

## EQUIPMENT FOR IONOSPHERE PLASMA DIAGNOSIS

## Areas of Application

The equipment is to be used for monitoring and controlling the parameters of near-satellite environment

## Specification

The equipment consists of neutral particles detector DN, charged particles detector DE, and research data accumulation unit.

The neutral particles detector DN: overall dimensions are  $100 \times 115 \times 105$  mm; weight is 1.2 kg; power consumption is 4 W; maximum current (output signal) is 100 mA.

The charged particles detector DE: the detector consists of two mutually orthogonal electric probes; diameter of the probe site is 5 mm; diameter of the measuring electrode is 1 mm; full length of the probe is 290 mm; weight is 40 g; power consumption is 0.25 mW; maximum current through the measuring electrode is  $12 \mu\text{A}$ ; time for current-voltage response measurement is 1 s



Neutral particles detector DN

## Advantages

This equipment enables obtaining spatial and time distributions of parameters for neutral and charged particles of ionosphere plasma along the satellite orbit

Stage of Development.  
Suggestions for Commercialization

IRL6, TRL8

Manufactured and supplied, upon request



Charged particles detector DE

## IPR Protection

IPR3

## Contact Information

*Halyna S. Kochubey*, Institute of Technical Mechanics of the NAS of Ukraine and the State Space Agency of Ukraine; +38 056 247 24 88, e-mail: vashuvalov@ukr.net