

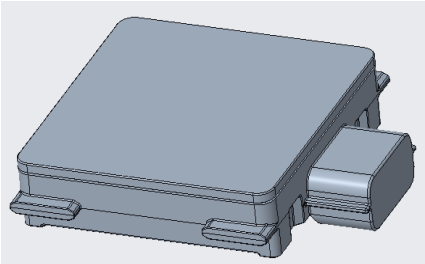
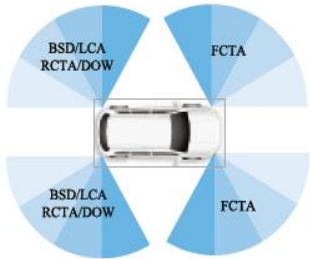


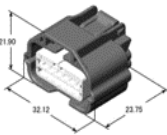

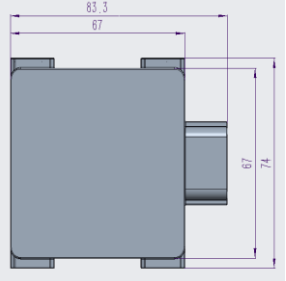
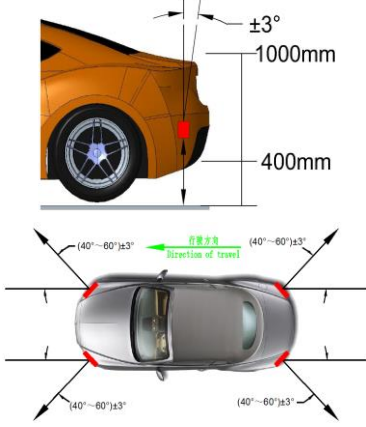
PRODUCT SPECIFICATIONS

产品规格书

Product 产品型号	STA79-2S	Product 产品名称	High Resolution Short Range Corner Radar
Document No. 文档编号		Date 日期	
Attn 联系人		Application system 适用体系	IATF16949\ISO14001
E-mail/邮箱 :		TEL No. 联系人电话号码:	
Address: 地址:	芜湖市经济技术开发区东区清水河西路1#厂房 #1, West of Qingshuihe Road, East District of Economic & Technological Development Zone, Wuhu, Anhui		

We are pleased to provide the below parts to you:
很高兴为您提供以下产品的规格书:

Product Introduction 产品介绍	<p>STA79-2S四角高分辨近程雷达是由森思泰克自主研发的一款基于77GHz毫米波技术的汽车雷达产品。该雷达基于77GHz MMIC技术的高稳定性硬件平台, 采用LFMCW快速扫频波形方案设计以及先进的信号处理和数据处理技术, 可进行稳定的多目标探测, 高精度的测量目标多项参数信息。</p> <p>Sta79-2s quadrangular high resolution short-range radar is an automotive radar product based on 77GHz millimeter wave technology independently developed by Sentek. Based on the hardware platform with high stability of 77GHz MMIC technology, the radar adopts LFMCW fast sweep waveform scheme design and advanced signal processing and data processing technology, which can detect multiple targets stably and measure multiple target parameters with high precision.</p>	
Product Application 产品用途	<p>STA79-2S四角高分辨近程雷达主要用于探测车辆侧方运动障碍物目标, 并输出目标对应的航迹和点云数据, 以辅助实现盲点检测 (Blind Spot Detection)、变道辅助 (Lane Change Assistant)、开门预警 (Door Open Warning)、后向横穿预警 (Rear Cross Traffic Alert)、前向横穿预警 (Front Cross Traffic Alert) 等功能, 可对汽车安全驾驶起到有效辅助作用。</p> <p>Sta79-2s quadrangle-angle high resolution short-range radar is mainly used to detect the moving obstacle target on the side of the vehicle, and output the corresponding track and point cloud data of the target. In order to assist Blind Spot Detection, Lane Change Assistant, Door Open Warning, Rear Cross Traffic Warning Alert, Front Cross Traffic Alert and other functions can play an effective auxiliary role in safe driving.</p>	
Technical Requirement 技术要求	<p>工作频段/Frequency range 76GHz ~ 77GHz 调制波形/Modulation FMCW 扫描带宽/Bandwidth 650MHz 数据周期/Cycle time 50ms 测距范围/Range measurement 0.2m ~ 90m 测速范围/Velocity measurement -75m/s ~ +75m/s 水平视角/Azimuth Angle Range -75° ~ +75° 俯仰视角/Elevation Angle Range -6° ~ +6° 测距精度/Range accuracy ±0.1m 测速精度/Veloccity accuracy ±0.13m/s 测角精度/Angle accuracy ±0.5°@0°</p>	<p>距离分辨率/Range resolution 0.23m 速度分辨率/Veloccity resolution 0.3m/s 角度分辨率/Angle resolution 4.5° 工作电压/Voltage range 9V ~ 16V DC 工作电流/Current range ≤210mA 功耗/Power Dissip. ≤2.5W 工作温度/Temp. Range -40°C ~ +85°C 重量/Weight <90g 峰值等效全向辐射功率EIRP(Peak) ≤55dBm 等效全向辐射功率EIRP ≤50dBm 收天线增益Antenna gain RX 18dBi 发天线增益Antenna gain TX 16.5dBi</p>

Interface Definition 接口定义	引脚 PIN	引脚定义 PIN Definition	电器特性 Electrical characteristics	<p>(1) 线径建议为 $\phi \geq 0.5\text{mm}$, CAN总线做成双绞线 The recommended wire diameter is $\phi \geq 0.5\text{mm}$, CAN bus Make twisted pair</p> <p>(2) 线缆段连接器使用 YAZAKI 7283-8854-30 YAZAKI 7283-8854-30 is used as the connector for the cable section</p>  <p>(3) 雷达端连接器示意 The connector of the radar is shown</p> 
	1	NC	预留 Reserved	
	2	POSA	雷达位置识别A Radar position identification A	
	3	FD_CANL	CANFD低 CANFD low	
	4	NC	预留 Reserved	
	5	NC	预留 Reserved	
	6	POWER	电源输入正极 The power input is positive	
	7	NC	预留 Reserved	
	8	POSB	雷达位置识别B Radar position identification B	
	9	GND	电源输入负极 Power input negative pole	
	10	FD_CANH	CANFD高 CANFD high	
	11	NC	预留 Reserved	
	12	NC	预留 Reserved	
Structural Requirement 结构要求	<p>产品包含安装孔的产品最大尺寸83.3mm*74mm*19.6mm,外壳采用高强度抗氧化塑胶材质,符合ISO 16750的规定,产品可达到防护等级IP6K7,耐化学品腐蚀。The maximum size of the product including the mounting hole is 83.3mm*74mm*19.6mm. The shell is made of high strength anti-oxidation plastic material, in accordance with ISO 16750. The product can reach the protection grade IP6K7 and be resistant to chemical corrosion.</p>			
Installation Specification 安装规范	<p>雷达安装在车辆尾部,安装高度距离地面40~100cm,安装时需确保以下条件:空间足够,尾灯不会阻挡雷达信号,雷达接插件朝向车身两侧。雷达平面与车尾水平方向夹角为40~60°,允许±3°的安装误差。雷达平面与地面夹角为90°,允许±3°的安装误差。水平安装角度具有自校正功能,可在误差范围内进行软件纠正。具体安装要求请参考《森思泰克STA79-2S近程雷达升级版安装匹配规范》。The radar shall be installed at the rear of the vehicle at a height of 40-100cm above the ground. The following conditions shall be ensured during installation: sufficient space, taillights will not block radar signals, and radar connectors are facing the sides of the vehicle. The Angle between the radar plane and the rear horizontal direction is 40~60°, allowing $\pm 3^\circ$ installation error. The Angle between the radar plane and the ground is 90°, allowing $\pm 3^\circ$ installation error. Horizontal mounting Angle has self-correction function, software correction can be carried out within the error range. For details about installation requirements, please refer to the Installation and Matching Specifications for The Updated Version of Senstech STA79-2S Short-range Radar.</p>			
Regulation Statement 合规性声明	<p>It is recommended that equipment should be installed and operated with minimum distance of 20cm between the radiator and your body.</p> <p>Important: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.</p>			