M24LR16E-RMC6T/2

NFC/RFID Tag and Transponder IC 13553kHz to 13567kHz 16Kbit 8-Pin UFDFPN T/R

Manufacturer:	STMicroelectronics, Inc
Package/Case:	UFDFPN-8
Product Type:	RF Integrated Circuits
RoHS:	RoHS Compliant/Lead free
Lifecycle:	NRND

Images are for reference only

Inquiry

General Description

The M24LR16E-R device is a Dynamic NFC/RFID tag IC with dual-interface, electrically erasable programmable memory (EEPROM). It features an I2C interface and can be operated from a VCC power supply. It is also a contactless memory powered by the received carrier electromagnetic wave. The M24LR16E-R is organized as 2048 × 8 bits in the I2C mode and as 512 × 32 bits in the ISO 15693 and ISO 18000-3 mode 1 RF mode.
The M24LR16E-R also features an energy harvesting analog output, as well as a user-configurable digital output pin toggling during either RF write in progress or RF busy mode.

Key Features

BelongingtoST25family,whichincludesallNFC/RFIDtagandreaderproductsfromST

I2Cinterface

Two-wireI2Cserialinterfacesupports400kHzprotocol

Singlesupplyvoltage:1.8Vto5.5V

ByteandPageWrite(upto4bytes)

RandomandSequentialreadmodes

Self-timedprogrammingcycle

Automaticaddressincrementing

EnhancedESD/latch-upprotection

I2Ctimeout

Contactlessinterface

ISO15693andISO18000-3mode1compatible

13.56MHz±7kHzcarrierfrequency

Totag:10%or100%ASKmodulationusing1/4(26Kbit/s)or1/256(1.6Kbit/s)pulsepositioncoding

Fromtag:loadmodulationusingManchestercodingwith423kHzand484kHzsubcarriersinlow(6.6kbit/s)orhigh(26kbit/s)datarateмode.Supportsthe53kbit/sdatarateWithFastcommands

Internaltuningcapacitance:27.5pF

64-bituniqueidentifier(UID)

ReadBlock&Write(32-bitblocks)

Digitaloutputpin

Userconfigurablepin:RFwriteinprogressorRFbusymode

Energyharvesting

Analogpinforenergyharvesting

4sinkcurrentconfigurableranges

Temperaturerange:

from-40°Cupto85°C

Memory

16-KbitEEPROMorganizedinto:

2048bytesinI2Cmode

512blocksof32bitsinRFmode

Writetime

I2C:5ms(max.)

RF:5.75msincludingtheinternalVerifytime

Writecyclingenduramce:

1millionwritecyclesat25°C

150kwritecyclesat85°C

Morethan40-yeardataretention

MultiplepasswordprotectioninRFmode

SinglepasswordprotectioninI2Cmode

Package:

ECOPACK2(RoHScompliantandHalogen-free)

Recommended For You

M24LR04E-RDW6T/2

STMicroelectronics, Inc

TSSOP8

M24LR04E-RMC6T/2

STMicroelectronics, Inc

8-UFDFN

M24SR16-YDW6T/2

STMicroelectronics, Inc

TSSOP-8

M24LR64E-RMN6T/2

STMicroelectronics, Inc

SOP8

M24SR02-YDW6T/2

STMicroelectronics, Inc

TSSOP8

M24SR64-YDW6T/2

STMicroelectronics, Inc

TSSOP-8

M24LR64E-RDW6T/2

STMicroelectronics, Inc

TSSOP8

M24SR64-YMN6T/2

STMicroelectronics, Inc

SO-8

M24SR02-YMC6T/2

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SOP8

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SOP8

M24SR04-YMC6T/2

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M24SR04-GMC5T/2

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