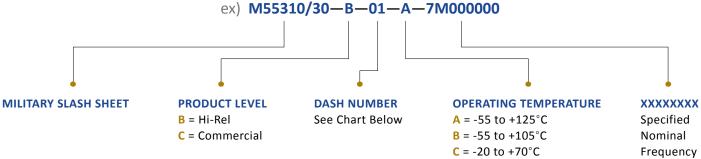


MIL-55310/30-Series Specifications



$0.560L \times 0.360W \times 0.188H$ (in)

PDI *MIL-PRF-55310/30* Oscillators are available in both standard and custom frequencies to provide precision timing in a hermetically sealed package for military and avionics applications.



Dash No.	Frequency Range	Input Current (No Load) Max	Rise/Fall Times Max	Duty Cycle @ 50% Vcc	Initial Accuracy @ 23°C ppm Max	Operating Temperature		
						(A)	(B)	(C)
01	1.544 MHz to	Ω Λ	10 nS	10 nS 45 to 55%	±15	±50	±40	±25
04	14.999 MHz	8 mA			±25	±100	±80	±50
11	15 MHz to	10 m A	10 nS	10 nS 45 to 55%	±15	±50	±40	±25
14	29.999 MHz	10 mA			±25	±100	±80	±50
21	30 MHz to	20 mA	5 nS	5 nS 40 to 60%	±15	±50	±40	±25
24	59.999 MHz				±25	±100	±80	±50
31	60 MHz to	20 m A	5 nS	5 nS 40 to 60%	±15	±50	±40	±25
34	85 MHz	30 mA			±25	±100	±80	±50
41	85 MHz to	20 m A	5 nS	40 to 60%	±15	±50	±40	±25
44	100 MHz	30 mA			±25	±100	±80	±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)					±10 ppm		
Per 30 Days				±1.5 ppm				
Per 90 Days			±3.0 ppm					

Environmental Specifications			
Vibration, sinusoidal	IAW MIL-PRF-55310 and MIL-STD-202 , Method 204		
Vibration, sinusolaar	Non-operating: Test Condition D, Operating: Not Required		
Ambient Pressure	Non-operating: IAW MIL-PRF-55310 , Operating: MIL-STD-202 , Method 105 , Condition C		
Ambient Pressure	Exposure Time: 5 minutes		
Reflow Soldering Reflow soldering of the unit @ +230°C ±10°C for 15 seconds shall not degrade the performance.			

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
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MIL-55310/30-Series 0.560 x 0.360 x 0.188 (in)

Parameter		Frequency Range	Units	
		15KHz to 60MHz		
	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)	±4.0	ppm	
	Tolerance (@ +23°C ± 1.0°C) (Max) Within 30 Days of Shipment	Per Chart		
To man a maturus Dan ma	Operating	Per Chart	°C	
Temperature Range	Storage	-62 to +125	~~	
Supply Voltage	±10.0 %	+3.3	Vdc	
Output		CMOS		
Start-up Time	Max	15	mS	
Load	Resistance	10 ±5%	ΚΩ	
Loau	Capacitance	15 ±5%	pF	
Logic Levels	Logic 1 (High) Min	90	%	
LOGIC LEVEIS	Logic 0 (Low) Max	10	70	
Enable/Disable	Output Disabled (Max)	0.3	Vdc	
Litable/ Disable	Output Enabled (Min)	2.0 (or open)		

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



MIL-55310/30-Series 0.560 x 0.360 x 0.188 (in)

PACKAGE DIMENSIONS

Contract (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		
PIN	CONNECTION	
1	Enable/Disable	
2	Ground/Case	
3	Output	
4	Supply Voltage	

