

Tagreader IC

Overview

Frequency Band

LF 100 - 150 kHz

Chip

ASIC

Hard Tag Dimensions

9.93 x 5.99 mm / 0.39 x 0.23 in

Industry Segments

Automotive

Applications

Immobilizer Systems



Fully integrated CMOS transceiver IC

Our Tagreader IC base station IC is a fully integrated CMOS transceiver IC minimising the influence on reading / writing distances caused by the given tolerances of the primary resonance circuit.

It is intended for use in an automotive immobilizer RFID base station with the following functions:

- Antenna driving with carrier frequency by internal PLL, or external clock.
- Integrated PLL system to achieve self adaptive carrier frequency matched to the antenna resonant frequency.
- 100% AM modulation (OOK) of the field for writable transponders.
- AM demodulation of the antenna signal modulation induced by the transponder modulation.
- Two sampling points for demodulation to avoid the “Zero crossing” effect.
- Communication with the microcontroller via a 3 wire interface.
- Only a few external components are needed to ensure a very cost efficient and reliable solution for the ever increasing demands of the automotive industry.
- Frequency range of 100 – 150 KHz perfectly matches our Automotive transponder portfolio.
- Self diagnostic features are implemented including optional reading of PLL lock frequency to assist in more reliable transponder communication.

Technical features

Chip	ASIC
TID Memory	Available
Sleep Mode Current	1 μ A typ.
Driver Antenna Bridge	250 mA continuous
Product Code	801101
Hard Tag Dimension	9.93 x 5.99 mm / 0.39 x 0.23 in
Thickness	1.63 mm / 0.06 in
Housing Material	G 600
Color	Black
Operating Temperature	-40 °C to 85 °C -40 °F to 185 °F
Storage Temperature	-40 °C to 90 °C -40 °F to 194 °F (max. 1000h)
Quantity / Package	2500 pcs / tape on reel

Overview

Integrated PLL System

Multiple Transponder Protocol Compatibility

Internal and external clock source

2 channel demodulator for Zero crossing effect elimination

Simultaneous send / receive mode

Applications

Automotive immobilizers

Industrial – general purpose AM readers

Contact information

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Care and handling: RFID inlays are sensitive to ESD. Observe standard industry practices relating to electronics / RFID to keep environmental impact and static charge to a minimum.

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