

# IXT2B



## 6U VME Pentium M Processor

- High performance Pentium M processor in 6U VME form factor
- Key Features
  - Pentium M @ 1.4 GHz
  - DVI / VGA Graphics
  - DDR-266 SDRAM
  - 2x Gigabit Ethernet ports (VITA 31.1 compliant), 1x 10/100 BaseT Ethernet
  - 2x Serial ATA
  - 2x USB2.0 Ports
  - PCI-X 133 MHz capable PMC site
  - CompactFlash for bootable mass storage
  - Five air- and conduction-cooled ruggedization levels



The IXT2B is the founder member of Radstone's INTraXtreme family of 6U VME boards supporting Intel's high performance / low power consumption Pentium M processors.

INTraXtreme is targeted at demanding defense and aerospace applications and offers a range of five air- and conduction-cooled ruggedization levels suitable from development through to deployment.

The IXT2B offers full PC performance, with the latest Pentium M from Intel's long term supported embedded roadmap, plus integrated DVI / VGA graphics and a range of I/O including USB 2.0, Gigabit Ethernet, Serial ATA, IDE and serial ports. Air-cooled versions offer some of this I/O via front panel connectors and further I/O interfaces can be added via a single PCI-X-capable PMC site.

Radstone's comprehensive software support package includes support for Windows XP, Linux and VxWorks.



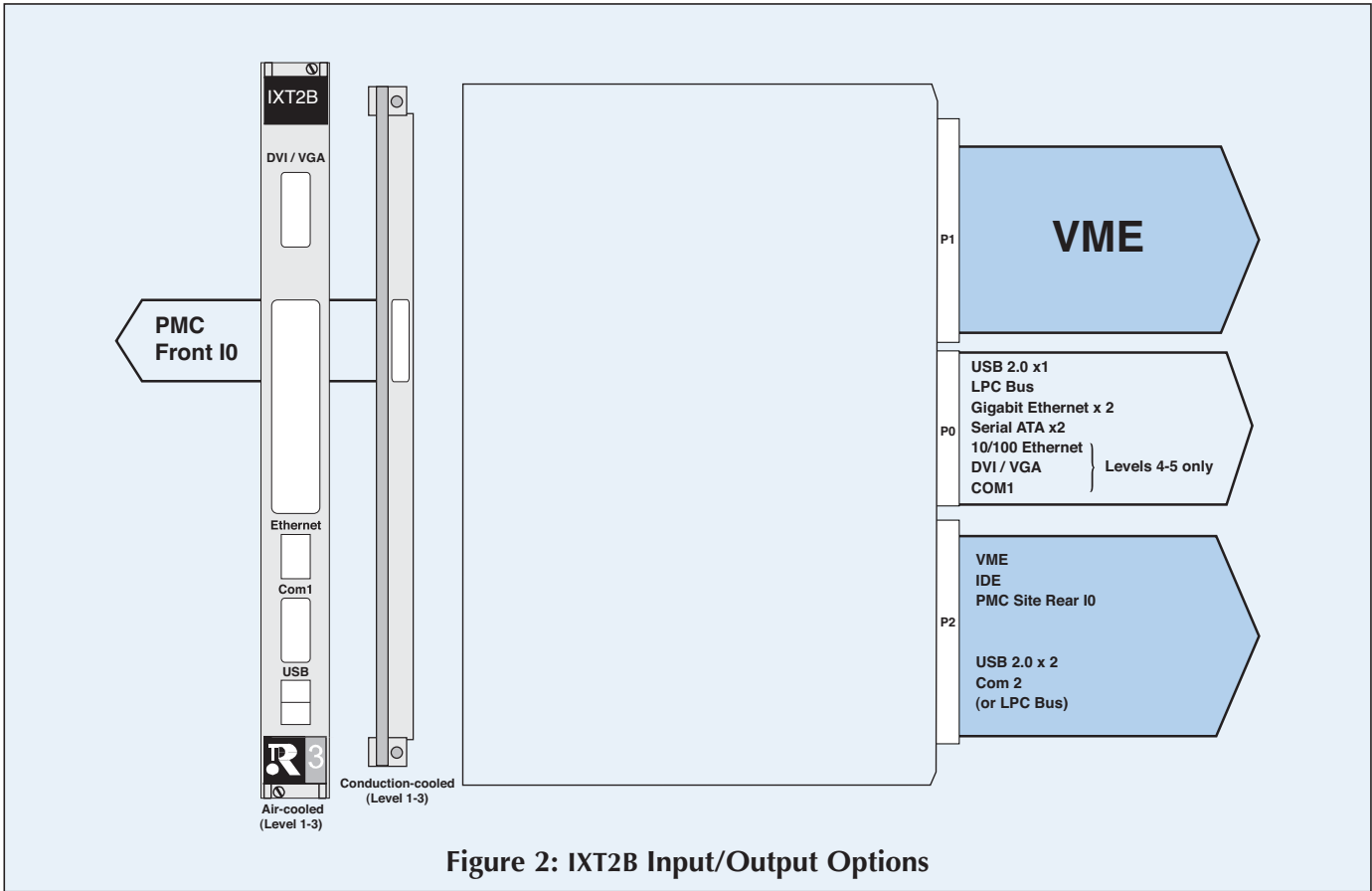
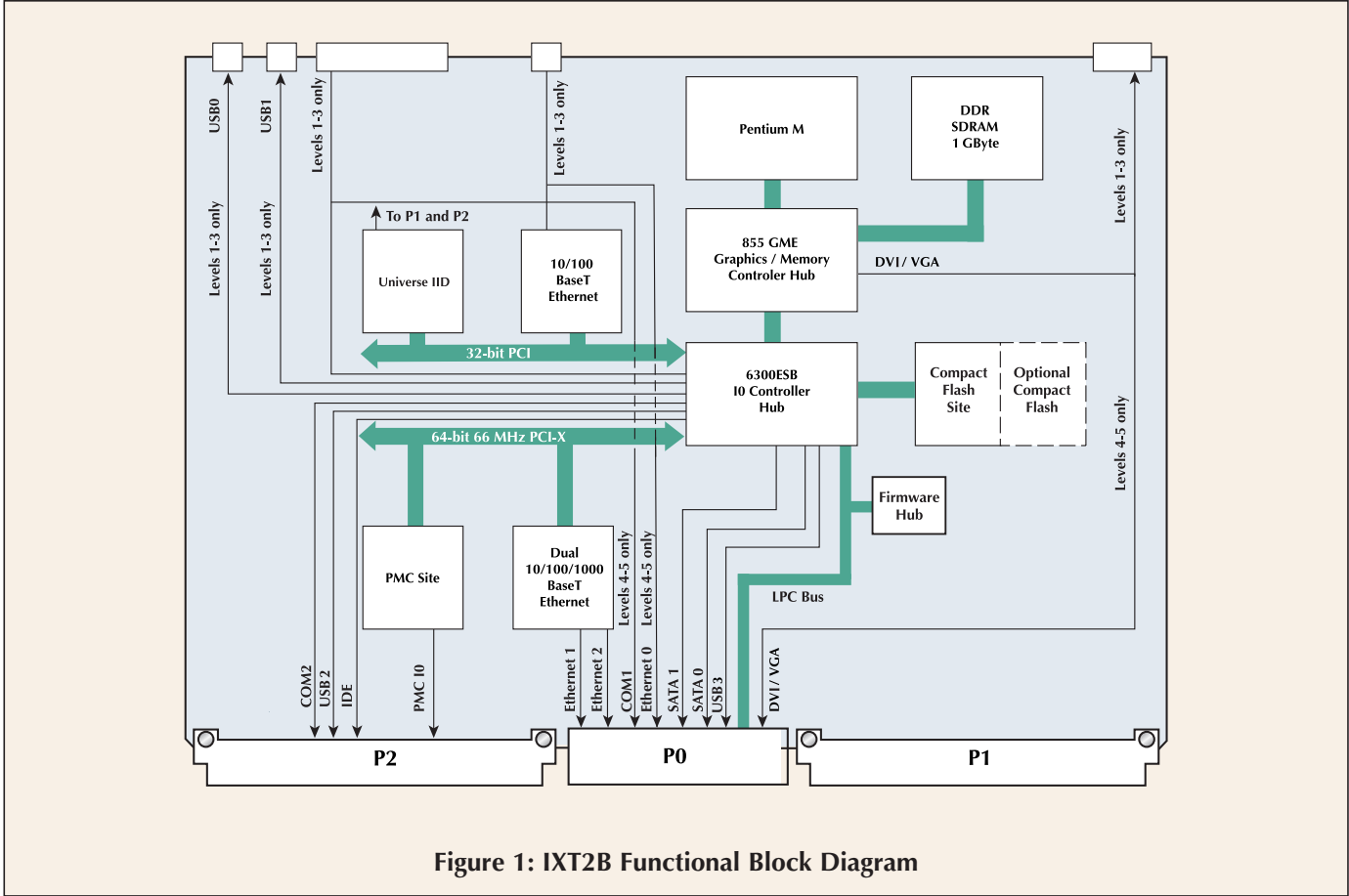
## Features

<b>Processor</b>	Pentium M at 1.4 GHz	The Intel Pentium M processor's new microarchitecture offers high performance and low power consumption, making it an ideal choice for many embedded computing applications SBC Typical Power Consumption = 20W
<b>Chipset</b>	Intel 855GME GMCH and Intel 6300ESB ICH	The Intel® 855GME Graphics Memory Controller Hub (GMCH) and Intel® 6300ESB I/O Controller Hub (ICH) create an optimized integrated graphics solution with a 400 MHz system bus and integrated 32-bit 3D core at 133 MHz. Also provides standard PC technology including an RTC, 256 Bytes CMOS RAM, Power Management Logic and multimedia timers based on the 82C54
<b>Main Memory</b>	1 GByte DDR SDRAM with ECC	The 855GME provides a 266 MHz interface to DDR RAM (72 bits wide with ECC); 1 GByte DDR SDRAM is fitted as standard
<b>Compact Flash</b>	512 MByte / 1 GByte / 2 GByte / 4 GByte options	Onboard Compact Flash permits single-slot booting, and offers a convenient removable mass storage medium for secure data
<b>Graphics</b>	Digital and Analogue Video to front panel DVI-I connector on Level 1-3 or P0 on Level 4-5	Analogue video supports resolutions from VGA to UXGA
		Digital Video Output (DVO) port with up to 165 MHz dot clock, compliant with DVI specification 1.0
<b>Ethernet Interfaces</b>	10/100/1000 BaseT 2 ports to rear	Two Gigabit Ethernet channels are provided from an Intel 82546 Ethernet controller to the P0 connector in compliance with VITA 31.1
	10/100 BaseT Front Panel Levels 1-3 P0 Levels 4-5	A single 10/100 Ethernet channel is provided from an Intel 82559 Ethernet controller to P0
<b>Serial Ports</b>	COM 1 to Front Panel, Levels 1-3 and to P0 Levels 4-5	RS232, provided from the Intel 6300ESB to a front panel D-type connector Levels 1-3 and P0 Levels 4-5
	COM 2 to P2 only	RS232, provided from the Intel 6300ESB
<b>IDE</b>	IDE Interface to rear	Primary ATA/100 DME IDE to P2 connector supports Ultra 100 DMA Mode Transfers up to 100 MBytes/sec read cycles
<b>Serial ATA</b>	2 ports to rear	Two SATA ports provided from the Intel 6300ESB to P0 providing data rates up to 150 MBytes/sec
<b>USB</b>	USB 0, 1 to front	USB 2.0 compatible provided from the Intel 6300ESB – two ports to front panel and a further port to both P0 and P2
	USB 2, 3 to rear	
<b>Watchdog Timer</b>	Programmable	Programmable watchdog timer for system recovery
<b>VME</b>	Universe IID	Universe IID PCI-VME bus interface
<b>PMC Sites</b>	PCI-X capable	One PMC site with 64-bit / 66 MHz PCI-X capability, routed in accordance with VITA-35 (46 I/O pins supported on P2 rows d and z)
<b>Software</b>	Radstone software support	Standard support for VxWorks, Linux and Windows

Ruggedization Level	1	2	3	4	5
Cooling Method	Air			Conduction	
Conformal Coating	Optional	Standard	Standard	Standard	
High Temp Operational	55°C@ 300 ft/min	65°C@ 300 ft/min	75°C@ 600 ft/min	75°C	85°C
Low Temp Operational	0°C	-20°C	-40°C	At card edge	
High Temp Storage	100°C	100°C	100°C	100°C	
Low Temp Storage	-50°C	-50°C	-50°C	-50°C	
Vibration Random	0.002g <sup>2</sup> /Hz from 10-2000 Hz	0.002g <sup>2</sup> /Hz from 10-2000 Hz	0.04g <sup>2</sup> /Hz from 20 to 2000Hz, with a flat response to 1000Hz, 6dB/octave roll-off from 1000 to 2000Hz	Random, 0.1g <sup>2</sup> /Hz from 15 to 2000Hz per MIL-STD-810E Fig 514.4 - 8 for high performance aircraft. ~12g RMS	
Shock	20g peak sawtooth, 11mSec duration	20g peak sawtooth, 11mSec duration	20g peak sawtooth, 11mSec duration, bench handling	40g peak sawtooth, 11mS duration	

**Table 1: Ruggedization Levels Table**

NOTE: For more comprehensive Ruggedization details see Radstones data sheet RT351



## Standard Ordering Information

Sales Code	Description
<b>IXT2B-12022x</b>	1.4 GHz Pentium M, 1 GByte DDRSDRAM. 2x 10/100/1000 BaseT Ethernet, 1x 10/100 BaseT Ethernet, 2x RS232, 4x USB, 2x SATA, IDE, 1x PMC site
<b>IXT2B-22022x</b>	Air-cooled level 2 as above with conformal coating
<b>IXT2B-32022x</b>	Air-cooled level 3 as above with conformal coating
<b>IXT2B-42022x</b>	Conduction-cooled level 4 as above
<b>IXT2B-52022x</b>	Conduction-cooled level 5 as above

x=software option

NOTE: The standard ordering information (above) defines the standard build variant. Consult your local Radstone sales office for availability of further build options.



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