



Tung Thih Electron
(Xiamen) CO.,LTD

Document Name

IMMO System Function Specification

Document Release Status

Draft

Release Date

2024-09-12

Version

1.0

Immobilizer Function Instruction

Product: IMMO

Model No: IMMO-A

Trade Mark: NISSAN

Document Type

FUNCTION SPECIFICATION

Document No.

Page No. (In this doc.)

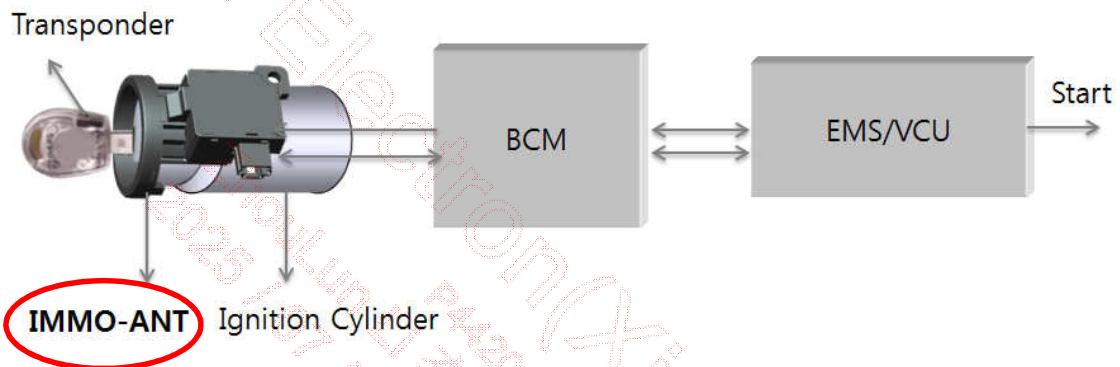
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1.1 System Function

When user key-in ignition lock and crank (IGN start), Body Control Module (BCM) will drive IMMO-ANT to authenticate transponder. After successful authentication between transponder(KEY) and BCM, BCM will authenticate with EMS/VCU, if the result is OK, engine will start.



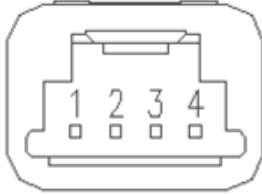
1.2 System Parameters

Parameter		Value
BASESTION	Rated Voltage	12V
	Operating Voltage Range	6V~16V
	Operating Temperature Range	-40°C ~ +85°C
	Storage Temperature Range	-40°C ~ +85°C
	Quiescent Current	<1.8mA
	Operating Current	<200mA
	Low Antenna Emission Frequency	125±3.75KHz
IMMO COIL	Operating Current	≤1A
	Inductance	722uH ±3% (T=25°C · f=125 KHz · without cylinder starter)
	Resistance	≤20ohm
	Q	>30 (f=125 KHz · 1Vac)
	Low Antenna Induction Distance	L≥3cm



1.3 PIN Definition

The immobilizer has one connector which PIN defintion is shown below.

4-PIN Connector				
PIN NO.	Wire Color	PIN Definition	Operation/Status	Voltage (V) approximate value
1	N/A	IGN1	Bat+ (KL15)	Vbat
2	N/A	SCLK	SCLK	Vbat
3	N/A	GND	GND (KL31)	0V
4	N/A	DIO	DIO	Vbat



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FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Part § 15.21 of the FCC rules states that users must be advised that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help important announcement

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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Tung Thih Electron(Xiamen) Co.,Ltd hereby declares that this product IMMO is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.



<http://www.tungthih.com.cn>

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