HIGH-PERFORMANCE COHERENT MILLIMETER-WAVE RADAR FOR MONITORING AND CONTROLLING GROUND MOVEMENT AT AIRPORTS



Appearance of equipment

Areas of Application

Monitoring of ground movements of aircraft and vehicles in airports.

Coherent signal processing provides robust automatic detection of moving objects by Doppler shifting the frequency of reflected signals and their classification at speed using color marking on a radar image.

Modifications to the radar system can be used to control the movement of vessels in the straits, in sea and river ports, as well as to monitor activities in areas with a special regime.

Stage of Development

IRL6, TRL5

IPR Protection

IPR2



Radar image when landing an AN-140

Specification

Carrying frequency - 36 GHz; Pulsed power - 20 W; Azimuth resolution - 0,25 °; Resolution at -15m range; Maximum target range detection with an effective surface of 1m2 or more display: in the absence of precipitation - not less than 5 km; at sediments - not less than 3 km

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Advantages

Achieved new qualities:

-Automatic allocation of moving objects against the background of stationary, located in the control zone

-Improvement of ecological indicators at the expense of a significant decrease in the power of radiation of the microwave field in the surrounding space

-The opportunity to use the arrangement both in the network of sensors of the system A - SMGCS, and independently as a radar of inspection of the flight field at small aerodromes.

Contacts

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