

# SD-ERNST– Software Defined Extended RF Networked Signal Transmitter

PN: AE102491-001



Aeronix's SD-ERNST is a high performance digital modulation signal generator. It is capable of covering 4 simultaneous independent frequency bands. The SD-ERNST is a processor FPGA based system designed to evolve to meet its users needs and enable unique customer specific modifications. Common applications include interference testing, antenna testing, and radio receiver isolation testing. Each of the 4 channels are capable of independent modulation, independent frequency selection, independent selectable output power levels, and independent associated status. The system is for use with TDMA, FDMA, and CDMA waveforms.



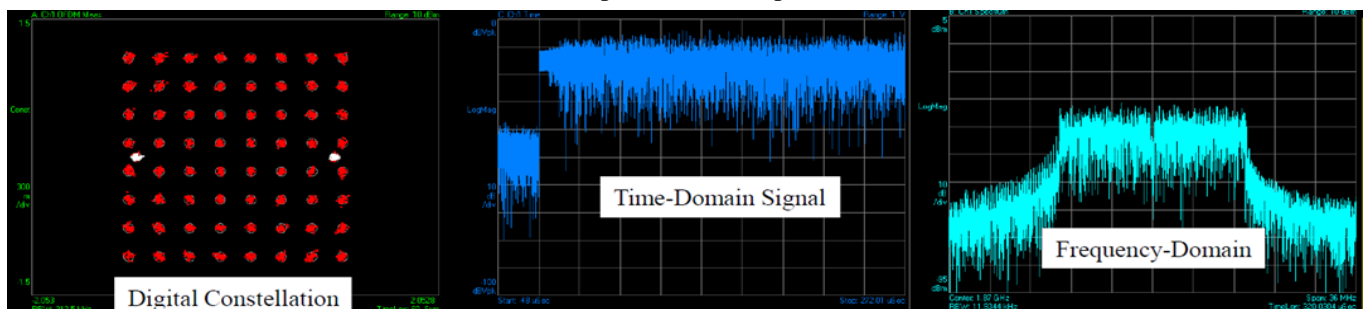
## Software Reprogrammable Signal Transmitter

- Power Control
- 4 Independent Channels
- Networked based Configuration, Control, and Status
- Fully Reprogrammable Signal Generation
- Fine grained Frequency Resolution
- Modular Frequency Band Support
- Software Download Function for easy upgrades

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## Example TDMA Outputs



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## Radio Specifications

|                            |                                      |
|----------------------------|--------------------------------------|
| Modular RF Front End       | 800—950 MHz, 1900-2100 MHz (current) |
| RF Tuning                  | Selectable to 10 Hz granularity      |
| Base Frequencies Supported | 70 MHz—6 GHz                         |
| Tunable RF Bandwidths      | < 200 kHz to 56 MHz                  |
| RF Output Power            | 0—30 dBm                             |
| Tx EVM                     | -38 dB                               |
| Tx Noise                   | <= -157 dBm/Hz at 800 MHz            |
| Waveforms                  | Software Reprogrammable              |
| DACs                       | 12 bit                               |

## Mechanical

|                    |                   |
|--------------------|-------------------|
| Chassis            | 1U, 18 inch depth |
| Connector Location | Rear Panel        |
| Cooling            | Forced Air        |

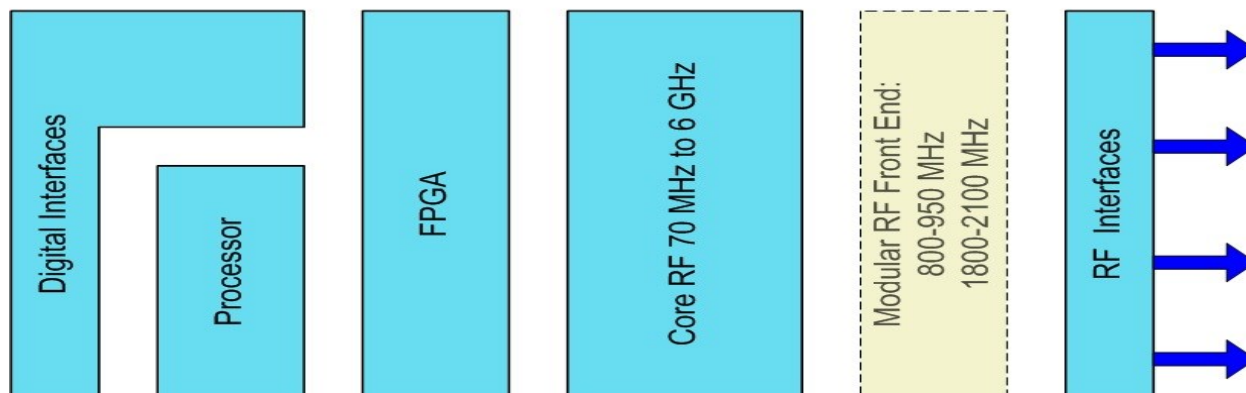
## Interfaces

|                   |   |
|-------------------|---|
| RF                | 4 Independent channels with TNC connectors                    |
| Network           | 10/100 Ethernet, RJ45   |
| Timing            | 1PPS / 10 MHz Input   |
| Power             | Universal, supports both 110VAC and 220VAC                    |
| On/Off Switch/LED | Integrated. Turns power on and off, indicates power on or off |
| Management        | SNMP v2/v3  |

## Physical Characteristics

|        |                |
|--------|----------------|
| Weight | 2 lbs 9 ounces |
| Power  | ~40 Watts      |

## Modular Software Defined Architecture



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