



## Synaptics Introduces High Performance Juneau Touch Controller Family for Flexible and Foldable OLED Devices

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### Featuring Innovative AI-based Face Detect, Host-based Processing, and Unmatched Performance

SAN JOSE, Calif., May 20, 2021 (GLOBE NEWSWIRE) -- Synaptics® Incorporated (Nasdaq: [SYNA](#)) today announced Juneau, the industry's first AI-enabled touch controller solution for the OLED smartphone market, delivering new levels of performance, features and power-efficiency for next-generation phones. Juneau builds on the highly successful Rio touch controller family with an improved signal-to-noise ratio for better touch performance on thinner displays, a 13-bit ADC for improved signal resolution to deliver better accuracy, host-based processing which supports ultra-fast report rates over 300Hz, and the world's first AI-based Face Detect function robust enough to eliminate the need for a separate IR-Prox sensor, all while lowering power consumption by 25% in active mode and maintaining Rio's best-in-class doze mode.

As modern rigid and flexible OLED displays get thinner and as resolutions and refresh rates increase, the noise that the display generates also increases, which makes detecting a touch signal more difficult. Juneau combines a new, higher voltage Tx architecture which improves the touch signal strength while simultaneously lowering the noise floor. This enables Juneau to reliably detect touch signals under the most challenging conditions, including the latest ultra-thin foldable displays. A new 13-bit ADC improves Juneau's dynamic range, giving it greater sensitivity and resolution, which enables improved accuracy of touch signals. The Juneau family also supports Synaptics' innovative host-based processing architecture which leverages the power of the phones' main processor to supercharge key tasks. Synaptics host-based processing enables report rates above 300Hz - the fastest in the industry. This creates a smooth and ultra-responsive experience in even the most demanding situations, from gaming to interacting with the latest 5G content.

Juneau introduces the world's first innovative AI-based Face Detect algorithm that uses sophisticated machine learning techniques to detect the presence of the users' ear, eliminating the need for a separate IR proximity sensor which improves smartphone BOM costs, eliminates a sensor hole, and delivers greater battery efficiency. The Juneau family provides these features while reducing power consumption by 25% in active mode relative to the Rio family and keeping Rio's best-in-class ultra-low power doze mode.

The new Juneau capacitive touch controller family has already been qualified for mass production by the world's largest OLED display manufacturers including Samsung Display Corporation, BOE and LG Display, and is pin compatible with the Rio product family, providing a proven path for device makers to incorporate the increased responsiveness and enhanced user experience required in their premium class smartphone models including support for the latest LTPO OLED panels.

"OLED panels are continuing their rise as the display of choice for flagship phones, and increasingly for mainstream phones, as their brighter and thinner displays allow OEMs to enable new industrial designs," said Craig Stein, SVP & GM, Mobile & IoT Division at Synaptics. "Synaptics Rio family has been instrumental in enabling a great touch experience on many of the most advanced smartphones today, and the new Juneau family builds on that history with improvements in performance, accuracy and power for the latest displays. Our new capacitive-based Face Detect AI solution continues to advance the display towards a true infinity screen and demonstrates our long-term commitment to engineering exceptional experiences in the touch market."

### 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 are combining 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 [synaptics.com](#).

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