

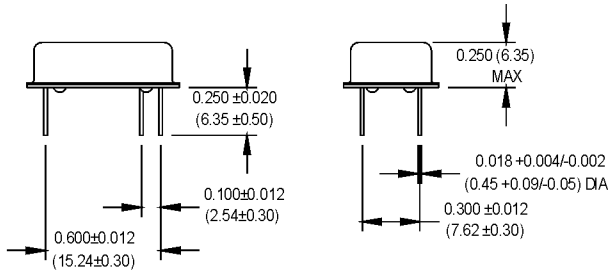
# MVP Series

## 14 pin DIP, 5.0 Volt, PECL, VCXO

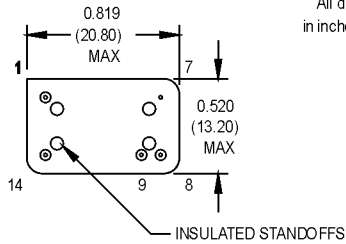


### Ordering Information

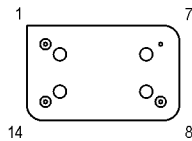
Product Series	MVP	1	8	Z	2	B	D	-R	00.0000 MHz
Temperature Range	1: 0°C to +70°C		2: -40°C to +85°C						
Stability	3: ±100 ppm		4: ±50 ppm						
	6: ±25 ppm		8: ±20 ppm						
Output Type	V: Single Output		Z: Dual Complementary Output						
Pull Range (Vc = .5 to 4.5 V)	2: ±100 ppm min.								
Symmetry/Logic Compatibility	A: 40/60		B: 45/55						
Package/Lead Configurations	D: DIP; Nickel Header								
RoHS Compliance	Blank: non-RoHS compliant part		-R: RoHS compliant part						
Frequency (customer specified)									



All dimensions in inches (mm).



### OPTIONAL 4-PIN PACKAGE



### APR Equivalents

APR	Pull Range	Stability
±50 ppm	±100 ppm	±50 ppm
±75 ppm	±100 ppm	±25 ppm

### Pin Connections

FUNCTION	4 Pin	5 Pin
Control Voltage	1	1
Circuit/Case Ground	7	7
Output (Q)	8	8
Output (Q̄)		9
+Vcc	14	14

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Frequency Range	F	19.44		160	MHz	See Note 1
Frequency Stability	ΔF/F	(See Ordering Information)				
Operating Temperature	Ta	(See Ordering Information)				
Storage Temperature	Ts	-55		+125	°C	
Input Voltage	Vcc	4.75	5.0	5.25	V	
Input Current	Iee/Icc		40	60	nA	
Symmetry (Duty Cycle)		(See Ordering Information)				
Load				50	Ω	See Note 2
Rise/Fall Time	Tr/Tf		1.5	2	ns	See Note 3
Logic "1" Level	Voh	Vcc - 0.98			V	
Logic "0" Level	Vol			Vcc - 1.63	V	
Cycle to Cycle Jitter @ 155.52 MHz			9.5	15	ps RMS	1 Sigma
Phase Jitter @ 155.52 MHz	φ J		12	15	ps RMS	Integrated 12 kHz - 20 MHz
Peak to Peak Jitter (+/-) @ 155.52 MHz	Tj		84	105	ps	@ BER 1E-12
Phase Noise (Typical) @ 155.52 MHz	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier dBc/Hz
	-61	-91	-113	-116	-114	
Modulation Bandwidth	fm			10	kHz	
Input Impedance (Pin 1)	Zin	50			KΩ	
Control Voltage	Vc	0.5		4.5	V	
Center Frequency	Vc0		2.5		V	
Pullability		(See Ordering Information)				Over control voltage
Linearity				10	%	
Tri-State Function		Input Logic "1" or floating; output active Input Logic "0"; output to High-Z				
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C				
	Vibration	Per MIL-STD-202, Method 201 & 204				
	Wave Solder Conditions	260°C for 10 s max.				
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm.cc/s of helium)				
	Solderability	Per EIAJ-STD-002				

- Higher frequencies available. Consult factory.
- See load circuit diagram #3.
- Rise/Fall times are measured between Vcc -0.98 and Vcc -1.63 V.

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