

Features

- Various Nominal Frequency
- Fast Delivery
- Freq.range 1~250MHz
- DIP 12.6×20.2(mm)

Applications

- Base Stations
- Instrumentations
- Synthesizer
- SDH/SONET

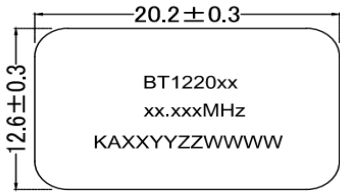


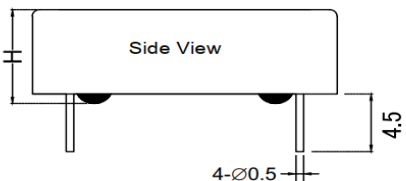
BT1220B Programmable					Version	L	
Parameter		Value			Unit	Conditions	
		Min.	Typ.	Max.			
Supply Voltage		—	3.3	—	V	3.3V±5%	
Supply Current		—	—	80	mA	Loaded	
Frequency Range		1 ~ 250			MHz		
Nominal Frequency		10.20.95,100,122.88,156.25,200,204.8			MHz		
Initial Frequency Tolerance		±0.5	—	±2.0	ppm	At shipment, nominal EFC, +25°C	
Freq.Stability Vs.Temp.		±0.28	—	±2.0	ppm	-20°C~+70°C	
		±0.50	—	±2.0	ppm	-40°C~+70°C	
		±0.50	—	±2.0	ppm	-40°C~+85°C	
		±1.0	—	±2.0	ppm	-50°C~+90°C	
		±2.0	—	±5.0	ppm	-55°C~+85°C	
		±2.0	—	±5.0	ppm	-55°C~+95°C	
Sine Wave	Output	5	—		dBm		
	Harmonic Suppression	—	—	-30	dBc		
	Spur Suppression	—	—	-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)		—	—	1.5	ps	12KHz~5MHz	
Supply Sensitive		—	—	±0.2	ppm	Vcc±5%	
Load Sensitive		—	—	±0.2		Load±5%	
Aging/First Year		—	—	±1.0		Standard	
SSB Phase Noise @20.95MHz		—	-85	-80	dBc/Hz	Offset 10Hz	At +25°C
		—	-115	-110		Offset 100Hz	
		—	-135	-130		Offset 1kHz	
		—	-145	-140		Offset 10kHz	
		—	-150	-145		Offset 100kHz	
Control Voltage Range		1.5 ± 1.5			V		
Frequency Tuning Range		±5	—	±12	ppm		
Tuning Slope		Positive					
Linearity		—	—	10	%		
Phase Noise@1KHz							
Frequency Range		<-125dBc	<-130dBc	<-135dBc	<-140dBc	○=Available X= Not Available	
1≤F0≤10MHz		○	○	○	○		
10.23≤F0≤21MHz		○	○	○	×		
21.25≤F0≤40MHz		○	○	×	×		
40.96≤F0<80MHz		○	×	×	×		
Phase Noise@1KHz							
Frequency Range		<-115dBc	<-120dBc			○=Available X= Not Available	
80≤F0<160MHz		○	○				
160≤F0≤250MHz		○	×				
Environmental Conditions							
Operating Temperature Range		-55°C~+95°C					
Storage Temperature Range		-55°C~+125°C					

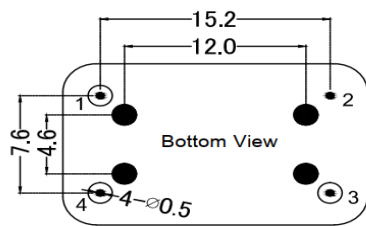
Maximum Ratings		
Parameter		Rating
Supply Voltage	Vcc	3.3V
Control Voltage	Vcon	0V/3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

Reliability	
Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solder Ability	EIA/JESD22-B102-C
RoHS	RHOS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Outline Dimension & Pin Connections







Pin Connections

#	Function
#1	NC / Vcont
#2	GND
#3	Output
#4	Vcc

unit : mm
Dimensional Tolerance : ±0.3

Ordering Guide

BT 1220 B X XX XXXX XXX.XX L X

- Product: TCXO
- Outline: 12.6mmx20.2mm
- Package Type: B: Package B
- Output Wave: H:CMOS, S:Sine Wave
- Supply Voltage: 3: 3.3 Vdc
- Temp. Range: C: -20°C ~ +70°C, G: -40°C ~ +70°C, I: -40°C ~ +85°C, M: -50°C ~ +90°C, J: -55°C ~ +85°C, U: -55°C ~ +95°C

- Height selection: D:5.0mm(optional), E:6.0mm(default)
- Version: L
- Frequency output in MHz
- Tuning: N:No Tuning, A: ±5ppm, B: ±7ppm, C: ±12ppm
- Phase Noise: X: > -120dBc/Hz@1kHz, A: -120dBc/Hz@1kHz, B: -125dBc/Hz@1kHz, C: -130dBc/Hz@1kHz, D: -135dBc/Hz@1kHz, E: -140dBc/Hz@1kHz
- Stability: 206: ±2.0ppm, 106: ±1.0ppm, 507: ±0.5ppm, 287: ±0.28ppm

Example: BT1220BS3I507DA20, 95LE

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