

OCXO-20

FEATURES

- High reliability for low cost
- Aging of ± 0.001 ppm/day in compact package using SC-CUT crystals
- Extended temperature range to $-40/+75^{\circ}\text{C}$ available
- Short warm-up time and excellent retrace behaviour
- Low power consumption and excellent phase noise parameters
- AT-cut and SC-cut based designs

Pb-free
 RoHS-2 2011/65/EU
 compliant

GENERAL DATA

SERIES		OCXO-20
PACKAGE		20.5 x 20.5 x 10.5 mm ³
FREQUENCY RANGE		2.0 ~ 100.0 MHz
FREQUENCY ACCURACY		± 0.2 ppm (control voltage centered)
FREQUENCY STABILITY	VS. AGING AT-CUT	± 0.002 ppm/day / ± 0.3 ppm/first year / ± 2 ppm/10 years
	VS. AGING SC-CUT	± 0.001 ppm/day / ± 0.1 ppm/first year / ± 0.5 ppm/10 years
	VS. LOAD	± 0.01 ppm / load chngement of ± 10 %
	VS. SUPPLY VOLTAGE	± 0.01 ppm / supply voltage chngement of ± 5 %
	VS. TEMPERATURE	See table 1
SHORT TERM STABILITY		1x10E-11/s (10 MHz SC)
OPERATING TEMPERATURE RANGE		0/+50°C ~ -40/+75°C
STORAGE TEMPERATURE RANGE		-40/+100°C
SUPPLY VOLTAGE		+3.3VDC / +5.0VDC / +12VDC
CURRENT CONSUMPTION		3.6 W max. during warm-up / 1.2 W max. when static
WARM-UP TIME	AT-CUT	± 0.2 ppm <3 minutes
	SC-CUT	± 0.1 ppm <3 minutes
FREQUENCY CONTROL RANGE	AT-CUT	± 3.0 ppm
	SC-CUT	± 0.7 ppm
CONTROL VOLTAGE		0 ~ 3.3 VDC, 0 ~ 5 VDC
SLOPE		POSITIVE
LINEARITY		± 10 %
PHASE NOISE (10MHz)	10 Hz	-120 dBc/Hz
	100 Hz	-140 dBc/Hz
	1 kHz	-145 dBc/Hz
	10 kHz	-150 dBc/Hz
OUTPUT SIGNAL AND LOAD CHARACTERISTICS		See table 2
OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION		

CRYSTALS

OSCILLATORS

CERAMIC RESONATORS



Premium Quality by
 PETERMANN-TECHNIK

CERAMIC FILTERS

SAW COMPONENTS

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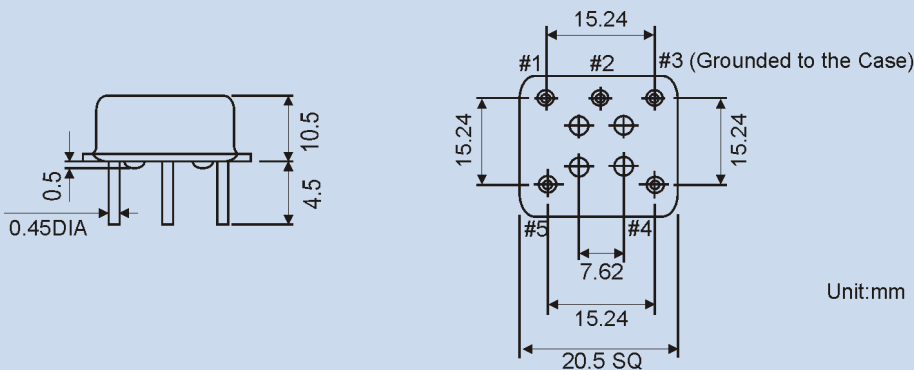
TABLE 1- FREQUENCY STABILITY VS. TEMPERATURE

CODE	FREQUENCY STABILITY VS. TEMPERATURE	TEMPERATURE RANGE
A	±50ppb for AT-CUT	0/+50°C
B	±5ppb for SC-CUT	0/+50°C
C	±100ppb for AT-CUT	-20/+70°C
D	±10ppb for SC-CUT	-20/+70°C
E	±100ppb for AT-CUT	-40/+75°C
F	±30ppb for SC-CUT	-40/+75°C

TABLE 2 - OUTPUT WAVEFORM AND LOAD CHARACTERISTICS

OUTPUT WAVEFORM	OUTPUT TYPE CODE	FREQUENCY RANGE	OSCILLATION STATE	OUTPUT CHARACTERISTICS
SINE WAVE	S	2.000 ~ 30.000 MHz 10.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 50 Ω Output level: >2dBm Harmonic : < -25dBm Noise Suppression: <- 75dBm
HCMOS	H	2.000 ~ 30.000 MHz 10.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 15PF TYP/50 PF Max. available "1" level: > 0.9VDD; "0" level: <0.1VDD Duty cycle: 45/55 Rise/fall time: <6ns(fn<40MHz) <3ns(fn>40 MHz)
LVC MOS	L	2.000 ~ 30.000 MHz 10.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 15PF TYP/50 PF Max. available "1" level: > 0.9VDD; "0" level: <0.1VDD Duty cycle: 45/55 Rise/fall time: <6ns(fn<40MHz) <3ns(fn>40 MHz)

OUTLINE DRAWING OF OCXO-20



PIN	Connection
#1	Power Supply
#2	Output
#3	Ground
#4	Control Voltage
#5	Reference Voltage/NC

Unit:mm

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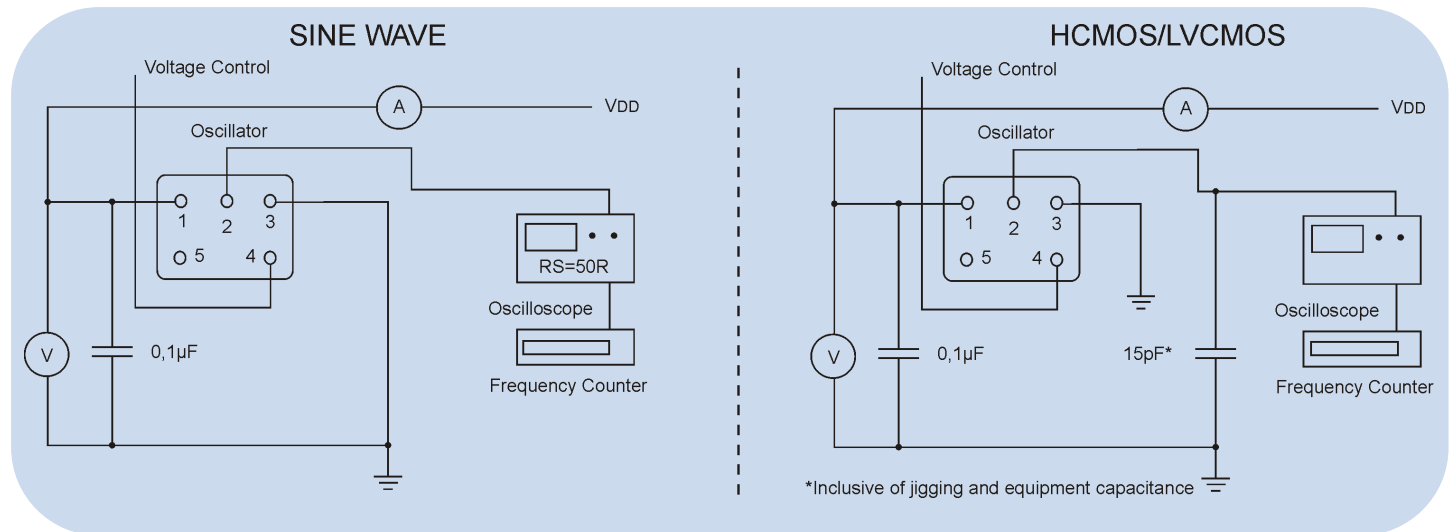


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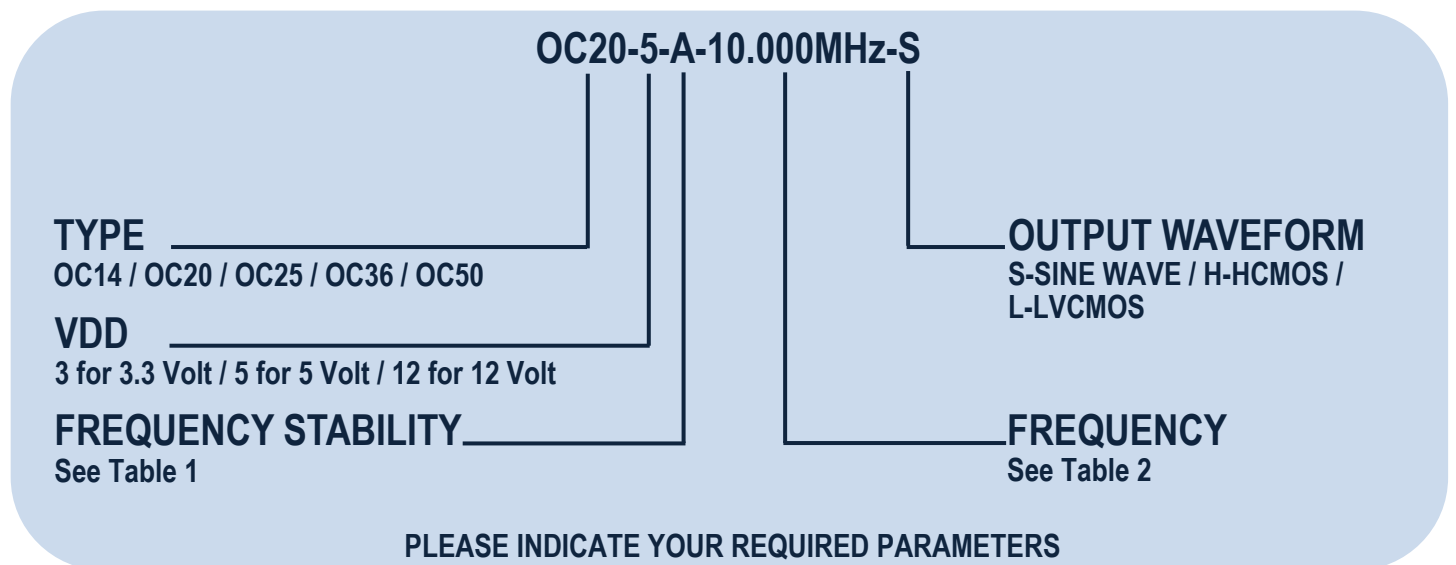
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TEST CURCUIT



ORDERING INFORMATION



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