

DAB-Embedded: Technology map

Content

We are working with next CPU architectures:	2
What SoC/MCU we are using last 3 years:	3
We are working with next chip vendors:	5
We are using next interfaces:	6
We are using next wireless technology:	7
We are using next operating systems:	8
We are using next motion control solutions:	9

We are working with next CPU architectures:

- Adapteva Epiphany-III RISC multicore
- Altera NIOS II
- ARM (Cortex-M0, M3, M4, M7, Cortex-A5, A7, A8, A9, A15, ARM926EJ-S, ARM920T, ARM1136EJ-S, Cortex-A53)
- Atmel AVR
- Atmel AVR32
- ADI Blackfin BF5xx/BF6xx/BF7xx
- ADI SHARC (ADSP-TS21xx)
- ADI TigerSHARC (ADSP-TS20xS)
- Beck SC1x3
- Freescale QUICC/PowerQUICC (II PRO)/e300
- Freescale Power e500/e500-v2
- Freescale Symphony DSP
- Intel x86/x64
- Intel MCS-51
- Microchip PIC (8bit, 16bit, dsPIC, 32bit)
- MIPS/MIPS32
- PowerPC
- Renesas SuperH3, SuperH4
- Silabs C8051
- STMicro ST40
- STMicro STM8
- TI MSP430
- TI DSP (C55x, C64x, C64x+, C674x, C66x, C667x)
- TI MCU DSP (F2833x, F280xx, Concerto F28M3x)
- Xilinx Microblaze
- XMOS

What SoC/MCU we are using last 3 years:

- Adapteva Epiphany-III 16-core 65nm Microprocessor (E16G301)
- Allwinner A20 with ARM Cortex A7-MPCore
- Altera NIOS II (soft core processor) in Altera Cyclone IV/CycloneV/Stratix V GX, Cyclone V SoC (ARM Cortex-A9 multicore)
- AMD Geode LX900
- Analog Devices Blackfin BF504F (MCU), BF533, BF537, BF547, BF561, BF609, BF707
- Analog Devices SHARC ADSP-21469
- Analog Devices TigerSHARC ADSP-TS201S
- Atheros AR9331 (MIPS-based)
- Atmel AVR Atmega series MCUs, tinyAVR, XMEGA AVR MCUs
- Atmel AVR32 – AT32UC3-series AVR32 microcontroller
- Atmel 8051 series MCUs – AT89Cx051, AT89C51CC0x
- Atmel SMART ARM-based MCUs –AT91SAM9Exxx, ATSAM3, ATSAM4, ATSAM2x, ATSAMG5x, ATSAML21x
- Atmel SMART ARM-based MPUs - AT91SAM9X35, AT91SAM9G45, AT91SAM9M10, ATSAMA5D3, ATSAMA5D4
- Beck SC143 (IPC@CHIP® family)
- Broadcom BCM5836P (MIPS32-based), BCM6318 (MIPS-based)
- Freescale DSP56K/Symphony DSP5672x (Dualcore)
- Freescale MPC8323 (PowerQUICC II Pro), MPC8572E (PowerQUICC III)
- Freescale i.MX287 (ARM9-based SoC), i.MX53 (ARM Cortex-A8-based SoC). i.MX6 (ARM Cortex-A9 multicore SoC), LS1021A (ARM Cortex-A7 multicore SoC), P1020 (e500v2 core), Vybrid VF6xx (ARM Cortex-A5 and Cortex-M4 dual core)
- Intel Atom N270, Intel Atom Z530, Intel Atom E3825, Intel Core i5, Intel Core i7
- Marvell (prev Intel) PXA270 (XScale-core, ARMv5 modified), PXA320 (XScale-core), ARMADA PXA168 (ARMv5TE-compliant core), 88F6281 (Sheeva™ core)
- Microchip PIC16F88, PIC16F677, PIC10F322, PIC12F629, PIC18F2221, dsPIC30F2020, PIC24F04KA200, PIC32MX110F016B
- Microsemi SmartFusion2 SoC M2S050
- NVidia Tegra K1 (ARM Cortex-A15 Quad, Kepler cores)
- NXP LPC1315 (based on ARM Cortex-M3), LPC1347 (based on ARM Cortex-M3), LPC4317 (based on ARM Cortex-M4 + Cortex-M0 dualcore), LPC2102 (based on ARM ARM7TDMI-S™)
- Profichip SMC1000 (ARM926EJ-S based core ASIC)
- Qualcomm Snapdragon™ 600 APQ8064 (quad-core processor, ARM Cortex-A15 modified architecture)
- Renesas RZ/A1H (ARM Cortex-A9 multicore), SH7780, SH7727
- Samsung Exynos 3 S5PV210 (ARM Cortex-A8), Exynos 4 4412 (ARM Cortex-A9 Quad core)
- Sigma Designs SMP8756 (ARM Cortex-A9 core)
- Silabs C8051F411 (C8051-core), C8051F220, C8051F344, EFM32WG232 (ARM Cortex-M4 core)
- STMicro STi7102 (ST40-core), STM8L101 (ST8-core), STM32F100, STM32F103 (ARM Cortex-M3 core), STM32F417 (ARM Cortex-M4 core)

- Texas Instruments TMS320DM6467 (ARM926EJ-S and C64x+ core), OMAP3530 (ARM Cortex-A8 and C64x), OMAP-L138 (ARM926EJ-S and C674x), DM3730 (ARM Cortex-A8 and C64x), OMAP4430 (ARM Cortex-A9 multicore, C64 DSP, ARM Cortex-M3), Sitara AM3874 (ARM Cortex-A8 core), Sitara AM3358 (ARM Cortex-A8 core), OMAP5432 (ARM Cortex-A15 multicore, DSP C64x, ARM Cortex-M4 multicore), TMS320C5517 (C55x DSP core), Keystone II 66AK2H14 (ARM Cortex-A15 multicore, C66x multicore), Keystone TMS320C6678 (C667 multicore), MSP430G2553 (MSP430 core), Concerto F28M35H52C (C28x core, ARM Cortex-M3 core), Tiva TM4C123G MCU, Delfino TMS320C28346 MCU, Piccolo TMS320F28065 MCU
- XMOS XS1-L10A-128 (
- Xilinx Zynq-7000 (ARM Cortex-A9 multicore), Virtex-5 (PowerPC 440), Microblaze softcore

We are working with next chip vendors:

- Allwinner Technology
- Altera
- AMD
- Analog Devices
- Atheros
- Atmel Corporation
- Broadcom
- Freescale Semiconductor
- Fujitsu
- Intel Corporation
- Lattice Semiconductor
- Marvell Technology Group
- Microchip Technology
- Microsemi
- NVIDIA
- Nordic Semiconductor
- NXP Semiconductors
- PLX
- Profichip
- Qualcomm
- Realtek
- Samsung
- SigmaDesigns
- Silabs
- STMicroelectronics
- Texas Instruments
- Xilinx

We are using next interfaces:

- AC97 / I2S / TDM / McASP
- CAN 2.0 A/B
- CF/MMC/SD/SDHC/eMMC
- DVI
- Ethernet
- HDMI
- I2C
- LIN
- SPI
- LAN
- LCD
- LPC
- OBD
- PCI/PCIe
- RS485/RS422
- S/PDIF
- SATA
- USB
- XAUI

We are using next wireless technology:

- Bluetooth 2.x / 4.x / BLE (Bluetooth Low Energy)
 - Bluegiga WT12, TI CC2560, LS Research TiWi-R2 (TI WiLink 6.0), Bluegiga BLE112, Wi2Wi W2CBW0015
- GSM / GPRS / EDGE / 3G / 4G
 - SimCom SIM900, Telit HE910-G, Sierra Wireless SL6087, Sierra Wireless Q268x, Sierra Wireless MC7710 (LTE)
- RF 433 MHz, 866 MHz, Sub-1GHz, 2.4 GHz
 - Nordic Semiconductor nRF9E5, Nordic Semiconductor nRF24L01+, TI CC110L, TI CC1121, Silabs Si1065, TI CC2500, NXP PN533 (RFID, 13.56MHz), NXP PN512 (RFID, 13.56MHz)
- WiFi IEEE802.11abgn
 - Bluegiga WF111, LS Research TiWiR2 (TI WiLink 6.0), Wi2Wi W2CBW0015 (Marvell 88W8686), Qualcomm AR9002WB-2NG, TI CC3000, Taiyo Yuden WYSBMVGX8 (Marvell 88W8787 core)
- DSRC 802.11p
- ZigBee IEEE802.15.4
 - Digi XBee, TI CC253x, Ember EM357
- ZWave
 - Sigma Designs ZM3102

We are using next operating systems:

- Bare machine / bare metal
- FreeRTOS
- eCOS RTOS
- Linux
- Android
- Windows Embedded CE/Compact/Standard
- DSP/BIOS
- QNX
- MQX RTOS
- RTXC RTOS (Quadros)
- ThreadX
- scmRTOS
- μ C/OS-II
- ADI VDK RTOS

We are using next motion control solutions:

- Stepper motor controllers:
 - Allegro Micro A3977 (With micro step support)
 - ST Micro L6470H (dSPIN, with micro step support)
 - ST Micro L6235 (Brushless DC motor)
 - Toshiba TB6560AHQ
 - Toshiba TB6608FNG
 - Panasonic AN44065A
 - Panasonic MINAS A5 series servo drives