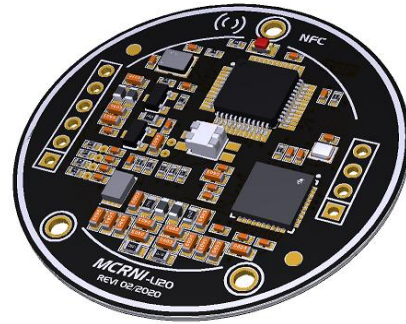


MCRN1-L120 RFID/NFC Crypto-Module

MCRN1-L120 R 1.2
March. 20, 2020

Key Features

Frequency	13.56 MHz
Interface	RS232-TTL (3.3V)
Standards	ISO14443A/B, ISO15693
Supported Cards & Transponders	MIFARE® Family NTAG I-Code
Antenna	Internal
Power Supply	+3.3V (or +5V)



1 DESCRIPTION

The MCRN1-L120 is a low-cost RFID/NFC Crypto-Module optimized for MIFARE® DESFire applications.

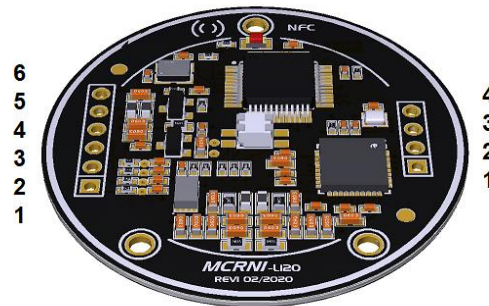
2 ELECTRICAL

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
VIN	Input Voltage	+3.2	+3.3V	+3.6V	V
IIN	Input Current (VIN=+3.3V)	20	60	150	mA
TA	Ambient Temperature Range	(RF off)	(polling mode)	(RF on)	
		-30	-	+85	°C
RS232 Receiver	Input Voltage	-	+3.3V	-	V
RS232 Transmitter	Output Voltage	-	+3.3V	-	V
MTBF		500.000h			

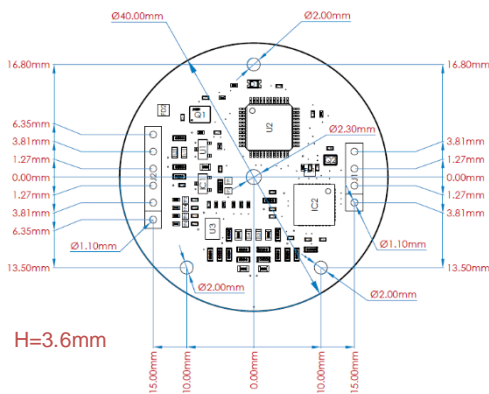
3 CONNECTOR PINOUT

Main Connector	RS232-TTL (+3.3V)
1	RX Input
2	TX Output
3	RESET (LOW: Reset HIGH: Running)
4	INT (Do not connect or connect to HIGH)
5	GND – Ground
6	+VIN +3.3V (optional +5V)

Relay Connector	Description
1	GPIO1 Watchdog output 1Hz %10 duty cycle
2	GPIO2
3	GPIO3
4	GPIO4



4 DIMENSIONS



6 FEATURES

- RS232-TTL up to 230K Baud
- Full NFC support
- Integrated antenna
- Optional RGB LED in the middle
- 4 x GPIOs
- Crypto Element Device with Secure Hardware-based Key Storage
- AES Algorithm with 128-bit Keys
- Secure Storage for up to Sixteen 128-bit Keys
- Encrypted User Memory
- Message Authentication Code (MAC) Capability
- FIPS Random Number Generator (RNG)
- Reading Distance
- ISO14443 up to 6cm, ISO15693 up to 12cm
- Optimized for MIFARE® DESFire applications

5 ORDERING CODES

ARTICLE NR:	+VIN	RS232-TTL	Int. ANT
MCRN1-L120	+3.3V	X	X
MCRN1-L020	+5V	X	X

