RAP-90
9m Full-Sky Coverage Antenna

9.0 meter class antenna for many applications

Applications:

- Tracking LEO and MEO satellites:
  TERRA, AQUA, NPP, FY3, METOP, NOAA-POES, FY1, FY3, DMSP, JPSS-1 and more
- EOS- Earth Observation Satellites
- DB- Direct Broadcast
- TT&C - general satellite uplink and downlink telemetry, including microsats
- Radar applications for advanced meteorological and environmental analysis
- SARSAT reception of MEO satellites in S and L bands

Advantage:

- Elevation- Over-Azimuth Full Sky coverage mount
  (Az=0 – 360° ; El= 0 -90°)
- X, S and L band feeds provide communication with low earth orbit (LEO) and medium earth orbit (MEO) satellites with custom radio frequency (RF) components used for satellite communications and public safety applications.
- They have high-efficiency feeds for RX and TX / RX applications with integrated down-converter options.
- Multi-band feeds and optional polarity selection depending on application.
- Built-in filtering options to reject strong out of band interference
- Built-in high isolation diplexers for TX / RX applications.
- POAM Electronics provides combination up-converter / down-converter / loopback test converterd for telemetry, tracking and command (TT&C) applications.
- All of the firm's converters are custom-made to the specifications of the client.

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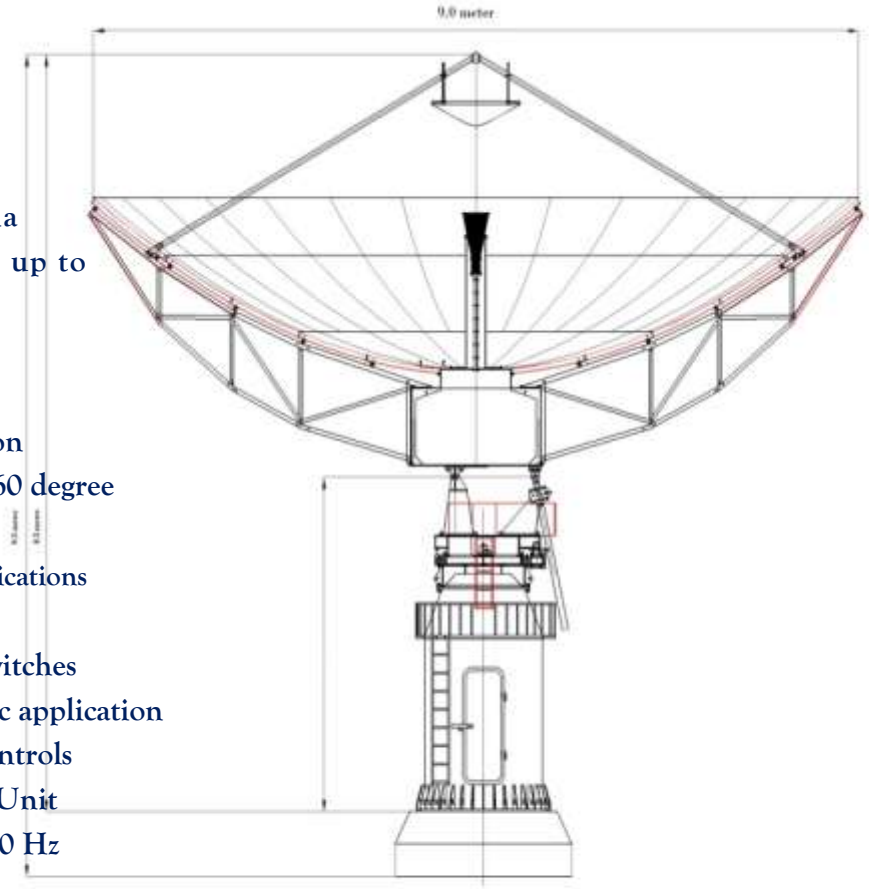
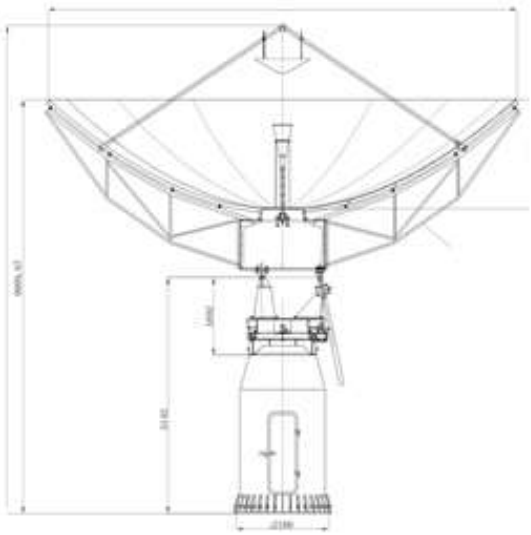
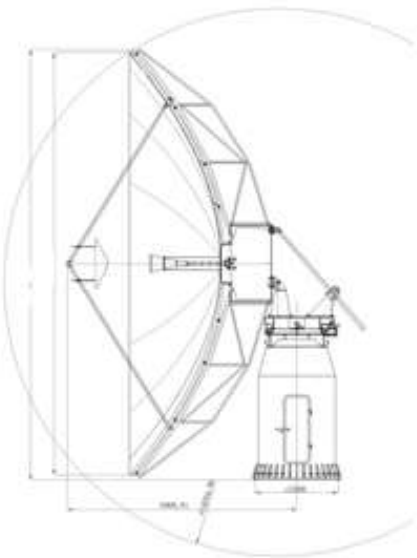
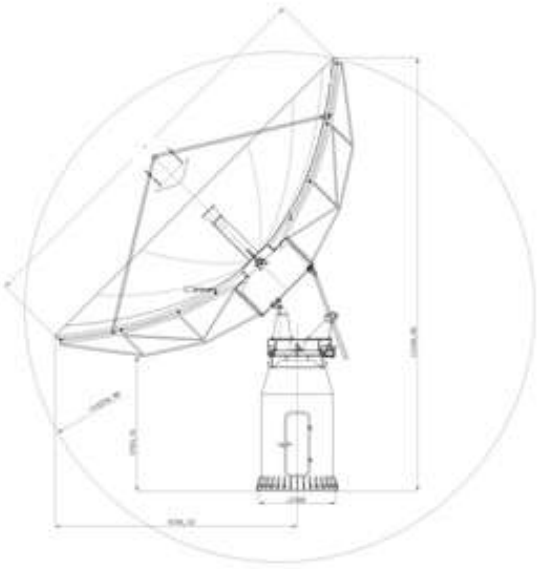
Features:

- Antenna Diameter: 9.0m
- Antenna Type: Ring focus antenna
- Operating frequency: Suitable for up to 18GHz
- Surface accuracy : 0.5mm
- Reflector material : Aluminium
- Mount type: EL over AZ Configuration
- EL range: 0-90 degree; AZ range: 0-360 degree
- Antenna control via ACU or PC
- Variable speed motors set to the specifications of the client
- Software and hardware travel limit switches
- Custom-made software for any specific application
- Deicing with manual or automatic controls
- Standard 19-in Rack Mount Control Unit
- Power requirement: 3-phase AC 50/60 Hz









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Electrical Specification:

Type	9.0m antenna	
Operating Frequency, GHz	L-Band	S-Band
	1.4~1.9	2.2~2.4
Gain, Mid-band, dBi	39.1	44.3
Polarization	Two-port or Four port TX/RX Linear / circular Polarization	
Sidelobe dB	20	22
XPD(on Axis), dB	35	35
XPD across 1dB Beam Width, dB	33	33
VSWR	1.25	1.25
-3 dB Beam Width, Mid-band	1.5°	1.0°
Typical G/T（EL>10°，2-port）	18.73dB/K	22.65dB/K
Feed Interface	Optional	Optional
Port Isolation, H to V dB	35	35

Mechanical Specification:

Antenna Diameter		9.0m
Antenna Type		Cassegrain
Surface Accuracy(RMS)		≤0.5mm
Antenna Travel Ranges	Azimuth	0 to 360° (Continuous)
	Elevation	0° to 90°(Continuous)
Drive Mode		Motorized (AC 3-Phase Motors) with speed controller
Motor Travel Rates	Azimuth	Variable (Max10°/S)
	Elevation	Variable (Max 5°/S)

Environmental Specification:

Operational Wind	79km/h gusting to 126km/h
Survival Wind	198km/h
Temperature	-40°~+60°
Relative Humidity	100%
Solar Radiation	1135Kcal/h/m²
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 30mm Survival