



ANTENNAS & RF SYSTEMS LTD.

Company Profile

March 2013



Who We Are



MARS Antennas & RF Systems, a world class leading antennas design and manufacturer, RF solutions provider and R&D Company, with a proved capacity to design and provide cost effective products with exceptional performance characteristics.

MARS was established in 1994 and has grown significantly over the years, moving into our wholly owned state of the art facility (located in Tel-Aviv area) in 2006.

MARS specializes in outdoor & in-building multi polarized antennas. MARS subscriber & base station antennas are used in LTE, WiMAX, Mobile, MIMO, WLAN and Wi-Fi systems. MARS antennas are designed for fixed and mobile, stand alone or embedded applications.

MARS antenna's covers frequency ranges from 380MHz and up-to 10.65GHz.

MARS's main expertise is in developing and manufacturing antennas based on printed circuit antennas called, Flat or Flat Panel Arrays.

MARS is an ISO 9001, ISO 14001 and RoHS certified manufacturing and R&D company, possessing an in-house anechoic chamber allowing for assurance of the highest quality developed products.

Our Vision



To be the leading global provider of Broadband Wireless Flat Panel Antennas and In-Building solutions, creating exceptional value for our customers.

Our Mission



- **INNOVATION**

We are constantly challenging conventional techniques and developing solutions to meet customer and market requirements.

- **CLIENT FOCUS**

The client is at the center of our activities and drives all that we do.

- **INCREASE VALUE**

We constantly invest our resources in adding value to the company for its customers.

- **PURSUING EXCELLENCE and PERFORMANCE**

We are committed to excel in all we do and in result oriented activities.

Technologies



MARS main antenna technologies include (partial list):

- LTE
- Wi-Fi
- WiMax
- MIMO
- GSM
- Tetra
- GPS
- ISM

Applications



MARS main antenna suits for the following applications (partial list):

- Broadband
- Cellular
- In-Building
- Mobile
- RFID

Product's Advantages



- Wide coverage of all the bands, with options for low and high gain performance.
- Antennas are extremely broadband with maximum gain to size ratio.
- Customization for different connector types and antennas customized per specific integration solution.
- Variety of Mounting Options.
- Low profile Antennas.

MARS offers its customers customized Antennas & RF Systems Solutions becoming an integral part of the application development process.

Some of MARS outstanding designs were the first in the market and are still uncontested.

Antennas Development



Antenna development at MARS is performed by three engineering teams that perform parallel operations according to marketing and customer demands.

MARS has two antennas anechoic chamber (one internal and one external) including a large number of network analyzers and testing devices.

The internal anechoic chamber includes a quiet area of over six feet ranging from 20dB at 800MHz absorption to 30dB in frequencies above 1GHz.

Development Methodology



- Using simulation workstations (CST software).
- Proto-type printed circuit board construction by using 5 mm accuracy.
- Proto-type precise coordination at dedicated room.
- Development stage documentation and drawings.
- Development verification testing in both internal/external anechoic chamber and the conditions environmental laboratory.
- Production portfolio manufacturing.

Client Commitment



MARS Antennas & RF Systems is fully committed to addressing the needs of our diverse international client base. To meet this objective, we employ a methodology that integrates each client throughout the development lifecycle.

By encouraging client interaction and feedback at all stages of the development process, MARS Antennas & RF Systems ensures that each product is equipped with the most advanced technology, while meeting specific end-user requirements.

Our client commitment and proven track record have helped MARS Antennas & RF Systems earn a reputation for transforming unique, complex requirements into fully operational products – on time, on budget meeting all specifications.

Markets



- OEM's
- Distributors
- Manufactures
- Integrators / Resellers (VARs)
- WISP (Wireless Internet Service Provider)

MARS Antenna installations provide reliable coverage in critical applications such as Aeronautics, Government Facilities, Hospitality, etc.

Quality Assurance



MARS Corporation is ISO9001 and ISO14001 certified.

Our QA department monitors the development and manufacturing processes and reports directly to the President and CEO.

During the development process our QA team audits all documentation and milestones. QA is expressed primarily in the proto type, production authentication, tests, planning surveys and documentation control, with specific attention to the documents production portfolio.

QA department production process supervision includes:

- Raw material and purchased accessories acceptance testing.
- Testing process.
- Final testing.

Departments



- **Engineering and R&D Department**

- Over 20 Antennas & RF Engineers.
- Antenna Engineering.
- Mechanical Engineering.
- RF Engineering.
- Material.
- Product Configuration.

- **Operations and Manufacturing Department**

- Over 50 Employees usually not give number of employees.
- Production.
- Purchasing.
- Warehousing.

- **Quality Assurance and Control**

- Full certification to ISO 9001 & ISO14001.
- Fully RoHS compliance.
- Incoming Inspection, Production Line and Final Testing.
- AQL Level Testing performed on each product shipped.

- **Marketing and Sales**

- North America Desk.
- North Europe and UK Desk.
- Central Europe Desk.
- East Europe Desk.
- South America Desk
- MARCOM.

Competitive Advantages



- **Technology**

- Advanced materials technology – very low loss substrate.
- Maximum efficiency - Antennas are extremely broadband with maximum gain squeezed in minimum size.
- Light weight yet durable and robust design.

- **Antenna Technologies**

- MICROSTRIP (Flat Panels).
- Notch, Dipoles & Monopoles (Broadband).
- BROADBAND LOG-PERIODICS (Linear and Spiral).
- HORNS.
- Equipment Integrated Antennas.
- Shortened (Top Loaded) Monopoles.
- Multibeam Arrays.
- Wire Antennas.
- Multiband Switched Antennas.
- Active Receive Antennas.
- Broadcast (FM and TV- UHF).

- **Products**

- Wide selection: All bands are covered, with low and high gain options.
- Worldwide best performance – Gain vs. physical dimensions.
- Integrated and connectorized versions.
- Customized pigtails and connectors.
- Flexible mounting Options.
- Extreme low profile configurations.

- **Service**

- Full customization design capability
- Quick response to customer requirements
- Flexibility to meet customer requirements
- Short lead-time