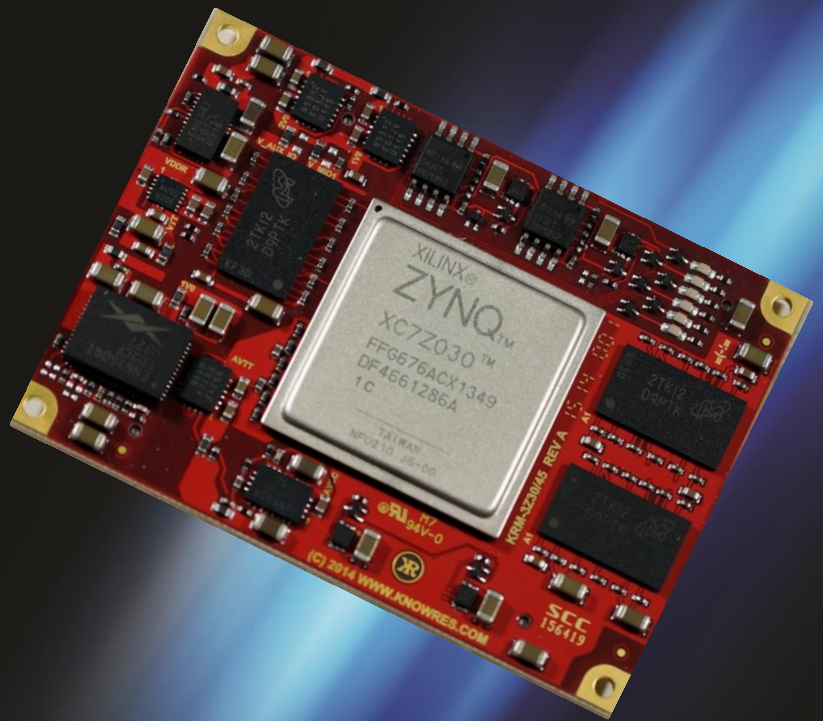




# KRM-3Z30-768

- Xilinx FPGA SoC
- Kintex<sup>®</sup> Fabric
- 192 PL IOs
- 256MB PL RAM
- Dual ARM A9
- 38 PS MIOs
- 512MB PS RAM
- 4x 8Gb/s MGT
- 50x70mm
- 3V3 Single Supply



## FEATURES:

### • Xilinx XC7Z030-1FFG676C

- Available in speed grades 1 through 3; Commercial or industrial temperature range as options
- 125k logic cells: 78'600 LUTs and 157'200 flip-flops
- 400 DSP Slices /18x25 MACCs
- 265 x 36Kb block RAMs, a total of 1'060 KB block RAM
- Dual ARM A9 Cores with NEON co-processor
- 256kB OC-RAM

### • 4Gb LPDDR3 PS RAM; 32 bit

### • 2Gb LPDDR3 PL RAM; 16 bit

### • 256Mbit QUAD SPI; 2x N25P128

### • 2x 168 pin Hirose FX10 dual row connectors

- 4x PL I/O bank (Banks 12, 13, 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

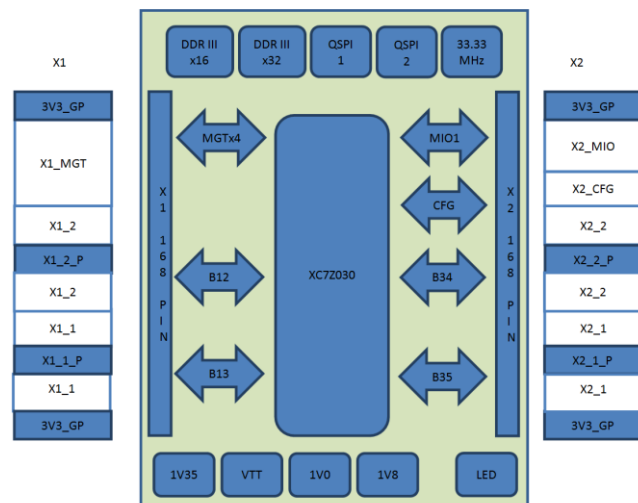
### • 33.333 MHz on-board oscillator

### • 4 User LED

### • 4 8Gb/s MGT ports

### • 1 MGT reference clock input

## BLOCK DIAGRAM:



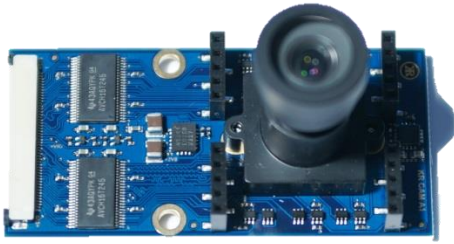
## EVALUATION CARRIER:



GbE, 4x USB, uSD, 2x UART to USB, 4 x exp port, MGT access, PMOD



## EXPANSION BOARDS:



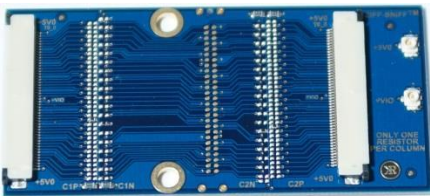
- 5MP CAMERA



- HDMI



- ETHERNET

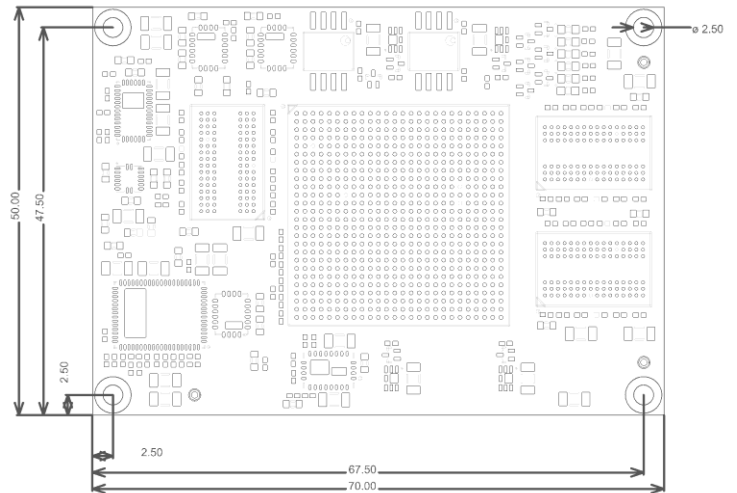


- Test and debug adapter
- Dual step-motor driver
- ISM band RF
- & more in design

## SUPPORT:

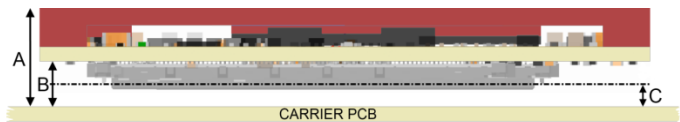
- Project scripts for VIVADO®
- Reference designs
- Reference schematics for peripherals
- Schematic and PCB library (Altium®)
- STEP models
- LINUX port & BSP
- Email support (FREE)
- Phone Support (Subscription)

## MODULE DIMENSIONS (mm) :



- STEP Model of the module is available

## MODULE TO BOARD DIMENSIONS:



**A** = Height above carrier PCB  $\pm 0.2$ mm

**B** = Mated stacking height

**C** = Maximum component height area of carrier PCB.

## POSSIBLE HEADER VARIATIONS:

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