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Link

MTA Expands Wireless Communication, EV Tech for Trucks

Truck connectivity and electrification the focus of MTA's inaugural IAA tradeshow appearance.

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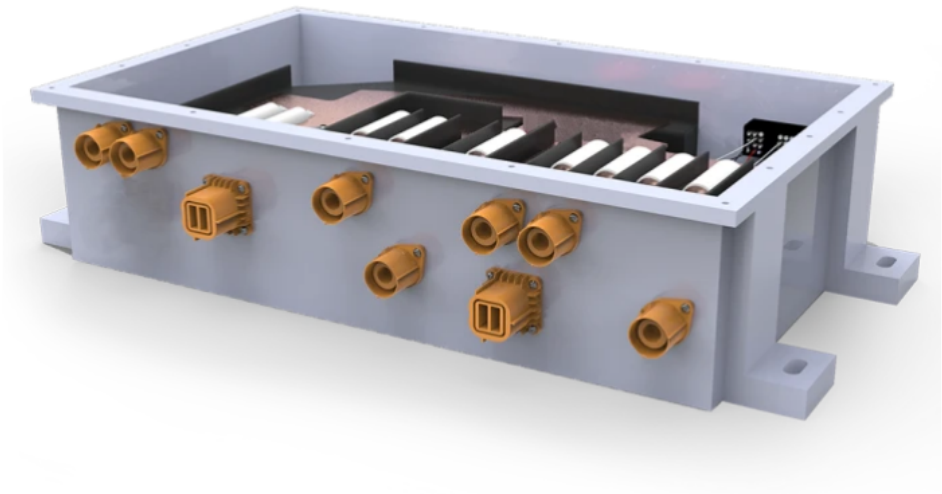

MTA's high-voltage PDU uses cast-aluminum housings instead of plastic, and aluminum in place of copper for the busbars. (MTA)

Automotive electrical and electronics manufacturer MTA attended IAA Transportation for the first time, demonstrating its new range of wireless communication technologies for the truck industry. Earlier this year, the company acquired Calearo Antenne S.p.A, a company with a long history of producing antennas, amplifiers and cables.

MTA global sales director Davide Bonelli spoke with SAE Media at the IAA Transportation show in Hanover, Germany. (MTA)

MTA global sales director Davide Bonelli explained to SAE Media how that acquisition complements its business. "From a more strategic point of view, we see the world of antennas as complementary to what MTA does," he said. "Often MTA products have an antenna as an interface, so this is one reason why we have done the deal. There are also a lot of synergies from an engineering standpoint. Historically, MTA is a company that uses many mechanical parts – plastics, metals – which we are very strong with so we can share them. And there are also some competences from Calearo Antenne that can be transferred to us."

Bonelli gave the example of a radio interface, or alternatively, telematics data. "In addition to the traditional receivers' antenna or the telematics antenna, there are also some technologies like foil antennas, where you do not have to make holes in the vehicle roof, or antennas that can be integrated into the vehicle structure, or maybe that can be integrated into the windscreen and then you just need an amplifier to amplify the signal."

Signals that can be handled by the antennas include 5G mobile, V2X (vehicle-to-everything), precise GNSS (Global Navigation Satellite Systems), Wi-Fi up to 6 GHz as well as Bluetooth connectivity, analog communications and digital and satellite radio services. The company recently won a new order for Bluetooth antennas from a global truck producer for European and American production.

MTA acquired Calearo Antenne and its range of antennas earlier this year. (MTA)

MTA also displayed some of its other products at the IAA tradeshow. The company recently developed high-voltage power distribution units (PDU) for electrified platforms produced by major truck OEMs. The PDUs use cast aluminum housings in place of plastic. MTA says this ensures insulation from external sources, robust construction, optimal heat dissipation and enhanced electromagnetic compatibility (EMC) shielding. Internally, aluminum also is used for the busbars in place of copper to save weight.

Onboard battery chargers from MTA offer bi-directional capability permitting energy discharge from the battery pack back to the grid or other devices. (MTA)

Onboard battery chargers (OBC) capable of handling up to 1,000 volts and up to 22 kW of power also were on display for heavy-duty electric vehicles. The latest models, the BHP 19 and BHP 22, are designed to handle 19.2 kW for U.S. applications and 22 kW for the European market, respectively. They offer low weight and bi-directional power handling, using the latest silicon carbide (SiC) and power converter technologies. The bi-directional capability permits charging from the grid and energy discharge from the battery pack back to the grid or other devices.

MTA also claims fast DC charging capability from the BHP chargers. The integration in the OBC is said to optimize the architecture, reducing complexity, cost and weight. They also include an electrical power takeoff (ePTO), a feature especially useful for off-highway applications. All the power components of the BHP chargers are liquid cooled. MTA's OBCs are produced in Italy and Mexico.