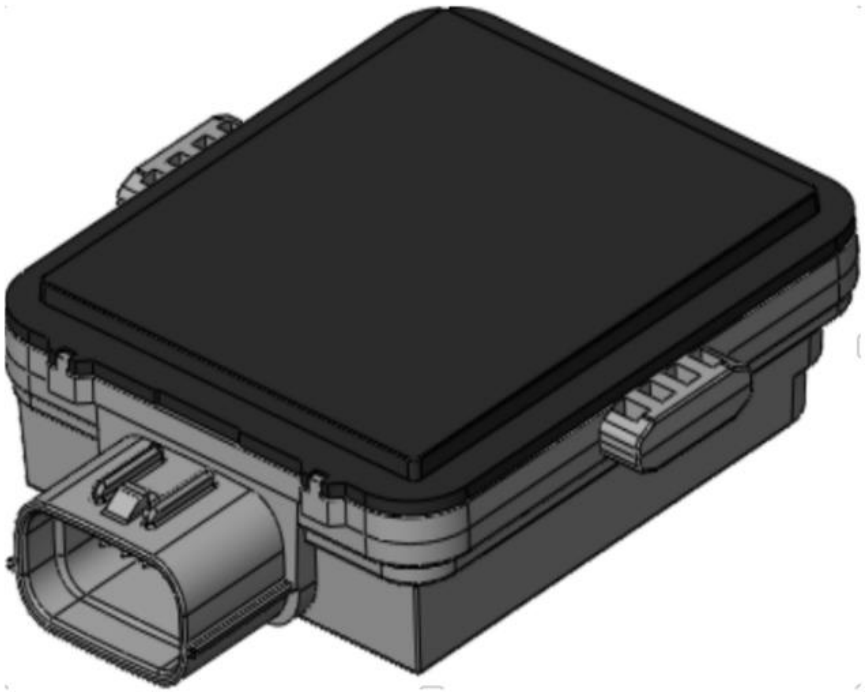
Millimeter Wave Corner Radar Sensor Specification

Model Number: SRD2913/18



Huizhou Desay SV Automotive Co., Ltd.

1 Product Information

1.1.1 Product appearance & direction definition

1.1.2 System Composition

The system mainly consists of 4 radars, with four radar brackets respectively at its front left, front right, rear left and rear right. Besides, there are other associated components, including audio (no-disc navigation/DVD), panel, exterior rearview mirrors, interior cords, and side-surrounding connecting plate.

The four radars are identical in hardware and software. After installed, they will automatically adapt the direction through PIN11 and PIN12 address bit identification. When installed at high position, the hardware need earthing; when at low position, it doesn't.

1.1.3 Electronic Diagram

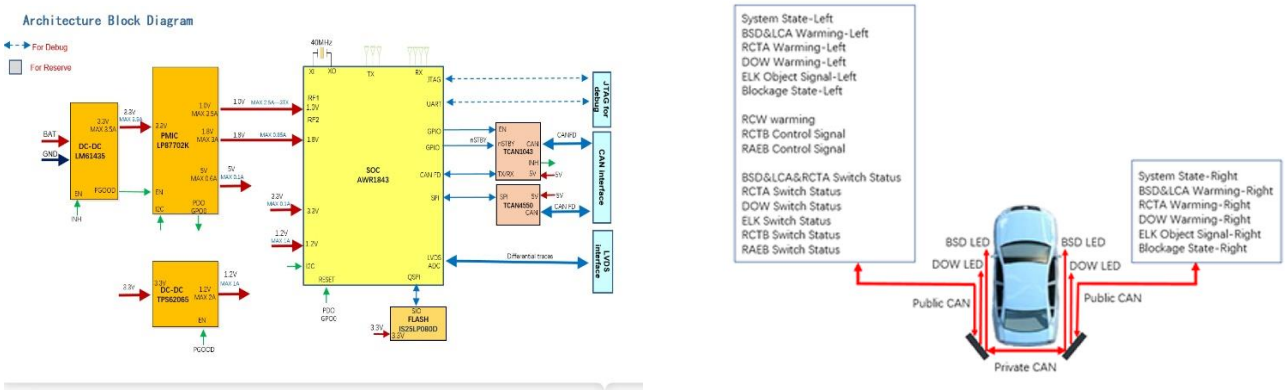
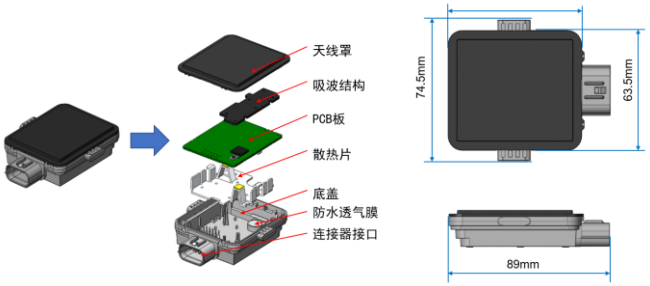


Figure 1 schematic block diagram

1.1.4 Exploded View - ME BOM

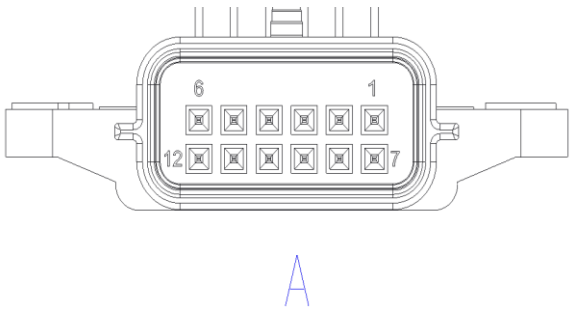


Primary/secondary radar's exploded view
(Up to down: antenna cap, Absorbing material, PCB board, cooling fin, bottom cover, water-proof airtight film, connector joint)

1.1.5 Product Feature List

NO	Function	Function Description
1	BSD	Blind Area Monitoring System
2	LCA	Lane Change Assist
3	RCTA	Rear Cross Traffic Alert
4	RCTB	Rear Cross Traffic Braking
5	RAEB	Rear Automatic Emergency Braking
6	DOW	Door Opening Warning
7	RCW	Rear Approaching Warning
8	ELK	Emergency Lane Keeping
		The system information, BSD/LCA/RCTA/DOW alarm signals and ELK target information are output by the left and right radars through the public CAN respectively. The RCTB/RAEB/RCW alarm signals and the off/on status signals of each function are output by the left radar to the public CAN after being fused by left and right radars through the private CAN.

1.1.6 Socket Definition



Connector Definition

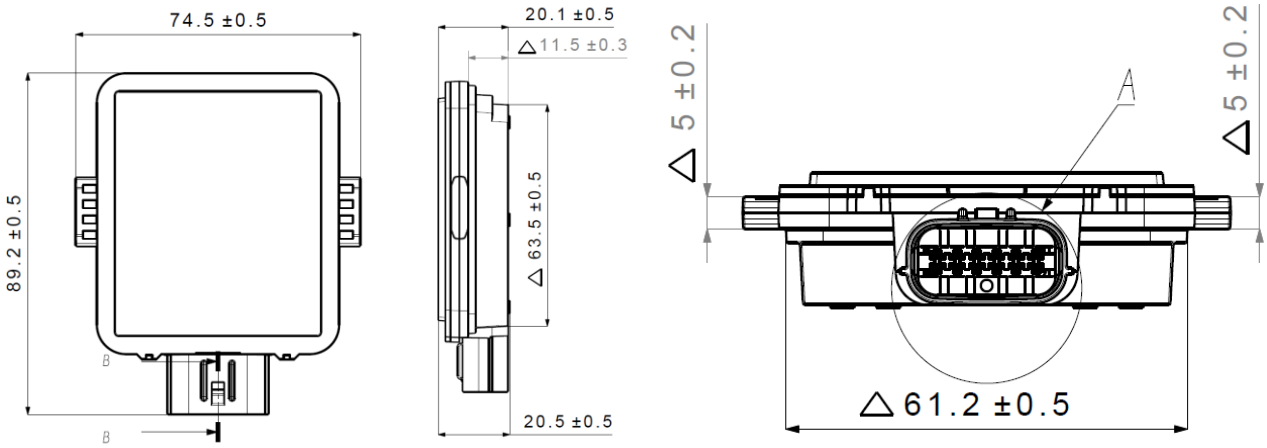
Pin Number	Pin Description(1)(3)(5)	Rated current (A) 12V, 25℃	Minimum current value (A) 12V, 25℃	Loop requirements			Blocking characteristics (MOTOR type load)		
				Loop resistance(≤mΩ)	Special Cables (2)	Terminal plating requirements	Voltage/ Temperature	Blocking current (A)	Overheating Protections
1	CAN1_H								
2	CAN1_L								
3	CAN2_H								
4	CAN2_L								
5	N/A								
6	N/A								
7	GND	0.3	0.5						
8	Battery	0.3	0.5						
9	BSD	0.01	0.1						
10	DOW	0.01	0.1						
11	ADDRESS1	0.01	0.015						
12	ADDRESS2	0.01	0.015						
Remarks									

The software and hardware of the left and right radars are identical, and are automatically adapted by PIN11 and PIN12 address bits identification after installation. The address PIN is defined as follows:

External address input		MCU detection		Location or Work Mode
Address1 (Pin11)	Address2 (Pin12)	Address1	Address2	
NC (Open)	NC (Open)	Low	Low	**Left Front**
NC (Open)	GND	Low	High	**Right front**
GND	NC (Open)	High	Low	**Left rear**
GND	GND	High	High	**Right rear**

1.1.7 Size & Weight

-Size: 74.5mm*89.2mm*20.1mm (see below for details)
-Weight: 71g
Size



1.1.8 **Functional parameters:**

Projects	**Parameters**
Minimum Detection Distance	0.2m
Maximum Detection Distance	100m
Distance Accuracy	0.2m
Distance Resolution	0.4m
Speed Dynamic Range	±80m/s
Speed Accuracy	0.2m/s
Speed Resolution	0.26m/s
Horizontal Azimuth	±75º
Vertical Azimuth	±15º
Horizontal Angular Accuracy	0.2º
Horizontal Angular Resolution	5º
Vertical Angular Accuracy	0.5º
Minimum Target Updating Rate	20Hz

Warning

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.

CE warning：The distance between user and products should be no less than 20cm.

Simplified EU Declaration of Conformity

The simplified EU declaration of conformity referred to in Article 10(9) shall be provided as follows: Huizhou Desay SV Automotive Co.,Ltd declares that the essential requirements set out in the RED Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.desaysv.com/index.php?id=oumeng