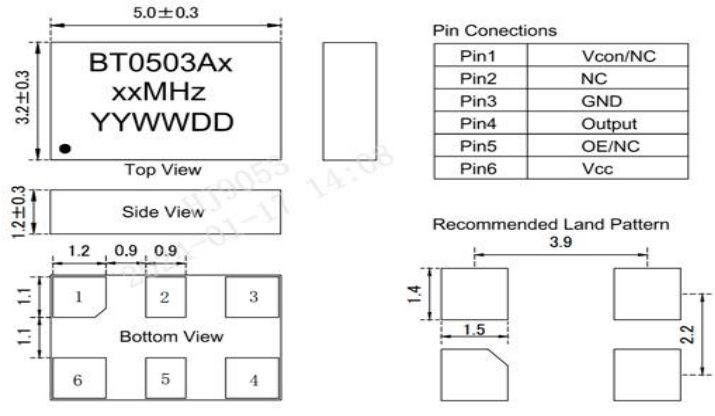


Features				Applications		
<ul style="list-style-type: none"> ● Ultra Stable ● High Frequency Stability ● Extremely Low Phase Noise ● Quick Start ● Small Package 				<ul style="list-style-type: none"> ● Base Stations ● Instrumentations ● Synthesizer ● SDH/SONET ● Medical Electronics 		
BT0503A Specifications						
Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V	V _{cc} ±5%	
	-	5	-	V	V _{cc} ±5%	
Supply Current	-	-	3.5	mA	10MHz~26MHz (Including 26MHz)	
	-	-	10	mA	26MHz~60MHz	
Frequency Range	10~52			MHz		
Nominal Frequency	10, 16, 19.2, 20, 25, 26, 32, 38.4, 40, 48, 50			MHz		
Initial Frequency Tolerance	±0.3	±0.5	±1.0	ppm	At shipment, nominal EFC, +25℃	
Freq. Stability Vs. Temp.	±0.05	-	±0.5	ppm	-40℃~+85℃	
Clipped Sine Wave	Output Level	0.8	-	-	Vp-p	
	Load	10kΩ/10pF				
HCMOS	V _{OH}	2.4	-	-	V	HCMOS Output, Load=15pf
	V _{OL}	-	-	0.4	V	HCMOS Output, Load=15pf
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	-	-	6	ns	HCMOS Output, Load=15pf
	Load	-	-	15	pf	
RMS Jitter(By E5052B)	0.4	-	1.5	ps	12KHz~5MHz	
Supply Sensitivity	-	-	±0.1	ppm	V _{cc} ±5%	
Load Sensitivity	-	-	±0.2		Load±5%	
Aging/ First Year	-	-	±1.0		Standard	
SSB Phase Noise @10MHz	-	-	-105	dBc/Hz	Offset 10Hz	At +25℃
	-	-	-130		Offset 100Hz	
	-	-	-150		Offset 1kHz	
	-	-	-155		Offset 10kHz	
	-	-	-158		Offset 100kHz	
Control Voltage Range	1.5 ± 1.0			V		
Frequency Tuning Range	±5	-	±15	ppm		
Tuning Slope	positive					
Non-linearity	-	-	10	%		
Phase Noise @1KHz						
Frequency Range	<-135dBc	<-140dBc	<-145dBc	<-150dBc	○=Available X= Not Available	
10MHz				○		
16MHz~40MHz			○	X		
50MHz		○	X	X		
Environmental Conditions						
Operating Temperature Range	-40℃~+85℃					
Storage Temperature Range	-55℃ ~ +125℃					

Outline Dimension & Pin Connections



Note: Leave pin 1 unconnected if Vcon is not used.

Note 2: If the OE function is not used, hang pin 5 in the air, shut off the output on the OE ground, and enable the output in the air or pull up to 3.0V.

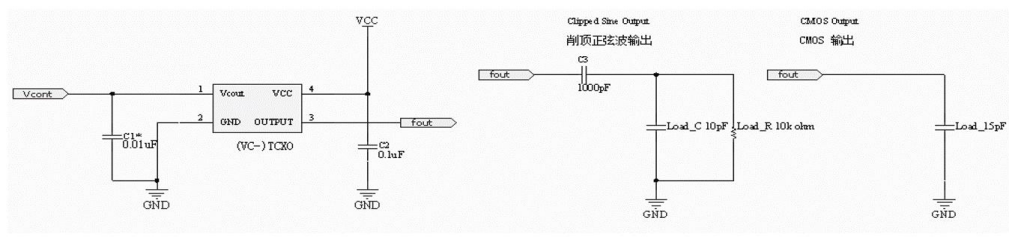
Maximum Ratings

Parameter	Symbol	Rating
Supply Voltage	Vdd	-0.5V / 6V
Control Voltage	Vcon	0V / 3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

Reliability

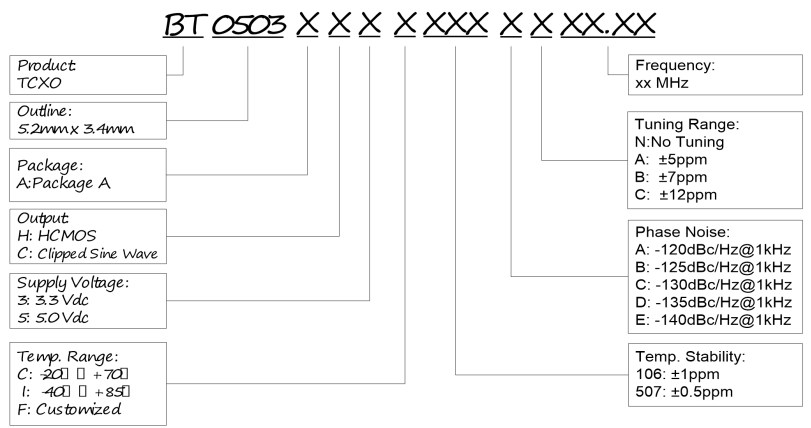
Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
Contact Pads	Gold over Nickel
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Recommended circuit



* No pressure control function of warm crystal vibration, 1 foot suspended, C1 does not need to weld.
 * The load during the test is the total load of the test terminal including the probe.

Ordering Guide



Example: BT0503DH3C106CA30.72

Disclaimer
 XtalTq Technologies Co., Limited reserves the right to make changes to the product(s) and/or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.