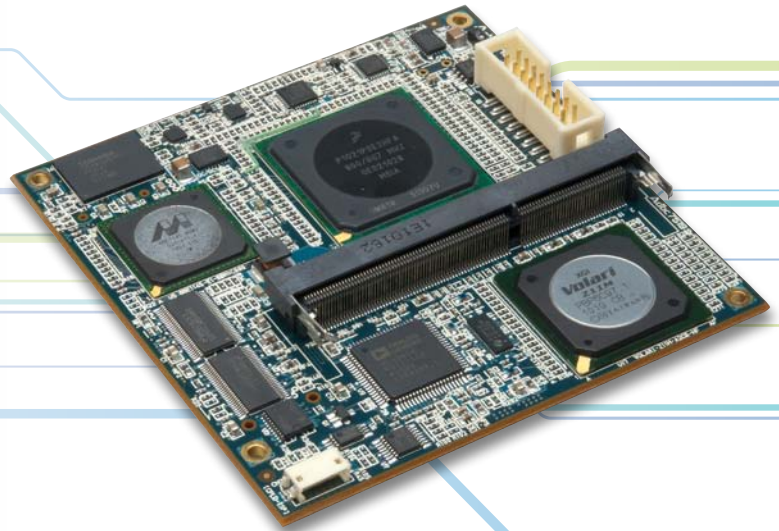# Adbc7520

- **Dual 800MHz core processor**
- **COM Express compact module**
- **IEEE1588**
- **VxWorks or Linux support**
- **DDR-3 memory with ECC support**
- **RoHS compliancy**

FEATURES

P1021 Processor – The Adbc7520 supports the P1021 processor which comes with two 800MHz cores.

ECC Memory – The Adbc7520 comes with DDR-3 memory which supports Error Code Correction (ECC) and increases reliability and accuracy in data receiving and transmitting.

Compact COM Express Form Factor – At 95 x 95 mm, the Adbc7520 is ideal for small form factor designs which need the flexibility and performance possibilities of the COM Express form factor.

High Speed Interfaces – High speed interfaces include Gigabit Ethernet, USB 2.0, and PCIe.

Video and Graphics – LVDS and VGA are supported on the Adbc7520 for applications requiring graphics and video.

- **Medical**
- **Transportation**
- **Defense**
- **Communication**
- **Industrial machinery**

The Adbc7520 is based on the Freescale QorIQ P1021 processor and comes in the compact COM Express form factor of 95 x 95 mm. Available with dual cores, a QUICC engine, and IEEE1588, the Adbc7520 is ideal for communications devices, networking applications, or gateway designs.

Multiple protocols are offered with this COM Express module. Enhanced features regarding the Gigabit Ethernet, eSDHC, and eLBC mean that Eurotech's board provides fast and reliable data transfer between memory, I/O, and networking devices. ECC-capable memory further ensures reliability and accuracy. With these specifications the Adbc7520 is truly a robust module and is backed by Eurotech's focus on quality manufacturing and production.

OEMs can choose from a Linux or VxWorks operating system. Custom development environments can be supported as necessary.

Eurotech offers a standard carrier board and offers services for those customers who wish to design their own.

EUROTECH
Imagine. Build. Succeed.

System Architecture

PROCESSOR	• Freescale™ P1021 with dual 800MHz cores • L1 cache: 32kB for data and 32kB for instruction per core • L2 cache: 256kB • QUICC support
OPERATING ENVIRONMENT	• VxWorks • Linux
RAM MEMORY	Up to 1GB of 64-bit DDR3 SO-DIMM, ECC capable
EMMC FLASH MEMORY	2GB (bootable)
SERIAL EEPROM	I2C 2KB
NETWORK	3x 10/100/1000 BASE-T Ethernet interfaces
SPI	QorIQ Enhanced Serial Peripheral Interface (eSPI)
SECURE DIGITAL	QorIQ Enhanced Secure Digital Host Controller(SD/MMC) (bootable)
PCI EXPRESS	• 1x PCI Express interface (x1 lane) • PCI Express Base Rev1.1
USB	4x USB 2.0 ports
UART	2x UART interfaces
I2C	4x I2C interface extended by I2C-HUB
QUICC	32bit RISC Controller, Internal serial DMA
INTERRUPT	QorIQ Programmable interrupt controller (PIC)
IEEE1588	Connected to QorIQ processor: • TMR_1588_CLK • TMR_GCLK • TMR_TRIG1,2 • TMR_PP1,2 • TMR_ALARM1,2
REAL TIME CLOCK	Equivalent to RTC-8564JE (backed up by VCC_RTC power)
DISPLAY	• 1x Analog VGA • 2x LVDS (Data 4-pair, Clock 1-pair) • Z11m (XGI)
JTAGCOP	Available as an option
PHYSICAL	• Compact Module (95mm x 95mm) • PICMG COM.0 R2.0 COM Express Module Base Specification • RoHS compliant
POWER	• Power supply: 12.0V±5 SBY: 5V±5 (supplied from COM Express connector) • Consumption current: 12V: max 2.1A SBY: max 0.1A
TEMPERATURE	Operating: 0ºC to +50ºC
ORDERING INFORMATION	Coming soon