



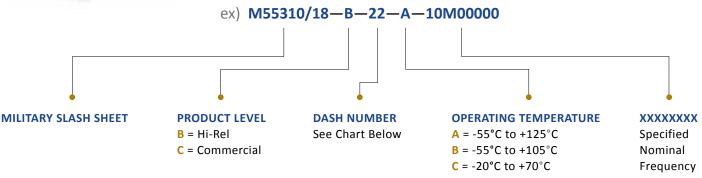
±1.5 ppm

±3.0 ppm



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

PDI *MIL-PRF-55310/18* Oscillators are available in both standard and custom frequencies to provide precision timing in a hermetically sealed package for military and avionics applications.



		Supply	Input Current	Output Vol					Operating Temperature		
Dash No. Package	Frequency Range	Voltage Vdc ±10%	at Max Voltage Max	Logic: 1	Logic: 0 Vdc Max	Rise/Fall Times Max	Tolerance @ 23°C ppm Max	Aging Per Year ppm Max	(A)	(B)	(c)
01 02	2.9 Hz to 15 MHz	+15	25 mA	12.8 Vdc	1.5 Vdc	30 nS	±15 ±25	±5 ±10	±50 ±100	±40 ±80	±25 ±50
11 12	2.9 Hz to 12 MHz	+12	20 mA	10.2 Vdc	1.2 Vdc	35 nS	±15 ±25	±5 ±10	±50 ±100	±40 ±80	±25 ±50
21 22	2.9 Hz to 10 MHz	+10	15 mA	8.5 Vdc	1.0 Vdc	40 nS	±15 ±25	±5 ±10	±50 ±100	±40 ±80	±25 ±50
31 32	2.9 Hz to 8 MHz	+8	10 mA	6.8 Vdc	0.8 Vdc	50 nS	±15 ±25	±5 ±10	±50 ±100	±40 ±80	±25 ±50
41 42	2.9 Hz to 5 MHz	+5	3 mA	4.2 Vdc	0.5 Vdc	70 nS	±15 ±25	±5 ±10	±50 ±100	±40 ±80	±25 ±50
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		

NOTES:

Per 30 Days

Per 90 Days

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

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	1 of 3

±0.7 ppm

±1.5 ppm



MIL-55310/18-Series 0.887 x 0.540 x 0.200 (in)

Parameter		Frequency Range	Units	
		2.9Hz to 15MHz		
	vs Temperature (Max)			
	-20 to +70°C (Type C)	Per Chart		
	-55 to +105°C (Type B)	Per Chart	ppm	
	-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		
	Tolerance (@ +23°C ± 1.0°C) (Max) Within 30 Days of Shipment	Per Chart		
T D	Operating	Per Chart	°C	
Temperature Range	Storage	-62 to +125		
Supply Voltage	±10.0 %	+5.0	Vdc	
Output		CMOS		
Lood	Resistance	10 ±5%	ΚΩ	
Load	Capacitance	15 ±5%	pF	

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
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MIL-55310/18-Series 0.887 x 0.540 x 0.200 (in)

PACKAGE DIMENSIONS

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

