General Description

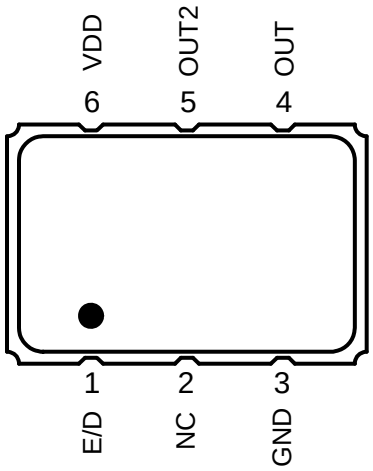
The XUL is an Ultra Precision LVDS Crystal Oscillator with 300 fs typical phase jitter over 12kHz to 20 MHz bandwidth. Available in a wide frequency range from 16kHz to 1500MHz, the IDT XUL Series Crystal Oscillator utilizes a family of proprietary ASICs, with a key focus on noise reduction technologies.

The 4th order Delta Sigma Modulator reduces noise to the levels that are comparable to traditional Bulk Quartz and SAW oscillators. With short lead-time, low cost, low noise, wide frequency range, excellent ambient performance, the XUL is an excellent choice over the conventional technologies. The XUL has stabilities as tight as +/- 20ppm with extremely quick delivery for both standard and custom frequencies

Features

- Frequency range: 0.016 to 1500 MHz
- Output Type: LVDS
- Frequency Stability: ± 20ppm, ± 25ppm, ± 50ppm, or ± 100 ppm
- Supply Voltage: 1.8V, 2.5V, or 3.3V
- Phase Jitter (1.875MHz to 20MHz): 100fs typical
- Phase Jitter (12kHz to 20MHz): 300fs typical
- Package options: 5.0mm x 3.2mm x 1.2mm (JS6)
  7.0mm x 5.0mm x 1.3mm (JU6)
- Operating Temperatures: -20°C to +70°C or -40°C to +85°C

Pin Assignment



6-pin CLCC

Pin Descriptions

Pin Number	Pin Name	Description
1	E/D	Enable/Disable[1] (0=Output Disabled)
2	NC	No connect
3	GND	Connect to ground
4	OUT	Output
5	OUT2	Complementary output
6	VDD	Supply Voltage

1. Pulled high internally.

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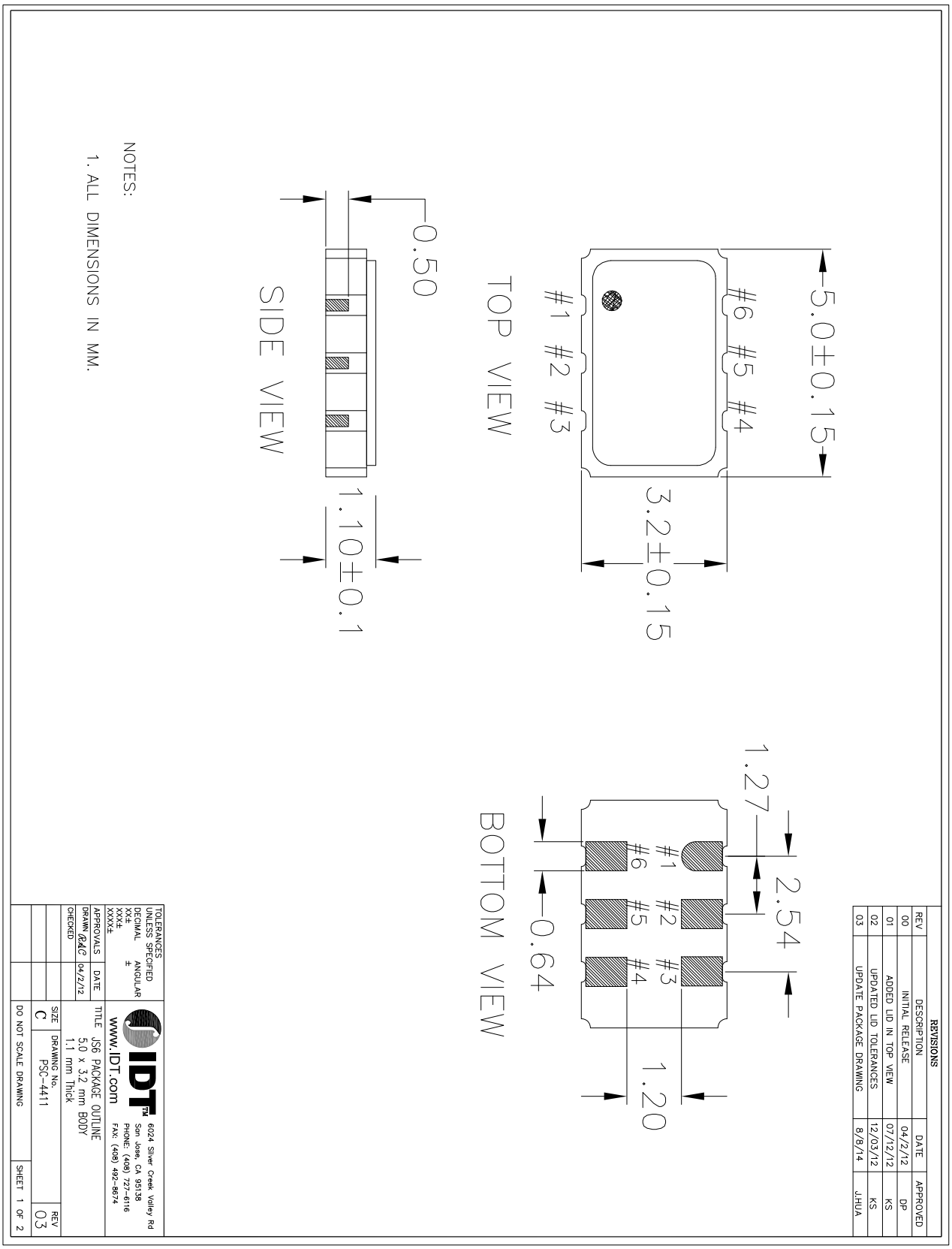
JS6 Package Outline and Dimensions



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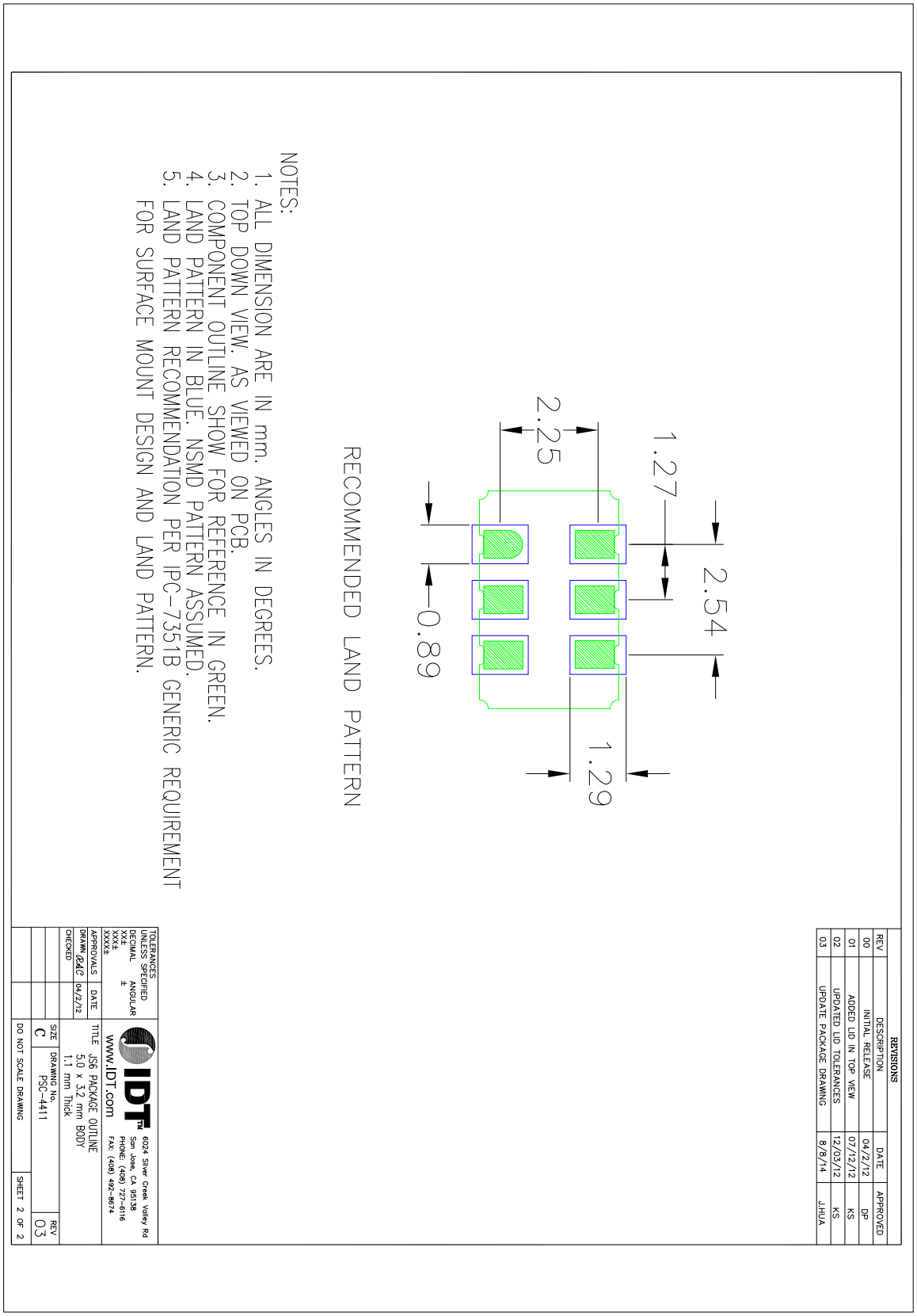
JS6 Package Outline and Dimensions (cont.)



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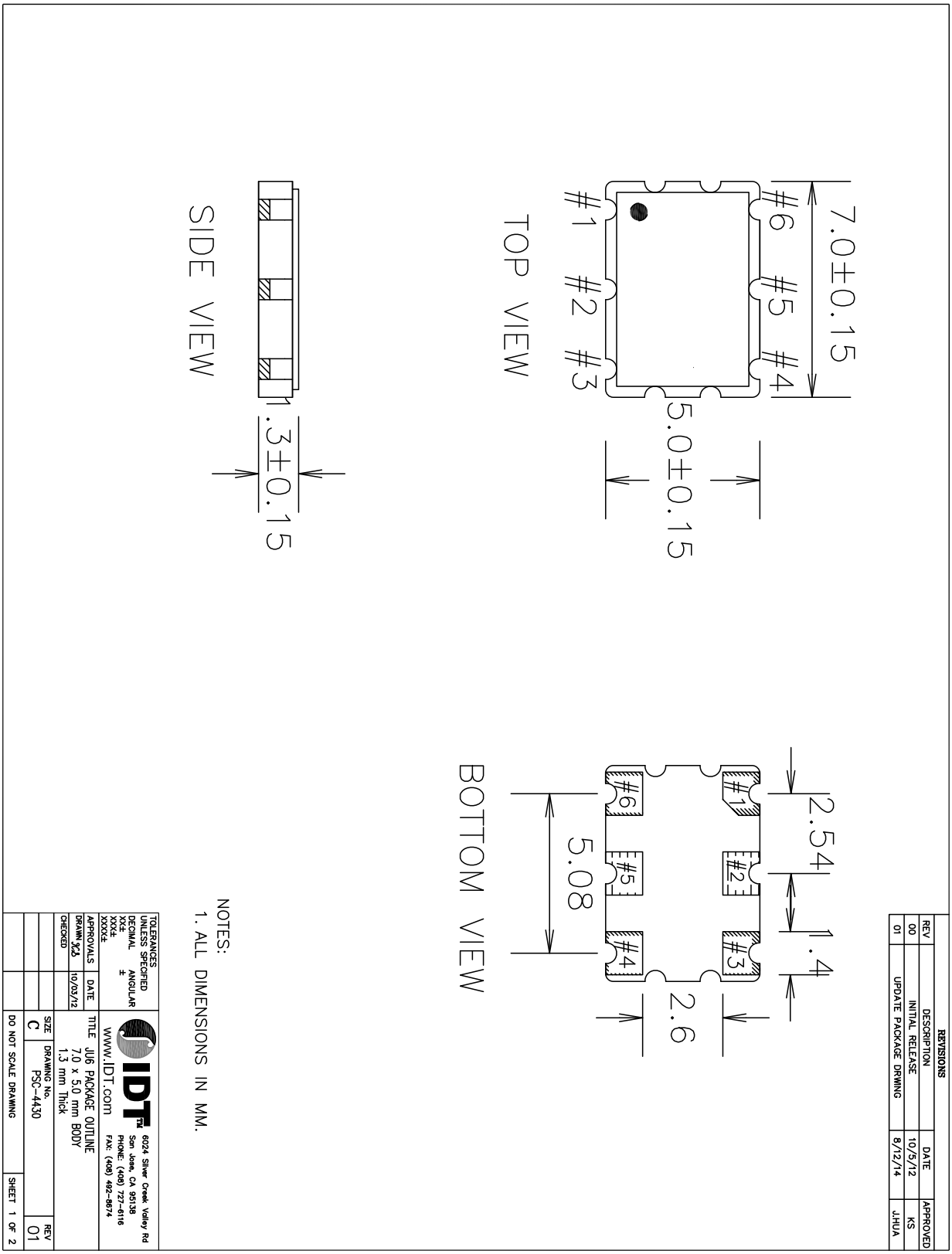
JU6 Package Outline and Dimensions



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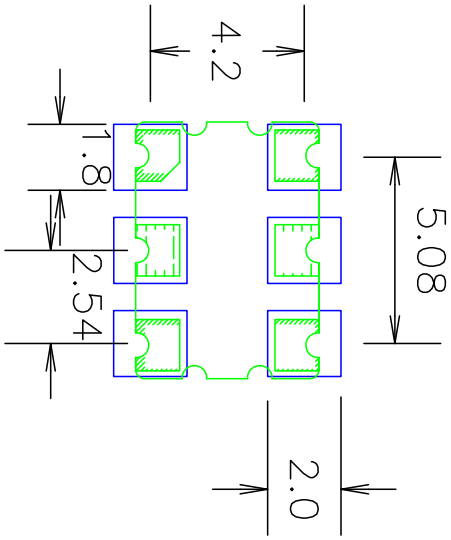
JU6 Package Outline and Dimensions (cont.)



RECOMMENDED LAND PATTERN

NOTES:
1. ALL DIMENSION ARE IN mm. ANGLES IN DEGREES.
2. TOP DOWN VIEW. AS VIEWED ON PCB.
3. COMPONENT OUTLINE SHOW FOR REFERENCE IN GREEN.
4. LAND PATTERN IN BLUE. NSMD PATTERN ASSUMED.
5. LAND PATTERN RECOMMENDATION PER IPC-7351B GENERIC REQUIREMENT FOR SURFACE MOUNT DESIGN AND LAND PATTERN.

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	10/5/12	KS
01	UPDATE PACKAGE DRWING	8/12/14	JHUA

TOLERANCES UNLESS SPECIFIED
DECIMAL ± ANGULAR ±
XX.X±
XXX±
XXXX±

APPROVALS DATE
DRAWN 9213 10/03/12
CHECKED

IDT™ 6024 Silver Creek Valley Rd San Jose, CA 95138 PHONE: (408) 727-6116 FAX: (408) 492-8674
www.IDT.com

TITLE JU6 PACKAGE OUTLINE 7.0 x 5.0 mm BODY 1.3 mm Thick

SIZE C DRAWING No. PSC-4430 REV 01

DO NOT SCALE DRAWING SHEET 2 OF 2

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