



PM-OCXO14 Series

Miniature Package & Low Phase Noise

PM-OCXO14 Series is the smallest volume of OCXO in the industry at present. The external size is only 14mm × 14mm × 8mm.

The phase noise can reach the specifications of -165dBc/Hz @ 1KHz, -178dBc/Hz @ 100kHz

PM-OCXO14 Series has excellent Frequency Aging rate characteristics.

Main Features

- Low phase noise:
 - 135dBc/Hz@100Hz -165dBc/Hz@1KHz
 - 175dBc/Hz@10kHz -178dBc/Hz@100kHz
- Low voltage input & high power output:
 - Output power up to 13dBm with 5V power supply.
 - Low power: stable power consumption is only 0.6W.
- Small volume package:
 - The external size of PM-OCXO14 Series is only 14mm × 14mm × 8mm which is the smallest volume of OCXO in the industry at present.
- Excellent Frequency Aging rate characteristics:
 - Frequency Aging: ±2ppb per day, ±0.2ppm over 1 year.

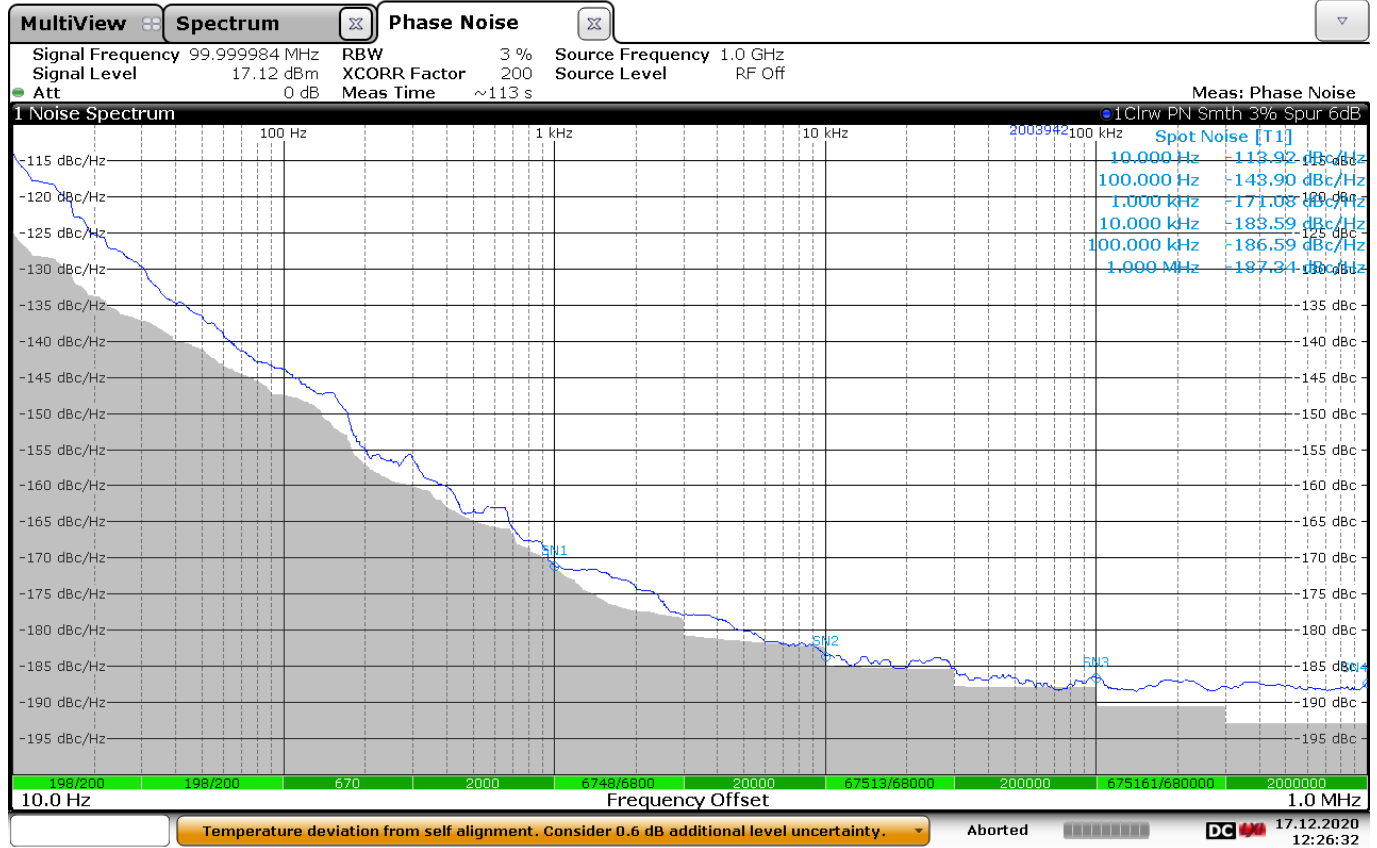
Specifications

Phase Noise @ 100MHz						
Offset (Hz)	A	B	C	D	Unit	Condition
10	-85	-95	-100	-100	dBc/Hz	Still air EFC port is disconnected or well filtered
100	-120	-125	-130	-132	dBc/Hz	
1,000	-150	-155	-160	-165	dBc/Hz	
10,000	-160	-165	-168	-170	dBc/Hz	
100,000	-165	-170	-175	-178	dBc/Hz	
Frequency Stability @ 100MHz						
Parameters	Min	Typical	Max	Unit	Condition	
Stability vs Temperature	±0.02	-	±0.3	ppm	-40 to +75°C (referenced to +25°C)	
	±0.02	-	±0.3	ppm	-55 to +85°C (referenced to +25°C)	
Frequency tolerance	-	±0.5	-	ppm	After warm-up for 5 min	
Stability vs Vs	-10	-	+10	ppb	Vs ± 5%	
Stability vs Load	-30	-	+30	ppb	Load ± 5%	
Aging per Day	-2	-	+2	ppb	After 30 days of operation	
Aging per Year	-0.2	-	+0.2	ppm	After 30 days of operation	

Warm-up Time	-	1	2	min	With accuracy of ± 200 ppb, referenced to the frequency at 30 min
Supply Voltage (Vs)					
Parameters	Min	Typical	Max	Unit	Condition
Supply Voltage	4.75	5	5.25	VDC	
Power Consumption	-	2.5	3.0	W	During warm up @ +25°C
		0.6	1.0		Steady state @ +25°C
Output					
Output Wave	Sinwave				
Load	-	50	-	Ohms	
Power	+7	-	+13	dBm	50Ω
Harmonic	-	-	-30	dBc	50Ω
Spurious	-	-	-80	dBc	50Ω
Frequency Adjustment (EFC)					
Range	± 0.5	-	± 2	ppm	
Slope	Positive				
Control Voltage Range	0	2.5/4.5	4.5/9.0	VDC	
Other Parameters					
G-sensitivity	0.5	-	1	ppb/g	(X、Y、Z) max
Weight	-	-	20	g	
Absolute Maximum Ratings					
Supply Voltage (Vs)	-	-	Vs+20%	VDC	The device can work within the limit temperature range, but the specifications cannot be guaranteed. If the limit working condition are exceeded too long, the product may be damaged.
Load	45			Ohms	
Operating Temperature Range	-55		+90	°C	
Storage Temperature Range	-55		+125	°C	

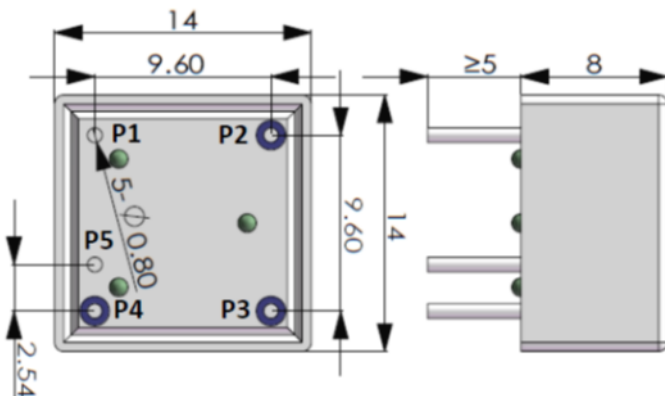
Phase Noise Test Figure @ 100MHz

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Outline Drawing and Pin Descriptions



NO	height (H)	Pin length (L) Min
-	8.0mm	5.08mm
Pin function		
P1	GND	
P2	RF output	
P3	Vs	
P4	EFC	
P5	GND	



Power Matrix

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