

Features

- Ultra Stable
- Low Phase Noise
- SMD Package(12.6×20.2mm)

Applications

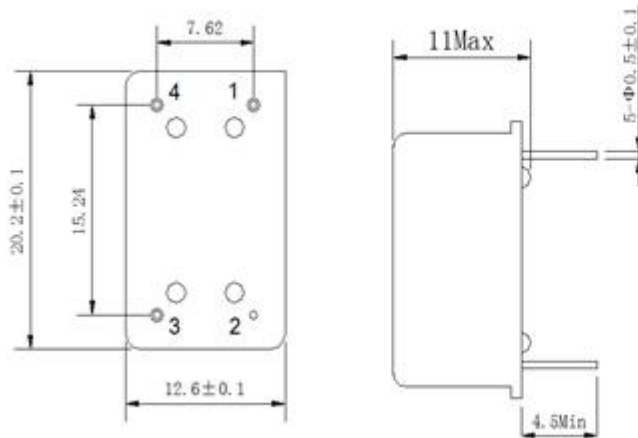
- Low phase noise signal source
- Wireless Communication System
- Low jitter RF Communication
- GNSS


BV1220H Series Specifications

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	3.135	3.3	3.465	V		
	4.75	5	5.25	V		
Output Current	–	30	–	mA		
Frequency Range	40 ~ 150			MHz		
Nominal Frequency	80;100;120;122.88			MHz		
Freq. Stability Vs. Temp.	–	±12	–	ppm	-40°C~+85°C	
Output CMOS	V _{OH}	2.4	–	–	V	CMOS Output, Load=15pf
	V _{OL}	–	–	0.4	V	CMOS Output, Load=15pf
	Duty Cycle	45	50	55	%	
	Rise/Fall Edge	–	–	6	ns	90%~10% V _{dd}
	Load	–	–	15	pf	
Sine Wave	Output Level	7	–	–	dbm	
	Load	50ohm				
RMS Jitter(By E5052B)@100MHz	20	–	40	fs	12KHz~5MHz	
Supply Sensitivity	–	–	+0.2	ppm	Supply voltage varied ±5% at 25°C	
Load Sensitivity	–	–	+0.2		±5% load change	
Aging/ First Year	–	–	±1.0			
SSB Phase Noise @100MHz	–	-77	-75	dBc/Hz	Offset 10Hz	at 25°C
	–	-110	-110		Offset 100Hz	
	–	-142	-140		Offset 1kHz	
	–	-158	-155		Offset 10kHz	
	–	-160	-158		Offset 100kHz	
Control Voltage	1.5±1.5			V		
Frequency Turning Range	±18	±20	±25	ppm	At shipment, nominal EFC, +25°C	
Tuning Slope	Positive					
Linearity	–	–	10	%		
Environmental Conditions						
Operating Temperature Range	-40°C ~ +85°C					
Storage Temperature Range	-55°C ~ +105°C					

Outline Dimension & Pin Connections

Bottom View



Pin Connections

Pin1	Vcon	Control Voltage
Pin2	GND	Ground, Case
Pin3	Fout	Output
Pin4	Vdd	Power Supply

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
Contact Pads	Gold over Nickel
RoHS	RHOS Directive 2011/65/EU Annex II Recasting 2002/95/EC

Ordering Guide

BV 1220H X X X XXX XXXXX XX.XX

Product:
VCXO

Outline:
12 x 20mm

Output:
H: CMOS
S: sine wave

Supply Voltage:
3: 3.3 V
5: 5.0 V

Temp. Range:
C: -20°C ~ +70°C
I: -40°C ~ +85°C

Frequency in MHz

Tuning Range:
20: 20ppm

Stability vs. Temp.
125: ±12ppm

Example: BV1220HH5I125X010N100