

# NFC-1901

**NEAR FIELD COMMUNICATION,  
CONTACTLESS CARD READER FOR  
NFC, MIFARE, ISO-14443 TYPE A/B,  
RF-TAG, VISAWAVE, PAYPASS LEVEL 1  
and USB HUB FOR  
EICM-1000 and PDR-1689/MMD-1902**

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# Specification No. 308-8755-Z1901

April 28, 2014

## 1. OVERVIEW

NFC-1901 is Contactless smart card reader/writer developed based on the 13.56MHz Contactless technology.

It is ideal for Payment system and Transport fare collection system that it supports Mifare, ISO-14443 TYPE A/B, Felica, Desfire and RF-Tags. Also, it supports card reader, P2P, Card emulation function based on NFC Forum.

NFC-1901 supports full speed of USB up to 12Mbps and it can be connected with IC module (EICM-1000) and MSR module (PDR-1689 or MMD-1902) as one integrated module and controlled by HOST.

## 2. FEATURE

- Read / Write Speed up to 424kbps
- ISO/IEC 14443 Type A and B card support
- ISO/IEC 18092, ECMA 340 Peer-to-Peer
- Support NXP Cards
  - Mifare Classics, 4K
  - Mifare Desfire
  - Ultralight, Ultralight C, Ntag203
- Support FeliCa Card
- NFC Tag type 4 Card emulation
- Size : 70mm(L) X 45mm(W)

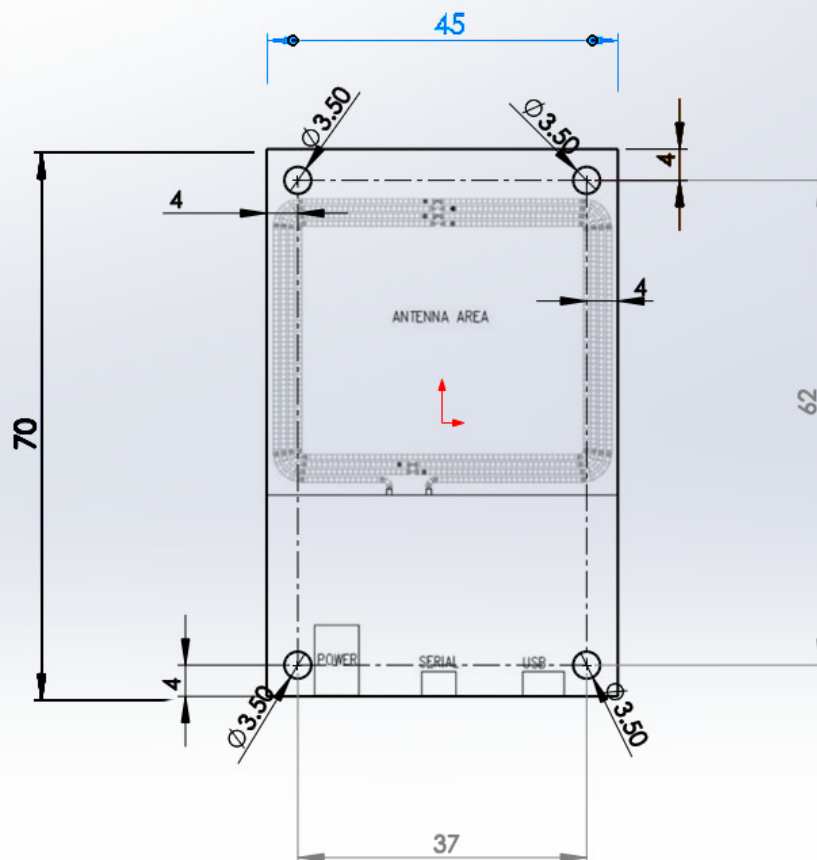
## 3. SPECIFICATIONS

Operating Fre	13.56MHz	
Standard	ISO/IEC 14443 A/B, ISO/IEC 18092, ECMA340 Peer to Peer, Felica, Mifare Classic, Desfire, Ultralight, Topaz, Jwely, NFC Tag type 4card Emulation	
Protocol	FeliCa Protocol, T=CL Protocol	
Operating Range	Up to 3Cm	
Power source	From USB	
USB Speed	12Mbps (Full speed)	
Supply Voltage	DC 5Volt	
Supply Current	200mA (Max)	
Mo	70mm(L) * 45mm(W)	
Operating condition	Temperatur e	-10 ~ 60 °C

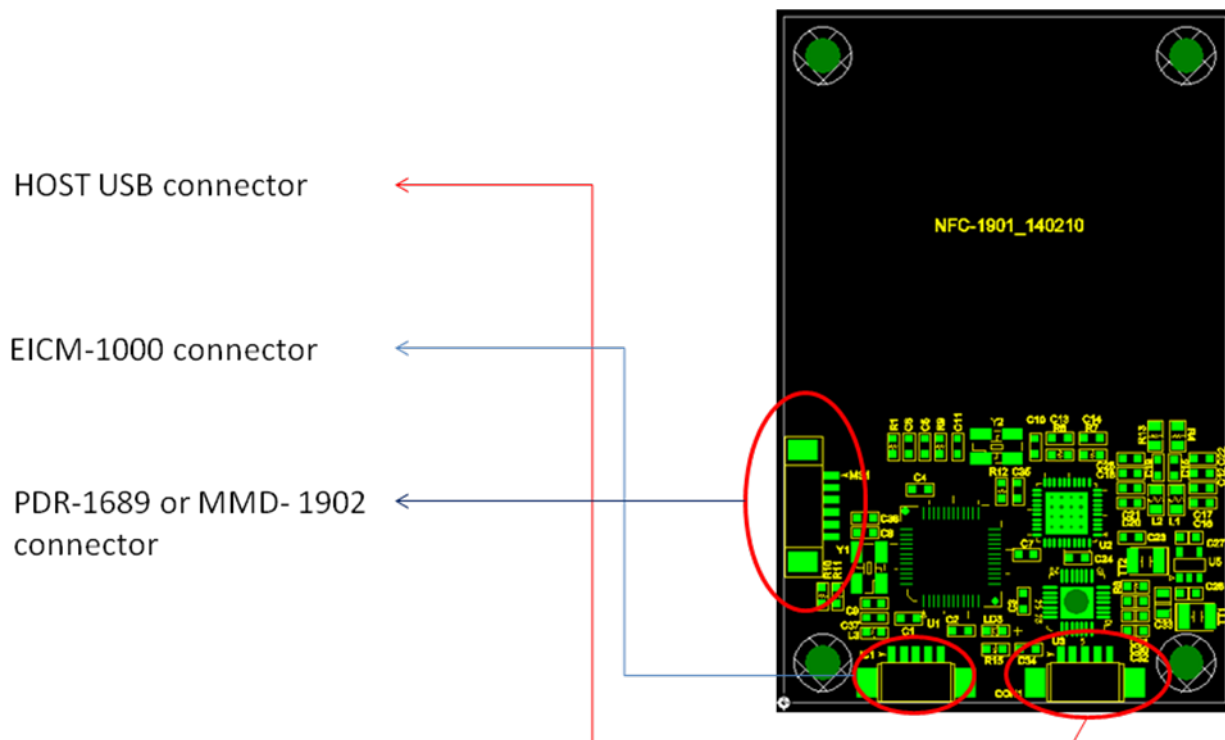
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	Humidity	10% ~ 70%
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#### 4. NFC-1901 DIMENSIONS



## 5. CONNECTOR DESCRIPTION



### 1. USB HOST connector

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USB HOST connector 5pin →

Pin number 1



Model : NFC-1901

Pin#1	VCC(5V)
Pin#2	DP
Pin#3	DM
Pin#4	GND
Pin#5	GND

Cable color

red
black
brown
yellow
grey

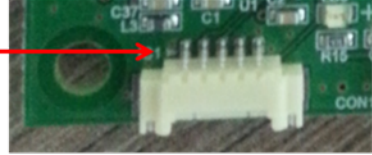
HOST connector pin#

6
8
7
9
4

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### 5.2 IC module connector EICM-1000 connector 5 pin →

Pin number 1



Model : EICM-1000

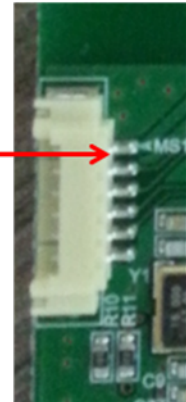
Pin#1	VCC(5V)
Pin#2	TXD
Pin#3	RXD
Pin#4	NC
Pin#5	GND

red
black
brown
yellow
grey

### 3. MSR module connector

PDR-1689 or MMD-1902 connector 6pin →

Pin number 1



Model : PDR-1689 & MMD-1902

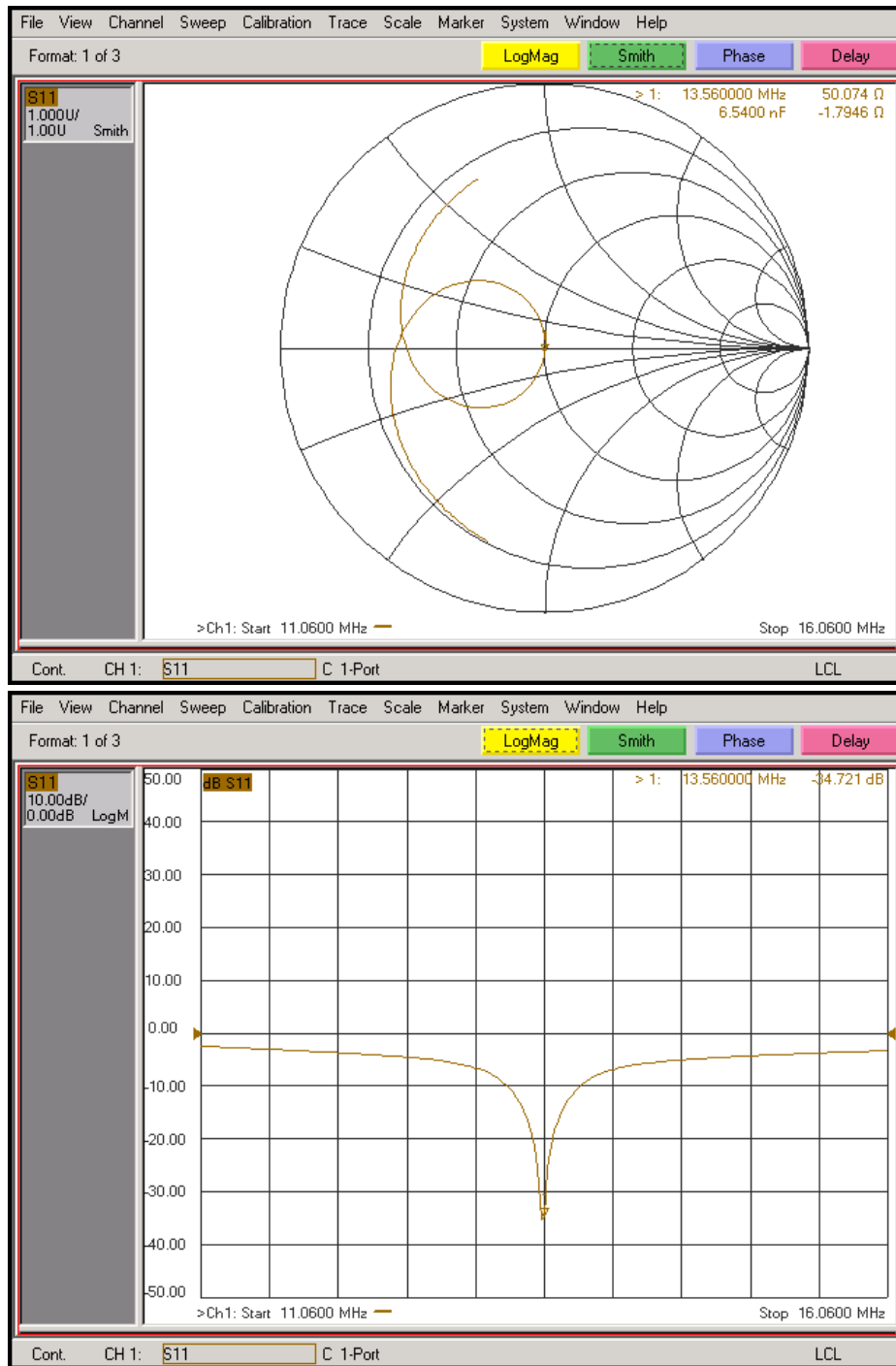
Pin#1	VCC(3.3V)
Pin#2	MISO (TXD)
Pin#3	MOSI(RXD)
Pin#4	CLK (High -> Serial)
Pin#5	DATA_RDY
Pin#6	GND

Cable color

red
black
brown
yellow
green
grey

## 6. Antenna Characteristics

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<The contents can be changed without prior notice.>