

Features

- Ultra Stable
- Wide Temperature Range
- SMD Package (5.0×3.2mm)

Applications

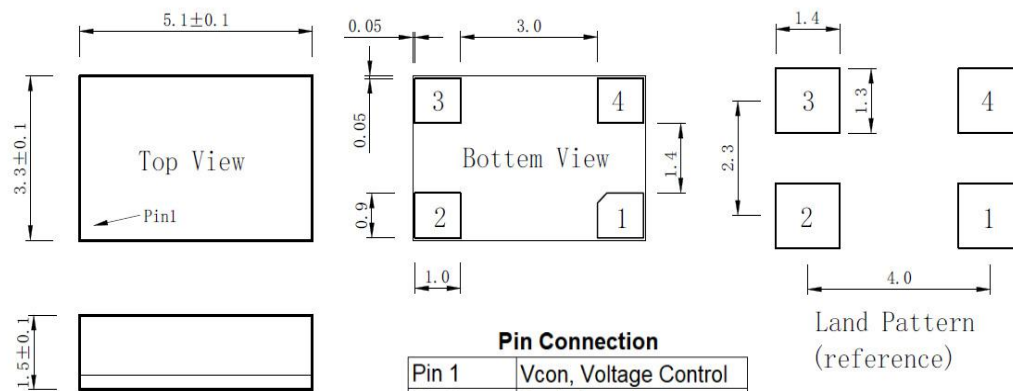
- Base Stations
- Instrumentations
- Synthesizer
- SDH/SONET
- Medical Electronics


BT0503B Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V		
	-	5.0	-	V		
Supply Current	3	-	6	mA		
Frequency Range	10~ 52			MHz		
Nominal Frequency	10, 16.384, 19.2, 20, 25, 26, 30.72, 40			MHz		
Initial Frequency Tolerance	±0.5	±1.0	±1.5	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±0.5	-	±1.0	ppm	-20°C ~ +70°C	
	±0.5	-	±1.0	ppm	-40°C ~ +85°C	
Clipped Sine Wave	Output Level	0.8	-	Vp-p		
	Load	10kΩ//10pF				
CMOS	V _{OH}	2.4	-	V	CMOS Output, Load=15pf	
	V _{OL}	-	-	0.4	V	CMOS Output, Load=15pf
	Duty Cycle	45	-	55	%	(V _{OH} - V _{OL})/2
	Rise/Fall Edge	-	-	6	ns	CMOS Output, Load=15pf
	Load	-	-	15	pf	
Supply Sensitivity	-	-	±0.2	ppm	Vcc±5%	
Load Sensitivity	-	-	±0.2		Load±10%	
Aging/ First Year	-	-	±1.0		Standard	
	-	-	±1.0		Customized	
SSB Phase Noise @10MHz	-	-	-80	dBc/Hz	Offset 10Hz	
	-	-	-115		Offset 100Hz	
	-	-	-135		Offset 1kHz	
	-	-	-148		Offset 10kHz	
	-	-	-148		Offset 100kHz	
Control Voltage Range	1.5 ± 1.0V					
Frequency Turning Range	±5	-	±10	ppm		
Tuning Slope	Positive					
Non-linearity	-	-	10	%		
Phase Noise @1KHz						
Freq. Range	<-125dBc	<-130dBc	<-135dBc	<-140dBc	A=Available N/A=Not Available	
10MHz				A		
12.8~20MHz			A	N/A		
20.48~38.4MHz		A	N/A	N/A		
40MHz	A	N/A	N/A	N/A		
Environmental Conditions						
Operating Temperature Range	-40°C ~ +85°C					
Storage Temperature Range	-55°C ~ +125°C					

Outline Dimension & Pin Connections

Outline Dimensions (Unit : mm)


Pin Connection

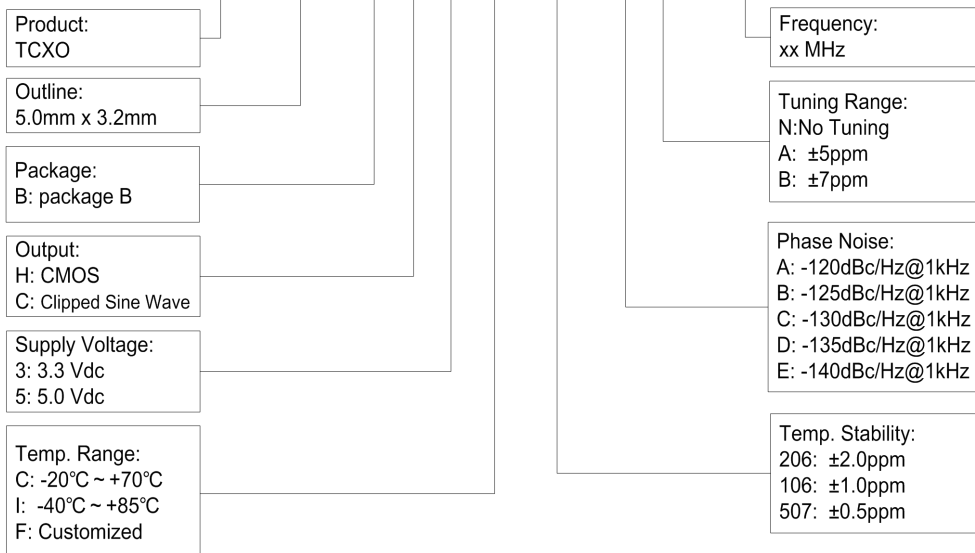
Pin 1	Vcon, Voltage Control
Pin 2	Gnd, Ground
Pin 3	F0, Output
Pin 4	Vdd, Supply Voltage

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
Moisture Sensitive Level	MSL3
Contact Pads	Gold over Nickel
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Ordering Guide
BT 0503 B X X X XXX X X XX.XX

Example: BT0507BH3C106DN10