

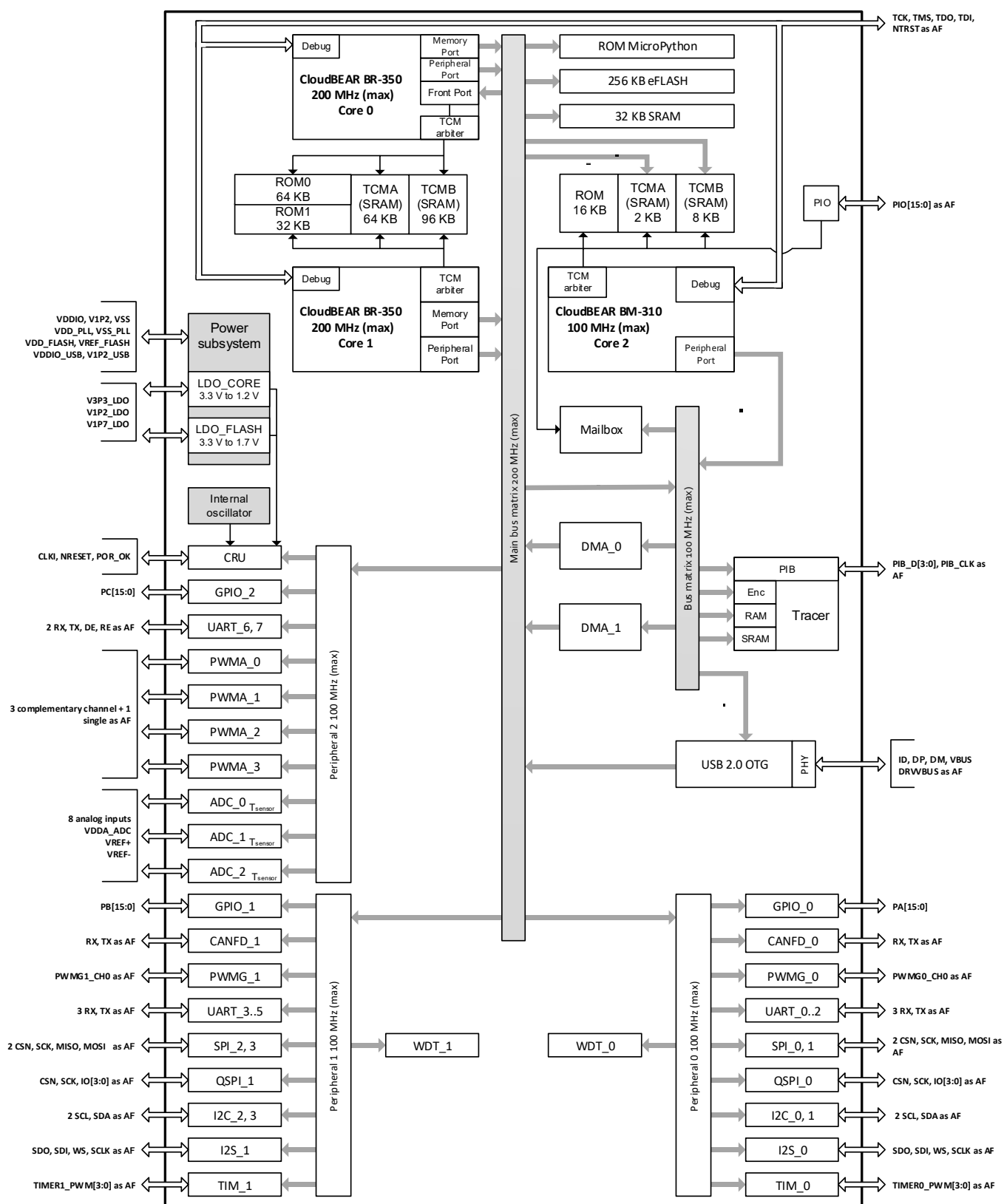
BE-U1000 Microcontroller

Product Brief

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BE-U1000 is a 32-bit general purpose three-core microcontroller. The characteristics of the BE-U1000 microcontroller allow to be used in IoT, automated process control systems, automotive industry, robotics, industrial automation, motor control and other industries.

Memory 192 KB SRAM (160 KB TCM) 256 KB eFLASH - Maximum size of external direct addressable FLASH memory – 16 MB (in XIP mode)	2 CloudBEAR BR-350 cores - RISC-V architecture - RV32IMCBFNAU(P) ISA extension - Maximum operating frequency – 200 MHz - Performance – 3.42 CoreMark/MHz (on one core) - ROM: 64 KB for core 0 32 KB for core 1 - Sharing a 160 KB TCM (SRAM) memory block 32 KB L1 instruction cache - JTAG and TRACE interfaces	Communication interfaces 8xUART (2xUART with RS-485 operating mode support) 2xSPI (master) 2xSPI (slave) 4xI²C 2xQSPI 2xI²S 2xCAN FD - USB 2.0 OTG + PHY (HS)
Timers 4 timers with 4 PWM channels (PWMA) 2 one-channel general-purpose timers (PWMG) 2 TIM timers 2 watchdog timers	CloudBEAR BM-310 core - RISC-V architecture - RV32IMCB ISA extension - Maximum operating frequency – 100 MHz 16 KB ROM 10 KB TCM (SRAM) - JTAG interface	Power consumption - Input voltages: 3.3 V; 1.7 V and 1.2 V (optional); 1.0 V (reference) - Maximum current consumption of VDDIO power domain – 250 mA - Maximum current consumption of V1P2 power domain – 250 mA - Ground pin connected through exposed pad
3 12-bit ADC 8 multiplexing channels - Sampling frequency – 1 MSps - Integrated temperature sensor		Reference clock source - External oscillator (25 MHz) - Internal oscillator (from 12 to 32 MHz)
2 DMA controllers		
48 GPIO lines		
Embedded MicroPython		
QFN-88 package, 10x10 mm		



Revision History

Revision	Date	Description
1.2.2	29.12.2025	Initial version
1.2.3	17.02.2026	Minor changes

Contact Info



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www.baikalelectronics.ru



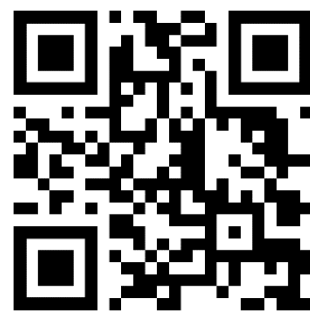
Head Office

www.baikalelectronics.ru/contacts



Mail

info@baikalelectronics.ru



Phone

+7 495 221-39-47