



RTP30 consists of 8-panel 3.0 meter dual reflector dish with Az over El pedestal configuration. The pedestal is mounted on a rigid base extension tube suitable for installation on ground or rooftop with an optional NPM (None penetrating Mount).

RTP30 is a low-cost integrated Radio Telescope kit, fully motorized which is designed for professionals and educational institutes, a great starting tool for Radio Astronomer. The main Front-End receiver of this antenna is L-Band but additionally, we can supply C, X, Ku and Ka band front-end receiver with this telescope to achieve the different science targets in Radio or Solar astronomy.

### RTP30 INCLUDES:

- 3.0 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:

- NPM ( None Penetrating Mount)
- C, X, Ku and Ka bands Front-End unit
- Training and installation services
- Calibration noise source



### ELECTRICAL SPECIFICATIONS:

	<b>L-Band</b> (1350 to 1450 MHz)	<b>Ka-Band</b> (21 to 22.5GHz)
Operating frequency	L-Band (1350 to 1450 MHz)	Ka-Band (21 to 22.5GHz)
Polarization	Linear	Linear
G/T	12.10dB/K @1450MHz El=5°	35.28dB/K @ 22GHz El=5°
Gain	30.57 dBi	54.19 dBi
VSWR	≤1.35:1	≤1.35:1
Beamwidth	4.8° @ 1.45GHz	0.318° @ 22 GHz
First Sidelobe	< -14dB	< -16dB
Axial ratio	≤1dB	≤1dB
Isolation	≥40dB	≥40dB
Receiver B/W	100 Hz to 1500 MHz	
Receiver detectable signal level	-155 dBm	
Minimum Spectral Line Resolution	10 Hz ( optional 1 Hz)	

### MECHANICAL/ENVIRONMENTAL SPECIFICATIONS:

Antenna Diameter	3.0 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	<0.1°
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