

## Chapter 1 Introduction

### Chapter 1. Introduction

The QuickPanel+ operator interface is an all-in-one microcomputer designed for maximum flexibility. The design, based on an advanced ARM core microprocessor, brings together a high-resolution touch-screen operator interface with a variety of communications options. You can connect to most industrial equipment through the QuickPanel+ communications ports. The QuickPanel+ is equipped with several memory types to satisfy the most demanding applications. A 512MB section of DRAM is split between the operating system, an object store and application memory. Functioning as a virtual hard drive, a 256MB section of non-volatile flash memory is divided between the operating system and persistent storage for application programs. The retentive memory consists of 512KB of battery-backed SRAM for data storage, protecting your valuable data during a power failure.

## 1.1 Specifications

### 1.1.1 General Specifications

Processor		Freescale i.MX535 (1GHz ARM Cortex A8)
Memory	RAM	DDR2 SDRAM 512MB
	ROM	SLC NAND 256MB
	SRAM	512 KB (with Battery backup)
Operating system		Microsoft Windows Embedded Compact 7
Display	Type	7" Widescreen TFT LCD
	Resolution	800(W) x 480(H) pixels WVGA
	Backlight	LED
Touch screen	Touch Panel Type	Projected Capacitive
	Multi-touch	Two-point
Communications	Ethernet Port	1x 10/100BaseT (RJ-45)
	Serial Port	1x RS-232 UART Port (5-Pin Connector)
	USB, Host	Two USB2.0 (Type-A) Max. Power (5V @ 0.5A)
	USB, Device	One USB 2.0 (Mini Type-B)
Storage		One SD/SDHC Card Slot
Audio		One Mic In (mono) (3.5mm Jack) One Line Out (Stereo) (3.5mm Jack)
Noise immunity		Noise voltage: 1500V p-p Pulse Duration: 1 $\mu$ s, Rise time: 1ns
Input power	Maximum Rated Voltage	+30VDC
	Rated Voltage	+24VDC $\pm$ 20% (3-Pin Connector)
	Power Consumption	15W (max)
	Frame Ground	Frame GND is connected to Signal GND internally



### 1.1.2 Physical Specifications and Mounting

Dimensions (LxWxD)		192 mm x 137 mm x 36 mm (7.56 in. x 5.39 in. x 1.42 in.)
Weight		0.800 kg (1.76 lbs)
Mounting options	Panel cutout dimensions	183.5 mm x 128.5 mm (7.22 in. x 5.06 in.)
	VESA mount	VESA Mount: 75 mm x 75 mm

### 1.1.3 Environmental Specifications

**Note:** The QuickPanel+ shall be installed in a location that is well ventilated and not exposed to dust, corrosive gases or liquids, flammable gases, rain, strong ultraviolet light or direct sunlight, and that meets the environmental specifications listed below.

Cooling	Natural convection
Ambient Operating temperature	0°C to +50°C
Ambient Storage temperature	-20°C to +60°C
Ambient Humidity (operating and storage)	85% RH (non-condensing, wet-bulb temperature:30°C or less)
Environment	Pollution Degree 2 as defined by UL60950-1.
Vibration resistance	5 to 9Hz single-amplitude 3.5mm 9Hz to 150Hz constant-accelerated velocity 9.8m/s <sup>2</sup> X, Y, Z directions 10 time (100minutes) (Compliance 3502, IEC61131-2 JIS B)
ROHS	Compliant with EU RoHS Directive 2002/95/EC using the following exemptions identified in the Annex: 7(a), 7(c)-I, & 7(c)-III.
Enclosure rating	IP65 and JEM1030 when installed in accordance with the instructions in Chapter 4, "Installation."

**Note:** For additional product standards and agency approvals, refer to Appendix A.

**Chapter 1 Introduction**

**1.2 QuickPanel+ Hardware User Features**

In addition to the primary touch screen interface, the QuickPanel+ supports a variety of communication ports. The following diagrams show the physical layout of the QuickPanel+ including locations of status LEDs, communications ports, and connectors.

**1.2.1 Overview**



**Figure 1. QuickPanel+ Hardware Features**