FEATURES

- HIGH RELIABILITY FOR LOW COST
- FREQUENCY STABILITY TO +-0.1 PPM
- EXTENDED TEMPERATURE RANGE TO -40/+75°C

PETERMANN TECHNIK
Time & Frequency Components

SERIES		OC14
PACKAGE		14 PIN DIP
FREQUENCY RANGE		1.0 ~ 100.0 MHz
FREQUENCY ACCURACY		+-0.5 PPM (control voltage centered)
FREQUENCY STABILITY	**VS. AGING**	+-1 PPM after first year / +-5 PPM after 10 years
	VS. LOAD	+-0.05 PPM / load changement of +-10%
	VS. SUPPLY VOLTAGE	+-0.05 PPM / supply voltage changement of +-5 %
	VS. TEMPERATURE	see table 1
OPERATING TEMPERATURE RANGE		0/+50°C ~ -40/+75°C
STORAGE TEMPERATURE RANGE		-40/+100°C
SUPPLY VOLTAGE		+5.0 VDC +-5% / +12 VDC +-5%
CURRENT CONSUMPTION		2 W during warm-up
		1 W @ 25°C
WARM-UP TIME		+-0.5 PPM <3 minutes
FREQUENCY CONTROL RANGE		+-5.0 PPM
CONTROL VOLTAGE		0 ~ 5 VDC
SLOPE		POSITIVE
LINEARITY		+-10%
PHASE NOISE	**10 Hz**	-100 dBc/Hz
	100 Hz	-120 dBc/Hz
	1 kHz	-135 dBc/Hz
	10 kHz	-145 dBc/Hz
OUTPUT SIGNAL AND LOAD CHARACTERISTICS		see table 2
OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION		

TABLE 1 - FREQUENCY STABILITY VS. TEMPERATURE

CODE	FREQUENCY STABILITY VS. TEMPERATURE	TEMPERATURE RANGE
A	+-0.1 PPM	0/+50°C
B	+-0.3 PPM	-20/+70°C
C	+-0.5 PPM	-40/+75°C

TABLE 2 - OUTPUT WAVEFORM AND LOAD CHARACTERISTICS

OUTPUT WAVEFORM	OUTPUT TYPE CODE	FREQUENCY RANGE	OSCILLATION STATE	OUTPUT CHARACTERISTICS
CLIPPED SINE WAVE	0	8.000 ~ 30.000 MHz 20.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 10 kΩ/10pF Output level: >1Vp-p
TTL	1	8.000 ~ 30.000 MHz 20.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 10 low power consumption TTL "1" level: >+2.4 VDC / "0" level: <+0.2 VDC Duty Cycle: 45/55% / Tr and Tf: <6ns
HCMOS	2	1.000 ~ 30.000 MHz 20.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 10 low power consumption TTL/HCMOS gates "1" level: >+4.5 VDC / "0" level: <+0.5 VDC Duty Cycle: 45/55% / Tr and Tf: <6ns
ACMOS	3	1.000 ~ 30.000 MHz 20.000 ~ 100.000 MHz	F: FUNDAMENTAL O: OVERTONE	Load: 10 low power consumption TTL/ACMOS gates "1" level: >+4.5 VDC / "0" level: <+0.5 VDC Duty Cycle: 45/55% / Tr and Tf: <6ns

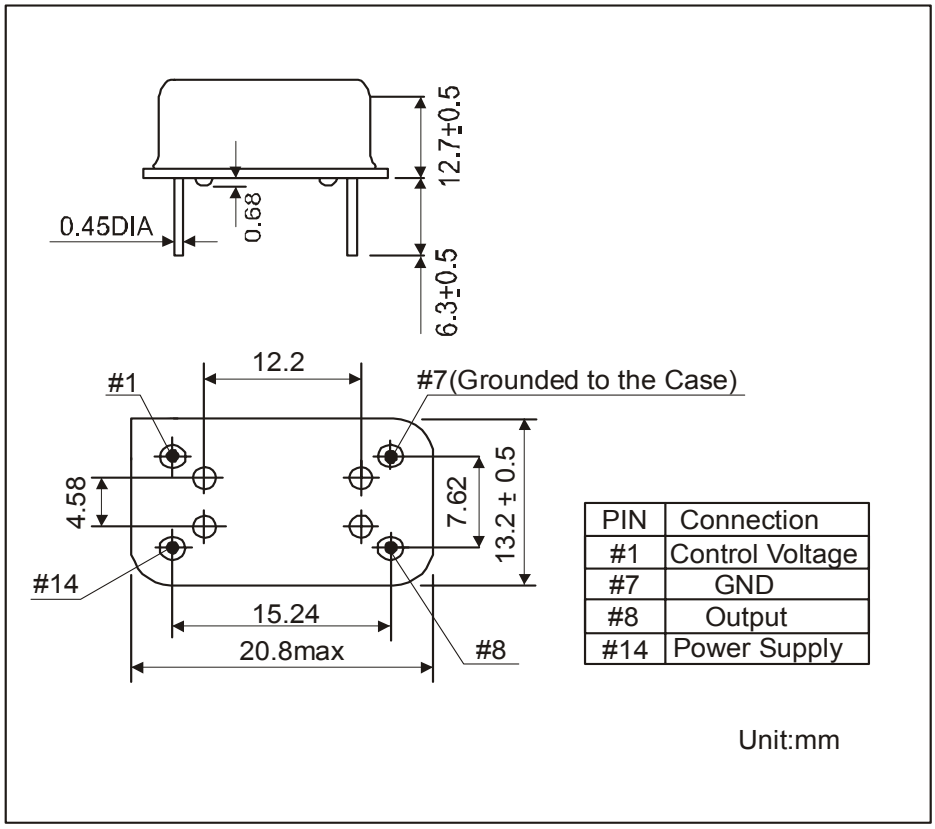
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PART NUMBERING SYSTEM

EXAMPLE	OC14-5-F-A-A-2-10.000MHz

TYPE	VCC	VERSION	FREQUENCY STABILTY VS. TEMPERATURE	OUTPUT TYPE - FREQUENCY
OC14	5 for 5 Volt 12 for 12 Volt	F for FUND. O for Overtone	SEE TABLE 1	SEE TABLE 2 - FREQUENCY

OUTLINE DRAWING OF OC14 OCXO



PIN	Connection
#1	Control Voltage
#7	GND
#8	Output
#14	Power Supply

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