

# VIAVI

## mA-3310 / 3320

### AXIe Embedded Field Programmable Gate Array

#### Product Overview

The VIAVI Solutions mA-33xx Series offers System on Chip (SoC) composed of a combination of high end Field Programmable Gate Array (FPGA) and ARM-based General Purpose Processor (GPP). It provides additional computing power to the user for the development and prototyping of highly demanding signal processing. The Series is offered either with an Intel Arria 10 FPGA (mA-3310) or a Xilinx Zynq UltraScale + (mA-3320) MPSoC assembled on an AXIe capable card. Embedded in those FPGAs are multi-core ARM general purpose processors (GPP) for additional programming flexibility. Coupled with partial reconfiguration capabilities this design offers further flexibility and ease to load signal processing components.

The mA-33xx Series is ideal to pre-process the high sampling rate I/Q symbols going to and coming from the mA-6806 Vector Signal Transceiver. Add your own FPGA IP such as digital down-conversion, spectral filtering, and demodulation to lower the processing requirements on other processors.

#### Advantages

- Provides user space for FPGA-signal processing programming
- Combines the processing power of the FPGA with the programming flexibility of the ARM processor
- All integrated with the Raptor system and the Software Communications Architecture (SCA) standard

#### Applications

- Large bandwidth speed signal processing
- Software Defined Systems
  - Communications
  - Electronic Warfare
  - Radar

## Specifications

mA-3310	
Processor	Intel Arria 10 SX-660
Number of logic cells	660K
On-chip memory	477 MB
DSP multiplier / adders	1,688
Dual-Core ARM Cortex-A9 32-bit processor	
ARM Neon Media Engine	
ARM processor clock	1.5 GHz
PCIe Gen3 x4 link	
4 GB DDR3 memory (2 GB HPS + 2 GB Fabric)	
mA-3320	
Processor	Xilinx Zynq Ultrascale+ EG ZU19EG
Number of logic cells	1.14 M
On-chip memory	80.4 MB
DSP slices	1,968
Quad-Core ARM Cortex-A53 64-bit processor	
Dual-Core ARM Cortex-R5 processor	
Mali™-400 GPU	
ARM processor clock	1.2 GHz
PCIe Gen3 x8 link	
32 GB DDR4 memory (16 GB PS + 16 GB PL)	



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