



Synaptics Launches Breakthrough Triple Combo™ 16 nm Ultra-Low-Power SoC With Enhanced Connectivity and Streaming Features to Drive New Automotive and Multimedia Use Cases

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Matter-compliant Wi-Fi 2.4/5/6/6E, Bluetooth® 5.3, and IEEE 802.15.4 wireless IoT platform enables simultaneous operation of two radios and multiple Bluetooth channels to stream multimedia content.

NUREMBERG, Germany, March 16, 2023 (GLOBE NEWSWIRE) -- Synaptics® Incorporated (Nasdaq: [SYNA](#)) today announced the latest Triple Combo™ —the breakthrough SYN4382—with state-of-the-art system-on-chip (SoC) radio integration and architectural innovations that enable a more immersive and reliable audio and video experience across a new range of Internet of Things (IoT) applications, while lowering power consumption, cost, and system complexity. Building upon the original award-winning Triple Combo 16 nm platform—the first to integrate Wi-Fi 5/6E, Bluetooth 5.3 (BT 5.3), and IEEE 802.15.4/Thread radios—the ultra-low-power SYN4382 features a doubling of Wi-Fi throughput to 1200 Mbps, the addition of another discrete radio channel for real-time simultaneous dual-band (RSDB) 2.4 and 5 or 6/6E GHz operation for robust, high-speed Wi-Fi connectivity, and LE Audio for multiple concurrent BT 5.3 audio streams in a multi-device environment.

The SoC comes with built-in support for the Matter application layer to ensure interoperability of IoT devices across heterogeneous wireless networks, as well as Synaptics' own best-in-class, proprietary, Smart Co-Ex coexistence technology, to ensure a seamless multimedia wireless experience.

Embedded World 2023: Learn more about Triple Combo 2 and Synaptics' latest advances in wireless, edge AI, and automotive technology in Booth #4A-259, or follow us on [LinkedIn](#).

"SYN4382 is the perfect solution for complex, streaming-intense applications such as advanced automotive infotainment units and high-end OTT and TV/home theater audio systems," said Brandon Bae, Sr. Director of Product Marketing at Synaptics. "For example, in a car, the first Wi-Fi 6E radio can act as a soft access point and stream multimedia content to a number of local in-car devices. The second radio, meanwhile, provides the ability to connect to a high-speed Wi-Fi network. At the same time, the SYN4382 is capable of using LE Audio to stream to multiple BT 5.3 devices, including rear entertainment systems."

Along with reduced hardware complexity, the SYN4382 is supported by Synaptics' Syn-Fi™ software tools to simplify product development and reduce time to market for increasingly advanced IoT devices that need to connect across heterogeneous IoT networks, regardless of platform or OEM.

Key features and benefits

- 16 nm process node allows ultra-low power operation and advanced integration for a smaller footprint, reduced complexity, and lower BOM
- 2x2 Wi-Fi with 1200 Mbps throughput for fast streaming and distribution of multimedia content
- RSDB capability enables architectural flexibility to assign content to the most appropriate 2.4 and 5/6 GHz radio for optimum performance and robust connectivity
- Bluetooth 5.3 with LE Audio enables multiple concurrent BT 5.3 audio streams in a multi-device environment
- Bluetooth High Accuracy Distance Measurement (HADRM) for accurate positioning
- Thread/Zigbee support using IEEE 802.15.4-based standard enabling cross-platform interoperability and ultra-low-power mesh networking and security features
- Synaptics Smart Co-Ex for best-in-class coexistence in the 2.4 GHz band
- Multipoint external coexistence interface for LTE, GPS
- Matter interoperability and security support for a seamless user connectivity experience across heterogeneous networks
- On-chip power amplifiers (PAs) and low-noise amplifiers (LNAs), with support for external PAs and LNAs
- IEEE 802.11ax-compliant Wi-Fi to support 2.4/5/6/6E GHz operation and legacy 802.11a/b/g/n/ac

Availability

The SYN4382 Triple Combo is available now. To learn more:

- Visit [Triple Combo](#)
- Contact your [local sales representative](#)
- Visit Synaptics at Booth 4A-259 at Embedded World. To make a formal appointment, email press@synaptics.com or

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About Synaptics Incorporated:

Synaptics (Nasdaq: [SYNA](#)) is changing the way humans engage with connected devices and data, engineering exceptional experiences throughout the home, at work, in the car, and on the go. Synaptics is the partner of choice for the world's most innovative intelligent system providers who are integrating multiple experiential technologies into platforms that make our digital lives more productive, insightful, secure, and enjoyable. These customers combine Synaptics' differentiated technologies in touch, display, and biometrics with a new generation of advanced connectivity and AI-enhanced video, vision, audio, speech, and security processing. Follow Synaptics on [LinkedIn](#), [Twitter](#), and [Facebook](#), or visit www.synaptics.com.

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