

Automotive Wireless Communication

Module Industry Report, 2020

November 2020





STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Copyright 2012 ResearchInChina



Abstract

In 2025, China's Installation of Automotive Wireless Communication Modules Will Reach 90 Million Units

Wireless module is a functional module that integrates chip, memory, power amplifier and other devices into one circuit board and provides standard interfaces. Wireless module allows terminals to pack communication or positioning capability. Automotive wireless communication module is an underlying hardware installed to connect vehicles with telematics and internet for transmitting and collecting data. It enables direct communication and data exchange between vehicle and cloud, between vehicles, between vehicle and infrastructure, and between vehicle and pedestrians (mobile terminals) in a wireless way, which is a communication process that makes mobile communication macro network base stations unnecessary.

As a key link connecting perception layer and network layer of internet of things (including internet of vehicles (IoV)), the wireless communication module enables terminals and devices to be connected and transmit data.

Automotive Wireless Communication Module as a Key Link Connecting Perception Layer and Network Layer





As estimated, 200 million units of automotive wireless communication module will be installed worldwide in 2025, sustaining a CAGR of roughly 15% between 2020 and 2025, including 90 million units to be installed in China with a CAGR of about 19% from 2020 to 2025.

China stays ahead in 5G development, with a bit more installation of 5G automotive wireless communication modules than the global average. And in the country, the 5G modules are installed more in commercial vehicles than passenger cars. It is predicted that China's installation of 5G automotive wireless communication modules will reach 35% or so in 2025.

China's Installation of 2G/3G/4G/5G Wireless Communication Modules in Passenger Cars, 2016-2025E



China's Installation of 2G/3G/4G/5G Wireless Communication Modules in Commercial Vehicles, 2016-2025E



Source: ResearchInChina

Copyright 2012ResearchInChina



Competitive Landscape of Wireless Communication Module Industry

As 4G network matures and 5G technology spreads, 2G/3G networks are inevitably squeezed out. The whole IoT and IoV industries are evolving towards NB-IoT, 4G (Cat.1) and 5G.

Chinese wireless communication module companies that have been roaring ahead in recent years, are catching up with foreign leaders and striving to overtake them. Currently, Gosuncn Technology Group Co., Ltd. and Quectel Wireless Solutions Co., Ltd. both have introduced automotive grade communication modules in efforts to make an expansion in field. telematics Automotive communication modules outperform general ones in real-time transmission, security and stability. Chinese wireless communication module vendors are heavyweights in communication module market.

Products and Communication Modes of Major Automotive Communication Module Vendors

Vendor	Model	Embedded Chip	Communication Mode
Fibocom Wireless	AN658-AE	Qualcomm SDX55	5G
	AL940-CN	Qualcomm MDM9628	LTE Cat 4
	AL930-CN	Qualcomm MDM9628	LTE Cat 4
	AL640-CN	Qualcomm MDM9607	LTE Cat 4
	AL630-CN	Qualcomm MDM9607	LTE Cat 4
Quectel Wireless	AG15	Qualcomm MDM9150	PC5 Mode4 Direct Communication
Solutions	AG35	Qualcomm MDM9628	Uu (4G)
	AG520R	Snapdragon Automotive 4G Platform	PC5+Uu (4G)
	AG550Q	Snapdragon Automotive 5G Platform	PC5+Uu (5G SA\NSA)
Gosu <mark>ncn</mark> Technology	GM551A	Qualcomm MDM9X07	Uu (4G)
Group	GM552A	Qualcomm MDM9628	Uu (4G)
	GM556A	Qualcomm MDM9150	PC5 Mode4 Direct Communication
	GM850A	Snapdragon Automotive 5G Platform	Uu (5G)
	GM860A	Snapdragon Automotive 5G Platform	PC5+Uu (5G)
Sunsea AloT	SIM8100	Qualcomm MDM9150	PC5
Technology (SIMCom)	SIM7800CE	Qualcomm MDM9628	Uu (4G)
	SIM7800E	Qualcomm MDM9628	Uu (4G)
Sunsea AloT Technology (Longsung)	U9507C AT	Qualcomm MDM9628	Uu (4G)
Neoway Technology	A70	Qualcomm MDM9628	Uu (4G)

Source: Official Websites and Public Data of These Companies



As concerns automotive communication module product structure, Wireless Quectel Solutions Co., Ltd., Gosuncn Technology Group Co., Ltd. and Fibocom Wireless Inc. offer the most communication module products, a majority of which use Qualcomm's chipsets.

Chip Module	Applied Model
	Ford (China) Edge
	Brilliance Zhonghua V7
Autotalks	Volvo S90
	Great Wall VV7
	Beijing Hyundai Sonata (10 th -Gen)
	Dongfeng Fengshen AX7
Morningcore Technology	FAW Hongqi E-HS3
	Great Wall VV6
	Great Wall VV7
	AIL-SH Nissan Sylphy
	BMW BMW7200SL
	BAIC BEIJING-X7
	Honda CRV
	Dongfeng Peugeot e2008
Gonigh Data Networks Technology	Volvo S90
	Xpeng P7
WWW receard	FAW Jiefang J6F
www.ieseard	Great Wall VV7
	Great Wall Haval H6
A	AIL-SH Renault Koleos
	BAIC BEIJING-X7
	BAIC BJEV ARCFOX aT
	Dongfeng Fengshen AX7
	Dongfeng Citroen Aircross C5
Qualcomm	FCA Jeep Wrangler
	Geely Borui GE
	JAC Jiayue A5
	Jaguar Land Rover I-PACE
	NIO ES8
	Changan UNI-T

Chip Modules Installed in Demonstration Fleets Participating in 2020 C-V2X Cross-Industry & Large-scale Pilot Plugfest



Table of contents

1 Automotive Wireless Communication Module

- 1.1 Introduction
- 1.2 Classification
- 1.3 Structure
- 1.4 Application
- 1.5 Industry Chain

2. Automotive Wireless Communication Module Industry

- 2.1 Industry Background
- 2.1.1 Growing Number of Connected IoT Devices Worldwide
- 2.1.2 Global IoT Market Size
- 2.1.3 IoT Connection Trends
- 2.1.4 Application Structure of IoT Wireless Communication Devices in China
- 2.1.5 Penetration of Telematics Devices in China
- 2.1.6 Telematics Business Development of Automakers in China
- 2.1.7 Development of Wireless Communication Modules
- 2.1.8 Competitive Pattern of Wireless Communication Module Industry
- 2.2 China's Policies Concerning Automotive Wireless Communication Modules
- 2.2.1 Policies
- 2.2.2 Standard System
- 2.2.3 Guidelines for Building National IoV Industry Standard Systems (Intelligent Management of Vehicles)

- 2.2.4 Guidelines for Building National IoV Industry Standard Systems (Information and Communications)
- 2.2.5 5.9GHz Frequency Band for Cellular-V2X Technology Standards
- 2.3 5G Industry Boosts Automotive Wireless Communication Module Industry
- 2.3.1 5G Development in China
- 2.3.2 5G Fuels IoT Industry
- 2.3.3 Relationship between 5G and Intelligent Connected Vehicles
- 2.3.4 Main 5G Products of Wireless Communication Module Vendors
- 2.4 Development Trends of Automotive Wireless Communication Module
- 2.4.1 Status Quo
- 2.4.2 Installation of 3G/4G/5G Wireless Communication Modules
- 2.4.3 Development Trends of Automotive Wireless Communication Module
- 2.4.4 Automotive Wireless Communication Module Industry Barriers

3 Automotive Wireless Communication Module Industry Chain and Competitive Landscape

- 3.1 Automotive Wireless Communication Module Industry Chain
- 3.1.1 Wireless Communication Module Industry Chain
- 3.1.2 Automotive Wireless Communication Module Industry Chain
- 3.1.3 Main Upstream Chip Vendors of Automotive Wireless Communication Module Worldwide
- 3.1.4 Qualcomm Automotive Communication Module Chips
- 3.1.5 Automotive Wireless Communication Module Chip Vendors



Table of contents

- 3.1.6 Automotive Wireless Communication Module Chip Products and Planning
- 3.1.7 Downstream Vendors of Automotive Wireless Communication Module
- 3.2 Cost of Automotive Wireless Communication Module
- 3.2.1 Value Distribution of Wireless Communication Module
- 3.2.2 Cost Structure of Automotive Wireless Communication Module
- 3.3 Competitive Landscape of Automotive Wireless Communication Module Industry
- 3.3.1 Competitive Landscape of Wireless Communication Module Industry
- 3.3.2 Market Shares of Wireless Communication Module Vendors
- 3.3.3 Comparison of Profits between Wireless Communication Module Vendors
- 3.3.4 Development History of Automotive Wireless Communication Module Vendors
- 3.3.5 Comparison of Development between Main Automotive Wireless Communication Module Vendors in China
- 3.3.6 2020 C-V2X Cross-Industry & Large-scale Pilot Plugfest
- 3.4 Comparison between Automotive Wireless Communication Module Products
- 3.4.1 Product Layout of Main Automotive Wireless Communication Module Vendors in China
- 3.4.2 Products of Main Automotive Wireless Communication Module Vendors in China

4 Communication Module Solutions of Auto OEMs

- 4.1 Wireless Communication Module Planning of Main Auto Brands Worldwide
- 4.2 Wireless Communication Module Planning of Passenger Car OEMs in China
- 4.3 Wireless Communication Module Planning of Commercial Vehicle OEMs in China
- 4.4 Chinese OEMs' Exploration of 5G Wireless Communication Modules
- 4.5 Chinese OEMs' Exploration of C-V2X Wireless Communication Modules

5 Major Automotive Wireless Communication Module Suppliers

- 5.1 Huawei
- 5.1.1 Profile
- 5.1.2 Intelligent Vehicle Products
- 5.1.3 Application of Intelligent Vehicle Products
- 5.1.4 Wireless Communication Module Chips
- 5.2 Quectel Wireless Solutions
- 5.2.1 Profile
- 5.2.2 Equity Structure
- 5.2.3 Revenue
- 5.2.4 Shipment



Table of contents

- 5.2.5 Products
- 5.2.6 Overview of Automotive Wireless Communication Modules
- 5.2.7 Application of Automotive Wireless Communication Modules
- 5.2.8 R&D Costs
- 5.2.9 Global Footprint
- 5.2.10 Development Trends
- 5.3 Fibocom Wireless
- 5.3.1 Profile
- 5.3.2 Operation
- 5.3.3 R&D Costs
- 5.3.4 Products
- 5.3.5 Overview of Automotive Wireless Communication Modules
- 5.3.6 Application of Automotive Wireless Communication Modules
- 5.4 Neoway Technology
- 5.4.1 Profile
- 5.4.2 Revenue
- 5.4.3 R&D Costs
- 5.4.4 Main Business
- 5.4.5 Main Products
- 5.4.6 Overview of Automotive Wireless Communication Modules
- 5.4.7 Application of Automotive Wireless Communication Modules
- 5.4.8 R&D of Automotive Wireless Communication Modules
- 5.4.9 Industry Chain

- 5.4.10 Main Customers 5.4.11 Market Coverage
- 5.5 GosuncnWelink
- 5.5.1 Profile
- 5.5.2 Revenue
- 5.5.3 Main Business
- 5.5.4 Overview of Automotive Wireless Communication Modules
- 5.5.5 Application of Automotive Wireless Communication Modules
- 5.5.6 Main Customers and Development Directions
- 5.6 Sunsea AloT Technology
- 5.6.1 Profile
- 5.6.2 Development History
- 5.6.3 R&D and Market Coverage
- 5.6.4 Longsung Technology: Profile
- 5.6.5 Longsung Technology: Overview of Automotive Wireless Communication Modules
- 5.6.6 Longsung Technology: Application of Automotive Wireless Communication Modules
- 5.6.7 Longsung Technology: Development Trends
- 5.6.8 SIMCom: Profile
- 5.6.9 SIMCom: Overview of Automotive Wireless Communication Modules



Table of contents

- 5.6.10 SIMCom: Application of Automotive Wireless Communication Modules
- 5.6.11 SIMCom: R&D Strength
- 5.6.12 SIMCom: Main Customers
- 5.7 MeiG Smart Technology
- 5.7.1 Profile
- 5.7.2 Overview of Automotive Wireless Communication Modules
- 5.7.3 Application of Automotive Wireless Communication Modules
- 5.7.4 R&D Strength
- 5.7.5 Market Coverage
- 5.8 Sierra wireless
- 5.8.1 Profile
- 5.8.2 Revenue
- 5.8.3 Overview of Wireless Communication Module Division
- 5.8.4 Overview of Wireless Communication Module Business
- 5.8.5 Automotive Wireless Communication Module Products
- 5.8.6 Automotive Wireless Communication Module Solutions
- 5.8.7 Business Scope
- 5.8.8 Cooperation Model
- 5.9 Telit
- 5.9.1 Profile
- 5.9.2 Revenue

5.9.3 IoT Wireless Communication Module Product Layout5.9.4 Automotive Wireless Communication Module Products5.9.5 Automotive Wireless Communication Module Application Cases5.9.6 Business Scope

- 5.10 Gemalto (Thales)
- 5.10.1 Profile
- 5.10.2 Business
- 5.10.3 Automotive Wireless Communication Module Products
- 5.10.4 Automotive Wireless Communication Module Solutions
- 5.11 U-Blox
- 5.11.1 Profile
- 5.11.2 Automotive Wireless Communication Module Products
- 5.11.3 Automotive Wireless Communication Module Solutions
- 5.11.4 Coverage



How to Buy

You can place your order in the following alternative ways:

- 1.Order online at www.researchinchina.com
- 2.Fax order sheet to us at fax number:+86 10 82601570
- 3. Email your order to: report@researchinchina.com
- 4. Phone us at +86 10 82600828

Party A:		
Name:		
Address:		
Contact Person:	Tel	
E-mail:	Fax	

Party B:				
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)			
Address:	Room 2-626, 6th Floor, No.1, Shanyuan Street, Haidian District, Beijing, 100080			
Contact	Liao Yan	Phone:	86-10-82600828	
Person:				
E-mail:	report@researchinchina.com	Fax:	86-10-82601570	
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch			
	Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidian			
	District,Beijing			
	Bank Account No #: 110060668012015061217			
	Routing No # : 332906			
	Bank SWIFT Code: COMMCNSHBJG			

Title	Format	Cost
Total		

Choose type of format

PDF (Single user license)	.3,600	USD
Hard copy	3,800	USD
PDF (Enterprisewide license)	5,400	USD

※ Reports will be dispatched immediately once full payment has been received.Payment may be made by wire transfer or

credit card via PayPal.

