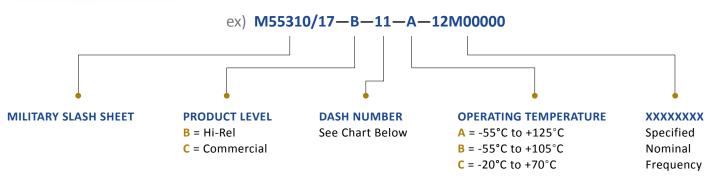


# MIL-55310/17-Series Specifications



### $0.887L \times 0.540W \times 0.200H$ (in)

PDI *MIL-PRF-55310/17* Oscillators are available in both standard and custom frequencies to provide precision timing in a hermetically sealed package for military and avionics applications.



	F=========	Input Current	Diag/Fall	Durtu	laad	Initial	0-:	Operating Temperature		
Dash No.	Frequency Range	(1) 5.25 V ±1% Max	Rise/Fall Times Max	Cycle @ 1.4 Vdc	Load (2) Max	<b>Accuracy @ 23°C</b> ppm Max	Aging Per Year ppm Max	(A)	(B)	(C)
11	12 MHz to 20 MHz	55 mA 15 r	45.6	15 nS 40 to 60%	10 TTL	±15	±5	±50	±40	±25
14			15 NS			±25	±10	±100	±40	±25
21	20 MHz to	55 A	F C	40 to 600/	40 TTI	±15	±5	±50	±40	±25
24	50 MHz	55 mA	5 nS	40 to 60%	10 TTL	±25	±10	±100	±40	±25
Aging	Aging Per Year (Max) (Measurements shall be taken @+70°C ±0.2°C at intervals of not more than every 72 hours for 30 days minimum)				±5 p	pm	±10	ppm		
Per 30	Per 30 Days				±0.7	ppm	±1.5	ppm		

#### NOTES:

Per 90 Days

(1) Maximum input current for no load condition. Actual configuration of TTL loads must be added to determine power supply requirements.

(2) A TTL unit load is defined as: 1.60 mA sink, 0.04 mA source, and 2.0 pF capacitance.

Environmental Specifications				
Terminal Strength  MIL-STD-202, Method 211, Condition C  Applied Force: 2 pounds each terminal for 10 seconds, Bends: 5 at 45 degrees each				
Vibration, sinusoidal	IAW MIL-PRF-55310 and MIL-STD-202 , Method 204  Non-operating: Test Condition D, Operating: Not Required			
Ambient Pressure	Non-operating: IAW MIL-PRF-55310 , Operating: MIL-STD-202 , Method 105 , Condition C			

The product described in this spec. consist of this specification and MIL-PRF-55310.

Decimal XXX =  $\pm$  .005, XX =  $\pm$  .020 Metric [XXX =  $\pm$  .13], [XX =  $\pm$  .50]

rev: NA	SIZE: A	CAGE: A	<b>1</b> of <b>3</b>
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±1.5 ppm

±3.0 ppm



# MIL-55310/17-Series 0.887 x 0.540 x 0.200 (in)

Parameter		Frequency Range	Units	
		12MHz to 50MHz		
	vs Temperature (Max)			
	-20 to +70°C (Type C)	Per Chart		
	-55 to +105°C (Type B)	Per Chart		
	-55 to +125°C (Type A)	Per Chart		
Frequency Stability	vs Supply Voltage (Max. for a 10% change) (Measurements taken at reference temperature and operating temperature range end points)	+2.0	ppm	
	Tolerance (@ +23°C ± 1.0°C) (Max) Within 30 Days of Shipment	Per Chart		
To an a section a December	Operating	Per Chart	°C	
Temperature Range	Storage	-62 to +125		
Supply Voltage	±10.0 %	+5.0	Vdc	
Output		TTL		
	High (Min)	2.4	Vdc	
Logic Levels	Low (Max)	0.5		
Enable Gate Function	Pin 9 Logic '1' Output Enable	80 Min	%Vcc	
Disable Gate Function	Pin 9 Logic '0' Output Disable	20 Max	%Vcc	

Test Inspection	Product Level B Method Condition		
Internal Visual	MIL-STD-883, Method 2017 and 2032		
Stabization bake (prior to seal) 1/	MIL-STD-883, Method 1011, Condition C (+150°C) 48 hours min.		
Temperature Cycling	MIL-STD-883, Method 1010 Condition B		
Constant Acceleration	MIL-STD-883, Method 2001. Condition A, Y1 only (5000 g's)		
Seal (Fine and Gross Leak) 2/	MIL-STD-883, Method 1014		
Burn-In (Load)	+125C, nominal supply voltage and burn-in load, 160 hours minimum		
Electrical Test:	Nominal supply voltages, specified load, +23°C and verify frequency at the temperature extremes		
Input Current Power	4.8.5 of MIL-PRF-55310		
Output Waveform	4.8.20 of MIL-PRF-55310		
Output Voltage-Power	4.8.21 of MIL-PRF-55310		
As Specified	3.1 of MIL-PRF-55310		

REV: NA	SIZE: A	CAGE: A	2 of 3
REV: NA	SIZE: A	CAGE: A	2 of 3



## MIL-55310/17-Series 0.887 x 0.540 x 0.200 (in)

### PACKAGE DIMENSIONS

PIN	CONNECTION
1-6	No Connect
7	Ground/Case
8	Output
9	Gate Input
10-13	No Connect
14	Supply Voltage

