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MPFS250T

Mid range, low power, with hard RISC-V based

Status: In Production.

 [Documentation](#)  [Symbols](#)

The PolarFire® SoC FPGA family delivers an unparalleled combination of low power consumption, thermal efficiency and defense grade security for smart, connected systems.

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It's the first system on chip (SoC) field-programmable gate array (FPGA) with a deterministic, coherent RISC-V CPU cluster and a deterministic

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Product Features

- Microcontroller Subsystem
 - 64-bit RV64GC Quad Application processing cores, Fmax of 667 MHz (-40 °C to 100 °C Tj), 3.125 CoreMarks/MHz, 1.714 DMIPS/MHz
 - 128 KB eNVM
 - L1 Cache - 32 KB instruction; 32 KB Data
 - L2 Cache - 2MB
 - 2 CAN 2.0 Controllers
 - 2 GigE MACs
 - USB 2.0 OTG
 - MMC 5.1 SD/SDIO
 - 5 multi-mode UARTs



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- 784 Math blocks (18x18 MACC)
- 812 LSRAM blocks (20k bit)
- 2352 uSRAM blocks (64x12)
- 470 Kbits uPROM
- 16 SerDes lanes of 12.7 Gbps
- 2 PCIe Gen2 end Points/Root Ports
- Temperature - Extended Commercial and Industrial

Parametrics

Click on a property to perform a parametric search for other products with that property.

Analog	No
CAN	2
Data Security	No
DDR	DDR 3/4. LPDDR3/4
eNVM	128 KB
eSRAM	No
Ethernet	10/100/1000 MAC
Fabric RAM	17600 Kbits
Fabric uPROM	470 K bits
FPGA I/O	372
Hard CPU	4XRV64GC, 1XRV64IMAC
I2C	2



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Math Blocks 18x18	784
Max. User I/O	372
MMC	5.1 SD/SDIO
MSS I/O	136
PCIe	2 -End Point / Root Port
Product Type	PolarFire SOC
QSPI	1 - XIP
SPI	2
Temp max	100C
Temp min	-40C
Muti-Mode UART	5
USB	1 HS 2.0 OTG

[All Application Notes](#)

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