ELFA

PRODUKTINFORMATION

ELFA artikelnr.

74-540-02 EXO3/12,0000MHz krist osc
74-540-28 EXO3/12,2880MHz krist osc
74-540-44 EXO3/12,8000MHz krist osc
74-540-51 EXO3/14,31818MHz kristOsc
74-540-69 EXO3/14,7456MHz krist osc

74-540-85 EXO3/16,0000MHz krist osc
74-541-01 EXO3/18,4320MHz krist osc
74-541-27 EXO3/19,6608MHz krist osc
74-541-43 EXO3/20,0000MHz krist osc

IQEXO-3

Delivery Options

■ Common frequencies are available from stock. Please see p122 for details

Output Compatibility

■ HCMOS

Holder Style

■ 8-pin DIL compatible plastic encapsulated

Frequency Stability

■ ±100ppm

Operating Temperature Range

■ –10 to 70°C

Storage Temperature Range

■ –55 to 125°C

Mechanical Specification

■ Mechanical Shock: 1000G, $\frac{1}{2}$ sine wave impulse for 0.35ms in three directions

■ Resistance to Soldering Heat: Leads dipped in soldering bath @ 260°C for 10 secs

■ Resistance to Solvent: Dipping in fluoric solvent for 90 secs

■ Solderability: 90% of soldered surface masked with new solder after dipping in solder bath @ 230°C for 3 secs

■ Vibration: 10 to 55Hz 1.5mm displacement, 50 to 2000Hz 20G acceleration, 1 hour in each of three mutually perpendicular planes

Handling & Operational Precautions

■ Observe anti-static handling precautions

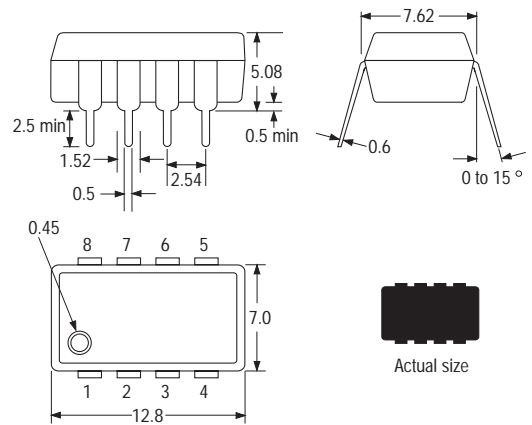■ A decoupling capacitor of <0.01μF should be connected between Pin 8 and Ground

Marking

■ Model number

■ Frequency

Minimum Order Information Required

■ Frequency + Model Number

Outline (scale 2:1)

Circuit Diagram
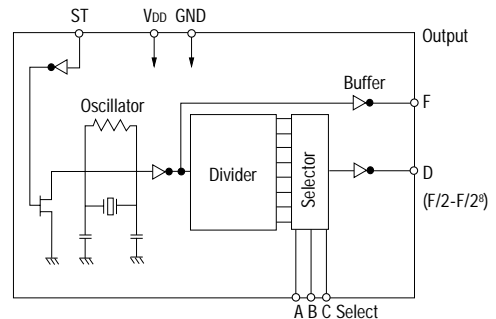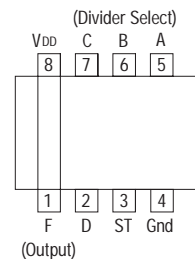
Terminal Connections

Electrical Specification – maximum limiting values

Supply Voltage	Input Voltage		Output Voltage		Rise Time (t$_r$)	Fall Time (t$_f$)	Current		Start-up Time		Duty Cycle	Aging
	High	Low	High	Low			Supply	Standby	Supply	Standby		
5.0V±1V	3.6V min	0.8V max	4.5V min	0.5V max	15ns max	15ns max	20mA	10.0μA	1.5ms	1.5ms	40/60%	±5ppm

Terminal Connections

- 1: Crystal frequency output (fo)
- 2: Divided frequency output (fo/2^n)
- 3: Standby terminal; Logic '1' to pin 3 enables oscillator output; logic '0' to pin 3 disables oscillator output; when disabled the oscillator output goes to the high impedance state
- 4: Ground
- 5: Programs division ratio
- 6: Programs division ratio
- 7: Programs division ratio
- 8: Power supply voltage

Frequency Programming

Input				Output	
Select			Pin 3	Pin 1 Fundamental Oscillation	Pin 2 Divided Frequency
Pin 7 C	Pin 6 B	Pin 5 A	ST		
L	L	L	H	fo	fo÷2
L	L	H	H	fo	fo÷4
L	H	L	H	fo	fo÷8
L	H	H	H	fo	fo÷16
H	L	L	H	fo	fo÷32
H	L	H	H	fo	fo÷64
H	H	L	H	fo	fo÷128
H	H	H	H	fo	fo÷256

Crystal Frequency (MHz)

Fundamental Frequency (fo)	Divided Frequency (fo/2^n)							
fo (MHz)	fo÷2 (MHz)	fo÷4 (MHz)	fo÷8 (MHz)	fo÷16 (kHz)	fo÷32 (kHz)	fo÷64 (kHz)	fo÷128 (kHz)	fo÷256 (kHz)
12.0	6.0	3.0	1.50	750.0	375.0	187.50	93.750	46.8750
12.2880	6.1440	3.0720	1.5360	768.0	384.0	192.0	96.0	48.0
12.80	6.40	3.20	1.60	800.0	400.0	200.0	100.0	50.0
14.318180	7.159090	3.579545	1.789772	894.880	447.440	223.720	111.860	55.930
14.50	7.250	3.6250	1.81250	906.250	453.1250	226.5620	113.2810	56.640
14.74560	7.37280	3.68640	1.84320	921.60	460.80	230.40	115.20	57.60
14.91050	7.45520	3.72760	1.86380	931.9060	465.9530	232.9760	116.4880	58.2440
15.0	7.50	3.750	1.8750	937.50	468.750	234.3750	117.1870	58.5930
15.360	7.680	3.840	1.920	960.0	480.0	240.0	120.0	60.0
15.97440	7.98720	3.99360	1.99680	998.40	499.20	249.60	124.80	62.40
16.0	8.0	4.0	2.0	1000.0	500.0	250.0	125.0	62.50
16.1280	8.0640	4.0320	2.0160	1008.0	504.0	252.0	126.0	63.0
16.2570	8.125850	4.06425	2.032125	1016.0620	508.030	254.0150	127.0070	63.5030
16.3840	8.1920	4.0960	2.0480	1024.0	512.0	256.0	128.0	64.0
17.734476	8.867238	4.433619	2.216809	1108.4	554.20	277.10	138.550	69.2750
18.4320	9.2160	4.6080	2.3040	1152.0	576.0	288.0	144.0	72.0
19.09090	9.545450	4.772725	2.386362	1193.1810	596.590	298.2950	149.1470	74.5730
19.20	9.60	4.80	2.40	1200.0	600.0	300.0	150.0	75.0
19.66080	9.83040	4.91520	2.45760	1228.80	614.40	307.20	153.60	76.80
20.0	10.0	5.0	2.5	1250.0	625.0	312.50	156.250	78.1250
20.480	10.240	5.120	2.560	1280.0	640.0	320.0	160.0	80.0
21.477270	10.738635	5.369317	2.684650	1342.3290	671.1640	355.5820	167.7910	83.89550
22.0	11.0	5.50	2.750	1375.0	687.50	343.750	171.8750	85.93750
22.11840	11.05920	5.52960	2.76480	1382.40	691.20	345.60	172.80	86.40
24.0	12.0	6.0	3.0	1500.0	750.0	375.0	187.50	93.750
24.5760	12.2880	6.1440	3.0720	1536.0	768.0	384.0	192.0	96.0

PROGRAMMABLE OSCILLATORS