

# **DKN Research Newsletter**

**#2008, March 29<sup>th</sup>, 2020 (English Edition)**

**(Micro Electronics & Packaging)**

**[dnumakura@dknresearch.com](mailto:dnumakura@dknresearch.com), [www.dknresearch.com](http://www.dknresearch.com)**

## **Coronavirus Pandemic**

The Coronavirus spread to over two hundred countries and claimed more than 30,000 lives. The virus emerged in China in December 2019, and spread around the world. European countries and the U.S. report a significant amount of cases over the last two weeks. The total number of the cases is more than 600,000.

I traveled back to our home office in Japan last week. The number of the cases in Japan jumped up significantly in the Tokyo Area last week. I have no symptoms of coronavirus infection, but remain in self-isolation for at least two weeks. I will refrain from the use public transportations including taxicabs.

Market analysts predict a slowdown in the global electronics industry due to the pandemic. Stock markets throughout the world are experiencing extreme volatility with every news report. The Dow Jones fell almost 25% YTD. It's at its lowest level since December 2016, and is no pace for its worst month since the Great Depression.

The global electronic industry was slowing down before the Chinese New Year in January. Smart phone shipments posted a negative number compared to the same month last year, shipments for semiconductor products decreased, and shipments from the Taiwanese circuit board industry show a significant decline over the last few months. Taiwanese circuit boards manufacturers can be considered the barometer for the global consumer electronics industry. A slowdown with them can mean a slowdown for markets throughout the world (production was slowing down prior to the virus pandemic). The pandemic can cause a deeper contraction for the industry.

The U.S. announced a historic Coronavirus stimulus bill in the amount of \$2 Trillion to respond to the pandemic, and Japan announced a stimulus package to be delivered in April. The Federal Reserve Board in the U.S. reduced interest rate to zero, and the European Central Bank joined other central banks with the announcement of programs to keep the regions financial system functioning. We are all in this together, and this pandemic will end. Stay safe.

**Dominique K. Numakura, [dnumakura@dknresearch.com](mailto:dnumakura@dknresearch.com)**

**DKN Research, [www.dknresearch.com](http://www.dknresearch.com)**

**\*To view the Newsletter archives, click on the following URL:**

<http://www.dknresearchllc.com/DKNRArchive/Newsletter/Newsletter.html>

**Headlines of the week**

(Please contact [haverhill@dknresearch.com](mailto:haverhill@dknresearch.com) for further information and news.)

1. NEDO (Major R&D organization in Japan) 3/24  
Has developed a pico-second pulse laser with deep UV light (Wave length: 266nm) with large power (8W).
2. Tokyo University (Japan) 3/24  
Has developed a new process to form electrodes on organic semiconductor modules. The process is available for broad range applications.
3. Toyota & Hino (Major automobile manufacturers in Japan) 3/24  
Have agreed to co-develop large size trucks with hydrogen fuel-cell batteries targeting 600 km driving distance.
4. Ohara (Specialty chemical supplier in Japan) 3/17  
Has succeeded to make battery life of lithium ion battery 4 times longer adding special solid chemicals for the electrolyte.
5. Murata (Major device supplier in Japan) 3/24  
Has rolled out a new series of quartz devices with small SMT packages of 2016 for wireless LAN and Blue Tooth modules.
6. Tokyo University (Japan) 3/25  
Has discovered a new super ion conductor. It makes switching by lighting.
7. NEC (Major electronics company in Japan) 3/25  
Will sell 66% share of NEC Display Solutions to Sharp, major subsidiary of the major EMS company in Taiwan.
8. Sony (Major electronics company in Japan) 3/26  
Will found a new venture company Sony Electronics in April. The company covers Imaging Products & Solutions, Home Entertainment & Sound and Mobile Communications.
9. SMK (Major device manufacturer in Japan) 3/26

Has released a new touch panel display with capacitance switches built on curved glass panel for instrument panels of the automobiles.

10. DNP (Major printing company in Japan) 3/27

Has developed a new transparent flexible antenna with fine meshes for 5G telecommunications. Surface resistance: 2.5 ohm/square.

11. Toyobo (Major material supplier in Japan) 3/27

Has developed a new thin organic photovoltaic cell with a high conversion rate (25%). A 18 cm<sup>2</sup> sheet generates 130 micro W power.

12.

13.

14.

15.

#### **Recent Articles of DKN Research**

**Please find the full articles at the following web site.**

**<http://www.dknresearchllc.com/DKNRArchive/Articles/Articles.html>**