

FD SERIES – FREQUENCY DOUBLERS

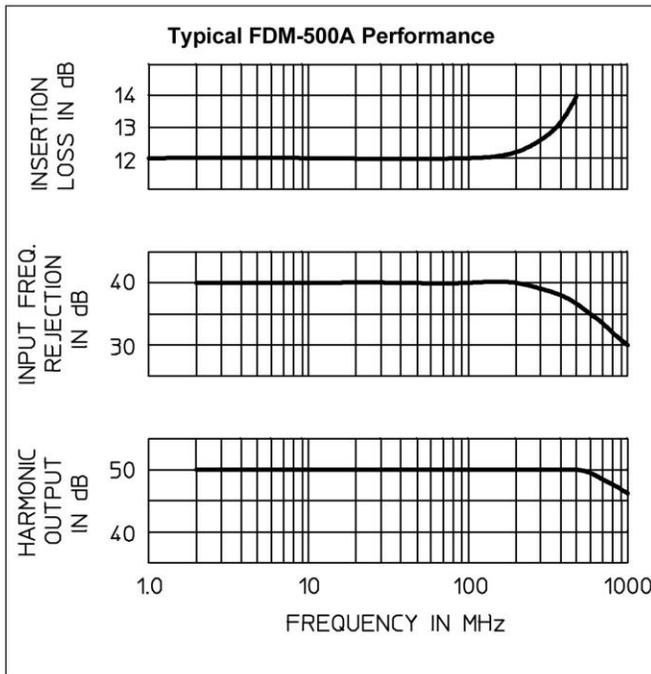
TECHNICAL FEATURE

FEATURES

- 5 to 3000 MHz
- Minimum Spurious Output
- Flatpack, TO-5 or SMA Connectors

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 ₁ dB	F ₃ dB	F ₄ 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.



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

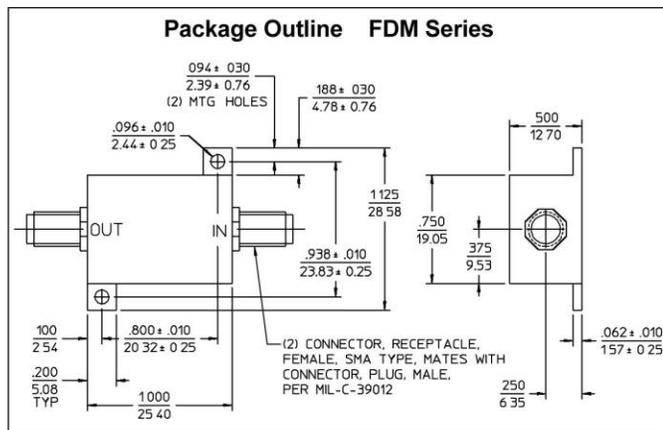
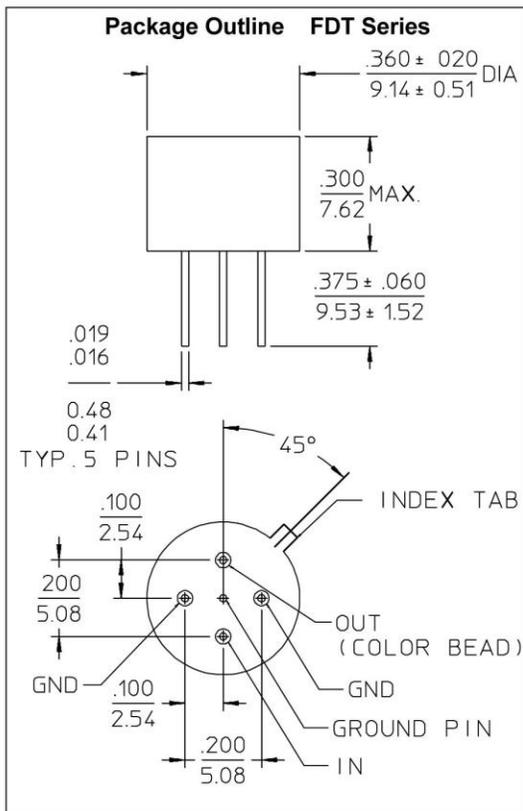
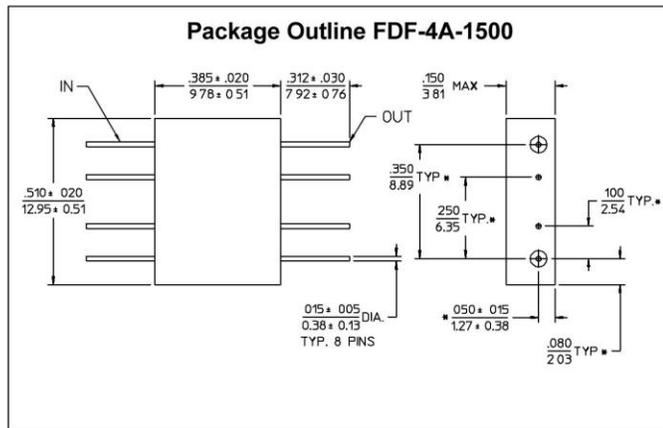
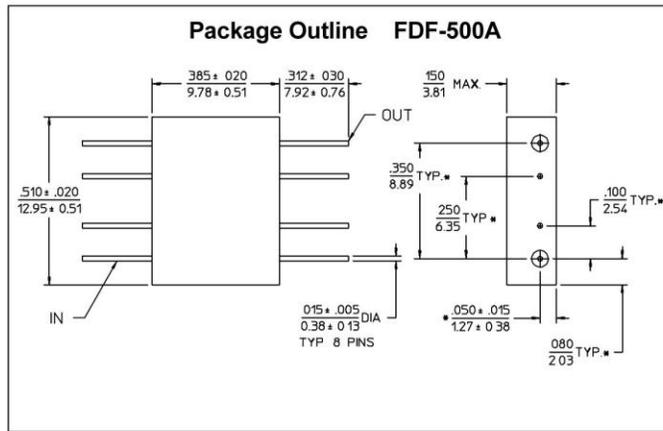
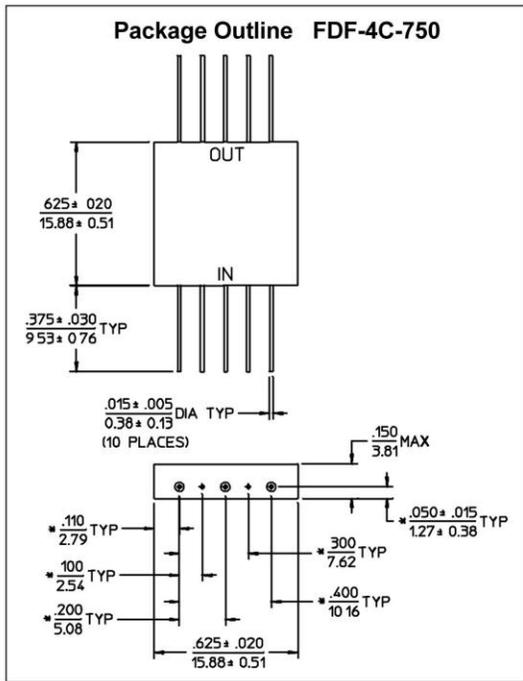
General Notes:

- 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.

23Feb96

FD SERIES – FREQUENCY DOUBLERS

PACKAGE OUTLINE



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.

23Feb96