

Theme of 12th IRSI



12th INTERNATIONAL RADAR SYMPOSIUM INDIA - 2019 (IRSI-19)

10-14 December, 2019

NIMHANS Convention Centre, Bangalore INDIA

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BHARAT ELECTRONICS LIMITED (BEL)

Guided by a farsighted vision to make the country self-reliant in Defence Electronics, Bharat Electronics Limited was setup in Bangalore in 1954 by the Government of India under the Ministry of Defence. From a humble beginning, BEL is now a Navarathna PSU and India's foremost Defence Electronics company.

BEL is a multi-product, multi-technology, multi-unit conglomerate offering over 350 products in the areas of Radars, Missile Systems, Military Communications, Naval Systems, Electronic Warfare and Avionics, C4I Systems, Electro Optics, Tank Electronics & Gun/Weapon System Upgrades, Solar Photovoltaic Systems, Electronic Components and Civilian products.

While Defence contributes to nearly 82% of its revenue, BEL has developed civilian products like solar traffic signals and Electronic Voting Machines. BEL's customers include the Army, Navy, Air Force, Paramilitary, Coast Guard, Doordarshan, All India Radio, Department of Telecommunications and consumers of professional electronic components.

BEL has nine units spread across the country. It has a three-layered R&D setup comprising Development and Engineering (D&E) Divisions at all units, central D&E supporting D&E divisions and Central Research Labs (CRLs) at Bangalore and Delhi for carrying out futuristic, cutting-edge research. BEL has extensive infrastructure – its manufacturing network is spread over all its 9 units.



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DEFENCE RESEARCH & DEVELOPMENT ORGANISATION (DRDO)

Defence Research & Development Organisation (DRDO) works under Department of Defence Research and Development of Ministry of Defence. DRDO is dedicatedly working towards enhancing self-reliance in Defence Systems and undertakes design & development leading to production of world class weapon systems and equipment in accordance with the expressed needs and the qualitative requirements laid down by the three services.

DRDO is working in various areas of military technology which include aeronautics, armaments, combat vehicles, electronics, instrumentation engineering systems, missiles, materials, naval systems, advanced computing, simulation and life sciences. DRDO while striving to meet the Cutting edge weapons technology requirements provides ample spinoff benefits to the society at large thereby contributing to the nation building.

Vision : Make India prosperous by establishing world-class science and technology base and provide our Defence Services decisive edge by equipping them with internationally competitive systems and solutions.

Mission

- Design, develop and lead to production state-of-the-art sensors, weapon systems, platforms and allied equipment for our Defence Services.
- Provide technological solutions to the Defence Services to optimise combat effectiveness and to promote well- being of the troops.
- Develop infrastructure and committed quality manpower and build strong technology base.



WOLFSPEED | A CREE COMPANY

Wolfspeed, A Cree Company, stands alone as the premier provider of the most field-tested SiC and GaN Power and RF solutions in the world.

As the leader in wide bandgap semiconductor technology, we partner with the world's designers to build a new future of faster, smaller, lighter and more powerful electronic systems.

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Astra Microwave Products Ltd.

Visit us at Stall No.: **A2b & A2c**

ASTRA MICROWAVE PRODUCTS LTD.

M/s. Astra Microwave Products Limited (AMPL) was incorporated as a private limited Company in 1991 and was subsequently converted to a public limited company in 1995. Today the company has grown to about 1200 employees with an average annual turnover > Rs. 400 Cr. / 65 Million USD in the last 4 years.

AMPL is into Design, Development and Manufacture of RF / Microwave sub-systems and components.

Applications: Defence, Space, Hydro/Meteorology

Frequency range: 30 MHz to 40 GHz

AMPL is ISO 9001:2015 and AS 9100: Revision D certified



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MERLINHAWK AEROSPACE

Merlinhawk has built its reputation over three decades as a trusted partner for OEMs, user agencies and operators in the aviation and defence sectors for customised solutions. We have over three decades of experience and backed by all requisite accreditations as a Military and Civil Design Organisation.

For over three decades Merlinhawk has partnered both aircraft manufacturers and user organizations in many aircraft operational and vibration management programmes. Located in a 10,000 sq.ft space and equipped with test, measuring and calibration facilities Merlinhawk is a DSIR (Department of Science and Technology, Govt. of India) recognized R & D Lab and a CEMILAC (Centre for Military Airworthiness and Certification, Govt. of India) and DGCA (Directorate General of Civil Aviation) certified Design Organisation.

Merlinhawk's core operational areas

- Analog and Digital electronics design
- Digital Signal Processing based system and modules
- Embedded systems with RTOS
- Software design/ development and testing



Visit us at Stall No.: **A3b**



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PASQUALI MICROWAVE SYSTEMS

Pasquali Microwave System is a long-established Italian microwave product manufacturer located in Florence for microwave products and waveguide assemblies for defence and space applications. Since 1958 (more than 60 years ago), Pasquali Microwave Systems has developed a wide expertise and deep know-how in combining precision mechanics with microwave concepts, for supplying of custom products (100 MHz ÷ 100 GHz), ranging from single prototypes to full stocks.

Pasquali main products include: Waveguide Paths (Rigid and Semi/Flexible), Cryogenic Loads, Millimetre Components, Monopulse Comparators, Solid State TR-Limiters, Rotary Joints, Multichannel Combiners, Ferrite Devices

Pasquali Microwave Systems offers specialized activities of outstanding technical value, based on:

- **R&D** – Cutting-edge EM/Mechanical simulation tools and CAD/CAM systems.
- **QA and Tests** – **RF and Mechanical tests** - UNI EN ISO 9001 and UNI EN 9100 certified.
- **Plating and Finishing** – Galvanic Treatments and Passivating (X-Ray measurements)

Production Capabilities:

CNC Workshop, Welding, Surface Treatments, Electroforming



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DIAMOND ANTENNA AND MICROWAVE CORPORATION

Diamond Antenna Profile: For over 60 years, Diamond Antenna and Microwave has been a global supplier, designer and manufacturer of RF rotary joints and rotating subsystems. It is the leader in maintenance, overhaul, repair, upgrades and new installation of integrated RF rotating subsystems for ATC and military radar. The company provides dependable and affordable service, without sacrificing the quality needed to ensure reliable performance.

ATC Radar System: ATC Radar Systems which use RF rotary joints include Air Route Surveillance Radar (ARSR), Airport Surveillance Radar (ASR), Secondary Surveillance Radar (SSR), Airport Surface Detection Equipment (ASDE) and Terminal Doppler Weather Radar (TDWR).

Maintenance, overhaul & repair: Replacing or refurbishing RF rotary joint subsystems for aging radars can be a challenge. Often the original OEM may no longer support the older systems. In addition, keeping the RF rotating subsystem operational at an affordable price has become increasingly important. A qualified and reliable resource for proper maintenance is crucial in this market. Diamond Antenna and Microwave, a global supplier of RF rotary joints and rotating subsystems, has responded to these needs by offering affordable worldwide refurbishment, form fit function replacements and upgrades to any rotary joint regardless of the original model and manufacturer.

Diamond Roltran Roll Ring: This provides ample shock tolerance with low torque, low resistance, and low noise 8 Upgraded RF rotary joint with fibre optic for increased data transfer operating life without field maintenance and allows airports to avoid unscheduled interruptions and downtime for maintenance before the entire rotary joint assembly is removed for scheduled factory service.



MVG – Orbit/FR

MVG offers a full range of innovative measurement solutions for antenna, RCS, and radome testing, EMC/EMI testing, and wireless device certification.

Our product portfolio includes, full turn-key test systems, multi-probe arrays, high precision PNF scanners, anechoic chambers, antennas, software, positioning equipment, and RF absorbers. We also offer measurement services, integrated project management and customer care from over 20 offices worldwide.

MVG brings together more than 30 years' experience in microwave testing technology from 4 industry leaders: SATIMO, ORBIT/FR, AEMI and Rainford EMC Systems.

We are dedicated to supporting the Aerospace and Defense, Satellite, Telecom, and Automotive industries and well as academic R&D.

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Visit us at Stall No.: **B3**

NI SYSTEMS (INDIA) PRIVATE LIMITED

For more than 40 years, NI has developed high-performance automated test and automated measurement systems to help you solve your engineering challenges now and into the future. Our open, software-defined platform uses modular hardware and an expansive ecosystem to help you turn powerful possibilities into real solutions. Test is a critical business function that ensures the quality and reliability of your mission-critical assets. For decades, NI has served as a trusted advisor that can optimize your test strategies to meet increasingly demanding technical and business requirements.

As threats evolve, radar, electronic warfare, RF spectrum monitoring, and SIGINT systems must have higher performance, wider bandwidths, and faster response speeds while adapting to emerging needs and operating for the long term. The development tools used to design, validate, and test these systems must keep pace. NI delivers solutions for rapid prototyping, rugged deployment, flexible validation, and functional test of C4ISR and radar systems.

Radar systems are experiencing considerable technology disruption because of the rapidly changing electronic battlefield. Active electronically scanned arrays, ultra-wideband technology, and cognitive radar systems present new design and test challenges. Visit us at **booth B3** at IRSI 2019 to explore NI's software defined FPGA based approach to Radar Design and Test.



Visit us at Stall No.: **B4**

MICROCHIP TECHNOLOGY (HONG KONG) LTD.

Microchip Technology Inc. is a leading provider of smart, connected and secure embedded control solutions. Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 125,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. Microchip serves over 125,000 customers in more than 65 countries who are designing high-volume embedded control applications in the consumer, automotive, industrial, communications and aerospace and defense industries.

Product Summary

Microchip has an extensive product portfolio including:

- Microcontrollers and Microprocessors
- FPGAs
- Analog
- Interface and Connectivity
- Power Management
- Memory
- Clock and Timing
- Embedded Controllers and Super I/O
- High-Reliability Discrete
- Security ICs
- Touch and Gesture
- Enterprise Storage
- Switches and Controllers
- High-Speed Networking and Video
- Wireless Connectivity



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MATLAB & SIMULINK

MathWorks is the leading developer of mathematical computing software. MATLAB, the language of technical computing, is a programming environment for algorithm development, data analysis, visualization, and numeric computation.

Simulink is a graphical environment for simulation and Model-Based Design for multidomain mixed-signal and embedded systems.

Founded in 1984, MathWorks employs more than 3500 people in 15 countries, with headquarters in Natick, Massachusetts, USA.

MathWorks India was established in November 2008 in Bangalore, and is responsible for selling and supporting the [MATLAB](#)® and [Simulink](#)® product families of the company MathWorks Inc throughout the country.

MathWorks India also has offices in New Delhi, Pune & Hyderabad.



INDE ENTERPRISES

Since 1976, Inde Enterprises is dedicated for providing performance committed and highly reliable type equipment, aids and tools for electronics R&D, assembly and reworking.

These include Dehumidifying Dry Storage Cabinets, Fume Extraction Systems, SMD/PTH Work Stations, ESD Testers/Equipment/Mats/Tools, Video Inspection Systems and Magnifiers, ESD Safe Tools & Other Toolkits.

We also provide Fiber Optic Cable Sets for Military Applications, Phase Matched Low Loss Coaxial Cables, VNA RF Coaxial Kits, High Power Coaxial Loads & Attenuators and Coaxial Adapters/Terminations/Connectors.

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SPINNER GmbH

Spinner GmbH Germany is the leading and most innovative manufacturer for all kind of Rotating Solutions for modern Radar and Communication Systems. Having specialized on non-contacting high speed transmission of signals and high reliability Media cooling from a static to a rotating platform, we can provide all necessary technologies for most complex type of Rotary Joints for latest modern Radars. This includes as Fiber Optical Rotary Joints, Contactless High Speed Data and Power Transmission Modules, all kind of RF Transmission from DC to 120 GHz and Media Cooling Joints for air and water cooling, both as standalone and as highly integrated compact Hybrid Rotary Joints.

Spinner GmbH Germany offers the widest range of Rotating Solutions, including High Power Slip Rings coupled with the best matching technologies to provide latest state-of-the-art solutions to meet the most demanding applications in this area. We are globally the only company that can offer complete **Contactless** Hybrid Rotary Joints - not using any old/traditional contacting type Slip Ring technology which needs periodic maintenance. This enables us to provide virtually maintenance-free Rotary Joints with significant improvement for long terms high system reliability.

Spinner GmbH Germany has long tradition in supporting our Indian customers with innovative Rotary Joints for Airborne and Ground Satcom, ATC Radars, Military Radars and Space Rotary Joints for communication.



Visit us at Stall No.: **C4**

ROGERS CORPORATION

Rogers Corporation (NYSE:ROG) is a global leader in engineered materials to power, protect, and connect our world. With more than 180 years of materials science experience, Rogers delivers high-performance solutions that enable clean energy, internet connectivity, and safety and protection applications, as well as other technologies where reliability is critical.

Rogers delivers Power Electronics Solutions for energy-efficient motor drives, vehicle electrification and alternative energy; Elastomeric Material Solutions for sealing, vibration management and impact protection in mobile devices, transportation interiors, industrial equipment and performance apparel; and Advanced Connectivity Solutions for wireless infrastructure, automotive safety and radar systems. Headquartered in Arizona (USA), Rogers operates manufacturing facilities in the United States, China, Germany, Belgium, Hungary, and South Korea, with joint ventures and sales offices worldwide.



ICON ELECTROMATIC

Icon Electromatic was started by skilled engineers from the Industry with decades of experience. With our expertise and understanding of technology & ecosystems, we engage in providing Electronic & RF components from global leaders and providing unparalleled support to design houses, designers and engineers.

We support design through strong relationships with both the manufacturer and designer.

We provides Business Consultancy Solutions and ensures cost-effective, time-to-market solutions through our highly motivated workforce, driven by strong design principles, highest levels of quality and ethical business practices.

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Visit us at Stall No.: **C6**

ANOKIWAVE INC

Anokiwave features the industry's most advanced and complete portfolio of Silicon ICs for mmWave 5G, SATCOM and RADAR applications. This year Anokiwave highlights the release of its 3rd generation of mmWave dual polarization 5G Beamformer ICs (BFIC), IF Up/Down Converters (IFICs) and 2nd generation of K/Ka and Ku Band SATCOM BFICs.

Utilizing 300mm Silicon CMOS process, Anokiwave ICs provide the optimum balance of low cost and high-performance. Thereby, today Anokiwave is the industry's trusted provider of mmWave Silicon ICs for high volume commercial deployments of 5G and SATCOM systems worldwide.

Anokiwave's unique and advanced design capabilities enable the industry's highest performing 3GPP compliant 5G radios with applications from 5G infrastructure to Consumer Premise Equipment (CPE). And now with the second-generation SATCOM ICs, Anokiwave is enabling the market for LEO/MEO/GEO satellite ground and aero equipment.



Performance That Powers Every Mission

Visit us at Stall No.: **C7**

API TECHNOLOGIES CORP.

API Technologies combines engineering expertise, innovation and manufacturing excellence to enable mission-critical solutions. Designed to solve complex problems in signal modulation and transmission, API solutions enable high quality product performance in the military and government, space, commercial, aerospace, security, medical, industrial and communications industries.

Through proven experience and innovation, API delivers reliable solutions for the most rugged environments in the world – and beyond.

Our team works to understand each customer's needs at every level, which leads to long-term partnerships with our customers that transcend transactions and projects, helping to drive ongoing value at all levels of an organization.



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NICOMATIC INDIA ELECTRONICS PVT. LTD.

NICOMATIC is a 43 year company with a Vision of WIN-WIN both for internal customer /partner as well as external customer/Partners. Always WIN-WIN Solution Provider. It also specializes in the design and manufacture of creative interconnect solutions. Nicomatic, since 1976, is a pioneer in finding solutions for designers, provide the value added solutions & rethink the customer experience.

In Nicomatic Human factor is key to success, both the happiness of our internal & external customers/Partners define us. Some of our Indian Customers/Partners are: LRDE, ADE, RCI, DRDL, IRDE, DEAL, BEL, OLF, OPTO, Indus, Astra etc. Some of our Global Customers/Partners are: Thales, MBDA, Dassault Rafale, Elbit, ELOP, Honeywell, Lockheed, etc. We are also EN9100 certified. We have more than 40 Million combination of different types of connectors. We also do lot of value addition & customization as per customer requirement. We comply to MIL-DTL-55302F, 83513G & BS9525-F0033. Innovative Technology-20% of our turnover is invested in R&D, we also have strong collaboration with research institutes. We manufacture MIL grade PCB connectors, Panel mount connectors, FFC cable, Domes Switches, Headers, Crimpflex contacts, Crimpflex housing & LED etc

Nicomatic DNA - No MOQ, 1 Week Lead Time, 100% shelf life, 100% traceability-date code marking, 100% in-house integration

As the requirements are fast changing, We are launching new connectors for defence & aerospace industry - AMM, EMM, DLMM, EN4165 & also SmartCo.



Visit us at Stall No.: **C9**

SKY HI TECHNOLOGIES PTE

SKY HI TECHNOLOGIES PTE, Singapore a fabless semiconductor design house established in the year 2018 by a team of industry experts in the field of RF , millimeter-wave (MMW) and AMS VLSI.

SHY HI's unique expertise in MMIC and RFIC enables them to offer world's most integrated, robust, reliable and easiest-to-use MMIC and RFIC solutions. By leveraging digitally assisted MMW and RF Frontend IP's, we are able to eliminate many discrete components and enable our customers with feature-rich products and able to fasten their time to market

Our wireless solutions address a wide range of industrial, communication and wireless applications. Along with high performance, high levels of integration and complete reference design support. SKY HI has expertise in handling MMW, RF and AMS design and layout at chip or module level along with floor planning for multi-level blocks and their integration in different process nodes and packaged Silicon.

We also help companies across the globe in collaborating each other for exchange of technology to create a mutual WIN -WIN situation for each other. As an important ring of the supply chain we shall continue serving in the best way with the power earned from our respected customers and business partners.



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MMRFIC TECHNOLOGY PVT. LTD.

MMRFIC is a fabless semiconductor startup, started by the alumnus of Texas Instruments, based in Bangalore India and operational since 2014 with R&D centers in Bangalore and Hyderabad. With highly qualified team for mm-Wave and micro-wave RF, analog baseband, and Signal processing algorithms development, MMRFIC has the unique skill set for delivering end-to-end systems. With design expertise and Silicon proven IPs up-to 100 GHz, we are one of the few companies in India who can design, manufacture and deliver complete Antenna to Bits systems up-to W-band. Our core Engineering team is our strength MMRFIC has a cumulative industrial experience of 40+ Years of RF Design Experience, 30+ years of Systems Design and Signal Processing Algorithm Development, 15+ years of ASIC and RF system power management as well as 10+ years of Layout expertise.

What we do?

- RF Products for wide range of markets including Radars, Communication equipment, RF Front ends and TR Modules.
- Radars for Automotive and Defense markets.
- Wireless connectivity chipsets for 5G, WiFi/IoT, automotive segments and wireless backhaul solutions for high data rate and low latency.

How are we unique?

Design capability in multiple technologies GaN, GaAs, SiGe, CMOS and LTCC packaging to enable worlds most integrated, robust and reliable solutions. Developers of high-end mm/micro-wave IPs and products which are critical to strategic, industrial and automotive market. Among very few companies with unique in-house design capability from “End-to-end” and Experience in Digital modems, Radar Signal Processing and Machine learning for sensor data processing. Capability to address a wide range of wireless applications in industrial, commercial and defense market segments.



Visit us at Stall No.: **C11 & C12**

PARAS DEFENCE AND SPACE TECHNOLOGIES LTD.

We as Paras Defence & Space Technologies Ltd (PARAS) offer the widest range of Products & Solutions for Defence & Space Applications. With 5 verticals namely Heavy Engineering, Defence & Space Optics, Defence Electronics & Software, IEMI/EMP Protection Solutions and Niche Technologies, we work dedicatedly for Defence & Space.

With state-of-the-art manufacturing setup and 400+ workforce, we have the capabilities to offer turnkey solution from Design to Commissioning of Small to Large Systems.

We are a DSIR recognised R&D house with immense focus on Research & Development there by being one of the exclusive companies working for Defence & Space which is a True 'IDDM' MSME company.

We have always delivered Quality Products with Timely Delivery in Competitive Prices which has made us one of the most preferred and dependable partners of our Customers.

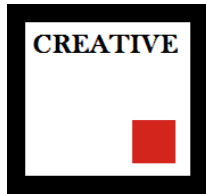


STEP ELECTRONICS

STEP ELECTRONICS PVT. LTD., is based in Bangalore, India. Ever since its inception in 1990, STEP has been providing pre and post sales support to customers for software and hardware in MICROWAVE ENGINEERING. STEP is also providing consultancy services to various prestigious clienteles, in design & optimization of power amplifiers. Over the years STEP has been associated with companies of the likes of Computer Simulation Technology, Ranatec Instruments AB Sweden, and Environment Stress Systems Inc USA, etc and have been successful in effective implementation of their sales / marketing strategies for the Indian market.

STEP ELECTRONICS has an interdisciplinary team of experts comprising of highly qualified engineers. The team has international and multicultural working experience.

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**SM CREATIVE
ELECTRONICS LTD**

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SM CREATIVE ELECTRONICS LIMITED

S M Creative Electronics Ltd (SMCEL), an ISO (9001-2015) certified company has been in business since 1992. Closely knit team of 100+ colleagues , 60% engineers are spread out in various offices throughout India. The company actively supports :

1. Design, development and qualify of Tailor Made Power Conversion – AC-DC, DC-DC, DC-AC power conversion systems, Battery chargers, UPS and integrated power systems according to customer's specifications. Well versed with MIL standards, JSS 55555, EMI EMC, Environmental and other applicable stringent compliances as per CINA, DGQA, QAE, SSQAG or any respective inspection authority. Above 100 designs are qualified in all platforms : Land, Air, Surface Water and Underwater
2. Design and development of Complex waveguides. We have successfully delivered waveguides upto 14 bar pressure to BEL.
3. Develop and source Obsolete components in field of Connector, RF & Microwave, Passive Components or any other assembly / Sub-assembly.
4. Distributor of various Hi-Rel Components and Subassemblies.

We are honored to have DRDO, ISRO, DAE, BEL , BHEL, NPCIL, BARC in our Clientele



R&N MICROWAVE

R&N Microwave designs, develops, and manufactures Custom and Standard RF and Microwave components for the Commercial, SATCOM, Space, and Military markets. These designs cover the frequency range from 10kHz to 50 GHz-Eventually, offering designs up to 100 GHz.

The modularity of R&N Microwave designs enables rapid configuration of custom products for a variety of platforms, including ground-based and in Radars, Electronic Warfare, Missiles, Telemetry, Satellites and Telecommunication systems.

Our products includes: LNA, SSPA, Cable Assembly, Switches, Power dividers, Couplers, Attenuators etc.

Mission: To promote reliable, quality made in India products to Indian.

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OPTIMIZED SOLUTIONS LTD.

We design, configure and integrate Automated Test Equipment, Monitoring & Automation solutions using IoT and conventional technologies.

We also provide Product Engineering Services, develop custom hardware or software using state of the art technologies.

An ISO 9001:2015 company with esteemed clientele in Aerospace, Defense, Research, Heavy Engineering, Automobiles and manufacturing sectors.

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Visit us at Stall No.: **C21**

ADVANCETECH CONTROLS PVT. LTD.

ADVANCETECH was established in 1995, since then as a leading provider of technology products and services with unmatched experience enjoys the patronage of over 1000 satisfied customer across the subcontinent.

We provide Solutions and Technologies to the following major market Segments:

- Intelligent Automation
- Rugged and Embedded
- Education and Research
- Banking & Enterprise

As the global experts in electronic hardware and software for aerospace, industrial, and commercial applications, ADVANCETECH has been delivering innovative solutions to customers for over 25 years. Our Rugged & Embedded product line includes a wide selection of Commercial Off-The-Shelf (COTS) and COSA Architectures for Embedded Computing Solutions, Avionics Data bus interfaces and Rugged Electronics Components.

- COSA Configurable Open System Architecture
- Motion Systems
- Avionic Data Bus Interface
- RUGGED LCD DISPLAY
- Counter – UAV and DRONE



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LOGIC FRUIT TECHNOLOGIES PVT. LTD.

Logic Fruit Technologies (LFT) has a young team of Electronics System Design Engineers having 200+ man years' experience with deep expertise in High-Speed Serial Protocols for FPGA's such as PCIe, Ethernet, CPRI, OTN, JESD204B and L1&L2 Layer of Wireless communication such as 802.11n/ac, LTE and 5G.

LFT work with Tier-1 Test & Measurement Companies to develop High-Speed Protocol Testers and work with their customer to develop validation platform for their ASICs & System.

LFT also developing products to Test & Validate various Radars System such as Synthetic Aperture Radar & Weather Radar.

LFT has 180+ Engineers spread across 2 Cities Gurugram & Bengaluru, with average experience of 6 years. Served 23 Clients across 6 nations



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JV MICRONICS

We are ISO 9001-2015 Manufacturing Company into manufacturing of RF Absorbers, EMC Chambers and Microwave Anechoic Chambers . Our Products are tested as per latest International Standards. Including Indoor absorbers , we also make Outdoor and Rubber Composite absorbers for various different applications.

We have supplied our quality products to the customers among various different labs of DRDO, ISRO, HAL,BEL, SAMEER, EQDC,BARC, IPR, IIT's, NIT's and many private and Government Colleges, Private Companies into manufacturing of Antenna and Related Electronics equipments like Astra Microwave Products Ltd, Avantel Ltd, Huber + Suhner and many more in India and Foreign countries like USA, Poland, Turkey, Canada, Netherland, Belgium , Vietnam, China etc.

Recently, we have been Recognised by **The Times of India** group under its **Make In India** programme “ **Celebrating 50 brands across Industries that are building the Nation** in the category of EMI EMC Anechoic chambers and RF Absorbers for the year 2019. The trophy and Certificate was awarded by Shri PC Sarangi , Minsiter of State for MSME.



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CENTUM ELECTRONICS LTD.

Centum Electronics Ltd is a leading Electronics company head quartered in Bangalore, India offering design, development & manufacturing of customized system/subsystem solutions for high reliability applications. Established in 1994, Centum has rapidly grown into a diversified company operating in Defense, Aerospace, Space, Industrial, Medical and Telecom industries. With exports contributing to 80% of the annual turnover and customers that include the most reputed international and domestic organizations, Centum has also established a strong global presence with design, engineering & sales offices in the USA, Canada, UK and France. Centum group's 2300 employees (with 730 designers) have contributed to the company's revenues of \$150 million. The company is comprised of Three operational business units – Design & Engineering services, Strategic Electronic Products and Electronic Manufacturing Services.

Centum Adetel group is a design and engineering firm specialized in the design and production of critical electronic systems for power electronics, control systems and energy storage applications in the railway, aeronautics, defense/security, medical industries. Apart from main design center in France, it has other design centers at USA, Canada & Germany to support its worldwide customers.

Centum's Strategic Electronic Products division, designs and develops customized electronic systems and modules for Defence, Aerospace and Space applications. Over one hundred design engineers specialized in analog, digital, RF, Power and mechanical domains work together in multidisciplinary teams to realize complex products. These include guidance systems for Missiles, High Power RF Amplifiers, Transmitters, TR Modules, Exciter Receiver processors for radars, ELINT system for Electronic warfare, Power subsystems and electro-optic sensors, digital systems for satellites & aircrafts, communication modules for military radios, Proximity Fuzes for artillery guns, Bombs and many more.



AIMIL LTD.

Aimil Ltd. is a leading ISO: 9001 (2015) certified company, with an All-India network of 15 offices, staffed and managed by over 850+ professionals with rich and varied experience in the instrumentation industry.

With focus on instrumentation and over eight decades of experience, the Company offers a range of state-of-the-art test instruments, devices & components, Consultancy and Services in the fields of RF & Microwave, Telecommunication, Optical Fiber, Power Electronics and Electrical from reputed overseas manufacturers such as Orolia/Specracom USA, Boonton Electronic Corporation, USA, Noisecom Inc, USA, Anapico Switzerland, Prodigit Electronics Taiwan, Extech Electronic Co, Taiwan, Tabor Electronics Ltd., Israel , Sage Milimter USA, Microwave Town USA, Wevercomm Korea, ABF Italy and many more, backed by local expertise and efficient pre & post sales support.

Visit us at Stall No.: **C25**



Visit us at Stall No.: **C26 & C27**

UNISTRING TECH SOLUTIONS PVT. LTD.

Unstring Tech Solutions Pvt. Ltd. Is into design and development of state-of-the-art Simulation solutions for RADAR and Electronic warfare (EW) systems. DRFM based RADAR Target Simulators (RTS) available in L, S, C X and Ku bands are proven for their functionality in both radiation and injection mode. DRFM based RTS is available in monopulse simulation mode also. UTS developed a wide band RTS to work upto 20GHz. UTS is into development of multi channel Data / IQ level simulators exclusively for Phased array systems. UTS developed FPGA based multi-channel phase synchronous hardware useful for building all Digital beam forming RADAR.

FPGA based beam forming IP is one for the critical IP developed by UTS. RADAR Threat Simulators and Electronic Warfare Scenario Simulators are available for both equipment testing and operator training. UTS also has expertise in FPGA algorithmic solutions (with IP cores), narrow band & wideband Software Defined Radios, Telemetry Solutions (Simulators, Receivers, Bit Synchronizers, PCM Decommutator) and test equipment. The IPs and products are based on state of the art CPU, FPGA, GPU hardware and DSP algorithms, which can reduce the design, development, test and validation phase of systems.

UTS team is experienced in design of digital and RF hardware .



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12th INTERNATIONAL RADAR SYMPOSIUM INDIA - 2019 (IRSI-19)
10-14 December, 2019 | NIMHANS Convention Centre, Bangalore INDIA

TIRANGA AEROSPACE

TIRANGA AEROSPACE is a INDIAN based, multi-faceted company that supplies products and provides wide range of industries, including aerospace, military, automotive, industrial, environmental and electronics. Our Company is comprised of teams of specialists, including engineers and sales experts, who have a broad spectrum of knowledge and expertise in specific programs, industries, economies and cultures.

Through our extensive network of manufacturers and suppliers both in India and abroad, we are able to provide low-cost, high-quality, hard-to-find parts and components, assemblies, raw materials, chemicals and OEM parts. In addition, with our contract manufacturing and consulting services, you can eliminate the complexities and risks of international sourcing and manufacturing. Our team of qualified engineers works with you to determine the most cost-effective design and production methods to improve your bottom line. Plus, our partners are certified to meet domestic and international standards for manufacturing and quality control. The majority of our suppliers operate under ISO 9001 guidelines.

Tiranga Aerospace is a professional organization that is being managed by a group of Electronic Engineers having varied experiences. It has a very structured operations for foreign Currency and Indian Rupee business, in order to provide its customers a One stop sourcing option for all their requirements right from Raw Materials to RF/Microwave components, and Semiconductor to active and passive components, our passion is to work as per the requirement of the customer and sourcing them with a Quality and competitive pricing. Our team is dedicated in delivering end-to-end product lifecycle solutions at the lowest cost of ownership - enabling our customers to keep their commitments and stand out in their markets. We source your product requirement within 48 hours of working time.



SPUR DTDS MICROWAVE PRIVATE LIMITED

Spur DTDS Microwave Pvt Ltd is a technical marketing company providing services and solutions in the area of space, defense, avionics and other harsh environment applications where reliability is critical.

We represent reputed companies in the field of Semiconductors, RF and Microwave and system and subsystem Companies.

Our engineering capability has been established and proven over a decade to provide adequate expertise in the area of high reliability components, RF & microwave components and subsystems.

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DATA DEVICE CORPORATON

Data Device Corporation (DDC) is a world leader in the design and manufacture of high-reliability Connectivity, Power and Control solutions (Data Networking Components to Processor Based Subsystems, Space Qualified SBCs and Radiation Hardened Components; Power Distribution, Control and Conversion; Motor Control and Motion Feedback) for aerospace, defense, space, and industrial applications.

With awards for quality, delivery, and support, DDC has served these industries as a trusted resource for more than 55 years... providing proven solutions that are optimized for efficiency, reliability, and performance. Data Device Corporation brands include DDC, Beta Transformer Technology Corporation, National Hybrid Inc., North Hills Signal Processing Corp., Pascall Electronics Ltd., and XCEL Power Systems Ltd. DDC is headquartered in Bohemia, NY and has manufacturing operations in New York, California, Mexico, and the United Kingdom.



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KINGSLY INSTRUMENTATION AND COMMUNICATION PVT. LTD.

Established in 1993, Kingsly Instrumentation & Communication Pvt Ltd (KICPL) offers hi-rel components, data conversion, prognostics and test & measurement solutions. We represent reputed Principals from across the globe. Our solutions portfolio includes:

- Data Conversion: high/low speed digitizers (10GSa/s to 100kSa/s), pattern generators, DAC/AWG for normal/rugged environment.
- Data Acquisition: Data loggers, recorders, pressure and temperature scanners for both normal and rugged environment.
- Data Analysis & Presentation Software: User friendly GUI / Automation based analysis consisting of Statistics, Counting Procedures, Order Tracking, Spectral Analysis, Human Body Vibrations, Acoustics and Digital Filters.
- Components: MIL-STD-1553, ARINC, transformers, motor controllers, synchro to digital & digital to synchro convertors.
- Advanced Prognostics and Test & Measurement Solutions.



SYRATRON TECHNOLOGIES PVT. LTD.

Syratron is India's leading representative company in high rel. Electronic, Communication, RF & MW Components and Sub Systems. Syratron represents American, European, and South East Asian manufacturers in the focus areas of Defence, Space, Communication, Satellite Communication, Medical, Automotive and Industrial Electronics.

Syratron can support Microwave Filters, Stepper Motors, Coaxial & Waveguide Switches, Passive Microwave Components, RF Coaxial Cable Assemblies, Ceramic, Tantalum, Aluminium Electrolytic capacitors, Dielectric Resonators, Ferrite Components, Calibration Kits, Millimeterwave components, Adapters, Attenuators, Terminations, Diodes & Transistors, MMIC components & Hybrid Microwave products, Anti-Vibration, Shock Mounts, Microwave PCBs, Flexible & Rigid waveguides.

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AARJAY INTERNATIONAL PRIVATE LIMITED

We Aarjay International Pvt Ltd is a diversified technology solutions company with more than 27 years of dedicated service to its customer. We provide Test & Measurement solutions, HiL simulators, GNSS solutions, Radar test solutions, turnkey laboratory set-up services, Avionics test & integration systems, and mechanical engineering services. the company quickly expanded its product portfolio to include fibre optics, precision electromechanical components and navigation products

Aarjay has established strategic long term partnerships with international companies of repute to bring their solutions to the Indian market and have offices around the country. We serve customers in Aerospace, Defence, Space, Educational, Telecom, Automotive and Industrial sectors.

The technical expertise of our Principals is combined with Aarjay's strong market knowledge and in-house value addition capabilities to provide enhanced solutions to our customers. Aarjay is ISO 9001: 2015 certified and an MSME registered with the Ministry of Micro, Small & Medium Enterprises. Aarjay has been a recipient of awards from prestigious organizations such as the Indo American Chamber of Commerce. Aarjay took its next significant diversification step by launching its Engineering & Automation Solutions (EAS) Division, which offers solutions in mechanical engineering, avionics and automation.



RFMW ASIA PTE LTD

RFMW Ltd. is the premier RF & Microwave specialty distributor created to support your component selection, technical design and fulfilment needs.

RFMW supports full supply chain services including dedicated supply chain management support & logistics, JIT, KANBAN, partial reels, tape and reel, and additional capabilities listed below.

RFMW offers a complete range of services for commercial, industrial, military and space requirements. Our focus on RF devices and technology enables us to meet your expectations with the highest service levels.

We have offices in Singapore and India(Bangalore) to support the local needs

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AXON INTERCONNECTORS AND WIRES PVT. LTD.

AXON INTERCONNECTORS AND WIRES PVT LTD is a 100 % Subsidiary of AXON' CABLE SAS FRANCE, incorporated under Indian companies act, with effect from 22 June 2009 with a State of the Art manufacturing facility in Hitech Defence and Aerospace park located in Bangalore.

In this facility, we manufacture Micro D connectors, Nano D connectors, RF cable assemblies EMI/EMC shielded harnesses using any type of connectors available in the World, for the Indian Defence and Aerospace Industries.

With this approach, we fulfil the demands of the MAKE IN INDIA policy of the Govt of India.

In order to progress further in the Highly demanding Indian Market, we have established a New Manufacturing facility in Hitech Defence and Aerospace park of KIADB Bangalore in a 2 Acre with 4800 sq metres of Manufacturing and Office area, with a Clean Room of 15 sq metres, of Class ISO 7 to manufacture Space Grade Interconnect Products.



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TRIDENT INFOSOL

Trident Infosol offers innovative and industry renowned radar solutions for emerging ground, air and maritime threats.

We provide open architecture commercially off the shelf (COTS) based solutions for mission computing, electronic warfare, radar and other ISR systems that are more capable, interoperable and affordable than ever before.

Trident Infosol is a leading solutions provider for Embedded COTS Hardware, Signal Processing Systems, Telemetry Systems and Engineering Software catering to the Real-Time applications and an International supplier of Rugged Systems for the avionics, aerospace, military, navy and heavy industrial markets.

This includes supplying parts to build systems such as backplanes, power supplies, storage modules, ethernet switches, development platforms and rugged standard (ATR) and custom based enclosures.