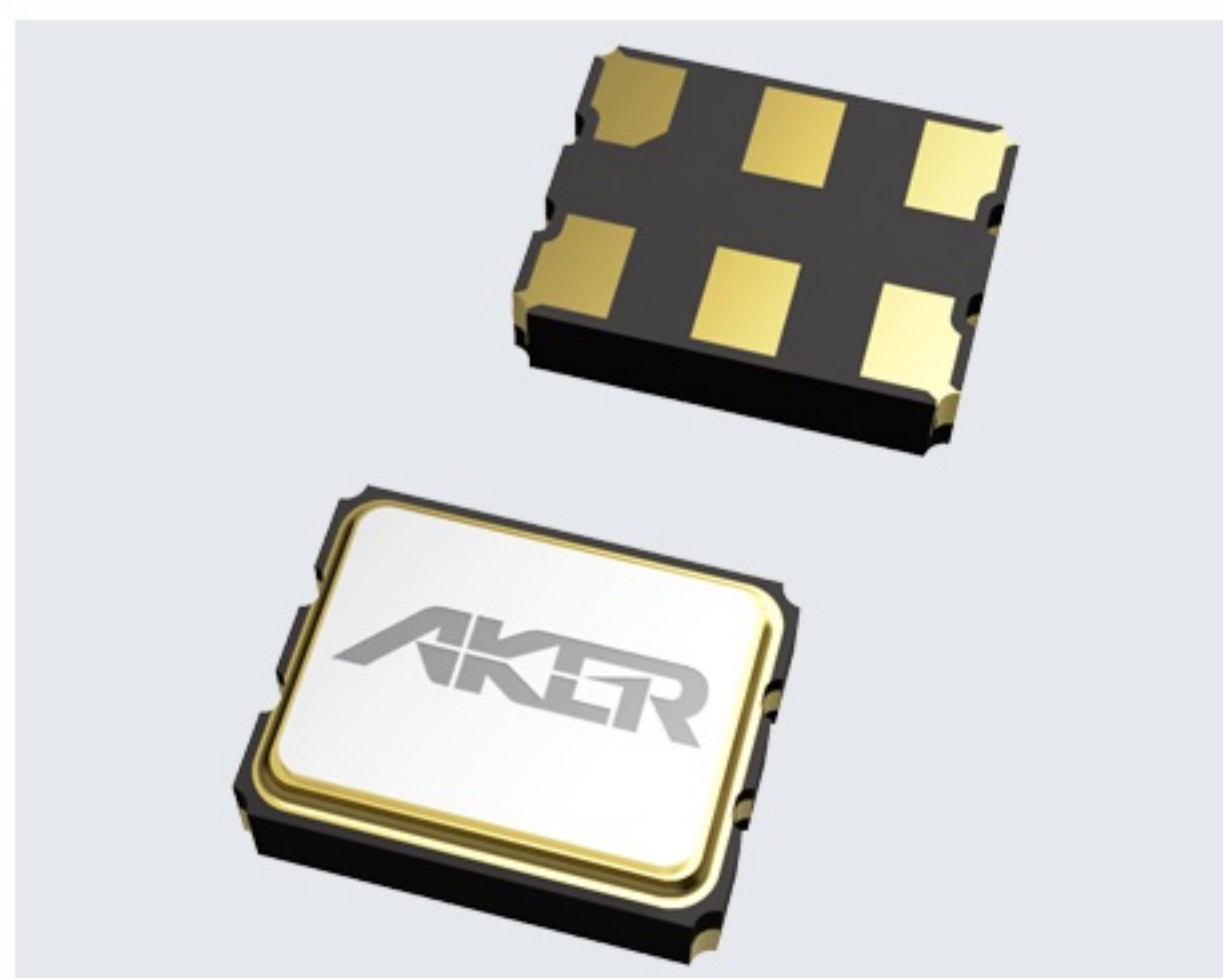


CRYSTAL OSCILLATORS

LVDS Automotive Grade

ACTUAL SIZE: ☐

SMDF-321 SERIES CERAMIC PACKAGE



APPLICATIONS

- ▶ Cable
- ▶ CCD camera (car)

FEATURES

- ▶ LVDS Complementary Output
- ▶ Low Phase Jitter (12KHz to 20MHz)
Under 0.5 ps (RMS)
- ▶ RoHS Compliant
- ▶ IATF-16949 Certified
- ▶ AEC-Q200 Qualified

Specification

MODEL

FREQUENCY RANGE	MHz	13.500 ~ 200.000			
FREQUENCY STABILITY*	ppm	± 25 ~ ± 100			
OPERATING TEMPERATURE	°C	- 20 ~ + 70 Or Specify (- 40 ~ + 125 is available)			
STORAGE TEMPERATURE	°C	- 55 ~ + 125			
POWER SUPPLY VOLTAGE	VDC	+1.8 ± 5%	+2.5 ± 5%	+3.3 ± 5%	2.375~3.63
OUTPUT VOLTAGE HIGH (V _{OH})	V (Max.)	1.600			
OUTPUT VOLTAGE LOW (V _{OL})	V (Min.)	0.900			
OUTPUT LOAD (Between Q and QN)	Ω	100			
DIFFERENTIAL OUTPUT VOLTAGE	mV	247(Min.)	330(Typ.)	454(Max.)	
OFFSET VOLTAGE	V	1.125(Min.)	1.250(Typ.)	1.375(Max.)	
OUTPUT SYMMETRY	%	45 ~ 55	45 ~ 55	45 ~ 55	45 ~ 55

INPUT CURRENT

13.500 ~ 200.000MHz	mA (Max.)	20	20	20	20
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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)

13.500 ~ 99.999MHz	ns (Max.)	1	1	1	1
100.000 ~ 200.000MHz	ns (Max.)	0.5	0.5	0.5	0.5

PHASE JITTER RMS (Fj:12K~20MHz)	ps (Max.)	0.5			
AGING	ppm/Year	± 3			

*Inclusive of 25°C±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)

SMDF-321 SERIES

