

MtronTM

Crystals, Filters and RF Solutions



Space

Mission Proven Crystals, Filters and RF Solutions for Over 60 Years

Mtron has over 150 design wins on satellite platforms and manned spacecraft. Engineering Design Units to Flight hardware, Mtron has a proven team and track record to meet your demanding space requirements.

Partners:

- **L3Harris Technologies Inc.**
- **Blue Canyon Technologies**
- **Northrop Grumman Corp.**
- **General Dynamics Corp.**
- **Lockheed Martin Corp.**
- **Collins Aerospace**
- **Rocket Lab**
- **Boeing Co.**
- **MDA Corp.**
- **NEC Corp.**
- **ISRO**

bsi.



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - AS9100D AND ISO 9001:2015

This is to certify that:

M-Tron Industries Inc.
1703 E. Highway 50
Yankton
South Dakota

bsi.



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - AS9100D AND ISO 9001:2015

This is to certify that:

MtronPTI
2525 Shader Road
Orlando
Florida
32804
USA

Holds Certificate No:

FM 690357

and operates a Quality Management System which complies with the requirements of AS9100D (technically equivalent to prEN9100:2016 and JISQ 9100:2016) and ISO 9001:2015 and is assessed in accordance with AS9104/1 for the following scope:

Worldwide designer and manufacturer of custom frequency control products including filters, crystal oscillators and precision resonators used in defense and commercial electronic applications in aerospace, telecommunications, wireless communications, medical and space.

For and on behalf of BSI:

Carlos Pitango
Carlos Pitango, Chief Operating Officer - Assurance - Americas

Original Registration Date: 2013-06-20
Reissue Date: 2019-06-20

Issue Date: 2019-06-20
Expiry Date: 2022-06-19

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This certificate remains the property of BSI and shall be returned immediately upon request.
An electronic certificate can be authenticated [online](http://www.bsigroup.com/ClientDirectory). Printed copies can be validated at www.bsigroup.com/ClientDirectory.
To be read in conjunction with the scope above or the attached appendix.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP.
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
Managed by: BSI Group America Inc, 12950 Woodgate Drive, Suite 800, Herndon, VA 20170-6007 USA +1 703 437 3000
A Member of the BSI Group of Companies.

requirements of AS9100D (technically 2015 and is assessed in accordance with AS9104/1

ors and custom built thick film hybrids.
ors for resale.

Item Certification and Compliance

Issue Date: 2018-01-13
Expiry Date: 2021-01-12

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at:
www.bsigroup.com/ClientDirectory

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High Road, London W4 4AL, UK
170-6007 USA +1 703 437 3000

Our Space Advantage

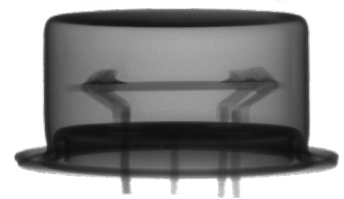
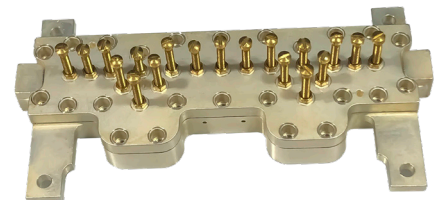
Supporting military, commercial, and scientific space applications, Mtron delivers qualified RF Solutions, crystals, and filters which fully meet the reliability and performance demands of space.

Capabilities:

- In-house crystal processing
- Ultra lightweight and compact RF Solutions
- Spark3D design analysis
- High power handling
- High channel to channel isolation
- Very low insertion loss
- Multipaction testing over temperature

Product Lines:

- Crystal filters to 200 MHz
- LC filters to 6 GHz
- Cavity / Waveguide filters to 30 GHz
- Planar Filters from 1.5 GHz to 20 GHz
- N-plexers
- Precision resonators to 200 MHz
- RF Solutions



Our expert team of Engineers, Program Managers, Assemblers and Testers know the demands of Space and the discipline required.

In House Testing

- Fine Leak Testing - Helium per MIL-STD-202, Method 112
- Gross Leak Testing per MIL-STD-202, Method 112
- Random Vibration per MIL-STD-202, Method 214A
- Sinusoidal Vibration per MIL-STD-202, Method 201 and 20
- Mechanical Shock per MIL-STD-202, Method 213
- Thermal Shock per MIL-STD-202, Method 107
- Terminal Strength per MIL-STD-202, Method 211
- PIND (Particle Impact Noise Detection) per MIL-STD-202, Method 217
- Other Miscellaneous Testing including: Life, Immersion, Barometric Pressure, Humidity, and Solderability
- Dielectric Withstanding Voltage and Insulation Resistance
- Multipaction Testing



Production Capabilities

- Dedicated Clean Room
- World-class FOD Control
- In-house Crystal Processing
- Internal Quartz Sweeping
- Laser Weld

Workmanship Standards

- In-house J-STD-001 Certified Trainer
- J-STD-001 Class 3 with Space Addendum

Full DC and RF Testing

- RF Testing 100 kHz to 40 GHz
- In-house Power Testing
- Multipaction Testing

WE KNOW SPACE

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