

# Defence Electronic Solutions



**MicroLOGIX**

**Bangalore, India**







# MicroLOGIX

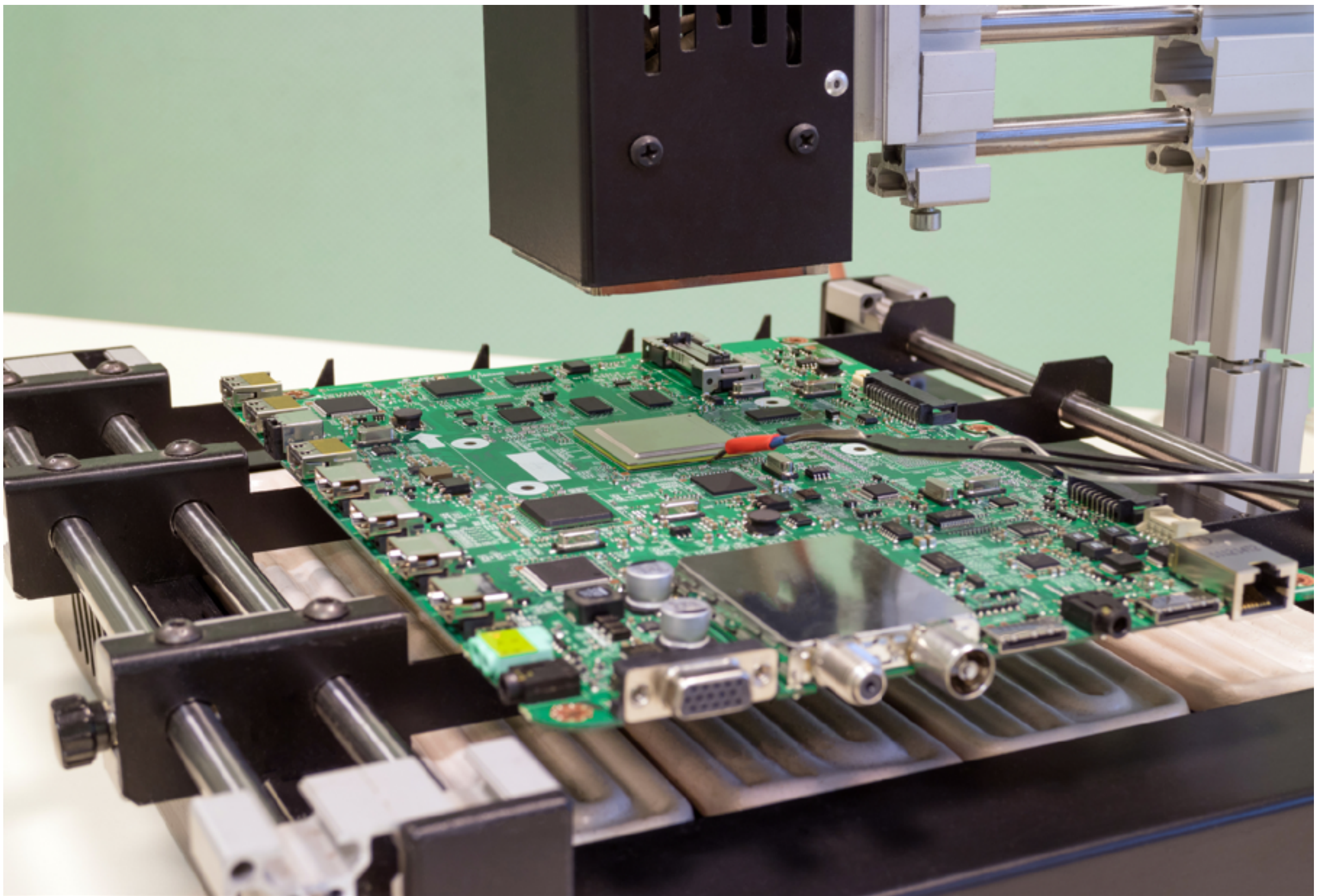
MicroLOGIX is a 25+ Years Old, Full Services Electronics Company offering

- Electronic **Manufacturing Services** for Defense, Aerospace, Automotive, Industrial and Medical Segments
- Electronic **Design and Engineering** with Project Handling Capabilities
- In-House **Embedded Hardware** and **Firmware** Development
- **IPC610** and **IPC620** Compliant PCB Assembly, Module and Cabinet Wiring Services
- Single Board Computers (**SBC**) and Display Cabinets
- Board and Cabinet Level **MIL461 Compliance** Testing
- **AS9100**, ISO9001, IATF16949 and ISO14001 Certified **Quality Systems**

# MicroLOGIX

- Manufacturing facility is 20,000 Sq.Ft in 4 Floors
- Strong team of 75+ People
- ERP System for Centralized Inventory and Product Life Cycle Management
- Vertically Integrated with Design-Engineering-Manufacturing at one location
- Fast Turnaround Project Execution Capabilities





# PCB Assembly Capabilities

# Manufacturing Facility

- 3 SMT Lines with State-of-Capabilities
- Wave-soldering machine
- PCB Assemblies with 0201 components and BGAs
- X-Ray and BGA Rework for Complex PCB Assembly
- Wire Harness with Mechanical Design/Manufacturing Capabilities
- Automatic Component Forming Machines (OLAMEF)
- Barcode Scanning, Printing and ERP Traceability
- Burn-in and Temperature Cycling of PCB Assemblies



# SMT Lines



- Automatic Solder Paste Printer
- Yamaha Make, Japanese Pick and Place machines, 40000 Comp Per Hour (CPH)
- Capable of mounting up to **0201 Size** Components and as below listed
- 9 Zone Reflow with RoHS Capabilities



- Yamaha Make, Japanese Made machine - Model YSM10, 45000 CPH
- Superior Placement Accuracy
- Capable of mounting up to **01005 Size** Components and as below listed



# Through-Hole Assembly Line





# X-Ray Inspection and BGA Rework

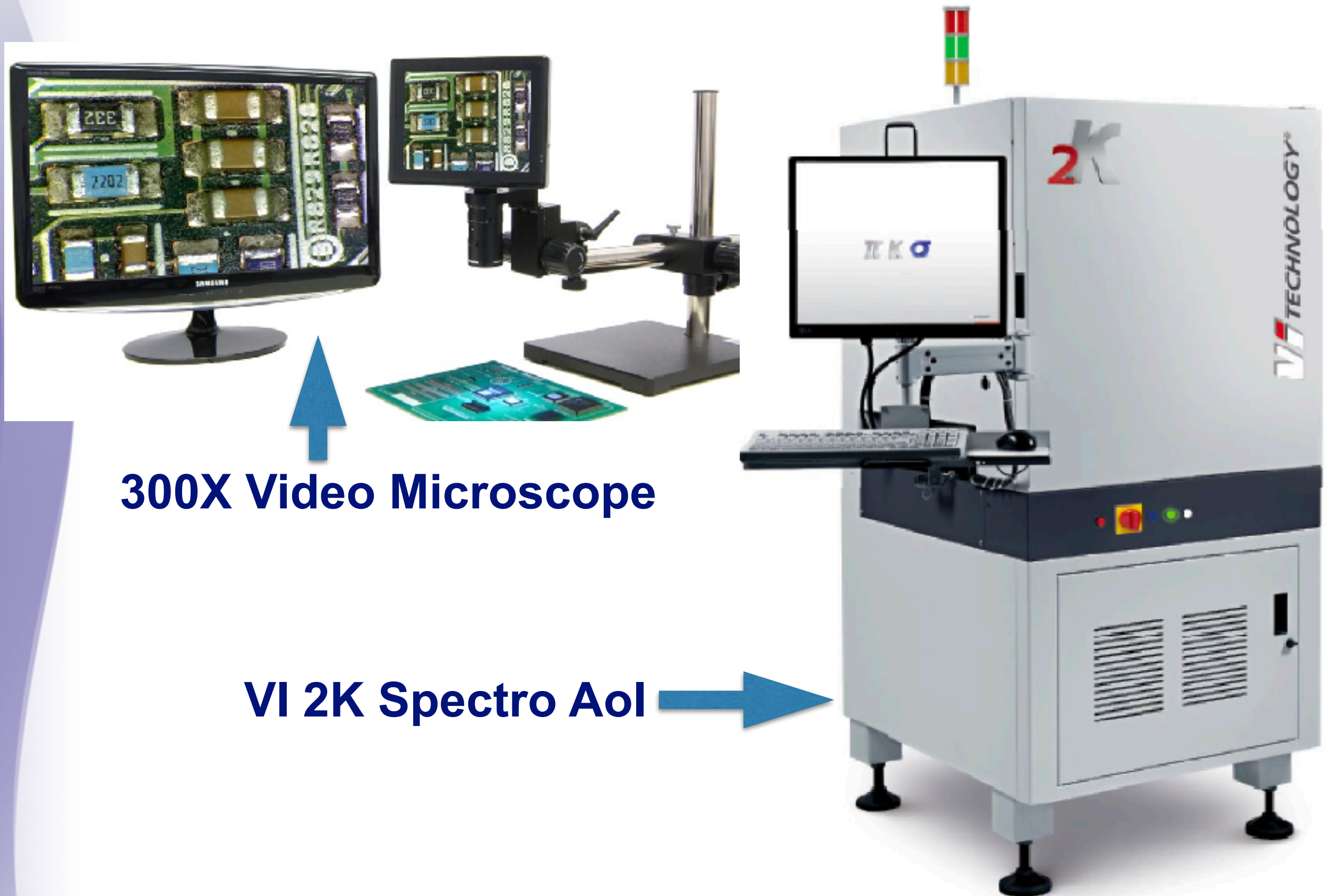


- 90KV High Power X-Ray Tube with Adjustable Power
- 600X Magnification
- 460x400mm PCB Size



- 3 Zone Hearing System for Higher Safety
- Camera Inspection with X-Y Movement
- 550x500mm PCB Size
- 70x70mm BGA Size Max
- Color Monitor for Better Viewing
- Built-in Vacuum Pump for IC Removal
- Storage and Retrieval of Board/Customer Specific Programs

# Automatic Optical Inspection



**300X Video Microscope**

**VI 2K Spectro Aol**

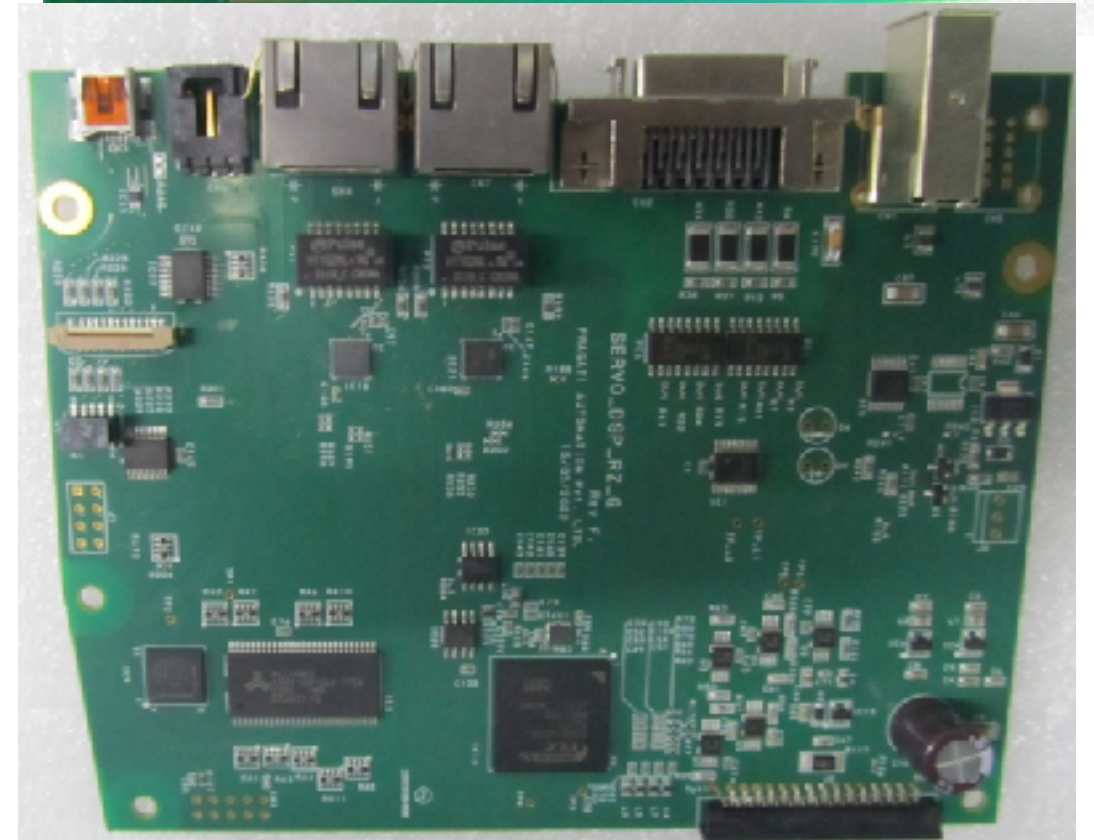
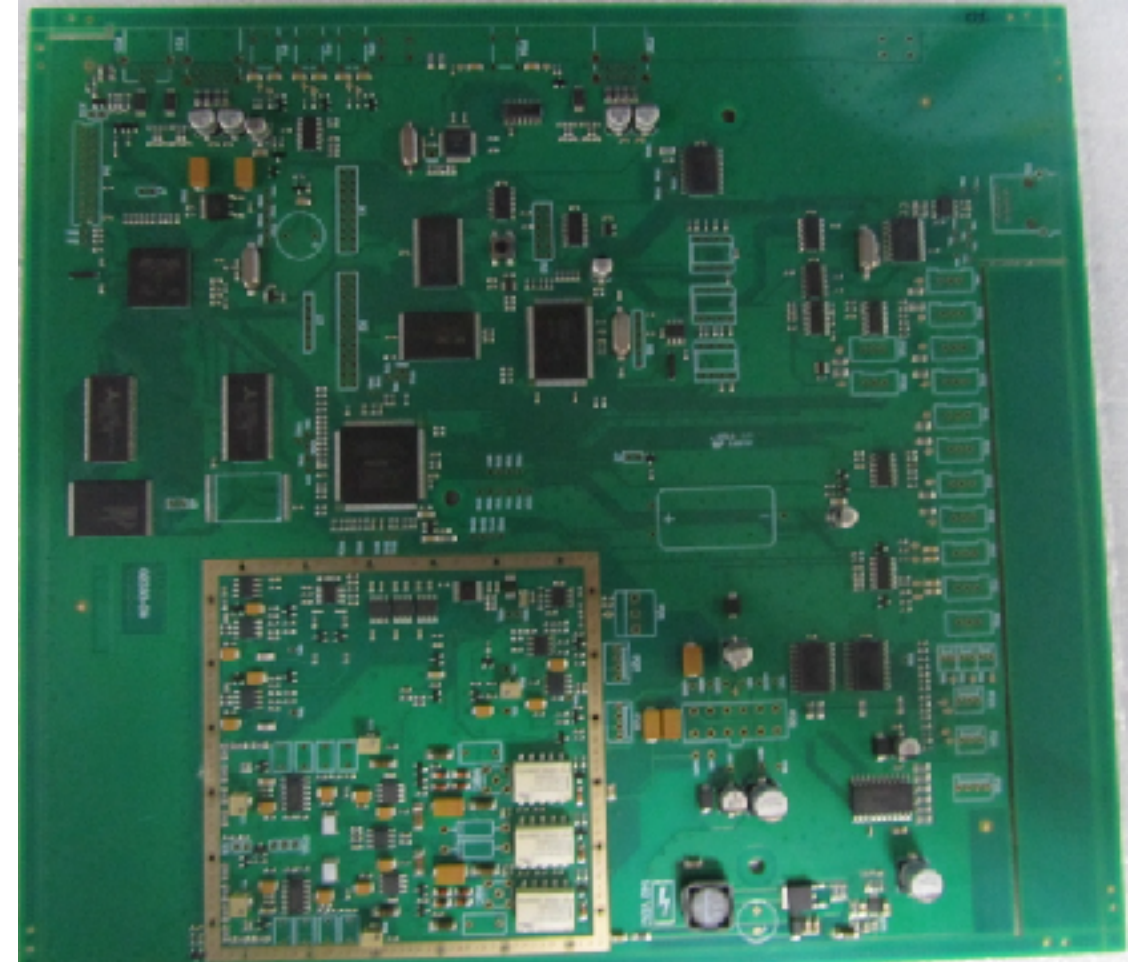
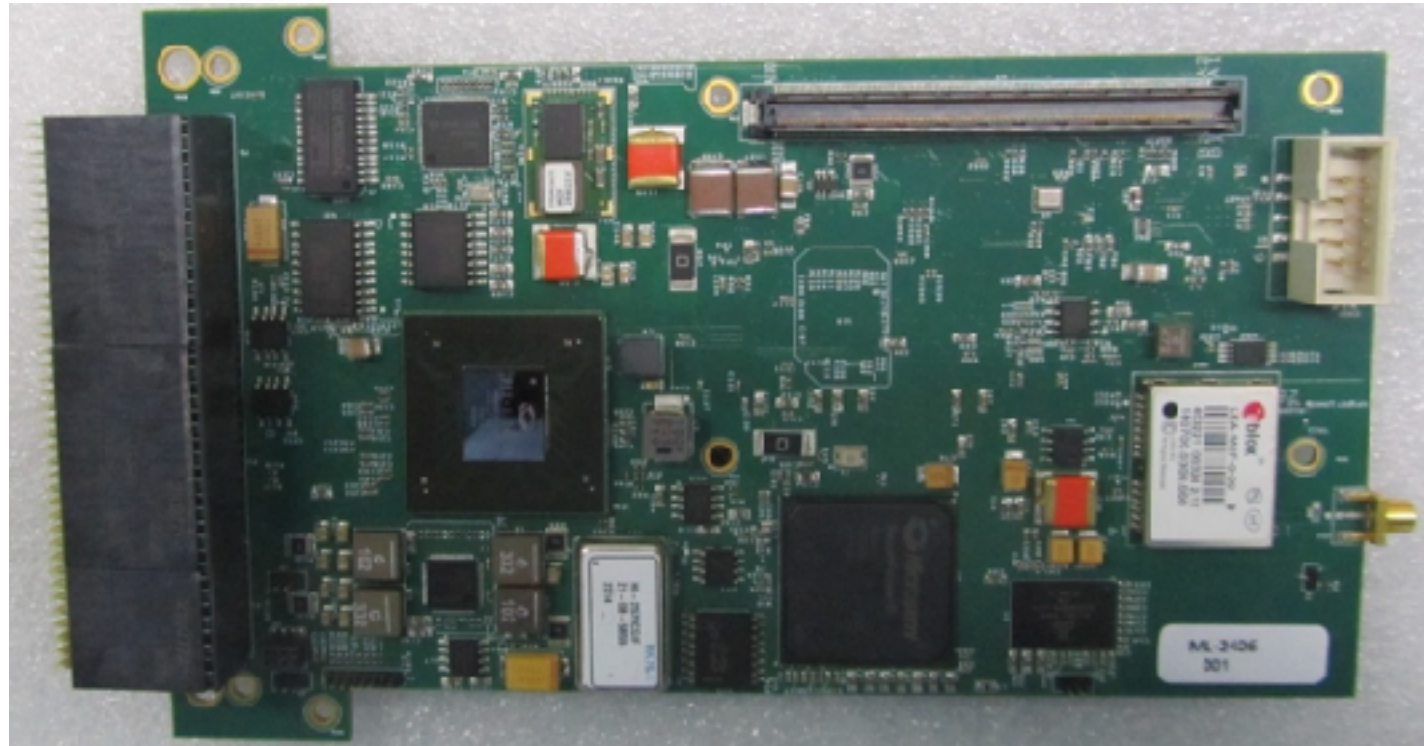




# Defence Capabilities



# MIL-GRADE PCB Assemblies Handled



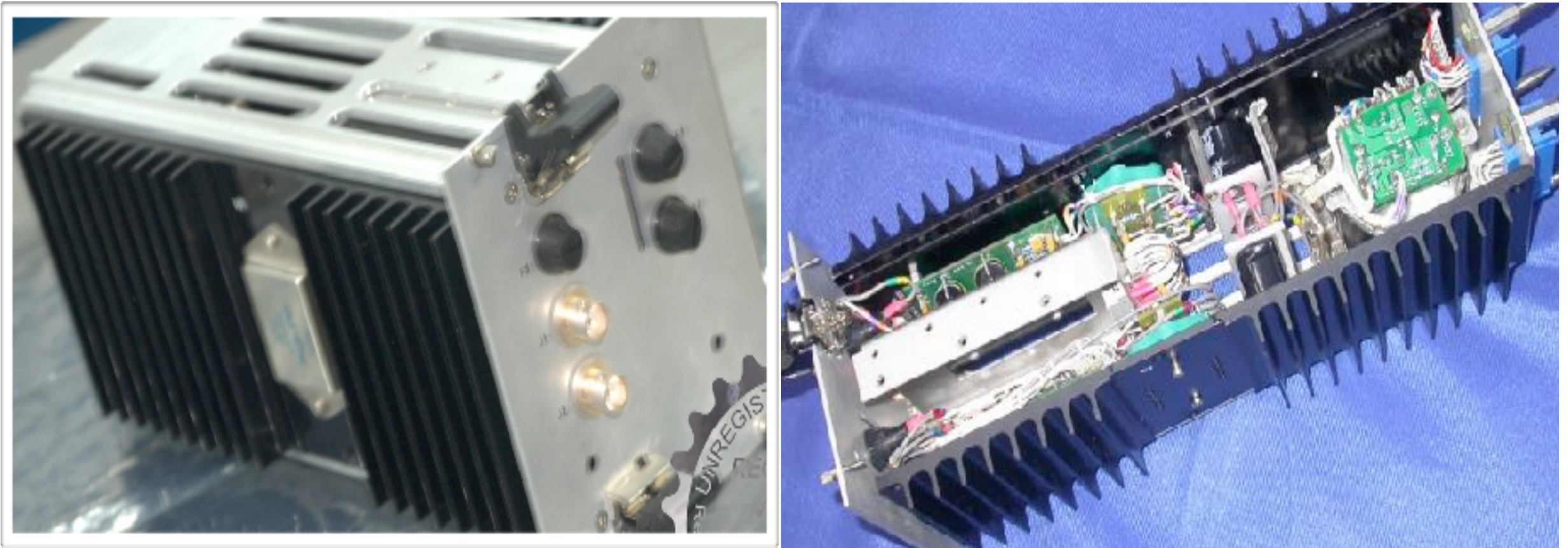


# Projects Delivered to Indian Navy

	Product Name	Year of Delivery	Qty
1	Power Distribution Panels	2014, 2017	10 Nos
2	Work Stations	2013, 2014	10 Nos
3	Maareech Dual Display Processor Cabinet	2011	4 Nos
4	Maareech Digital Data Recorder Cabinet	2011	4 Nos
5	Maareech Health Monitoring Cabinet	2011	4 Nos
6	Power Amplifier Cabinet	2011	4 Nos
7	Server Cabinet	2015	3 Nos
8	Power Distribution Simulator Cabinet	2018	2 Nos
9	Isolation Transformer Unit (ITU)	2017, 2018, 2020	3 Nos
10	DC-DC Converter Modules - 600W Each	2012-2018	250 Nos
11	Linear Power Amplifier	2011-2014	300 Nos
12	Power Amplifier 4KW	2012	15 Nos
13	Linear Tension PSU	2012	12 Nos
14	Master Control Panel (MCP)	2012	12 Nos
15	Junction Boxes (JB)	2012	15 Nos
16	Multiplayer PCB Assemblies	2010-2018	500 Types
17	Decoy Launcher Cabinet with SBC and Graphical LCD		

# Module Assemblies

## Scope – Procurement, PCB, Wiring and Testing



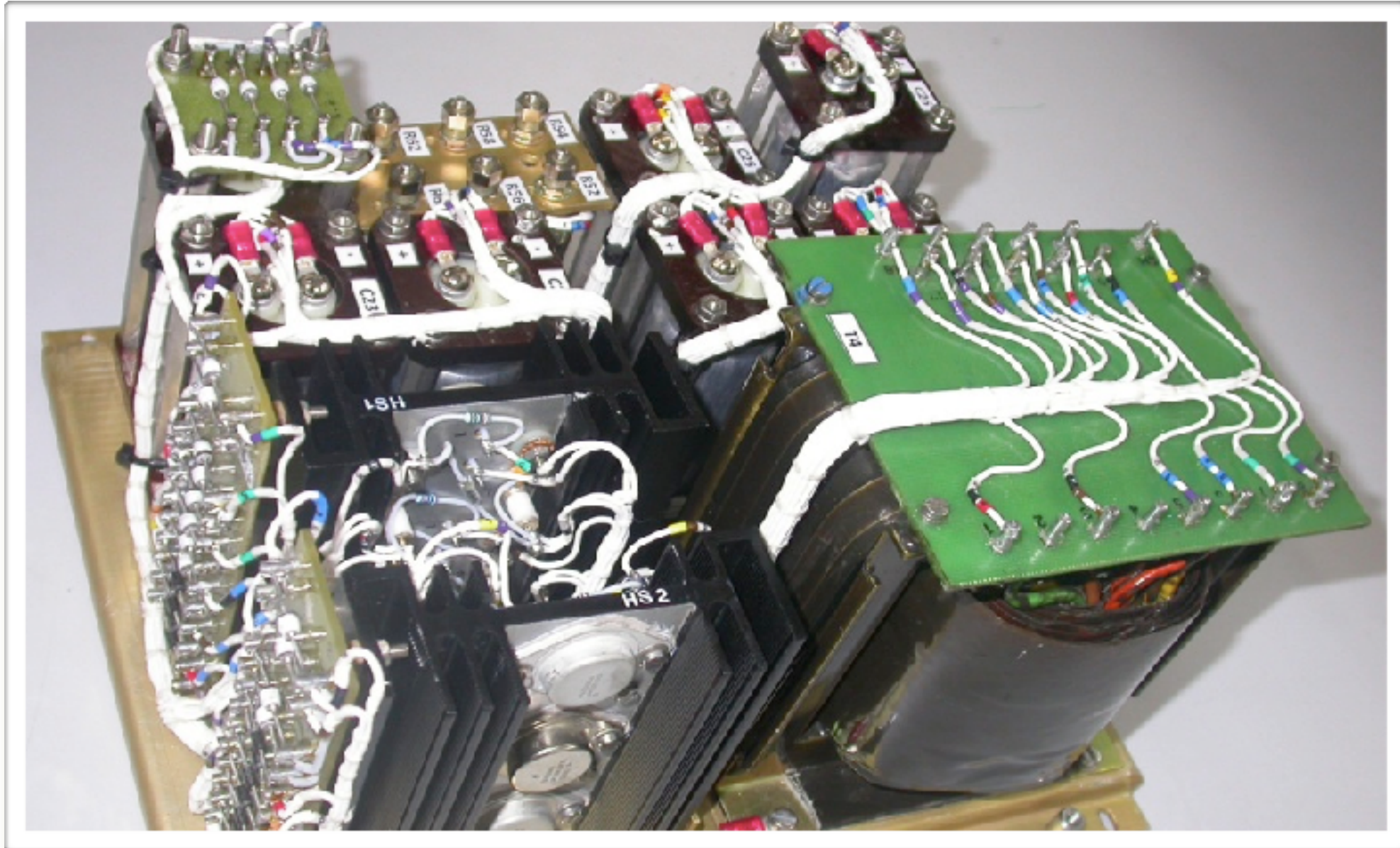
**Linear Power Amplifier for Sonar Application**

- 1KW Power Amplifier meets MIL-810D Standard
- Mechanical Extrusion Development
- Participated in ESS and ET



# Module Assemblies

## Scope – Procurement, Wiring

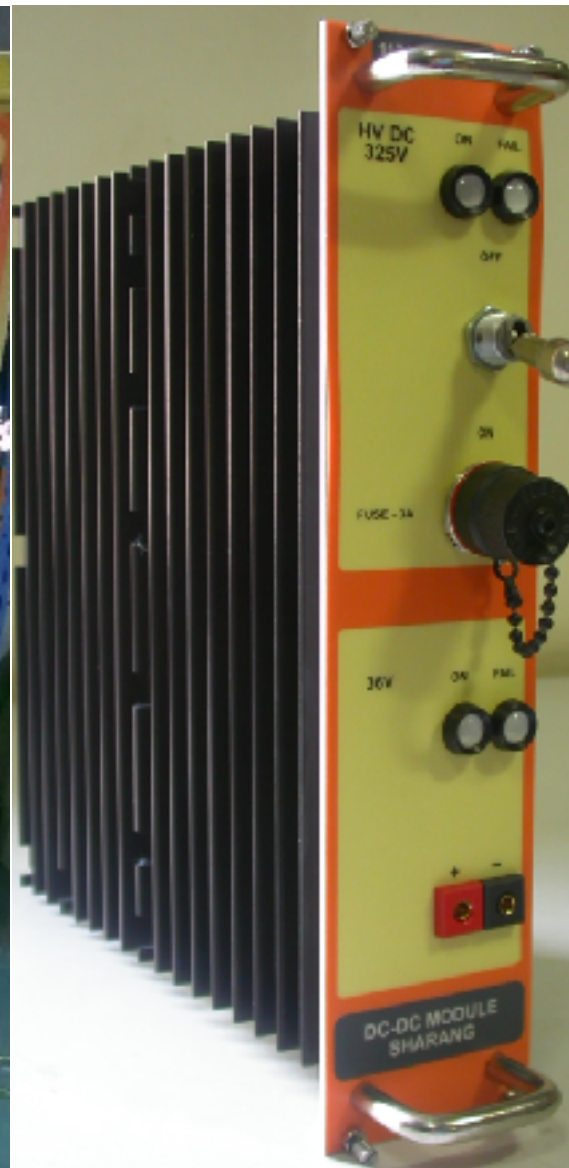


### Power Supply

- Sourcing of all the parts and Multi-Layer PCB Assembly
- Box Build
- Meets all the MIL Requirements



# Power Distribution Panel (PDP) For Submarine



- 15KW AC and DC Power Plant for Submarine
- N+1 Redundant Design
- CDR approval from Bharat Electronics and DRDO
- Mechanical Design – 3D and Finite Element Analysis
- Sourcing and Fabrication
- Power and Digital Electronics Design
- RS485 MODBUS based Health Monitoring

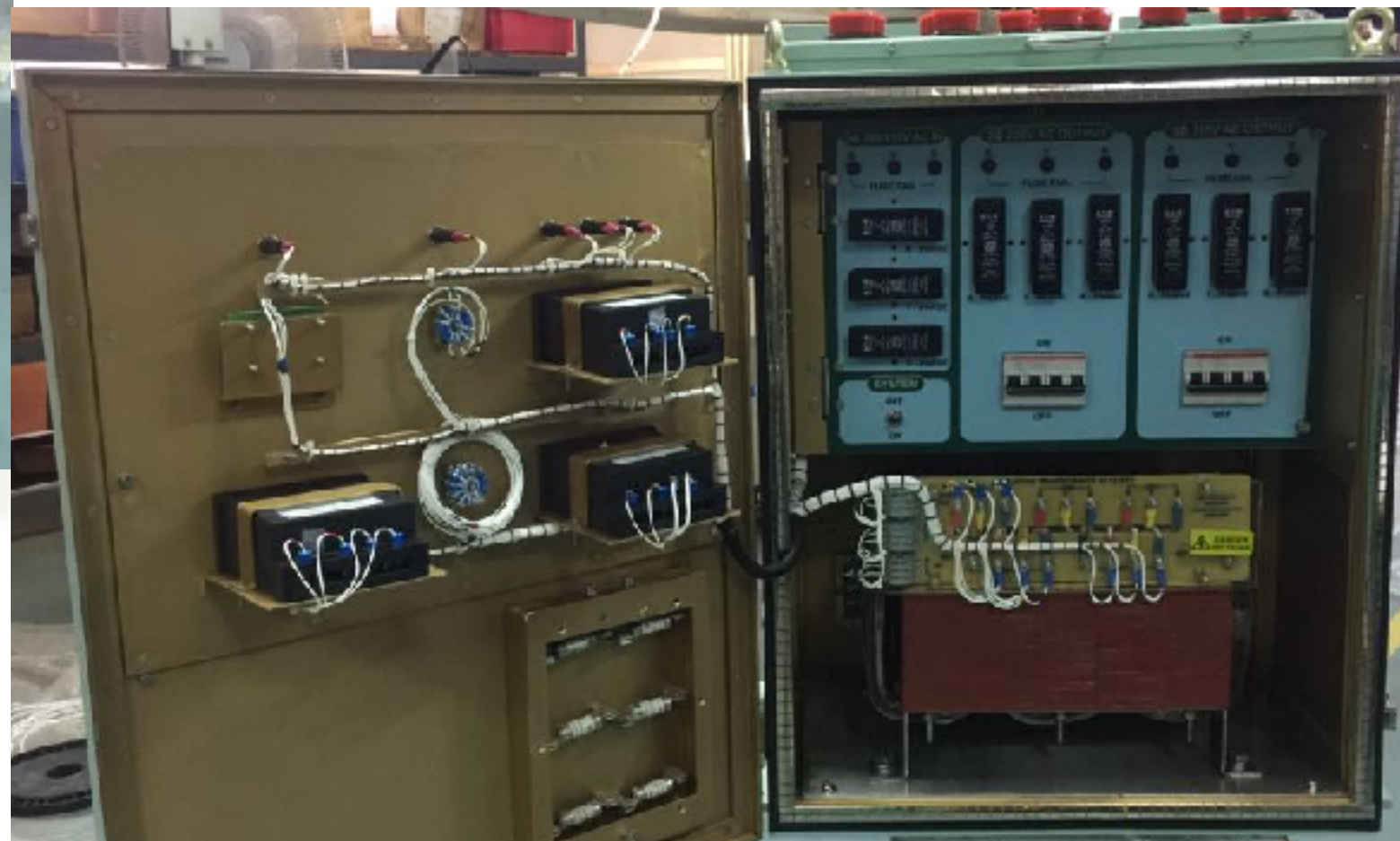




# Isolation Transformers / Power Conditioning Units



- 10KW AC Power
- 3-PH Input and Single Phase 110V and 220V Outputs
- Volt and Current Meters for Inputs and Outputs
- Safety Features
  - Phase Fail Sensing
  - Low/High Voltage Cut-off
  - Fuses for Overload Protection
- All Aluminium Construction
- Scope - Design and Fabrication and ESS, ET Testing Participation





# Maareech Workstation

- All Aluminium Construction
- Rugged LCD Display
- Water-Proof Design
- In-built SMPS
- 6 Rugged Single Board Computer Boards

## Maareech Distribution Box

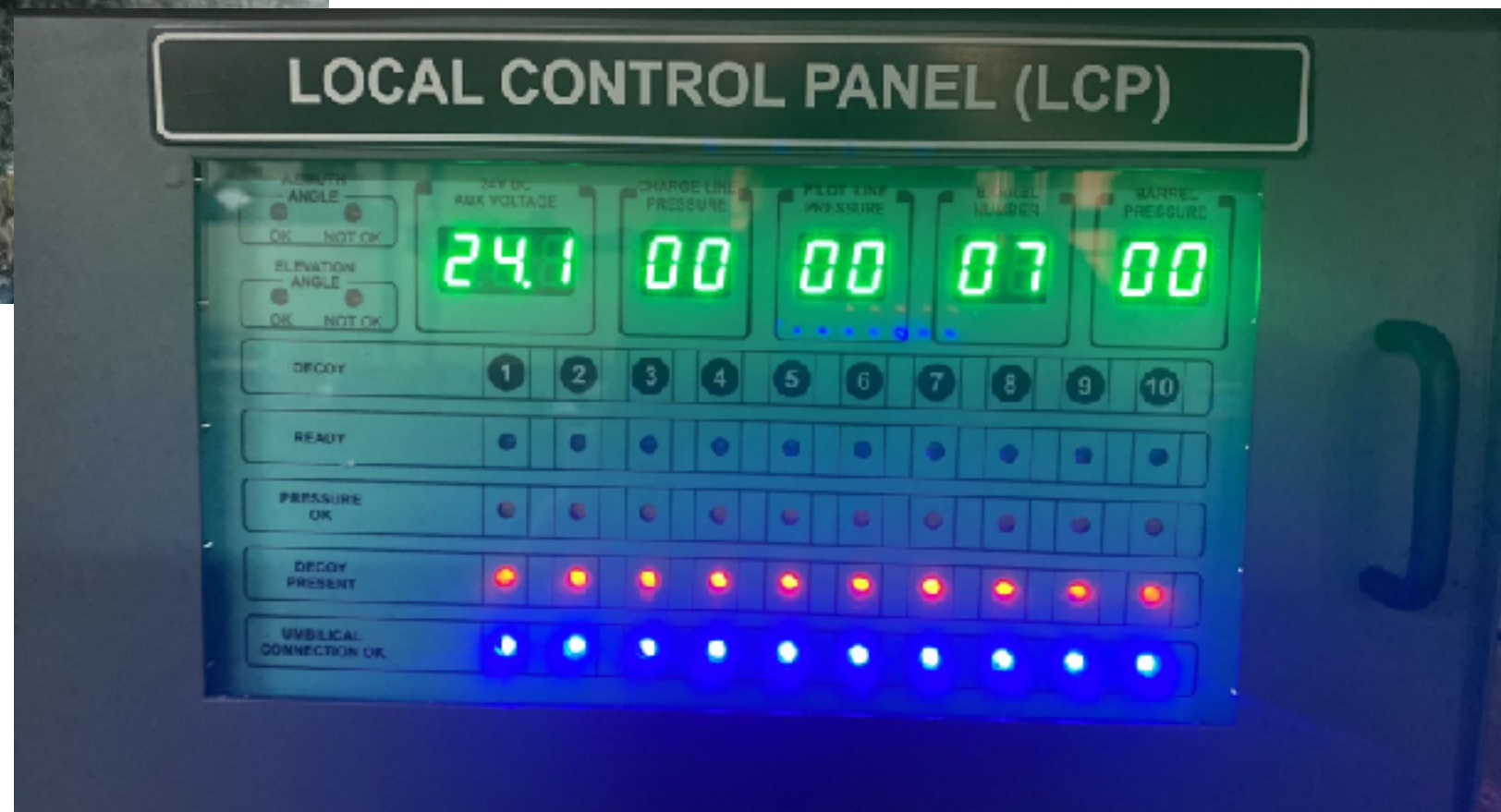




# DECOY LAUNCHER LOCAL CONTROL PANEL (LCP)



- Scope - Design, Procurement, Wiring and Testing
- Aluminium Enclosure
- 3 PH Input
- Rugged Construction
- Meets All the ESS Norms
- All Protections



# DECOY LAUNCHER POWER SUPPLY (DLPS)

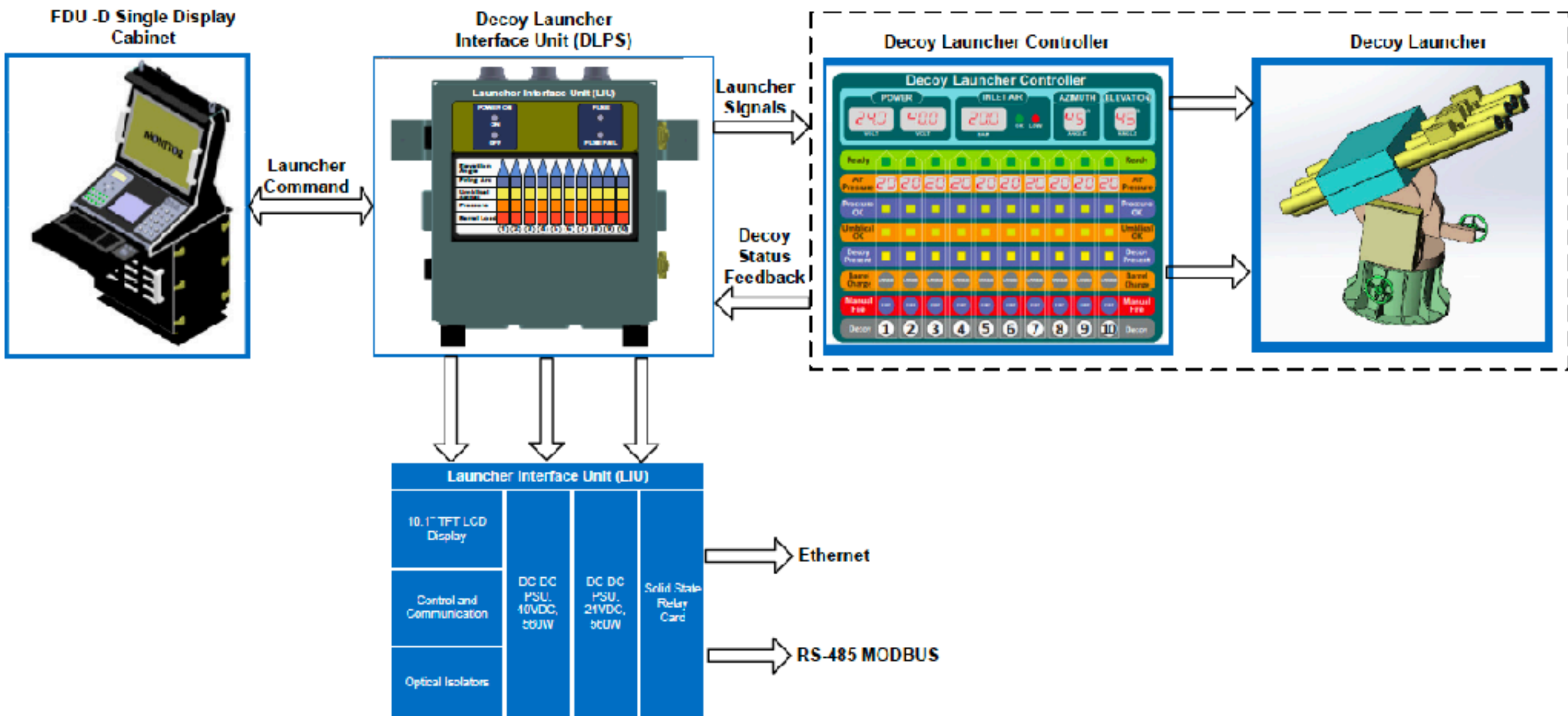


- Scope - Design, Procurement, Wiring and Testing
- Aluminium Enclosure
- 3 PH Input
- +/-60V Output
- Rugged Construction
- Meets All the ESS Norms
- All Protections



# Decoy Launcher

## Scope – Design, Procurement, Wiring and Testing





# Quality System & Certificates

## ISO14001:2015

**IRCLASS**  
SYSTEMS AND SOLUTIONS PRIVATE LIMITED

**CERTIFICATE OF APPROVAL**  
Issued by Indian Register Quality Systems  
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Environmental Management Systems of

Organisation: **MicroLOGIX Embedded Controls Pvt. Ltd.**

Address: **#473/D, 13<sup>th</sup> Cross,  
4<sup>th</sup> Phase, Peenya Industrial Area,  
Bangalore - 560 058**

has been assessed and found conforming to the following requirement

Standard: **ISO 14001:2015**

Scope: **Manufacturing of PCB Assemblies and  
Electromechanical Products for Automotive  
and Other Applications**

Certificate No.: **IRQS/1730358**

Original Certification Date : **17/04/2017**

Current Date of Granting : **17/04/2017**

Expiry Date : **16/04/2020**

   
Indian Register Quality Systems NARCB  
EM 005

  
**Shashi Nath Mishra**  
Head IRQS

This approval is subject to continuous satisfactory maintenance of the Environmental Management Systems of the organization to the above standard, which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. EM 005. Cancellation Overleaf CQA/IRQS/14001/EMS/Rev 00

Head Office: 52A, Adil Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.

## AS9100

### CERTIFICATE



This is to certify that

#### MicroLOGIX Embedded Controls Pvt. Ltd.

473D, 13th Cross,  
4th Phase, Peenya Industrial Area,  
Bangalore- 560 058  
Karnataka  
INDIA

has implemented and maintains a **Quality Management System**  
for its certification structure Single Site.

#### Scope:

Design and Development, Manufacture of PCBA, Mechanical Assembly and Wiring Harness for  
Aerospace & Defense Application.

Through an audit, performed in accordance with AS9104/1, rev. 2012-01, it was verified  
that the management system fulfills the requirements of the following standard:

#### AS9100:2016

Quality Management Systems - Requirements for Aviation, Space and Defense Organizations

Certificate registration no. 50252970 AS0016A

Date of certification 2019-04-05

Valid until 2022-04-04



#### DQS Inc.



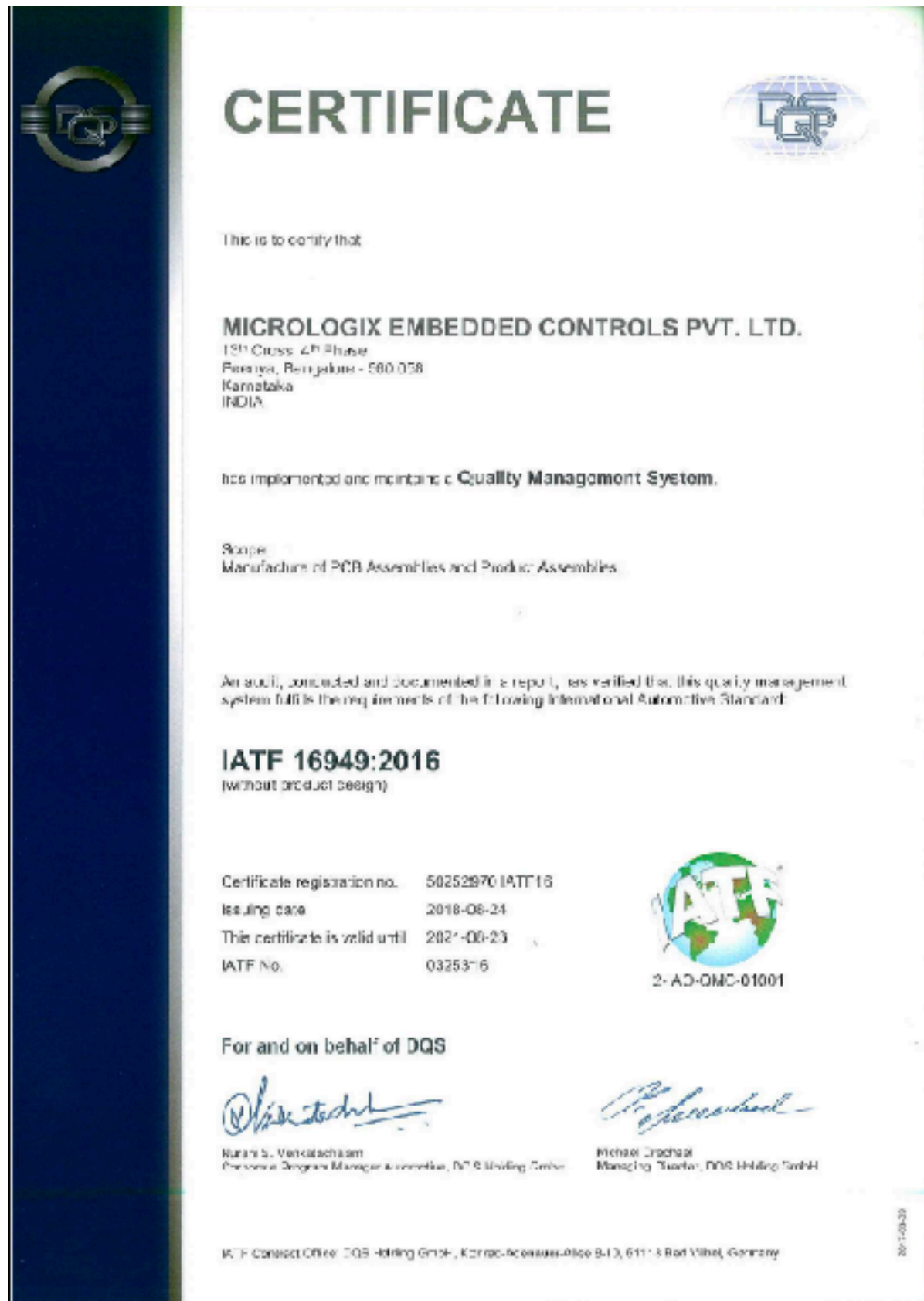
Brad McGuire  
Managing Director

Accredited Body: DQS Inc., 1500 McConnor Parkway, Suite 400, Schaumburg, IL 60173 USA  
Administrative Office: Deutsch Quality Systems (India) Pvt. Ltd., 5th Floor, Anjaneya Techno Park,  
147, HAL Airport Road, Kodihalli, Bangalore - 560 017 - India  
DQS Inc. is accredited by ANAB under the ICOP scheme and recognized by the Americas Aerospace  
Quality Group (AAQG).



# Quality System & Certificates

## Automotive - IATF 16949:2016



## General - ISO9001:2015





## Defence Customers



## Industrial Customers





# Contact Us

## MicroLOGIX

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## Thank You!