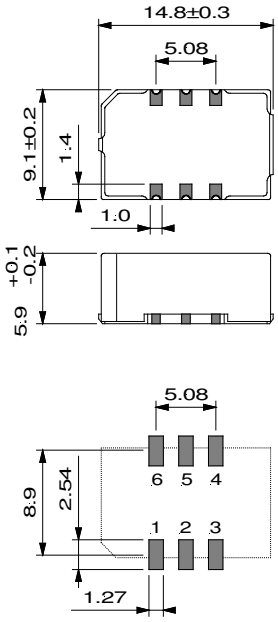
fordahl
FREQUENCY CONTROL PRODUCTS

SURFACE MOUNT PRECISION OSCILLATOR

DFN S1-KEC/KEG (5 V) & DFN S1-LEC/LEG (3.3 V)

KEY FEATURES
16 to 400 MHz
± 20 ppm/15 years stability available
1 ps RMS jitter over 50 kHz to 80 MHz B.W.
APPLICATIONS
Sonet/SDH/Datacomms



Marking:

KEC/LEC version:

DFN S1-KE/LE
Frequency
Code yrwk

KEG/LEG version:

DFN S1-KEG/LEG
Frequency
Code yrwk

PC board footprint

Pin	DFN S1-KEC / LEC	DFN S1-KEG / LEG
1	Output 2	NC
2	E / D	E / D
3	GND	GND
4	Output 1	Output 1
5	NC	Output 2
6	Vcc	Vcc

TYPE	DFN S1-KECPI/KEGPI	DFN S1-LECPI/LEGPI
Frequency Range	16 to 400 MHz	16 to 400 MHz

ELECTRICAL SPECIFICATIONS		
supply voltage	5 V ± 5 %	3.3 V ± 5 %
supply current (no load)	≤ 70 mA	≤ 60 mA
output load	PECL 100 K (50 Ω to 3 V)	LVPECL 100 K (50 Ω to 1.3 V)
duty cycle @ 50% level	45/55...55/45 % (0 to 70°C) 40/60…60/40 % (-40 to 85°C)	45/55...55/45 %
rise/fall times (20 to 80%)	≤ 0.5 ns	≤ 0.5 ns
high/low levels	≥ 3.92 V/ ≤ 3.45 V	≥ 2.22 V/ ≤ 1.7 V
jitter RMS (12 kHz to 5 MHz)	≤ 0.5 ps	≤ 0.5 ps
jitter RMS (50 kHz to 80 MHz)	≤ 1 ps (f = 155.52 MHz)	≤ 1 ps (f = 155.52 MHz)
enable / disable on pin 2	low or open = enable, high = disable	low or open = enable, high = disable
complementary output on pin 1	180° phase shifted	180° phase shifted
start up	≤ 10 ms @ 4.75 V	≤ 10 ms @ 3.15 V

FREQUENCY STABILITY		stability [ppm] and temperature code							
types	temperature range	stability	code	stability	code	stability	code	stability	code
all types	0 to 70°C	± 20	XB20	± 25	XB25	± 50	XB50	± 100	XB100
	-40 to 85°C	± 20	XE20	± 25	XE25	± 50	XE50	± 100	XE100
remark		includes calibration at 25°C, temperature, ageing, Vcc and load changes 1st year							

OPTIONS	CODE				
pin out option	G	complementary output on pin 5			
stability over long life time		A = 5 years	B = 10 years	C = 15 years	D = 20 years

ORDERING CODE	type + option code + frequency + stability / temperature code
Example	DFN S1-LECPI 155.52 MHz XB20

REMARK	Please consult factory for life time/stabilities and frequency/stabilities possible combinations