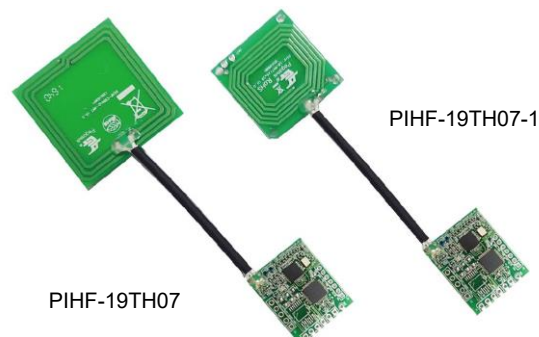


## ● Introduction

PIHF-19 is Mini 13.56MHz UID reading module(PCB size only 28.2x23mm) which supports UART(TTL) output. Only requests DC3.8~5V input.

We provide complete software/Hardware support and shorten schedule of RFID product development, provides 2 sizes of antenna for option. OEM/ODM service is available.



## ● Features

- Support Mifare, Mifare Ultralight, Mifare DESFire, ICODE-2, FeliCa, NFC Tag.
- Support UART(TTL) Output.
- Antenna size (37x37mm) or (29x29mm) for option
- Supply firmware modification accords to request of special function
- With LED indicator

## ● Specification

RFID frequency	13.56MHz		
Applicable cards	Mifare, Mifare Ultralight, Mifare DESFire, FeliCa, ICODE-2, NFC Tag or compatible (Read card continuously)		
ISO standard	ISO 14443A, ISO 14443B, ISO 15693, ISO 18092		
Transmission Spec.	9,600 bps, 8, n, 1		
Output format	UART(TTL)		
Power input	DC 3.8~5V		
Operating temperature	-40℃~80℃		
Storage temperature	-40℃~85℃		
Reading range	Model No.	<b>PIHF-19TH07</b>	<b>PIHF-19TH07-1</b>
		Antenna(37x37mm)	Antenna(29x29mm)
	Mifare card	<b>3.8V</b> : Max. 5.5cm / <b>5.0V</b> : Max. 6.0cm	<b>3.8V</b> : Max. 4.5cm / <b>5.0V</b> : Max. 5.0cm
	Ultralight EV1 card	<b>3.8V</b> : Max. 6.7cm / <b>5.0V</b> : Max. 7.5cm	<b>3.8V</b> : Max. 4.6cm / <b>5.0V</b> : Max. 6.0cm
	DESFire card	<b>3.8V</b> : Max. 3.5cm / <b>5.0V</b> : Max. 3.8cm	<b>3.8V</b> : Max. 1.5cm / <b>5.0V</b> : Max. 2.0cm
	NFC card	<b>3.8V</b> : Max. 5.5cm / <b>5.0V</b> : Max. 6.0cm	<b>3.8V</b> : Max. 4.5cm / <b>5.0V</b> : Max. 5.0cm
	ICODE-2,	<b>3.8V</b> : Max. 8.2cm / <b>5.0V</b> : Max. 7.5cm	<b>3.8V</b> : Max. 5.0cm / <b>5.0V</b> : Max. 7.0cm
	FeliCa	<b>3.8V</b> : Max. 4.0cm / <b>5.0V</b> : Max. 4.0cm	<b>3.8V</b> : Max. 1.5cm / <b>5.0V</b> : Max. 2.5cm
Standby / Working current	Model No.	<b>PIHF-19TH07</b>	<b>PIHF-19TH07-1</b>
		Antenna(37x37mm)	Antenna(29x29mm)
	DC 3.8V	41mA / 48mA	46mA / 48mA
	DC 5.0V	41mA / 48mA	53mA / 60mA

● Dimension: Unit: mm

Model No.	PIHF-19TH07	PIHF-19TH07-1
Dimensions		

● Wire configuration

<p>LED: Power and Read Status Indicators Power on: LED shut off Reading: Orange</p>	PIN	Features	
	1	---	---
	2	—○	TX
	3	—■	GND
	4	○—	DC 3.8~5.0V

● Data formats

TTL Output format

STX(02Hex)	Data	CR(0DHex)	LF(0AHex)
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7 Byte Output

If card no. is 8060F7A2DD5904, card no. in reverse is 0459DDA2F76080

STX

CR LF

Hex value :02H, 38H, 30H, 36H, 30H, 46H, 37H, 41H, 32H, 44H, 44H, 35H, 39H, 30H, 34H, 0DH, 0AH

● Ordering information

PIHF-19TH07	Mini Mifare 13.56MHz UID reading module with antenna(37x37mm), TTL, Card number: in reverse, Hexadecimal
PIHF-19TH07-1	Mini Mifare 13.56MHz UID reading module with antenna(29x29mm), TTL, Card number: in reverse, Hexadecimal

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Mifare Ultralight is a registered trademark of NXP B.V.  
FeliCa is a trademark of Sony Corporation.