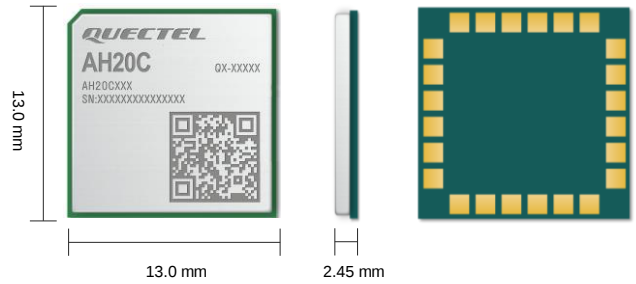


Quectel AH20C

Automotive Grade Bluetooth Module
IATF 16949 Compliant



AH20C is an automotive grade Bluetooth 5.2 module with high performance and low cost. It is designed to match with Quectel automotive AG52xR family and AG55xQ family modules or third-party AP modules in automotive-grade industries.

With a compact and unified form factor of 13.0 mm × 13.0 mm × 2.45 mm, AH20C is an ideal Bluetooth solution for size-sensitive applications, and helps customers reduce product size and optimize application design cost. The surface-mount technology enhances its durability and robustness, and the LGA package makes sure the module can be easily embedded into size-constrained applications and provide reliable connectivity with these applications. The advanced package allows for large-scale automated manufacturing which has strict requirements on cost and efficiency.

Coupled with its compact size, lower power consumption, wide temperature range and high reliability, AH20C enables the module to meet Bluetooth + LTE-A/5G application design requirements in automotive industry.



Key Features

- ✓ Automotive grade Bluetooth module supporting Bluetooth 5.2 with lower power consumption
- ✓ Ideal for automotive premarket applications with IATF16949: 2016 requirement
- ✓ Compliant with automotive quality processes such as APQP and PPAP
- ✓ Wide operating temperature range meets the demanding requirements for automotive devices
- ✓ Fast time-to-market: simple design minimizes design-in time and development efforts



Ultra-compact Size



LGA Package



Bluetooth 5.2



Operating Temperature Range: -40 °C to +85 °C

BLE		AH20C	
Region	Global		
Function	Bluetooth 5.2 (BR/EDR + BLE)		
Modulation Mode	GFSK, $\pi/4$ -DQPSK, 8-DPSK		
Temperature Range			
Operating Temperature Range	-40 °C to +85 °C		
Data Rate			
Bluetooth 5.2	BR: Max. 1 Mbps EDR: Max. 3 Mbps BLE: Max. 1 Mbps		
Interfaces			
PCM	× 1		
UART	× 1		
other Interfaces	HOST_WAKE_BT, BT_WAKE_HOST		
Antenna Interface	× 1 (ANT_BT)		
Electrical Features			
Power Supply Voltage	VDD_3V3: 3.14–3.46 V, Typ. 3.3 V		
I/O Power Supply Voltage	VDD_IO: 1.70–1.90 V, Typ. 1.8 V		
Certification			
Regulatory	Europe: CE America: FCC Canada: IC China: SRRC		
Others	Bluetooth		
General Features			
Dimension	13.0 mm × 13.0 mm × 2.45 mm		
Weight	0.71 g		
RF Performance			
	Receiver Sensitivity (Typ.)	Transmit Power (Typ.)	
BR	-91.0 dBm	8.0 dBm	
EDR	-89.0 dBm	4.0 dBm	
BLE	-94.0 dBm	8.0 dBm	