



SPECIFICATION SHEET

TACAN ANTENNA MODEL dBs FA-10369



The FA-10369 is a low power TACAN antenna intended for use with FA-9996 beacon equipment located at VORTAC sites. It is designed to replace existing TACAN antennas and provides a TACAN antenna which has greater reliability, ease of maintenance and requires substantially less power to operate than previous TACAN antennas. The antenna will operate at all 252 channels. The 900A will operate with existing monitor antennas. The 900A adapts easily to existing mounting configurations. The 900A will operate with any beacon equipment up to a power level of 5 kW peak.

TACAN ANTENNA, SHORT APERTURE

Model dBs FA-10369

SPECIFICATIONS/CHARACTERISTICS

TYPE: Mechanically scanned (rotating)

ORIENTATION (MAGNETIC): Electronically Settable

FREQUENCY RANGE: 1X through 126X; 1Y through 126Y
960 through 1215 MHz (no adjustments or tuning required)

SIZE AND WEIGHT: Antenna: 118" H x 35" Dia x 310 lbs.;
ACU: 12.25" H x 19" W x 16.5" D x 30 lbs.

INPUT POWER REQUIREMENT: +24 VDC \pm 6 VDC; 300
watts (running)

ENVIRONMENT: FAA-G-2100 Environment III

TIME TO COME UP TO SPEED: Approximately 80 seconds

ROTATION SPEED: 900 RPM \pm 0.015%

VSWR: 962 MHz to 1213 MHz < 1.8 to 1

HARMONIC CONTENT:

- RSS of 30 & 45 Hz: \leq 20% of 15 Hz
- RSS of 270 & 405 Hz: \leq 15% of 135 Hz
- RSS of 105, 120, 150, 165 Hz: \leq 25% of 15 Hz
- All Individual Harmonics: \leq 20% of 15 Hz

VERTICAL COVERAGE: Main lobe peak between 2° and 7°
above horizon. Approximately CSC2 coverage to +60°.

SLOPE: \geq 0.2 V/V/° (normalized to value at horizon)

15 HZ PERCENT MODULATION: 21% \pm 9%

135 HZ PERCENT MODULATION: 21% + 14% - 9%

ENERGY BELOW HORIZON: < 5% of total energy radiated

PEAK GAIN: >8.0 dBi

HORIZON GAIN: >2.0 dBi

**135 HZ CROSS-POLARIZATION ERROR IN VICINITY OF
HORIZON:** \pm 1.0° RMS maximum

**15 HZ CROSS-POLARIZATION ERROR IN VICINITY OF
HORIZON:** \pm 3.0° RMS maximum

CARRIER CIRCULAR PATTERN: Circular within \pm 0.5 dB

135 HZ AZIMUTH ERROR: \pm 0.5° RMS maximum

15 HZ AZIMUTH ERROR: \pm 3.5° RMS maximum



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