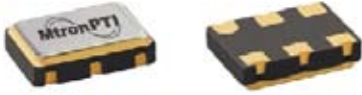
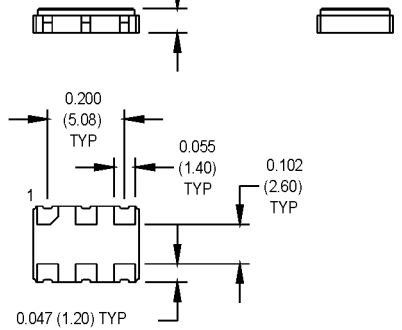
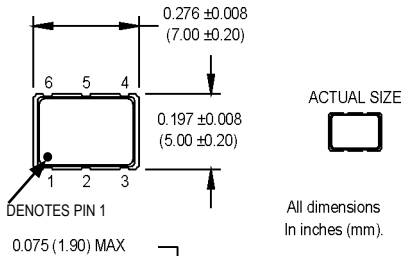


UVCJ Series

5x7 mm, 3.3 Volt, LVPECL/LVDS, Clock Oscillators



- Integrated phase jitter of less than 1 ps from 12 kHz to 20 MHz
- Ideal for 10 and 40 Gigabit Ethernet and Optical Carrier applications



Pad Connections

Pad	Function
1	Enable/Disable for "B" or "S" Output Type or N/C for "U" Output Type
2	N/C
3	Ground
4	Output Q
5	Complementary Output \bar{Q}
6	+ Vdd

Ordering Information

Product Series	UVCJ	1	8	B	L	N	00.0000 MHz
Temperature Range	1: 0°C to +70°C	2: -40°C to +85°C	6: -20°C to +70°C	7: -0°C to +85°C	8: 0°C to +50°C		
Stability	3: ±100 ppm	4: ±50 ppm	6: ±25 ppm	8: ±20 ppm			
Output Type	B: Complementary, Enable (Enable High)	S: Complementary, Enable (Enable Low)	U: Complementary Output				
Symmetry/Output Logic Type	L: 45/55% LVDS	P: 45/55% PECL	H: 40/60% LVDS	Q: 40/60% PECL			
Package/Lead Configurations	N: Leadless Ceramic (6 pads)						
Frequency (customer specified)							

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes	
Frequency Range	F	0.75		700	MHz		
Operating Temperature	T _A	(See ordering information)					
Storage Temperature	T _S	-55		+125	°C		
Frequency Stability	ΔF/F	(See ordering information)					
Aging						See Note 1	
1st Year		-3/-5		+3/+5	ppm	<52 MHz/ ≥52 MHz	
Thereafter (per year)		-1/-2		+1/-2	ppm	<52 MHz/ ≥52 MHz	
Input Voltage	V _{cc}	3.135	3.3	3.465	V		
Input Current	I _{cc}						
0.75 to 24 MHz				70/30	mA	PECL/LVDS	
24 to 700 MHz				100/60	mA	PECL/LVDS	
Output Type						PECL/LVDS	
Load		50 Ohms to V _{cc} - 2 VDC 100 Ohm differential load					See Note 2 PECL Waveform LVDS Waveform
Symmetry (Duty Cycle)		(See ordering information)					@ 50% of waveform
Output Skew				200	ps	PECL	
Differential Voltage		250	350	450	mV	LVDS	
Logic "1" Level	V _{oh}	V _{cc} -1.02			V	LVPECL	
Logic "0" Level	V _{ol}			V _{cc} -1.63	V	LVPECL	
Rise/Fall Time	Tr/Tf		0.35 0.50	0.55 1.0	ns ns	@ 20/80% LVPECL @ 20/80% LVDS	
Enable Function		80% V _{cc} min or N/C output active 20% V _{cc} max: output disables to high-Z					Output Option B
		PECL low, GND, or N/C – output active PECL high 0 output disables to high-Z					Output Option S
Start up Time			5		ms		
Phase Jitter (Typical)	φ _J		0.35 2.85 1.95 1.30		ps RMS ps RMS ps RMS ps RMS	See Note 3 Integrated 12 kHz – 20 MHz Integrated 12 kHz – 20 MHz Integrated 12 kHz – 20 MHz Integrated 12 kHz – 20 MHz	

1. PECL load - see Load Circuit Diagram. LVDS load - see load circuit diagram. Consult factory with nonstandard output load requirements.
2. Rise/Fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} with HCMOS load.
3. Consult factory for phase jitter at other specific frequencies.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.