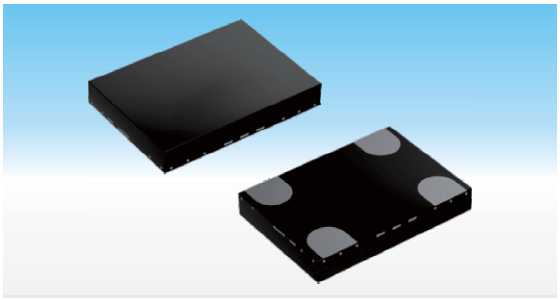
MEMS Oscillator-Spread Spectrum Function

LQ9005 Spread Spectrum MEMS Oscillator 1MHz~141MHz Output: CMOS **Package: 2016~3225**



Features

- Any frequency between 1MHz~141MHz accurate to 6 decimal places
- Spread options: Center spread:±0.125~±2%; Down spread: -0.25~-4%
- Low power consumption of 4.0mA typical at 1.8V
- LVCMOS output
- Programmable rise/fall time for EMI reduction: 8 options, 0.25~40ns
- Excellent total frequency stability: ±20ppm
- Application for IP camera, , etc
- RoHS Compliant /Pb Free

Standard Specifications

Item \ Type	LQ9005 Spread Spectrum MEMS Oscillator
Output Type	LVCMOS
Load condition	15pF
Frequency Range	1MHz~141MHz
Supply Voltage	1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 2.25V~3.63V
Frequency Stability (All Condition)	±20ppm, ±25ppm, ±50ppm
Current Consumption	6.5mA max.
OE Disable Current	6.5mA max.
Stand-by Current	4.3μA max.
Symmetry	45~55%
0 Level Output Voltage (V_{OL})	0.1×Vcc max.
1 Level Output Voltage (V_{OH})	0.9×Vcc min.
Rise Time / Fall Time	2.5ns max.
OE Pin 0 Level Input Voltage (V_{IL})	0.3×Vcc max.
OE Pin 1 Level Input Voltage (V_{IH})	0.7×Vcc min.
Input Pull-up Impedance	50~150KΩ (Pin1 OE or ST logic high)
	2MΩ min. (Pin1 ST logic low)
Start-up Time	5ms max.
Enable/Disable Time	180ns max.
Resume Time	5ms max.
Spread Enable Time	4μs max.
Spread Disable Time	50μs max.
Cycle-to-Cycle Jitter	22ps max.
Spread Spectrum (%)	Center Spread: ±0.125%~±2.060 (±0.125% step size); Down Spread: -0.25~-4.28 (-0.25% step size)
Spread Profile	Triangular /Hershey-kiss
Operating Temperature Range	-20~+70C.-40~+85°C, -55~+85°C. -40~+105°C. -55~+125°C or specify
Storage Temperature Range	-65~+150°C
Package Size (L×W×H) (Unit: mm)	2.0×1.6×0.8, 2.5×2.0×0.8, 3.2×2.5×0.8
Footprint Package	4-Pin Package