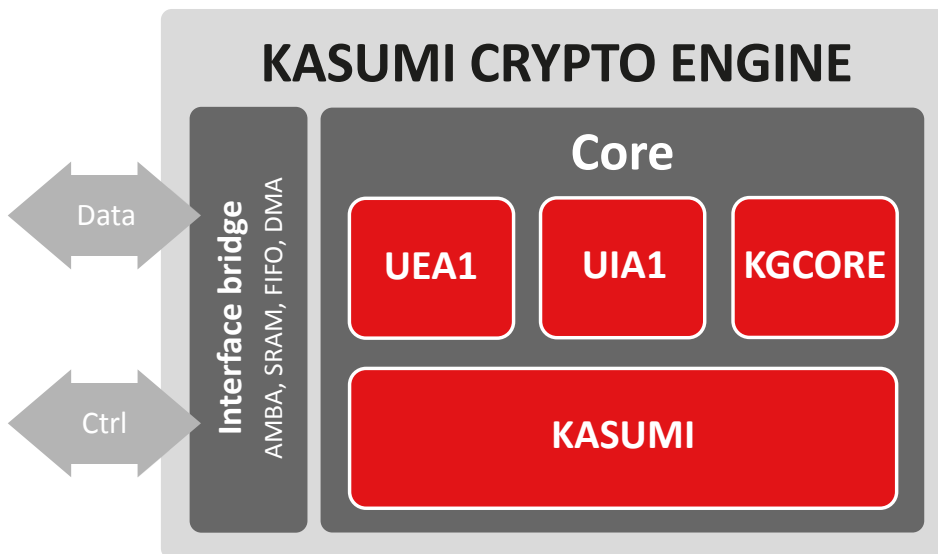




KASUMI CRYPTO ENGINE

The KASUMI IP core is 3GPP confidentiality and integrity algorithms (UEA1/UIA1) stream cipher for telecommunication applications, requiring high performance with reduced silicon resources. It is optimized for maximum throughput and minimum latency.

The unique architecture enables a high level of flexibility. The throughput and features unique to each application can be taken into account in order to select the most optimal configuration of the implemented IP. In addition, various keystream generator functions (GSM, ECSD, GEA) for efficient implementations are also included.



Features

- ✓ ASIC and FPGA
- ✓ ETSI specifications compliant
- ✓ Supports:
 - f8/UEA1
 - f9/UIA1
 - GSM A5/3
 - ECSD A5/3
 - GEA3
 - GSM A5/4
 - ECSD A5/4
 - GEA4
- ✓ Data interface: AMBA (AXI/AHB) with optional DMA
- ✓ Control interface: APB/AXI4-lite

Applications

- ✓ 3GPP mobile telephony (GSM, UMTS, LTE, 5G)
- ✓ Secure mobile communications

Implementation aspects

Standardized AXI-4 and AHB (optional) I/O simplifies system integration. All our IP cores are delivered with software drivers to simplify ASIC or FPGA integration.

We are also offering other 3GPP IP cores, such as ZUC (BA421) and SNOW3G (BA423).

Deliverables

- ✓ Netlist or RTL
- ✓ Scripts for synthesis & STA
- ✓ Self-checking RTL test-bench on referenced vectors
- ✓ Documentation

V1.1