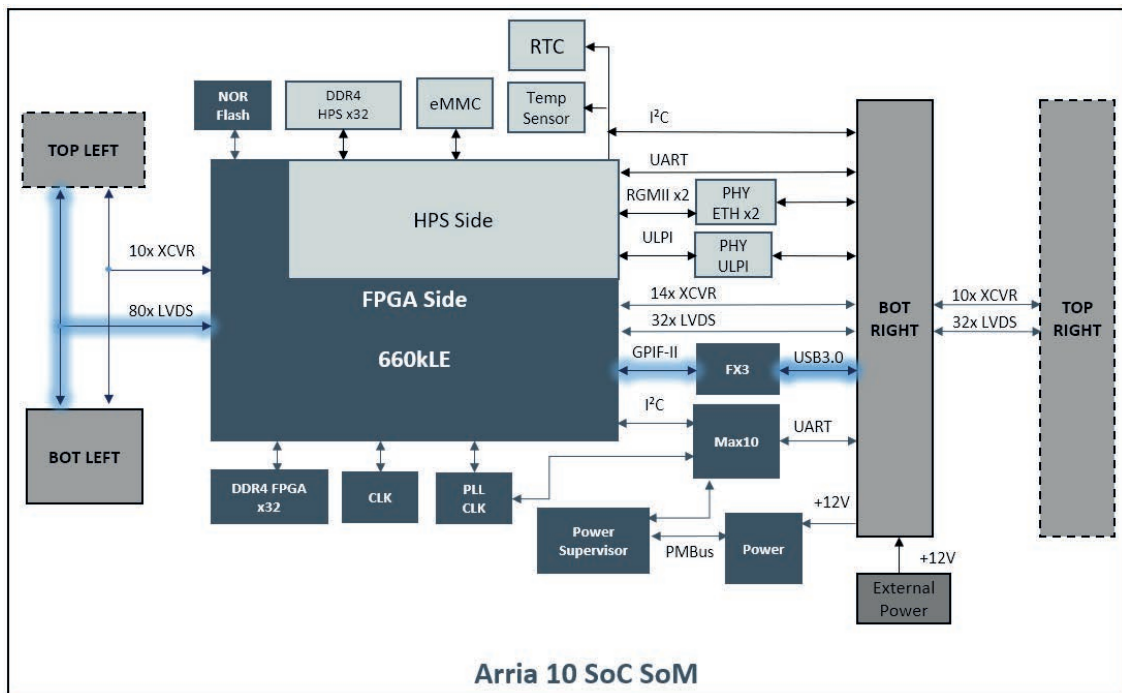




Achilles Arria® 10 SoC System-on-Module



Intel® Arria® 10 SX
270 or 660 KLE

PCIe Gen3 x8

- 226 SE IOs total (113 LVDS)
- 24 transceivers @10Gbps
- 2x DDR4 banks up to 2400MT/s
- Industrial Temp

- Life Science Instrumentation
- Embedded Industrial
- Printing Machines
- Radar Systems

Features	Description	Achilles "Turbo"	Achilles "Indus"	Achilles "Lite"
FPGA SoC	Arria® 10 FPGA with dual ARM® Cortex TM A9 MPCore™ processor based hard processor system (HPS), F34 package (1152 pins)	10AS066H2F3411HG speed grade -1	10AS066H2F3411HG speed grade -1	10AS027H3F34E2SG speed grade -2
DDR4 Memory	32 bit wide bank for FPGA	4GB @2400MT/s	2GB @2400MT/s	
	32 bit wide bank for HPS	4GB @2400MT/s	2GB @2133MT/s	
Communication & Networking		2 Gigabit Ethernet RGMII on the HPS		
		USB 3.0 using Cypress FX3 super speed controller		✗
		USB 2.0 host/device OTG support connected to the HPS		
		I²C link support connected to the HPS,EEPROM, Sensor Temp		
		UART connected to System controller and to HPS		
FMC Connectors	Top Left High Pin Count (HPC)	80 LVDS pairs (1.25Gbps) usable as 160 single ended LVCMOS1.8V 10 Serial transceivers channel (RX and TX) at (7Gbps) Power Supplies Output: +12/+3.3V/1.8V/ +VADJ = +1.8V		✗
	Top Right Low Pin Count (LPC)	33 LVDS pairs (1.25Gbps) usable as 66 single ended LVCMOS1.8V 10 Serial transceivers channel (RX and TX) at (7Gbps) Power Supplies Output: +12/+3.3V/1.8V/ +VADJ = +1.8V		✗
	Bottom Left Low Pin Count (LPC)	80 LVDS pairs (1.25Gbps) usable as 160 single ended LVCMOS1.8V 10 Serial transceivers channel (RX and TX) at (10Gbps) No Power supply, respect +VADJ electrical standard (+1.8V)		
	Bottom Right High Pin Count (HPC)	33 LVDS pairs (1.25Gbps) usable as 66 single ended LVCMOS1.8V 14 Serial transceivers channel (RX and TX) at (10Gbps) Power Supply +12 Hard Processing ARM peripheral I/Os (GbE,USB2.0,I²C,UART) FPGA peripheral I/Os (GPIO II= USB3.0)		
FPGA Configuration		Onboard JTAG configuration circuitry to enable configuration over USB		
		512 Mb Quad SPI Flash for remote upgrade and failsafe configuration		
Software Configuration	Nand Flash eMMC (Store operating Linux system : U boot, Kernel and RootFS)	32 GB	32GB	8GB
Module dimensions		86mm x 95mm (3,4 x 3,8 inches)		
Weight		Turbo/indus module without Mechanics: 87.8g Lite module without Mechanics: 78.8g Heat Spreader: 93.9g Heat Sink: 86.9g Fan: 15.7g		
Temperature range		Commercial	Industrial	Commercial
Ordering Information		RXCA10S066PF34-SOM00T	RXCA10S066PF34-SOM00I	RXCA10S027PF34-SOM00L

Deliverables

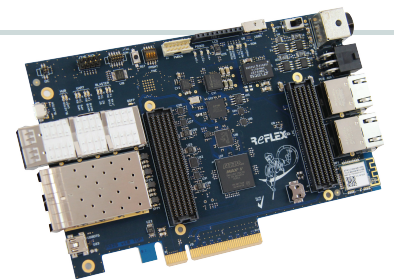
- Arria® 10 SoC module (+ heat spreader, heat sink and fan)
- Module, Starter board, PCIe carrier board documentation (Reference Manual, Starter Guide)
- Starter board & PCIe carrier board schematics
- Carrier Design Guide
- Mechanical drawings PDF, 3D Step, Assembly files PDF
- HDL Test Designs (Quartus projects) by module version
- 10GbE RefDesign
- Kernel Linux & Linaro optimized distribution, U-boot bootloader, Test scripts
- Online support at support.reflexces.com :
 - Quartus Prime Pro DKE / OpenCL SDL license under request at support.reflexces.com

Related Products

PCIe Carrier board

of the Arria® 10 SoC SoM

ORDERING INFORMATION:
RXCA10S0000F34-FHPO5A



Instant-DevKit Arria® 10 SoC SoM IDK

ORDERING INFORMATION:
RXCA10S066PF34-IDK05A