

SURVEILLANCE TEST SETS

TCAS



ATCRBS



ADS-B



MODE-S

ADVANCED TECHNICAL GROUP

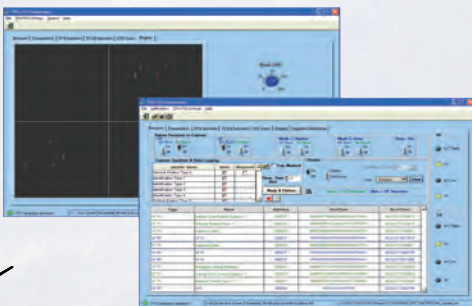
Advanced Technical Group (ATG) provides electronics and software engineering products and services primarily for the aerospace industry. ATG personnel also have significant software development experience in the telecommunications, financial and inventory control industries.



The technical team at ATG has over 250 years Avionics combined experience - our emphasis is in three main areas: Test Equipment, Aircraft Data Converters and Engineering Services. We have developed Test Equipment for Communications, Navigation, Printers, Transponders and TCAS... Our Data Converters include Digital 429 to Analog, Analog to Digital and Analog to Analog with complete monitoring of outputs to the inputs. We continue to provide quality engineering services (off/on-site) to major OEM suppliers in the areas of Software

Development and Validation, RF Design/Testing, Analog/Digital and Mechanical Engineering. Most recently ATG received ISO 9001:2000 certification, validating our continued effort to providing outstanding customer service and quality.

TCAS/XPDR RF GENERATOR/RECEIVER



- TX/RX Downlink Formats Mode S and Mode A/C
- TX/RX Uplink Formats Mode S and Mode A/C
- Four Port Antenna Simulation (Top/Bottom)
- RF Output Phase: 0-359 Degrees (4 Port)
- RF Output Power: -20 to -90 dBm
- Simulates Dynamic (28) and Static (400) Aircraft
- ADS-B Squitters
- Receiver: 40 dB Dynamic Range
- Receiver Detects External RF and Internal Tx
- Receiver Data Logging and Time Stamp
- TCAS Hybrid Surveillance Test Capability
- User Defined Downlink/Uplink Formats
- Under Development: Phase, Power, Pulse Measurements
- USB 2.0/GPIB/LAN Interface to the PC
- 115/230 VAC, 50/60 Hz
- 19 Inch Rack Mountable Panel

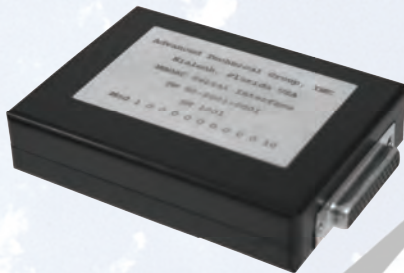


TCAS ADS-B SIGNAL GENERATOR

- Test Set Simulates Transponder Downlink Formats for Mode-S, Mode A/C, and ADS-B
- Software Allows Testing DO-260A Test for ADS-B Reception
- Drives 6 Simultaneous RF Sources for Testing per DO-260A
- Modulation Output are 50 Ohm for connectivity with RF Sources
- Software Allows Simulation of 28 Moving and 400 Stationary ADS-B Targets
- Built in 1090 Receiver
- Receiver: 50 dB Dynamic Range
- RX Data Logging/Time Stamp
- RX User Defined Format/Trapping
- USB 2.0/1.1 Compatible for Fast Interface to PC
- 115/230 VAC, 19 Inch Rack Mountable



MADAC AVIONICS SERIAL INTERFACE

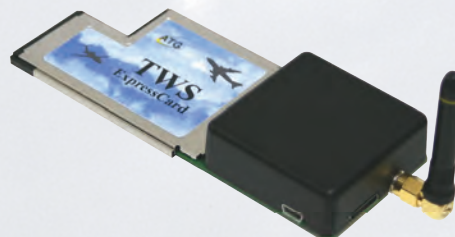


- Two 429 Receivers
- One 429 Transmitter
- One RS-232 Transceiver
- One RS-422 Transceiver
- 32 Bit DLL Driver and Application Software
- Label Capturing and File Logging
- Label Definition
- Engineering, Binary, and Hex Data Formats
- Receiver Capturing with Time Stamp to 1 mS
- Optional ARINC Discretes Inputs/Outputs
- USB 2.0/1.1 Interface

TWS (TRAFFIC WARNING SYSTEM)

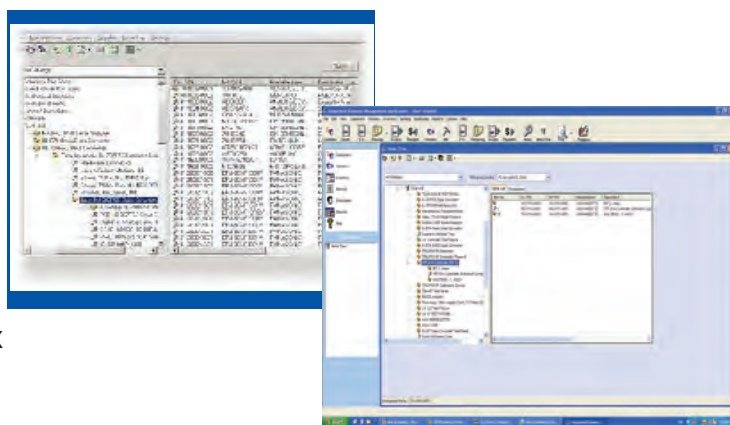


- Traffic Alert / Display to Own Aircraft
- Real-Time Terrain Display - Embedded GPS
- Mode S / ADS-B & Mode A/C Display/Capture
- GPS/TCAS Data Logging With Time Stamp
- Logged Data Scenario Playback Capability
- Remote User Data Display using UDP/TCP-IP
- ExpressCard or USB 2.0/1.1 Interfaces



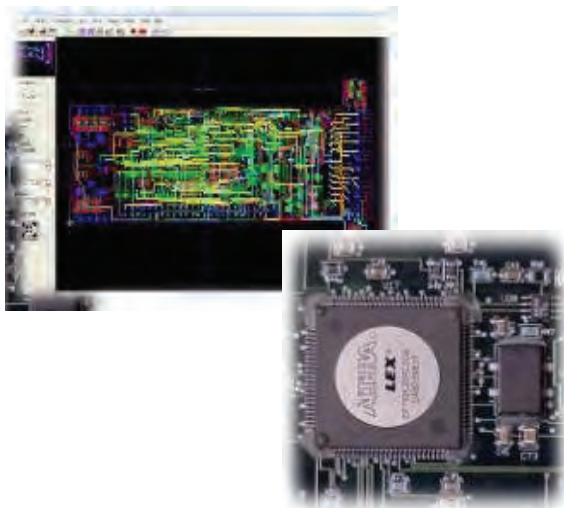
SOFTWARE

- Windows SDK, WinSockets (TCP/UDP)
- C / C# / C++
- LabWindows, LabView, TestStand
- Embedded and Web Applications
- Database Applications - Access, SQL, Informix
- DO-178B Software Verification and Validation
- System Requirements Development



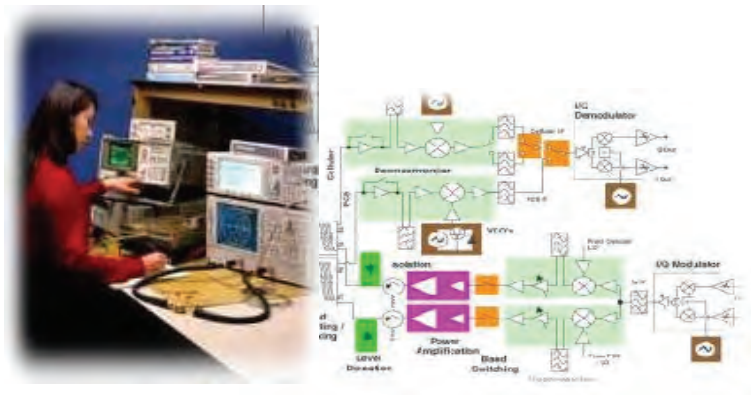
DIGITAL/ANALOG/TEST

- Embedded Microprocessor and Microcontroller
- Programmable Logic Devices
- Schematics and Printed Circuit Board Layout
- VHDL Designs
- Digital Signal Processing
- Serial Interfaces (RS-232, RS-422, USB, ARINC 429)
- Analog Interfaces (Resolver, Synchros)
- Audio Signal Processing
- Automated Test Systems
- Test Methodology Development
- HALT/HASS Environmental Screening Development



RF/MICROWAVE

- Receiver/Transmitter Designs to 10 GHz
- VCO, Oscillator, and Amplifier Designs
- Obsolete Parts Analysis and Replacement
- RF Simulations
- EMI/EMC Testing
- RF Test and Alignment Fixtures
- Automatic Test Setup
- RF Subassembly Test



MECHANICAL

- Mechanical Conceptual Designs
- 3-D Modeling
- Industry Standard Pro/Engineer CAD
- Top Assembly Outlines
- Detail Drawings
- Bill of Materials
- Assembly Drawings

