SMARC

RUSSELL

SMARC® Rel. 2.0 compliant module with Xilinx® Zynq® Ultrascale+™ MPSoC

Flexibile ARM + FPGA Heterogeneous Processing in a Standard Form Factor

HIGHLIGHTS

CPU Xilinx® Zynq® Ultrascale+™ CG/EG/EV MPSoCs in C784 package	**CONNECTIVITY** PCI-e x4; 2x GbE; 2x CAN Bus; 2x SPI; 12x GPI/Os
GRAPHICS Integrated ARM Mali-400 MP2 GPU	**MEMORY** Up to 8GB + 2GB DDR4 soldered down

Available in Industrial Temperature Range

SMARC module

SGeT — STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES

XILINX®

AI-ENABLED WITH CLEA

Linux   ANDROID

MAIN FIELDS OF APPLICATION

Automotive   Avionics   Biomedical/ Medical devices   Industrial Automation and Control   Robotics   Telco   Visual Computing

FEATURES

Processor	Xilinx® Zynq® Ultrascale+™ **ZU2CG**, **ZU3CG**, **ZU4CG** or **ZU5CG** MPSoCs: Dual-core ARM® Cortex®-A53 MPCore Application Processing Unit + Dual-core ARM® Cortex®-R5 Real-Time Processing Unit Xilinx® Zynq® Ultrascale+™ **ZU2EG**, **ZU3EG**, **ZU4EG**, **ZU5EG**, **ZU4EV** or **ZU5EV** MPSoCs: Quad-core ARM® Cortex®-A53 MPCore Application Processing Unit + Dual-core ARM® Cortex®-R5 Real-Time Processing Unit	**Serial Ports**	2 x UART Tx/Rx/RTS/CTS 2 x UART Tx/Rx 2 x CAN Bus	
		Other Interfaces	2x I2C Bus 2 x SPI interfaces 12 x GPI/Os Boot select signals Power Management Signals	
Memory	Soldered Down DDR4-2400 memory Up to 8GB for Processing System Unit + up to 2GB for Programmable Logic	**Power Supply**	+3÷+5.25V$_{DC}$ +3.3V_RTC	
Graphics	Only on EG and EV MPSoCs: Integrated ARM Mali-400 MP2 Graphics Processing Unit Multicore 2D/3D acceleration at 667MHz OpenGL ES 1.1 / 2.0, OpenVG 1.0 / 1.1 On EV MPSoCs only, H.264/H.265 integrated video codec	**Operating System**	Linux Android	
		Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)	
Video Interfaces	18- / 24-bit Dual Channel LVDS interface DP interface 2 x CSI interfaces	**Dimensions**	50 x 82 mm (1.97" x 3.23")	
Video Resolution	DP: Up to 4096 x 2160 LVDS: Dependent on the IP implemented in the programmable logic			
Mass Storage	1 x external S-ATA Gen3 Channel SD interface QSPI Flash soldered-onboard Optional eMMC 4.51 drive soldered on-board			
Networking	Up to 2 x Gigabit Ethernet interfaces			
USB	1x USB 2.0 OTG 2x USB 2.0 Host 2x USB 3.0 Host			
PCI-e	PCI-e x4 interface			
Audio	Dependent on the IP implemented in the programmable logic			

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

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