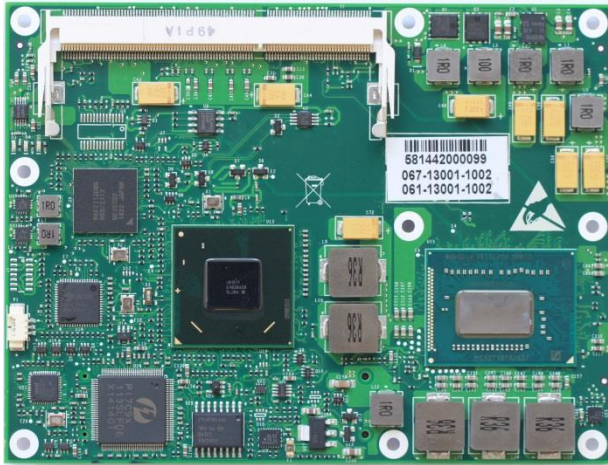


CE2QM77 COM Express Module



蓝玛科技 CE2QM77 COM Express 模块，使用英特尔第三代 Core™i7/i5/i3 系列 (Ivy Bridge) 处理器，板型尺寸为 125mm x 95mm，符合 PICMG COM Express R2.1 Type 2 标准定义。模块能耗在 20-60 瓦特之间，支持两根 8GB DDR3 内存，千兆网卡，支持 VGA 和 LVDS 显示输出，成熟的 PCI/IDE 扩展方案。CE2QM77 COM Express 模块可作为高密度计算，如医学影像、通信、加固计算机、航天航空、测试/测量等应用，是高计算性能的理想解决方案。

Basic Module Form Factor

CE2QM77 基于 125mm x 95mm 的基本型尺寸，支持双通道，高达 16G DDR3 内存，能够结合英特尔第三代 Core™i7/i5/i3 系列处理器一起发挥最高的计算和图形处理性能。COM Express(类型二)的板级连接器能够支持 PCI-E、SATA、USB2.0、LVDS 等高速串行差分信号连接和传统的 PCI、IDE 等并行总线。

CE2QM77 模块从英特尔 Ivy Bridge 系列 CPU 发布之初开始设计，经过了严格的长时间测试验证，具有极高的稳定性。因此，原始设备制造商可以专注于核心能力譬如软件和应用开发而不是高速电路设计。原始设备制造商对功能修改、需求变更、性能升级等问题能够轻而易举的实现而无需重新设计产品。

设计服务

基于蓝玛科技 CE2QM77 COM Express 模块，原始设备制造商在设计自己的载板时，能够得到蓝玛科技的全程服务，如原理图检查和建议、调试协助、Gerber 文件参考、BIOS 客制化等等。蓝玛科技支持原始设备制造商在开发产品任何阶段的载板设计咨询和调试服务。想获得更多信息，请咨询你的 LandmarkTech 销售经理或邮件：LMT@Landmark-Tech.com。

订单信息

型号	描述
CE2QM77-3612-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3612QE/ 2.1GHz /TDP-35W/ 4 Core / 6MB Cache,
CE2QM77-3555-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3555LE / 2.5GHz /TDP-25W/ 2 Core / 4MB Cache
CE2QM77-3517-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3517UE / 1.7GHz/TDP-17W / 2 Core / 4MB Cache
CE2QM77EX-3612-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3612QE/ 2.1GHz /TDP-35W/ 4 Core / 6MB Cache, EX-TEMP
CE2QM77HD-3555-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3555LE / 2.5GHz /TDP-25W/ 2 Core / 4MB Cache, I-TEMP
CE2QM77HD-3517-0	COM-E Rev 2.1, Type 2 Module with Intel i7 3517UE / 1.7GHz/TDP-17W / 2 Core / 4MB Cache,

	I-TEMP
CE2QM77HD-AHS-0	CE2QM77 COM-E Module, Active Heat Sink
CE2QM77HD-PHS-0	CE2QM77 COM-E Module, Passive Heat Sink
CE2QM77-HSP-0	CE2QM77 COM-E Module, Heat spreader

CE2QM77 Module Specifications

Feature	Function	Description
Form Factor	Type	Type 2, 125mm x95mm
	Compliance	PICMG COM Express R2.1 Basic Form Factor
Processor	3612QE	Core™ i7 3612QE/ 2.1GHz /TDP-35W/ 4 Core / 6MB Cache
	3555LE	Core™ i7 3555LE / 2.5GHz /TDP-25W/ 2 Core / 4MB Cache
	3517UE	Core™ i7 3517UE / 1.7GHz/TDP-17W / 2 Core / 4MB Cache
Chipset	Embedded Intel® QM77 Express chipset	
Memory	Type	2 DDR3 SO-DIMM, up to 1600 MT/s
	Capacity	16GB maximum, up to 8GB per channel
Flash	16MB SPI flash	16MB SPI flash for BIOS storage
Video	Intel® Gen 7 integrated graphics engine	LVDS: 18 bit or 24 bit single/dual channel panel with resolutions up to 1920×1200 pixels at 60 Hz
		VGA: resolutions up to 2048×1536 pixels at 75Hz
	External	One x16 PCI Express interface for external PEG3.0 Graphics Card
Networking	Single LAN	One 10/100/1000Base-T
Audio		High Definition Audio
		Speaker Out
Storage	SATA	4 SATA ports supporting both 1.5 and 3.0 Gbps operation
		Supports RAID 0, 1, 5 and 10
		The first two ports supporting 6Gbps transfer rate
	IDE	One IDE interface capable of supporting one UDMA-66/100 Device
PCI Express	PCI Express x1	Six PCI Express x1 interface
		Ports 0–3 configurable as one x4; or two x2; or one x2 and two x1; or four x1 port
		Ports 4-5 can be configured as two x1 or one x2
	PCI Express x16	One PCI Express x16 Graphics Expansion Port
Configurable as two x8 or one x8 and two x4 ports		
PCI	PCI x1	One 32-bit/33MHz PCI bus for up to 4 PCI devices
USB		Eight USB 2.0 expansion ports
LPC		One LPC interface
TPM		ATMEL AT97SC3204 compliant with TPM1.2(Build option)

Power		AT: +12 power rail, primary input, supports 9.0V–16.8V power supply
		ATX: +5V Standby and +12 power rail input, +12 supports 9.0V–16.8V power supply
Power Management		ACPI 4.0 supporting states S0, S3, S4, S5 G3 and C0, C1, C3, C6, C7
		AMT support Intel ME Power States M0, M3, Mox
Miscellaneous		One 100KHz SMBus from PCH
		One 100KHz I2C bus from MCU
		Eight GPIO (four GPI and four GPO)
		Watchdog timer
BIOS		EFI Firmware
OS	Windows XP	Embedded
		Professional 32bit
		Professional 64bit
	Windows 7	32bit
		64bit
	RedHat Enterprise Linux	32bit
		64bit
	Wind River VxWorks	VxWorks6.6

Physical Specifications

Physical	Dimensions	125mm x 95mm		
	Compliance	PICMG COM Express R2.1 Basic Form Factor, Type 2		
Environment	Cooling	Forced air	Class EAC1 as defined in the ANSI/VITA 47-2005	
		Conduction	Class ECC1 as defined in the ANSI/VITA 47-2005	
	Temperature	Operating	Up to 2300m (7500 ft), 0 to 60 °C; (Up to 2300m (7500 ft), -20 to 70 °C for EX SKUs) (Up to 2300m (7500 ft), -40 to 85 °C for HD SKUs)	
			Derated -1.1 C per 305 m (1000 ft) above 2300 m (7500 ft)	
	Shock	Non-operating	-40 to +85 °C	
		Operating	30G, half sine shock pulse, 11ms duration, 3 times per face	
		Non-Operating/ Unpacked	40G, half sine shock pulse, 11ms duration, 3 times per face (unpacked)	
	Vibration (random)	Operating	Transportation/ Packaged	Fixtured assembly: 50G, 17.4 ms trapezoidal pulse Drop test, 10-up bulk packaging, 30in free-fall, one drop on each of six faces
			Random 5Hz to 2KHz, 7.7 grms, 10min in each of 3 axes	
			5Hz – 20Hz: 0.004g ² /Hz ramping up to 0.04g ² /Hz	
			20Hz to 1000Hz: 0.04g ² /Hz	
		1000Hz to 2000Hz: 0.04g ² /Hz ramping down to 0.01g ² /Hz		
		Non-Operating/ Storage	Random 5Hz to 2KHz, 9.7 grms, 10min in each of 3 axes	
			5Hz – 20Hz: 0.006g ² /Hz ramping up to 0.06g ² /Hz	
			20Hz to 1000Hz: 0.06g ² /Hz	
1000Hz to 2000Hz: 0.06g ² /Hz ramping down to 0.02g ² /Hz				
Humidity	Operating	5% to 95% non-condensing. 95%RH@30C, linear Derated to 25%RH@60C; 5% to 95% non-condensing. 95%RH@30C, linear Derated to 25%RH@85C for HD SKUs;		

		Non-Operating/ Storage	5% to 95% non-condensing
	Altitude	Operating	To 15,000ft (4570m)
		Non-Operating/ Storage	To 40,000ft (12000m)
Regulatory	Safety	UL60950-1, EN60950-1, IEC60950-1	
	RoHS	RoHS compliant	
	EMC	EN55024, EN55022, and FCC Part 15, Subpart B, Class B	