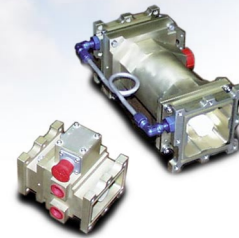




Company and Products

Microwave Applications Group (MAG) has a proven record of creativity and innovation in microwave component and subsystem design for government, military, and commercial applications. MAG has been at the forefront of electronically-steered radar technology, especially in the area of ferrite-based devices. Programs utilizing MAG designed and produced products over the last 40+ years are well-known and continue to operate successfully on land and sea, and in the air. These radar programs include:

- APQ-164 B-1B Offensive
- APQ-181 B-2
- APS-143 CP-140 Imaging
- APY-1/2 E-3 AWACS
- AR320 3D Air Defense
- ASARS-2
- ASTOR
- Global Hawk
- MPN-14K Landing Control
- RAC 3D Air Defense
- Skyshield 35 Air Defense
- Smart-L 3D Air Defense
- SPN-35C Approach Control
- SPQ-9B Surveillance / Tracking
- TRS-3D Multimode
- TRS22XX 3D Air Defense
- ZPQ-1 Predator TESAR



MAG was founded as a California corporation in 1969 to serve the government/aerospace/commercial market with high-technology microwave component and system activities from applied research through volume production.

Early growth of the company was made possible by the development at MAG of “Dual-Mode” and “Rotary-Field” ferrite phase control elements, the latter of which was subsequently used in electronic steering of the antenna for the USAF/Westinghouse E-3 Airborne Warning and Control System (AWACS) radar. MAG provided engineering services and hardware items throughout the feasibility study and engineering model phases of the AWACS program and continues as a supplier of hardware for production phase AWACS antennas. MAG also developed and supplied items for the Electronically Agile Radar (EAR), a USAF-sponsored program which served as a prototype for the B-1B APQ-164 Offensive Radar System. MAG subsequently received the contract to support the production of the Phase Control Modules (PCM's) for the B-1B Radar System and successfully produced in excess of 130,000 PCM's.

Company and Products

Examples of products developed and supplied by MAG are:

Precise analog Rotary-Field ferrite phase shifters

for use at high peak and average power levels;

Reciprocal, latching, Dual-Mode ferrite phase shifters

with weight and size parameters compatible for use in phased array antennas;

Reciprocal, latching, Rotary-Field ferrite phase shifters

combining the best of traditional Rotary-Field and Dual-Mode phase shifter characteristics;

High performance waveguide isolators,

variable power dividers, and polarization controllers;

Ferrite switches

that achieve a unique combination of high isolation, wide temperature range, and reciprocal operation at high power levels;

Electronic drivers,

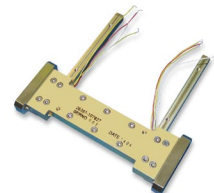
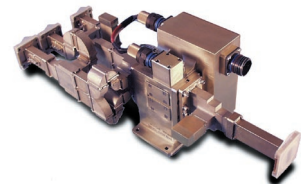
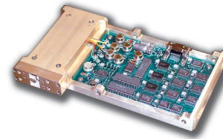
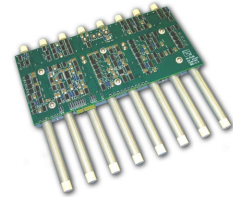
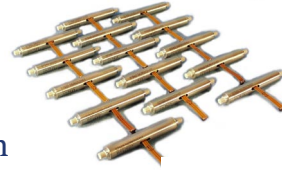
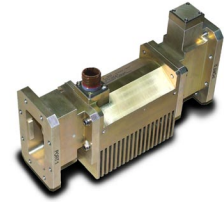
function generators and interface equipment for real-time computer control of processes;

Planar phased array antennas

and linear array modules, complete with phase shifters, drivers, antenna controller, radiating elements and feed assembly;

Toroid ferrite phase shifters

providing good VSWR, low insertion loss, and minimal insertion phase variation.



MAG continues to develop new products using proven ferrite technology, and looks forward to advancing the state of the art of microwave components and subsystems.

