EJDERHA™
HIGH POWER ELECTROMAGNETICS (HPEM) SYSTEM
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ASELSAN’s EJDERHA High Power Electromagnetics (HPEM) System generates extremely high-amplitude electromagnetic fields in specific frequencies and directs them to the potential targets – electronic circuits of improvised explosive devices (IEDs), surveillance systems, computer, IT components, automotive electronics (vehicle engines), etc. – with its specially designed directional antenna-reflector set. It has the effect on these targets such as suppression, predetonation, resetting the control system, durable blocking or stopping the operation.

Consisting of a high power DC charger, a Marx Generator, an antenna and a reflector, the HPEM System generates high-frequency high-power (400kV/m at 1m) electromagnetic waves by releasing instantaneous (in ns) high amounts of energy (up to kJ).

Application Areas

EJDERHA can be integrated on vehicles (route clearance, car stopping) as well as on unmanned ground vehicles (neutralization of suspicious packages by EOD teams) or can be used at checkpoints/base/building (car stopping and also clearance /neutralization of bugs in buildings behind walls and inside furniture). According to customer’s choice, the HPEM System can be integrated with a non-linear junction detection based Detection System and co-operate with it as the principle of operation is that the HPEM System is activated immediately only when the Detection System detects a potential target.

Basic Features

• Application Type:
  • Protection against IEDs, route clearance,
  • Car stopping on vehicle or at checkpoints,
  • EOD team use on unmanned ground vehicles,
  • Clearance /neutralization of bugs in buildings behind walls and inside furniture
• Electric Field : 400kV/m @ 1m
• Pulse Frequency: More than 10 pulses per second is possible
• Beam Width : ±45°
• SAR : Compatible with Health Standards (No ionizing radiation, no heating effect)
• No effect on friendly force communication

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