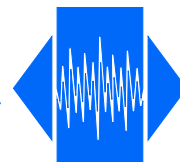


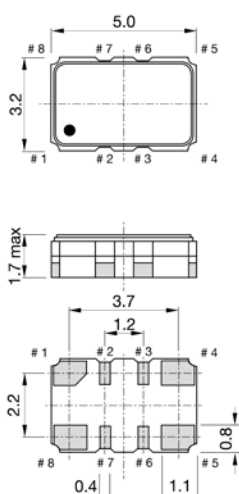
High precision analogue temperature compensated small packaged SMD VC-TCXO



Features

- Applications: instrumentation, mobile radio, sat. navigation
- High frequency stability vs. temperature: $\pm 0.20 \sim \pm 0.5$ ppm
- Output signal Clipped sine wave or CMOS
- Low phase noise, high reliability

Standard frequencies	10, 12, 12.8, 13, 14.4, 16, 16.384, 20, 24, 25, 26, 32, 38.88, 40 & 50 MHz		
Frequency range	10 ~ 52 MHz		
Frequency stability vs. temperature reference to (F _{MAX} +F _{MIN})/2	±0.50 ppm ±0.20 ~ 0.28 ppm ±1.0 ppm	-40 ~ +85 °C -40 ~ +85 °C -55 ~ +95 °C	standard on request on request
vs. supply voltage changes reference to frequency at nominal supply	≤ ±0.05 ppm	±5 %	
vs. load changes reference to frequency at nominal load	≤ ±0.05 ppm	±10 %	
vs. aging	≤ ±1.0 ppm ≤ ±0.5 ppm	1 st year 1 st year (on request)	
Frequency tolerance ex. factory (preset)	≤ ±1.0 ppm	@ +25 °C	
Supply voltage (nominal value needs to be defined)	+2.7 V to +5.0 V	(2.7 V, 3.0 V, 3.3 V & 5.0 V)	
Type	VT7-503M-SQ-HP	VT7-503CM-SQ-HP	
Output signal	clipped sine wave	CMOS	
Output level	> 0.8 Vp-p	V _{OH} > 0.9 x Vdc / V _{OL} < 0.1 x Vdc	
Output load	10 kΩ // 10 pF	15 pF	Max.
Supply current	1.5 ~ 3 mA	3 ~ 8 mA	
Electronic Frequency Control (EFC) range	±5 ~ ±10 ppm		
EFC voltage (Vc)	+1.5 V ±1.0 V	or +2.5 V ±2.0 V for 5.0 V supply voltage	
Tri-state function	pin #6 > 0.7 x Vdc or open pin #6 < 0.3 x Vdc or GND	pin #5 ➡ pin #5 ➡	oscillation high impedance
Phase noise @ 10 MHz	< -145 dBc/Hz < -155 dBc/Hz < -155 dBc/Hz	@ 1 kHz @ 10 kHz @ 100 kHz	
Operating temperature range	-20 ~ +70 °C -40 ~ +85 °C -55 ~ +95 °C	indoor outdoor (extended temperature range on request)	
Storage temperature range	-55 ~ +105 °C		
Reflow Profiles as per IPC/JEDEC J-STD-020C	≤ 260 °C over 10 sec. Max.		
Moisture sensitivity	Level 1 (unlimited)		



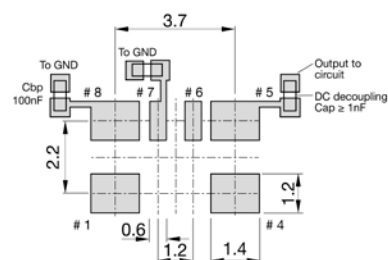
Pin function

- | | |
|-----|-----------------------------|
| # 1 | Vc (Voltage control) |
| # 2 | do not connect |
| # 3 | do not connect |
| # 4 | GND |
| # 5 | OUTPUT |
| # 6 | Tri-state or do not connect |
| # 7 | do not connect |
| | optional 33 nF to the GND |
| # 8 | Vdc |

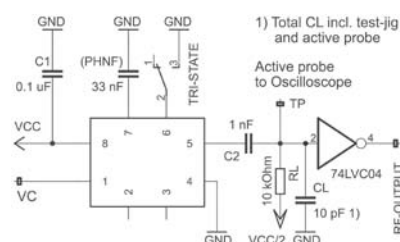
Phase noise reduction
(optional on request)

- # 7 Phase noise filter (PhNF)
With external capacitor
Cap = 33 nF

Foot print



Test circuit
(CSW)



Specifications subject to change without notice

0011/65/EU RoHS compliant

21 Feb. 15

QuartzCom AG
Bischmattstrasse 11
CH 2544 Bettlach
Switzerland

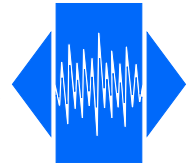
Fax +41 32 644 24 05
Tel +41 32 644 24 00
E-Mail sales@quartzcom.com
www.quartzcom.com



TX7-503-SQ-HP

High precision analogue temperature compensated
small packaged SMD TCXO

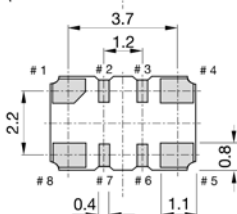
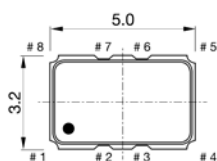
QuartzCom
the communications company



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Supply current	1.5 ~ 3 mA	3 ~ 8 mA	
Tri-state function	pin #6 > 0.7 x V _d c or open pin #6 < 0.3 x V _d c or GND	pin #5 → pin #5 →	oscillation high impedance
Phase noise @ 10 MHz	< -125 dBc/Hz < -145 dBc/Hz < -155 dBc/Hz < -155 dBc/Hz	@ @ @ @	100 Hz 1 kHz 10 kHz 100 kHz
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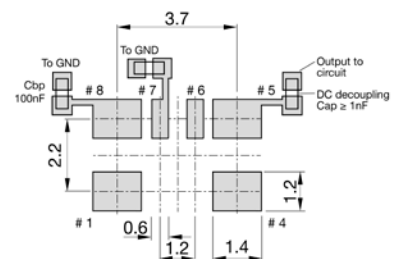
Pin function

- # 1 GND or not connected
- # 2 do not connect
- # 3 do not connect
- # 4 GND
- # 5 OUTPUT
- # 6 Tri-state or do not connect
- # 7 do not connect
optional 33 nF to the GND
- # 8 Vdc

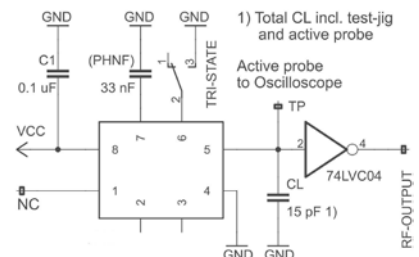
Phase noise reduction (optional on request)

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With external capacitor
Cap = 33 nF

Foot print



Test circuit (CMOS)



Specifications subject to change without notice

0011/65/EU RoHS compliant

20 Feb. 15

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