

# PRMG-76UM

## INSTRUMENTAL LANDING SYSTEM OF DECIMETRIC RANGE



Ground equipment of **PRMG-76UM** instrumental landing system of decimetric range is intended to provide approach and landing for an aircraft, equipped with airborne navigation system RSN-2S or its modifications, around-the-clock under ICAO **CAT I-II**, in manual, semiautomatic and automatic mode.



### MAIN FEATURES:

- Principle of working area forming, output parameters stability are same or better than of PRMG-76U
- The equipment is based on up-to-date microprocessor engineering, transmitting devices are solid-state
- Two air conditioners
- Automatic switch to backup

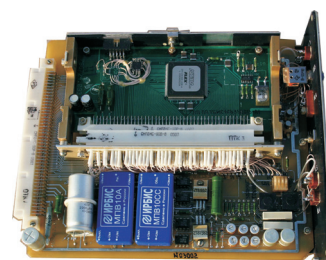
- Uninterrupted around-the-clock operation without continuous presence of technical personnel
- Feature of prompt deinstallation of the equipment for placing in stationary room

• **PRMG-76UM** is recommended to use at stationary airdrome in remote control mode made from control tower. It provides landing under ICAO CAT II conditions if transmitting antennas and check point masts are installed on the foundation.

• High mobility, simple deployment, and universal autonomous power supply make **PRMG-76UM** indispensable when there is the need of frequent moving from one airdrome to another.

### COMPONENT PARTS:

- Glide-path radio beacon (GP)
- Localizer (LLZ)
- DME repeater station (DR), collocated with LLZ in control room of distance-measuring localizer beacon (DME / LLZ)
- Remote control & monitoring equipment (RC&M) placed in control tower



## SPECIFICATIONS OF PRMG-76UM

### Localizer (LLZ)

Antenna system, elements in array:	20
Polarization	horizontal
Range, not less	45 km
Coverage zone, horizontal plane	$\pm 15^\circ$
Coverage zone, vertical plane	$0.85^\circ - 7^\circ$
Frequency range	905.1 - 932.4 MHz
Frequency stability	$\pm 0.005 \%$
Number of channels	40
Established limits of directional sector	$3^\circ - 6^\circ$
Deviation from established on-course plane position at the beginning of runway, not more	$\pm 10.5 \text{ m}$ - for LLZ Cat I $\pm 7.5 \text{ m}$ - for LLZ Cat II

### Glide-path radio beacon (GP)

Antenna system	"Zero area"
Polarization	horizontal
Range, not less	18 km
Coverage zone, horizontal plane	$\pm 8^\circ$
Coverage zone, vertical plane	$0.3 - 1.75 \theta$
Frequency range	939.6 - 966.9 MHz
Frequency stability	$\pm 0.005 \%$
Number of channels	40
Established limits of glide slope angle ( $\theta$ )	$2^\circ - 4^\circ$
Deviation from established glide-path plane position, not more	$\pm 0.075 \theta$

### DME Repeater

Antenna system	4-element array
Range, not less	45 km
Coverage zone, horizontal / vertical plane	as for LLZ
Frequency range / Frequency stability / Number of channels	as for GP
Limits of ZERO POINT setting from DME repeater location	0 - 5 km
Distance calculation error by aircraft, not more	250 m

### Overall Dimensions

LLZ (GP) operating room, m	4.2 x 2.42 x 2.8
LLZ (GP) cabinet, m	1.60 x 0.93 x 0.68
Electric power station, m	1.40 x 1.43 x 1.64

### Operating Conditions

Temperature	- 50 to + 50 °C
Wind Load	up to 50 m/s
Relative humidity	up to 98% at +35°C

### Power Supply

Circuit, three- phase	380V, 50Hz
Autonomous (petrol electric power station) / Accumulators	220V, 50Hz / +24 V
Consumed power, not more	
Total, including life support facilities, per each beacon, not more	2,5 kVA
Basic LLZ / GP equipment, not more	600 / 270 VA

### Reliability

MTBF of each radio beacon, not less	3 500 hrs
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\* specifications are subjected to change without prior notice