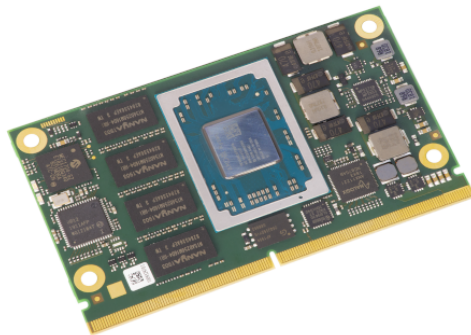


TRIA SM2S-RYZ2

AMD Ryzen™ Embedded R2000-Series



82 x 50 mm

12 / 15 W

0 +60



Highlights

- AMD Ryzen™ Embedded R2514, quad-core (8 threads) 2.1/3.7GHz, 15W (12-35W TDP)
- AMD Ryzen™ Embedded R2314, quad-core (4 threads) 2.1/3.5GHz, 15W (12-35W TDP)
- AMD Ryzen™ Embedded R2312, dual-core (4 threads) 2.7/3.5GHz, 15W (12-25W TDP)
- Integrated AMD Radeon™ GPU with up to 8 Compute Units
- Up to 8GB DDR4 2667MT/s SDRAM
- Up to 256GB eMMC Flash
- SATA-III interface (6Gbps)
- Dual DisplayPort++ interface
- LVDS / Embedded DisplayPort
- OpenGL 4.6, OpenCL
- Dual/Triple/Quad Independent Display support up 4k resolution (SKU related)
- Up to 4x PCI Express x1 Gen. 3
- 2x USB 3.1 Host interfaces
- 4x USB 2.0 Host interfaces
- Up to 2x Gigabit Ethernet
- UART, SPI, I2C, SMBus, HD Audio
- Trusted Platform Module (optional)
- SMARC 2.1.1 compliant
- UEFI Firmware

Technical Data

Technology	x86
Formfactor	SMARC™ Short Size
CPU	AMD Ryzen™ Embedded R2514, quad-core (8 threads) 2.1/3.7GHz, 8 GPU CU, 15W (12-35W TDP) AMD Ryzen™ Embedded R2314, quad-core (4 threads) 2.1/3.5GHz, 6 GPU CU, 15W (12-35W TDP) AMD Ryzen™ Embedded 2312, dual-core (4 threads) 2.7/3.5GHz, 3 GPU CU, 15W (12-25W TDP)
Chipset	Integrated in SOC
RAM	Up to 8GB 2667MT/s DDR4 SDRAM (2400MT/s with R2312)
Flash	Up to 256GB eMMC V5.0 Flash, soldered (optional)
Storage Interfaces	1x SATA-III 6Gbps
USB	4x USB 2.0 Host interfaces 2x USB 3.1 Host interface
Serial Interfaces	4x UART
Bus Interfaces	Up to 4x PCI-Express x1 Gen. 3 lanes 1x I2C Bus 1x SPI Bus 1x SMBus
Display Controller	AMD Radeon™ GPU with up to 8 Compute Units 4 independent displays supported (3 independent displays with R2312)
Display Interfaces	2 x DisplayPort++ Dual-channel LVDS / 2 x eDP 1.4 Up to 4x Digital Display Interfaces with up to 4k (3840 x 2160) resolution
Network Interface	Up to 2x 10/100/1000Base-T (Intel i210)
Audio Interface	High Definition Audio
Security Device	Infineon Trusted Platform Module 2.0 (optional)
Miscellaneous	Watchdog Timer: Initiates system reset, (programmable, 1s ... 255h) Fan Supply: PWM Speed Control for system fan on carrier board RTC battery: external System Monitoring: Voltage, Temperature, CPU Fan, System Fan
Feature Highlights	SMARC™ 2.1.1 compliant
Firmware	AMI Aptio UEFI
OS Support	Windows 10 21H2 LTSC Windows 11 21H2 GAC Linux, Yocto
Power Requirement	+5V +/-5%

Environment	Temperature Range: 0° ... 60°C (operating) -40° ... 85°C (storage) Humidity: 5 ... 95% (operating, non-condensing) 5 ... 95% (storage, non-condensing)
Dimensions	82 x 50 mm
Certificates	UL / CE
Cooling	Heatspreader Heatsink
Carrier	TRIA SM2-MB-EP1

Technical Data for TRIA SM2S-RYZ2

Order Reference

Order No.	Description	Reference	Status*
114871	SMARC 2.1.1 short size module with AMD Ryzen R2514 (2.1/3.7 GHz), Quad-Core, 15W, 8GB 2667MT/s DDR4, no eMMC, 2x GbE LAN, 2x USB 3.1 Host, 4x USB 2.0 Host, 2x DP++, 2x eDP Graphics, TPM 2.0, standard temperature 0°C...+60°C	MSC SM2S-RYZ2-R2514-3NN0481C PCBFTX	PV
114869	SMARC 2.1.1 short size module with AMD Ryzen R2314 (2.1/3.5 GHz), Quad-Core, 15W, 8GB 2667MT/s DDR4, 32GB eMMC, 1x GbE LAN, 2x USB 3.1 Host, 4x USB 2.0 Host, 2x DP++, LVDS Graphics, TPM 2.0, standard temperature 0°C...+60°C	MSC SM2S-RYZ2-R2314-35N0201C PCBFTX	PV
114867	SMARC 2.1.1 short size module with AMD Ryzen R2312 (2.7/3.5 GHz), Dual-Core, 15W, 4GB 2400MT/s DDR4, 16GB eMMC, 1x GbE LAN, 2x USB 3.1 Host, 4x USB 2.0 Host, 2x DP++, LVDS Graphics, TPM 2.0, standard temperature 0°C...+60°C	MSC SM2S-RYZ2-R2312-24N0201C PCBFTX	PV

Ordering Information for TRIA SM2S-RYZ2

*PV = Preferred variant; OR = on Request (in OEM quantities only)

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