



**PRINCIPAL SPECIFICATIONS**

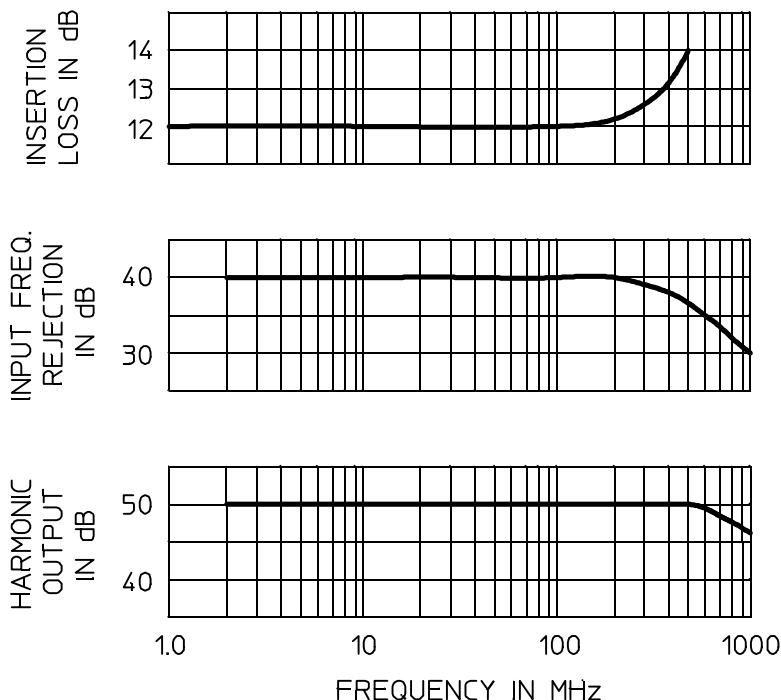
Model Number	Input Freq., MHz	Operating Input Frequency, MHz	†Conversion Loss, dB,		*Typical Harmonic Output			RF Input Range (Nom.)	Package Style
			Typ.	Max.	F <sub>1</sub> dB	F <sub>3</sub> dB	F <sub>4</sub> dB		
FDF-4C-750	75 - 1500	75 - 300	11	14	-50	-50		+7 to 16 (13 dBm)	Flat
		300 - 700	11	14	-40	-45			
		700 - 1500	11	14	-35	-40			
FDF-500A	5 - 500	5 - 100	12	16	-40	-45	-25	+5 to 18 (13 dBm)	Flat
		100 - 300	12	15	-30	-40	-27		
		300 - 500	15	17	-30	-40	-30		
FDF-4A-1500	25 - 3000	25 - 600	12	14	-27	-30		+7 to 16 (13 dBm)	Flat
		600 - 2500	12	13	-18	-30			
		2500 - 3000	13	15.5	-15	-20			
FDM-500A	5 - 500	5 - 100	12	16	-40	-45	-25	+5 to 18 (13 dBm)	SMA
		100 - 300	12	15	-35	-40	-27		
		300 - 500	15	17	-30	-40	-30		
FDT-500A	5 - 500	5 - 100	10	13	-40	-45	-25	+2 to 13 (9 dBm)	TO-5
		100 - 300	10	13	-35	-40	-27		
		300 - 500	11	15	-30	-40	-30		

†Conversion Loss measured at nominal Input Power

\*Typical Harmonic Level is referenced to RF Input Power

All specifications measured at nominal input power and referenced to input power.

**Typical FDM-500A Performance**



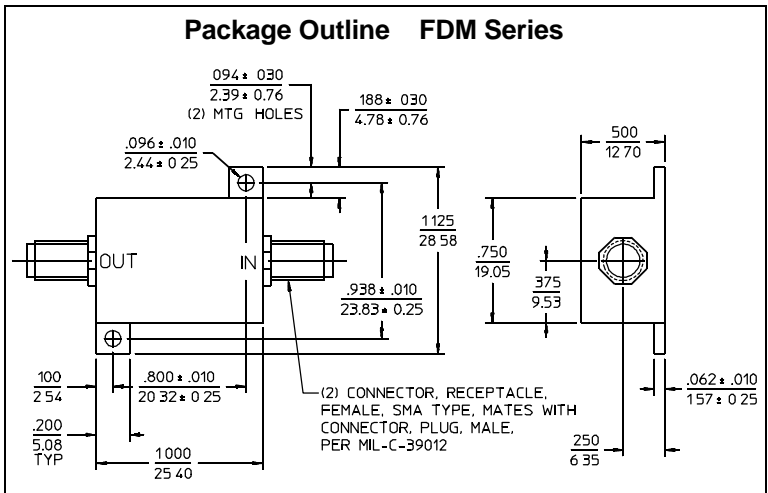
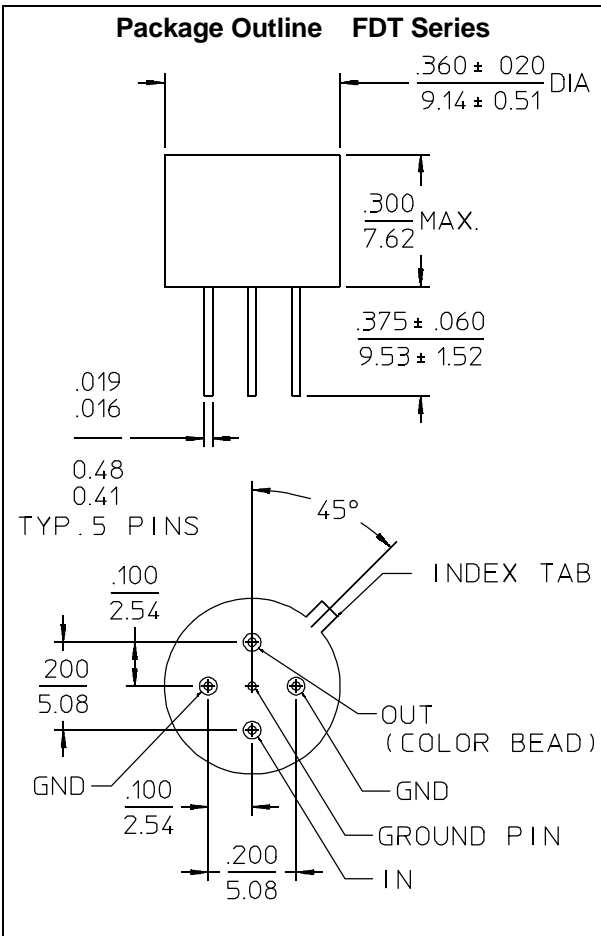
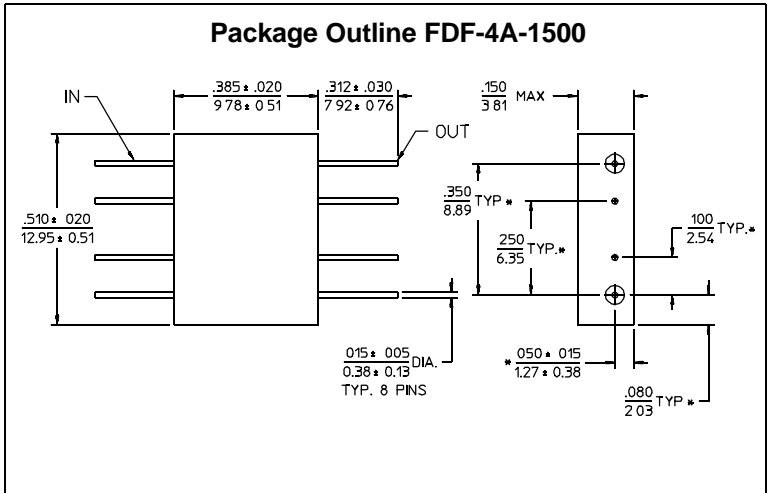
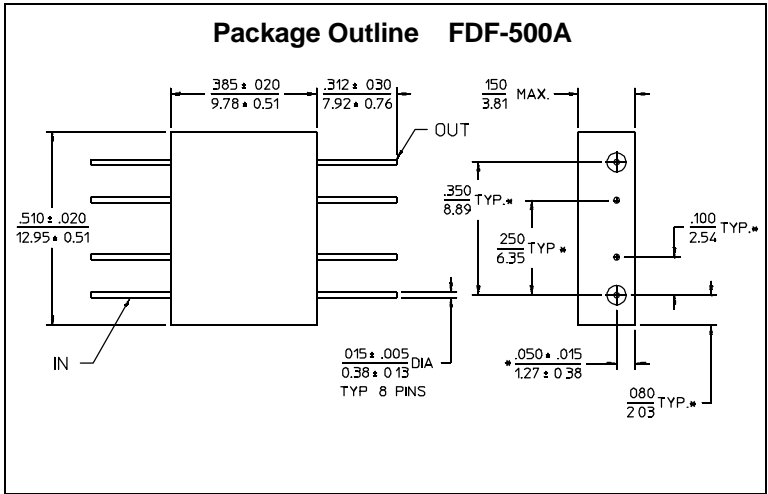
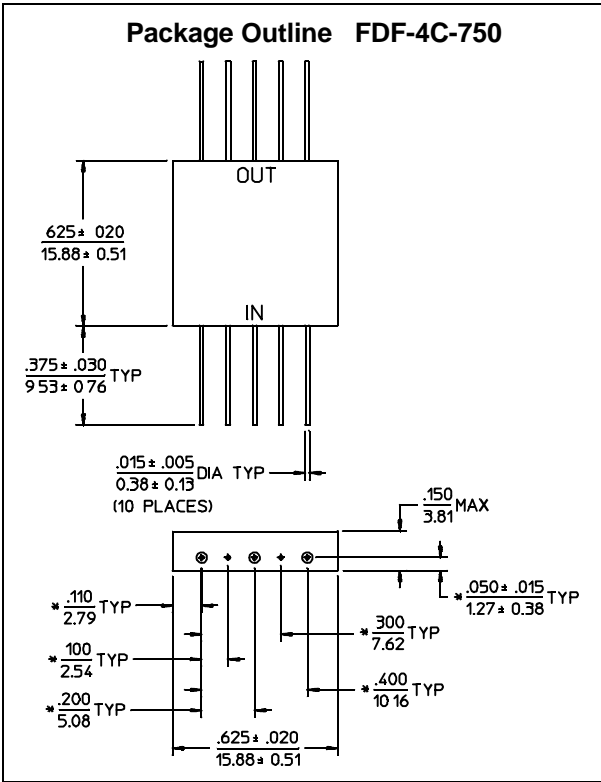
**GENERAL SPECIFICATIONS**

Impedance: 50 Ω nom.  
 Weight, FDM-500A: 0.65 oz. (2.5 g)  
 Weight, All others: 0.09 oz. (18 g)  
 Operating Temperature: -55° to +85°C

**General Notes:**

- Merrimac Frequency Doublers cover the frequency range of 5 to 3000 MHz using lumped element circuits for broad bandwidth and excellent rejection of fundamental and third harmonic energy. These units may also act as quadruplers with additional conversion loss.
- Merrimac Frequency Doublers comply with the relevant sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space specifications requiring the highest reliability.

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**NOTES:**

1. Tolerance on 3 place decimals  $\pm .010(.25)$  except as noted.
2. Dimensions in inches over millimeters.
3. Dimensions marked with \* apply only at body.
4. All unmarked pins are case ground.

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