COMX-P1022

Module based on the COM Express Form Factor

Embedded Computing for Business-Critical Continuity™

QorIQ processing power on a module for rapid deployment across diverse I/O requirements

- Freescale dual-core QorIQ™ P1022 processor
- Two cores running at 1.067 GHz
- Supports up to 2GB DDR3 SO-DIMM
- 95 mm x 95 mm compact footprint
- DVI and LVDS Video output
- I²C Audio
- Ultra low power processing module (< 7 W)

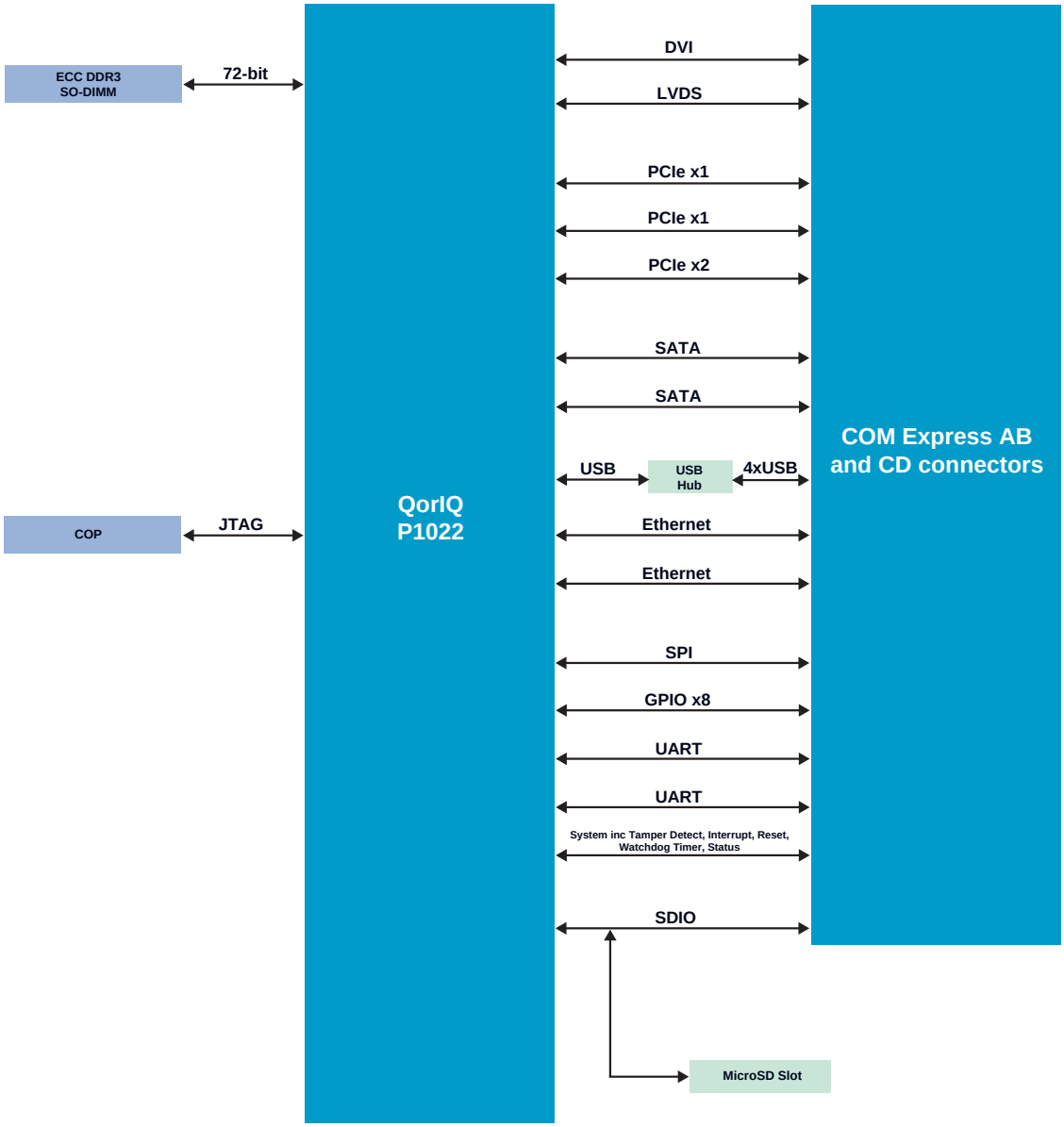
The COMX-P1022 small form factor module brings the Freescale QorIQ™ P1022 dual-core processor onto a module that incorporates the mechanical features and dimension of the COM Express specification.

The QorIQ P1022 processor is effectively a System-on-Chip device with a range of features including USB, PCI Express, Gigabit Ethernet, memory controller, general purpose I/O and SD/MMC flash controller. The overall dimensions of the COMX-1022 are 95 mm x 95 mm following the definition of a Compact COM Express module and this enables it to be fitted within a very wide range of enclosures when mounted on a customer carrier. COMX-P1022 is an off-the-shelf processor solution that is backed by one of the world's leading embedded computing companies for peace of mind and fast time to market by isolating you from the complexities of the high speed processor, memory and graphics devices. To ease the development cycle further, Emerson supplies a development carrier card as well as a carrier designer's guide and other resources.

By combining the tried and tested Power Architecture processor core along with a considerable range of on module I/O, the COMX-P1022 is suitable for a range of applications including programmable automation controllers, security gateways, civil aeronautics, renewable energy controllers, test and measurement and other embedded devices. The COMX-P1022 is supported by a range of real-time operating systems and development tools.

EMERSON™
Network Power

COMX-P1022 Block Diagram



Hardware Specifications

PROCESSOR

- Freescale QorIQ P1022, dual-core e500 Power Architecture device running at 1.067 GHz

FORM FACTOR

- 95 mm x 95 mm COM Express type module

BOOTLOADER

- U-boot

VIDEO

- DVI and LVDS available to the carrier

MEMORY

- Support for up to 2GB DDR3-667 in one SO-UDIMM

ON-BOARD STORAGE

- MicroSD card slot
- 2kbit I^2C EEPROM

ON-BOARD I/O

- JTAG

I/O TO THE CONNECTORS

- Two (2) Gigabit Ethernet interfaces
- Two (2) SATA ports
- Four (4) USB 2.0
- Two (2) PCI Express x1 interfaces
- One (1) PCI Express x2 interface
- Eight (8) general purpose I/O (GPIO) ports
- Two (2) UART interfaces

POWER

- 12 V and 5 V standby (optional)

ACCESSORIES

- Heatsink, heat spreading plate, development carrier

POWER CONSUMPTION

- < 7 W

COMPLIANCE & CERTIFICATIONS

- RoHS 6/6
- UL/CSA 60950-1, EN55022, FCC Class B

Firmware and Operating System Support

OS SUPPORT

- BSPs to be available from partners including:
  - Mentor Graphics Linux
  - Wind River VxWorks 6.8
  - Green Hills INTEGRITY

Ordering Information

Product	Description
COMX-P1022	P1022 processor module
COMX-P1022-HSP	P1022 heat spreading plate
COMX-P1022-HTSNK	P1022 active heatsink
COMX-P1022-2G-KIT	P1022 with 2GB DRAM and heatsink
COMX-CAR-P1	QorIQ module carrier card
P1022COME-DS-PB	Freescale Development System including the P1022 module, carrier, memory and driver. This kit is available from Freescale and Freescale distributors. For more information go to www.Freescale.com

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

Emerson Network Power
Offices: Tempe, AZ U.S.A. 1 800 759 1107 or +1 602 438 5720
Paris, France +33 1 60 92 31 20 • Munich, Germany +44 1509 236490 • Tel Aviv, Israel +972 9 9560361
Hong Kong +852 2176 3540 • Shanghai, China +86 21 3395 0289 • Tokyo, Japan +81 3 5403 2730 • Seoul, Korea +82 2 3483 1500
EmersonNetworkPower.com/EmbeddedComputing

COMXP1022-D1 10/11