

Product brief

AIROC™ CYW4373 Wi-Fi 5 + Bluetooth 5.2 Combo

High-performance Dual-Band Wi-Fi 5 for Industrial IoT designs needing reliable connectivity

Infineon delivers market-proven AIROC™ Wi-Fi and Bluetooth Combo ICs, enabling robust, reliable wireless connectivity. Infineon is the industry leader in Wi-Fi and Bluetooth for the IoT with 1 billion+ wireless devices in the field over the last 20 years, making AIROC™ the most deployed wireless IP in the industry. Infineon's broad portfolio consists of Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac), and Wi-Fi 6 (802.11ax) + Bluetooth combo devices including variants supporting SISO (1x1) or MIMO (2x2), single-band (2.4GHz) or dual-band (2.4GHz/5GHz), as well as a host of differentiated feature sets including best in class range, Wi-Fi, Bluetooth and ZigBee co-existence, low power consumption, enhanced security, and more.

The AIROC™ CYW4373/CYW4373E/CYW43732 1x1 Dual-Band (2.4/5GHz) Wi-Fi 5 (802.11ac) + Bluetooth 5.2 is the ideal high-performance connectivity device for Industrial IoT designs needing reliable and robust Wi-Fi 5 connectivity in challenging RF environments such as hospitals, factories, retail, smart home, etc. The family of devices support SDIO, PCIe, and USB Hub shared with Bluetooth, covering the majority of host interfaces used in IoT. The CYW4373/CYW4373E variants support a flexible RF front end, supporting single antenna shared between Wi-Fi and Bluetooth for lowest cost, smallest solution size, with optional support for antenna diversity support with 2-antennas for improved range and coverage. The CYW4373/CYW43732 variants support the commercial temperature range of –20C to +70C while providing support of an internal 32kHz low-power oscillator reducing system cost. The CYW4373E variant provides support for an extended industrial temperature range of –40C to +85C.

The AIROC™ CYW4373/CYW43732/CYW4373E supports Linux, Android and RTOS designs, with the ability to pair with Infineon's ultra-low-power, flexible and secure PSoC™ 6 MCUs within ModusToolbox™ Software and Tools as well as 3rd party A-Class and M-Class MCUs. Multiple Infineon Wireless Module Partners are in production for fast time-to-market, for complete list please see the Infineon Wi-Fi Bluetooth Partner Module Product Selector Guide or visit the AIROC™ CYW4373 getting started page.

Feature	Benefit
Supports Dual-Band (2.4GHz/5GHz)	Increased number of channels with less congested spectrum in 5GHz provides better range and lower latency.
Supports 40/80MHz Channels in addition to 20MHz	Enables higher throughput and lower energy per bit reducing on air time, saving power, while reducing upload/download time.
Supports SDIO, PCIe Wi-Fi host interfaces	Multiple Wi-Fi host interfaces to support a variety of hosts
USB Hub shared between Wi-Fi and Bluetooth	Reduces host interface to single port and allows for lower cost cable use
Shared LNA (sLNA) between Wi-Fi and Bluetooth	Reduces antenna count to one, providing low solution cost and small size
Dedicated LNA (dLNA) provides a dedicated Bluetooth Antenna	Improves Wi-Fi and Bluetooth coexistence for higher throughput and lower latency streaming applications such as audio and video
Best in class integrated Wi-Fi and Bluetooth coexistence	Seamless operation of Wi-Fi and Bluetooth functionality
2-Wire and 3-Wire coexistence interface for 802.15.4/LTE coex	Enables seamless operation with Zigbee/Thread/802.15.4/LTE ICs
Optional internal 32.7kHz Low Power Oscillator (4373/43732)	Eliminates BOM cost of external 32.7kHz LPO crystal oscillator
-40 to +85C Industrial Temperature Range (CYW4373E)	Meets temperature requirements for Applicances or Industrial applications
Linux, Android, and RTOS software support	Easy integration with popular hosts and operating systems
Wide array of certified partner modules available	Reduces time-to-market

AIROC™ CYW4373 Dual-Band Wi-Fi 5 + Bluetooth Combo

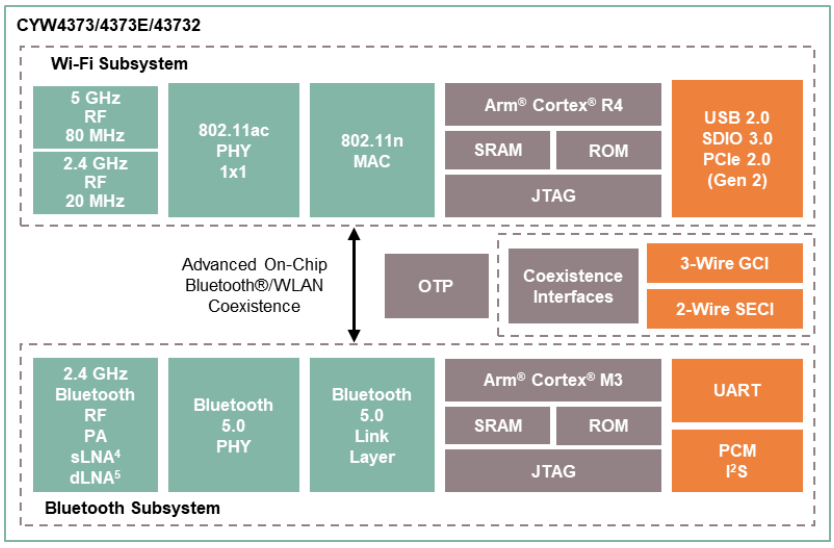
High-performance Dual-Band Wi-Fi 5 for Industrial IoT designs needing reliable connectivity

Key applications

Smart Home	Smart Appliances, Smart Thermostats, Smart Doorbells, IP Cameras, Service Robots, Printers, Appliances
Smart Building	Surveillance Equipment, Smart Commercial HVAC, Building Access Control / Occupancy Management
Industrial Automation	Factory Automation, Industrial Robotics, Asset Tracking
Medical/Healthcare	Tele-Health Gateways, Blood Pressure Monitors, Connected Patient Room Equipment
Media/Gaming	AR/VR, Traditional Speakers, Digital Television (DTV), Smart Speakers, Sounds Bars

Product summary

Name	Description	Temp Range	Package
CYW4373	Dual-Band Wi-Fi 5 + Bluetooth 5.2 Combo SoC with sLNA option and SDIO, USB Hub	-20C to +70C	128-ball WLBGA (4.51 x 5.43mm; 0.4mm ball pitch)
CYW43732	Dual-Band Wi-Fi 5 + Bluetooth 5.2Combo SoC with dLNA option and SDIO, USB Hub	-20C to +70C	128-ball WLBGA (4.51 x 5.43mm; 0.4mm ball pitch)
CYW4373E	Dual-Band Wi-Fi 5 + Bluetooth 5.2 Combo SoC with industrial temperature grade , sLNA and SDIO, PCIe, and USB Hub	-40C to +85C	128-ball WLBGA (4.51 x 5.43mm; 0.4mm ball pitch)
Laird Connectivity Stering-LWB5+ Wireless Module	Certified module targeted towards Industrial IoT applications using the CYW4373E	-40C to +85C	12 mm x 17 mm x 2.2 mm (Modules) 22 mm x 30 mm x 3.1 mm (M.2 E-Key Module) USB-A 2.0 Pluggable Adapter Dongle
Murata Type 2AE Wireless Module	Certified module from Murata using the CYW4373E	-40C to +85C	7.80 x 8.00 x 1.25 mm (max) (Module)
Murata Type 2BC Wireless Module	Certified module from Murata using the CYW4373	-20C to +70C	7.80 x 8.00 x 1.25 mm (max) (Module)
Azurewave AW-467	Certified module with Azurewave with SDIO	-20 to + 70C	12 x 12 x 1.65 mm Module
Azurewave AW-467-USB-I	Certified module from Azurewave with USB	-20 to +70C	12 x 12 x 1.65 mm Module
Azurewave AW-CM555	Certified module with SDIO and External Coexistence Interface	-20 to +85C	12 x 12 x 1.65 mm Module



Published by
Infineon Technologies AG
81726 Munich, Germany

©2021 Infineon Technologies AG.
All Rights Reserved.

Please note!
This Document is for information purposes only and any information given herein shall in no event be regarded as a warranty, guarantee or description of any functionality, conditions and/or quality of our products or any suitability for a particular purpose. With regard to the technical specifications of our products, we kindly ask you to refer to the relevant product data sheets provided by us. Our customers and their technical departments are required to evaluate the suitability of our products for the intended application.

We reserve the right to change this document and/or the information given herein at any time.

Additional information
For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings
Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.