



actual size

Oscillator VCXO · LVDS

- SMD LVDS VCXO, 7.5 x 5.0 mm
- uses quartz crystal at fundamental mode and PLL
- high pulling range ± 150 ppm
- complementary LVDS output, low EMI
- ceramic/metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA

TYPE		JVD75B
frequency range		12.0 ~ 800.0 MHz
frequency stability over all*		± 25 ppm / ± 50 ppm (see table 1)
frequency pulling range min.		± 150 ppm
pulling control voltage		1.65 V \pm 1.5 V**
pulling control input imped. min.		60 k Ω
current consumption		80 mA max.
supply voltage V_{DC}		3.3 V \pm 5%
temperature	operating	-10 °C ~ +70 °C / -40 °C ~ +85 °C
	storage	-40 °C ~ +85 °C
output	rise & fall time	1.0 ns (20% ~ 80% of Vpp)
	load nom.	100 Ω differential
	swing min.	0.35 Vp-p
	offset voltage	1.25 V \pm 0.125 V
standby function		yes
output enable time max.		10 ms
output disable time max.		150 ns
start-up time max.		10 ms
phase jitter 12 kHz ~ 20.0 MHz		< 5.0 ps RMS
symmetry at 50% of Vpp		45% ~ 55% typ. (40% \pm 60% max.)

* includes stability at 25 °C, operating temp. range, supply voltage change, shock and vibration, aging 1st year.

TABLE 1: FREQUENCY STABILITY CODE

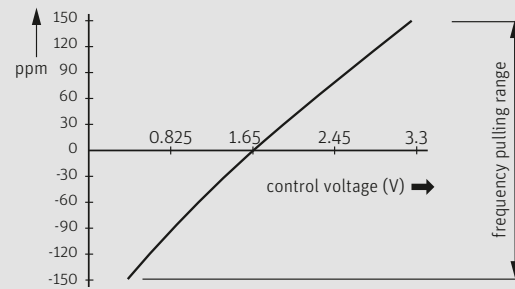
stability code	B	C		
	± 50 ppm	± 25 ppm		
-10 °C ~ +70 °C	○	○		
-40 °C ~ +85 °C	○			

○ available

ENABLE / DISABLE FUNCTION

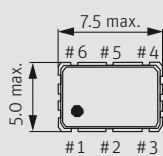
pin #2 (e/d control)	pin #4 / #5 (outputs)
open or ≥ 2.4 V	active
gnd or ≥ 0.4 V	high impedance

CONTROL VOLTAGE CHARACTERISTIC

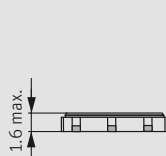


** To avoid phase noise or FM modulation in the output frequency spectrum, we recommend to feed the Vcontrol input pin by a low source impedance

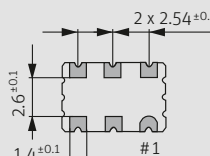
DIMENSIONS



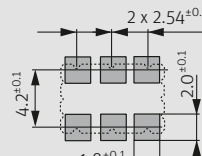
top view



side view



bottom view



pad layout

- # 1: Vcontrol
- # 2: e/d
- # 3: ground
- # 4: output 1
- # 5: output 2
- # 6: V_{CC}

pin connection

in mm

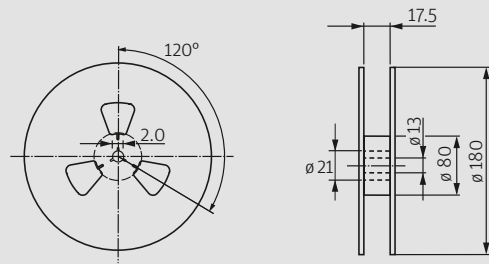
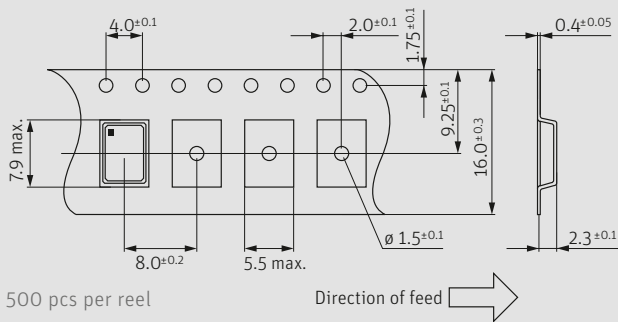
ORDER INFORMATION

0	frequency	type	frequency stability code	supply voltage	pulling range in ppm	pulling range in ppm
Oscillator	12.0 ~ 800.0 MHz	JVD75B	B = ± 50 ppm C = ± 25 ppm	3.3 = 3.3 V	15 = ± 150 ppm	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: 0 155.520-JVD75B-B-3.3-15-T1-LF (Suffix LF = RoHS compliant / Pb free)

Oscillator VCXO · LVDS · JVD75B

TAPING SPECIFICATION



in mm

PACKAGING NOTE

- standard packing unit is 500 pieces per reel
- non-multiple packing units are only supplied taped / bulk

MARKING

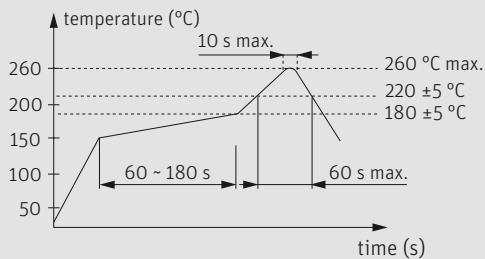
type
frequency
company / date code

date code: A ~ M: Jan. - Dec.

7: 2017 8: 2018 9: 2019 0: 2020 1: 2021 2: 2022

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

REFLOW SOLDERING PROFILE



note: parts are also suitable for soldering systems with lead (Pb) content