



Inseto (UK) Limited
Unit 25, Focus Way
Andover
SP10 5NY
United Kingdom

PRESS RELEASE

Date: 1st March 2021

Asterion Wedge Bonder Meets CIL's Advanced Technology Group's Requirements for Multiple Electric Vehicle Projects

Andover, United Kingdom – Inseto, a leading technical distributor of equipment and materials, has supplied Custom Interconnect Limited (CIL) with a Kulicke & Soffa Asterion large diameter wire / ribbon wedge bonder for use in the production of wide bandgap (WBG) semiconductor-based power modules and the assembly of battery packs.

The Asterion is to play a crucial role in two major electric vehicle (EV) projects in which CIL is extensively involved. In the first, CIL is engaged with BMW on APC15@FutureBEV to maximise potential for future BEV systems. The project is one of 10 projects by the Advanced Propulsion Centre (APC) in its latest round of Government and industry funding for low-carbon emissions research.

In the second case, CIL is the project lead on GaNSiC - a project that stems from the UK Research and Innovation's (UKRI) 'Driving the Electric Revolution' challenge and brings together CIL and Compound Semiconductor Applications Catapult (CSA Catapult). It is set to develop novel ways of applying Silver Sinter pastes to WBG semiconductors, such as Silicon Carbide (SiC) and Gallium Nitride (GaN) devices, to optimise their thermal coupling and solve complex power module assembly challenges.

John Boston, Managing Director of CIL, comments: "Because of the high currents EV power modules handle, both projects require the placement of heavy gauge wire or ribbon, of between 150 and 600microns diameter or width compared to fine-wire bonding, which tends to be about 25microns."

Boston goes on to say that SiC-based power module designs are aiming to switch up to 800VDC and handle up to 600A. He adds: “You need heavy gauge, but heavy gauge wire bonding of wide bandgap materials is a relatively new technology. More than ever before, there’s a need for collaboration and trust within the industry. Also, with keeping costs low such an imperative in the automotive sector, the use of advanced manufacturing tools likely to produce the best results is essential, particularly when some vehicle manufacturers are demanding zero defects and stipulating that reworks are not allowed.

CIL is an electronic solutions provider. It has the largest independent ‘chip and wire’ facility in the UK and its micro-electronics packaging facility is regarded as being at the forefront of the EV power revolution.

Boston concludes: “In addition to APC15@FutureBEV and GaNSiC, we’re the manufacturing partner on many other EV projects, plus we have many customers in the aerospace sector – active under initiatives like the More Electric Aircraft and the All-Electric Aircraft. “

The K&S Asterion is located in CIL’s BEV facility, and joins an automatic die bonder and high pressure Silver Sinter press (both of which are for the packaging of WBG materials) and a scanning acoustic microscope, used to detect voids. The Asterion will also be used in the manufacture of EV batteries, specifically for bonding between cells and busbars/plates.

MAIN ENDS



Supplied by Inseto, CIL's new Kulicke & Soffa Asterion large diameter wire / ribbon wedge bonder will be used for the production of wide bandgap (WBG) semiconductor-based power modules and the assembly of battery packs for use in electric vehicles.

Notes to Editors

This press release was issued on behalf of Inseto (UK) Limited by technical content creation and communications agency DECLARATION (www.declaration.co.uk, +44 (0)1522 789000).

If you have any editorial enquiries in relation to this announcement, please contact Mandy Warrilow, Press Officer, mandy@declaration.co.uk. Please contact Richard Warrilow, Technical Author, richard@declaration.co.uk, if you require an article or any other form of copy in relation to this press release.

Please contact Matt Brown on +44 (0)1264 334505 or via email (matt.brown@inseto.co.uk) in relation to all advertising and sponsorship matters.

About Inseto (UK) Limited

Established in 1987 and ISO 9001:2015 Certified since 2005, Inseto is a leading technical distributor of equipment and related materials to the semiconductor, microelectronic & advanced technology sectors, as well as adhesives for electronics, automotive and industrial manufacturing.

The company has three divisions, namely:

- **Equipment Division**, which provides manufacturing equipment for the Microelectronic, Photonic, Electronic, Photovoltaic and Semiconductor industries etc.
- **Consumable Division**, which provides assembly materials and machine consumable items for the Semiconductor, Electronic, Microelectronic, Photonic MEMS and Hybrid assembly industries etc.
- **Adhesive Division**, which provides technically advanced adhesives for bonding, sealing and encapsulation, and which exclusively represents DELO Industrial Adhesives in the UK and Ireland.

Inseto is based in Andover in a high-tech building that houses an adhesives application laboratory, demonstration areas for equipment and instrumentation, and training rooms.

Customer support is at the heart of Inseto's *Total Customer Service* philosophy, where the company aims to understand, communicate and fulfil the needs of its customers. The company is committed to meeting customer requirements through the application of high standards of quality and customer care (both before and after sales) by continually investing in training and adopting a policy of continuous improvement.

For further information please visit www.inseto.co.uk

About CIL

Established in 1986 and ISO9001:2015, ISO13485:2016 (Medical) and AS9100D (Aerospace) certification, CIL is also on the path to ISO/TS 16949:2009 (Automotive) certification. CIL has transitioned from a conventional EMS company into an Electronic Solutions Provider and currently manufactures some of the most complex mission critical electronic assemblies in the UK. A combination of 6 SMT lines, 3D AOI, Flying probe test and laser depaneling enables it to manufacture complex SMT PCBA. In addition, CIL also has one of the largest independent die and wirebond facilities in the UK. Three Automatic die bonders, and six Automatic wire bonders and various encapsulation systems are available. It is now entering a WBG power module manufacturing era to support both UK and EU based companies deploy SiC and GaN based assemblies.

For further information please visit www.cil-uk.co.uk