


Press Release			
MCD Elektronik GmbH Hoheneichstr. 52 – 75217 Birkenfeld - Germany Tel. +49-7231 78405-0 – Fax: +49-7231 78405-10 Managing Director: Bruno Hörter	Release Date: 14.06.2019	Page 1 of 3	
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For immediate publication		Queries to: Verena Feidy, Verena.Feidy@mcd-elektronik.de	

IoT: Intelligent test systems for smart home


Development of a programming and test system for connected heating systems

Birkenfeld, Germany, June 13, 2019: With increasing demands of customers for their smart and connected home, the requirements of the manufacturers of those products increase equally when it comes to their quality assurance. Manufacturers put the products through their paces to ensure 100 percent functionality and reliability. Exactly for such case, an international manufacturer of modern energy systems involved MCD Elektronik in the project in the early conception phase to ensure an efficient test and measurement strategy. In the end, two stations were developed for modern and smart home heating systems. One station is responsible for the programming of the board while the other station checks if all individual processes and signals are produced and function correctly. Errors and expensive downtimes in the systems can therefore be prevented. „The biggest challenge in the test setup was to realize the short test time of less than a minute. Also the adjustment of frequency and output power of the radio signals according to the legal requirements and specifications had to be implemented with great care“, explains Klaus Appel, project manager at MCD Elektronik.

The heaters communicate with the smartphone or tablet of the user as well as the manufacturer via WiFi. This connection is not only used to provide information but also to make settings, e.g. by controlling the room thermostats in the 'smart home'. The signals are generated with a board, which is completely programmed and afterwards checked automatically with the functional tester and the programming station. In order to establish and maintain this communication channel without interference, circuits are required that are able to generate the WiFi/ZigBee signal for the communication and control of the 'smart home' and simultaneously exchange information with the heating system via CAN interface. Both systems are linked by a database. This also prevents incorrectly flashed DUTs from entering the functional tester. This process control enables additional saving of time and effort during

Information for the press:

Verena Feidy, Verena.Feidy@mcd-elektronik.de, Tel.: +49-7231 – 78 405-49

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ongoing production.

Characters: 1.877 (without spaces)

Pictures:

Picture 1: Programming station and function tester for PCBs for WiFi generation in smart home heaters



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Picture 2: Spectrum analyzer during the process of testing WiFi and ZigBee signals



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About MCD Elektronik GmbH:

MCD Elektronik GmbH was founded in 1983 and currently employs 80 people. The owner-managed company is headquartered in Birkenfeld, near Pforzheim, Germany. MCD Elektronik is active in Germany, Hungary, and China, and delivers to over 50 countries around the world.

MCD Elektronik GmbH manufactures measurement and test systems for electronic production for their customers from various industries. The company relies on innovative customer-specific complete solutions - developed and realized by a team of highly qualified specialists.