

S-Band 60 CM Parabolic Transmit Antenna

For the DOVE-3 and DOVE-4 Experimental Missions

The baseline for this standalone s-band is a 60 cm parabolic antenna mounted on a simple rotor driven with commercial rotor controllers and existing software.

This modification requests the addition of UHF and S-band transmit frequencies at Morehead State University to support the Planet Labs "Dove" series of satellites. The 21 m dish will also be involved in Dove satellite X-band and UHF downlink testing, but those frequencies will be receive only.

Basic Technical Specifications are below:

beam width: 16 deg

horizontal orientation: N/A

vertical orientation: N/A

will the antenna extend above 6 m? No

Frequency: 2056 MHz

Station Class: Fixed

Output Power: 20 W

Peak Power: 2143 W

Frequency tolerance: .002

Emission Designator: 1M31F1D

Modulation: MSK