

## Lightweight UHF RFID Gen2 (ISO18000-6C) Reader Chip LS1001 Datasheet and Specifications

### Features:

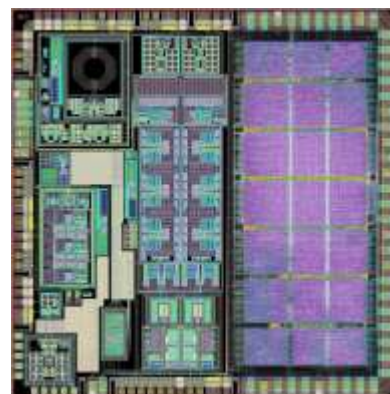
- A low-power consumption, low cost, small feature size UHF Gen2 RFID reader chip with built-in Gen2 commands.
- No need of external MCU for EPC-retrieval operations, minimum peripheral circuitry requirements for full Gen2 command set.
- Standard SPI interface for control signals and data stream
- Performance optimized for NFC (near field communication) applications
- Ideal for mobile platform (cellular, PDA, etc.), PoS (point of sales), and smart-shelf system integration.

### System Specifications:

- EPC C1G2 & ISO 18000-6C Compatible
- 902~928MHz UHF Band, Channel Width: 500kHz
  - Operation frequency and channel width customizable between 840MHz to 960MHz upon request
- Low Working and Standby Power
  - Supply Voltage: 1.8V and 3.3V
  - Max operational current: 120mA,
  - Idle: 10uA
- Transmission Power: 6dBm
  - Integrated PA for Short Range Solution
  - External PA for enlarged operation range
- Receiver Sensitivity: -55dBm
- Receiver 1db CP: -6dBm
- Reader-to-Tag channel
  - DSB-ASK modulator
  - PIE coding
  - Tari: 6.25us~25us
- Tag-to-Reader Channel
  - ASK,PSK modulator
  - FM0, Miller coding
  - BLF: 40~160kBps
- Built-in Command Set
  - Query, QueryRep, Ack
  - Full Gen2 command set expandable through SPI interface
- Chip Size: 3.1mm x 3.1mm, with 0.18um CMOS Technology



Package Top View



Chip Top View