OCO-M20BH

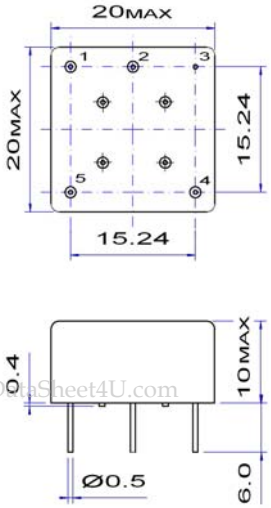
Through hole OCXO
HCMOS

Features

- Applications: CDMA, 3G, networking, instrumentation
- High frequency stability vs. temperature
- Low aging

Parameter	Specification	
	OCO-M20BH3	OCO-M20BH5
Frequency range	10.0000 ~ 25.0000 MHz	
Standard frequencies	10.00, 12.80, 13.00, 16.384 & 20.00 MHz	
Frequency stability vs. operating temperature range	≤ ±5 x 10^{-8}	over -40 ~ +70 °C
	≤ ±2 x 10^{-8}	over -20 ~ +70 °C
vs. supply voltage change	≤ ±5 x 10^{-9}	±5 %
vs. load change	≤ ±5 x 10^{-9}	±5 %
vs. aging after 30 days of operation	≤ ±5 x 10^{-8}	1st year
Short term stability	< 1 x 10^{-11}	Allan deviation per 1 s
Output waveform	HCMOS	
Output waveform	V_{OH} > 3.0 V V_{OL} < 0.3 V	V_{OH} > 4.5 V V_{OL} < 0.5 V
Output load	10 kΩ // 15 pF ±10 %	
Supply voltage	+3.3 V ±5 %	+5.0 V ±5 %
Steady-state current consumption @ +25 °C	< 250 mA	< 150 mA
Warm-up time	< 3 min	< ±1 x 10^{-7} @ +25 °C
Frequency pulling range	> ±5 x 10^{-7}	positive slope
Vcontrol (Vc) via external voltage	0 ~ +2.8 V	0 ~ +4.5 V
Vcontrol (Vc) via external potentiometer	20 kΩ	
Reference voltage output (Vref)	+2.8 V	+4.5 V
Phase noise @ 13 MHz carrier frequency	< -120 dBc/Hz @ 10 Hz < -140 dBc/Hz @ 100 Hz < -145 dBc/Hz @ 1 kHz < -150 dBc/Hz @ 10 kHz	
Operating temperature range	20 ~ +70 °C or -40 ~ +70 °C	
Storage temperature range	-55 ~ +85 °C	

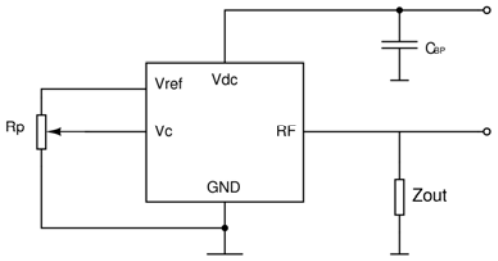
Environmental test	
vibration	acceleration: 10 g; 10 Hz up to 500 Hz and down to 10 Hz; all 3 axes, 4.5 h/axis
shock	100 g, half-sine, 3 ms (3 shocks each, 6 directions)



Pin function

1 Vdc
2 RF output
3 GND
4 Vc
5 Vref

Circuit diagram



C_{BP} = 0.01 mF

Zout = 10 kΩ // 15 pF

2002/95/EC RoHS compliant

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