

Sierra Wireless AirPrime™ Embedded Wireless Modules AR Series

Easy Wireless Integration for Automotive Solutions

The Sierra Wireless AirPrime™ AR Series modules offer powerful, robust and reliable in-vehicle connectivity that reduces time-to-market, product, and development costs. These automotive grade modules stand up to demanding environments and have been designed specifically to meet the needs of automotive OEMs.

SIMPLE, SCALABLE, SECURE

Spend more time innovating and less time integrating. The AirPrime AR Series is designed to reduce the complexity of integrating wireless communications into automotive applications.

A dedicated application core with integrated M2M functionality simplifies system design, lowers total system cost, and provides more security from external threats:

- Open application framework accelerates embedded software development
- Footprint and software compatibility for scalability from 2G to 4G
- Development tools and seamless integration with AirVantage® M2M Cloud makes operations both scalable and manageable.

GLOBAL COVERAGE

AirPrime AR Series modules are available with frequency band groupings designed to minimize design effort for automotive manufacturers operating in North America, EMEA, and APAC.

DESIGNED FOR AUTOMOTIVE

The Sierra Wireless AirPrime AR Series modules are designed and tested to real world automotive scenarios, offering:

- Automotive-grade manufacturing (TS-16949 certified)
- Automotive quality processes (PPAP, 8D, FA) & low target ppm rates
- Tolerance to extreme operating environments including thermal shock cycles
- Extended operating temperature range from -40°C to +85°C

AIRPRIME AR6xx0

Powered by the world's first dedicated M2M system-on-a-chip, the tri-core architecture includes a 2G EDGE modem, dedicated high-speed ARM application processor, and a unique implementation of the ARM Cortex-M0 processor with CAN interfaces to enable in-car ultra-low power operation.

This is the most power-efficient, cost-optimized solution that offers dedicated processing for eCall applications.

AIRPRIME AR755X

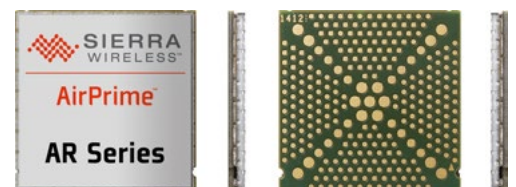
This powerful 3G/4G LTE solution features high-speed processing for applications and interfaces for high bandwidth in-vehicle telematics solutions.



KEY BENEFITS

- Automotive-grade manufacturing and quality processes
- GNSS for precise location information
- 2G for power efficiency or 4G for high bandwidth telematics solutions
- Reduced design effort for global projects
- High quality, reliable performance over the life of the vehicle

Automotive



AirPrime™

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	AR6xx0	AR755x
CHIPSET	Sierra Wireless S6	Qualcomm MDM9x15™
CORES		
Mini core	ARM® Cortex™-M0 (156MHz)	-
Application core	AR6330: ARM926 (312MHz)	ARM® Cortex™-A5 (550MHz)
Telecom core	ARM926 (156MHz)	Dual QDSP6 (600MHz)
AIR INTERFACES	EDGE/GPRS/GSM	LTE/HSPA+/EV-DO/EDGE/GPRS/GSM
APPROVALS		
Regulatory	GCF/PTCRB, FCC, IC, R&TTE*	GCF, PTRCB, FCC, IC, R&TTE*
Carrier	-	AR7550: Verizon, AR7552: AT&T*
FREQUENCY BAND		
LTE (cat 3, 100/50 Mbps)		AR7550: 700/1700/1900/2600 (NA:Verizon) AR7552: 700/850/1700/1900/2600 (NA:AT&T) AR7554: 800/900/1800/2100/2600 (EMEA/APAC)
EV-DO Rev A/ CDMA 1x		AR7550 BC0 800/BC1 1900 AR7550, AR7552: 850/1900
HSPA+		AR7554: 850/900/2100
GSM/GPRS/EDGE	850/900/1800/2100	AR7552, AR7554: 850/900/1800/1900
FOOTPRINT	STAR LGA	STAR LGA
DIMENSIONS	30 x 30 x 2.8mm	32 x 37 x 3.6mm
INTERFACES AND VOLTAGE		
Link	AR6220: 3xUART, USB device, 2xCAN AR6330: 3xUART, 2xUSB OTG, 2xCAN	USB OTG, HSIC
Digital	AR6220/AR6330: 2xSPI, 2xI2C, GPIOs (up to 100), bus (PARIF), Keyboard, Int (up to 16), 6xtimers	SPI, I2C, 11xGPIOs, Int, SDIO
Audio	AR6220/AR6330: 1MIC, 1 SPK, PCM, Buzzer AR6330: 2x I2S	PCM, Analog
Analogue	AR6220/AR6330: 12 ADC	3xADC, 2xSIM, 1.8V out
Input voltage	3.4V - 4.8V	3.4V - 4.2V
GPS/GLONASS	✓	✓
APPLICATION FRAMEWORK	AR6220: Open AT AR6330: Linux	Linux
CLOUD SERVICES		
AirVantage Management Service	✓	✓
AirVantage Enterprise Platform	✓	✓
TEMP RANGE	-40°C to +85°C	-40°C to +85°C

* Target