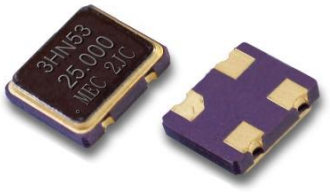
HN _ _	Wide Operating Temperature	SMD	LVCMOS	1.8 V	2.5 V	Min.	Max.
	Over - 55 °C to +125 °C			3.3 V	5.0 V	1.75 MHz	60.0 MHz

Features

- Femto second RMS phase jitter. 150 fs typical (12 KHz ~ 20 MHz)
- Superior phase noise: -155 dBc/Hz at 10 KHz and -160 dBc/Hz at 100 KHz offset
- Wide Operating Temperature range from -55 °C to +125 °C



RoHS Compliance

General specifications of all available packages , at Ta=+25°C , CL=15pF

Model [Output Logic]		" HN " series (Tri - state Function on pad No. 1) [LVCMOS]						
Supply Voltage V_{DD}		1.8 V_{DD} ± 10%	+2.5 V_{DD} ± 10%	+3.3 V_{DD} ± 10%	+5.0 V_{DD} ± 10%			
		code is " 18 "	code is " 25 "	code is " 3 "	code is " 5 "			
Logic High " 1 " (90% of V_{DD} min.)		1.62 V min.	2.25 V min.	2.97 V min.	4.5 V min.			
Logic Low " 0 " (10% of V_{DD} max.)		0.18 V max.	0.25 V max.	0.33 V max.	0.5 V max.			
Current Consumption (max.)		1.75 ~ 20 MHz : 2 mA	1.75 ~ 20 MHz : 3 mA	1.75 ~ 20 MHz : 4 mA	1.75 ~ 20 MHz : 5 mA			
		20.0 ~ 60.0 MHz : 4 mA	20.0 ~ 60.0 MHz : 5 mA	20.0 ~ 60.0 MHz : 6 mA	20.0 ~ 60.0 MHz : 8 mA			
Rise Time (Tr) / Fall Time (Tf)		7 n sec. (max.)	7 n sec. (max.)	10 n sec. (max.)	10 n sec. (max.)			
		Measured between 10% ↔ 90% of wave form (CL = 15pF)						
Frequency Stability Code		Over -55°C to +125°C	" K 50 " for ± 50 ppm ; " K 100 " for ± 100 ppm					
Load		15 pF						
Start-up Time		1.75 ~ 32.0 MHz : 5.0 m sec. (max.) ; 32.0 ~ 60.0 MHz : 5.0 m sec. (max.)						
Duty Cycle		Standard: 50% ± 10%; Option: 50% ± 5%. Please add "-S" at the end of the part number for ± 5% .						
Tri-state Function on pad No. 1		Tri-state on pad 1 is standard for HN53 and HN57 series.						
Phase Jitter (RMS) [26 MHz , 3.3V]		150 fs (typical) [12 KHz to 20 MHz integated]						
SSB Phase Noise	Offset	10 Hz	100 Hz	1 KHz	10 KHz	100 KHz	1 MHz	5 MHz
[26 MHz , 3.3V]	dBc / Hz (typical)	-94	-127	-142	-156	-161	-163	-163
Storage Temperature		-55°C to + 125°C						
Aging at Ta=+25ºC		± 2 ppm max. for first year						

Part Number Format and Examples

[1]	[2]	-	[3]	[4]	-	[5]
Supply Voltage	Holder Type		Frequency Stability	T		Center Frequency
Examples (1)	18	HN53	-	K50	T	-	25.000
(2)	3	HN57	-	K100	T	-	50.000

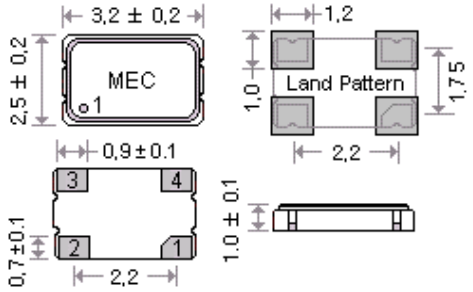
Ex (1) : 18HN53 - K50T - 25.000 [1.8V , HN53 package , ± 50ppm from -55°C to 125°C , Tri-state , 25.000MHz]

Ex (2) : 3HN57 - K100T - 50.000 [3.3V , HN57 package , ± 100ppm from -55°C to 125°C , Tri-state , 50.000MHz]

[1]	Supply voltage , " 18 " for +1.8V ; " 25 " for +2.5V ; " 3 " for +3.3V		
[2]	Holder Type : HN53 (5.0 * 3.2 * 1.2 mm) ; HN57 (7.0 * 5.0 * 1.4 mm)		
[3]	If non-standard please enter the desired stability after " K " , Example " K 50 " : represents ± 50ppm over -55 to +125°C		
[4]	" T " for Tri-state	[5]	Frequency in MHz

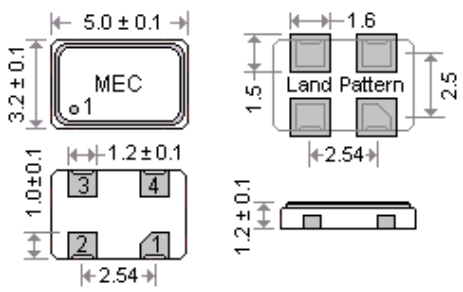
Outline Dimensions (Unit : mm) , Suggested pad Layout for SMDs

[HN32]



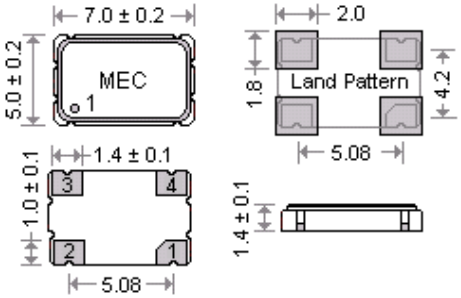
Pin connections :
pin 1 : Enable / Disable pin 2 : Ground
pin 3 : Output pin 4 : Supply Voltage

[HN53]



Pin connections :
pin 1 : Enable / Disable pin 2 : Ground
pin 3 : Output pin 4 : Supply Voltage

[HN57]



Pin connections :
pin 1 : Enable / Disable pin 2 : Ground
pin 3 : Output pin 4 : Supply Voltage

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