



## ARKS MicroElectronics India Pvt. Ltd.

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## About ARKS

**"ARKS" provides a leading-edge electronic solutions, aimed to redefine the concept of design & development of quality product and specializing in customized products." ARKS attempts to achieve the true spirit of creativity to establish bench mark. ARKS make a committed effort to translate the needs of our clients into efficient design solutions. Being a technology driven company using the latest technologies ARKS is the Ideal partner for designing innovative products faster, optimize R&D costs and to enhance operational efficiency.**

**"ARKS MicroElectronics India Pvt. Ltd." Which is formerly "ARKS Technologies" established in 2009 by multi-talented group of professionals with its Reg. office in Vishakhapatnam and Branch in Hyderabad. We have a strong team of qualified and dedicated work force with an expertise of the latest technologies in continual commitment for the growth and business development. ARKS MicroElectronics has an expertise group of skilled professionals are into design and development of Customized Electronic circuit boards and Products according to the requirement of customer specifications.**

## Objects

- ✓ **Dealing with diversified technologies in electronics for system level designs and manufacturing.**
- ✓ **Design and development of reliable on board customized electronic products for all kinds of applications.**
- ✓ **Application specific- Electronic chip level hardware design, embedded software development and System level integrated software packages for different application areas in all electronic domains.**
- ✓ **Volume production support for Electronic Systems.**
- ✓ **Providing extended field services to end users in sub-system level maintenance.**
- ✓ **Technical support for projects execution processes.**
- ✓ **Trading electronic components/instruments, Developed modular systems and embedded products.**

## Infrastructure

### Manpower:

We have a strong team of qualified and dedicated work force with an expertise of the latest technologies with continual commitment for the growth and business development. ARKS team has, over the years, pioneered the use of latest technologies across a wide spectrum of electronic domains.

### Work space:

With an ample dedicated working space of 4000 sft. combined in two locations, ARKS has their reach on wide Business aspects with comprehensive Infrastructure.

### Software development tools

- KEIL ( $\mu$ Vision-4)
- MPLAB IDE
- CCS4
- AVR-Studio
- Dynamic-C10.44
- MatLab7
- Xilinx-ISE 10.1
- Warp5
- VisualBasic6
- .NET4.0
- SQL server 2008

### Hardware design tools:

- Orcad9.1
- Cad-star
- AutoCAD

### Emulator & Debugging tools

- KEIL Ulink-2
- MPLAB ICD-3
- Xilinx HD-USB-II
- USB-Rabbit Cable
- XDS100V2
- CC Debugger

### Instruments

- Digital and Analog Oscilloscopes
- Power Supplies
- Multi-meters
- SMD Soldering and De-Soldering stations
- Function generators

## Products & Services

ARKS Designs, Develops and Markets a broad line of industry leading embedded hardware and software products that helps you to reduce development time significantly and generate ROI faster, along with our excellent technical support, minimal lead time, repair & replacement services makes ARKS an ideal choice.

We understand the conceptualization of product idea of the client and accordingly design the virtual plan of products for manufacturers in end markets such as communications, industrial, consumer, automotive and data processing products. Using years of expertise ARKS provides technology solutions in critical functional areas such as **Defence, Industrial and IT sectors.**

### Hardware Design services:

- Microcontroller / Microprocessor based SBC product design with customized features using 8bit, 16bit, and 32bit.
- CPLD and FPGA based applications.
- DSP based applications.
- Low Power design for handheld and remote device applications.
- Low noise analog circuit design for instrumentation, signal conditioning and data communication applications.
- Multichannel High speed data acquisition and real time signal analysis.
- Remote data logging and control system applications.
- RF communication applications – RF, ZigBee, and Wi-Fi, etc.
- Serial & Network Communication Protocols Based applications like *RS232, RS485, CAN, Ethernet, USB, I2C, SPI, Profibus, and Modbus* etc.
- Control system and high-power design application.
- Display (both LED and LCD) based applications.
- GPS, GSM/GPRS Based design applications.
- Power management , signal integrity ,EMI/EMC, and Ruggedness
- Circuit Board design, layout and fabrication for multilayer PCBs.
- Customized Enclosure design and fabrication as per application requirements.

### Software development services:

- ARKS offer turnkey services for **Embedded Software** and **GUI** based System integrated applications development under different processor Architectures and RTOS environments.
- Maintains libraries of custom developed **Algorithms** and **Device Drivers** to quickly implement the most common microcontroller functions.
- ARKS software team has extensive experience in dealing with Advance embedded IDE tools and system software tools like - KEIL( $\mu$ Vision-4), MPLAB IDE, CCS4, AVR-Studio, Dynamic-C10.44, MatLab7, Xilinx-ISE 10.1, Warp5, VisualBasic6, .NET4.0, SQL server 2008, etc...
- ARKS software team has developed experience in embedded applications for a wide range of products in the areas of defence and industrial sector.

### Production support

ARKS Production team is a highly experienced and skilled team for PCB assembly having been worked for a number of defence projects. The quality of workmanship will be of the highest level thereby reducing the chances of rework and saving valuable time.

- Experienced team for PCB assembly in accordance with IPC-A-610D.
- In house PCB assembly facility.
- Assembly of PCB's - DIP as well as SMD package components.
- Production support for both small scale and large scale production activities.
- Standard Quality procedures to enhance productivity.
- Online Inspection for all production activities.
- Workmanship qualifies for Environmental test methods carried out by MIL-STD-810E/F and EMI/EMC testing MIL-STD-461C & 461E.

## Quality control

We are capable of designing high end complex systems which can withstand extreme environmental conditions like temperature, shock and corrosive atmosphere. We are capable in designing systems which can qualify EMI/EMC requirements right from circuit design level to the system level.

ARKS MicroElectronics with vast experiences and best practices are aligned to standard quality processes. Continuous improvement and an effective quality processes has been a prominent strength in the company progress over the years. Strict adherence to the quality norms is the key to the high quality standards at ARKS MicroElectronics.

ARKS are into developing a quality product with stringent quality measures as per the “**MIL Standards**”. Our products are designed to withstand extreme environmental conditions like temperature, shock, vibration, Corrosive environment and EMI/EMC.

***Some of the MIL standards which are followed by us during the design and for product qualification are***

- MIL-HDBK-454B - General Guidelines for Electronic Equipment
- IPC-A-610D – Acceptability of Electronic Assemblies
- MIL-STD-810E/F - Environmental test methods and engineering guidelines
- JSS 55555 - Environmental test methods for electronics and electrical equipments
- MIL-STD-461C & 461E – Specification for EMI/EMC testing

## Products

1. AT89S51 Single Board Computer
2. XC3S200AN(Spatran-3AN) Development Board
3. LPC2148 Development Board
4. MSP430 Development Board
5. ATMEGA128 Development Board
6. TMS320F28232 DSP Development Board
7. DSPIC33FJ256 Single Board Computer
8. PIC18F8520 Single Board Computer
9. RCM5000/RCM6000 core based Single Board Computer
10. Rabbit USB Programming cable
11. LM3S9B96(ARM) Based Intelligent Display Module (3½ Inch Colour )
12. GSM/GPRS Modem
13. GPS Receiver Unit
14. Serial to Ethernet Module
15. USB to Serial Converter
16. RF Transceiver
17. 32 channel digital IO card

## Applications

1. Decoy Launcher Unit
2. Under Water Acoustic Modem
3. PINGER Transducer Amplifier unit
4. ELFI/UEP (Extra low frequency electric field/Under water electric potential ) Amplifier
5. GPS Master Time Display Unit
6. SNTP/NTP Server Time Display Unit
7. LED matrix based Large Scrolling Display Unit ( 6Feet)
8. Remote Monitoring Unit
9. Global Vehicle Tracking and Monitoring System
10. Wireless(RF) Remote Data Setting Terminal
11. 32 channel Data Logger and Monitor System
12. Communication Splitter

## Our Clients

- Naval Science and Technological Laboratory (NSTL) - Visakhapatnam
- BHEL(R&D) – Hyderabad
- Indian National Center for Ocean Information Services (INCOIS) – Hyderabad
- Mahindra Defence Systems (MDS) – Pune
- DMRL – Hyderabad.