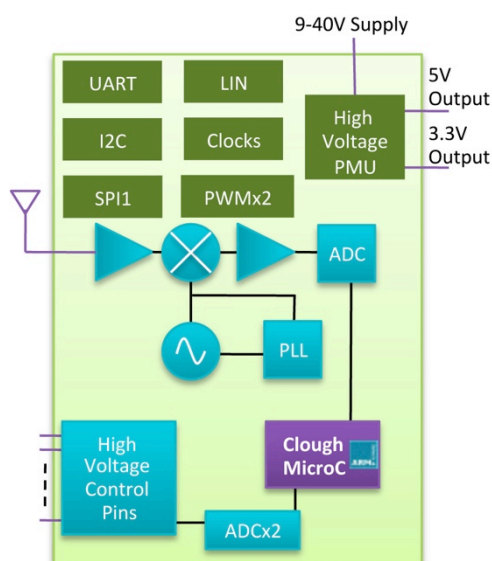


nSesame Features

- ARM M0 32-Bit MCU
- 160kB Flash / 8kB SRAM
- ISM 433MHz ASK Receiver
- (9) High Voltage GPIOs
- 3.3V and 1.8V regulated outputs
- 10MHz RC Oscillator
- 3.58MHz XTAL Oscillator
- 10kHz Auxiliary Clock (<1uA)
- Watchdog Timer
- POR/BOR
- (3) 32-bit Timers
- (1) 12-bit PWM



Recommended Applications

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

iND83221 - "nSesame"

32-Bit ARM M0 Based uController and Wireless Receiver

Device Description

nSesame consists of a highly integrated 32-bit general purpose ARM M0 based microcontroller with clocking of up to 20MHz. 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 iND83221 integrates 160kB of flash RAM and 8kB of SRAM on die for feature-rich applications or applications requiring redundancy of data storage.

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

nSesame also integrates multiple types of GPIOs. There are 6 high voltage (9-45V) GPIOs which can source 5mA or sink 25mA of current and 3 high voltage (9-45V) GPIOs which can sink 200mA in order to drive a relay coil.

nSesame 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 and 3.3V supplies to external pins. All of the iND83221 pins are 8kV Latch-up resistant.

In order to reduce cost, nSesame lacks some of the features of the more capable members of the Sesame family but it does have a 12-bit PWM output.

The device is packaged in a low cost, 7x7mm 48 pin QFN package and is suitable for applications from -40C to +85C.

Ordering Information

| Device Ordering Name | Platform | Temp Range | Package | Pins |
|----------------------|--|--------------|------------|-------------------------|
| iND83221 nSesame | General purpose microcontroller applications | -40C to +85C | 7x7 mm QFN | 48 Pins @ 0.50 mm Pitch |