

COM Express Freescale 8 Core Processor P4080 CPU Board Adbc7517



Preliminary

■ Features ■

- Based on Freescale P4080 8-core processor
- COM Express basic module size
- Up to 4GB Dual-Channel DDR3-1333 SO-DIMM with ECC
- NAND Flash memory 1GB
- NOR Flash memory 128MB
- 3× 4 lane PCI Express interface
- 3× Gigabit Ethernet
- 4× UART
- 8× USB2.0
- 1× SD/SDHC card
- 1× SPI
- RoHS compliant



■ Specification ■

CPU (SoC)	Processor	Freescale P4080 (e500mc 8-core) 1.5GHz
	L1 cache	32kB for data per core, 32kB for instruction per core
	L2 cache	128kB per core
	L3 cache	2MB (shared by all cores)
Memory	Main memory	Up to 4GB Dual-Channel DDR3-1333 SO-DIMM with ECC
	NOR FLASH	128MB bootable
	NAND FLASH	1GB bootable
	Serial EEPROM	2kB
COM Express IO	Pin out type	Original specification
	SPI	1× bootable SPI Flash ROM is implementable on carrier board
	SD card	1× bootable SD/SDHC card is implementable on carrier board
	Ethernet	3× 10/100/1000BASE-T
	PCI Express	3× 4 lane PCI Express Base 1.1
	UART	4
	USB	8× USB2.0
	I2C	1
RAS function	eLCB	P4080 local bus (available for 8-bit SRAM or EEPROM)
	Watchdog timer	125ms~16s, reset the board at time-out
Onboard I/O	Temperature monitor	Capable of monitoring CPU internal temperature and PCB surface temperature
	Real-time clock	Equivalent to RTC-8564 (backed up by VCC_RTC power)
	Aurora Debug	For debug
Mechanical specification	JTAG COP	For debug
	Standard	PICMG COM.0 R1.0 COM Express Module Base Spec Rev 1.0
Power specification	Module size	Basic module (125mm x 95mm)
	Supply voltage	12.0V±5% SBY:5V±5% (supplied through COM Express connector)
Environmenta l	Consumption current	12V: up to 6.5A SBY: up to 200mA
	RoHS	Compliant

Note: Specifications are subject to change without prior notice.



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■ Block Diagram ■

