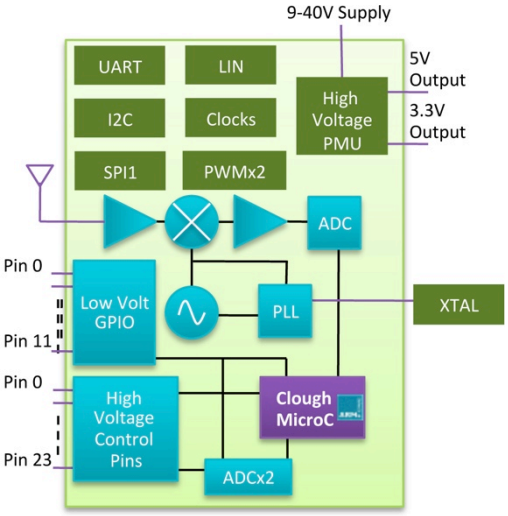
uSesame Features

- ARM M0 32-Bit MCU
- 160kB Flash / 8kB SRAM
- ISM 433MHz ASK Receiver
- (2) 8-10 bit ADCs
- (24) High Voltage GPIOs
- (12) Low Voltage GPIOs
- 5V, 3.3V and 1.8V regulated outputs
- 10MHz RC Oscillator
- 3.58MHz XTAL Oscillator
- 10kHz Auxiliary Clock (<1uA)
- (3) 32-bit Timers
- (1) I^2C Interface
- (1) SPI Interface
- (1) UART
- (2) 12-bit PWM



Recommended Applications

- Garage door openers
- Automotive alarms
- Wireless industrial door and security systems

iND83223 - "uSesame"
32-Bit ARM M0 Based uController and Wireless Receiver

Device Description

uSesame is part of indie's HV/Automotive series of ARM M0-based microcontrollers. Clocking at up to 20MHz, the ARM M0 core integrates 160kB of flash RAM and 8kB of SRAM on die for feature-rich applications or those requiring redundancy of data storage. It also integrates a superheterodyne ISM band ASK receiver operating at 433MHz and with sensitivity performance of -110dBm. It is intended to support a wide array of applications including garage door openers and radio controlled industrial door and security systems as well as automotive alarm systems.

The iND83223 integrates multiple clocking options including a high accuracy (1%) 10MHz RC oscillator, low cost 3.58MHz XTAL oscilllator, and low power (<1uA) 10kHz auxiliary clock. It also contains (3) 32-bit timers and a watchdog timer for high performance, low power designs.

uSesame also integrates multiple types of GPIOs. There are 24 high voltage (9-45V) GPIOs which can source 5mA or sink 25mA of current, 8 high voltage (9-45V) GPIOs which can sink 200mA in order to drive a relay coil, 1 high voltage (9V-45V) GPIO which can source 200mA or sink 25mA and 12 low voltage (3.3V nominal) GPIOs.

uSesame integrates a power management block including on-chip regulators and can be powered from a wide voltage range of 9V to 45V. The on chip power management also produces regulated 1.8V, 3.3V and 5.0V supplies to external pins. All of the iND83223 pins are 8kV Latch-up resistant.

iND83223 has several options to interface to other integrated circuits such as I^2C, SPI, UART, and LIN interfaces as well as 2 PWM outputs. There are also (2) 8-10bit ADCs (SAR architecture) with 28 channels.

All of these features are packaged in a low cost, 7x7mm 48 pin QFN package and are suitable for applications from -40C to +85C.

Ordering Information

Device Ordering Name	Platform	Temp Range	Package	Pins
iND83223 uSesame	General purpose and HV/Auto uC applications	-40C to +85C	7x7 mm QFN	48 Pins @ 0.50 mm Pitch

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