



FREQUENCY STABILITY	
OVER:	
OPERATING TEMP. RANGE :	see note 1
LONG TERM AGING 1ST YEAR:	< ±0.7 ppm *
10 YEARS:	< ±4.0 ppm *
SUPPLY VOLTAGE ± 0.2 V	< ±0.1 ppm *
LOAD ±10%:	< ±0.01 ppm
POWER SUPPLY	
SUPPLY INPUT:	V _{cc} = 5 V ±0.2 V *
INPUT CURRENT :	< 70 mA @ +30 °C *
INPUT CURRENT :	< 110 mA @ -20 °C *
FREQUENCY CONTROL RANGE	
CONTROL VOLTAGE:	see note 2
FREQUENCY DEVIATION:	> ±4 ppm *
RESPONSE SLOPE:	positive
OUTPUT	
OUTPUT SIGNAL:	HC-MOS compatible
SYMMETRY:	40 (min.) / 60 (max.) % @ V _{cc} / 2 *
RISE AND FALL TIME:	tr < 7ns tf < 7 ns *
LEVEL „0“ AND „1“:	< 0.4 V > V _{cc} - 0.5 V
FAN OUT (LOAD):	10 LS
ENVIRONMENT	
OPERABLE TEMP. RANGE:	-40 to +85 °C
STORAGE TEMP. RANGE:	-65 to +125 °C
VIBRATION:	10 to 2000 Hz / 10 g
SHOCK:	2000 g, 0.3 ms, ½ sine
PACKAGE:	DIL 14, 4 pins, GND to case
PACKAGE HEIGHT:	8 mm (see packaging info)
WARM-UP	
ΔF/F:	within spec after 30s @ 0°C *
CURRENT:	< 250 mA during 10s
MISCELLANEOUS	
SHORT TERM STABILITY:	< 5 E-10 0.1 s to 30 s Typical 5 E-11 @ 1 s
PHASE NOISE (BW = 1Hz):	1 Hz : -70 dBc / Hz (typical, @ 10MHz in static conditions) 10 Hz : -100 dBc / Hz 100 Hz : -130 dBc / Hz 1 kHz : -140 dBc / Hz
* Customer's specification on request	

NOTE 1	
TEMP. RANGE *	OCXOV-AR1, AV5 0 to +60 °C
STABILITY *	±0.2 ppm (0.4 ppm peak to peak)
TEMP. RANGE *	OCXOV-BR1, BV5 -20 to +70 °C
STABILITY *	±0.3 ppm (0.6 ppm peak to peak)
TEMP. RANGE *	OCXOV-CR1, CV5 -40 to +85 °C
STABILITY *	±0.5 ppm (1 ppm peak to peak)

NOTE 2	
ADJUSTMENT WITH RESISTOR (connected to ground)	OCXOV-AR1, BR1, CR1 0 to 10 kΩ
INPUT IMPEDANCE	> -4.7 kΩ
ADJUSTMENT WITH VOLTAGE	OCXOV-AV5, BV5, CV5 0.5 to 5 V
INPUT IMPEDANCE	> 47 kΩ

MARKING EXAMPLE			
		Type	Spec No.
OCXOV-BV5		Frequency	Date Code
20.000 MHz	01.25	O (PIN 1)	Piece No.
O	12		

ORDERING INFORMATION EXAMPLE			
O C X O V - B V 5 20 MHz x x x			
Oscillator Type	OCXO = oven controlled Crystal Oscillator	N° of customer spec.	
Oscillator Version	V = low power voltage 5V	Oscillator output frequency	
Temperature Range	A = 0 to +60°C; +/-0.2ppm B = -20 to +70°C; +/-0.3ppm C = -40 to +85°C; +/-0.5ppm X = custom spec.	Frequency Adjustment	R1 = external resistor V5 = voltage 5V Y = custom spec.

STANDARD FREQUENCIES (MHz)					
10.0000	12.8000	16.0000	16.3840	19.4400	20.0000
40.0000					

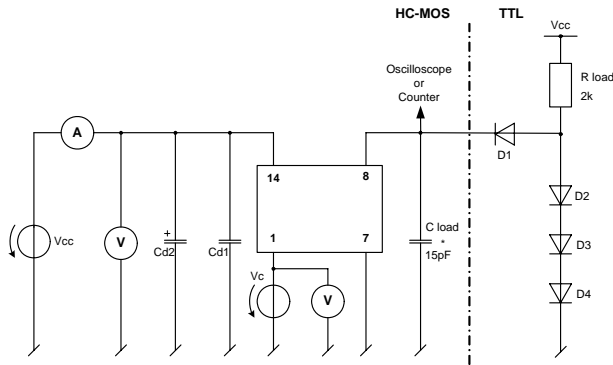
DATE:	June 2003	Revision No.: 7
-------	-----------	-----------------

In accordance with our policy of continuous development and improvement, we reserve the right to modify the design or the specifications of our products without prior notice.

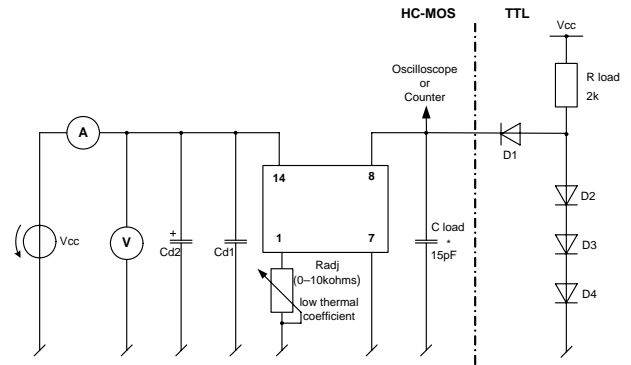
Headquarters:	Micro Crystal	Tel.	+41 32 655 82 82
	Div. of ETA SA	Fax	+41 32 655 80 90
	Mühlestrasse 14	Internet	www.microcrystal.ch
	CH-2540 Grenchen	Email	sales@microcrystal.ch
	Switzerland		

Application and Test Circuit:

Adjustment with voltage

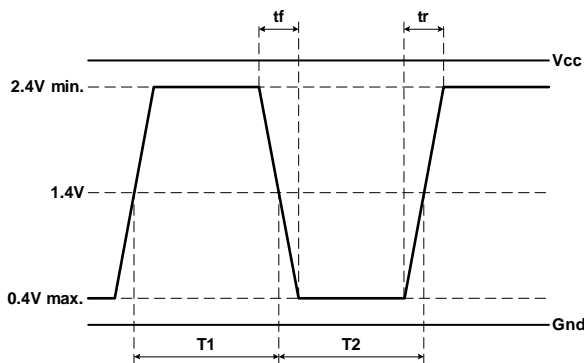


Adjustment with resistor

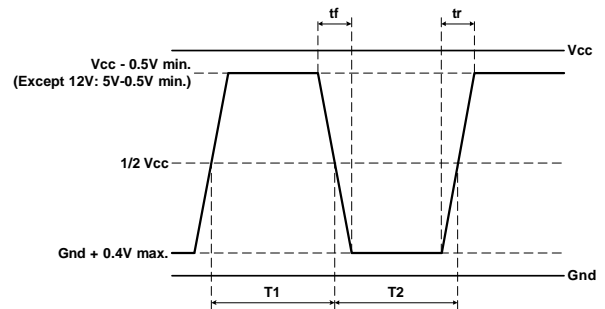


Waveform Output:

Waveshape TTL



Waveshape HC-MOS



$$Duty\ Cycle = 100 \times \frac{T1}{T1 + T2} [\%]$$

DATE:	June 2003	Revision No.: 6
-------	-----------	-----------------

In accordance with our policy of continuous development and improvement, we reserve the right to modify the design or the specifications of our products without prior notice.

Headquarters: Micro Crystal
 Div. of ETA SA
 Mühlestrasse 14
 CH-2540 Grenchen
 Switzerland

Tel. +41 32 655 82 82
 Fax +41 32 655 80 90
 Internet www.microcrystal.ch
 Email sales@microcrystal.ch