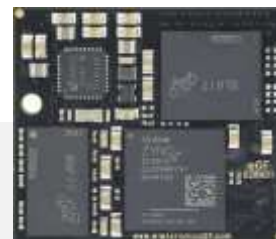




Blackpepper 225

AMD® Zynq® Z-7007S / Z-7010

System on Module



FEATURES

- Scalable SoM with Zynq® Z-7007S and Z-7010 SoC
- High pin multiplexing flexibility
- Very small dimensions only 31 x 36 x 3.9mm
- Low cost solutions

CPU

- ARM Cortex-A9 MPCore CPUs with ARM v7
- CPU Dual \ Single core
- CPU Frequency up to 866 MHz
- NEON™ 128b SIMD coprocessor and VFPv3 per MPCore

MEMORY

- Up to 512MB DDR3L

STORAGE / BOOT¹

- Up to 64 GB eMMC
- QSPI FLASH 16 MB (up to 64MB on request)
- External microSD

PROGRAMMABLE LOGIC

- 7000 Series PL Equivalent Artix®-7
- Logic cells: 23K or 28K
- Look-up tables: 14,400 or 17,600
- Flip-Flops: 28,800 or 35,200
- Total Block RAM: 1.8Mb or 2.1Mb
- (#36Kb Blocks): 50 or 60
- DSP slices: 66 or 80
- PL I/O: 52

I/O PERIPHERALS¹²

- 1 x USB 2.0 OTG
- 1 x Ethernet 1Gbps
- 2 x CAN BUS Interfaces
- 2 x UART TTL Level
- 2 x SDIO
- 2 x I2C Interfaces
- 2 x SPI Interfaces

SYSTEM

- 1 x B2B 100 pin and 1x B2B 80 connectors
- Single +5 VDC ±10% power supply
- On board regulators for all integrated functions
- Power consumption depends on CPU frequency / state and FPGA utilization

TEMPERATURE SPECIFICATION³

- 0 to 70°C for Commercial Grade
- 0 to 85°C for Commercial Plus Grade
- -40 to 85°C for Industrial Grade

OPERATING SYSTEMS

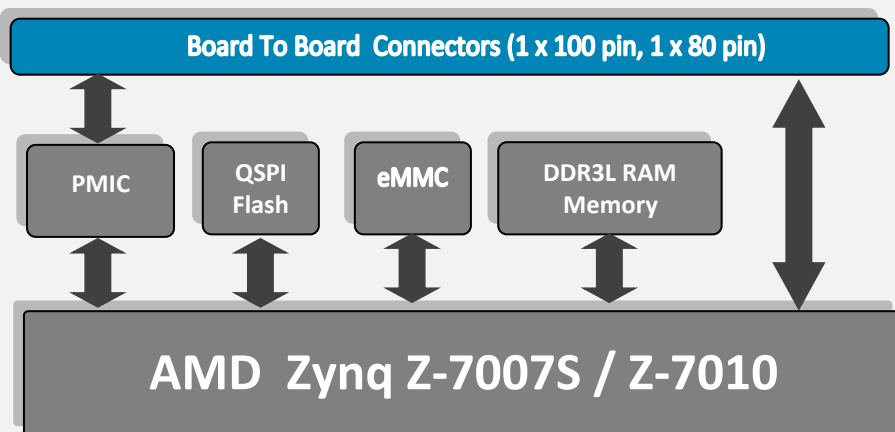
- Yocto based PetaLinux

¹ Please note that not all the functions may be available simultaneously, due to pin muxing limitation of both Zynq SoC and module connector restrictions. Function availability depends also on the type of Zynq processor installed. For more information, refer to 3SM7 user’s manual.

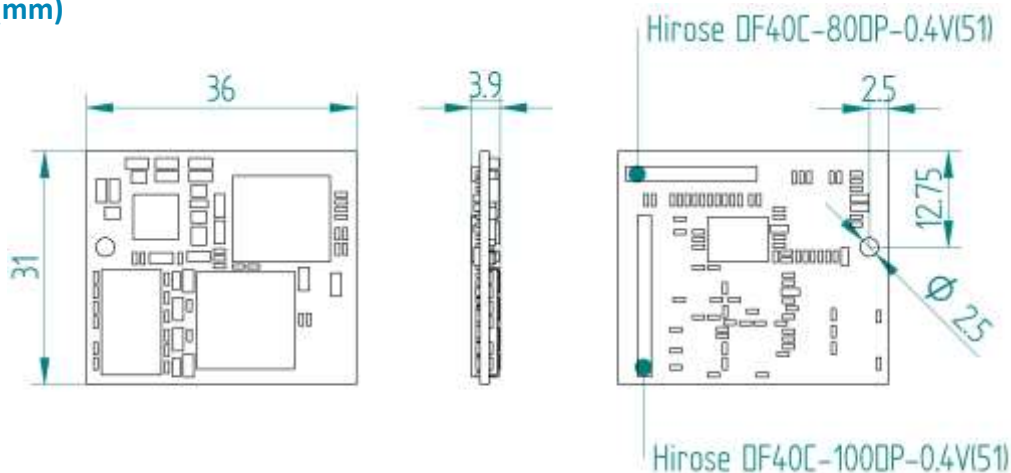
² Some functions, such as USB, Ethernet or CAN Bus require transceiver or additional circuitry on carrier board.

³ These temperatures are ambient temperature ranges for components used on SOM module, with exception of Zynq CPU, which is specified on Junction Temperature Range, 0-85°C for Commercial, 0-100°C for Commercial Plus and -40-100°C for Industrial Grade. SOM module ambient operating temperature depends on the application and on the cooling measures applied.

BOARD DIAGRAM



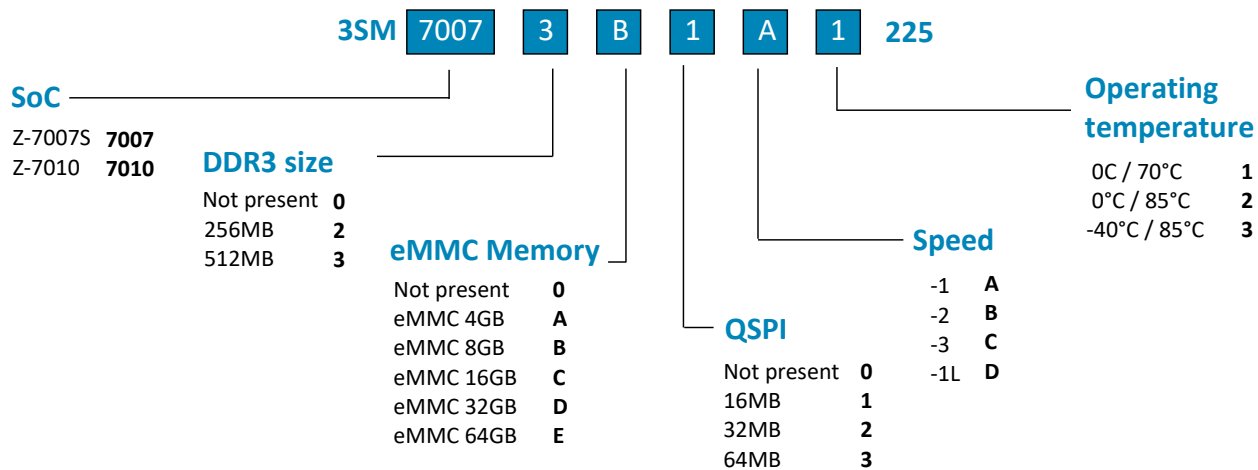
DIMENSIONS (mm)



ORDERING INFORMATION

Standard ordering code

Ordering Code	Descriptions
3SM70073B1A1	Z-7007S Soc, DDR3 512MB, Memory eMMC 8GB, QSPI 16MB, Speed -1, Temperature 0°C to 70°C



Not all code combinations are allowed, for more information on ordering codes please contact Elettronica GF sales department.