

Software Defined EW System

DEW-100

000101000011 0101001-0101110

KAREL Advanced Technologies

info@karel-iltek.com.tr

KAREL Advanced Technologies

Software Defined EW System

DEW-100

KAREL Advanced Technologies

info@karel-iltek.com.tr

KAREL Advanced Technologies



Empowering Spectrum Superiority in Any Domain

In today's dense and contested electromagnetic environment, survivability and mission effectiveness depend on speed, agility, and adaptability. The **Digital SWaP-C optimized Electronic Support & Electronic Attack System, DEW-100** is a fully digital ES/EA solution built to detect, identify, and defeat modern RF threats across air, land, and sea—within a compact and power-efficient footprint.

Leveraging cutting-edge digital signal processing, machine learning, and real-time reconfigurability, this system provides wideband signal detection, classification, identification and jamming—faster and more intelligently than conventional systems. All within a compact, lightweight, reconfigurable and power-efficient architecture designed for deployment on UAVs, UGVs, USVs, dismounted units, and other mobile or tactical platforms.

Key Features:

- Wideband signal detection
 - Multi-Channel, Reconfigurable Digital Receiver Structure
- Digital signal processing core with High-speed ADC-DAC, Xilinx Ultra scale + Family FPGA
- DRFM Based Complex Jamming and Deception Techniques
 - Range, Velocity, Angle Deception Techniques with Combinations
 - Low Latency
 - Jamming Support Receiver
- Reconfigurable with Modular Open Architecture
- SWaP-C Optimized Design
 - Lightweight
 - Relatively Low power draw

SYSTEM SPECIFICATIONS

PARAMETER	VALUE
Model	DEW-100
Frequency Range	2 – 18 GHz
Output Type	CW or Pulse
Instantaneous BW	1 GHz
Input Power Range	-120 to +10 dBm
Receiver Type	Wideband Digital Receiver
Jammer Type	DRFM based jammer with JSR
Jamming Techniques	CN, RGN, RGPO, VGPO, R/VGPO, RANRAP, RFT, VFT, DRR, AM Wobulation, Power Ramp-Up, Scintillation and Combinations
Output Power	40 dBm @ unit output (w/o antenna gain)
In-flight Programming	Yes
Interface	Ethernet, RS-485
Size	165x150x230 mm
Chassis	Open VPX 3U
Weight	< 10 kg.
Operating Voltage	28 VDC
Power Consumption and Operating Temperature	150 Watts, -40°C to +85°C

