



## DM C34 SERIES AIRBORNE UHF SATCOM ANTENNAS

The DM C34 Antenna Series pioneered UHF SATCOM for fixed-wing aircraft in the mid-1970's. The first of its kind, this dual-mode (high- and low-angle) antenna is now standard equipment for many operational fixed wing SATCOM programs including USTS on the C130, C141 and C5 aircraft. Advantages such as installation simplicity, input power options, high reliability, lightning protection and nuclear hardening make the DM C34 series and related accessories a logical choice for your airborne UHF SATCOM requirement.

The basic antenna provides two separate radiating structures located within one aerodynamic housing. A vertically polarized blade antenna provides omnidirectional azimuth coverage from the horizon to 30 degrees elevation, which is accessed through the J8 connector. An independent turnstile antenna provides RHCP coverage from 30 degrees elevation through zenith with the use of an external 0 – 90 degree hybrid coupler, connected to the J9 and J10 input ports. Input power options are cost effectively selected by utilizing one of the three hybrids (i.e., the DM H26-1, DM H29-1 or DM H25-1) offered as accessories. A separate 50 ohm load termination is also required, which must be capable of sustaining a power level equivalent to 25% of the input power.

## SPECIFICATIONS

ELECTRICAL	Frequency		225 – 400 MHz
	VSWR	High Angle	1.5:1 max with hybrid
		Low Angle	2.0:1 240 to 370 MHz
			2.5:1 370 to 400 MHz
	Gain	High Angle	+6.0 dBic
		Low Angle	Within 2.0 dB of a monopole
	Power		1300 watts average
	Polarization	High Angle	RHCP
Low Angle		Vertical	
Impedance		50 Ohms	
Isolation		30 dB	
MECHANICAL	Qualification		MIL-E-5400 Class II
	Weight		28 lbs (12.7 kg)
	Drag	6.0 lbs at 45,000 ft	
		Mach 0.78	
	Connectors		SC female
	Lightning Protection		MIL-B-5087

All data contained herein is subject to change without notice.

1099-211(M10)

# SATCOM ANTENNA

## OUTLINE DIMENSIONS

Inches (Centimeters)

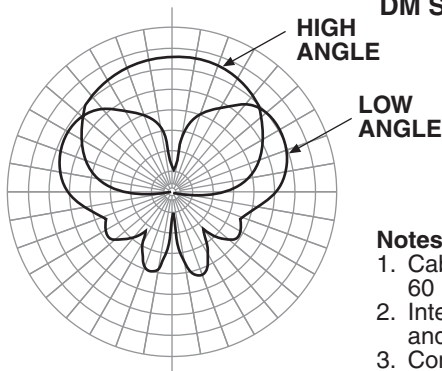
## DM C34 SERIES AIRBORNE UHF SATCOM ANTENNAS

### PART NUMBER/COLOR DESIGNATIONS

P/N	COLOR	NSN/COMMENT
DM C34-3/B	WHITE	5985-01-105-5170CX
DM C34-3/C	WHITE	HATCH MOUNT VERSION
DM C34-8-1	GREY	5985-01-294-6370B4
DM C34-9-1	OLIVE DRAB	5985-01-306-8216CX

### SYSTEMS AND COMPONENTS

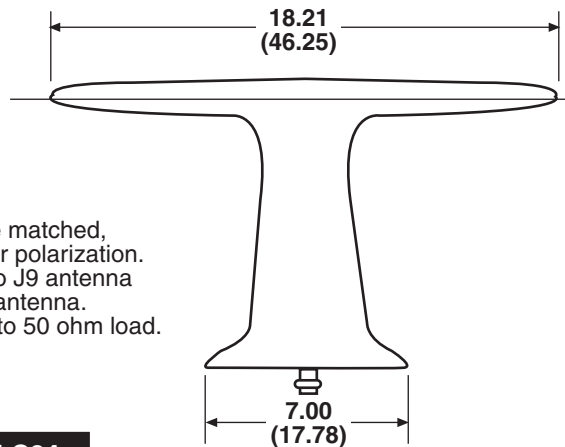
SYSTEM P/N	ANTENNA	HYBRID	CABLES	POWER
DM SE72-1	DM C34-3/B	DM H25-1	DM U69-1	1.3 kW
DM SE72-2	DM C34-3/B	DM H26-1	DM U69-2	200 W
DM SE72-3	DM C34-3/B	DM H29-1	DM U69-1	1.0 kW



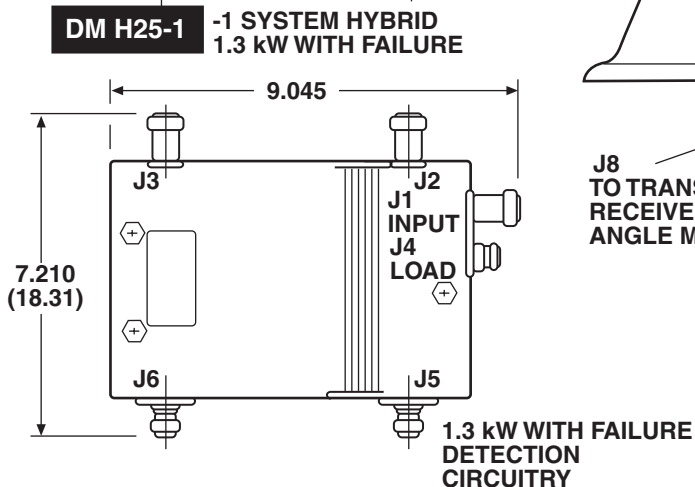
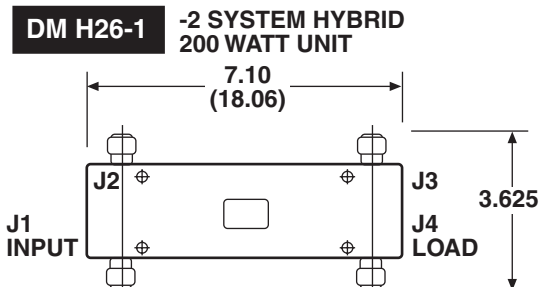
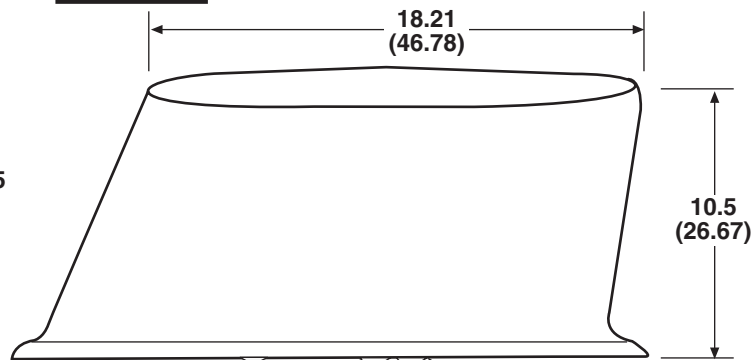
TYPICAL ELEVATION  
PLANE PATTERN

#### Notes:

1. Cables supplied are phase matched, 60 in. for right-hand circular polarization.
2. Interconnect J3 of hybrid to J9 antenna and J2 of hybrid to J10 of antenna.
3. Connect R/T to J1 and J4 to 50 ohm load.



DM C34



J8  
TO TRANSMITTER/  
RECEIVER (LOW-  
ANGLE MODEL)

(HIGH POWER)

DM H29-1

