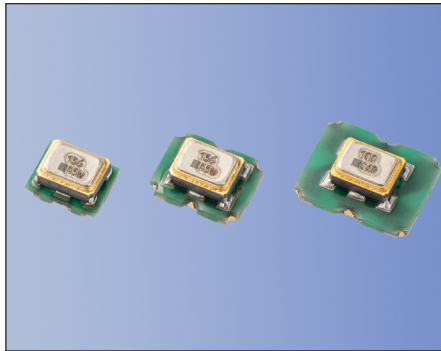




HCSL, 2.0×1.6 / 2.5×2.0 / 3.2×2.5mm



AEC-Q100/200 RoHS Compliant
PSL: R4Y MSL1

Features

- Output Frequency: 100/125/156.25MHz
- HCSL output
- Supply voltage $V_{CC}=3.3V, 2.5V$
- Low Jitter
- Heat resistant up to $+125^{\circ}C$

Applications

- Automotive Radar/ Camera/ Navigation/ Sensor/ Mirror/ Head light

Table 1

Freq. Tol. Code	$\times 10^{-6}$	Operating Temperature Range ($^{\circ}C$)	Note
0	± 50	-10 to +70	For additional stability, please contact us.
F	± 100	-40 to +85	
G	± 50	-40 to +85	
6	± 50	-40 to +105	
7	± 100	-40 to +105	
X	± 100	-40 to +125	

How to Order

MC□□□□F ① 100,000 ② H □ □ K 00 ③ ④ ⑤ ⑥ ⑦

① Series

MC2016F	2016 Size	MC2520F	2520 Size
MC3225F	3225 Size		

② Output Frequency (100,000 : 100MHz)

③ Output Type (H : HCSL)

④ Supply Voltage

2	2.5V	3	3.3V
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⑤ Frequency Tolerance (See Table 1)

⑥ Symmetry/ INH Function

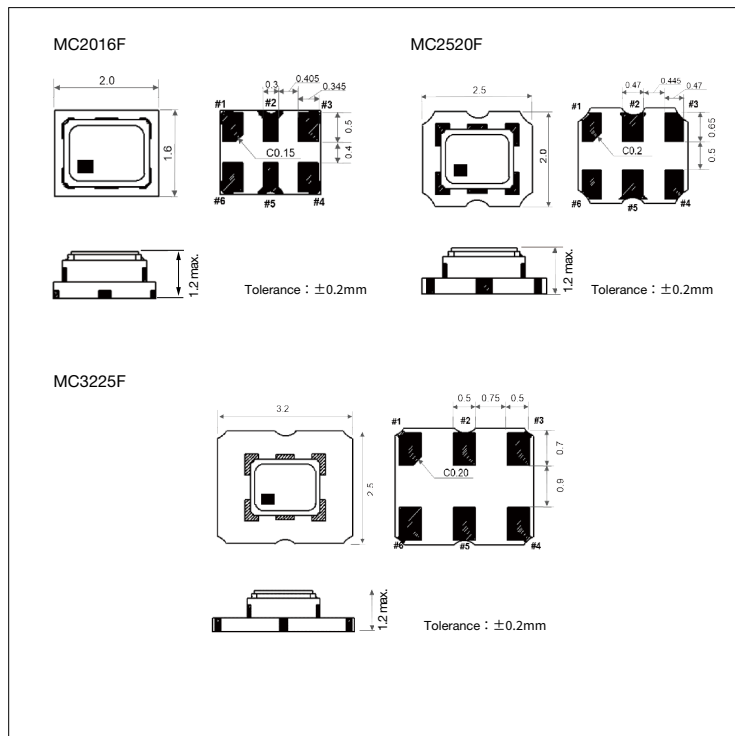
⑦ Individual Specification (STD Specification is "00" .)

Packaging Tape & Reel

MC3225F/ MC2520F/ MC2016F	2000 pcs./ reel
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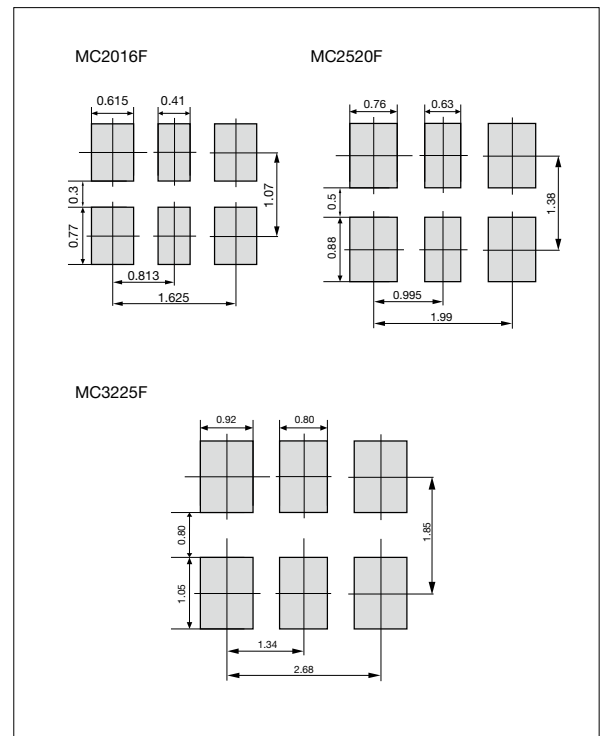
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Pad Connections	
#1	Stand-by Function
#2	NC
#3	Case GND
#4	Output
#5	Complementary Output
#6	Vcc

Stand-by Function	
Pad1	Pad4 / Pad5
Open	Active
"H" Level	Active
"L" Level	No-Oscillation



HCSL, 2.0×1.6 / 2.5×2.0 / 3.2×2.5mm

Specifications

Item	Symbol	Conditions	Specifications	Units	
Output Frequency Range	f _o		100/125/156.25	MHz	
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25° C), Shock and vibration	See Table 1	× 10 ⁻⁶	
Storage Temperature Range	T _{stg}		-55 to +125	° C	
Operating Temperature Range	T _{use}		See Table 1	° C	
Max. Supply Voltage	—		-0.3 ~ +4.0	V	
Supply Voltage	V _{cc}	@+2.5V @+3.3V	+2.375 to +2.625 +3.135 to +3.465	V	
Current Consumption	I _{cc}		46 max.	mA	
Stand-by Current	I _{std}		30 max.	μA	
Symmetry	SYM	50ohm @Cross Point output swing	50±5	%	
Rise/ Fall Tim (20% V _{cc} to 80% V _{cc})	Tr/ Tf	50ohm/+0.175V to +0.525V	0.6 max.	ns	
Low Level Output Voltage	V _{oL}		-0.15 to +0.15	V	
High Level Output Voltage	V _{oH}		+0.60 to +0.90	V	
Output Load	—	HCSL Output	50	ohm	
Low Level Input Voltage	V _{iL}		30% V _{cc} max.	V	
High Level Input Voltage	V _{iH}		70% V _{cc} min.	V	
Disable Time	t _{dis}		200 max.	ns	
Enable Time	t _{ena}		10 max.	ms	
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.	10 max.	ms	
Deterministic Jitter ^{Note1}	DJ	DJ pk-pk	2 max.	ps	
1Sigma Jitter ^{Note1}	J _{Sigma}		4 max.	ps	
Peak to Peak Jitter ^{Note1}	J _{PK-PK}		30 max.	ps	
Phase Jitter	—	BW: 12kHz to 20MHz @+3.3V, 25degC	@100MHz	0.15 max.	ps
			@125MHz	0.15 max.	ps
			@156.25MHz	0.10 max.	ps

Note : All electrical characteristics are defined at the maximum load and operating temperature range.

Note1: Jitter is measured with the Time Interval Analyzer “Wavecrest SIA-3000”