



## PRESS RELEASE

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### **CerebrEX Starting Shipment of the Industry's First eDP System Driver**

Osaka, JAPAN (December 7, 2017) — CerebrEX, Inc. announced that the company has begun shipping samples of the industry's first eDP system driver, a.k.a. TED (TCON-embedded driver).

In the mobile communication and computing device industry, where the vigorous adoption of higher-density and battery-powered displays with small form factors is underway, issues facing the intra-panel design of conventional notebook panels include high component counts such as the timing controller (TCON), source drivers, cable and PCB, high BOM cost, and the high power consumption of the interface between the TCON and the source drivers.

The product CRX2000 is the first in the company's eDP system driver series Panel System Integrated Controllers (PSICs). It combines a high performance eDP TCON and source drivers into a single chip intended for small and mid-sized display panels. The CRX2000 has made significant achievements, including:

- high-speed robust data transmission on COG ("SEARCH")
- intelligent high-data-rate transmission technology with eDP for COG packaging ("Cool Charging")
- innovative topologic design for narrow glass bezel

all of which were successfully developed and patented by CerebrEX.

These attributes, combined with other CerebrEX proprietary technologies, can create displays that are superior in terms of functions and have higher performance at a lower cost than the conventional discrete TCONs can. CerebrEX PSIC can attain lower cost BOM, lower power consumption with a reduction of up to 30% and a slim panel design by removing a TCON board and integrating the peripheral components in a small module.

Several world-class panel vendors have decided to embark on CRX2000-based projects and expect to commence commercial shipments to PC OEMs next year.

#### ■ Applications:

- Notebook PCs. Tablets - Resolution: FHD (1980x1080) ~ QHD (2160x1440).

■ Value propositions to panel vendors and PC OEMs:

- Single chip solution for FHD and QHD panels
- SSPC - “Slim Smart Plus by CerebrEX” enables the PC system to remove the TCON board and enable a very slim, smart and flexible structure with super low power dissipation.
- APPS - “Advanced Panel Power Saving” is CerebrEX’s proprietary panel control methodology. It can attain Panel Self Refresh (PSR)-equivalent power saving with no memory required.
- Cool Charging - Intelligent engine for driving loaded panel.
- MSO - Industry’s first TCON to support Intel MSO (“Multi SST Operation”) for two-chip synchronization of a single gate panel of a-Si, Oxide and LTPS.
- Adaptive/Free SYNC support – Mandatory for gaming PCs that require no tearing or stuttering.
- PixArt - High color accuracy and sophisticated color management and image quality enhancement.
- SDK – “System Development Kit” to fine-tune and optimize panel performance.

■ Availability:

- Sampling now.

■ CerebrEX, Inc:

The company is a venture-backed semiconductor start-up founded in 2012 and headquartered in Osaka, Japan, and it has an additional office in Tokyo, Taipei and Shanghai.