The **SAS-0518** is a broadband direction finding antenna system covering 0.5 to 18 GHz. The frequency range is covered by two antennas: 0.5-2GHz (LO Band) and 2-18GHz (HI Band).

The complete antenna system consists of a low band LPD antenna, a high band reflector antenna, an antenna support and tilting structure, a high-speed rotator, the bolt-down flanged mounting base, a radome, a rack mountable digital controller unit, a multi-conductor control cable and a coaxial RF cable.

The antenna system also includes RF electronics comprising LNA’s, limiters and switches to select either band, and operate the antenna in high field environments and/or improve the dynamic range.

The rotation unit uses a smart motor that is capable of speeds up to 200rpm as well as sweeping between prompted angles. A single remote controller is used to control the rotating unit and RF switching for the LNA bypass mode. The control cable between the positioner and the controller, **ACU-3D-14-30**, includes the frequency switching line (to switch between the high and the low band), the LNA bypass line and the positioner motor control lines. Controls may also be provided via a computer interface.

The HI band antenna uses a shaped beam ELPAR reflector. This reflector design eliminates the need for an elevation positioner by maintaining the elevation beamwidth to be relatively constant over a broad frequency range. The shaped reflector design is ideal for use when the antenna is mounted on platforms experiencing pitch and roll motion. The system is protected by a low loss radome for use outdoors and for military, naval and marine applications.

**OPTIONS:**

1) **LO band extended to 300MHz (Model SAS-0518/E).**

2) **Bulkhead mount cables for use in mobile installation.** These cables allow the extension of device connectors to a wall in the vehicle for ease of installation.

3) **Remote control interfaces:**
   a) **RS – 232/485/422** interface with **DB-9** connector
   b) **Fiber optic interface**
   c) **GPIB** interface with **IEEE-488** connector
SPECIFICATIONS: SAS-0518

MECHANICAL:

Height: 54 inches
Diameter: 40 inches
Weight: 85 lbs (40 kgs)

ELECTRICAL:

Frequency Range:
  Directional: 0.5 to 18 GHz
  Omnidirectional: 0.5 to 18 GHz

Impedance: 50Ω nominal

VSWR: 2:1 maximum

Power:
  Directional: 125W CW (0.5 to 2GHz)
  Omnidirectional: 10W CW (2 to 18 GHz)

Polarization: 45° Slant Linear

Pattern:
  LO Band: 3dB azimuth BW=110° nominal
       3dB elevation BW=70° nominal
  HI Band: 3dB azimuth BW≤20°
       3dB elevation BW≥30°

Gain:
  LO Band: 7.5 dBi typical
  HI Band: 12 to 22 dBi typical

Rotation: ≤ 200 rpm adjustable
  (Directional antenna) Sectorial sweeping capabilities
       Pointing resolution 0.1°
       Pointing accuracy = +/-0.1°

Control Cables: 3/8” diameter, pair shielded
RF Cable: ¼” dia. 20m low-loss
RF Connectors: SMA female
Power Connectors: MS-3112E12-10P on the positioner
       MS-3112E12-10S on the controller