

Product Features

1. 6 pads seam sealed ceramic package
2. 3.3 and 2.5 V operation available
3. Output Type : HCSL
4. Output frequencies 27MHz ~ 220MHz
5. Excellent low phase noise and jitter
6. Tri-state function available
7. RoHS and REACH Compliant , Pb-free , Halogen-free
8. Industry Standard Package :
7.0 x 5.0 x 1.3 mm

Application :

- Fiber Channel , Gigabit Ethernet , Serial ATA , Serial Attached SCSI , PCI-Express , SDH / SONET , Ethernet Switch
- Telecom , Networking , Server , Storage , Instrument



Test condition

Ambient temperature: $25 \pm 5^{\circ}\text{C}$

Relative humidity: 40% ~ 70%

● Table 1 . Electrical Specifications

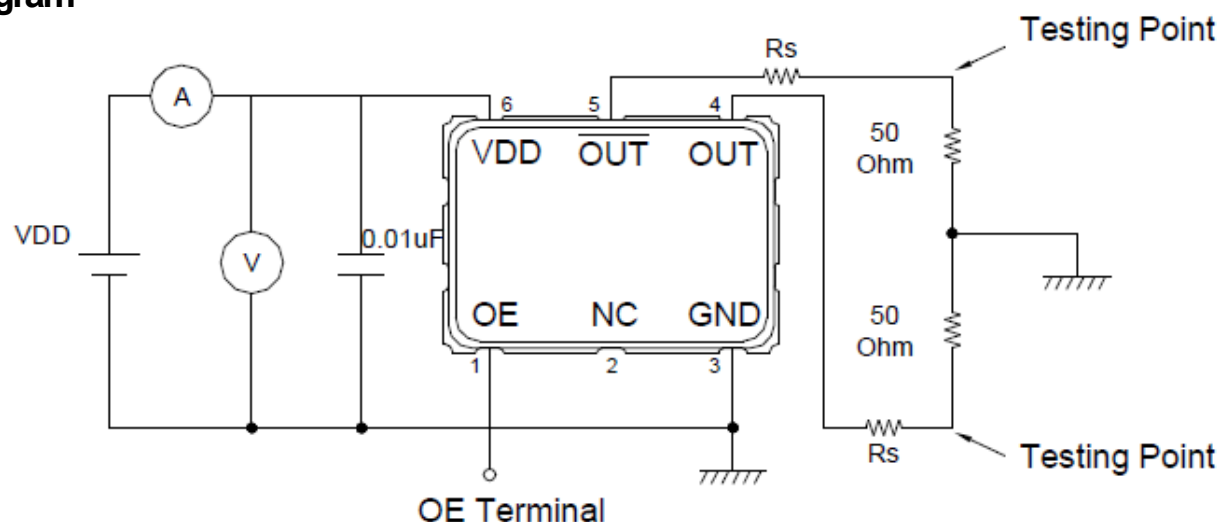
Parameters	Symbol	Min.	Typ.	Max.	Units	Conditions& Notes
Common Electrical Characteristics						
Nominal Frequency	F	27 ~ 220			MHz	
Frequency Stability	ST	± 25			ppm	@ -40~85 °C,Note 1
		± 35				@ -40~105°C, Note 1
		± 70				@ -40~125°C, Note 1
Operating Temperature	Topr	-40	-	125	°C	
Supply Voltage	Vdd	2.5 , 3.3 (±10%)			V	
Start-up Time	Tosc	-	-	10	ms	To 90% of Final Amplitude
HCSL Electrical Characteristics						
Current Consumption	Icc	-	-	40	mA	RL=50Ω
Standby Current	Icc(ST)	-	-	10	uA	OE = Low
Output Voltage High	VoH	660	740	850	mV	
Output Voltage Low	VoL	-150	0	150	mV	
Rise Time	Tr	-	-	0.5	ns	20% ~ 80% Output Swing
Fall Time	Tf	-	-	0.5	ns	80% ~ 20% Output Swing
Symmetry	TH/T	45	50	55	%	
Enable Voltage High	-	0.7VDD	-	-	V	Note 2
Enable Voltage Low	-	-	-	0.3VDD	V	Note 2
Output Enable Delay Time	-	-	-	2	ms	
Output Disable Delay Time	-	-	-	200	ns	
RMS Phase Jitter	PJ	-	-	0.3	ps	Integrated from 12KHz~ 20MHz @100MHz , 3.3V , Note 3

Note 1 : Inclusive of frequency tolerance at 25°C , variation over temperature , supply voltage variation , 10 years aging and vibration.

Note 2 : Output will be enable if OE is Logic 1 or open ; Output will be disable if OE is Logic 0.

Note 3 : Phase Jitter will be slightly different according to output frequency and supply voltage.

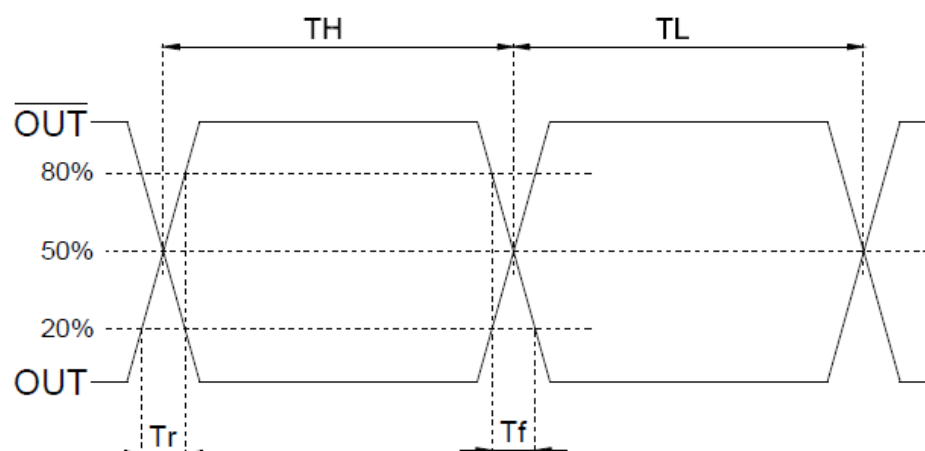
● Test Diagram



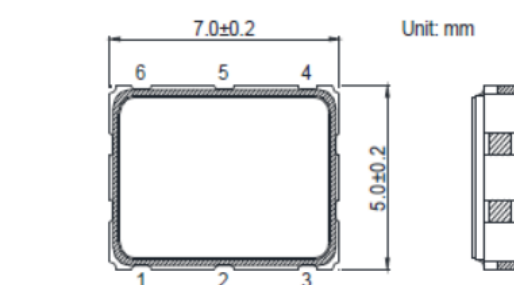
Testing Circuit Note:

1. Above testing circuits cover all the specifications except temperature test & Jitter measurement.
2. All the testing equipment are 50 Ohm terminal.
3. OE terminal is open connection except OE function test.
4. RS= 0 Ohm for test. 0 Ohm to 33 Ohm to minimize overshoot and ring back effect in application.

● Waveform Conditions



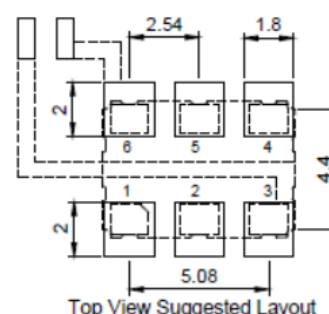
● Dimensions & Footprint (Recommended)



Pin Function:

1. OE
2. NC
3. GND
4. OUT
5. $\overline{\text{OUT}}$
6. VDD

Land Pattern:



※ Power Supply Decoupling Capacitor is Required.

※ Pad dimension tolerance ± 0.2 mm

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