



<b>FREQUENCY STABILITY</b>	
OVER:	
OPERATING TEMP. RANGE :	<i>see note 1</i>
LONG TERM AGING 1ST YEAR:	< ±0.7 ppm *
10 YEARS:	< ±4.0 ppm *
SUPPLY VOLTAGE ± 0.5 V	< ±0.1 ppm *
LOAD ±10%:	< ±0.01 ppm
<b>POWER SUPPLY</b>	
SUPPLY INPUT:	V <sub>cc</sub> = 12 V ±0.5 V *
INPUT CURRENT :	< 25 mA @ +30 °C *
INPUT CURRENT :	< 40 mA @ -20 °C *
<b>FREQUENCY CONTROL RANGE</b>	
CONTROL VOLTAGE:	<i>see note 2</i>
FREQUENCY DEVIATION:	> ±4 ppm *
RESPONSE SLOPE:	positive
<b>OUTPUT</b>	
OUTPUT SIGNAL:	Sine wave
HARMONICS:	-10 dBc *
SPURIOUS:	-70 dBc *
LEVEL:	> 1V <sub>pp</sub> < 2V <sub>pp</sub>
LOAD:	> 1kΩ // 5pF ±10%
<b>ENVIRONMENT</b>	
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)
<b>WARM-UP</b>	
ΔF/F:	within spec after 30s @ 0 °C *
CURRENT:	< 250 mA during 10s
<b>MISCELLANEOUS</b>	
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 10 Hz : -100 dBc / Hz 100 Hz : -130 dBc / Hz 1 kHz : -140 dBc / Hz
* Customer's specification on request	

<b>NOTE 1</b>	
<b>TEMP. RANGE *</b>	<b>OCXOS-AR1, AV5</b> 0 to +60 °C
<b>STABILITY *</b>	±0.05 ppm (0.1 ppm peak to peak)
<b>TEMP. RANGE *</b>	<b>OCXOS-BR1, BV5</b> -20 to +70 °C
<b>STABILITY *</b>	±0.1 ppm (0.2 ppm peak to peak)
<b>TEMP. RANGE *</b>	<b>OCXOS-CR1, CV5</b> -40 to +85 °C
<b>STABILITY *</b>	±0.2 ppm (0.4 ppm peak to peak)

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

<b>MARKING EXAMPLE</b>			
		Type	Spec No.
OCXOS-BV5		Frequency	Date Code
20.000 MHz	01.25	○ (PIN 1)	Piece No.
○	12		

<b>ORDERING INFORMATION EXAMPLE</b>			
O C X O S - B V 5 20 MHz x x x			
<b>Oscillator Type</b>	OCXO = oven controlled Crystal Oscillator		N° of customer spec.
<b>Oscillator Version</b>	S = sine wave	<b>Oscillator output frequency</b>	
<b>Temperature Range</b>	A = 0 to +60°C; +/-0.05ppm B = -20 to +70°C; +/-0.1ppm C = -40 to +85°C; +/-0.2ppm X = custom spec.	<b>Frequency Adjustment</b>	R1 = external resistor V5 = voltage 5V Y = custom spec.

<b>STANDARD FREQUENCIES (MHz)</b>					
10.0000	12.8000	16.0000	16.3840	19.4400	20.0000

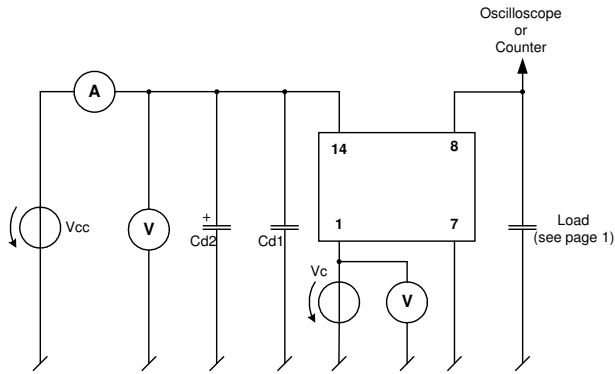
DATE:	June 2003	Revision No.: 8
-------	-----------	-----------------

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.

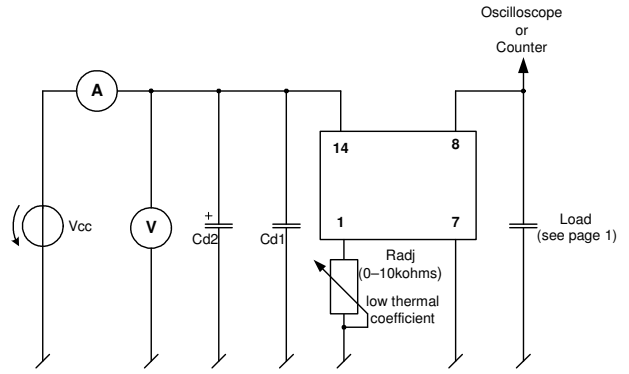
Headquarters: Micro Crystal Div. of ETA SA Mühlestrasse 14 CH-2540 Grenchen Switzerland	Tel. +41 32 655 82 82 Fax +41 32 655 80 90 Internet www.microcrystal.ch Email sales@microcrystal.ch
-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------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

**Application and Test Circuit:**

Adjustment with voltage



Adjustment with resistor



DATE:	June 2003	Revision No.: 8
-------	-----------	-----------------

**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](http://www.microcrystal.ch)  
 Email [sales@microcrystal.ch](mailto:sales@microcrystal.ch)