LVDS TYPE

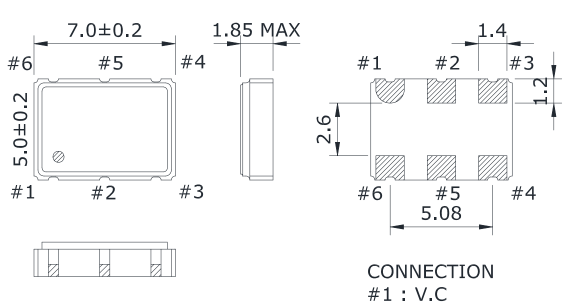
SLV-M10

- 7×5 mm Industrial Standard Package
- *NON-Multiplied*
- 0.2ps typical, RMS phase jitter(12 kHz to 20 MHz)
- 3.3 V Supply Voltage
- LVDS Output
- Voltage Controlled Crystal Oscillator
- Tri-state Function Available

■ ELECTRICAL SPECIFICATIONS

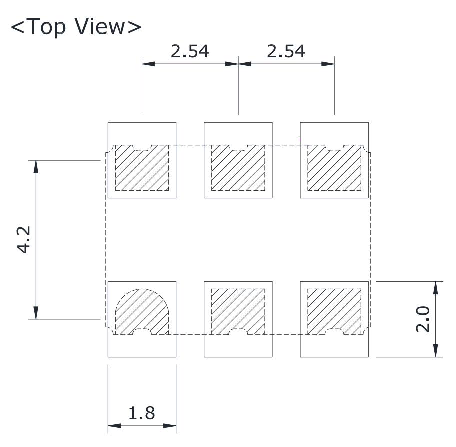
ITEM	Value	Remarks
Output Logic Type	LVDS	LVDS VCXO
Frequency Range	96/100/122.88/125/155.52/156.25 MHz	Standard frequency
Supply Voltage(V_{DD})	3.3 V_{DC} ±5 %	
Operating Temperature Range	-20 to +70 ℃, -40 to +85 ℃	
Storage Temperature Range	-55 to +125 ℃	
Frequency Stability	±50 ppm, ±100 ppm Max.	Over operating temperature range
Input Current	65 mA Max.	With Load
Output Voltage Logic High(V_{OH})	1.43 V Typ., 1.60 V Max.	
Output Voltage Logic Low(V_{OL})	1.10 V Typ., 0.90 V Min.	
Differential Output Voltage(V_{OD})	247 mV Min., 330 mV Typ., 454 mV Max.	
Offset Voltage(V_{OS})	1.125 V Min., 1.250 V Typ., 1.375 V Max.	
Rise / Fall Time	0.3 ns Typ., 0.7 ns Max.	Measured over 20 % to 80 % of waveform
Duty Cycle	45 to 55 %, 40 to 60 %	Measured at 50 % of waveform
Start-up Time	10 ms Max.	
Output Load Condition(LVDS)	100 Ω	Between Output and Complementary Output
Frequency Deviation	±50 ppm, ±80 ppm, ±100 ppm Min.	Over Vc range
Control Voltage(Vc)	1.65 ±1.35 V, 1.65 ±1.65 V	Please specify
Linearity	10 %, 15 % Max.	
Output Enable Function (V_{IH} and V_{IL})	70 % of V_{DD} min. to Enable Output 30 % of V_{DD} max. to Disable Output	High Impedance
RMS Phase Jitter	0.2 ps Typ., 0.5 ps Max.	BW : 12 kHz to 20 MHz
Frequency Aging	±5 ppm Max.	25℃, First year

■ MECHANICAL DIMENSIONS (mm)



CONNECTION
#1 : V.C
#2 : Tri-state or N.C
#3 : GND
#4 : OUTPUT(Q)
#5 : OUTPUT(Q)
#6 : VDD

■ LAND PATTERN (mm)



PART NUMBERING GUIDE

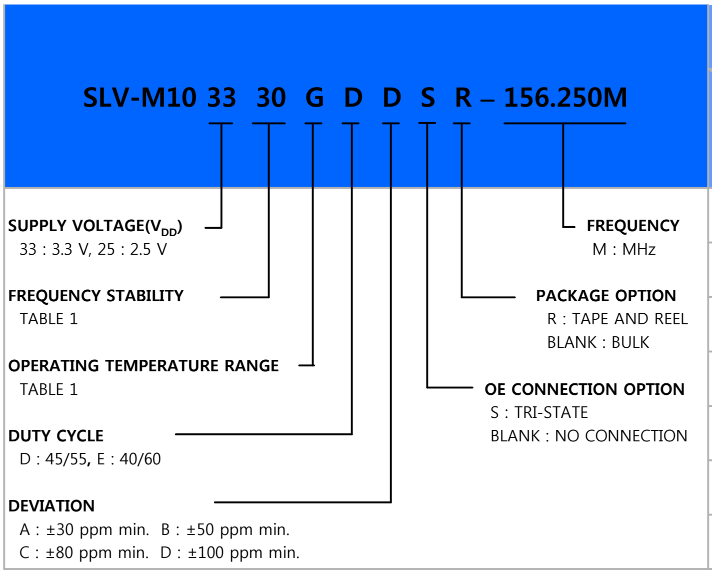
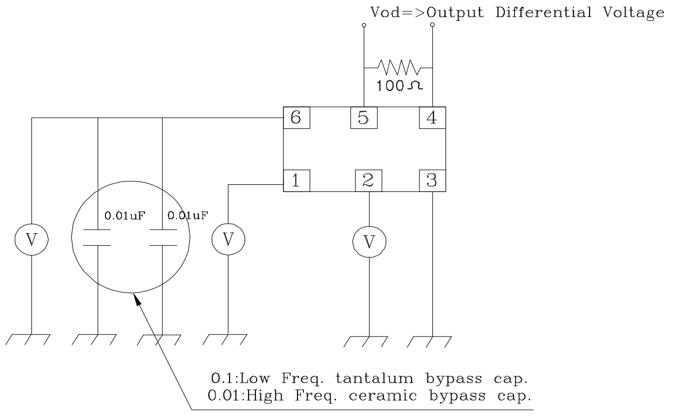


TABLE 1

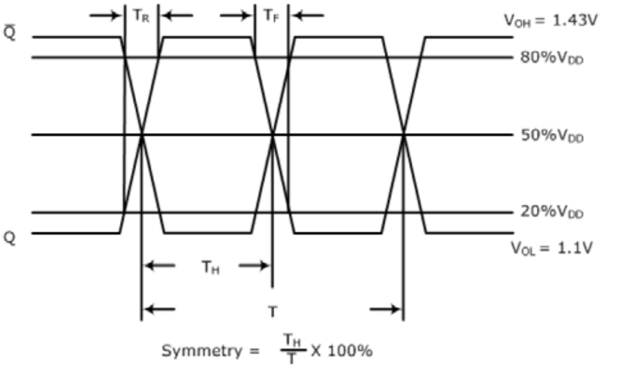
FREQUENCY STABILITY VS. TEMPERATURE RANGE

Temp \ Stability		±15	±20	±25	±30	±50	±100
		15	20	25	30	50	100
0~50 ℃	A	*	*	*	*	*	*
0~60 ℃	B		*	*	*	*	*
-10~60 ℃	C		*	*	*	*	*
0~70 ℃	D		*	*	*	*	*
-10~70 ℃	E		*	*	*	*	*
-20~70 ℃	F		*	*	*	*	*
-40~85 ℃	G			*	*	*	*

TEST CIRCUIT (LVDS)



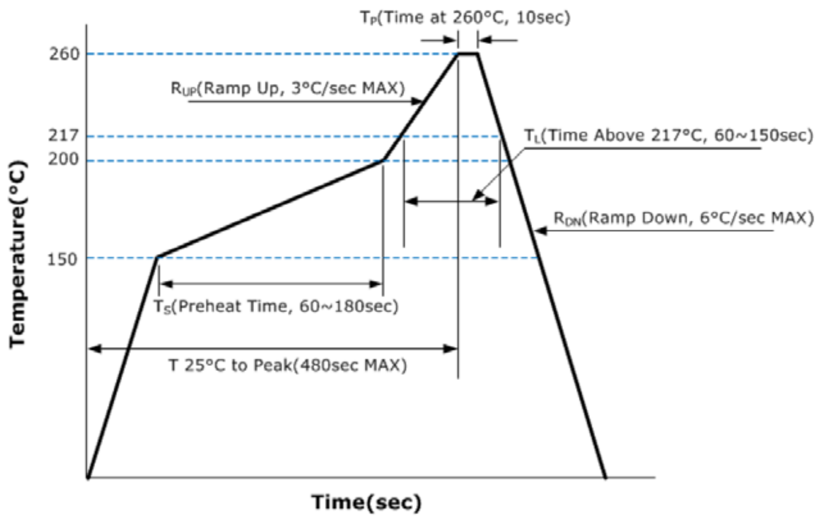
WAVEFORM (LVDS)



ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Solderability	MIL-STD-883, Method 2003

■ REFLOW PROFILE



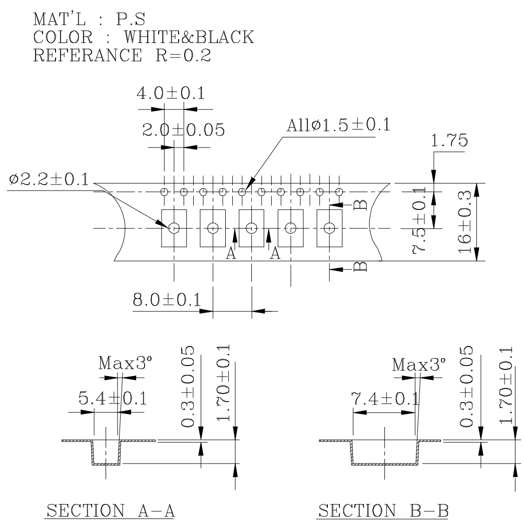
■ MARKING GUIDE

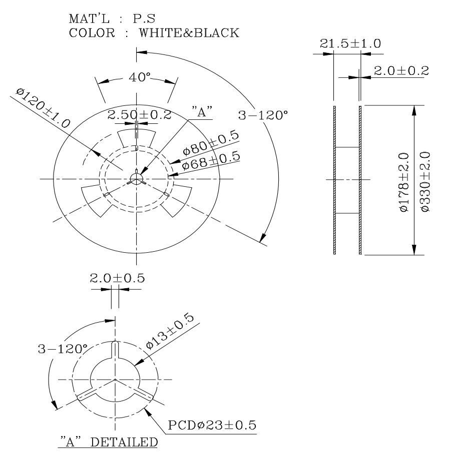
Model Name

LINE 1 : SLV-M103
LINE 2 : XX.XXX
LINE 3 : ●YY WW

Year
Week
Frequency in MHz

■ TAPE AND REEL DIMENSIONS





NOTE
1.COVER TAPE : 13~14mm(WIDTH)X0.06mm(t) MAT'L : PET
2.COLOR : NONTRANSPARENT

■TYPICAL PHASE NOISE PERFORMANCE (MEASURED BY AGILENT E5052B)

156.250 MHz