

Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output frequency	100		160	MHz	As specified (please inquire for higher)
Supply voltage	+2.97	+3.3	+3.63	V	
Supply current, output enabled			30	mA	
Supply current, output disabled			10	mA	Output Hi-Z
Frequency stability			±20 to ±50	ppM	See Note 1 below
Operating temperature	-40		+85	°C	As specified
Output logic 0, VOL			10% V _{DD}	V	
Output logic 1, VOH	90% V _{DD}			V	
Output load	15 pF (max) or 10 LSTTL				
Duty cycle	45		55	%	-10 to +70°C measured 50%VDD
Duty cycle	40		60	%	-40 to -10°C, +70 to +85°C measured 50%VDD
Rise and fall time			2	ns	measured 20/80% of waveform
Jitter, phase		0.25	1	ps RMS (1-σ)	12kHz to 40MHz frequency band
Jitter, total			40	ps pk-pk	100,000 random periods
Subharmonic Level			-40	dBc	

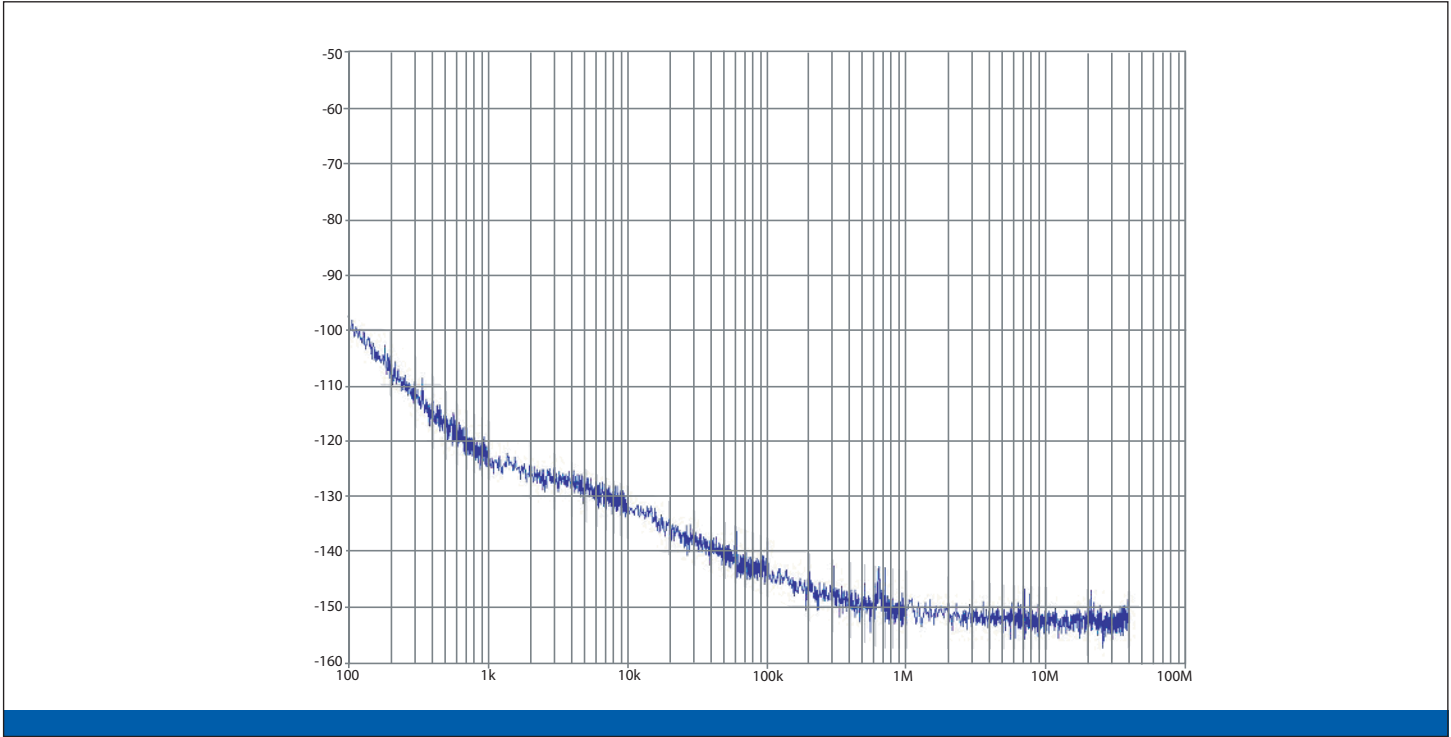
Notes:

- As specified. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (1 year at 25°C average effective ambient temperature), shock and vibration.
- For specifications other than those listed, please contact sales.

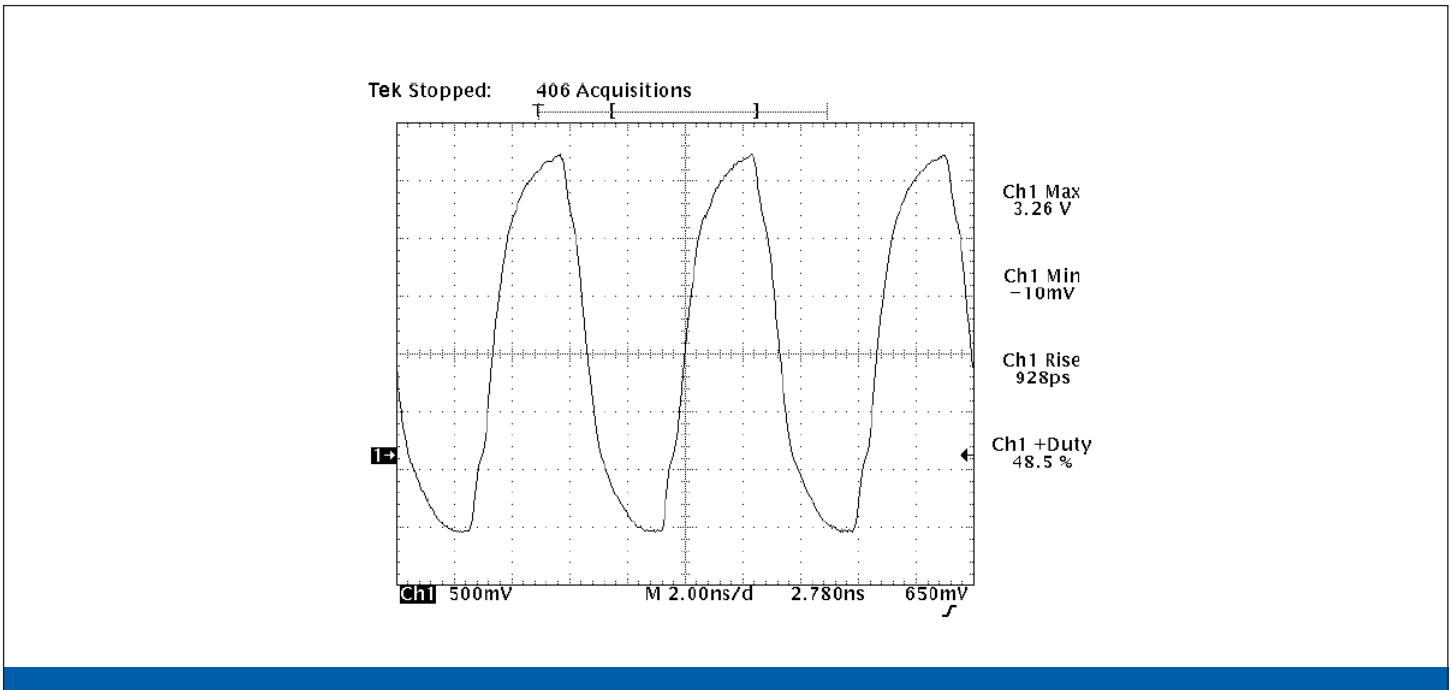
Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	2.2			V	or open
Input voltage (pin 1), Output Disable (low power standby)			0.8	V	Output is Hi-Z
Internal pullup resistance	50			kΩ	
Output disable delay			100	ns	
Output enable delay			1	ms	

Typical Accumulated Jitter



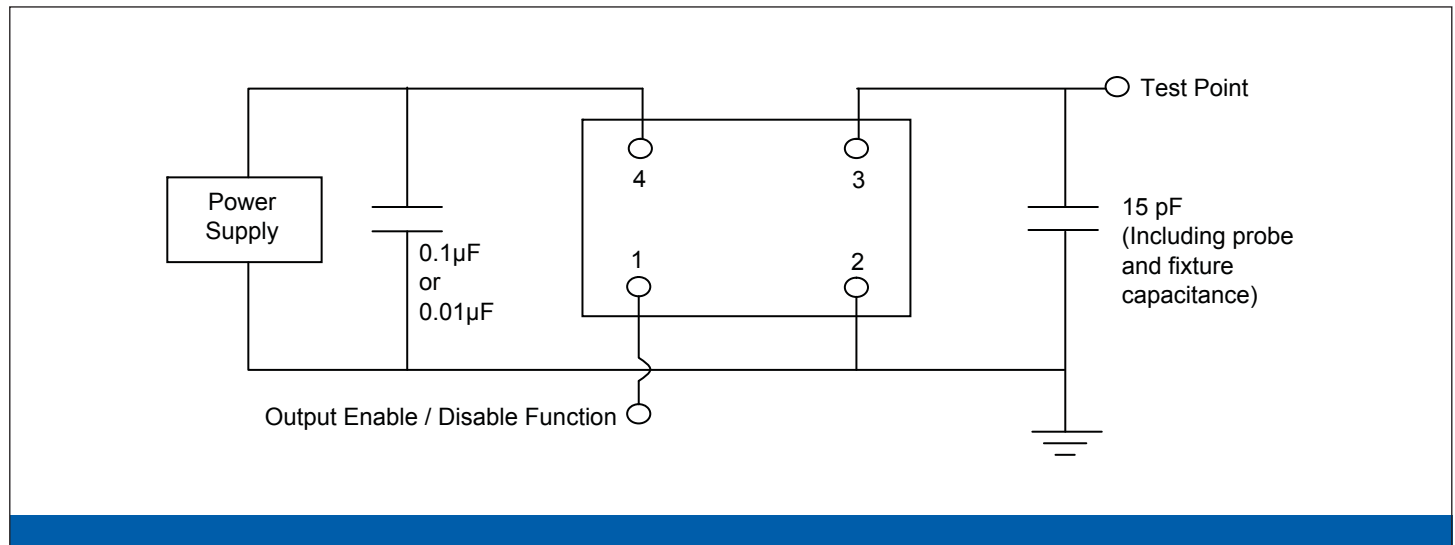
Typical Output Waveform (75 MHz output)



Absolute Maximum Ratings

Parameter	Min.	Typ.	Max.	Units	Notes
Storage temperature	-55		+125	°C	

Test Circuit

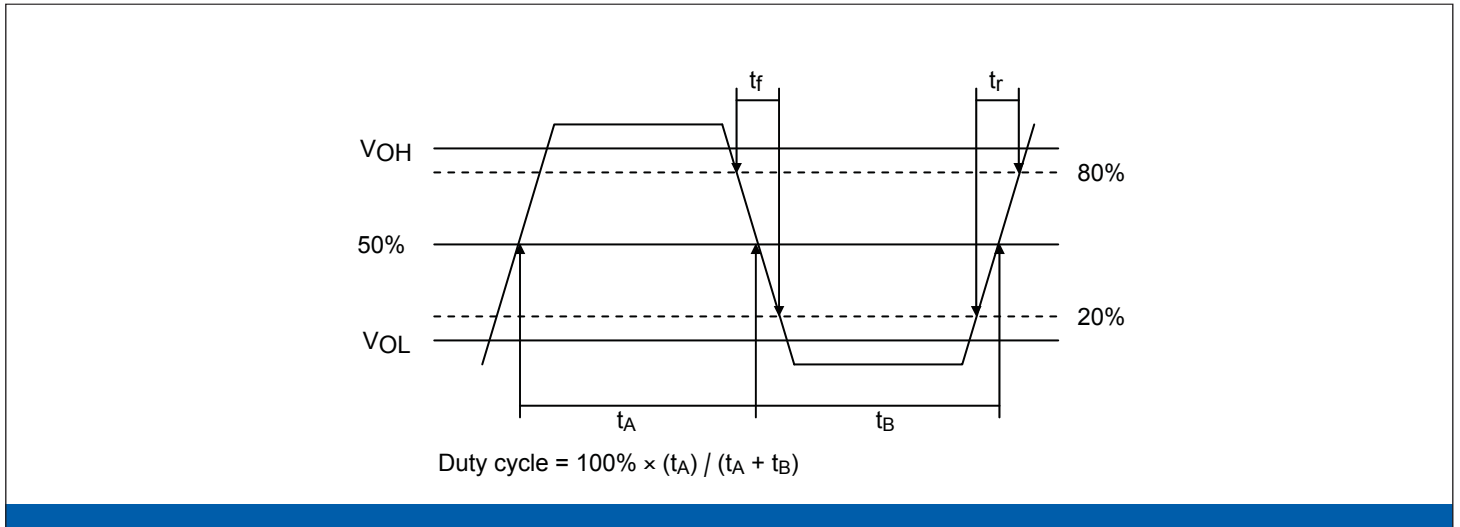


Reliability Test Ratings

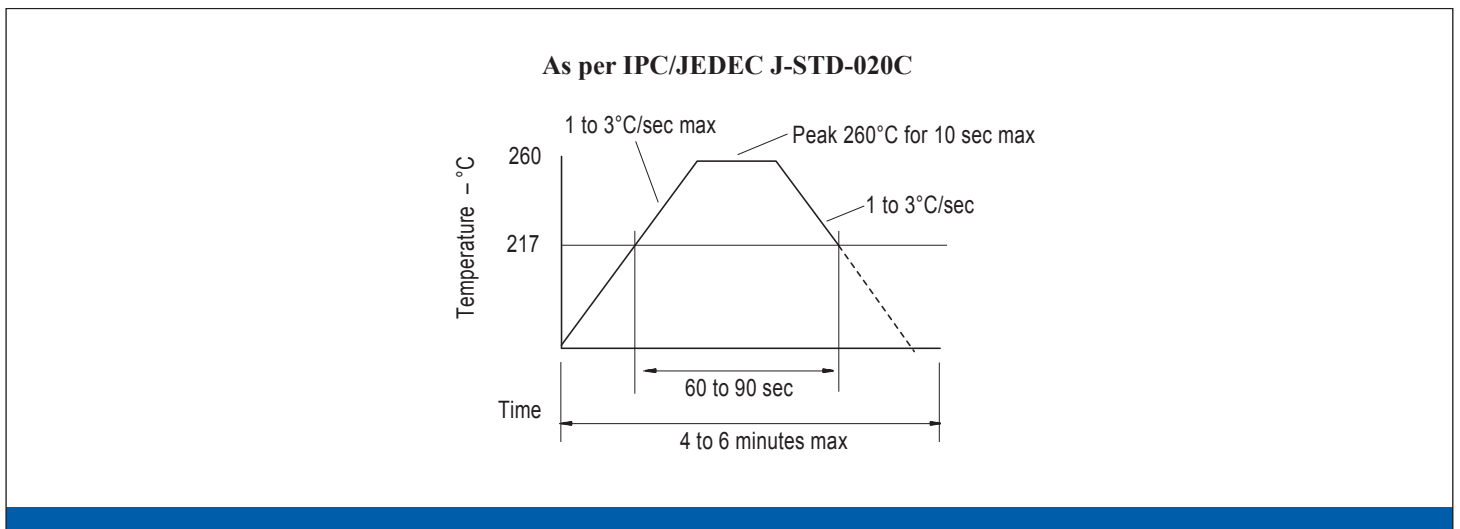
This product is rated to meet the following test conditions:

Type	Parameter	Test Condition
Mechanical	Shock	MIL-STD-883, Method 2002, Condition B
Mechanical	Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Mechanical	Terminal strength	MIL-STD-883, Method 2004, Condition D
Mechanical	Gross leak	MIL-STD-883, Method 1014, Condition C
Mechanical	Fine leak	MIL-STD-883, Method 1014, Condition A2 ($R_1 = 2 \times 10^{-8}$ atm cc/s)
Mechanical	Solvent resistance	MIL-STD-202, Method 215
Environmental	Thermal shock	MIL-STD-883, Method 1011, Condition A
Environmental	Moisture resistance	MIL-STD-883, Method 1004
Environmental	Vibration	MIL-STD-883, Method 2007, Condition A
Environmental	Resistance to soldering heat	J-STD-020C Table 5-2 Pb-free devices (2 cycles max)

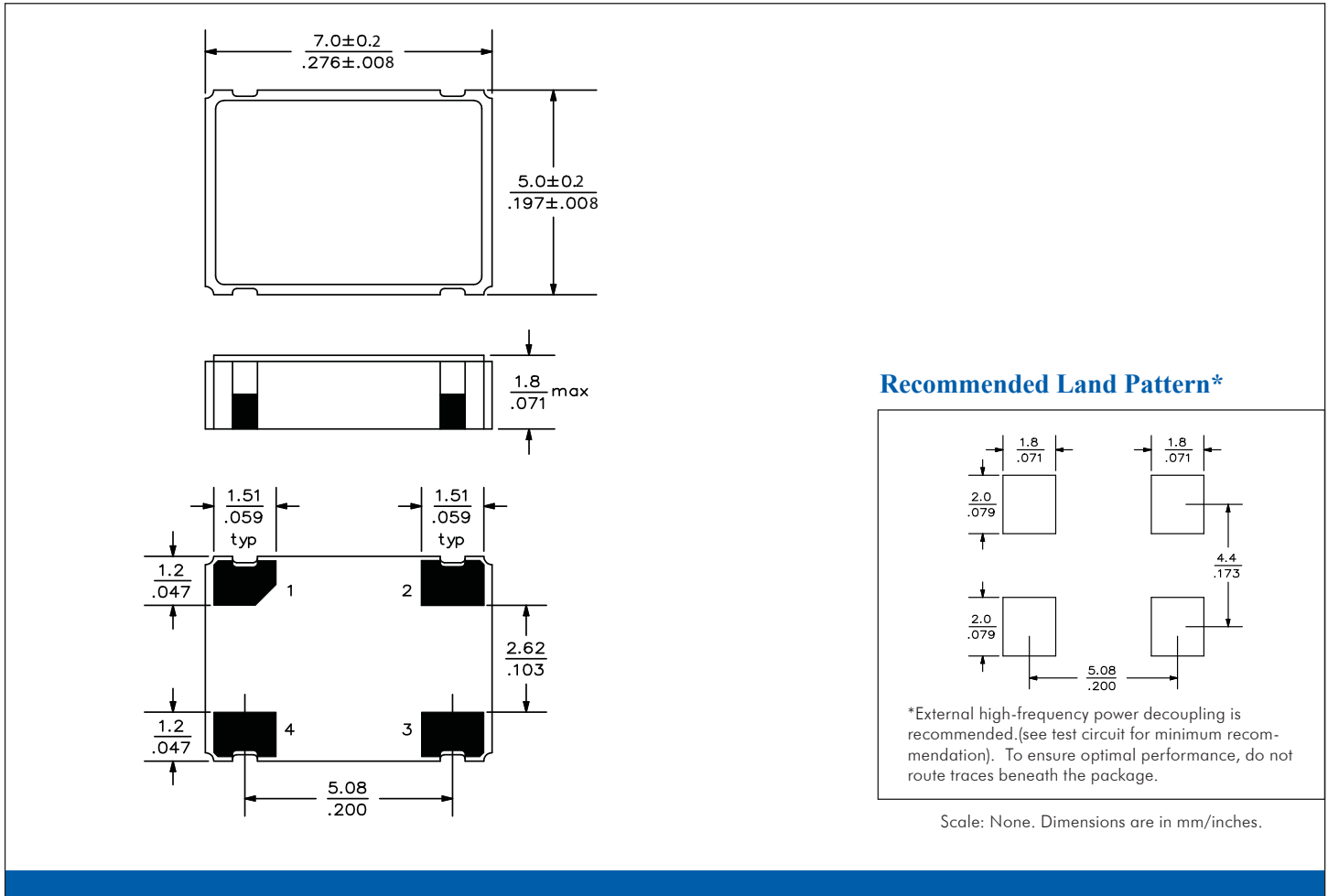
Output Waveform



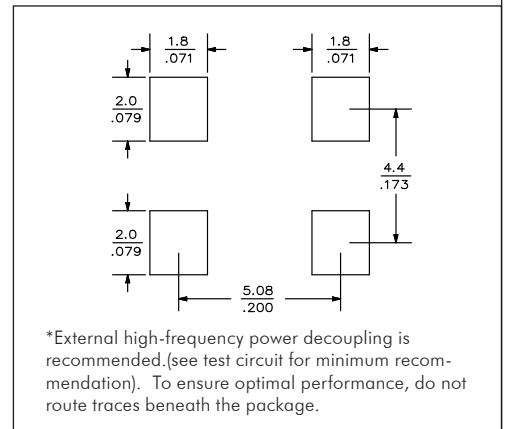
Reflow Soldering Profile



Mechanical Drawings



Recommended Land Pattern*



*External high-frequency power decoupling is recommended. (see test circuit for minimum recommendation). To ensure optimal performance, do not route traces beneath the package.

Scale: None. Dimensions are in mm/inches.