

The SYN43711 integrates Wi-Fi™ 6/6E and Bluetooth™ 5.3 radios on a single state-of-the-art system on chip (SoC) to reduce the space, cost, power, complexity, and time to market of wirelessly enabled IoT devices. The Wi-Fi radio is IEEE 802.11ax compliant with legacy support for 802.11a/b/g/n/ac and has a 1 x 1 antenna arrangement for a throughput of up to 600 Mbps. The Bluetooth 5.3 radio features LE Audio for multiple concurrent Bluetooth audio streaming connections.

BENEFITS

- ▶ High integration reduces footprint, cost, power, complexity, and time to market.
- ▶ 2.4 GHz and 5 or 6 GHz bands simultaneously with up to 600 Mbps throughput.
- ▶ Allows multiple concurrent Bluetooth connections and audio streams.
- ▶ Advanced Wi-Fi/Bluetooth radio co-existence.

APPLICATIONS

- ▶ Multimedia streaming for smart home
- ▶ Wireless home security cameras
- ▶ Premium appliances
- ▶ Drones
- ▶ Robots
- ▶ Automotive Infotainment systems
- ▶ Smart factories/industry 4.0



PERFORMANCE AND COST OPTIMIZED



ROBUST, HIGH-PERFORMANCE WI-FI



BEST WI-FI AND BLUETOOTH COEXISTENCE



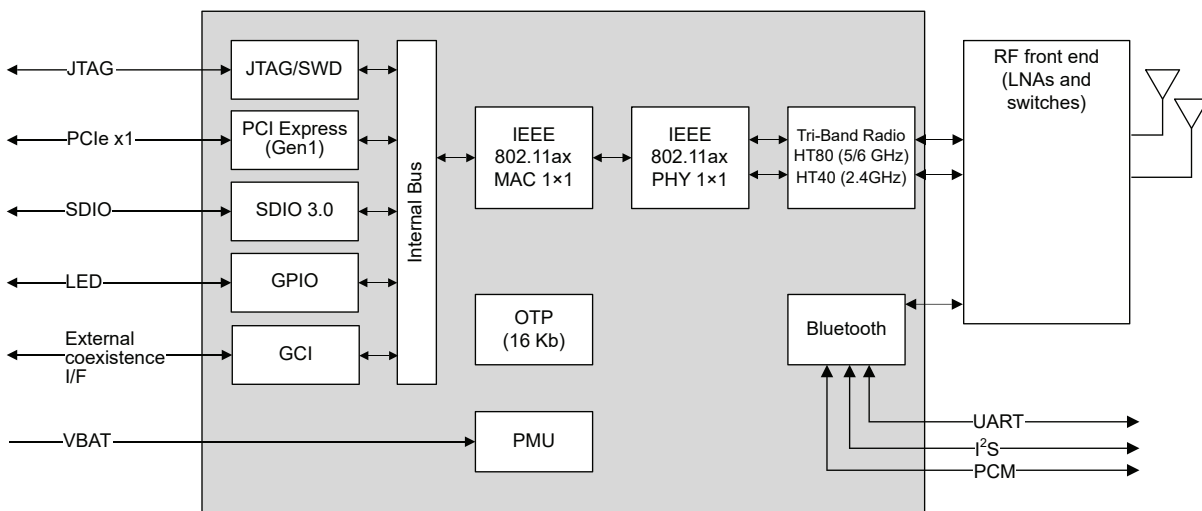
LOW SYSTEM COST FOR IOT



FEATURES

- ▶ Supports Wi-Fi 2.4/5/6/6E with best CMOS RF, including integrated PAs and LNAs (external PA and LNA optional) with highest transmit (Tx) power level and receive (Rx) sensitivity.
- ▶ Integrated Bluetooth 5.3 with support for Bluetooth Low Energy (BLE).
- ▶ LE Audio support.
- ▶ Synaptics Smart Co-Ex for best-in-class coexistence of Wi-Fi and Bluetooth radios in the 2.4 GHz band.
- ▶ Measures 5.41mm x 4.24 mm x 0.51mm and comes in two WLBGA packages: standard and plated-through-hole (PTH).

SYSTEM BLOCK DIAGRAM



SYN43711 block diagram

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