



# VCO R4000\_1SMUA5CR

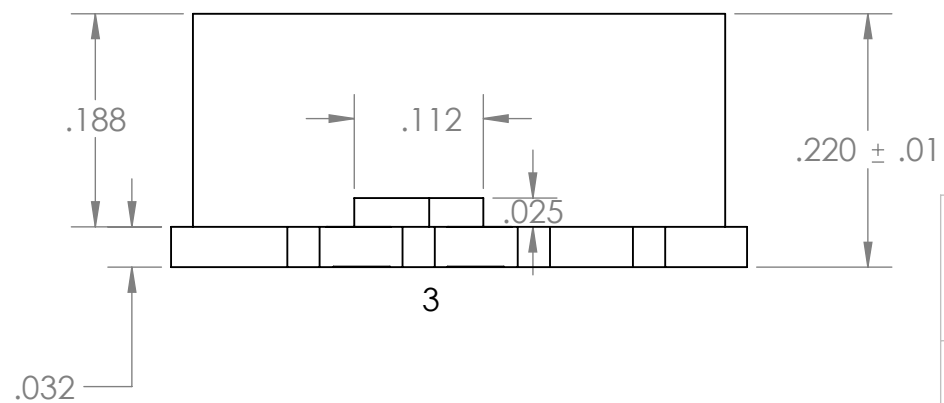
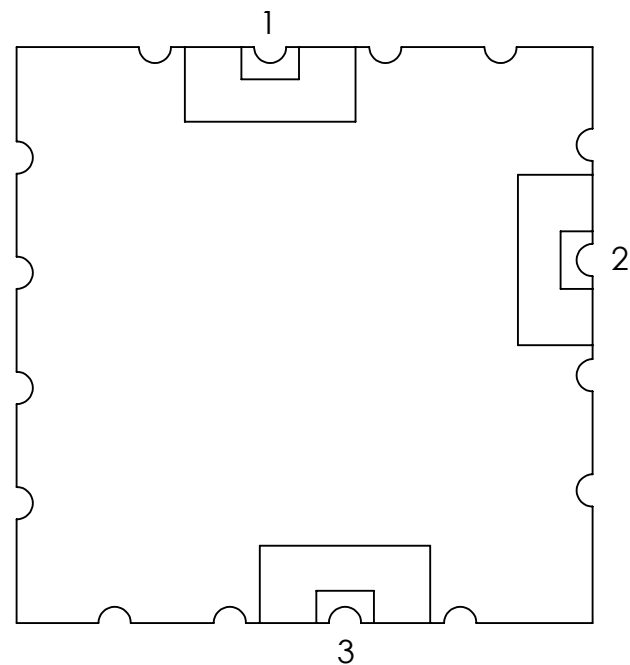
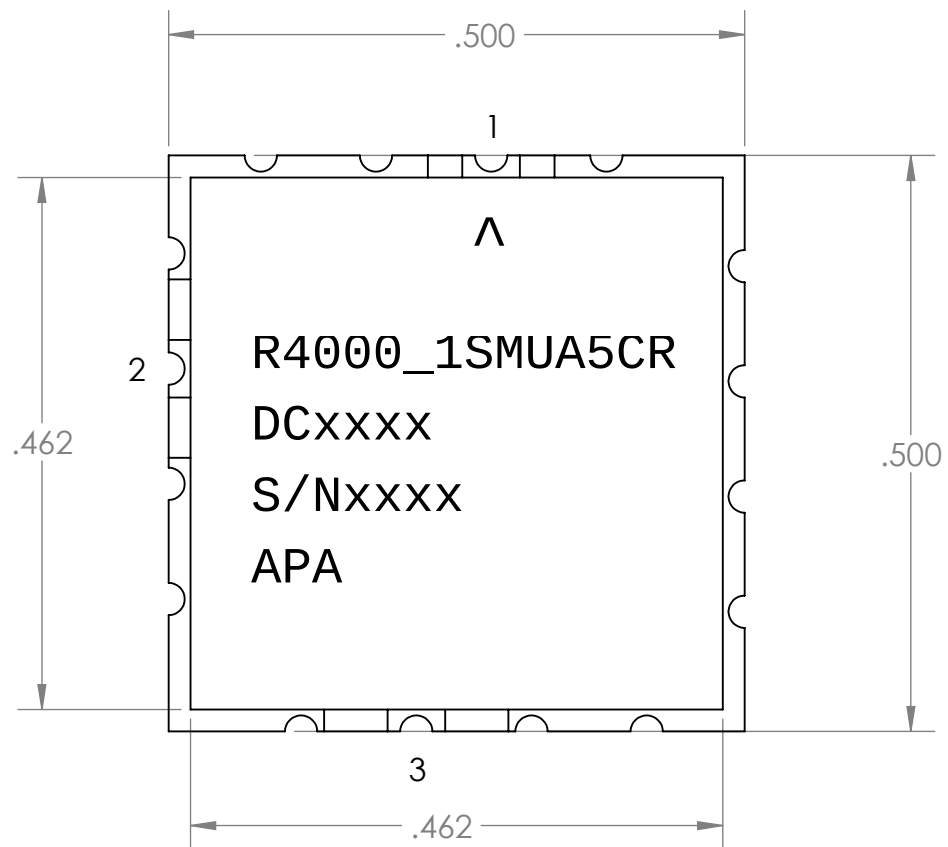
rev\_0

initial rev

|                              | <u>MIN</u> | <u>TYP</u> | <u>MAX</u> | <u>UNITS</u>       | <u>NOTES</u> | <u>Production Test</u> | <u>First Article Test</u> |
|------------------------------|------------|------------|------------|--------------------|--------------|------------------------|---------------------------|
| Frequency Range              |            | 4000       |            | MHz                | 1            | ..                     | ..                        |
| Tuning Voltage               | 0.5        |            | 4.5        | V                  | 1            | ..                     | ..                        |
| Modulation Sensitivity       |            | 7          |            | MHz/V              | 1            | ..                     | ..                        |
| Operates with Vtune = 0V     |            |            |            |                    | 1            | ..                     | ..                        |
| Output Power                 | -2.5       | 0          | 2.5        | dBm                | 1            | ..                     | ..                        |
| Phase Noise @                |            |            |            |                    |              |                        |                           |
| 1 KHz Offset                 |            | -90        | -85        | dBc/Hz             | 1            | ..                     | ..                        |
| 10 KHz Offset                |            | -118       | -113       | dBc/Hz             | 1            | ..                     | ..                        |
| 100 KHz Offset               |            | -138       | -133       | dBc/Hz             | 1            | ..                     | ..                        |
| 1 MHz Offset                 |            | -158       | -153       | dBc/Hz             | 1            | ..                     | ..                        |
| 10 MHz Offset                |            | -167       | -162       | dBc/Hz             | 1            | ..                     | ..                        |
| Pushing                      |            | 0.3        | 0.7        | MHz/V              | 3            | ..                     | ..                        |
| Pulling (12dB RL, any phase) |            | 0.2        | 0.5        | MHz <sub>p-p</sub> | 3            | ..                     | ..                        |
| Modulation Bandwidth         |            | 1          |            | MHz                | 4            | ..                     | ..                        |
| Tuning Port Capacitance      |            | 10         |            | pF                 | 2            | ..                     | ..                        |
| Harmonics                    |            | -20        | -10        | dBc                | 3            | ..                     | ..                        |
| Vcc                          |            | 5.0        |            | V                  |              | ..                     | ..                        |
| Icc                          |            | 28         |            | mA                 | 1            | ..                     | ..                        |
| Operating Temperature        | -40        |            | +85        | C                  | 3            | ..                     | ..                        |
| Package                      |            | SMUA       |            |                    | 6            | ..                     | ..                        |
| LxW                          |            | 0.500      |            | inch sq.           | 5            | ..                     | ..                        |
| Height                       |            | 0.220      |            | inch               | 5            | ..                     | ..                        |

## Notes

1. Tested in production, and guaranteed
2. Per current design, not a tested parameter
3. Sample tested from production lot
4. Not a tested or guaranteed design goal
5. By inspection
6. RoHS Compliant



| CONTACT ASSIGNMENTS           |        |
|-------------------------------|--------|
| 1.                            | RF OUT |
| 2.                            | VCC    |
| 3.                            | V-TUNE |
| ALL OTHER CONTACTS ARE GROUND |        |

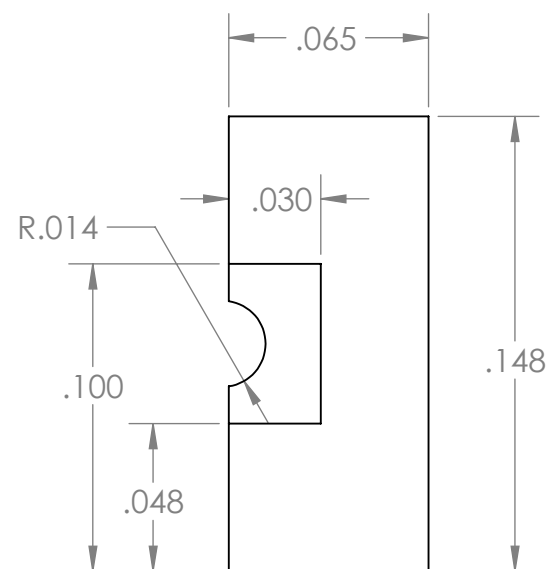


|                                                                                             |                        |                   |
|---------------------------------------------------------------------------------------------|------------------------|-------------------|
| DRAWN                                                                                       | NAME<br>Stefan Babulal | DATE<br>2/20/2017 |
| COMMENTS:<br>All dimensions are in inches.<br>Tolerances $\pm 0.005$ unless otherwise noted |                        |                   |

|                        |               |              |
|------------------------|---------------|--------------|
| TITLE:<br>SMUA PACKAGE |               |              |
| SIZE<br><b>A</b>       | DWG. NO.<br>1 | REV          |
| SCALE: 6:1             | unit: inch    | SHEET 1 OF 2 |



# CONTACT DIMENSIONS



Scale: 16:1



DRAWN NAME Stefan Babulal DATE 2/20/2017

COMMENTS:  
All dimensions are in inches.  
Tolerances  $\pm 0.005$  unless otherwise noted

TITLE:  
SMUA PACKAGE

|                  |               |     |
|------------------|---------------|-----|
| SIZE<br><b>A</b> | DWG. NO.<br>1 | REV |
|------------------|---------------|-----|

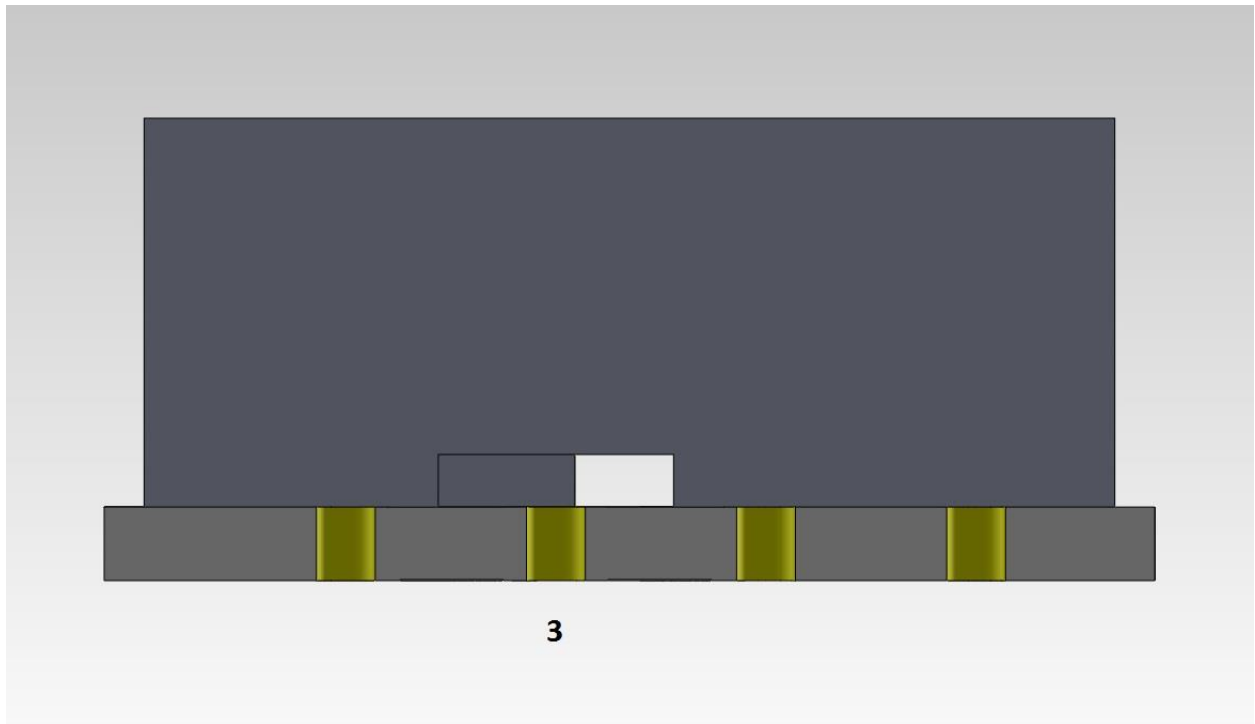
|            |            |              |
|------------|------------|--------------|
| SCALE: 6:1 | unit: inch | SHEET 2 OF 2 |
|------------|------------|--------------|



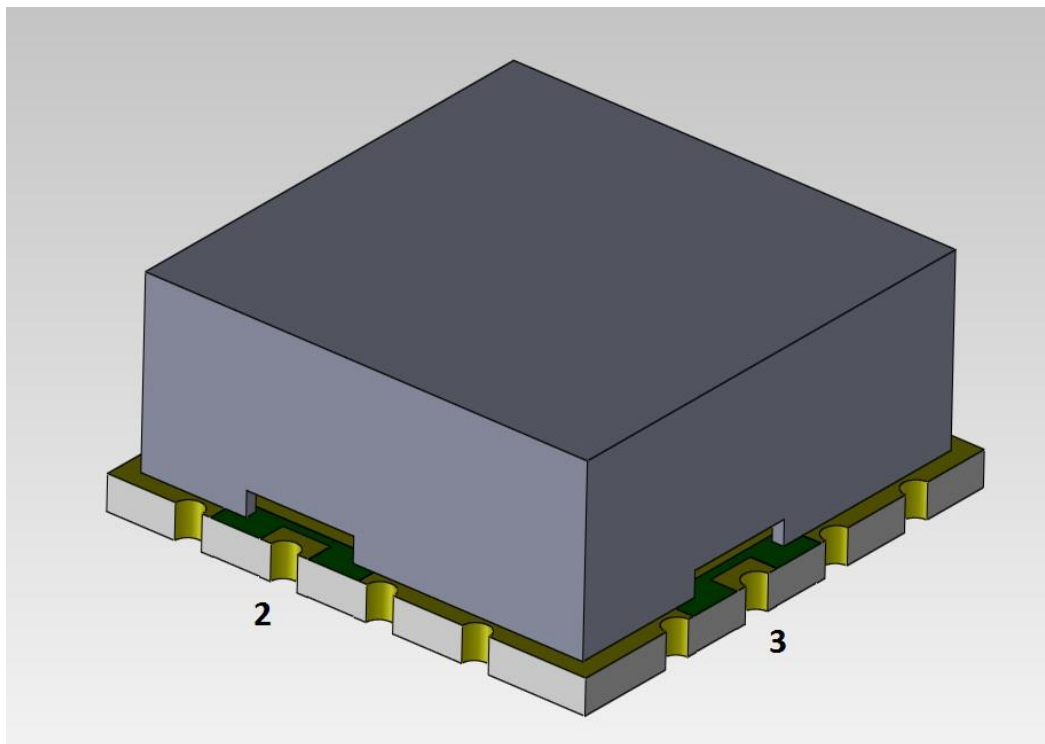
TOP VIEW



BOTTOM VIEW



SIDE VIEW



ISOMETRIC VIEW