### Application:

- » POS terminals
- » Retail banking
- » Office/administration
- » Hospitality systems

## Technical specification

### Keyboard modules

- : Keys can be programmed in 4 layers
- : Available with PS/2 or PS/2+RS232 or USB interface

### » FCX-060

- : 60 programmable keys - 5 rows x 12 columns
- : Dimensions: 252 x 165 x 48 mm, 900 g

### » FCX-080

- : 80 programmable keys - 5 rows x 16 columns
- : Dimensions: 328 x 165 x 48 mm, 1050 g

### Factory built-in options

### » Magnetic Card Reader

- : Bidirectional 3 track reader (ISO7811 standard)
- : Programmable: header, terminator and separator for each track, success and fail codes

### » iButton reader®

- : Programmable events: insertion (header, terminator), removal (header, terminator)
- : Each event can be programmed to:
  - send a specific content sequence to the computer
  - change active keyboard layer
  - change the security level (only with USB keyboards)

### » Keylock module

- : 2-position keylock
- : Programmable content for each keylock position

### » Alphanumeric Operator Display

Please refer to page 12.

### » 8.0" Monitor

Please refer to page 10.

### » Full-size Touchpad and Mini Touchpad

Please refer to page 15.

## Housing colours

- : Standard colours:
  - **C10** light grey
  - **C15** black
- : Other colours and special finishings are available on request.



# FRONT KEYBOARD



## Features:

- » Programmable keyboard with x-y matrix or qwerty layout
- » Version with or without controller (standalone or as external additional module to TIPRO configuration)
- » Optional touchpad
- » Compact
- » Adaptable to your application by simple and powerful programming tool
- » Programming content stored in non-volatile controller memory
- » Robust construction with metal inner frame and mechanical key switches

## Application:

- » POS terminals
- » Retail banking
- » Office/administration
- » Hospitality systems (as addition to touch monitor)

## Technical specification

- : PS/2 or USB standard communication protocols
- : Different national layouts available (US English and German as standard)

### » Front keyboard as part of FREE+ configuration

- : Connects as an external Tipro module to the MiniDIN5 connector on the controller - 80 cm long cable

### » Front keyboard as standalone unit

- : Integrated controller with full programming capabilities
- : Connects directly to the PS/2 or USB keyboard input on the computer with an integrated 180 cm long cable
- : 3 LED indicators (Caps, Num and Second Layer)

### » Front keyboard with matrix (x-y) layout

- : 95 programmable keys with transparent covers

### » Front keyboard with alphanumeric (qwerty) layout

- : Compact alphanumeric section (69 keys) on the left, numeric pad (20 keys) on the right; both sections can be reprogrammed

### » Front keyboard with alphanumeric layout and Touchpad

- : Compact alphanumeric section (69 keys), integrated controller and full size Touchpad; keys can be reprogrammed
- : Full-size touchpad with integrated left and right mouse buttons

- » Dimensions: 410 x 130 x 29 mm, 900 g

## Housing colours

- : Standard colours:
  - C15 black
- : Option:
  - C5 aluminium (only for upper part of housing)
  - C10 light grey
- : Other colours and special finishings are available on request.



# PROGRAMMABLE KEYBOARD WITH LCD KEYS

## CHAMELEON



### Features:

- » Modular programmable keyboard with intuitive LCD keys
- » When used with powered FREE+ or BeFREE no need for external power supply
- » Available as module or standalone unit with integrated controller
- » Programmable graphics and key content in 24 levels
- » Programming content stored in non-volatile controller memory
- » Off-line and on-line operating modes (on-line – host computer controls operation)

### Application:

- » POS terminals
- » Dispatching terminals
- » Help desks and call centers
- » Trading consoles
- » Industrial control

### Technical specification

- : 16 programmable LCD keyswitches
  - 1) Monochromatic graphic LCD on the top resolution 32x16 pixels
  - 2) RGB backlighting (64 colours)
  - 3) Screen size (W x H): 20 x 16 mm
- : 12 programmable full-travel mechanical keys
- : Connection: left and right side internal Tipro bus connectors
- : Additional +5V power supply required (e.g. TM-VPA) unless connected to powered FREE+ or BeFREE
- : Optional integration of the USB (TM-MUL) or PS/2 + RS32 controller (TM-MRL) with affixed interface cable

### Housing colours

- : Standard colours:
  - **C15** black
- : Other colours and special finishings are available on request.



# CONFIGURATIONS & CUSTOMISATIONS

# CONFIGURATIONS & CUSTOMISATIONS



# Retail 2

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