



RTP90 consists of 16-panel 9 meter dual reflector dish with Az over El pedestal configuration. The pedestal is mounted on a rigid base extension tube with ladder suitable for installation on ground with the concrete foundation. Thanks to dual shape optics for achieved the superior G/T performance.

RTP90 is a State-Of-The-Art integrated Radio Telescope package, fully motorized and computerized. This radio telescope has enough collecting area for advanced astronomers to be appreciated to observe many physical phenomena that can be expected from a proper tool.

RTP90 is a Radio Telescope package ideal for observation of weak celestial sources in spectral line or continuum mode in any bands from L to Ka.

### RTP-90 INCLUDES:

- 9.0 meter dual-reflector shape antenna
- Full sky coverage motorized mount with Azimuth over Elevation configuration
- high resolution (  $0.01^\circ$  ) encoders
- Limit switches safety mechanism
- Rack mount Antenna Controller
- Rack mount Back-End receiver unit for continuum and spectral line observation
- L-Band Front-End unit
- Imaging and control software with radio sources database.
- 50 meter control and coax cables
- One year warranty and 10 years part supply

### OPTIONS:

- C, Ku, X and Ka bands Front-End unit
- Calibration Noise Source
- Training and installation services
- Reflector heating system
- Cryogenic cooling system



### ELECTRICAL SPECIFICATIONS:

Operating frequency	L-Band (1350 to 1450 MHz)	Ka-Band (21-22.5GHz)
Polarization	Linear	Linear
G/T	22.05 dB/K @1450MHz El=5°	44.82 dB/K @22 GHz El=5°
Gain	40.50 dB	63.74 dB
VSWR	≤1.35:1	≤1.35:1
Beamwidth	1.6° @ 1.45GHz	0.106° @ 22 GHz
First Sidelobe	< -14dB	< -18dB
Axial ratio	≤1dB	≤1dB
Isolation	≥40dB	≥40dB
Receiver B/W	Variable from 10 Hz to 3000 MHz	
Receiver detectable signal level	-165 dBm	
Minimum Spectral Line Resulation	1 Hz	

### MECHANICAL/ENVIRONMENTAL SPECIFICATIONS:

Antenna Diameter	9.0 meter
Reflector type	Dual reflector shape
Mount type	Az over El
Antenna travel range	Az=0 to 360° , El=0 to 90°
Acceleration (each axis)	constant
Velocity (each axis)	0.5°/s
Tracking Accuracy	<0.01°
Pointing accuracy	0.01°
Surface Accuracy	0.5 mm
Outdoor Operating Temperature	-40° to +55° C
Indoor Operating Temperature	10° to 30° C
Outdoor Humidity	0%~100%
Indoor Humidity	<85% non-condensing
Operational Wind	75 km/h gusting to 85 km/h
Survival Wind	180 km/h (in park position at zenith) gusting to 210 km/h
Seismic	0.3 G horizontal, 0.15 G vertical
Ice Loading	13mm Operational; 25mm Survival
Adaptation	Salt, pollutant, radiation, rain