

# User Manual for

## 24GHz Multi Mode Radar

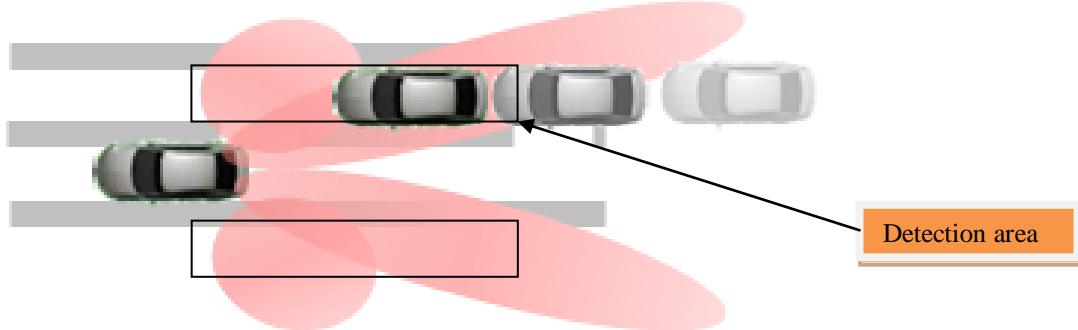
Model: 24GMMR1A (24GHz Pulse radar for vehicle use)

Date: March 18, 2016  
File name: 24GMMR1A\_User Manual\_rev1.1  
Document No.: RA16EX61

## 1. LCDAS System

The lane change decision aid system(LCDAS) is designed to assist the driver by monitoring the detection areas on both sides of the vehicle to the rear.

LCDAS will alert the driver to possible vehicles in these areas in certain situations such as when changing lanes on roads and freeways.



### Multi-Mode operation

Regarding car information on the CAN-bus, radar can change its application mode to fit for the situation automatically.

### Application:

- Lane change warning
- Rear Cross Traffic Alert

## 2. Sensor Components

The 24GMMR1A sensor consists of the following components:

- Housing: Plastic
- EMC Shield:
- RF and ECU board:
- Radome: Plastic

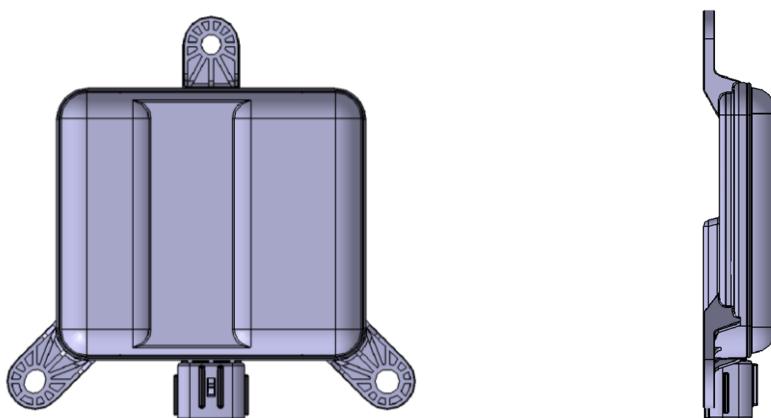


Figure 1: 24GMMR1A Components

### 3. Technical Data

**Table 1. Specification of 24GMMR1A**

Parameters	Value	unit	comments
Modulation method	Pulse		
Frequency band	24.05~24.25		
Distance	0~76	m	
Azimuth	-75~75	Deg.	Test set-up of 10dBsm target @ 3m
Dimensions	Width	131	mm
	Height	130	mm
	Depth	23	mm
Operating Temperature	-40~85	°C	
Operating Voltage	8~16	V	Vehicle power
Power Consumption	3	W	

**NOTICE:**

This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s).

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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**NOTICE:**

Changes or modifications made to this equipment not expressly approved by (FURUKAWA AUTOMOTIVE SYSTEMS INC) may void the FCC authorization to operate this equipment.

**Radiofrequency radiation exposure Information:**

The radiated output power of the device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.