PRODUCT BRIEF

TRAVEO™ T2G CYT3BB/CYT4BB/CYT4BF

High performance Body and Driver information Microcontroller

Infineon releases its second generation TRAVEO™ microcontroller in embedded flash 40 nm technology. It comes back with an increase in performance, memory sizes, connectivity and more scalability to address the new automotive trends and challenges. This family has more than 30 products to provide the most scalable portfolio of safety microcontrollers. In terms of performance, the middle end product CYT4BB/CYT4BF offers dual core Cortex®-M7 and CYT3BB offers single core Cortex®-M7 running up to 350 MHz and up to 1 MBytes embedded RAM, and consuming below 600 mA in Active mode and 50 uA in Deepsleep mode with 64 KB RAM retention. Its mirrored embedded flash bank offers A/B swap capabilities.

Safety is the core know-how of Infineon, and all products provide safety mechanism (including MBIST, ECC Flash/RAM, CRC) to ensure a safety platform supporting ASIL-B ISO 26262. State-of-the-art security with Secure Boot support by a dedicated Arm® Cortex-M0+ core and security hardware to accelerate cryptographic functions. The CYT4BB/CYT4BF has dual cores providing up to 1500 DMIPS in ASIL-B.

In terms of security, this product has an HSM compliant eVita full, ensuring the implementation of future proofed security measure. On top of this, it offers extensive connectivity with 10 CAN FD, 11 LINs, One QSPI and new high-speed communicating interfaces such as 1 Gbit Ethernet 2 channels, which are critical to address new domain control and connected gateway ECUs.

The TRAVEO™ CYT3BB/CYT4BB/CYT4BF family features a dedicated best-in-class standby mode controller, with its own voltage domain to, not only support low power modes, but also to perform certain operations such as analog measurements, CAN and LIN communications, RTC and basic processing while the rest of microcontroller is in standby.

Finally to ensure the scalability, the whole family shares its core architecture (ARM® Cortex®-M7™ based), allowing a maximum of software re-use, but also offers pin to pin compatibility on two main packages (TQFP 176 and BGA 272). With this approach, customers can develop on this CYT3BB/CYT4BB/CYT4BF for the application and build a complete portfolio ECU, with optimized go to market and development cost.

Key features

- Dual ARM® Cortex®-M7 running up to 350 MHz delivering 1500 DMIPS
- Up to 8 MB flash and up to 1 MB SRAM
- Up to 1 Gbit Ethernet 2 channels and 10 CAN FD channels
- 1x eMMC/SDIO
- 3x I^2S/TDM
- ISO 26262 ASIL-B support
- ISO 21434 ready
- eVita Full
- Cortex®-M0+ for HSM security
- Low power consumption
- AUTOSAR 4.2 support
- 125°C temperature support

Key benefits

- Best-in-class performance enabling ASIL-B designs
- Backward compatibility with CYT2B family
- A/B swap software update over the air support
- Best-in-class power consumption

Key applications

- Body Control Module/Body Domain Control
- Zone control
- Lighting system
- Cockpit domain control sub system
- Sound system

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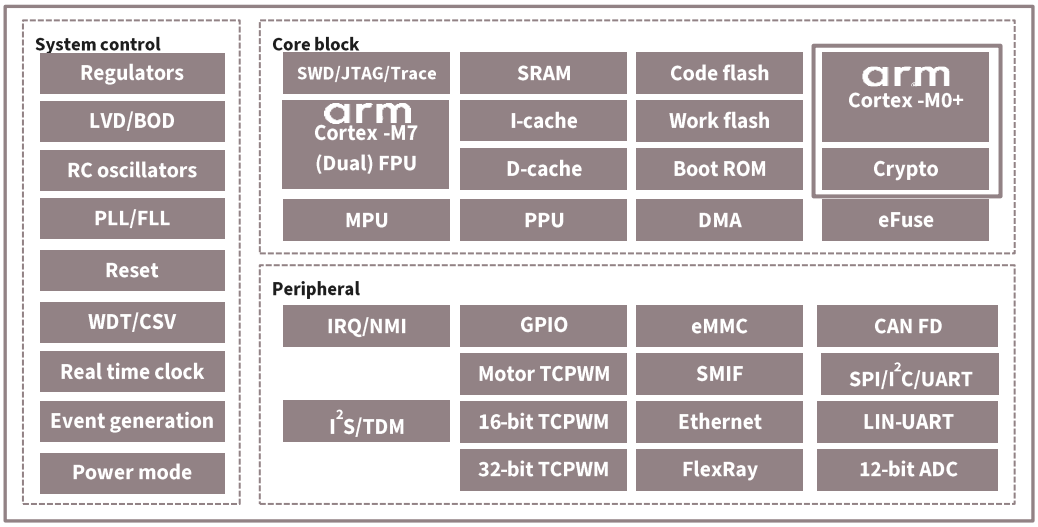
Block diagram



Product table

Type	CPU Freq (MHz)	Arm® Cortex-M7	Flash	RAM	Ethernet	Package	Ordering code
CYT3BB5CEBQ1AEEGS CYT3BB7CEBQ1AEEGS CYT3BB8CEBQ1AEEGS CYT3BBBCEBQ1BZEGS	250	Single	4 MB	768 KB	100 Mbit	TQFP 100 TQFP 144 TQFP 176 BGA 272	Active & preferred
CYT4BB5CEBQ1AEEGS CYT4BB7CEBQ1AEEGS CYT4BB8CEBQ1AEEGS CYT4BBBCEBQ1BZEGS		Dual					Active & preferred
CYT4BF8CEDQ0AEEGS CYT4BFBCJDQ0BZEGS CYT4BFCCJDQ0BZEGS	350	Dual	8 MB	1 MB	1 Gbit x 1/2	TQFP 176 BGA 272 BGA 320	Active & preferred

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