

SPECIFICATION SHEET

GLIDE SLOPE ANTENNA, DIRECTIONAL MODEL dBs 350

dBs PART NUMBER 350300-100



The dBs 350 Glide Slope antenna is a Uni-Directional Corner Reflector antenna. It is used as part of a Glide Slope system. The system provides glide slope landing information for all appropriately equipped aircraft within 10 nmi or less, depending on terrain, from the Glide Slope system.

The antenna is horizontally polarized and provides 23° Nominal Half Power Beam Width (HPBW). The vertical coverage is 80° Nominal HPBW, with a front to back ratio ≥ 16 dB.

The elevation pattern of each antenna in the system is formed with the use of a corner reflector and three horizontally polarized dipoles in front of the reflector.

The antenna is horizontally polarized. (Vertical component ≥ 25 dB below horizontal component). It is specifically designed to operate at 332 MHz \pm 4 MHz. Each Glide Slope antenna has its own RF input connector as well as its own RF monitor port which couples input RF power at a level 10 dB down from the input level.

The antenna requires no tuning or adjustments and utilizes three, horizontally polarized, collinear dipoles to form the Glide Slope array. Peak power handling capability is ≤ 50 watts continuous wave (CW) main beam gain is ≥ 10 dB. The electrical center is normal to and centered within the reflector face. Type N female coaxial receptacles are used for all RF interfaces. RF input is 50 Ω and VSWR (Voltage Standing Wave Ratio) is $\leq 1.25:1$ from 328 MHz to 336 MHz. The antenna VSWR is extremely sensitive to surrounding objects and reflections. When attempting to measure the main input port VSWR, make sure the antenna is in an area which minimizes reflections.

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SPECIFICATIONS/CHARACTERISTICS

TYPE: Uni-Directional Corner Reflector

AZIMUTH COVERAGE: 23° Nominal HPBW

FREQUENCY RANGE: 328 through 336 MHz
(no adjustments or tuning required)

ARRAY: 3 collinear dipoles

COAXIAL CABLE: Air dielectric coax

POLARIZATION: Horizontally polarized;
vertical component >25 dB below horizontal
component.

GAIN, MAIN BEAM: >10 dB/iso

VERTICAL COVERAGE: 80° Nominal HPBW.
Front to Back ratio >16 dB.

MAIN BEAM LOCATION: Within $\pm 2^\circ$ of
mechanical axis. Electrical center is normal to
and centered within the reflector face.

POWER HANDLING CAPABILITY: <50 watts
CW

IMPEDANCE: 50 Ω nominal

VSWR: <1.25:1 from 328 MHz to 336 MHz

SIZE: 30" H x 87.5" L x 15" W

WEIGHT: 96 lbs.

SHIPPING WEIGHT: Crate is 93" L x 24" W x
44" H and weighs 304 lbs. Crate is stackable.

RF MONITOR: Monitor coupling factor is 10 db
 ± 1 dB below input signal level. Monitor is stable
to within ± 0.5 dB and $\pm 5^\circ$ (electrical phase) over
environmental conditions.

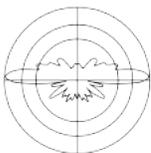
ANTENNA HEATER: Main Power 240 VAC;
240 watts. Heaters always wired to ON.
External thermostat control required.

INTERFACE CONNECTORS:
Main RF Input: Type N Female
RF Monitor Output: Type N Female
Antenna Heater AC Input: MS-3102-22-9P

ENVIRONMENTAL: FAA-G-2100F,
Environmental III (4"/hr. rain, sleet, and snow)

MOUNTING: 4 each 7/16 dia. through holes for
3/8 dia. bolts. Interface bolt pattern horizontal
separation is 21.5"; vertical separation is 19.75".

SUPPORT BRACKET, GLIDE SLOPE:
Optional Position Adjusting Mounting Bracket
(P/N 300500-100) allows ± 18 " continuous
adjustment of antenna physical position in
vertical and horizontal axis.



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