

## Specifications

Parameters	Ratings/Units
<b>Frequency</b>	12.8 MHz
<b>Frequency Stability:</b> Over-ALL Effects (Including 20 years Aging <sup>1</sup> ) Over Temperature Range (TOPR)	±4.6 PPM Max ±0.28 PPM Max
<b>Temperature Range:</b> Operating (TOPR) Storage (TSTG)	-40°C ~ +85°C -55°C ~ +125°C
<b>Supply Voltage (VDD)</b>	3.3 V ±5%
<b>Input Current (IDD)</b>	6 mA Max
<b>Output Load (HCMOS)</b> (VOL)	15 pF Max
<b>Rise Time (10% ~ 90% VDD)</b> (TR)	5 nS
<b>Fall Time (90% ~ 10% VDD)</b> (TF)	5 nS
<b>Symmetry (@ 50% VDD)</b>	45% / 55%
<b>Output Voltage (HCMOS)</b> (VOL) (VOH)	10% VDD Max 90% VDD Max
<b>Output Current (HCMOS)</b> (IOL) (IOH)	6 mA Min -6 mA Min
<b>Phase Noise:</b> @ 100 Hz offset @ 1 kHz offset @ 10 kHz offset	-120 dBc/Hz (TYP) -140 dBc/Hz (TYP) -148 dBc/Hz (TYP)
<b>Startup Time (Ts)</b>	2 mS Max
<b>Aging per year @ 25°C</b>	±1 PPM Max
<b>Maximum Soldering Temperature / Time</b>	260°C / 10 seconds
<b>Moisture Sensitivity Level (MSL)</b>	1
<b>Termination Finish</b>	Au

<sup>1</sup> Inclusive of initial frequency tolerance, operating temperature range, 20 years Aging, input voltage change, load change, shock and vibration.

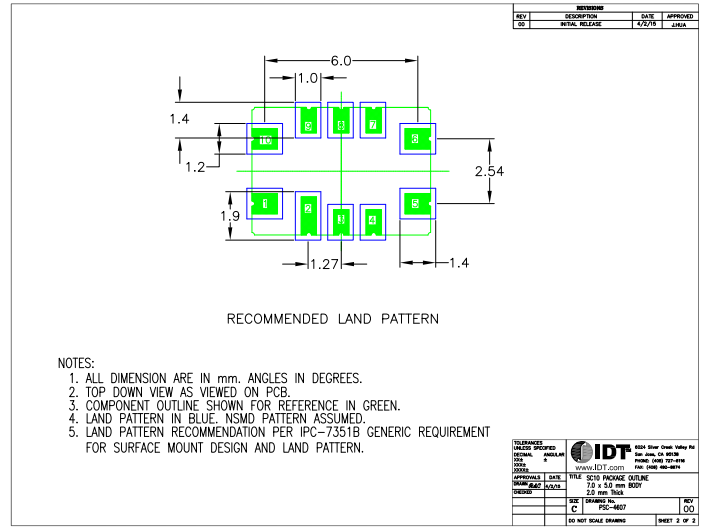
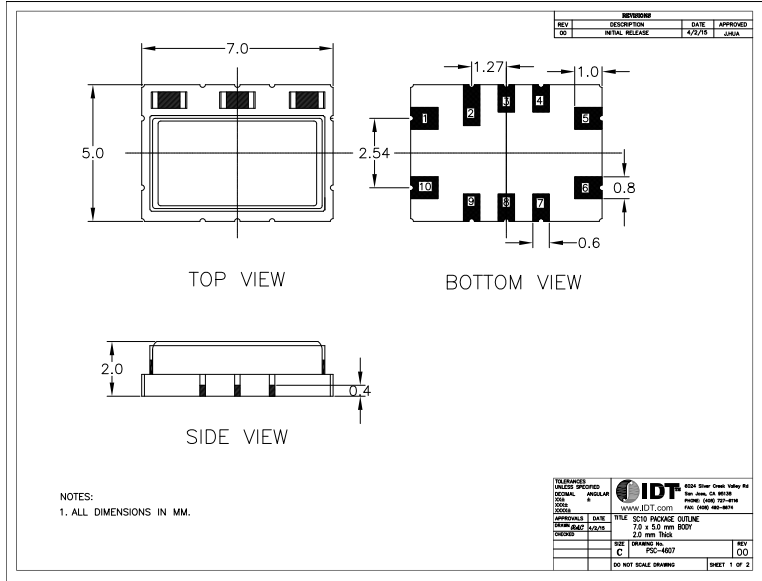
Enable/Disable Function <sup>2</sup>	
Pin 9	Output (Pin 6)
Open	Active
'1' Level VIH ≥ 70%VDD	Active
'0' Level VIH ≤ 30%VDD	High Z

<sup>2</sup> An internal pullup resistance from pin 9 to pin 10 allows active output if pin 9 is left open.

**Note:** 0.01µF bypass capacitor should be placed between VDD (Pin 10) and GND (Pin 5) to minimize power supply line noise.

**Note:** The above specifications, having been carefully prepared and checked, is believed to be accurate at the time of publication; however, no responsibility is assumed by IDT for inaccuracies. Dimensional drawing below is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.

# Package Outline and Dimensions (SC10)



## Pin Assignments

Pin Number	Description	Pin Number	Description
1	N.C.	6	RFOUT
2	N.C.	7	N.C.
3	N.C.	8	N.C.
4	N.C.	9	E/D
5	GND	10	VDD

## Ordering Information

Part / Order Number	Shipping Packaging	Package	Temperature
822AR-12.8-2SC10I	Cut-Tape	7.0 x 5.0 x 2.0 mm SC10	-40° to +85°
822AR-12.8-2SC10I8	Tape and Reel	7.0 x 5.0 x 2.0 mm SC10	-40° to +85°



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