NAVIGATION

DM NI50 ANTENNAS

Reduced maintenance costs are achieved through the use of this low-profile, all-metal blade as a result of its unequalled mechanical strength and built-in reliability. Currently in use on business, commercial and military jet aircraft, the DM NI50 antennas have clear advantages over the other current designs:

- Extremely high side load strength guards against breakage by ground handling gear.
- Completely sealed construction prevents failure from moisture intrusion.
- Lightning protection circuits prevent damage to antenna and safeguard electronic equipment.

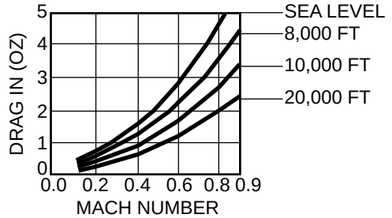
DM NI50 antennas, which replace the DM NI49 antennas, are used with all standard L-Band equipments because of their very broad bandwidth of 960 to 1,220 MHz.

Models of the DM NI50 antenna are directly interchangeable with virtually all L-Band blade and flush mounting antennas currently in service on commercial and military aircraft. While some replacements will require the use of standard adapter plates which are readily available, none require airframe modification. (See Table 1).

For applications on lower speed aircraft or where this antenna's extremely high strength is not required, see data on the lower cost DM NI24. For applications where flush antennas are required, see the DM NI7 data sheet.

SPECIFICATIONS

ELECTRICAL	Frequency Range		960 – 1220 MHz
	VSWR		960 – 1220 less than 1.7:1 1000 – 1100 less than 1.5:1
	Gain		Average at horizon 0 dB
	Polarization		Vertical
	Impedance	RF	50 Ohms
		dc	Short Circuit
	Power		3 kW peak 100 W peak
MECHANICAL	Weight		4 oz
	Outline Dimensions		See Figure 1 See Figure 2 for DM NI50-8
	Finish		See color chart
ENVIRONMENTAL	Areo Drag, Sea Level, Mach 0.5		2 oz
	Sea Level, Mach 0.8		4.5 oz
	Side Load		Will withstand 175 lbs
	Military		MIL-T-5422E
	ARINC	(ATC Transponder)	532 E
		(DME)	521 D
	FAA	(ATC Transponder)	TSO-C74
		(DME)	TSO-C66a



CALCULATED DRAG vs
SPEED OF DM NI50 ANTENNA SERIES

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1000-111 (M69)

An Employee Owned Company

DM NI50 ANTENNAS

OUTLINE DIMENSIONS

Inches (Centimeters)

TABLE 1. MOUNTING DATA FOR DM NI50 ANTENNAS

ANTENNA TYPE	MATING CONNECTOR TYPE	ATTACHING* HARDWARE	QTY	HARDWARE CLEARANCE	FINISH
DM NI50-2	C MALE	NO. 10 SCREW	4	0.213 IN.	SEE COLOR CHART
DM NI50-3	C MALE	NO. 6 SCREW	6	0.171 IN.	SEE COLOR CHART
DM NI50-4	HN MALE	NO. 6 SCREW	6	0.171 IN.	SEE COLOR CHART
DM NI50-6	N MALE	NO. 6 SCREW	6	0.171 IN.	SEE COLOR CHART
DM NI50-8	HN MALE	NO. 10 SCREW	4	0.213 IN.	SEE COLOR CHART
DM NI50-9	TNC MALE	NO. 10 SCREW	4	0.213 IN.	SEE COLOR CHART
DM NI50-10	N MALE	NO. 6 SCREW	6	0.171 IN.	SEE COLOR CHART
DM NI50-15	C MALE	NO. 10 SCREW	4	0.213 IN.	SEE COLOR CHART
DM NI50-16	N MALE	SEE NOTE 1		SEE NOTE 1	SEE NOTE 3
DM NI50-19	C MALE	NO. 6 SCREW	6	0.171 IN.	SEE NOTE 3

*** ATTACHING HARDWARE TO BE STAINLESS STEEL**

COLOR CHART	
-1	INTERNATIONAL ORANGE
-2	GLOSSY WHITE
-3	LUSTERLESS WHITE
-4	LUSTERLESS BLACK
-5	LUSTERLESS GREY
-6	GLOSSY RED
-16	SEE NOTE 3
-19	SEE NOTE 3

Notes:
1. Mounting configuration and holes to be as specified and installed by customer for DM NI50-16.
2. The DM NI50 are L-Band blade antennas. The first dash number indicates a physical difference, i.e., connector type or mounting configuration. The second dash number indicates antenna color. For example, the DM NI50-2-1 has a -2 which indicates a Type C female connector with No. 10 mounting screws in 4 places. The -1 indicates that the color is international orange. The DM NI50-3-2 has a -3 which indicates a Type C female connector with No. 6 mounting screws in 6 places. The -2 indicates that the color is glossy white.
3. DM NI50-16 and DM NI50-19 have no color finish.

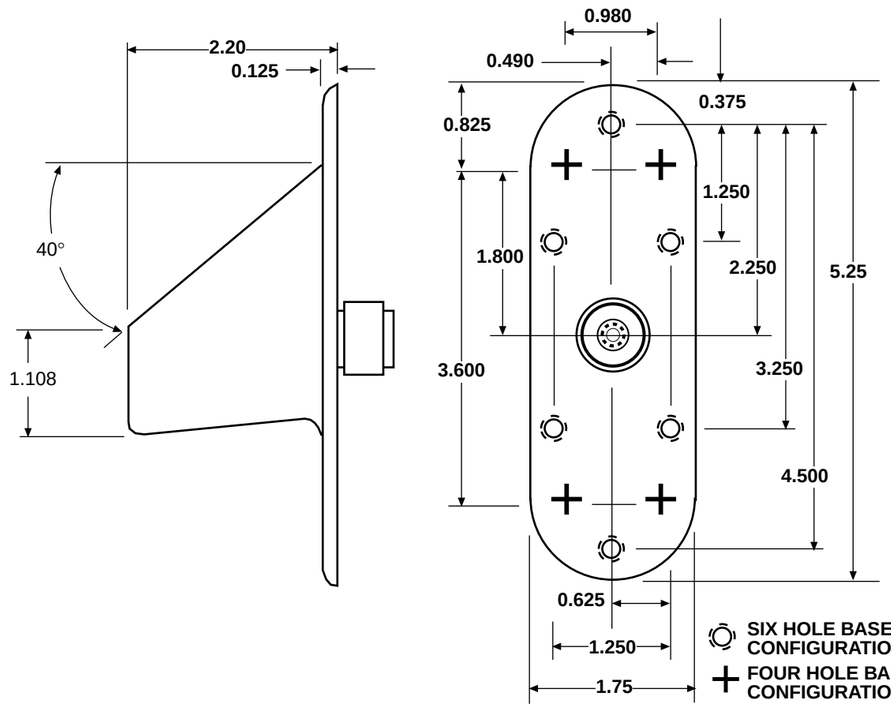

FIGURE 1

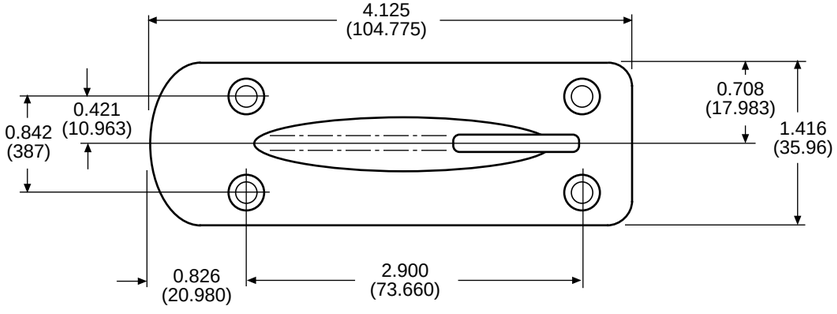

FIGURE 2