Contact Us

FOR MORE INFORMATION ON:

- Radio Frequency and Microwave Measurements
  - Antennas and RCS
  - Electromagnetic Interference/ Compatibility
  - EM Properties of Materials
- Computational EM
- Microwave Radiometry
- Airborne Flight Deck Sensors
  - Weather Radar/Lidar
  - FLIR
  - Icing Detection
- Image Enhancement/Pattern Recognition
- Photonics

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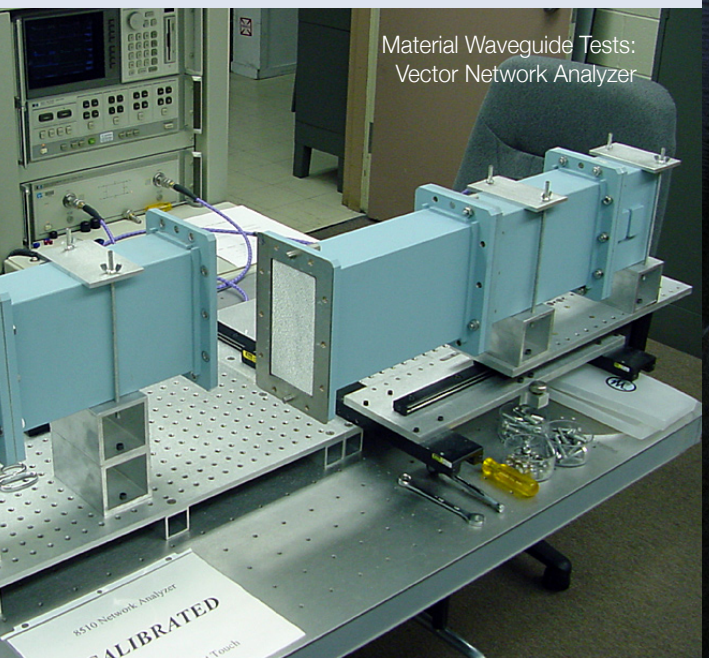
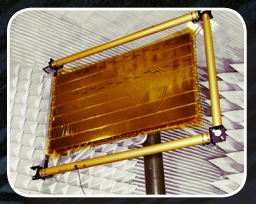
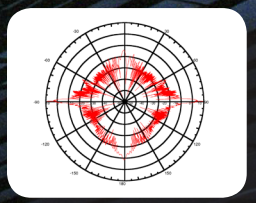


Material Waveguide Tests:
Vector Network Analyzer

National Aeronautics and Space Administration

Electromagnetics & Sensors Branch RF/Microwave Measurements





National Aeronautics and Space Administration

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EM Properties of Materials

In recent years, material scientists have succeeded in developing exotic, customized materials with EM properties not found in nature, revolutionizing EM applications. ESB has been a leader in developing techniques to characterize these materials.

FACILITY:

- 3 HP8510C Network Analyzers
- L, S, C, Xm, X, Ku Band waveguide calibration and test sample fixtures
- Coaxial test fixtures
- Specialized techniques for thin films

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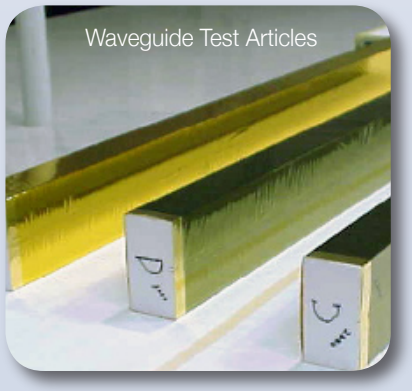
EM Electromagnetic
ESB Electromagnetics and Sensors Branch


Waveguide Test Articles

Radar Cross Section (RCS)

ESB pioneered indoor compact range RCS measurements in the early 1980s. Today, indoor compact ranges allow government, industry and academia to perform precision RCS testing in a small, indoor controlled environment.


Model Test in CRTF

FACILITIES:

Compact Range Test Facility (CRTF)

- RCS and antenna pattern measurements
- Frequency Range: 500 MHz - 40 GHz
- Test Zone Size: approx. 6' x 8' x 10' (frequency dependent)
- Positioner / Support: metal ogive and foam column (RCS)
- Roll over azimuth, 500 pound capacity

Experimental Test Range *(under development)*

- RCS and antenna pattern measurements
- Frequency Range: 300 MHz - 18 GHz
- Test Zone Size: 13' x 13' x 13'
- Positioner / Support: foam column / string reels
- Azimuth only

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Microwave Antenna Design and Testing

ESB has decades of experience designing, developing and testing antennas from 100MHz – 18GHz. Block up/down converters also provide Ka-Band capability.

FACILITIES:

Low Frequency Test Chamber

- 100 MHz-18 GHz Tapered Far Field Range
- 6-8 ft. square quiet zone (frequency dependent)
- 1000 lb. Roll over Az position

Compact Range Test Facility (CRTF)

- 500 MHz-18GHz, 26.5 GHz-40 GHz
- 6-4 ft. quiet zone
- Foam column and metal pylon mount

Experimental Test Range *(under development)*

- 300 MHz – 18 GHz
- 13' x 13' quiet zone

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C-17 Weather Radar Antenna Test