
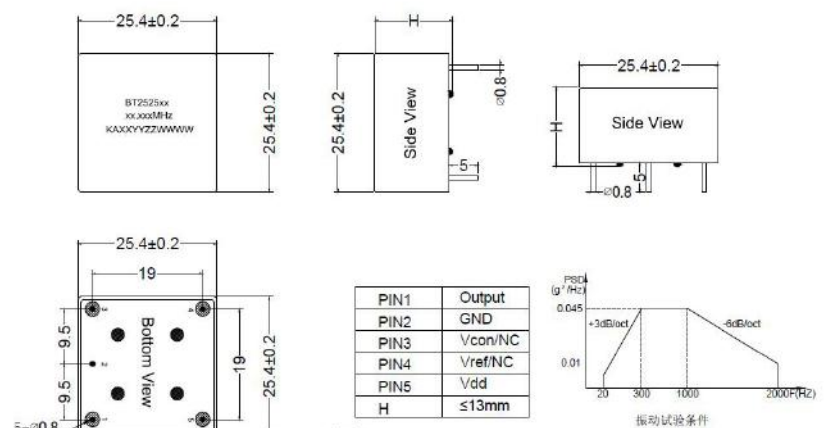


Features		Applications				
<ul style="list-style-type: none"> • Ultra Stable • Low Phase Noise • Freq. Range 50~156.25MHz • High Precision • SMD 25x25mm 		<ul style="list-style-type: none"> • Satellite navigation • wireless communication system • High definition television system • Low phase noise signal source • Low jitter radio frequency communication circuit 				
						
BT2525H Vibration Insensitive Specifications						
Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V	Vcc±5%	
	-	5	-	V		
Supply Current	-	-	45	mA		
Frequency Range	50~156.25			MHz		
Nominal Frequency	50,100,120,122.88			MHz		
Initial Frequency Tolerance	-	±0.50	±1.00	ppm	At shipment, nominal EFC, +25°C	
Freq.Stability Vs.Temp.	±0.28	-	±1.00	ppm	-20°C~+70°C	
	±0.28	-	±1.00	ppm	-40°C~+70°C	
	±0.28	-	±1.00	ppm	-40°C~+85°C	
	±0.50	-	±2.00	ppm	-50°C~+85°C	
Sine Wave	Output	5	8	-	dBm	
	Harmonic Suppression	-	-40	-30	dBc	
	Spur Suppression	-	-80	-70	dBc	
	Load	-	50	-	Ω	
HCMOS	Voh	2.4	-	-	V	HCMOS Output, Load=15pf
	Vol	-	-	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(E5052B)	-	-	1000	fs	12KHz~20MHz	
Supply Sensitive	-	-	±0.2	ppm	Vcc±5%	
Load Sensitive	-	-	±0.2		Load±5%	
Aging/First Year	-	-	±1.0		Standard	
SSB Phase Noise @100MHz	-	-	-	dBc/Hz	Offset 10Hz	Static phase noise at +25°C
	-	-	-		Offset 100Hz	
	-	-146	-140		Offset 1kHz	
	-	-157	-155		Offset 10kHz	
	-	-160	-158		Offset 100kHz	
SSB Phase Noise @100MHz	-	-	-	dBc/Hz	Offset 10Hz	X-axis dynamic phase noise at +25°C
	-	-	-		Offset 100Hz	
	-	-129	-120		Offset 1kHz	
	-	-157	-145		Offset 10kHz	
	-	-160	-155		Offset 100kHz	
SSB Phase Noise @100MHz	-	-	-	dBc/Hz	Offset 10Hz	Y-axis dynamic phase noise at +25°C
	-	-	-		Offset 100Hz	
	-	-125	-120		Offset 1kHz	
	-	-156	-145		Offset 10kHz	
	-	-159	-155		Offset 100kHz	
SSB Phase Noise @100MHz	-	-	-	dBc/Hz	Offset 10Hz	Z-axis dynamic phase noise at +25°C
	-	-	-		Offset 100Hz	
	-	-129	-120		Offset 1kHz	
	-	-156	-145		Offset 10kHz	
	-	-160	-155		Offset 100kHz	
Control Voltage Range	1.5 ± 1.0			V		
Frequency Tuning Range	±5	±7	-	ppm		
Tuning Slope	Positive					
Non-Linearity	-	-	10	%		

Static Phase Noise @1kHz																		
Frequency Range	<-130dBc	<-135dBc	<-140dBc	<-145dBc	○= Availavle X= Not Available													
50~100MHz	○	○	○	○														
102.4~122.88MHz	○	○	○	X														
125~156.25MHz	○	○	X	X														
Environmental Conditions																		
Operating Temp. Range	-50℃ ~ +85℃																	
Storage Temp. Range	-55℃ ~ +125℃																	
Note: The minimum to maximum value indicates the range of indicators																		
Outline Dimension & Pin Connections																		
 <table border="1" data-bbox="670 705 853 840"> <thead> <tr> <th>PIN</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>PIN1</td> <td>Output</td> </tr> <tr> <td>PIN2</td> <td>GND</td> </tr> <tr> <td>PIN3</td> <td>Vcon/NC</td> </tr> <tr> <td>PIN4</td> <td>Vref/NC</td> </tr> <tr> <td>PIN5</td> <td>Vdd</td> </tr> <tr> <td>H</td> <td>≤13mm</td> </tr> </tbody> </table> <p data-bbox="646 851 957 907">Note: Leave Pin 3 unconnected if Vcon is not used. Leave Pin 4 unconnected if Vref is not used.</p>					PIN	Output	PIN1	Output	PIN2	GND	PIN3	Vcon/NC	PIN4	Vref/NC	PIN5	Vdd	H	≤13mm
PIN	Output																	
PIN1	Output																	
PIN2	GND																	
PIN3	Vcon/NC																	
PIN4	Vref/NC																	
PIN5	Vdd																	
H	≤13mm																	
Maximun Ratings																		
Parameter	Symbol	Rating																
Supply Voltage	Vdd	3.3V/5V																
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																	
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC																	

Ordering Guide

BT2525XXXXXX.XXZ

Product
TCXO

Outline:
25mm x 25mm

Frequency Range:
L: < 50MHz
H: ≥ 50MHz

Output
H: CMOS
S: Sine Wave

Supply Voltage:
3: 3.3Vdc
5: 5.0Vdc

Temp. Range:
C: 20 [] +70
I: -40 [] +85
M: -50 [] +85
F: Customized

Z:
Vibration Insensitive

Frequency:
xx MHz

Tuning Range:
N: No Tuning
A: Typ. ±5ppm

Phase Noise:
A: -120dBc/Hz@1kHz
B: -125dBc/Hz@1kHz
C: -130dBc/Hz@1kHz
D: -135dBc/Hz@1kHz
E: -140dBc/Hz@1kHz
G: -145dBc/Hz@1kHz

Temp. Stability:
206: ±2ppm
106: ±1ppm
507: ±0.5ppm
287: ±0.28ppm

Example: BT2525HS3I507GA100Z

