

Merit

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*This certificate is granted and awarded by the authority of the MedAccred Management Council to:*

## ***Benchmark Electronics, Inc.***

***3535 Technology Dr NW  
Rochester, MN 55901  
United States***

*This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in [www.eAuditNet.com](http://www.eAuditNet.com) on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:*

## ***Printed Circuit Board Assemblies***

Certificate Number: 87782004142  
Expiration Date: 28 February 2023  
Accreditation Length: 18 Months

A handwritten signature in black ink, appearing to read "D. Schutt", written over a horizontal line.

**David L. Schutt, PhD**  
President

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## SCOPE OF ACCREDITATION

### Printed Circuit Board Assemblies

**Benchmark Electronics, Inc.**  
3535 Technology Dr NW  
Rochester, MN 55901

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: [www.eAuditNet.com](http://www.eAuditNet.com) - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

#### **AC8120 Rev A - MedAccred Audit Criteria for Printed Circuit Board Assemblies (to be used on audits on/after 6 November 2016)**

- 04.0 General
- 05.0 Process Validation
- 06.0 Medical Record Keeping
  - 06.1 Device Master Record (DMR)
  - 06.2 Device History Record (DHR)
  - 06.3 Product Traceability
- 07.0 Foreign Object Damage and Foreign Object Debris (FOD) Prevention
- 08.0 Electrostatic Discharge (ESD) Management
- 09.0 Calibration
- 10.0 Preventive Maintenance
- 12.0 Purchasing and Authentic Component Assurance
- 13.0 Process Control
- 14.0 CAD/CAM Data
- 15.0 Receipt, Inspection & Control of Incoming Material
- 16.0 Storage and Handling of Received Materials
- 17.0 Component Programming
  - 17.2 PCBA–Level Component Programming
- 18.0 Electronic Component Preparation
- 19.0 Stencil Printing
- 20.0 Component Placement
  - 20.1 Manual
  - 20.3 Automated Part Placement
  - 20.4 Build Through / Build Short
  - 20.5 Through Hole Component Lead Trimming
- 21.0 In–Process Placement Verification / Inspection
  - 21.1 General
  - 21.2 Visual

- 21.3 Automated Optical Inspection (AOI)
- 21.4 X-Ray
- 22.0 Assembly Soldering Processes
  - 22.1 Reflow Soldering
  - 22.2 Wave Soldering
  - 22.3 Selective Soldering
  - 22.4 Hand Soldering
- 23.0 Secondary Assembly
  - 23.1 Mechanical Part Installation
  - 23.5 Compliant Pin (Press Fit) Connector Installation
- 24.0 PCBA Cleaning Process and Control
- 25.0 Coating and Encapsulation
  - 25.1 Coating and Encapsulation Process
  - 25.2 Coating and Encapsulation Inspection (Mandatory if 25.0 Coating and Encapsulation is checked)
- 26.0 Adhesive Bonding
- 27.0 Assembly Testing
  - 27.4 In-Circuit Testing
  - 27.5 Flying Probe Testing
  - 27.7 Manual Bench Testing
  - 27.8 Functional Testing
- 28.0 Final Acceptance Inspection
- 29.0 Rework
- 30.0 Storage, Handling & Packaging of Finished Goods