

AC-27 CDL Antenna System

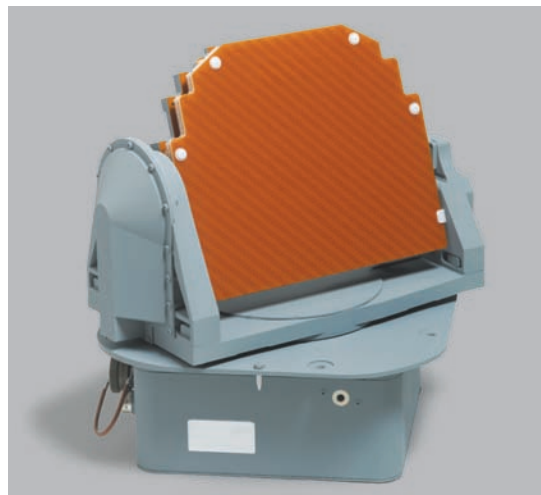
Antenna solutions for mobile communications. Possibilities of Connectivity. *Made Easy.*

The AC-27 common datalink system is a low-SWaP antenna designed to support tactical military communications. The compact, high-gain system provides highly efficient operation for rugged helicopter environments, fixed wing aircraft and unmanned aerial vehicle platforms.

With field deployment kit integration, the antenna system can also support ground-based tactical communications in the GC-27 (TCDL Portable Ground Terminal) configuration.

Key Features

- Ku-Band Frequency (14.53-15.35 Ghz)
- Performance: > 27dB Gain
- Lightweight: < 13 lb.
- Size: 13" Diameter Swept Volume
- Power Consumption: < 70W
- Fully Qualified



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Features/Options

- Designed and qualified to airborne rotary wing environmental specifications
- Highly directional slot array design eliminates back-lobes
- AZ/EL rotary joints allow for no cable wraps
- Built-in stow mechanism for transport
- GC-27 kit compatible for military ground applications



Performance Characteristics

Ku-band Frequency	14.53 – 15.35 GHz
Gain (minimum)	27dBic
Beam Width (3dB Minimum)	4.0°AZ and EL
Side-Lobes (Max from Peak Gain)	-20dB AZ, -15dB EL
Polarization	RHCP
Axial Ratio (Peak)	2.0 dB maximum
VSWR	2.0 :1
RF Power Handling	20 watts (continuous)
Input Power (Maximum)	70 watts
Input Voltage	20-32VDC per MIL-STD-704A
Current Draw (Peak)	2.2 amps
Baud Rate	19.2 up to 115.2 KBAUD (configurable)
Data Format	RS-422 / 485 / 232 or custom
Built-in-testing	CBIT, IBIT, and POBIT
Elevation Axis Software Stops	1° beyond operational range
Elapsed Time Indicator	Built-in, non-resettable solid state
Azimuth Travel	360°
Elevation Travel	-30° to +90°
Velocity (AZ and EL)	40°/second
Acceleration (AZ and EL)	40°/second ²

Environmental Characteristics

Temperature, Non-operating	-54°C to +85°C
Temperature, Operating	-40°C to +55°C
Temperature Variation	RTCA/DO-160D section 5.0 category B
Vibration	Rotary wing aircraft
Shock	RTCA/DO-160D section 7.0
Altitude	15,000+ ft.
Humidity	0-100% full condensing
Explosive Atmosphere	RTCA/DO-160D section 9.0
EMI	MIL-STD-461E

Designed and tested to airborne rotary wing environment @ 25°C.

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