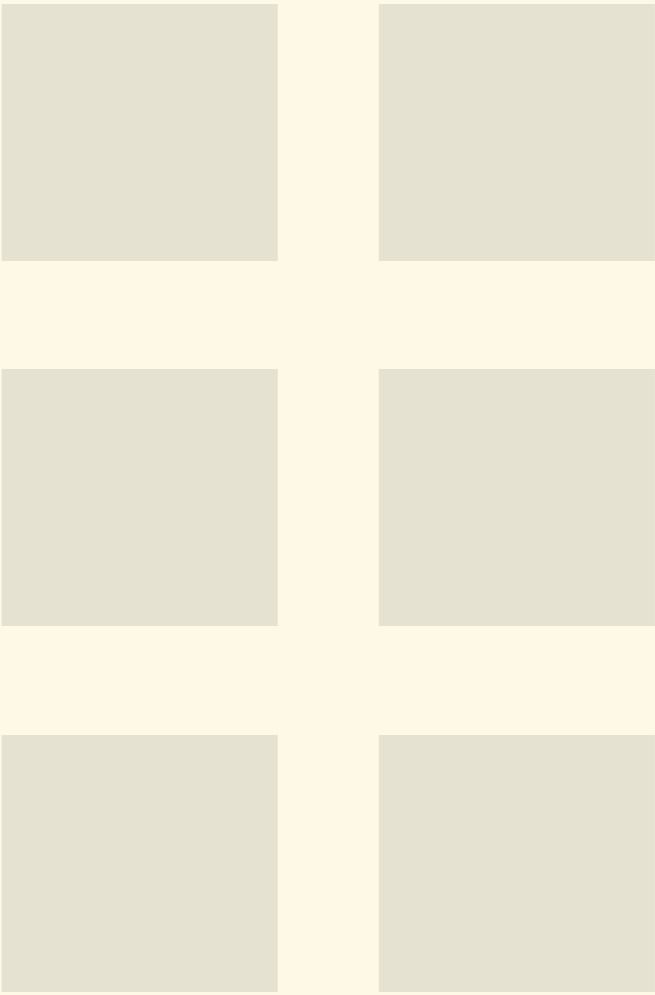


AEROSPACE COMMUNICATION & ELECTRONICS COMPANY



AS 9100C Certified Company

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Tel : +91 11 2335 5411
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Works:
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www.elcom-group.com
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INTRODUCTION

Elcom Group,
consisting of
Elcom Systems
and
Elcom Innovations,
was established
by a leading
principal
Investment Group
in India and other
emerging
markets.
Today, Elcom
is poised to be a
significant player
in Aerospace
Communications
& Electronics
Elcom promises
to deliver
best-in-class
products and
services, enhanced
by extensive
in-house research
and development
capabilities with
state-of-the-art
manufacturing
facilities.



VISION

To be a globally respected and trusted partner for innovative, technology based systems for diverse Civil and Defence applications.

MISSION

To develop world-class competency in Design, Development, Manufacturing and Deployment of diverse technology based systems for Civil and Defence applications through People, Partnerships, Innovation and Integrity.

VALUES

E
xcellence through continued learning.

L
eadership through creativity.

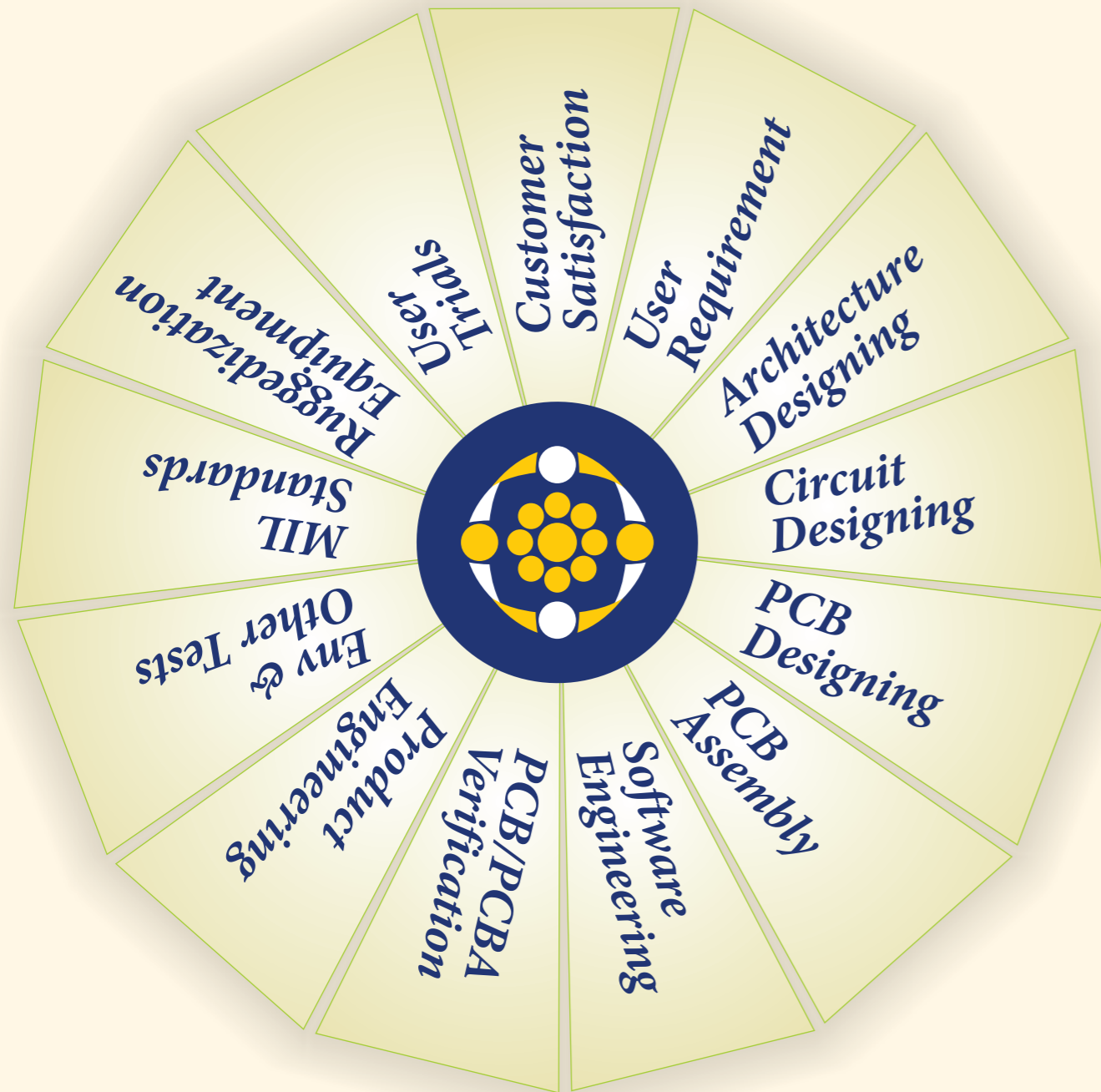
C
ustomer focus.

O
penness through integrity.

M
atchless team spirit.



EXTENSIVE CAPABILITIES AND RECOGNITIONS



ELCOM's reputation is supported by a rich portfolio of significant assignments. Apart from developing tactical communication products in association with the Ministry of Defence, ELCOM has also worked with various Global Defence companies. Erstwhile PUNWIRE (as accredited supplier of communications equipment such as HF, VHF Transceivers, Microwave Radios, Trunking Systems, V-SAT Products, Tactical Systems and Consumer Products), today, ELCOM is a trusted manufacturer of military grade communication equipment. ELCOM's capability to work with technologies related to Aerospace Communication and Electronics gives it a strong international standing.

Certification

- As 9100C/ISO 9001:2008
- Industrial License: Govt. of India
- R&D Recognition: Ministry of Science and Technology

Patent & Approvals

- Ruggedized field phone
- IP@CORE switching platform interface approval.

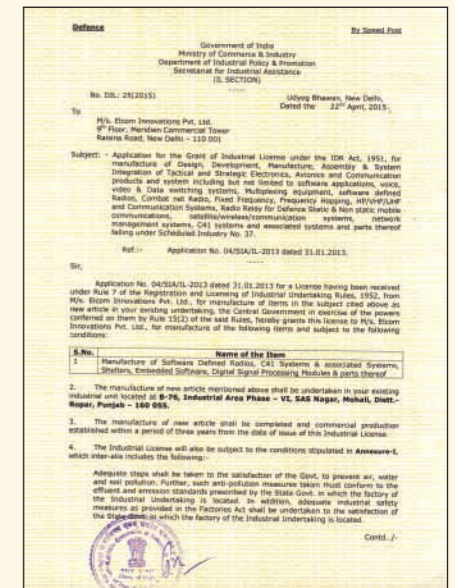
Registration

- DRDL, NSIC, ABWs, TM(LS)
- MoDs of Sri Lanka, Singapore & Myanmar
- Manufacturing MoUs with foreign OEMs: Israel, Norway and Russia

AS9100 C



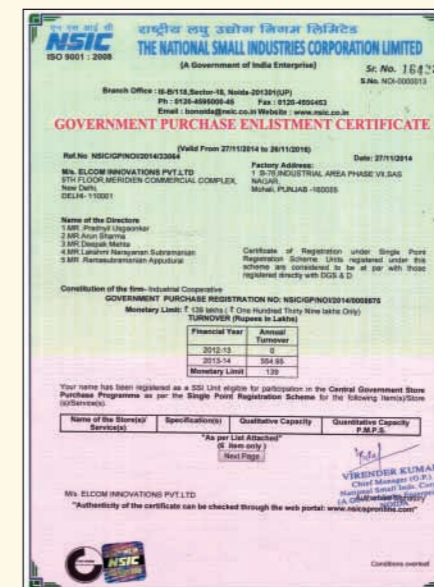
Industrial License



R&D Recognition



NSIC



Design Patent





GLOBAL AMBITIONS

India as a global Aerospace and Defence production hub

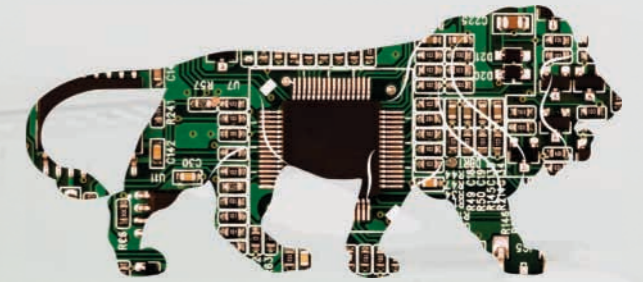
India has evolved as a lucrative Aerospace and Defence (A&D) market globally, a fact proven by mega acquisition programmes coupled with the Government's proactive stance through its offset policy, increased foreign suppliers' presence and deal closures witnessed over the past few years. This is further manifested by the large number of tie-ups forged by various Indian manufacturing/ technology companies with global A&D companies helping them

to make inroads into the A&D sector. Thanks to the Indian Government's offset policy and keen interest in modernisation of the industry with a substantial budget, India currently ranks No. 11 among the top military spenders and one of the leading importers worldwide. The Government of India is likely to spend approximately USD 100 billion on capital acquisitions in the coming five to seven years. As the Indian Government now compels domestic

value addition and allows private participation in the A&D sector with foreign ownership up to 26 percent, numerous domestic and foreign companies are focusing their attention on the potential opportunities for investment that India's growing A&D requirements would warrant. ELCOM is committed to support this initiative.

MAKE IN ELCOM

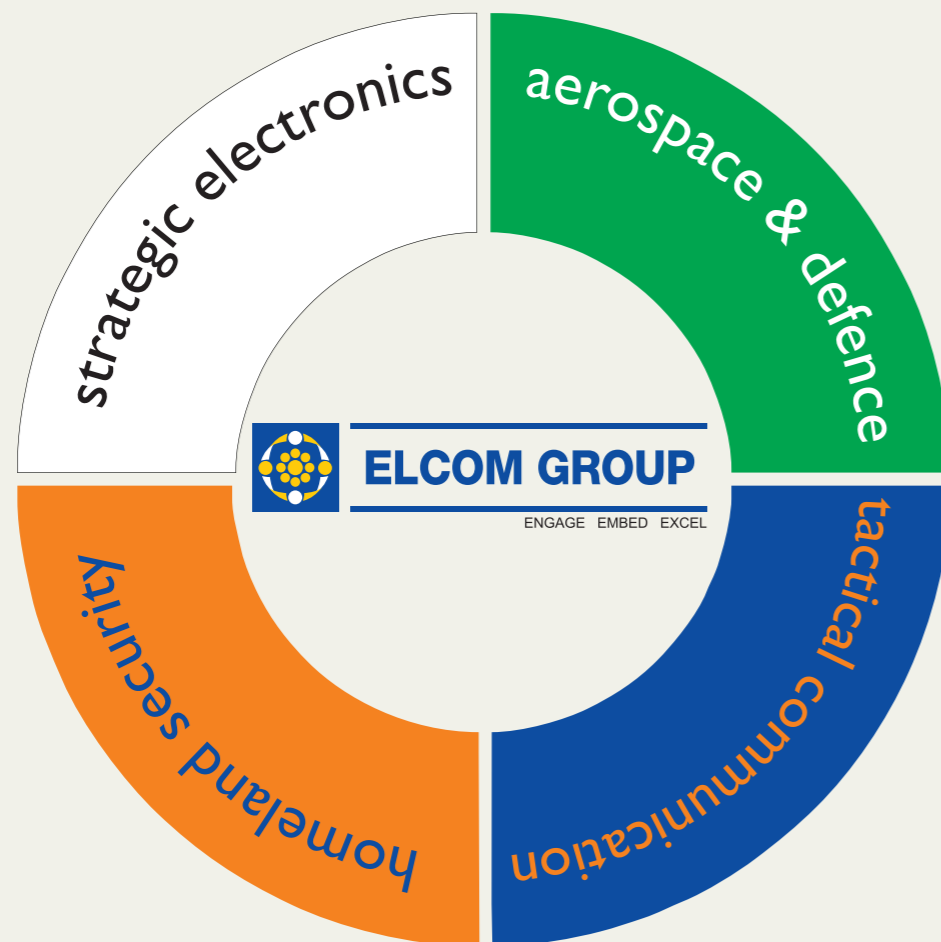
- State-of-the-art Strategic Electronics manufacturing unit comprising of automated SMT lines, environmental test facilities, in-house mechanical and cable harness facility
- R&D recognised by DSIR, Ministry of Science and Technology with 20 years of dedicated experience in electronics hardware and software with a proven track record in Defence related programmes both in India and globally
- The core strength of R&D lies in embedded software, Network Management Systems for 'Command and Control' applications, Submarine and Tactical Field Communication, Equipment for Voice/Data/Video and IP Communication
- Well established QA processes as per AS 9100C standards and material handling as per IPC 610F, Class-II standard
- Industrial License for Defence manufacturing allows ELCOM to be an eligible Indian Offset Partner; being a MSME it qualifies for multiplier of 1.5
- Excellent understanding of global and domestic requirements and processes



MAKE IN INDIA

INDIGENOUSLY DESIGNED, DEVELOPED AND MANUFACTURED (IDDM), EQUIPMENT

MADE IN ELCOM



HARDWARE:

- Multilayer PCBAs
- Racks / Cabinets / Chassis
- Cable Harness
- Ruggedisation of COTS Equipment
- Transmission Systems
- Power Supplies
- Automated Test Equipment
- Jigs, Fixtures and Tooling
- EMI/EMC Compliant Shelters

R&D:

- Product Development and Upgrade
- R&D Support

SUB ASSEMBLIES:

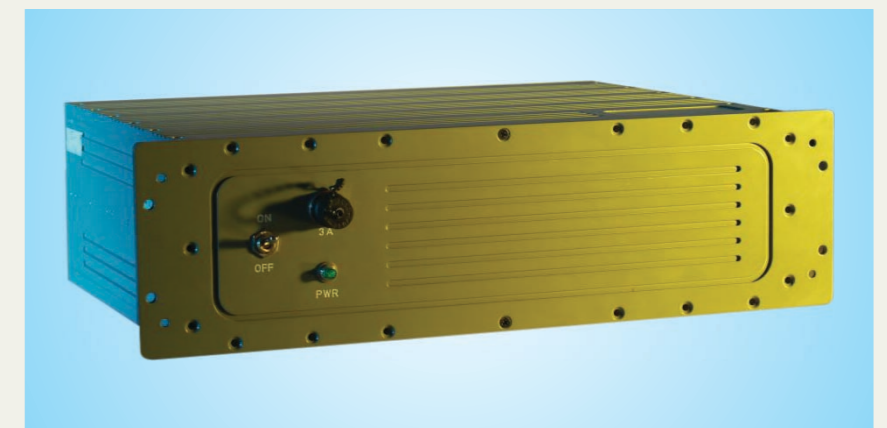
- Communication Systems
- Multi-function Displays

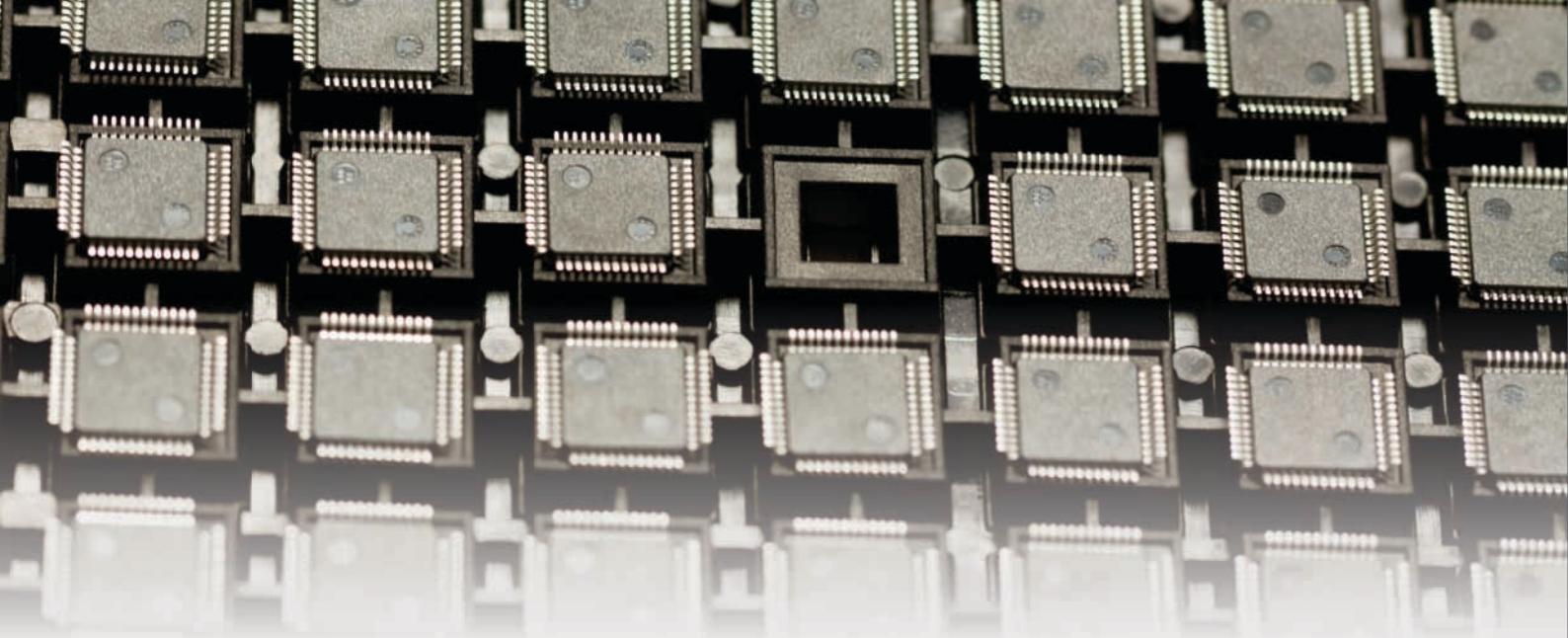
SOFTWARE:

- Embedded Software Technologies
- Design & Execution of NMS for Command and Control Applications
- Integration of Equipment within state-of-the-art Shelters
- Obsolescence Management
- Testing Support
- Generation of Test Programmes
- Engineering Design Support
- Simulation

SERVICES:

- Training
- Technical Documentation
- After-Sales/Warranty Support
- QA Support
- JS 5555 Testing
- Support and Logistics Centre





MANUFACTURING CAPABILITIES

CURRENT

1. MANUFACTURING

- a. Well-defined Manufacturing Processes - AS 9100C
- b. In-House Capabilities in:
 - i. Industrial and Military Design and Development
 - ii. Ruggedisation, Prototyping and Bulk Production
 - iii. Testing and Certification
 - iv. Environmental and Ruggedisation Testing Facilities as per JS 5555, MIL STD 810F
 - v. Environmental Chambers
- c. 20 Years of Experience
- d. Sensitive to Customer Timelines, Quality Requirements and Cost Targets

2. ASSEMBLY OPERATION

- a. PCB Assembly
- b. Cabling, Routing and Wiring
- c. Building complete Assemblies and Systems
- d. Quality Processes as per Standard IPC 610F, Class-II

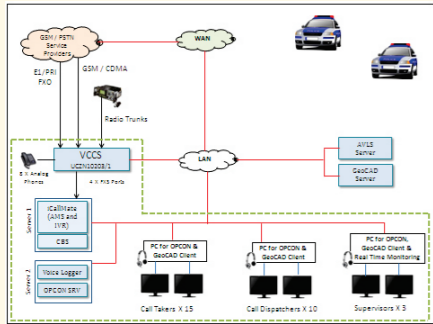
3. SOURCING OF COMPONENTS

- a. Electrical and Electronic Parts (PCBs, Chips, Discrete Electronic Components, Switches, Connectors, Cables, etc.)
- b. Mechanics (Castings, Forgings, Sheet Metallurgy, etc.)

SUCCESS STORIES

ELCOM believes in leading by example. Therefore, each and every project that it has undertaken has been delivered at par with military standards and stands in support of the promise it makes.





Emergency Response System

CHALLENGES

- DIAL 100 Solution
- Integration of our solution with the GPS tracking data
- Server-Gateway architecture integrated with data base of Police
- Command and Control Centres set up based on Computer Aided Dispatch System (CADS)



Ruggedised field exchange for the Indian Army

CHALLENGES

- State-of-the-art Ruggedised switch
- JS 55555 compliance
- EMI/EMC compliance
- Selectable battery operating voltage of 48/24/12VDC
- Para-dropping test
- E1 mapping
- MIL STD 461 E
- Comprehensive field trials as per Indian Army standards



Communication system for Charlie+ Class Submarine for the Indian Navy

CHALLENGES

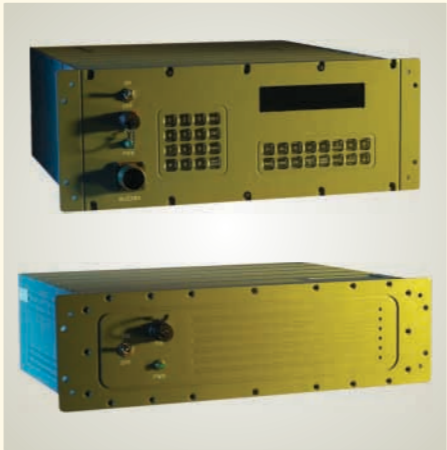
To design a Ruggedised switching system to meet stringent environmental and EMI/EMC conditions as stipulated for Submarines by the Indian Navy. Has the capability to understand LF/VLF communication requirements



Advanced interoperability communication system for the Indian Air Force

CHALLENGES

- To provide highly advanced interoperability solution, capable of cross-connecting any or all of the interfaced radios to PSTN, PABX, SATCOM terminals, VoIP network and cellular circuits
- Should be able to work as an unmanned gateway
- EMI/EMC as per JS 55555



VoIP Communication System (VCSS) for SAM project

CHALLENGES

- VoIP Switching System at command post
- Development of Touch Input Device at command post
- IP based voice logging
- Built-in, Ruggedised PA system at command and launcher sites
- Ruggedisation of all units



Ruggedised tactical communication as per NATO standards

CHALLENGES

- Compliance to Water Immersion test up to 1 metre
- User Interfaces as per NATO standards
- Ruggedisation as per MIL STD 810F STD
- EMI/EMC compliance as per MIL STD 461 D/E
- Documentation as per European MIL standards



Ruggedized Tactical Phones for Army

CHALLENGES

- Bulk production 15000 phones
- Handles Magneto / Analog and Radio connectivity
- Ruggedization as per JS 55555 MIL STD
- Approved by DGQA / CQAL

YOUR PARTNERS IN PROJECTS

Here is a set of case studies undertaken by our R&D team.

Each case is unique and distinct in its own way.

These were extremely challenging in terms of requirements and user expectations.



IP based Interoperability Communication System for NSG

CHALLENGES

- IP based ruggedized Inter-op solution based on Server-Gateway architecture
- Handles Inter-Op on a remote gateway module through single point administration based on touch screen controls
- Ruggedization as per JSS 55555 MIL STD

SELECT CLIENTELE

DOMESTIC



Indian Army



Indian Navy



Indian Air Force



Indian Railways



Indian Police Forces



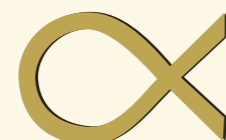
National Security Guard



Delhi Presions



Bharat Electronics



ALPHA Design Technologies Ltd.



Tata Advanced Systems



Larsen and Toubro

OVERSEAS



KONGSBERG
Defence & Aerospace, Norway



Royal Thai Army



Elbit Systems, Israel



Israeli Aerospace Industries / ELTA



Deltacom International, Tunisia



CDS Media LDA, Angola



G R Technologies, Spain



PRIMA

CORPORATE SOCIAL RESPONSIBILITY

ELCOM believes that change can only be effected through multi-stakeholder collaboration both within India and internationally. We are deeply committed to partnership and collaborative approaches. ELCOM acknowledges a deep and fundamental debt of gratitude to the nation and society.

As a part of its social outreach programme, carrying on with the legacy of our promoters and their philanthropy foundations, we have commenced various community development initiatives in India.

ELCOM strives to develop and promote institutions and initiatives that make a substantial impact on education, poverty, deprivation and degradation of human and natural environment through an approach that is long term, strategic and leveraged.

