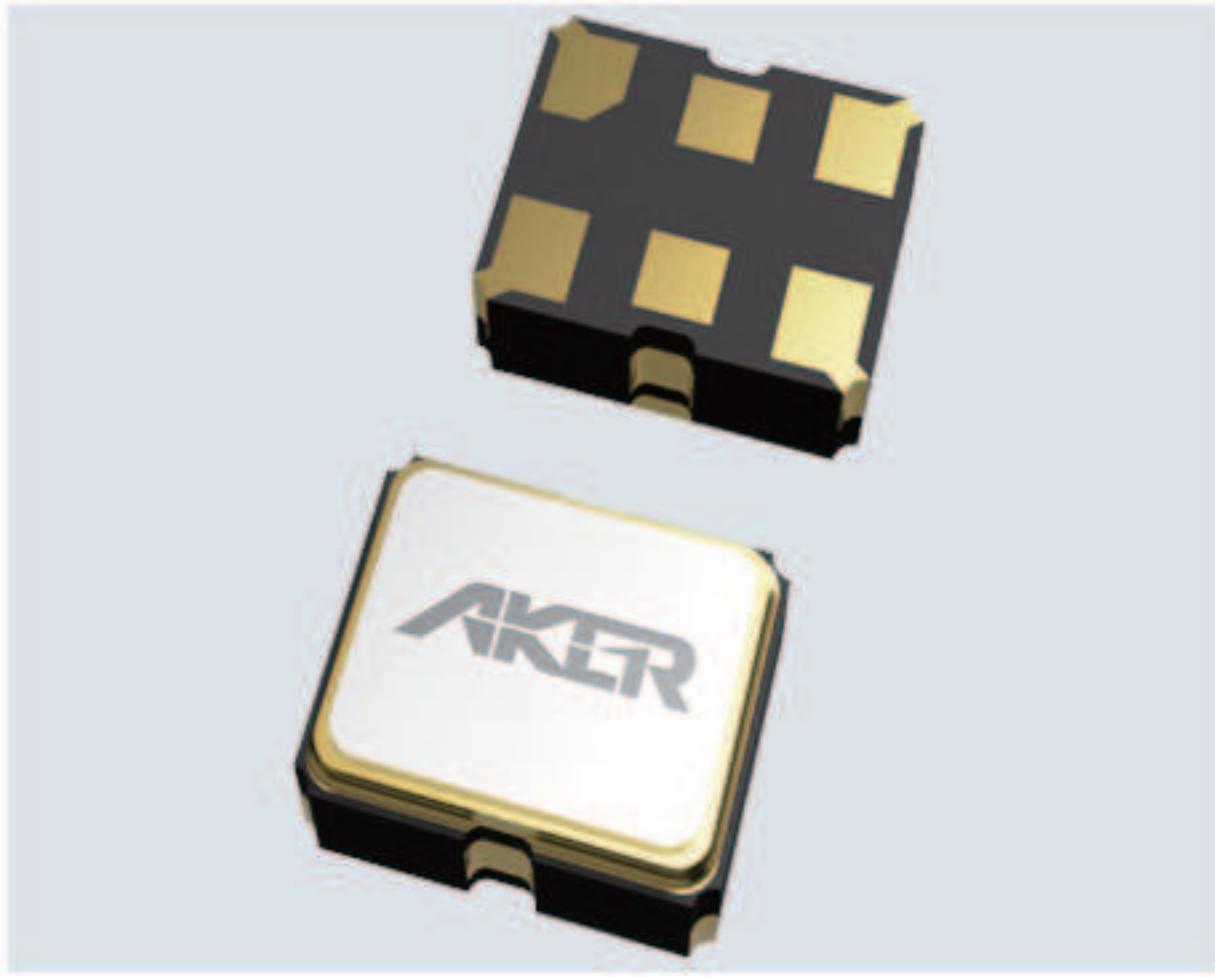


CRYSTAL OSCILLATORS

LPHCSL

ACTUAL SIZE: ☐

SMJN-221 SERIES CERAMIC PACKAGE



APPLICATIONS

- ▶ Computers
- ▶ GPS navigation (PCIe)
- ▶ Entertainment systems (PCIe)
- ▶ Ethernet
- ▶ Cameras

FEATURES

- ▶ Low power consumption
- ▶ High-speed current steering logic output
- ▶ Wide operating temperature range
- ▶ Wide operating temperature range

Specification

MODEL

FREQUENCY RANGE	MHz	95.00 ~ 160.000			
FREQUENCY STABILITY*	ppm	$\pm 25 \sim \pm 100$			
OPERATING TEMPERATURE	°C	- 20 ~ + 70 Or Specify (- 40 ~ + 125 is available)			
STORAGE TEMPERATURE	°C	- 55 ~ + 125			
POWER SUPPLY VOLTAGE	VDC	+1.8 $\pm$ 5%	+2.5 $\pm$ 5%	+3.3 $\pm$ 5%	1.71~3.63
OUTPUT VOLTAGE HIGH (V _{OH})	V (Max.)	0.850			
OUTPUT VOLTAGE LOW (V _{OL})	V (Min.)	-0.150			
OUTPUT LOAD (Terminated to GND)	pF	2			
OUTPUT SYMMETRY	%	45 ~ 55	45 ~ 55	45 ~ 55	45 ~ 55
INPUT CURRENT					
95.000 ~ 160.000MHz	mA (Max.)	20	20	20	20
INPUT VOLTAGE					
INPUT ENABLE VOLTAGE (V _{IH})	V (Min.)	1.26	1.75	2.31	70%VDC
INPUT DISABLE VOLTAGE (V _{IL})	V (Max.)	0.54	0.75	0.99	30%VDC
RISE / FALL TIME (20% to 80% / 80% to 20% Output Swing)					
95.000 ~ 160.000MHz	ns (Max.)	0.7	0.7	0.7	0.7
Enable-Disable Function		Tri-State			
PHASE JITTER RMS (Fj:12K~20MHz)	ps (Max.)	0.5			
AGING	ppm/Year	± 3			

*Inclusive of 25°C $\pm$ 3°C & Operating Temperature Range.

**Specification subject to change without notice.

Pin Connection

PIN No.	Connection
#1	Enable/Disable
#2	N.C.
#3	GND
#4	Output Q
#5	Output QN
#6	VDC

Enable/Disable Function

Pin #1	Pin #4 & Pin #5
HIGH(OPEN)	Output
LOW	High Impedance

Dimension(mm)

SMJN-221 SERIES

