



IP Cores Offering by KAL's Partners:

The combination of leading ASIC knowledge and customer ASIC project that we have done and doing in present, leading us to look for and to partnered with the leading IP vendors. Our Vendors offering leading IP for SOC (System-On-Chip) design for high speed performance, low power demand and small foot print.

Digital IP cores:

CPU Cores:

- 32bit – D32Pro
- 32bit/64bit - ARM
- 8 bit – 8051 (Pipelined)
- 8 bit - PIC Processor
- 8 bit- HC68HC11
- 8 bit – Z80
- 16 bit – D6800

Automotive:

- CAN/CAN-FD
- Lin
- FlexRay

AMBA Peripherals:

- AMBA Bus Fabric / Bridges (AXI/AHB/APB)
- Full bus matrix per customer spec

Peripherals:

- SoundWire
- JTAG/cJTAG
- USB 2.0/3.0
- LCD Controller
- HDLC/SDLC
- Smart Card Reader
- EEPROM SPI Ctrl
- Floating Point Unit
- I2C/I3C Master/Slave
- SPI Master/Slave
- Programmable Peripheral Interface
- UART, UART with FIFO
- PWM
- Timer 8254
- Programmable Timer
- Interrupt Controller
- 10/100/1000 Ethernet Controller

Video/Image

- H.264 Encoder
- H.264 Codec
- JPEG Encoder
- JPEG Decoder

Code Modulation:

- ADPCM

Military/Aviation:

- MIL-STD-1533



Memory Controllers:

- DDR2/DDR3 Controller
- LPDDR Controller
- SDRAM DIMM Controller
- SD/SDIO 2.0/3.0 Controller – eMMC support
- SDRAM Controller
- NAND Flash Controller
- Flash/EEPROM/SRAM Controller
- PCMCIA/CompactFlash Host Adapter
- PCMCIA/CompactFlash Slave Controller

Single/Multiport AHB/AXI/Other to all controllers

IO and ESD

- Special IOs for TSMC, GF, Samsung and SMIC
 - GPIO, RMII, I2C, GMII, LVDS, HV
 - Customer IO development
- ESD

Analog IP cores:

- We are specialized in high precision analog IP per the customer specification

PCI Bus Controllers and Peripherals:

- PCIe
- PCI-X Host Bridge, Master/Target
- PCI Host Bridge, Target, Master/Target
- PCI-PCI Bridge
- PCI-ISA Bridge
- PCI Bus Arbiter

Encryption/Decryption:

- AES/DES
- Crypto Engine

