PRESS RELEASE

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FOR IMMEDIATE RELEASE

CerebrEX Starting Volume Shipments of the Industry's First eDP System Driver to a Major Chinese Panel vendor

Osaka, JAPAN (December 19, 2018) — CerebrEX, Inc. announced today that the company has commenced volume shipments of the CRX2000, the industry's first eDP system driver, a.k.a. TED (TCON-embedded driver).

In the mobile communication and computing device industry, where the enthusiastic adoption of higher-density and battery-powered displays with small form factors is underway, the 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 the following:

· 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 these were successfully developed and patented by CerebrEX.

These attributes, combined with other proprietary technologies of CerebrEX, can create displays that are up to 30% lower in terms of power consumption, narrower in bezel size and have higher performance at a lower cost than the conventional discrete TCONs. CerebrEX PSIC can attain these superior features 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.

CerebrEX will continue to make products and technologies with highly functional and cost performance available to its customers and markets.

- **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. Two Chips with MSO feature can support up to 2880x1920.
  - ・ 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:**
  - ・ In production now.

- **About CerebrEX, Inc:**

  CerebrEX, Inc. is a venture-backed semiconductor start-up in the business of developing proprietary display technologies for the flat panel display market. Founded in 2012 and headquartered in Osaka, the company directly addresses the challenges posed by conventional design, low power requirement and high resolution. The company has an additional office in Tokyo, Japan, in Taipei, Taiwan and in Shanghai, China.

- **Remark:**

  *eDP: embedded Display Port

  **COG: Chip on glass