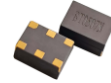


Features

- High Frequency Low Phase Noise
- Fast Start
- SMD 5.0 × 7.0 mm

Applications

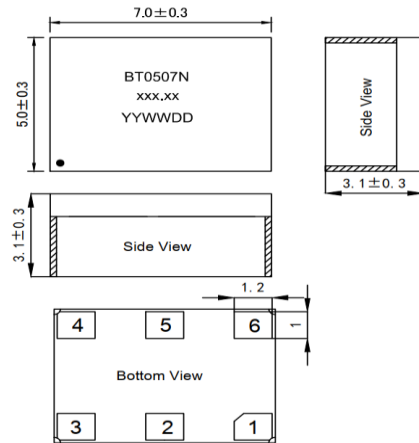
- GPRS system
- Wireless communication
- Low jitter RF circuit
- Signal source
- HD TV



BT0507N Specifications

Parameter		Value			Unit	Conditions	
		Min.	Typ.	Max.			
Supply Voltage		—	3.3	—	V	Vcc±5%	
		—	5	—	V	Vcc±5%	
Supply Current		25	—	35	mA		
Frequency Range		40 ~ 125			MHz		
Nominal Frequency		80, 100, 122.88, 125			MHz		
Freq. Stability Vs. Temp.		±0.28	±0.5	±1	ppm	-40℃~+85℃	
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	—	—	3	ns	HCMOS Output, Load=15pf	
	Load	—	—	15	pf		
RMS Jitter (E5052B) @100MHz		15	30	45	fs	12KHz~5MHz	
Supply Sensitivity		—	—	±0.1	ppm	Vcc±5%	
Load Sensitivity		—	—	±0.2		Load±5%	
Aging/ First Year		—	—	±1.0			
SSB Phase Noise @100MHz		-75	-75	-70	dBc/Hz	Offset 10Hz	@ +25℃
		-115	-110	-105		Offset 100Hz	
		-145	-140	-135		Offset 1kHz	
		-158	-158	-155		Offset 10kHz	
		-165	-165	-160		Offset 100kHz	
Control Voltage Range		0~3			V		
Frequency Tuning Range		±5	±7	±12	ppm		
Tuning Slope		Positive					
Non-linearity		—	—	10	%		
Phase Noise @1KHz							
Frequency Range		<-135dBc	<-140dBc	<-145dBc	○=Available X= Not Available		
40,50MHz		○	○	○			
80, 96, 100, 102.4, 120,122.88,125MHz		○	○	×			
Environmental Conditions							
Operating Temperature Range		-40℃ ~ +85℃					
Storage Temperature Range		-55℃ ~ +125℃					
Note: In general, it is workable from Min. to Max. For special requests, please contact the manufacturers.							
Maximum Ratings							
Parameter	Symbol	Rating					
Supply Voltage	Vcc	-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					
Solderability		Gold over Nickel					
RoHS		2011/65/EU and its revised directive (EU) 2015/863					

Outline Dimension & Pin Connections

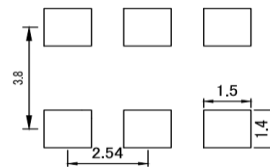


Pin Connections

#1	NC / Vcont
#2	NC
#3	GND
#4	Output
#5	NC
#6	Vcc

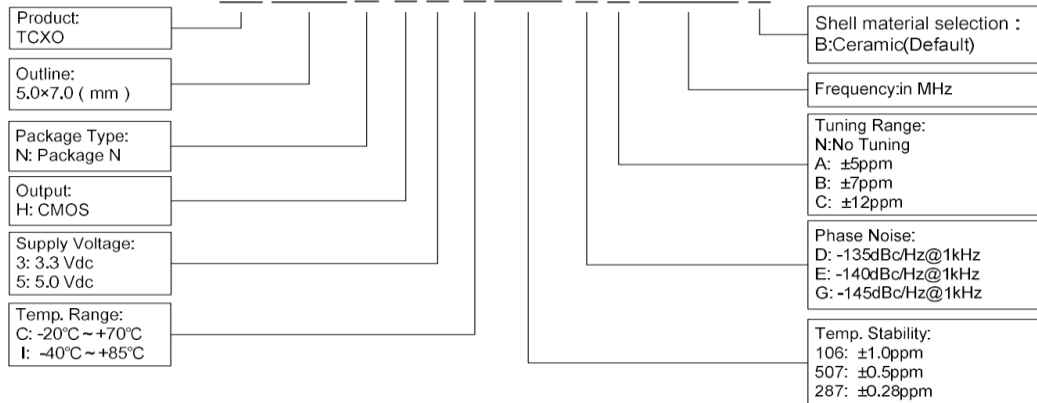
unit : mm
Dimensional Tolerance : ±0.3

Recommended Land Pattern



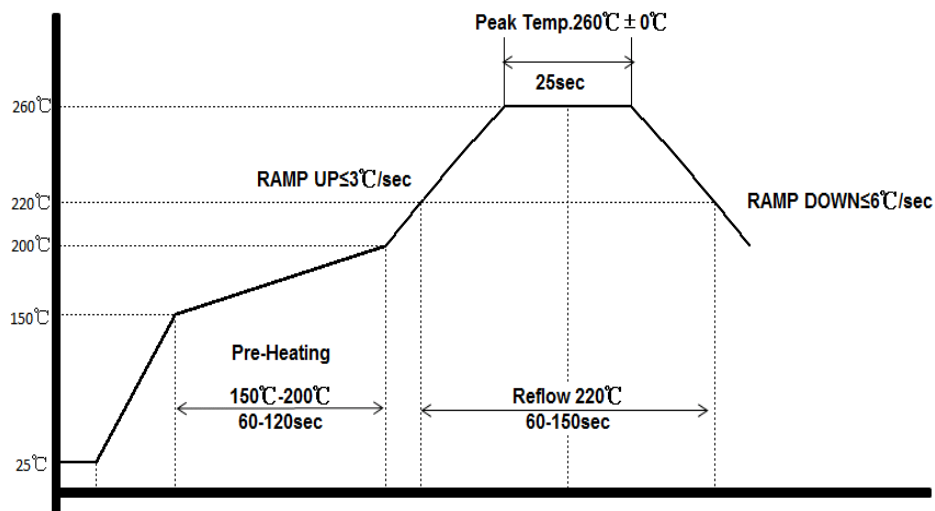
Ordering Guide

BT 0507 N X X X XXX X X XX.XX B



Example: BT0507NH3I507EA100B

Reflow Profile



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.