

# M-PC2 In-Vehicle PC

## Installation

- Various screen sizes to fit any size vehicle
- Flexible mounting arrangements for most vehicle types
- Single system unit needs only a small footprint in the vehicle
- Integrated power supply runs straight from the vehicle's battery

## Ease of Use

- Daylight-viewable colour touchscreen displays with full dimming
- Touchscreens can be operated with a gloved hand
- On-Screen controls for easy application switching
- Interface can be designed to meet user's specific needs

## Power management

- Low power consumption Pentium M processor
- Voltage sensor allows the user to maintain battery integrity
- Optional backup battery if required
- Power manager can control voltages to other post-fit electronics

## Temperature, shock and vibration management

- Low temperature operation -15 to +55 °C
- Disk heater maintains hard disk temperature in operating range
- High temperature warning allied to organised shutdown
- Shock and vibration mountings on system unit

The M-PC2 is a full Windows based fixed In-vehicle computer that can support a range of applications and multiple technologies. The system unit and range of high brightness TFT touchscreens resist moisture and dust and, with a range of screen sizes available, there is a solution to fit all vehicle types. The M-PC2 computer is used for a variety of applications including database access, computer aided dispatch, incident reporting, GIS/Mapping and digital video recording.

The system supports the Pentium® M 1.8GHz CPU, offering class leading performance and low power consumption. The computer's four independent Philips 7130 frame grabbers can be used multiplexed to a total of 12 channels or offer full 25/30 frame per second capture on four dedicated cameras. The M-PC2 offers a wide range of interfaces to support current requirements and future expansion. Interface options include: Multiple Video Channels, Fingerprint Readers, Vehicle Tracking

High performance fixed In-vehicle computer to support a range of applications and multiple technologies



Systems, Automatic Number Plate Readers, Printers, GPS, WLAN and WAN connectivity. Using its wireless connectivity the M-PC2 places real-time information in the hands of the field-based worker where and when they need it. The system can be used over any network including TETRA Airwave, 3G and GPRS. Whilst the M-PC2 offers full desktop PC functionality it has a wealth of features crucial to reliable operation in the vehicle, managing its temperature, shock, vibration and voltages.

While the unit's GPS functionality enables all the standard options like satellite navigation and vehicle location, it also facilitates automatic dispatch of the nearest vehicle to an incident or call zone from a control centre by providing full visibility of all vehicles within the fleet. Despite its wealth of computing power the unit only requires a small footprint in the vehicle and power consumption is minimal thanks to its low power technology.

# M-PC2 In-Vehicle PC

Operating systems	Windows® XP, Windows® 2000
Touchscreen units	High brightness TFT colour VGA, SVGA & XGA screens: 8.4, 10.4, 12.1, 15 inch • Other sizes available
On/Off switch	Controls power and monitors vehicle battery with controlled Windows® shutdown
LED indicators	Power on and hard disk heater
Processor	Pentium® M (Centrino™ class) 1.8GHz (Note 1) or Celeron 1.3GHZ
Memory	512MB to 2GB
Cache, level 1	32KB Instruction cache + 32KB Write-back data cache
Cache, level 2	Pentium® M 1.8GHz: 2MB, Celeron® :512KB
Video controller	Intel® Extreme 2 with unified memory
Primary screen output	A single connector carrying touchscreen interface, power and panel data
Other screen outputs	CRT output, optional PAL and NTSC
USB	USB 2.0
Expansion	Mini PCI
WiFi	WiFi Centrino™ compatible - optional Wireless LAN with remote antenna connection and hardware module (Note1)
Ethernet	10/100 Mbps
Camera input	Up to 4 independent Composite or S-Video inputs (PAL, SECAM & NTSC). Each input may be multiplexed to additional inputs.
Hard drive	Up to 40GB hard drive
Sound	AC97 stereo sound
Digital I/O	Optically isolated 8 inputs and 8 outputs option
Analogue I/O	4: 3 channels 0-16V, 1 channel 0-28V option
Parallel & serial	1 parallel & 4 external RS232 channels. 4 channels are available internally for GPS, touch screen, 3G/GPRS 1 and 2
GPS	Optional integral GPS with remote antenna
3G/GPRS/GSM	Optional 1 or 2 internal 3G/GPRS/GSM modules with remote antenna
Hard disk heater	Temperature controlled heater to maintain the hard disk's safe operation
Backup service battery	Optional, automatically operates when primary power is lost • System-controlled charging
Protective cage	Perforated metal cage providing additional protection for the system unit and connectors (See separate leaflet)
Keyboard options	Rugged, backlit and wireless (I/R) keyboards available (See separate 'Keyboards' datasheet for more information)
Main to screen cable	Up to 15 metres for all signals including PanelLink™ from main unit to touchscreen
Power cable	2 metre power lead with connector
Support utilities	Microbus® OnScreen Task Switch software features a wide range of support utilities including control of brightness, shutdown and control of the user's menu options.
Power	External 12V from vehicle battery • Input range 7.5V to 18V • 18V to 32V
Consumption	M-PC2 1.8GHz with 8.4 inch TFT screen: 1.85A typical at 13.6V under Windows® 2000 2.75A maximum at 13.6V under Windows® 2000
Temperature range	-10°C to +55°C operation -20°C to +70°C storage 0 to 95% RH non-condensing
Random vibration	2-200Hz bandwidth 1.04 grms
Shock	20G 11ms half sine • 45G 3ms half sine
Size & weight	250 x 190 x 105mm • Weight approximately 1.9Kg, varies with specification (System unit only)
Certification	AES5 Issue 9 - Class 1 Pass - Certified by AES, Communications Directorate of PITO e mark approval no. e11*72/245*95/54*0361*06 EMC CE Class
Warranty	12 months return to base

## Notes to table

1. If WiFi option is not selected then no hardware will be fitted and therefore can never be enabled



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