

VF250 Series Dual Output TTL Hybrid Crystal Clock Oscillators

Valpey-Fisher's VF250 series of full-size TTL oscillators designate a family of oscillators with two outputs from one device. These outputs are dependent in that one output is a binary division of the other output. The oscillator utilizes a single crystal. Typical dividers are — 2, 4, 8, 16 ... 4,096. The specifications of these dual output TTL oscillators are the same as those of Valpey-Fisher's VF150 series single output oscillators.

Specifications

Frequency	250 KHz to 100.0 MHz
Output:	TTL
Symmetry	60/40 to 40/60% @ 1.4 VDC level standard. 45/55 symmetry available.
Rise & Fall Times	15 ns max. between 0.4 VDC and 2.4 VDC levels (250 KHz to 4 MHz) 10 ns max. between 0.4 VDC and 2.4 VDC levels (4.01 MHz to 20 MHz) 6 ns max. between 0.5 VDC and 2.7 VDC levels (20.01 MHz to 100 MHz)
"0" Level	+0.4V max., sinking 16 mA min. (250 KHz to 20 MHz) +0.5V max., sinking 20 mA min. (20.01 MHz to 100 MHz)
"1" Level	+2.7V min., sourcing—0.4 mA min. (250 KHz to 20 MHz) +2.4V min., sourcing—0.4 mA min. (20.01 MHz to 100 MHz)
Fanout	10 TTL gates
Short Circuit Output Current	18 mA min.
Input Voltage	+5 VDC, $\pm 10\%$
Input Current (max., unloaded)	70 mA 250 KHz to 3.999 MHz 30 mA 4.00 MHz to 20.00 MHz 50 mA 20.01 MHz to 70.00 MHz 100 mA 70.01 MHz to 100 MHz
Storage Temperature	-55°C to +125°C
Package	See Oscillator Package Chart.
Electrical Connections	PIN #1 Output. PIN #7 Case GND PIN #14 + 5 VDC PIN #8 Output

Type Numbers and Options

VF Type Number	Frequency Range (MHz)	Stability (%)	Option	Operating Temperature Range (°C)		
				0 to +70 Standard	-40 to +85 Option 1	-55 to +125 Option 2
VF254	0.25 to 1.124	0.0025	A	VF254A	VF254A-1	VF254A-2*
		0.005	B	VF254B	VF254B-1	VF254B-2
		0.01	Standard	VF254	VF254-1	VF254-2
		0.05	C	VF254C	VF254C-1	VF254C-2
		0.25	D	VF254D	VF254D-1	VF254D-2
VF253	1.125 to 2.249	0.0025	A	VF253A	VF253A-1	VF253A-2*
		0.005	B	VF253B	VF253B-1	VF253B-2
		0.01	Standard	VF253	VF253-1	VF253-2
		0.05	C	VF253C	VF253C-1	VF253C-2
		0.25	D	VF253D	VF253D-1	VF253D-2
VF252	2.250 to 3.999	0.0025	A	VF252A	VF252A-1	VF252A-2*
		0.005	B	VF252B	VF252B-1	VF252B-2
		0.01	Standard	VF252	VF252-1	VF252-2
		0.05	C	VF252C	VF252C-1	VF252C-2
		0.25	D	VF252D	VF252D-1	VF252D-2
VF250	4.00 to 25.00	0.0025	A	VF250A	VF250A-1	VF250A-2*
		0.005	B	VF250B	VF250B-1	VF250B-2
		0.01	Standard	VF250	VF250-1	VF250-2
		0.05	C	VF250C	VF250C-1	VF250C-2
		0.25	D	VF250D	VF250D-1	VF250D-2
VF255	25.01 to 100.0	0.0025	A	VF255A	VF255A-1	VF255A-2*
		0.005	B	VF255B	VF255B-1	VF255B-2
		0.01	Standard	VF255	VF255-1	VF255-2
		0.05	C	VF255C	VF255C-1	VF255C-2
		0.25	D	VF255D	VF255D-1	VF255D-2

* -55°C to +105°C

Custom stability tolerances and temperature ranges are available.