

Features

- Ultra Stable
- Wide Temperature Range
- Small Packaging(12.6×20.2mm)

Applications

- Wireless communication instruments
- Test & Measurements
- GNSS/GPS
- LMDS
- WiMax/LTE/BTS



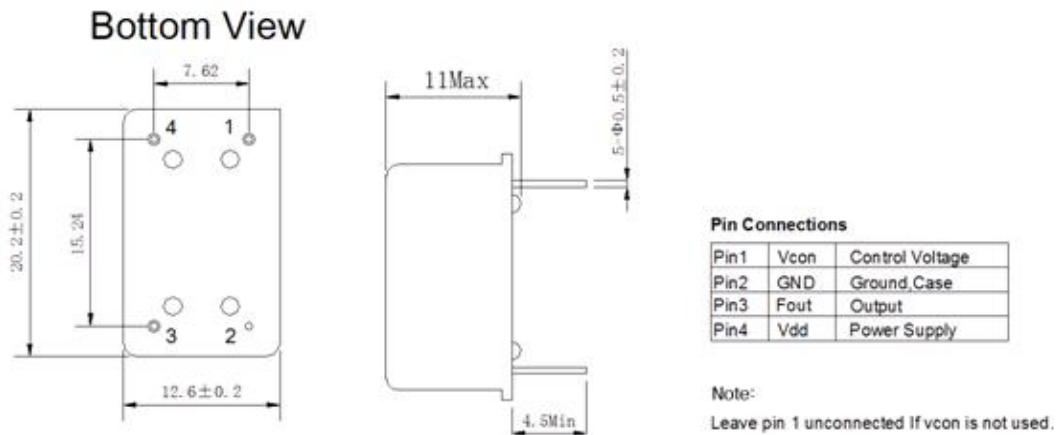
BT1220 Series Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V		
	-	5	-	V		
Supply Current	-	-	30	mA		
Frequency Range	10 ~ 52			MHz		
Nominal Frequency	10, 12.8, 16.384, 19.2, 20, 24.576, 25, 26, 30.72, 40, 50			MHz		
Initial Frequency Tolerance	±0.05	±0.5	±1	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±0.05	-	±0.5	ppm	-20°C~+70°C	
	±0.05	-	±0.5	ppm	-40°C~+85°C	
	±0.2	-	±1.0	ppm	-50~+90°C	
	±0.5	-	±1.0	ppm	-55~+95°C	
Sine wave	Output Level	7	-	-	dBm	
	Harmonics	-	-	-30	dBc	
	Spurious	-	-	-70	dBc	
	Load	-	50	-	Ω	
Clipped sinewave	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	
RMS Jitter(By E5052B)	-	-	1.3	ps	12KHz~5MHz	
Supply Sensitivity	-	-	±0.1	ppm	V _{cc} ±5%	
Load Sensitivity	-	-	±0.2		Load±5%	
Aging/ First Year	-	-	±1.0		Standard	
	±0.3	-	±0.8		Customized	
SSB Phase Noise @10MHz	-	-	-95	dBc/Hz	Offset 10Hz	At +25°C
	-	-	-120		Offset 100Hz	
	-	-	-140		Offset 1kHz	
	-	-	-145		Offset 10kHz	
	-	-	-150		Offset 100kHz	
Control Voltage Range	1.5 ± 1.0			V		
Frequency Turning Range	±5	-	±12	ppm		
Tuning Slope	Positive					
Non-linearity	-	-	10	%		

Environmental Conditions

Operating Temperature	-55°C ~ +95°C
Storage Temperature Range	-55°C ~ +125°C

Outline Dimension & Pin Connections



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
Solder Ability	EIA/JESD22-B102-C
RoHS	RHOS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Ordering Guide

