

RKE TRANSCEIVER

MANUAL

FCC : 2AS9T-ASRKET01

ISED : 27298-ASRKET01

KC : R-C-Amo-ASRKET01

Description

Category	Item	Description
Product Information	Product Name	RKE Transceiver
	Manufacturer	Amosense
	Application	UHF Wireless Transceiver for RKE (Remote Keyless Entry)
Wireless Communication	Operating Frequency	433.92 MHz
	Frequency Bandwidth	25 kHz ~ 366 kHz
	Modulation Method	FSK
	Antenna Type	Ceramic Chip Antenna
Power Specification	Power Supply	12V
Functional Summary	Key Function	UHF FSK Transceiver.
Environmental Conditions	Operating Temperature	-40 °C ~ +85 °C
	Operating Altitude	0 ~ 5000m

Features

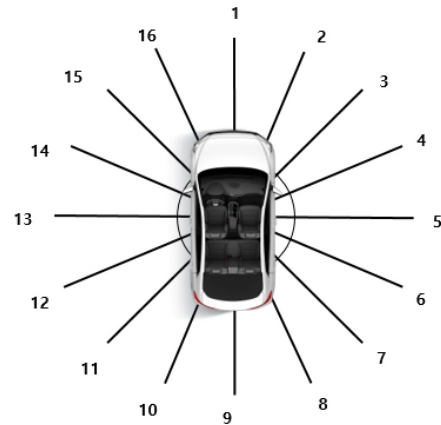
The RKE RF Transceiver acts as a control unit that transmits and receives RF signals sent from a vehicle key or smart key. After demodulating the received RF signal and performing digital signal processing, it interfaces with in-vehicle controllers to perform vehicle access control functions such as remote door lock/unlock, trunk opening/closing, and remote start

How to install

Recommened mounting location is headliner.

And position can be determined by evaluation result or sensitivity level(reception rate)

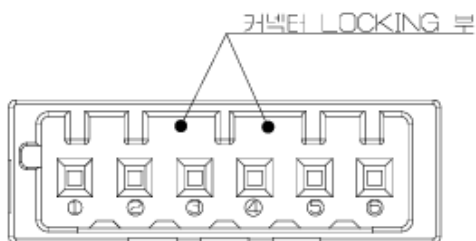
- Set RKE and vehicle direction to 16 directions (22.5-degree intervals), numbering from 1 to 16.
- Measure maximum reception distance (m) per direction
- > A reception distance of at least 30 (m) must be obtained.



RKE connector pin configuration

■ **CONNECTOR : TE O-2343494-1**

MATCH TO : TE 2343432-1



NO.	PIN NAME
1	B+
2	-
3	CAN_L
4	CAN_H
5	-
6	GND

Functional Description

The RKE Transceiver receives RF signals transmitted from the vehicle key FOB through an antenna. The received signal passes through a SAW filter and is then delivered to the RFIC (ATA5833). The RFIC demodulates the received RF signal using its internal Low-IF and digital DSP architecture, and transfers the demodulated data to the MCU (S32K312). The MCU verifies the received data and transmits it to the vehicle CAN network through the CAN Transceiver (TCAN1463), enabling communication with the BDC.

During transmission, under MCU control, the RFIC outputs an RF transmission signal to the antenna, enabling two-way communication with the FOB or transmission of response signals. The RF transmit and receive paths are selectively switched through a switch.

Power is supplied from the vehicle power source and converted to 5 V through an LDO (TPS7B8650). The 5 V power is then supplied to the RFIC, MCU, CAN Transceiver, and peripheral circuits. The unit is connected to the vehicle Local-CAN network through the CANH/CANL lines and transmits the received RKE-related RF data.

FCC Compliance 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.

FCC Interference Statement

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 correct the interference by one 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 which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC 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 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement

This device complies with RSS-210 of the Industry Canada 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. Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Industry Canada Radiation Exposure Statement

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

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Declaration of Conformity



Hereby, Amosense ,

declares that this device is compliant with the essential requirements and other relevant provisions of Directive 2014/53/EC. The complete Declaration of Conformity may be requested through the following postal address:

AMONSENSE Co., Ltd.

90, 4sandan 5-gil, Jiksan-eup, Seobuk-gu, Cheonan-si, Chongcheongnam-do, 31040,
Republic of Korea

or can be requested at our dedicated DoC website:

<https://amosense.co.kr/wp/>

"This equipment is compliant with the RED Article 10(2) because the product is operated at least one Member State without infringing applicable requirements on the use of radio spectrum and restriction of use for putting into service.

This device should be installed and operated with a minimum distance of 20 cm between the device and the body.