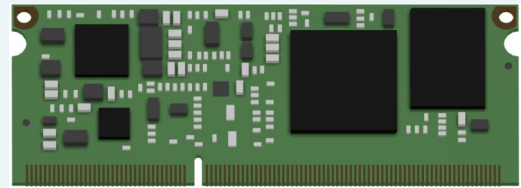


- ULTRA LOW POWER
thanks to ARM Cortex A7 MPCore@528 MHz
- pin to pin compatibility with AXEL LITE SOM based on i.MX6
- i.MX6 software full compatibility
- High flexibility with up to 4 different scalable CPU versions (Base, General Purpose, Security)
- Advanced security thanks to TRNG, Crypto Engine, etc.
- Embedded IoT, connectivity version with "blind CPU"
- Boot from NOR for safe applications
- up to 2 x Ethernet 10/100 Mbps with integrated switch
- Single 3V3 Power Supply with very low power stand by

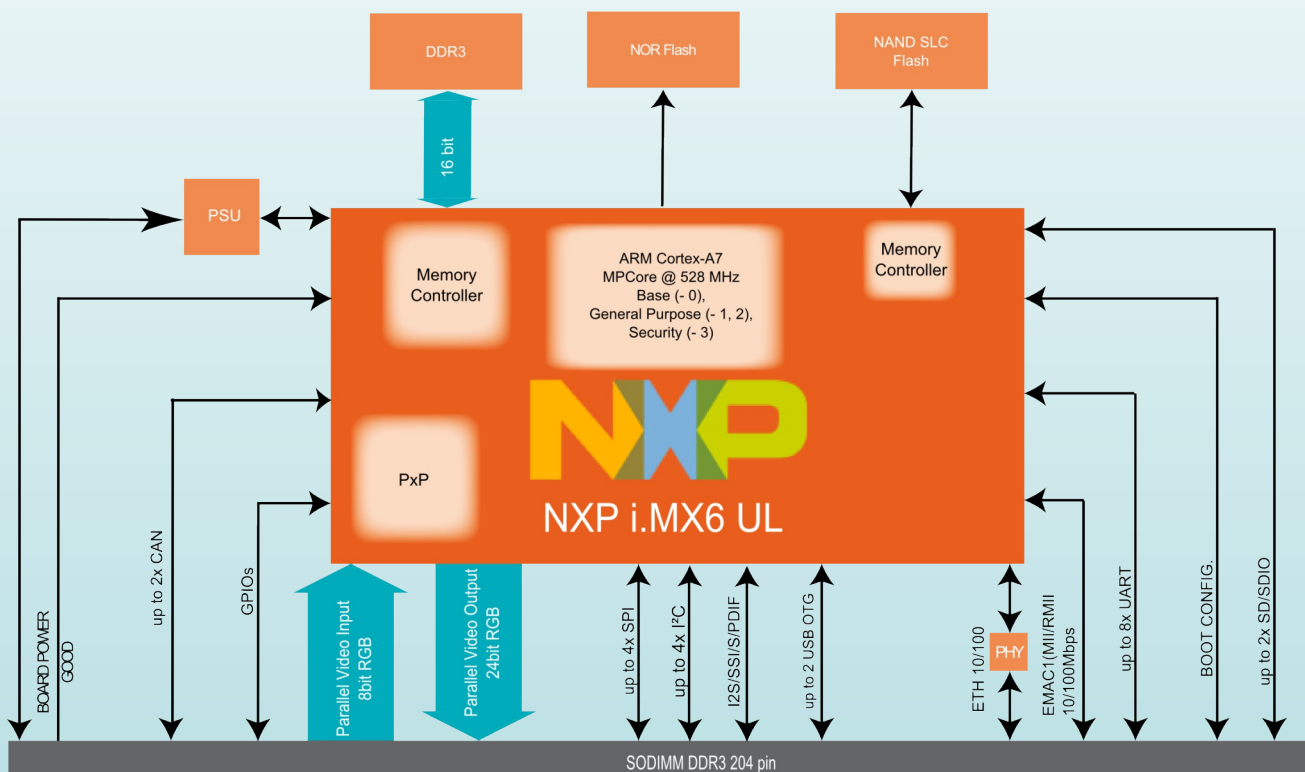


AXEL ULite is the brand new solution made by DAVE Embedded Systems, based on the recent NXP i.MX6 Ultra Lite application processor. AXEL ULite defines a new limit in low power consumption with its ARM Cortex A7 architecture and enables customers to design a new concept of Embedded IoT devices.

AXEL ULite offers great compromise between computing and power consumption, thanks to the ARM Cortex-A7 architecture. Additionally, the use of this processor enables extensive system-level differentiation of new applications in many industry fields, where power consumption, connectivity and extremely compact form factor (67,5 mm x around 38 mm) are key factors. The advanced security features and the three different CPU versions available (Base, General Purpose and Security) offer a wide scenario of applications. Smarter system designs are made possible, following the trends in functionalities and interfaces of the new, state-of-the-art embedded products.

AXEL ULite is fully compatible with AXEL LITE SOM (Based on NXP i.MX6). This means that customers are enabled to build a wide portfolio of products with very different performance / power consumption and cost budgets. This is in line with DAVE Embedded Systems philosophy to support customers along with their business providing new solutions which can enlarge their gamma of products re-using as much as possible the existing HW and SW platforms.

Thanks to AXEL ULite, customers have the chance to save time and resources using a compact solution that permits to reach scalable performances that perfectly fits the application requirements avoiding complexities on the carrier board. Last but not least, AXEL ULite is suitable for high volume applications where the price/quality ratio is important such as the embedded Internet Of Things, portable solutions, gateways, solar applications.



CPU	NXP i.MX6 UL ARM Cortex A7 MPCore @ 528 MHz Base (-0), General Purpose (-1, -2), Security (-3)
Supervisor	On-board power supply supervision and power sequencer Watchdog and RTC
Memory	
Cache	L1: 32Kbyte instruction, 32Kbyte data L2: Unified data/instruction, 128 K
SDRAM	Up to 512 DDR3-LV, x16 data bus width
NOR	SPI NOR 4 - 32 MB on request
NAND SLC	All sizes, on request
Interfaces (full-spec models) *	
LAN	Ethernet 10/100 Mbps (PHY on board) additional MII/RMII interface
UART	up to 8x UART ports
USB	up to 2x 2.0 OTG port (PHY on board)
CAN	up to 2x CAN
SDIO	up to 2x SDIO/MMC
Audio	I ² S / SSI / S / PDIF
Video Output	1x RGB Parallel port 24 bit
Video Input	1x CSI port 16 bit parallel
Debug	JTAG IEEE 1149.1 Test Access Port
Other	up to 4x I2C channels up to 4x SPI channels GPIOs with interrupt capabilities up to 2x 8ch ADC (12bit) 8x8 keypad

Mechanical

Connectors	SODIMM 204 pin
Size	67.50mm x 25.40mm
Temperature	Commercial (0°C / +70°C) temperature range Industrial (-40°C / +85°C) temperature range Extended (-40° / +105°C) temperature range

PSU

Input	Single 3.3V +/- 5%, on-board voltage regulation very low power stand by
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Software

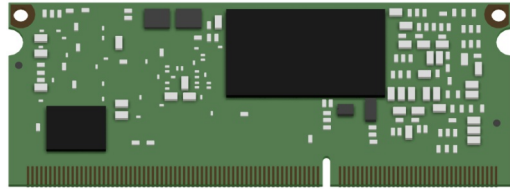
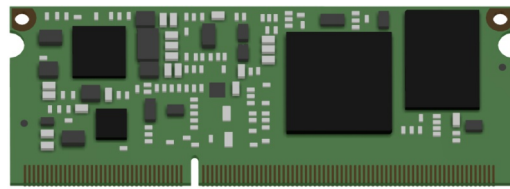
Bootloader	U-Boot
Multitasking	Linux 3.14.x or newer

Evaluation Kit

The AXEL ULite evaluation kit is available in a development kit that includes a SOM, a carrier board and all accessories required for immediate start-up.

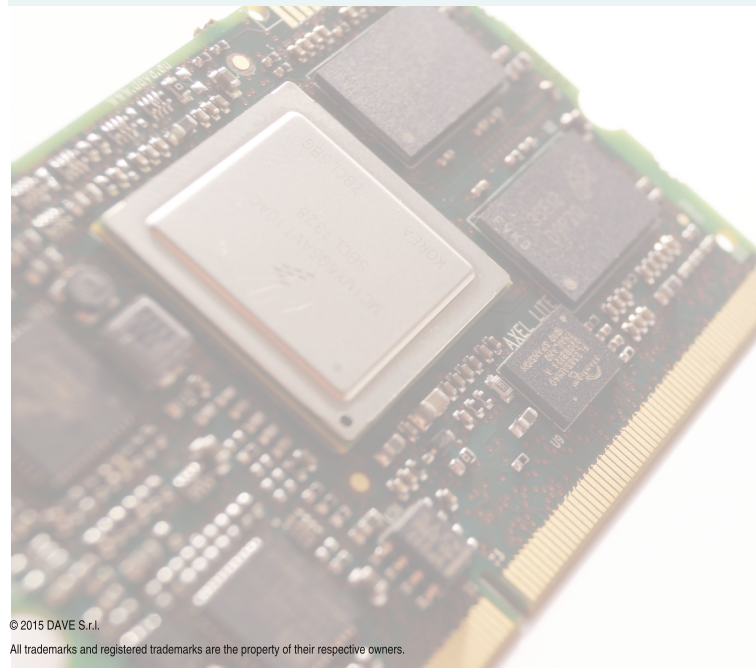
*: interface availability depends on pin multiplexing.

Please contact your local FAE.



Product code configurator *

Family	Processor	NOR flash	DDR3 RAM	NAND flash	Temp. range
DLT	A: i.MX6 UL - V0	0: No NOR	9: 512MB	0: No NAND	I: -40 / +85°C
	D: i.MX6 UL - V1	2: 4MB	8: 256MB	7: 128MB	Industrial temp.
	E: i.MX6 UL - V2	3: 8MB	7: 128MB	8: 256MB	C: 0 / 70°C
	G: i.MX6 UL - V3	4: 16MB		9: 512MB	Commercial temp.
		5: 32MB		1: 1 GB	
				2: 2 GB	



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