

# Radar Signal Generator(MARS) Model MRS-P or MRS-A Series (with AESA)

- Frequency: 0.5~40GHz (Optional#: -B, -E)
- Frequency, Pulse, Scan and intra-pulse modulation
- Pulse modulation: FMOP, PMOP, AMOP
- Operation temperature: -24°C ~ +50°C
- RWR/ECM test and evaluation with AESA radar. (Optional#: -A)
- Intuitive GUI for easy AESA radar tracking and navigation scenario editing.
- Extra SMA port for an amplifier or antenna.
- Extra module to simulate AESA radar additionally. (Optional#: -AA)
- Portable carrier with handle and wheels.(Excluding optional#: -AA, -E)



AESA MARS



Rugged Tablet



Components case



AESA Scenario Screen

Product design may be changed depending on the circumstances.

## Optional

MRS	2-18GHz (default), 2-18GHz built-in antenna, built-in battery, additional port for AESA radar, Remote port, Intra-pulse(PMOP/FMOP/AMOP)
-B	Frequency extension 0.5~2GHz, Built-in antenna
-E	Frequency extension 18-40GHz, Exterior antenna & Tripod
-A	AESA radar simulation
-AA	AESA radar simulation module

## Frequency

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- Frequency: 2 ~ 18GHz (Extension frequency: 0.5~2GHz, 18~40GHz)  
 $\pm 3\text{MHz}$  (Multiple Emitter) /  $\pm 0.001\%$  (Single Emitter)
- Frequency modulation: Sine, Triangular, Square, Saw tooth wave; (Bandwidth: 500MHz)
- Hopping Rate : 1000hop; phase : 2 ~ 16

## Pulse characteristics

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- PRI: 2 ~ 100,000usec / PW: 0.1 ~ 4,000us
- Stagger phase: 2~32
- Doublets, Triplets
- Jitter: under 40%; Sine, Triangular, Square, Saw tooth wave
- Dwell & Switch phase: 2~16

## Intra-pulse characteristics

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- FMOP: Chirp Up, Chirp Down; (Bandwidth: 50MHz)
- PMOP: Barker Code, Bi-Phase, Quad-Phase, User Defined
- AMOP: 5~30 dB; Pattern : Sine, Triangular, Saw tooth , Circle, Random

## Scan characteristics

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- TWS, Circular, Helical, Sector, Raster, Spiral, Bi-Directional, Elliptical, Conical, Lobe-Switching, BOX, Steady, Advanced Waveforms(E-Scan)

## Radiated power

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- (Optional# -B) 0.5 ~ 2GHz : +20dBm  $\uparrow$
- 2 ~ 10GHz : +37dBm  $\uparrow$ ; 10 ~ 13GHz : +40dBm  $\uparrow$ ; 13 ~ 18GHz : +38dBm  $\uparrow$

## AESA radar simulation

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- PRI Modulation, PW Modulation, Intra Pulse Modulation(IPM), Linear Frequency Modulation(LFM), Scan Modulation

## Emitter

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- Multiple signals: 8 Pulse or 1 CW
- Scenario Operations Up to 200 Emitter; Maximum Programmable Threats: 200+

## Power

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- 220VAC, single-phase power supply; lithium-ion battery
- Portable carrier with handle and wheels, 600 x 320 x 520mm
- Components box, 620 x 492 x 223mm

## Operating temperature

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- -24 ~ +50°C

## Peripherals

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- Components box: Rugged Tablet, Spare battery, Battery charger, Power cable, Remote control Cable(15m), SMA RF Cable, SMA torque wrench, GUI S/W (CD), Manual (CD /Hard copy)