



technology for innovation

## FIELD TEST EQUIPMENT

### A20 - FAMILY OF MOBILE SOLUTIONS



#### **Family of Field Test Equipment (FTE) for Communication, Radar and Electronic Warfare applications**

**Simulation, generation, reception and analysis of complex electromagnetic signal scenarios for**

- Calibration
- Test
- Validation

**of equipment on board End User platforms (naval, air, ground)**

**Highly mobile, fully integrated and compact, easy to use on the field or in laboratory**

**Remote Control of the FTE via WIFI**

**Qualified and certified for**

- Safety
- Harsh naval Environment
- Electromagnetic Compatibility

**Customizable based on End User needs (e.g., range of operation)**

A20 - RSS is the Radar Signal Simulator member of the highly-mobile A20 family developed by Electronica GmbH for land and sea environment.

A20 - RSS generates RF emissions able to simulate a complex electromagnetic scenario in order to verify and validate operational EW Systems and to train ESM/ELINT operators.

Electronica A20 Radar Signal Generator can be easily synchronized with additional RF sources via HLA/DIS interfaces, taking the role either of main or subordinate simulation engine and Human to Machine Interface.

The air condition system is able to maintain a stable temperature inside the rack to ensure stable signal generation. So it allows outdoor operations.

The transmitting antenna could be mounted either on the top of the rack or on nearby tripod.

Electronica A20 - RSS has a modular design for easy transport.

A20 RSS models and simulates radars for short and long range naval surveillance, fire control, navigation, collision avoidance, weather, civil traffic control, air surveillance, search & tracking, multi-function, low probability of intercept and missile guidance.

## A20 – RADAR SIGNAL SIMULATOR



Sealed and Shock Absorbing Rack with internal Temperature and Humidity Control for use in harsh environment (MIL-STD-810E):

- Temperature Range 0 – 45°C
- Solar Radiation 1120 W/m<sup>2</sup>
- Humidity up to 90%
- Wind Speed up to 40 Km/h
- Salty Fog, Rain, Sand, Dust, Fungus

The system hosts

- RF equipment for signal generation, power amplification and BITE and
- IT equipment for control and monitoring of the rack and rack equipment

The antenna is mounted either on the top of the rack or on nearby tripod. The entire FTE is controlled by A20 control SW, which offers easy access and use of the included functions.

The same Control SW steers the antenna over azimuth/elevation (pan/tilt)

Modular interfaces allow the usage of various antennas and RF devices

The simulation SW, developed by Elettronica GmbH, allows for:

- Dynamic simulation of radar signals in time multiplexing over wide frequency range
- Simulation of AMOP, FMOP, PMOP
- High density emitter scenario and generation of complex emitters (multiple modes)
- Simulation of emitters with pulse-to-pulse or burst-to-burst agility of frequency, PRI, pulse width, pulse position
- Simulation of antenna patterns and antenna scan
- Management of pulse conflicts through priorities

Frequency Range: 0.5-18 GHz (opt. 40 GHz)

Different COTS RF sources can be integrated and steered by A20 – RSS with state-of-the-art frequency and time accuracy, and signal generation performance (pulse width, PRI, chirp bandwidth)