

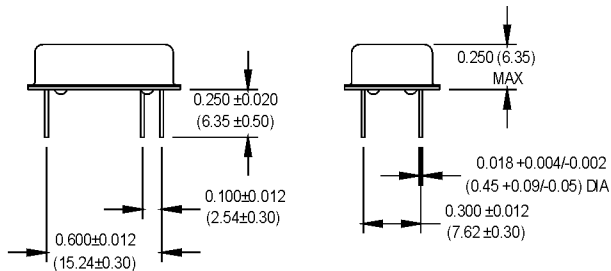
MVP Series

14 pin DIP, 5.0 Volt, PECL, VCXO

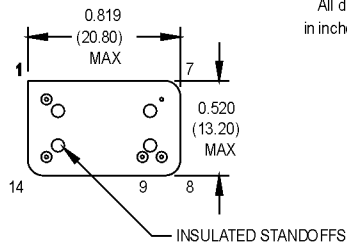


Ordering Information

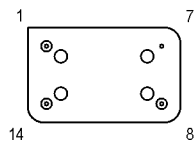
	MVP	1	8	Z	2	B	D	-R	00.0000 MHz
Product Series									
Temperature Range									
1: 0°C to +70°C									
2: -40°C to +85°C									
Stability									
3: ±100 ppm									
4: ±50 ppm									
6: ±25 ppm									
8: ±20 ppm									
Output Type									
V: Single Output									
Z: Dual Complementary 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

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	19.44		160	MHz	See Note 1
	Frequency Stability	$\Delta F/F$	(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	mA	
	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	ϕJ		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 -61	100 Hz -91	1 kHz -113	10 kHz -116	100 kHz -114	Offset from carrier dBc/Hz
	Modulation Bandwidth	f _m			10	kHz	
	Input Impedance (Pin 1)	Z _{in}	50			K Ω	
	Control Voltage	V _c	0.5		4.5	V	
	Center Frequency	V _{c0}		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 ⁻⁸ 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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