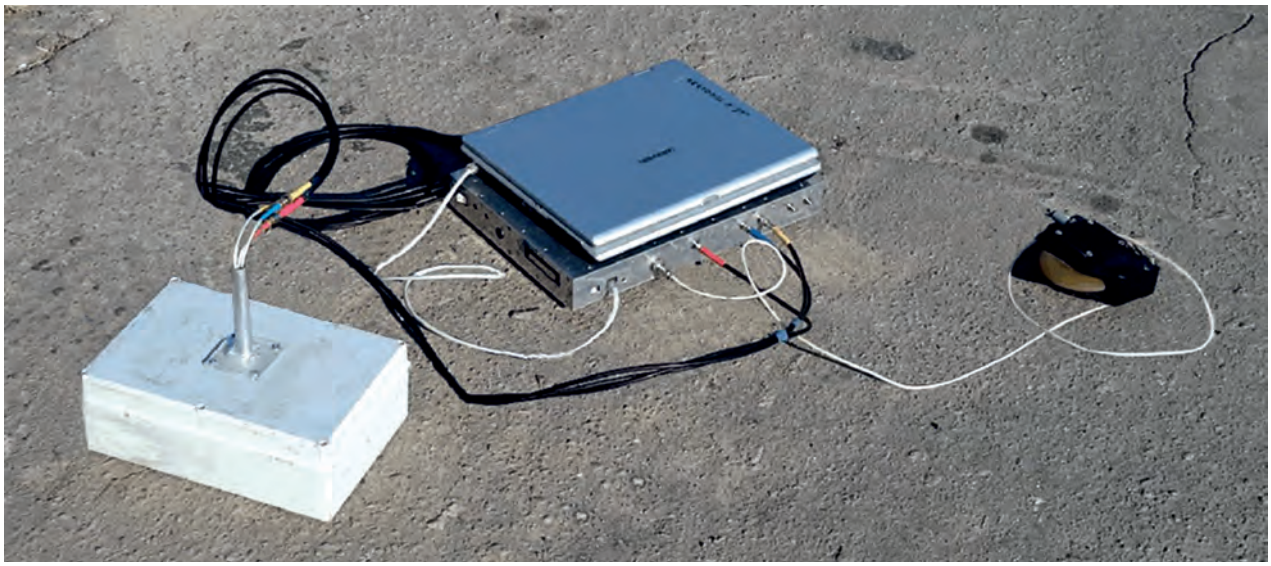
GROUND PENETRATING RADAR



Areas of Application

Monitoring of road pavement condition

Specification

The device collects data every 23 cm at a speed of up to 70 km/h.

Probing pulses:	
amplitude, V	≥75
front time, ns	≤0.4
Antenna:	
frequency band, GHz	0.8—1.6
Sampling receiver:	
noise level, mV	≤200
readout step, ps	10
increase in transient response, ns	≤0.2
synchronization readout error, ps	<3
Observation interval, μs	≤2

Advantages

Signals from the emitter are attenuated up to –65 dB at the receiver input, with amplitude of the useful signal increasing. Variable sensing time and possibility of its optimization improve the signal/noise ratio. High stability of synchronization enables accumulation of signals. Analog accumulation while receiving expands the operating bandwidth and increases the signal/noise ratio. Improved output performance increases probing depth, accuracy of localization of subsurface objects, and the ability to detect low-contrast objects

IPR Protection

IPR1, IPR3

Stage of Development. Suggestions for Commercialization

IRL6, TRL5
Manufacture, delivery, warranty service, and staff training, upon request

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