

Oscillator (CMOS/LVPECL/LVDS/HCSL Output)

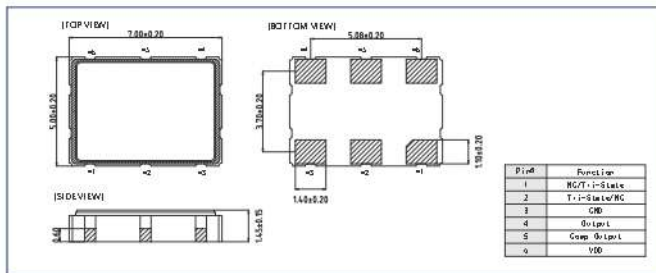
4.7 TLV7050

7.0 x 5.0 mm SMD LVPECL/LVDS Crystal Oscillator

FEATURES

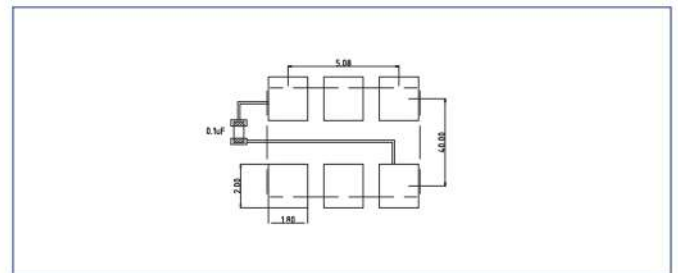
- Typical 7.0 x 5.0 x 1.45 mm hermetically sealed ceramic package
- Very low phase jitter : < 1 ps(0.6 ps, typ.) RMS
- Any frequency between 10 MHz and 1500 MHz
- Fast deliver
- Tri-state enable/disable

DIMENSIONS



TYPICAL APPLICATION

- High-Speed Gigabit Ethernet, Fiber Channel, Storage Area Network, SONET
- Enterprise Server, SAS/SATA
- Microprocessors/DSP/FPGA
- Broadband Access
- Smart Grid



ELECTRICAL SPECIFICATION

Parameter		LVPECL				LVDS				Unit
		3.3V		2.5V		3.3V		2.5V		
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD)		VDD-5%	VDD+5%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	V
Frequency Range		10	1500	10	1500	10	1500	10	1500	MHz
Standard Frequency		106.25, 125, 133.33, 150, 155.52, 156.25, 187.5, 212.5, 312.5, 622.08								
Supply Current	10MHz≤F _o <1500MHz	—	50	—	50	—	50	—	50	mA
Output Level	Output High	2.275	—	1.475	—	—	1.6	—	1.6	V
	Output Low	—	1.68	—	0.88	0.9	—	0.9	—	
Transition Time: Rise/Fall Time+		—	1	—	1	—	1	—	1	nSec
Startup Time		—	10	—	10	—	10	—	10	mSec
Tri-State (Input to Pin2 or Pin1)	Enable (High Voltage or Floating)	2.31	—	1.75	—	2.31	—	1.75	—	V
	Disable (Low Voltage or GND)	—	0.99	—	0.75	—	0.99	—	0.75	
Aging (@25°C, 1st Year)		—	±3	—	±3	—	±3	—	±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	-55	125	°C
Phase Noise @ 156.25 MHz	100 Hz	-85		-85		-85		-85		dBc/Hz
	1 kHz	-105		-105		-105		-105		
	10 kHz	-115		-115		-115		-115		
RMS Phase Jitter(Integrated 12 KHz ~ 20MHz)		—	1	—	1	—	1	—	1	pSec

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	±25	±50
-10 ~ +60		○	○
-20 ~ +70		○	○
-40 ~ +85		×	○

*o: Available Δ: Condition X: Not available

*Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration.

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.