



Crystals, Oscillators, Filters and RF Solutions



Guided Weapons

## Mission Proven Crystals, Oscillators, Filters and RF Solutions for **60 years**

Mtron is a proven market leader for phase and amplitude matched filter products and tight stability, low phase noise and low aging crystals and oscillators. As a fully integrated design and manufacturing organization, Mtron has an established team and track record to meet ground, shipboard and airborne guided weapons requirements.

### Partners:

- **Raytheon Technologies Corp.**
- **Northrop Grumman Corp.**
- **Lockheed Martin Corp.**
- **Thales Group**
- **BAE Systems**
- **MBDA**



### 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  
57078  
USA

M 579007

which complies with the requirements of AS9100D (technically 16) and ISO 9001:2015 and is assessed in accordance with AS9104/1  
quartz crystals, oscillators and custom built thick film hybrids.  
12 crystals and oscillators for resale.

Carlos Pitanga, Managing Director, Assurance, Americas  
Issue Date: 2024-01-13  
Expiry Date: 2027-01-12

Page: 1 of 1

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### 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 EN9100:2018 and JISQ 9100:2016) and ISO 9001:2015 and is assessed in accordance with AS9104/1 for the following scope:

Designer and manufacturer of radio frequency components and assemblies used in defense, aerospace, avionics, instrumentation, telecommunications, industrial, medical and space applications.

Carlos Pitanga, Managing Director, Assurance, Americas  
Issue Date: 2024-01-13  
Expiry Date: 2027-01-12

Page: 1 of 1

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For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer, Assurance - Americas

Original Registration Date: 2013-06-20  
Reissue Date: 2022-06-20

Issue Date: 2022-06-20  
Expiry Date: 2025-06-19

Page: 1 of 1



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This certificate remains the property of BSI and shall be returned immediately upon request.  
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 0PF.  
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.  
Regulated by the Financial Conduct Authority, 25 Bank Street, London EC4V 4AA, UK. BSI Group Inc., 3000 Rockville Pike, Suite 800, Bethesda, MD 20814-6007 USA +1 703 437 9900  
A Member of the BSI Group of Companies

## Our Guided Weapons Advantage

Mtron offers standard and custom products that meet flexibility, performance and reliability requirements for all guided weapons needs.

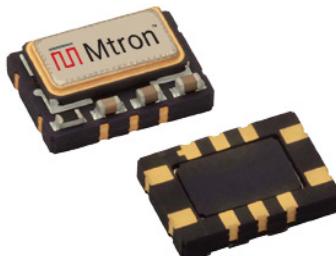
### Capabilities:

- Phase and amplitude matched filters
- Wide temperature, low phase noise oscillators
- Lead attach capability for 5 x 7mm ceramic package
- Ultra lightweight and compact RF Solutions
- Low intermodulation performance
- Very low insertion loss
- Low phase noise, tight stability and low aging TCXOs



### 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 and switched filter banks
- Precision resonators to 200 MHz
- VCXOs and TCXOs to 1.4 GHz
- Tunable Filters
- LNAs
- SSPAs
- RF Solutions



Our expert team of Engineers, Program Managers, Assemblers and Testers know the demands of Guided Weapons applications and the discipline required to deliver high performance and highly reliable products.

## 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 204
- 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, Humidity, Barometric Pressure and Solderability
- Dielectric Withstanding Voltage and Insulation Resistance

## Production Capabilities

- Phase and Amplitude Matched Filter Sets
- Automated Intermodulation Testing
- Lead Attached 5x7mm package
- In house Crystal Processing
- World-class FOD Control
- Laser Weld

## Workmanship Standards

- In-house J-STD-001 Certified Trainer
- J-STD-001 Class 2 and 3

## Full DC and RF Testing

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



**WE KNOW GUIDED WEAPONS**