InfoThink Technology CO., LTD.

5F., No.133, Xinhu 1st Rd., Neihu Dist., Taipei City 114-94, Taiwan (R.O.C.)

TEL：(02)2790-1790   FAX：(02)2790-1770

規格承認書

SPECIFICATION FOR APPROVAL

Customer: Getac Technology Corp.

Brand Name: Getac

Description: UX10 PN7462 NFC Module

Version:

Our Parts Number: 179-90010418A0-9

Customer Parts Number: 442141100002

Made by: InfoThink Technology

Date: March, 28, 2019

Prepared：   Robert Yang

Approved：   Roman Chang

Customer's Checked：

Customer's Approved：

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1. General Description

The UX10 NFC module is a highly integrated transceiver module for contactless reader/writer communication at 13.56 MHz.

A dedicated Flash code is implemented to handle different RF protocols by an integrated microcontroller. The system host controller communicates with the UX10 NFC module by using the USB link.

The protocol between the host controller and the UX10 NFC module, on top of this physical link is the CCID protocol

2. Features

◆ High RF output power frontend IC for transfer speed up to 848 kbit/s
◆ NFC IP1 and NFC IP2 support
◆ Full NFC tag support (type 1, type 2, type 3, type 4A and type 4B, type 5)
◆ P2P active and passive, target and initiator
◆ Card emulation ISO14443 type A
◆ ISO/IEC 14443 type A and type B
◆ MIFARE classic card
◆ ISO/IEC 15693, and ISO/IEC 18000-3 mode 3
◆ Low power card detection
◆ Dynamic Power Control (DPC) support
◆ Compliance with EMV contactless protocol specification
◆ Compliance with NFC standards

3. Support the following operating modes:

◆ ISO/IEC 14443-A and B, MIFARE
◆ JIS X 6319-4 (comparable with FeliCa scheme)
◆ ISO/IEC 15693, ICODE, ISO/IEC 18000-3 mode 3
◆ NFC protocols - tag reader/writer, P2P
◆ ISO/IEC 14443- type A card emulation
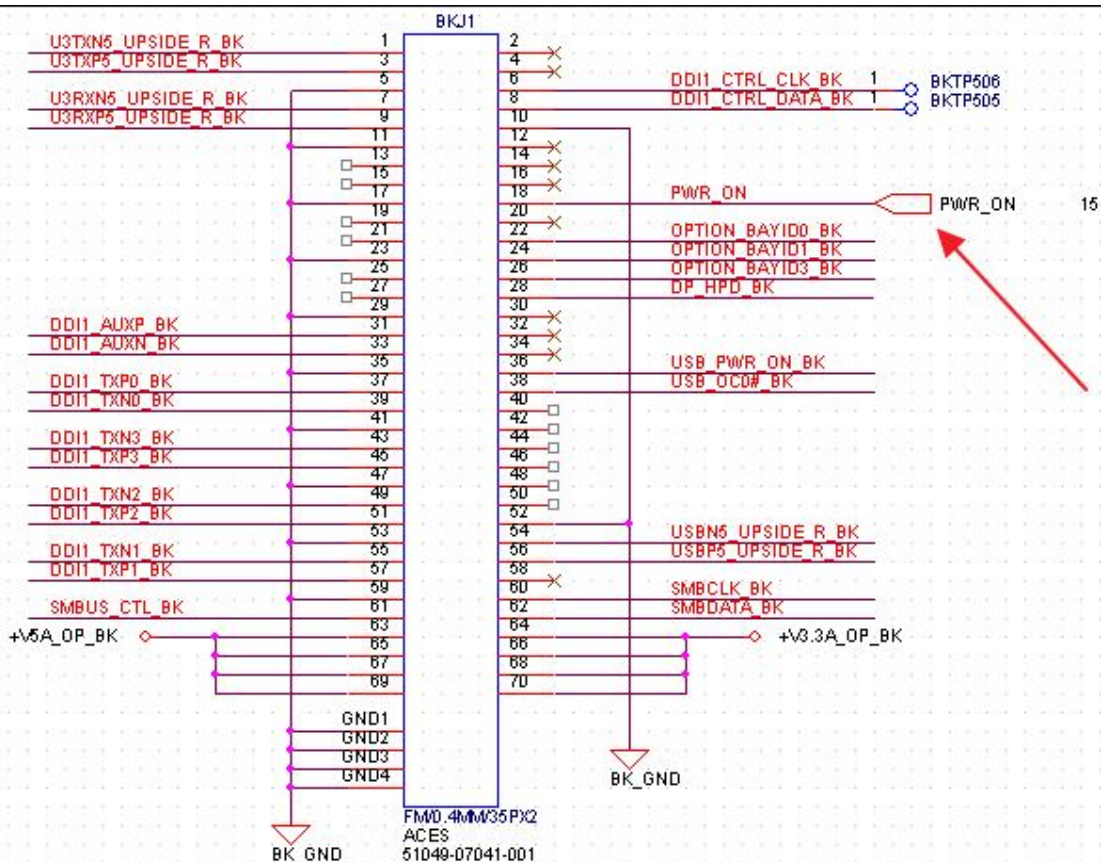◆ EMVCo compliance

4. System Requirements

◆ Desktop or notebook computer with a working USB port
◆ One of the following Operating Systems：
   – Windows$^®$ 2000
   – Windows$^®$ 2003 Server x32/x64
   – Windows$^®$ 2008 Server x32/x64
   – Windows Vista^{TM} x32/x64
   – Windows$^®$ 7 x32/x64
   – Windows$^®$ 10 x32/x64

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◆ Support by the following OS through the PCSC-Lite driver：
  – GNU/Linux using libusb 1.0.x and later
  – Mac OS Leopard (1.5.6 and newer)
  – Mac OS Snow Leopard (1.6.X)
  – Solaris
  – FreeBSD

5. General Specifications

◆ Bus-powered - +5V +/- 5%, 500mA

◆ Average Power Consumption
  - Standby Mode: 0.12Watt
  - Active/Read Card Mode: 0.24 Watt

◆ Operational environment
  – Operating Temperature: -10°~60°
  – Operating Humidity: 10%~90%
  – Storage Temperature: -20°~70°
  – Storage Humidity: 10%~90%

6. Connector Pin List

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7. PCBA Dimension

Main PCBA: 38 x 26.5 x 3.5 mm

model name:PCB-ASSY-NXP-UNICORN

TOL ± RANGE	Pla	Met	Ins	Por	Cab	Pac	Gas	PCB			ITEM	CONTENTS OF CHANGE		RVS	APV	M/D/Y
0~6	0.1	0.1	0.1	0.2	0.5	1	0.5	0.1								
6~30	0.1	0.1	.15	.25	1	1	0.5	0.1								
30~80	0.1	.15	0.2	0.3	2	1.5	1	0.1								
80~180	.15	.15	.25	0.3	2	2	1	.15								
180~315	.15	0.2	0.3	0.4	2.5	2	1	.15								
315~800	0.2	0.3	0.4	0.5	3	3	2	.15								
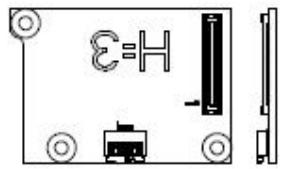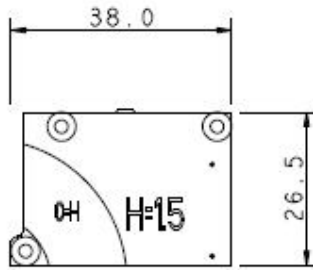
DATE	08-Apr 2018	TERIAL	SEE NOTES	TREATMENT		PROJECTION	
UNIT	M	LE	1.00	DRAWING NAME	TFI-PCB ASSY;NXP,UNICORN		
DRAWN	DESI D	ED	APPROVED	MATERIAL NO.	MF TBD	R 00a	

Getac Technology Corp.

file name:PCB-ASSY-NXP-UNICORN

SHEET No. 1 of 1

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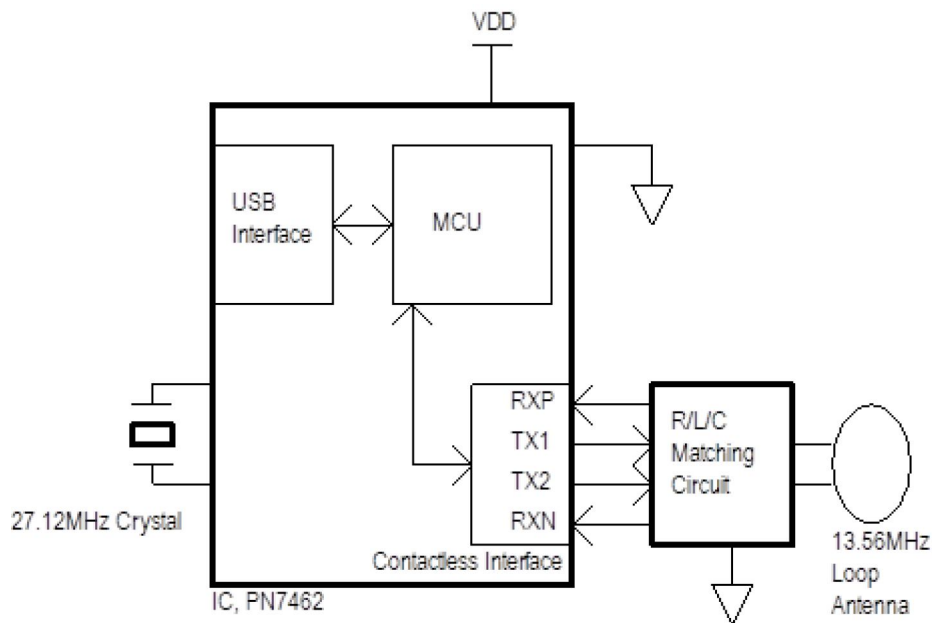## 8. USB Device VID/PID and Firmware Version
VID/PID: 0x1FC9/0x0117
F/W Ver.: N/A

9. Block Diagram

  This module is powered by 5V from USB interface. Main supply voltage for internal analog modules, digital logic and memories. The 27.12 MHz crystal oscillator is used as a reference for all operations requiring high stability of the clock frequency.
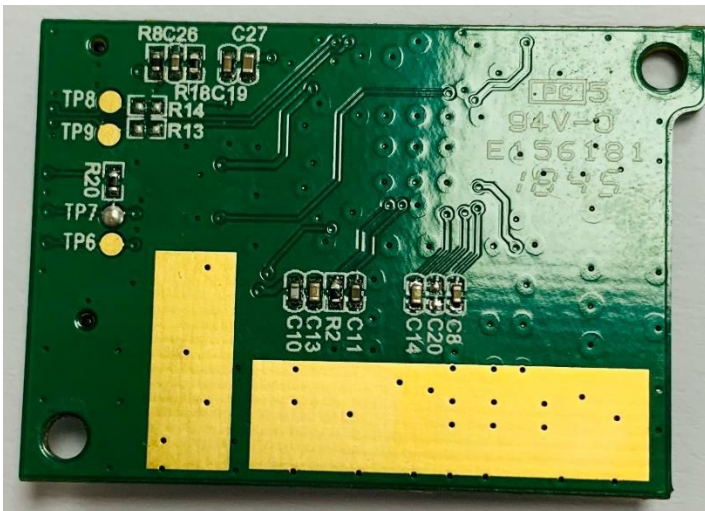
TX1 TX2 transmitter is able to drive an antenna circuit connected to outputs TX1 and TX2 with a 13.56 MHz carrier signal. The signal delivered on pins TX1 and pin TX2 is a 13.56 MHz carrier, modulated by an envelope signal for energy and data transmission to archive the standards ISO/IEC14443 A and B, FeliCa, and ISO/IEC18092 define the protocols.

In reader mode, the response from the antenna to the differential input RXP/RXN. The reader mode receiver extracts this signal by first removing the carrier in passive mixers. It then filters and amplifies the baseband signal before converting to digital values.

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10.　UX10 NFC module Photograph

Main PCBA

For FCC

This modular transmitter compliance the FCC rule as Part 15.209. The modular transmitter specification as below.

Frequency band: NFC
Frequency: 13.56 MHz
Modulation Type: PSK
Field strength: 51.62dBuV/m
Spurious emissions: 41.21dBuV/m

This is a limited module, when be install a host need to verify radiated emission is compliance the FCC rule.
For additional hosts other than the specific host originally granted with a limited module, a Class II permissive change is required on the module grant to register the additional host as a specific host also approved with the module.

When use this limited module in your final host product still need to testing and make sure the final host product compliance the Part 15 Subpart B.

When use this limited module in your host product shall use a physical label stating "Contains Transmitter Module FCC ID: QYLPN7462U," or "Contains FCC ID: QYLPN7462U," or shall use e-labeling

For IC

When use this limited module in your host product shall use a physical label stating "Contains Transmitter Module IC : 10301A-PN7462U," or "Contains IC: 10301A-PN7462U," or shall use e-labeling
Lorsque vous utilisez ce module limité dans votre produit hôte, utilisez une étiquette physique indiquant «Contient le module de transmetteur IC: 10301A-PN7462U » ou «Contient le IC: 10301A-PN7462U » ou utilisez un étiquetage électronique