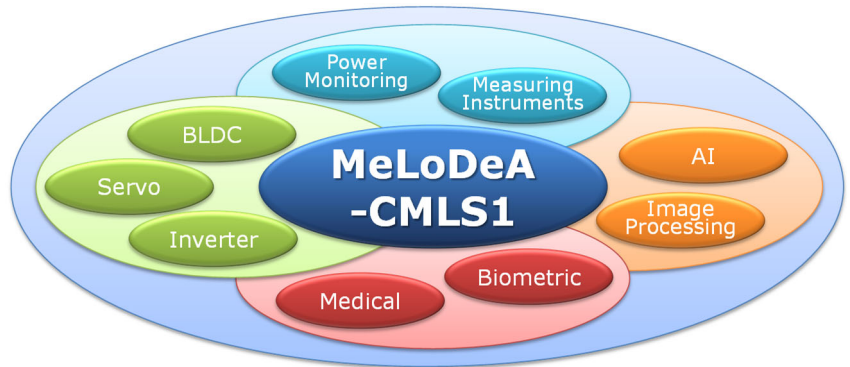


MeLoDeA™-CMLS1

Reconfigurable logic circuit + High-precision analog circuit + High-efficiency MPU

Overview

MeLoDeA™-CMLS1 is a system LSI that incorporates a reconfigurable logic circuit MeLoDeA (Memory Logic Device Architect), a high-precision AFE (Analog Front End), and a high-efficiency 32-bit MPU on a single chip.



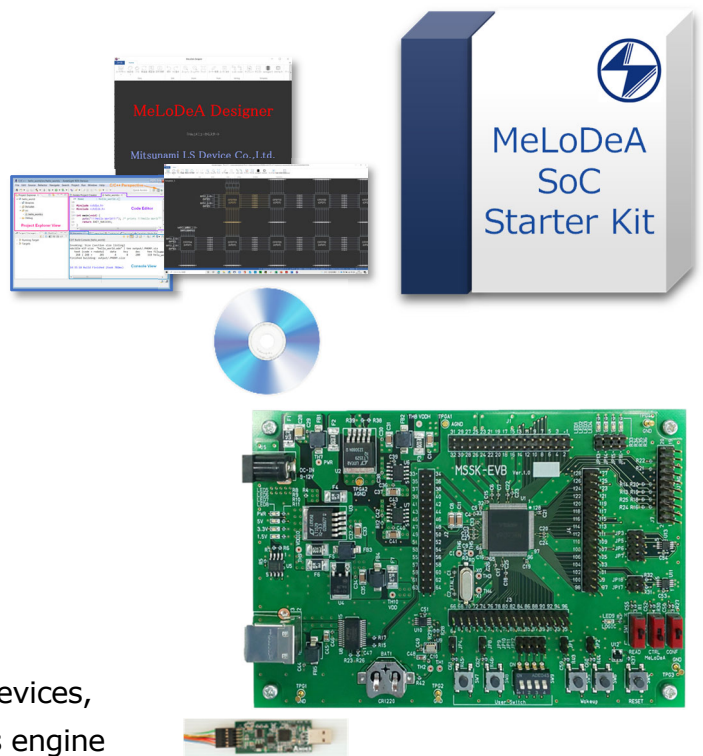
[Application Examples]

Applications

- Motor control
- Power monitoring system
- Wide range of sensor-related applications

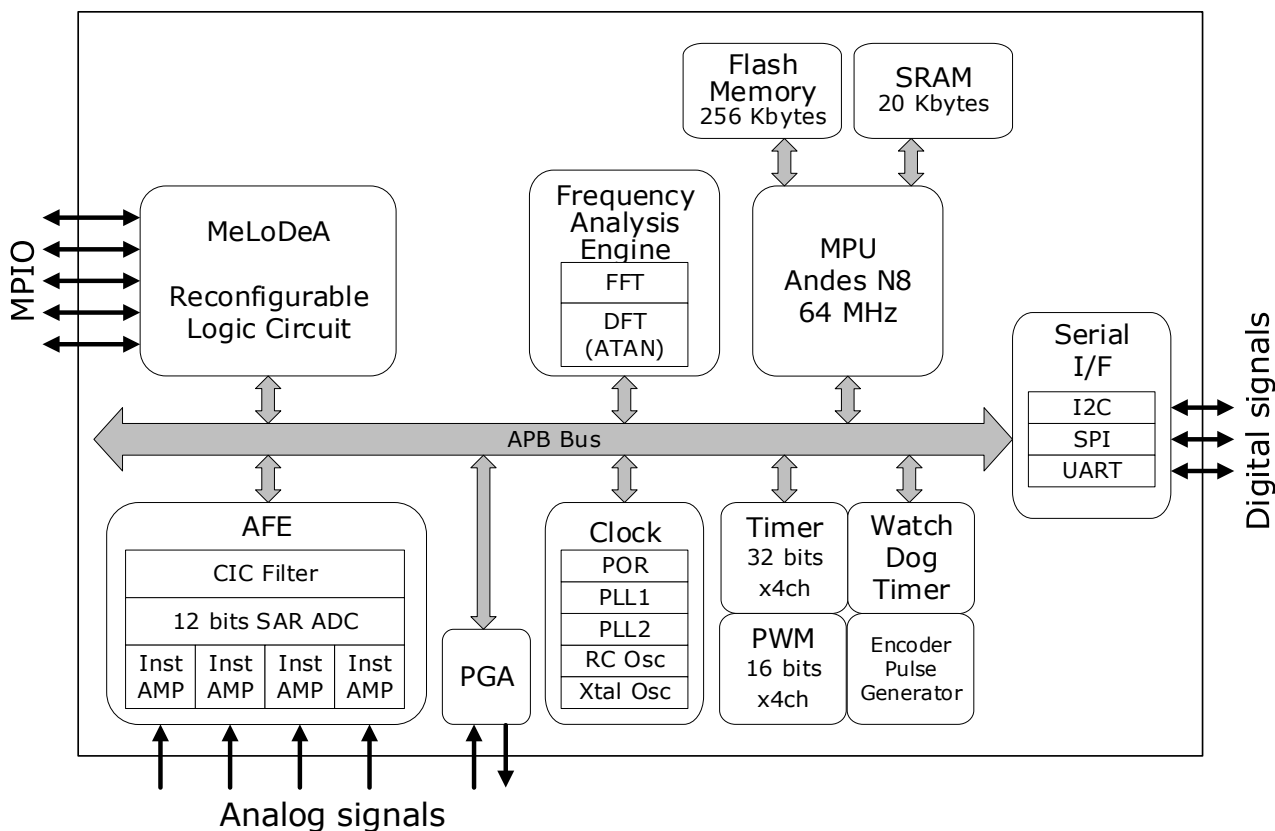
Features

- Low power consumption design
- High-precision analog front-end
- Reconfigurable logic circuit
Cutting-edge architecture MeLoDeA realizing low power consumption
- 32-bit MPU
Andes Technology N8 core
- Built-in Flash Memory
for MPU program and MeLoDeA config data
- Others
Equipped with functions required for edge devices, such as MPU Peripherals, frequency analysis engine



[MeLoDeA Soc Starter Kit]

■ Block Diagram



■ Main Functions

Item	Contents
MeLoDeA block	Reconfigurable logic circuit (Max. operating frequency 128 MHz)
32-bit MPU	Andes Technology Corp. AndeCore™ N801 (Max. operating frequency 64 MHz)
Flash memory	256 Kbytes (for MPU program and MeLoDeA configuration data)
Frequency analysis engine	FFT (256 points), DFT (Measurement frequency range 1 Hz ~ 1 kHz)
Interface	I2C, SPI, UART
Analog Front End	Instrumentation AMP 4 channels (Max. gain: x64), 12-bit 1Msps SAR ADC
Power supply voltage	Analog power supply: 5V, Digital power supply: 1.5V, IO power supply: 3.3V
Package type	LQFP128 pins

Contact: Mitsunami Co., Ltd.
2-30-11 Nishi-Gotanda,
Shinagawa-ku, Tokyo 141-0031
TEL : +81-3-3492-7780

Developer: Mitsunami LS Device Co., Ltd.

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