| Press Release | | | M P® | |
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| MCD Elektronik GmbH Hoheneichstr. 52 – 75217 Birkenfeld Tel. +49-7231 78405-0 – Fax: +49-7231 78405-10 | Release Date: 20.07.2016 Document Version: | Page 1 of 4 | ELEKTRONIK GMBH Summary Title: | |
| Managing Director: Bruno Hörter | V1.0 | VH | MCD_16_011 | |
| For immediate publication | Queries to: Verena Hörter, Verena.Hoerter@mcd- | | | |
| | elektronik.de | | | |

Measurement: PCBs taken under the dental loop MCD Elektronik develops board-tester for dentistry devices

Birkenfeld, Germany, July 20, 2016: The measurement specialist MCD Elektronik developed a new test system for the four boards of a LED curing light. The three LED-control boards are tested automatically for voltage and current with different loads. At the same time the controller board is under test for future operating functions, for example the connection of the control LEDs, the buzzer- and sensing device-functionality. The fixture checks all four boards of the device in one run. Marks inside the fixture enable a quick and simple allocation and control function of the LED control PCBs. The operator is supported by a half-automated test process, in which he/she has to manually confirm the enquired functions by touch screen or barcode scanner. This ensures a short handling period and high passing times of about two PCB sets per minute. This is a number which surpasses the customers' requirements of 10 pieces per hour many times over. The PCBs get contacted via pins, which retract due to security reasons if the fixture is opened.

The test system, which runs in a production facility in Thailand, is subjected to high temperatures and extreme humidity. Therefore, the MCD developers tested the resistance to temperature changes amongst others in the climatic chamber in advance. The universal MCD Elektronik measurement software "TestManager CE" and its "Toolmonitors" ensure complete documentation, consistent traceability and control oft he test procedures. Measurement documentation is controlled via MCD's TestManager CE software, so even during multiple measurements it is possible to avoid that the

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measurement data is overwritten. Every single error has to be assigned to the corresponding test point on the tested PCB. This means that the error is displayed, stored in the test results and protected from unauthorized access. Therefore, the system ensures that no data modification, overwriting or deletion is possible. The control is placed in MCD Elektronik's mobile "ULC Rack". It offers diverse adjustment options and an optimal access to the probe plate for commissioning, debugging, troubleshooting, flexible mutliplexing and integrated component measuring functions. The system is virtually maintenance free, can adapt to new requirements and calibrate itself after a given time. The success of this project is finally confirmed by a validation according to medical technology guidelines.

Pictures:

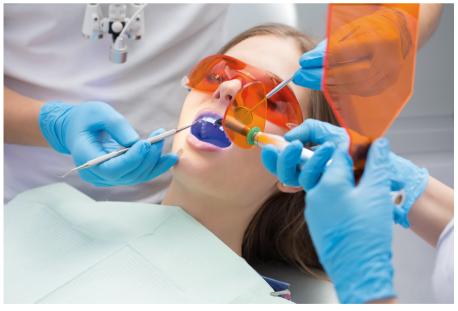


Picture 1: Safe custody: the pins of the fixture only move in a closed position.

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Picture 2: Perfect preparation for the international operation: the MCD test system with a multilingual touch screen.



Picture 3: If the treatment requires it, UV light is always available. Thorough production tests ensure the reliability of the device.

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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 43 countries around the world.

MCD Elektronik GmbH manufactures measurement and test systems for electronic production for their customers, who include OEMs in the automotive sector, companies in machine and systems design, medical technology, defense and security systems, quality technology, sensor manufacturing, and aerospace. The company relies consistently on zero tolerance in quality control.