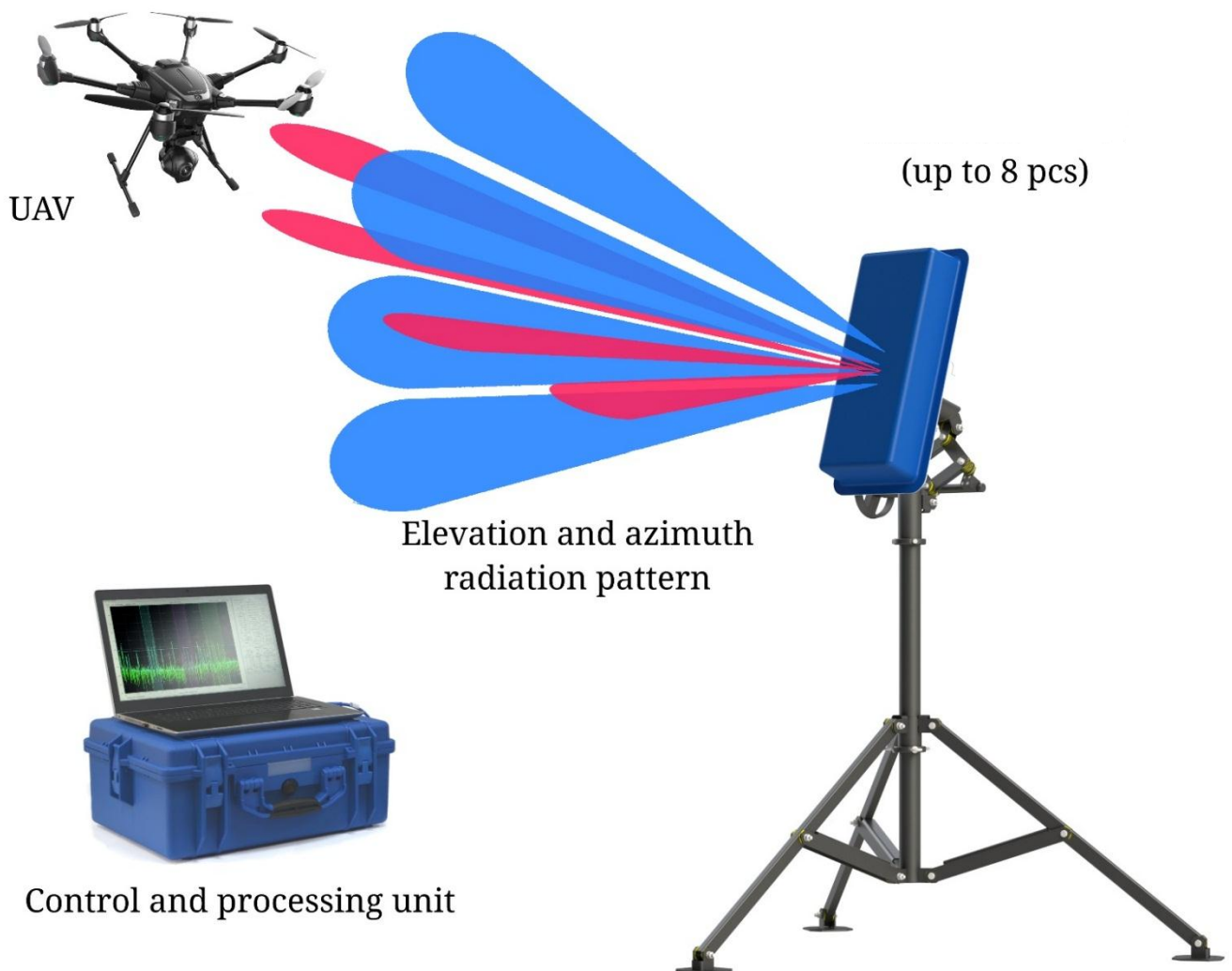

Small UAVs detection AESA system

"AIR SHIELD DDR-4"

DDR-4 is an AESA system designed to automatically detect and track flying objects in mid-air area. The system may operate in mono-pulse and bistatic mode, with the ability to scan both in elevation and azimuth direction. Also, DDR-4 may work as a high-speed communication system with beamforming. The receiver of the system has fully digital scanning in the azimuth area and discrete analog scanning in elevation.

Transmitter has discrete analog scanning only in the elevation. By using onboard synchronization system, it is possible to combine the radars to one working group up to 8 pcs., with different modes of operation. In the main configuration, system using different antennas for receiving (4x4) and transmitting (1x4) pass. The system implements a digital algorithm for the synthesis and processing of signals based on state of the arts approaches and components.



Specifications

Parameter	Condition	Min	Typ	Max	Units
Operating frequency range		5100		5900	MHz
EIRP			59		dBm
Beamwidth			12		°
Transmitter scanning angle	elevation plane (analog)	45 (optional to 90)			°
	azimuth plane (none scan)	45 (optional to 90)			°
Receiver scanning angle	elevation plane (analog)	45 (optional to 90)			°
	azimuth plane (digital)	45 (optional to 90)			°
Polarization		Linear vertical (optional circular L/R)			
Operating mode		mono-pulse, bistatic			
Output signal modulation type		LFM (optional PRBC)			
Transmitted pulse duration		0.1		10	μs
Transmitted pulse ratio		4			
UAV detection range	RCS 0.01 m ²	30		3000	m
Bistatic grouping				8	pcs
Operating supply voltage range		19		36	V
Power consumption				160	W
Operating temperature range		-40 ... 50			°C
Overall dimensions (L × W × H)		725 × 360 × 182			mm
Weight	without tripod		12		kg

