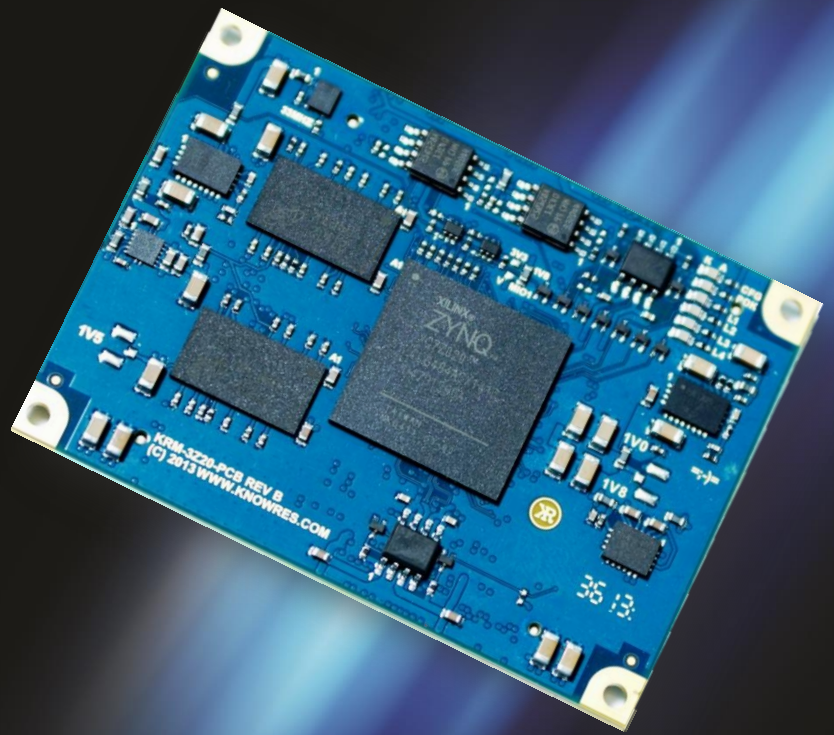




KRM-3Z20-512

- Xilinx FPGA SoC
- ARTIX® Fabric
- 192 PL IOs
- Dual ARM A9
- 38 PS MIOs
- 512MB PS RAM
- 50x70mm
- 3V3 Single Supply



FEATURES:

• Xilinx XC7Z020-1CLG484C

- Available in speed grades 1 through 3; Commercial or industrial temperature range as options
- 85k logic cells: 53'200 LUTs and 106'400 flip-flops
- 220 DSP Slices /18x25 MACCs
- 140 x 36Kb block RAMs, a total of 560KB block RAM
- Dual ARM A9 Cores with NEON co-processor
- 256kB OC-RAM
- 512kB L2 Cache

• 4Gb LPDDR3 SDRAM; 32 BIT

• 256Mbit QUAD SPI; 2x N25P128

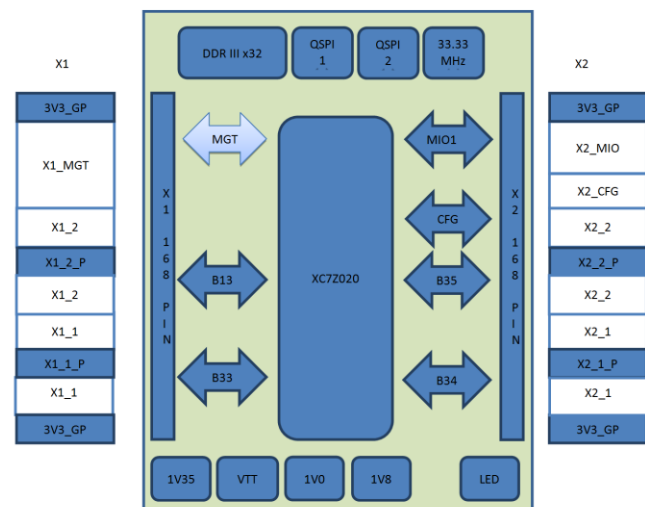
• 2x 168 pin Hirose FX10 dual row connectors

- 4x PL I/O bank (Banks 13, 33, 34, 35)
 - 48 pins each
 - All byte groups (0-3) length matched
 - I/O voltage supplied by carrier board, can be different for each bank
 - External I/O Voltage is switched
- 1x PS MIO1 bank
 - MIO 16 through 53 (all of bank 501)
 - 1V8 default, supplied by on-board regulator
 - 3V3 selectable as assembly option
- JTAG chain to FPGA
- PS reset in pin
- Configuration OK

• 33.333 MHz on-board oscillator

• 4 User LED

BLOCK DIAGRAM:



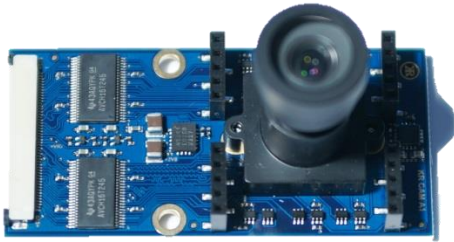
EVALUATION CARRIER:



GbE, 4X USB, uSD, 2X UART to USB, 4 exp ports, PMOD support



EXPANSION BOARDS:



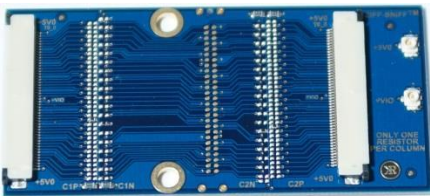
- 5MP CAMERA



- HDMI



- ETHERNET

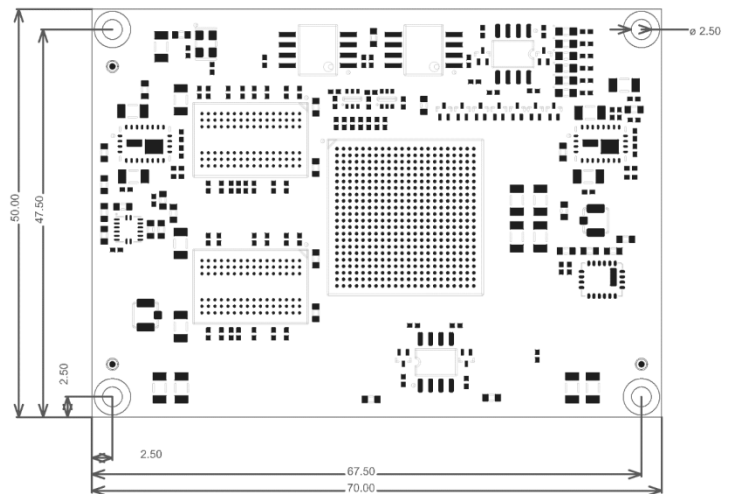


- Test and debug adapter
- Dual step-motor driver
- ISM band RF
- & more in design

SUPPORT:

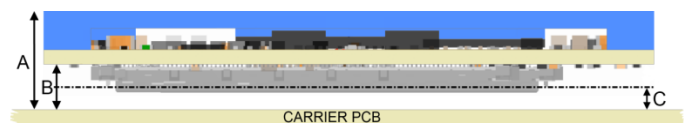
- Project scripts for VIVADO®
- Reference designs
- Reference schematics for peripherals
- Schematic and PCB library (Altium®)
- STEP models
- LINUX port & BSP
- Email support (FREE)
- Phone Support (Subscription)

MODULE DIMENSIONS (mm) :



- STEP Model of the module is available

MODULE TO BOARD DIMENSIONS:



A = Height above carrier PCB $\pm 0.2\text{mm}$

B = Mated stacking height

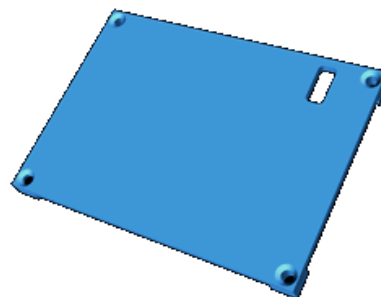
C = Maximum component height area of carrier PCB.

POSSIBLE HEADER VARIATIONS:

- | | | | |
|-----------------------|-----------------|----------------|------------------|
| • FX10A-168P-SV(85) | A = 10mm | B = 4mm | C = 1.5mm |
| • FX10A-168P-SV1(85)* | A = 11mm | B = 5mm | C = 2.5mm |
| • FX10A-168P-SV2(85) | A = 12mm | B = 6mm | C = 3.5mm |
| • FX10A-168P-SV3(85) | A = 13mm | B = 7mm | C = 4.5mm |
| • FX10A-168P-SV4(85) | A = 14mm | B = 8mm | C = 5.5mm |

*KRM3500_CARRIER STANDARD CONFIGURATION

HEAT SPREADER:



- STEP Model of the heat-spreader-plate is available
- Guarantees a consistent build envelope and thermal interface across all KRM-3X Modules