



QorIQ T-series Carrier SiMC-TCB01

Specifications:

Mechanical

- microATX 1.2 Compliant
- 243.84 x 180 mm

Board to board connections

- 2x 240 pins Samtec SEArray connectors (SEAF-30-0.50-S08-2-A)
- 1x PCI Express x8 (elec. x4) 2.0*
- 1x PCI Express x8 (elec. x4) 3.0*
- 2x PCI Express x1 2.0*

Off board interfaces

- 2x SFP+ 10Gbit*
- 2x SFP+ 1/2.5Gbit*
- 2x RJ45 1Gbit (RGMII)
- 2x USB 2.0 (HiSpeed) Host
- 1x Tamper
- 2x UART/RS232 (microD)
- 1x SDHC card slot
- 3x 4pin connector for chassis fan

Module

- Designed for Sintecs SiMC-T2081
- Selective compatibility with Sintecs SiMC-T10XX series

Out of Band Management

- Power
- Reset
- 2x QorIQ serial interface
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Power requirements

- ATX12V 2.x compatible

Environmental

- Operational: 0°C - +70°C
- Humidity 10-90% non-condensing

Debug

- 1x JTAG (module CPU)
- 1x JTAG (module + carrier peripherals)

*Subject to serdes A-H configuration, see appendix



Serdes options for SiMC-TCB01 with SiMC-T2081 module

A	B	C	D	E	F	G	H
XF19 (10.3125)	XF10 (10.3125)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (5/2.5)	PEX4.2 (5/2.5)	SG5 (1.25)	SG6 (1.25)
PEX3.1 (5/2.5)	PEX3.2 (5/2.5)	PEX3.3 (5/2.5)	PEX3.4 (5/2.5)	PEX4.1 (8/5/2.5)	PEX4.2 (8/5/2.5)	PEX4.3 (8/5/2.5)	PEX4.4 (8/5/2.5)
PEX3.1 (5/2.5)	PEX3.2 (5/2.5)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (8/5/2.5)	PEX4.2 (8/5/2.5)	PEX4.3 (8/5/2.5)	PEX4.4 (8/5/2.5)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25/3.125)	SG2 (1.25/3.125)	PEX4.1 (5/2.5)	PEX4.2 (5/2.5)	SG5 (1.25)	SG6 (1.25)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25/3.125)	SG2 (1.25/3.125)	PEX4.1 (5/2.5)	SG4 (1.25)	SG5 (1.25)	SG6 (1.25)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (8/5/2.5)	PEX4.2 (8/5/2.5)	SG5 (1.25)	SG6 (1.25)
PEX3.1 (5/2.5)	PEX3.2 (5/2.5)	PEX3.3 (5/2.5)	PEX3.4 (5/2.5)	PEX4.1 (8/5/2.5)	PEX1.1 (5/2.5)	PEX2.1 (5/2.5)	SG6 (1.25)
PEX3.1 (5/2.5)	PEX3.2 (5/2.5)	PEX3.3 (5/2.5)	PEX3.4 (5/2.5)	PEX4.1 (8/5/2.5)	PEX1.1 (5/2.5)	SG5 (1.25)	SG6 (1.25)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (8/5/2.5)	PEX1.1 (5/2.5)	PEX2.1 (5/2.5)	SG6 (1.25)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (5/2.5)	PEX1.1 (5/2.5)	PEX2.1 (5/2.5)	SG6 (1.25)
PEX3.1 (5/2.5)	SG10 (1.25)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (5/2.5)	PEX1.1 (5/2.5)	SG5 (1.25)	SG6 (1.25)
XF19 (10.3125)	XF10 (10.3125)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (5/2.5)	PEX4.2 (5/2.5)	PEX4.3 (5/2.5)	PEX4.4 (5/2.5)
XF19 (10.3125)	XF10 (10.3125)	SG1 (1.25)	SG2 (1.25)	PEX4.1 (5/2.5)	SG4 (1.25)	SG5 (1.25)	SG6 (1.25)
	10Gbit Ethernet						
	PCI express						
	1Gbit Ethernet						
	2.5Gbit Ethernet						
	1Gbit Ethernet (not available)						



Serdes options for SiMC-TCB01 with SiMC-T10XX module

(With Ethernet switch, T1040/T1020)

A	B	C	D	E	F	G	H	EC1	EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)			PEX2.1 (5/2.5)	PEX3.1 (5/2.5)			FMAN MAC2 *	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)			PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)			PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	No EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)			PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX2.3 (5/2.5)	PEX2.4 (5/2.5)	FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.s3 (1.25)	SG.s1 (1.25)	SG.s2 (1.25)	PEX2.1 (5/2.5)				FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.s3 (1.25)	SG.s1 (1.25)	SG.s2 (1.25)		PEX3.1 (5/2.5)			FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.s3 (1.25)	SG.s1 (1.25)	SG.s2 (1.25)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)			FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.s3 (1.25)	SG.s1 (1.25)	SG.s2 (1.25)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	FMAN MAC5
	PCI express								
	1Gbit Ethernet (L2 switch)								

(Without Ethernet switch, T1042/T1022)

A	B	C	D	E	F	G	H	EC1	EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	No EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25/3.125)	SG.m2 (1.25/3.125)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	No EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25/3.125)	SG.m2 (1.25/3.125)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)			No EC1	No EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25/3.125)	SG.m2 (1.25/3.125)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	No EC2
PEX1.1 (5/2.5)	PEX1.2 (5/2.5)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)			No EC1	No EC2
PEX1.1 (5/2.5)	PEX1.2 (5/2.5)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX2.3 (5/2.5)	PEX2.4 (5/2.5)	FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	PEX1.2 (5/2.5)	PEX1.3 (5/2.5)	PEX1.4 (5/2.5)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)	PEX4.1 (5/2.5)		FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	PEX1.2 (5/2.5)	PEX1.3 (5/2.5)	PEX1.4 (5/2.5)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)			FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)		PEX3.1 (5/2.5)			No EC1	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)			No EC1	No EC2
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25)	SG.m2 (1.25)	PEX2.1 (5/2.5)	PEX3.1 (5/2.5)			FMAN MAC4	FMAN MAC5
PEX1.1 (5/2.5)	SG.m3 (1.25)	SG.m1 (1.25/3.125)	SG.m2 (1.25/3.125)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)			No EC1	No EC2
PEX1.1 (5/2.5)	PEX1.2 (5/2.5)	PEX1.3 (5/2.5)	PEX1.4 (5/2.5)	PEX2.1 (5/2.5)	PEX2.2 (5/2.5)	PEX2.3 (5/2.5)	PEX2.4 (5/2.5)	FMAN MAC4	FMAN MAC5
	PCI express								
	1Gbit Ethernet (Frame manager)								