

# ACEINNA Unveils MCx2101 Family: High-Performance Current Sensors for Next-Generation Automotive Power Conversion Systems

TEWKSBURY, MA, USA, February 21, 2024 /EINPresswire.com/ -- ACEINNA®, a leading developer of high performance, thin film Magneto-Resistance (xMR) based current sensors, today announced the launch of the MCx2101 family of AEC-Q100 qualified automotive current sensors. These fully integrated, single-chip solutions offer exceptional accuracy, high bandwidth, and fast response time, making them ideal for demanding automotive power conversion applications in electric, hybrid, and ICE vehicles.



“The MCx2101 family pushes the boundaries of current sensor performance, enabling automotive engineers to maximize the benefits of fast switching SiC/GaN power devices, simplify system design and improve overall efficiency. xMR technology represents an advanced technology platform outperforming traditional Hall based current sensing solutions in bandwidth, response time and noise.”, said Teoman Ustun, VP of Automotive Business Unit at ACEINNA. “With industry-leading accuracy, high bandwidth, and fast response time, these sensors contribute to improved performance, protection and reliability across a wide range of automotive power applications.”

Key Features of the MCx2101 Family of Current Sensors:

- AEC-Q100 qualified for automotive applications
- Fully integrated single-chip design in SOIC16 package
- High 3dB bandwidth of 5MHz for fast switching SiC/GaN
- Low phase delay for fast and stable power control
- Fast output response time of 80ns for optimum protection
- High accuracy with typical total error as low as 0.6%

- Low noise density of 35  $\mu\text{A}/\sqrt{\text{Hz}}$  for high SNR
- High PSRR of -80dB @1kHz
- Operates at 3.3V and 5V for system flexibility
- Available in fixed gain (MCA) and ratiometric (MCR) options
- Nominal current ranges from +/-5A to +/-65A
- Temperature range of -40C to +125C
- Cost-optimized for volume applications

#### Target Applications:

- On-board chargers and fast DC chargers
- Automotive motor drivers, inverters and servo drives
- Automotive DC-DC, AC-DC power supplies
- Solar panel inverters
- Data center power supplies
- Uninterruptible power supplies (UPS)
- AC-DC Power systems (PFC)

#### Availability:

The MCx2101 family is available now for volume production. Datasheets and additional product information can be found at <https://aceinna.com/current-sensors>.

#### About ACEINNA:

ACEINNA, Inc. is a leading MEMS based sensing solutions company, focusing on the development of innovative Inertial Measurement Unit (IMU) and current sensing technologies that are essential to next generation cars, robots and other autonomous applications. ACEINNA product lines cover high bandwidth, low noise Magneto-Resistance (MR) based electric current sensors, high-performance open source IMUs, Real Time Kinematic (RTK) navigation systems, and centimeter-precision positioning services. ACEINNA is committed to providing exceptional customer service and support, and is recognized as a trusted partner by leading companies around the world.

#### FOR MORE INFORMATION:

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