

-150 SSI

SYNTHETIC STIMULUS INSTRUMENT

The -150 SSI is the next generation SSI (Synthetic Stimulus Instrument). The -150 SSI is a phase-coherent, wide-band Direct-Digital Synthesizer (DDS), which provides 500MHz of instantaneous bandwidth, enabling threat generation of today's most complex emitters. The two modes of operation enable the capability to generate 2 MPPS in radar mode or 20 simultaneous communication emitters per -150 SSI, creating a dense, complex, realistic environment for test and evaluation.

The -150 SSI has been designed with industry leading noise reduction and spurious free dynamic range (SFDR) with over 70 dBc of SFDR. The -150 SSI frequency range encompasses 0.5MHz-40GHz, making it the most capable DDS source on the market. The -150 SSI is backward compatible to existing A²PATS™ installations with minor retrofit kits, using the same, 4-card foot-print and interfacing with the existing backplane, but providing a vastly greater capability.

TEXTRON Systems

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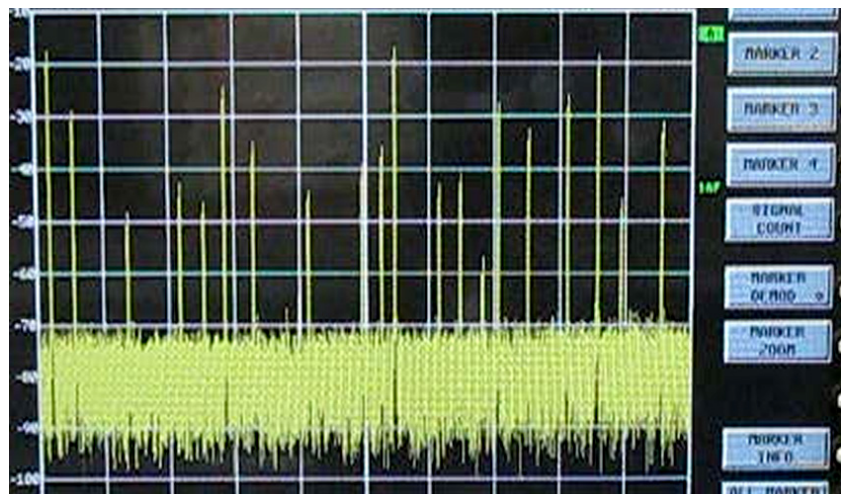
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SPECIFICATIONS

- Operating Frequency Range:
 - 500kHz to 40GHz
- Phase Resolution/Accuracy:
 - 0.022°/1.7 ° RMS
- Noise Floor
 - -90 dBm/MHz (No signal present)
- Frequency resolution/accuracy
 - 0.1 Hz
- RF source:
 - Up to 8 SSIs per port
- Spurs & harmonics:
 - -70dBc (max)
- Pulse width range
 - 24 ns to 1.0 s/20 ps +/- 1.0 ns
- Pulse density
 - Up to 2MPPS or 20 simultaneous communications emitters
- Testing:
 - Direct inject or radiated testing
- Pulse repetition interval:
 - 512 ns to 1.0s/20 ps +/- 1.0 ns
- Bandwidth
 - 500 MHz
- Chirp Range
 - 500 MHz – 40GHz

KEY BENEFITS & FEATURES

- 500MHz of instantaneous bandwidth
- Multi-signal capability from a single -150 SSI:
 - Radar Mode - 4 simultaneous CW plus pulsed emitters in a 500MHz bandwidth
 - COMMS Mode - 20 simultaneous COMMS emitters
- Ultra-wide frequency range .5 MHz – 40 GHz in a single -150 SSI
- Superior Spectral fidelity
- Accommodates all A²PATS system features
- Backward compatible to existing A²PATS installations
- Commercially available with implementing software for industry and military applications



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