MagnaChip Offers 0.35 micron 700V Ultra-High Voltage Process Technologies for Various System Requirements

August 5, 2019

SEOUL, South Korea and SAN JOSE, Calif., Aug. 5, 2019 /PRNewswire/ -- MagnaChip Semiconductor Corporation ("MagnaChip" or the "Company") (NYSE: MX), a designer and manufacturer of analog and mixed-signal semiconductor products, announced today it now offers 0.35 micron 700V Ultra-High Voltage process technologies (UHV) suitable for different system requirements for AC-DC converter ICs and LED driver ICs.

Currently, the market demand is increasing dramatically for AC-powered products, including LED lighting drivers, AC-DC converter ICs and AC-DC chargers commonly found in home appliances. As such, due to increased competition, the cost competitiveness of these products, manufactured using UHV technologies, is becoming a critical factor for IC providers. Therefore, to meet these market needs, MagnaChip has successfully reduced device sizes of UHV nLDMOS by 30% and JFET by 50% from its previous generation. Furthermore, MagnaChip's latest UHV technology, designated as HP35ULC700, shortens the manufacturing process and reduces cost by having seven photolithographic steps less than the Company's previous generation, which was achieved by simplifying the front end process and reducing the minimum metal number from two to one.

UHV technologies have multiple requirements because different systems and IC schemes are used in various applications. To cover various requirements, MagnaChip offers multiple UHV technologies in terms of gate oxide schemes. When high system integration is necessary, dual gate oxide UHV technology can be used that provides the optimized low voltage, high voltage, and ultra-high voltage devices. When manufacturing cost is important and control logic device density is high, low-voltage single-gate oxide UHV technology can be used. When manufacturing cost is important and superior high-voltage performance to drive external discrete high voltage MOSFETs is necessary, high voltage single-gate oxide UHV technology can be used.

In addition, UHV devices with different operation voltages from 350V to 700V are provided in MagnaChip's UHV technologies, as AC-DC converter voltage requirements vary by country. Additional option devices that can enable the integrated solution of AC-DC converter ICs and LED driver ICs are 700V nLDMOS integrated with 700V JFET, Zener diode, 700V resistor, thin film resistor, MIM capacitance and fuse.

YJ Kim, MagnaChip's Chief Executive Officer, commented, "UHV technology is a key technology we are focused on as market demands for LED lighting and AC-DC converters remain to be strong." Mr. Kim added, "We are continuing to develop additional UHV technologies to improve performances and cover more system requirements."

About MagnaChip Semiconductor
MagnaChip is a designer and manufacturer of analog and mixed-signal semiconductor platform solutions for communications, IoT, consumer, industrial and automotive applications. The Company's Standard Products Group and Foundry Services Group provide a broad range of standard products and manufacturing services to customers worldwide. MagnaChip, with about 40 years of operating history, owns a portfolio of approximately 3,000 registered patents and pending applications, and has extensive engineering, design and manufacturing process expertise. For more information, please visit www.magnachip.com.

CONTACTS:

United States (Investor Relations):	**USA media / industry analysts:**	**Korea / Asia media:**
Bruce Entin	Mike Newsom	Chankeun Park
Entin Consulting	LouVan Communications, Inc.	Director of Public Relations
Tel. +1-408-625-1262	Tel. +1-617-803-5385	Tel. +82-2-6903-5223
Investor.relations@magnachip.com	mike@louvanpr.com	chankeun.park@magnachip.com

View original content:http://www.prnewswire.com/news-releases/magnachip-offers-0-35-micron-700v-ultra-high-voltage-process-technologies-for-various-system-requirements-300895542.html

SOURCE MagnaChip Semiconductor Corporation