

TTL LOGIC HYBRID CRYSTAL CLOCK OSCILLATORS

VF150 Series TTL Hybrid Crystal Clock Oscillators

Valpey-Fisher's VF150 series designates a family of oscillators compatible with transistor-transistor-logic circuitry often used in microprocessor based computer and computer related equipment. Individual part numbers within the VF150 series plus additional letters and numbers denote frequency ranges, optional stabilities and operating temperature ranges respectively. Shown here are the specifications for Valpey-Fisher's VF150 series TTL hybrid clock oscillators and a chart showing specific part numbers.

Specifications

Frequency Range	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) 3 ns max. between 0.5 VDC and 2.0 VDC levels (70.01 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	+2.4V min., sourcing—0.4 mA min. (250 KHz to 20 MHz) +2.7V 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 NC Pin #7 Case GND Pin #14 +5 VDC Pin #8 Output

Type Numbers & 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
VF154	0.25 to 1.124	0.0025	A	VF154A	VF154A-1	VF154A-2*
		0.005	B	VF154B	VF154B-1	VF154B-2
		0.01	Standard	VF154	VF154-1	VF154-2
		0.05	C	VF154C	VF154C-1	VF154C-2
		0.25	D	VF154D	VF154D-1	VF154D-2
VF153	1.125 to 2.249	0.0025	A	VF153A	VF153A-1	VF153A-2*
		0.005	B	VF153B	VF153B-1	VF153B-2
		0.01	Standard	VF153	VF153-1	VF153-2
		0.05	C	VF153C	VF153C-1	VF153C-2
		0.25	D	VF153D	VF153D-1	VF153D-2
VF152	2.250 to 3.999	0.0025	A	VF152A	VF152A-1	VF152A-2*
		0.005	B	VF152B	VF152B-1	VF152B-2
		0.01	Standard	VF152	VF152-1	VF152-2
		0.05	C	VF152C	VF152C-1	VF152C-2
		0.25	D	VF152D	VF152D-1	VF152D-2
VF150	4.00 to 25.00	0.0025	A	VF150A	VF150A-1	VF150A-2*
		0.005	B	VF150B	VF150B-1	VF150B-2
		0.01	Standard	VF150	VF150-1	VF150-2
		0.05	C	VF150C	VF150C-1	VF150C-2
		0.25	D	VF150D	VF150D-1	VF150D-2
VF155	25.01 to 100.0	0.0025	A	VF155A	VF155A-1	VF155A-2*
		0.005	B	VF155B	VF155B-1	VF155B-2
		0.01	Standard	VF155	VF155-1	VF155-2
		0.05	C	VF155C	VF155C-1	VF155C-2
		0.25	D	VF155D	VF155D-1	VF155D-2

* -55 to +105°C

Custom stability tolerances and temperature ranges are available.