

CO12 & CO15 Series

FEATURES

- TTL/HCMOS Output compatible
- 14 Pin Full Size
- Industry Standard
- Wide Frequency Range
- Resistance Weld Package
- 3.3V Available

The CO12 series oscillator is TTL/HCMOS compatible. CO15 series is with 3.3V power supply voltage.



ELECTRICAL SPECIFICATIONS

Parameter		Condition	CO12	CO15
Frequency Range	Fo		1.0 ~ 150.0MHz	
Frequency Stability*		All Condition*	±25ppm, ±50ppm, ±100ppm	
Operating Temperature Range	T _{OPR}		0°C ~ 70°C (-40°C ~ +85°C option)	
Storage Temperature Range	T _{STG}		-55°C ~ +125°C	
Power supply Voltage	V _{DD}		5.0V +/- 10%	3.3V +/- 10%
Aging (First Year)		25°C ± 3°C	± 5ppm	
Supply Current	I _{DD}	0.5MHz to 23.999MHz	20mA Max	15mA Max
		24.000MHz to 49.999MHz	30mA Max	20mA Max
		50.000MHz to 69.999MHz	40mA Max	30mA Max
		70.000MHz to 150.000MHz	60mA Max	45mA Max
Output Symmetry	Sym	1/2V _{DD}	40/60% (45/55% Option)	
Rise time	T _r	10% V _{DD} ~ 90% V _{DD}	10 nS Max	8 nS Max
Fall Time	T _f	90% V _{DD} ~ 10% V _{DD}	10 nS Max	8 nS Max
Output Voltage	V _{OH}		90% V _{DD} min	
	V _{OL}		10% V _{DD} max	
Output load	TTL Load		1~10TTL	1~5TTL
	HCMOS Load		~50M:50pF ~70M:30pF ~150M:15pF	~50M:30pF ~150M:15pF
Start-up Time		T _s	10mS Max	

*Include: 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

DIMENSIONS

Unit: mm

Pin	Connection
#1	N.C.
#7	GND
#8	Output
#14	V _{DD}

HCMOS TEST Circuit

**Includes stray and probe capacitance

HCMOS Output Wave form

HONG KONG:
NAKAGAWA ELECTRONICS LIMITED
+852 2389 9201 sales@nkg.com.hk
+852 2341 0001 www.nkg.com.hk

China Shenzhen office:
深圳中川晶体电子有限公司
+86(0)755 2598 2648 sales_sz@nkg.cn
+86(0)755 2598 2390 www.nkg.com.hk

China Suzhou office:
苏州纳美电子有限公司
+86(0)512 8818 7890 sales_nm@nkg.cn
+86(0)512 8810 7889 www.nkg.com.hk