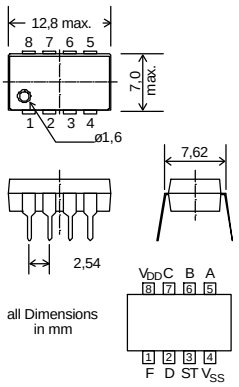
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EXO-3

CRYSTAL OSCILLATOR FOR µP's WITH PROGRAMMABLE OUTPUT





Frequency Range	12 - 24,576 MHz	30 - 32 MHz
Standard Frequency	Table 1	
Divider Select	Table 2	
Frequency Stability	±100 x 10^{-6}	±150 x 10^{-6}
Operating Temperature Range	-10 ... +70°C	
Supply Voltage	+5 ±0,5 V	
Supply Current	20 mA max. (8 mA typ. at 16 MHz)	
Output Waveform	CMOS	
Output Symmetry	40 / 60%	
Output Rise-/Fall Time	15 ns max. (10 ns typ.)	
Load	50 pF	15 pF

Table 1

f_0 (MHz)	$f_0 / 2^1$ (MHz)	$f_0 / 2^2$ (MHz)	$f_0 / 2^3$ (MHz)	$f_0 / 2^4$ (kHz)	$f_0 / 2^5$ (kHz)	$f_0 / 2^6$ (kHz)	$f_0 / 2^7$ (kHz)	$f_0 / 2^8$ (kHz)
12,00000	6,000000	3,000000	1,500000	750,000	375,000	187,500	93,750	46,875
12,28800	6,144000	3,072000	1,536000	768,000	384,000	192,000	96,000	48,000
12,80000	6,400000	3,200000	1,600000	800,000	400,000	200,000	100,000	50,000
14,31818	7,159090	3,579545	1,789772	894,886	447,443	223,722	111,861	55,930
14,50000	7,250000	3,625000	1,812500	906,250	453,125	226,563	113,281	56,641
14,74560	7,372800	3,686400	1,843200	921,600	460,800	230,400	115,200	57,600
14,91050	7,455250	3,727625	1,863813	931,906	465,953	232,977	116,488	58,244
15,00000	7,500000	3,750000	1,875000	937,500	468,750	234,375	117,188	58,594
15,36000	7,680000	3,840000	1,920000	960,000	480,000	240,000	120,000	60,000
15,97440	7,987200	3,993600	1,996800	998,400	499,200	249,600	124,800	62,400
16,00000	8,000000	4,000000	2,000000	1000,000	500,000	250,000	125,000	62,500
16,12800	8,064000	4,032000	2,016000	1008,000	504,000	252,000	126,000	63,000
16,25700	8,128500	4,064250	2,032125	1016,063	508,031	254,016	127,008	63,504
16,38400	8,192000	4,096000	2,048000	1024,000	512,000	256,000	128,000	64,000
17,73447	8,867238	4,433619	2,216809	1108,400	554,200	277,100	138,550	69,275
18,43200	9,216000	4,608000	2,304000	1152,000	576,000	288,000	144,000	72,000
19,09090	9,545455	4,772727	2,386364	1193,182	596,591	298,295	149,148	74,574
19,20000	9,600000	4,800000	2,400000	1200,000	600,000	300,000	150,000	75,000
19,66080	9,830400	4,915200	2,457600	1228,800	614,400	307,200	153,600	76,800
20,00000	10,000000	5,000000	2,500000	1250,000	625,000	312,500	156,250	78,125
20,48000	10,240000	5,120000	2,560000	1280,000	640,000	320,000	160,000	80,000
21,47727	10,738635	5,369318	2,684659	1342,329	671,165	335,582	167,791	83,896
22,00000	11,000000	5,500000	2,750000	1375,000	687,500	343,750	171,875	85,938
22,11840	11,059200	5,529600	2,764800	1382,400	691,200	345,600	172,800	86,400
24,00000	12,000000	6,000000	3,000000	1500,000	750,000	375,000	187,500	93,750
24,57600	12,288000	6,144000	3,072000	1536,000	768,000	384,000	192,000	96,000
30,00000	15,000000	7,500000	3,750000	1875,000	937,500	468,750	234,375	117,188
32,00000	16,000000	8,000000	4,000000	2000,000	1000,000	500,000	250,000	125,000

Table 2

INPUT				**OUTPUT**	
Select				**original frequency**	**divided frequency**
C	**B**	**A**	ST	F (OUT #1)	D (OUT #2)
L	L	L	H	f_0 clock	$f_0 / 2^1$ clock
L	L	H	H	f_0 clock	$f_0 / 2^2$ clock
L	H	L	H	f_0 clock	$f_0 / 2^3$ clock
L	H	H	H	f_0 clock	$f_0 / 2^4$ clock
H	L	L	H	f_0 clock	$f_0 / 2^5$ clock
H	L	H	H	f_0 clock	$f_0 / 2^6$ clock
H	H	L	H	f_0 clock	$f_0 / 2^7$ clock
H	H	H	H	f_0 clock	$f_0 / 2^8$ clock
-	-	-	L	L	L