

T79 Short Range Radar

T-79-G3B

Product Manuals

catalogs

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1. Product Overview

1.1. General Description

T79 SRR product as the next generation of the corner radar is targeting for the mid- and short range automotive millimeter-wave radar applications for ADAS and the automated driving. It is designed with the new 79GHz RFCMOS technology with highly integrated hardware architecture and the advanced radar signal process algorithms for the 360° full-coverage environment perception of the intelligent vehicle.

1.2. Product Features

- For normal corner radar applications: Blind-spot Detection (BSD), Lane Change Assist (LCA), Rear Cross Traffic Alert (RCTA), Rear Collision Warning (RCW), Front Cross Traffic Alert (FCTA), Door Opening Warning (DOW), etc.
- Other features: radar installation error auto-alignment, road boundary detection, radar blockage detection, etc.
- Diagnose functions: support UDS, OTA software upgrade, EOL calibration, etc.
- Network management: support radar sleep and wake-up functions

1.3. Product Appearance



Figure 1. Product Appearance

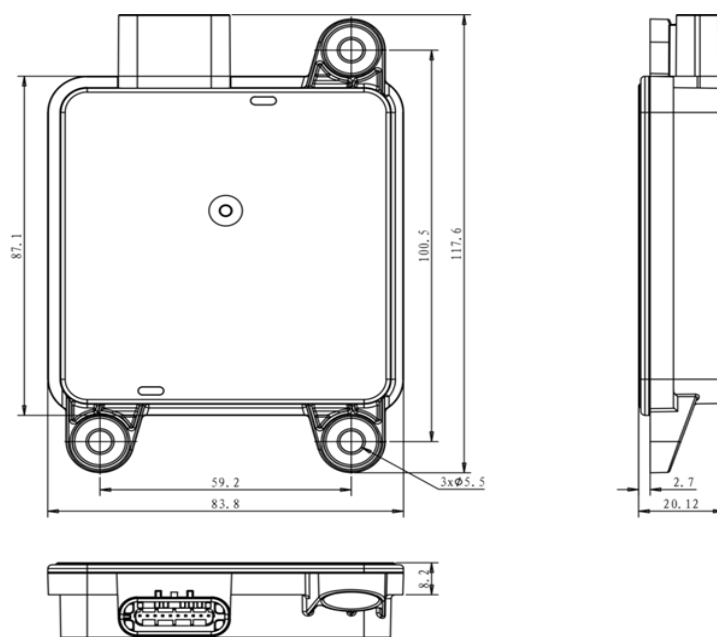


Figure 2. Dimensions of T79

2. Product Specifications

Operation Frequency	77 ~78 GHz
Power Consumption	< 4.5 W
Quiescent Current	< 1mA
Voltage Supply	9 ~36 V
Operating Temperature	-40 ~ 85°
Ingress Protection Rating	IP 67
Dimension	72 mm * 63 mm * 16.5 mm or 89.9 mm * 82 mm * 16.5 mm (if connector and installation features included)
Weight	< 95g
Detection Range	0.5 ~ 90 m
Range Accuracy	0.4m
Range Resolution	0.78 m
Velocity Detection	-200 ~ 200 kph
Velocity Accuracy	0.13 m/s

Velocity Resolution	0.4 m/s
Azimuth Field-of-View	-75 ~ 75°
Elevation Field-of-View	-12 ~ 12°
Azimuth Angular Accuracy	±0.5°
Cycle Time	50 ms
Max. Number of Tracked Targets	64

3. Radar Interface

3.1. Connector Type

Connector Model #	Manufacturer	Interfacing Connector
349681801	Molex	34967-1001 (34905-2447)

3.2. Connector Pin Position

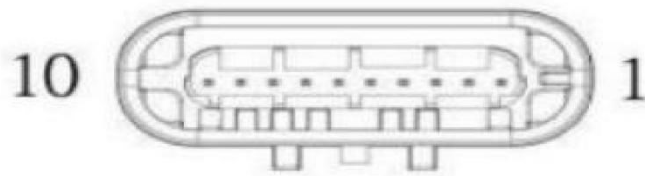


Figure 5. Radar Interface

3.3. Connector Pin Definitions

Pin #	Pin Name
1	IGNITION
2	GND-LED
3	5V_LED
4	DATA_CAN_L
5	DATA_CAN_H
6	VEH_CAN_L
7	VEH_CAN_H
8	GND-IN
9	NC
10	DC-IN

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FCC Warning

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.

Any 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.

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 & your body.