

# Radar Signal Simulators

**The Radar Signal (RS) Simulator** is designed to simulate the RF signatures of anti-ship cruise missiles (ASCMs) and their associated targeting radars: land-based, shipborne and airborne. The RS Simulator has been installed on land, in vans/shelters, in and on aircraft, in unmanned targets and aboard ships.

One of the major land-based applications is the Smart Target threat program. These Smart Targets provide not only a realistic RS transmission, but they also provide realistic threat shapes that are highly mobile and equipped with many other modules to increase the fidelity of the overall threat.



The RS Simulator can be locally controlled or can be remotely controlled using a personal computer. All parameters of the simulator, along with antenna pointing, can be remotely controlled.



## Radar Signal Simulator Installed:

- OnLand
- Aboard Ships
- In Vans/Shelters
- In & On Aircraft
- In Unmanned Targets

## Local or Remote Control via PC

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## Transmitter Operational Capabilities

RF Device	Duty Cycle	Frequency Range (GHz)*	Automatic Tuning Accuracy (MHz)	Pulse Repetition Frequency (Hz)	Pulse Width (µs)	Peak Power (KW)	Platform
Magnetron	.0011	2.9-3.1	+/-10	100 - 5500	0.15-2.0	175	Landbased/Shipboard
Magnetron	.001	4.9-5.1	+/-10	100 - 5500	0.15-2.0	200	Landbased/Shipboard
Magnetron	.001	6.2-6.6	+/-10	100 - 5500	0.15-2.0	180	Landbased/Shipboard
Magnetron	.0012	6.7-7.4	+/-10	100 - 5500	0.15-2.0	150	Landbased/Shipboard
Magnetron	.0011	7.8-8.5	+/-10	100 - 5500	0.15-2.0	30-180	Landbased/Airborne/Shipboard
Magnetron	.0011	8.5-9.6	+/-10	100 - 5500	0.15-2.0	22-180	Landbased/Airborne/Shipboard
Magnetron	.001	11.9-13.3	+/-10	100 - 5500	0.15-2.0	100	Landbased/Airborne/Shipboard
Magnetron	.001	14.0-15.2	+/-10	100 - 5500	0.15-2.0	22-125	Landbased/Airborne/Shipboard
Magnetron	.0012	16.6-17.1	+/-10	100 - 5500	0.15-2.0	30	Landbased/Airborne/Shipboard
Magnetron	.0011	15.5-17.5	+/-10	100 - 5500	0.15-2.0	100	Landbased/Airborne/Shipboard
		*Other frequency ranges available					
RF Device*	Duty Cycle%	Frequency Range (GHz)*	Automatic Tuning Accuracy (MHz)*	Pulse Repetition Frequency (Hz)	Pulse Width (µs)	CW Power (W)	Platform
DTO	100	2-6	<3 MHz	1.0-400,000	0.05-100	100	Landbased/Airborne
DTO	100	2-7	<3 MHz	1.0-400,000	0.05-100	600	Landbased
DTO	100	6-18	<3 MHz	1.0-400,000	0.05-100	100	Landbased/Airborne
DTO	100	6-18	<3 MHz	1.0-400,000	0.05-100	300	Landbased
*Other RF Sources Available		*Other frequency ranges available	*Higher accuracy available				

### RADAR SIMULATOR PRF MODULATION & SCAN PARAMETERS:

#### Pulse Modes:

- Steady PRF Mode
- Stagger PRF Mode
- Random Jitter Mode

- Sinusoidal Jitter Mode
- Triangular Jitter Mode

#### Scan Modes:

- Steady Scan
- Circular Scan
- Bi-Directional Scan
- Uni-Directional Scan

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