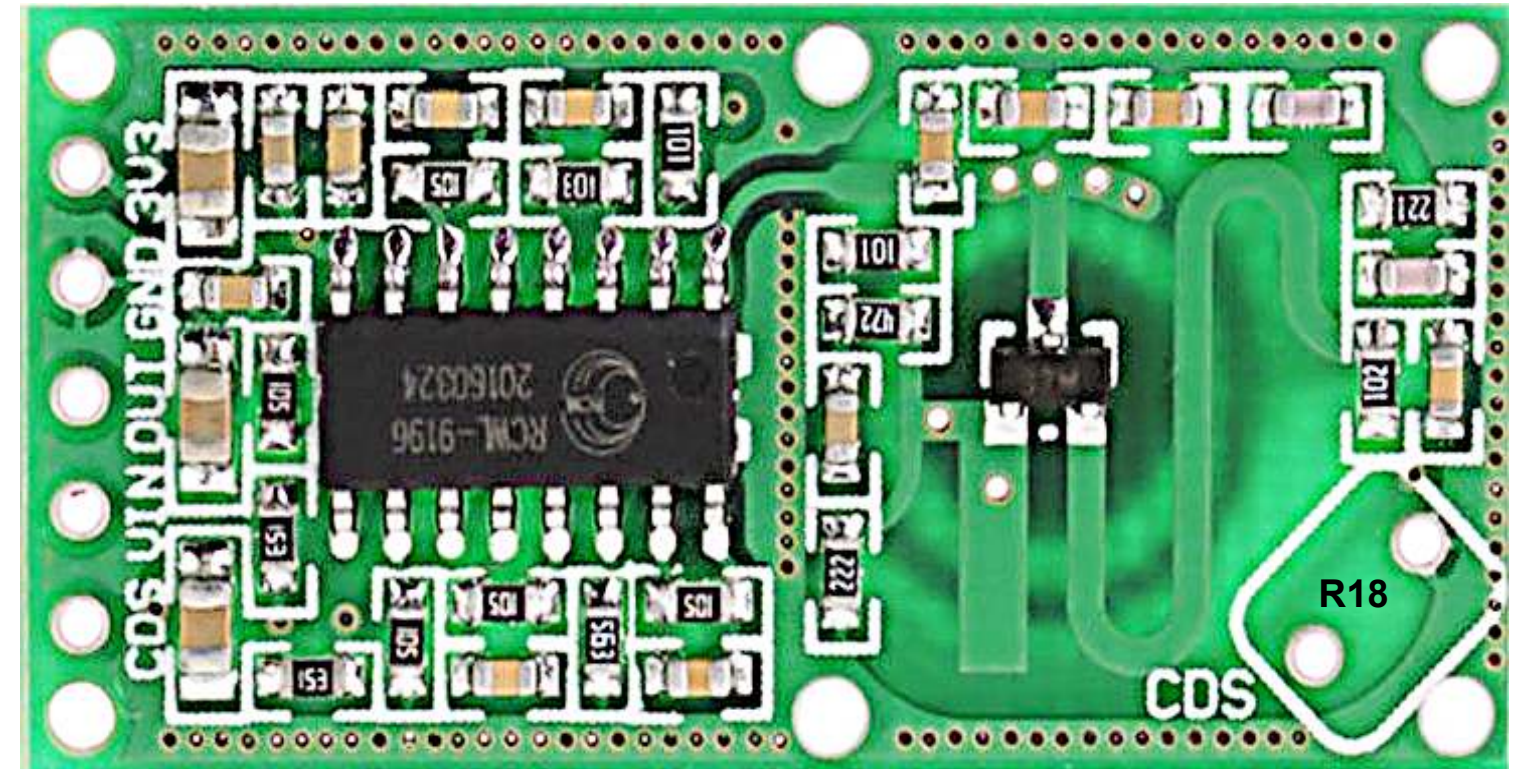
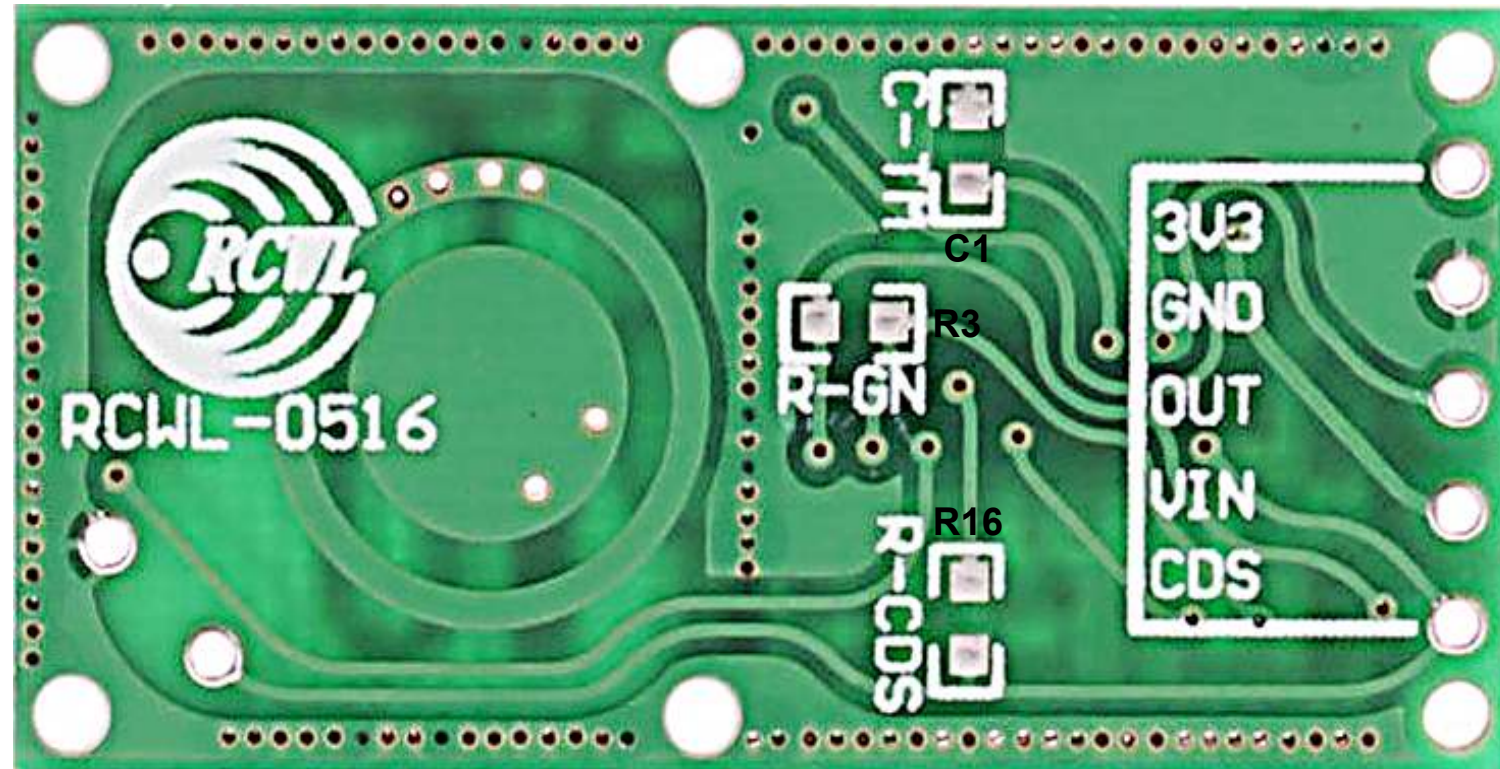
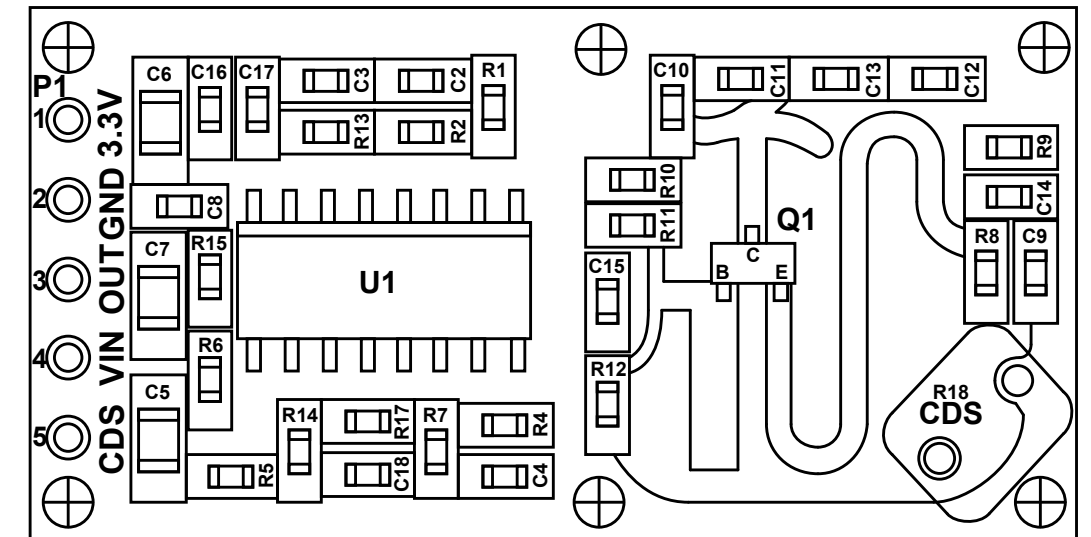


1. All capacitor values in uF, all resistor values in ohms.
2. R5 and R6 on boards in hand are 22K, 15K in images from web.
3. Parasitic capacitances around Q1 not shown.

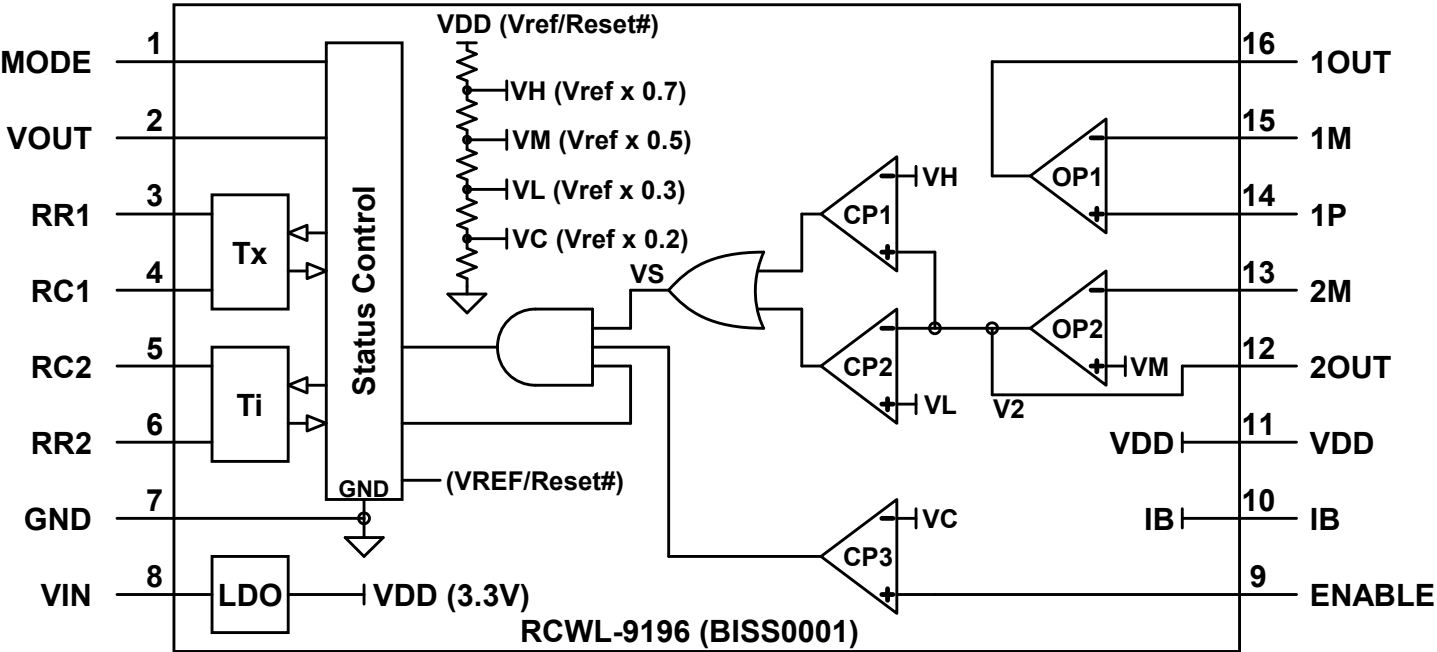
RESISTOR VALUES IN OHMS, ALL CAPACITOR VALUES IN uF, ALL RESISTOR VALUES IN OHMS.  
R6 ON BOARDS IN HAND ARE 22K, 15K IN IMAGES FROM WEB.  
PARASITIC CAPACITANCES AROUND Q1 NOT SHOWN.

The schematic diagram illustrates a 3.3V LDO regulator circuit using the RCWL-9196 IC. The circuit is powered by a 3.3V supply and a 4-28V input. The IC is configured with various resistors (R1-R18) and capacitors (C1-C18). The output is connected to an antenna through a matching network (R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18). The circuit is powered by a 3.3V supply and a 4-28V input.



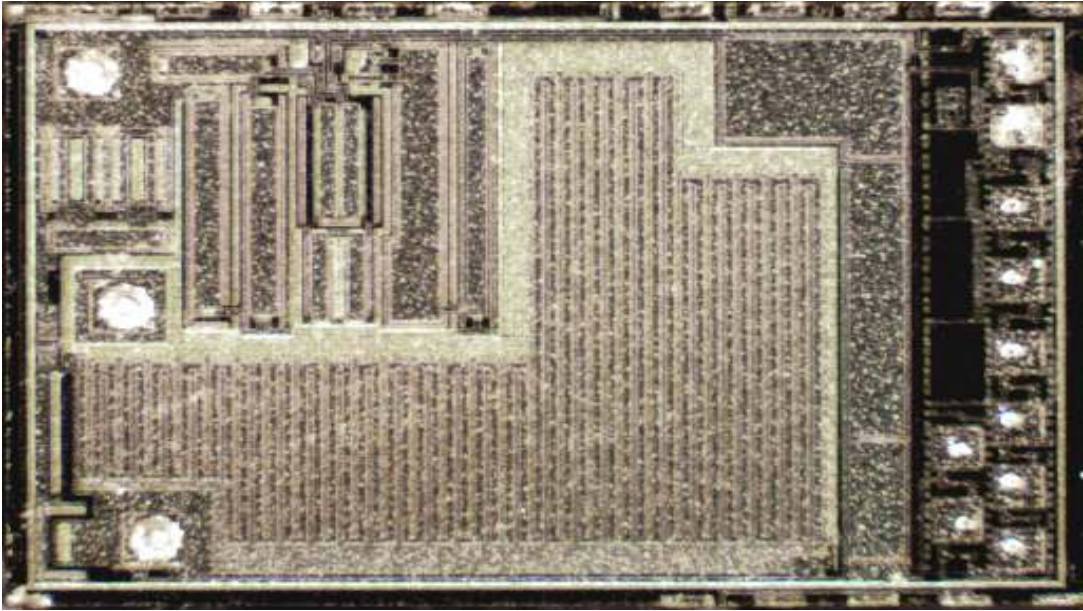
|                   |  |            |                                                       |               |                                   |                 |
|-------------------|--|------------|-------------------------------------------------------|---------------|-----------------------------------|-----------------|
| APPROVALS         |  | DATE       | TITLE                                                 |               |                                   |                 |
| DRAWN<br>J TAYLOR |  | 2017/01/01 | RCWL-0516 3.2GHz motion detector<br>(U1 is RCWL-9196) |               |                                   |                 |
| CHECKED           |  |            |                                                       |               |                                   |                 |
| ENGINEER          |  |            |                                                       |               |                                   |                 |
| PROJ ENGINEER     |  |            | SIZE<br>B                                             | FSCM NO.      | DRAWING NO.<br>0242               | REV.<br>-       |
| APPROVED          |  |            |                                                       |               |                                   |                 |
| QA                |  |            | SCALE<br>NONE                                         | © 2018<br>TES | MODIFIED: 01/07/18<br>11:28:58 AM | SHEET<br>1 OF 3 |

| REVISION HISTORY |             |          |      |
|------------------|-------------|----------|------|
| REV              | DESCRIPTION | APPROVED | DATE |
|                  |             |          |      |



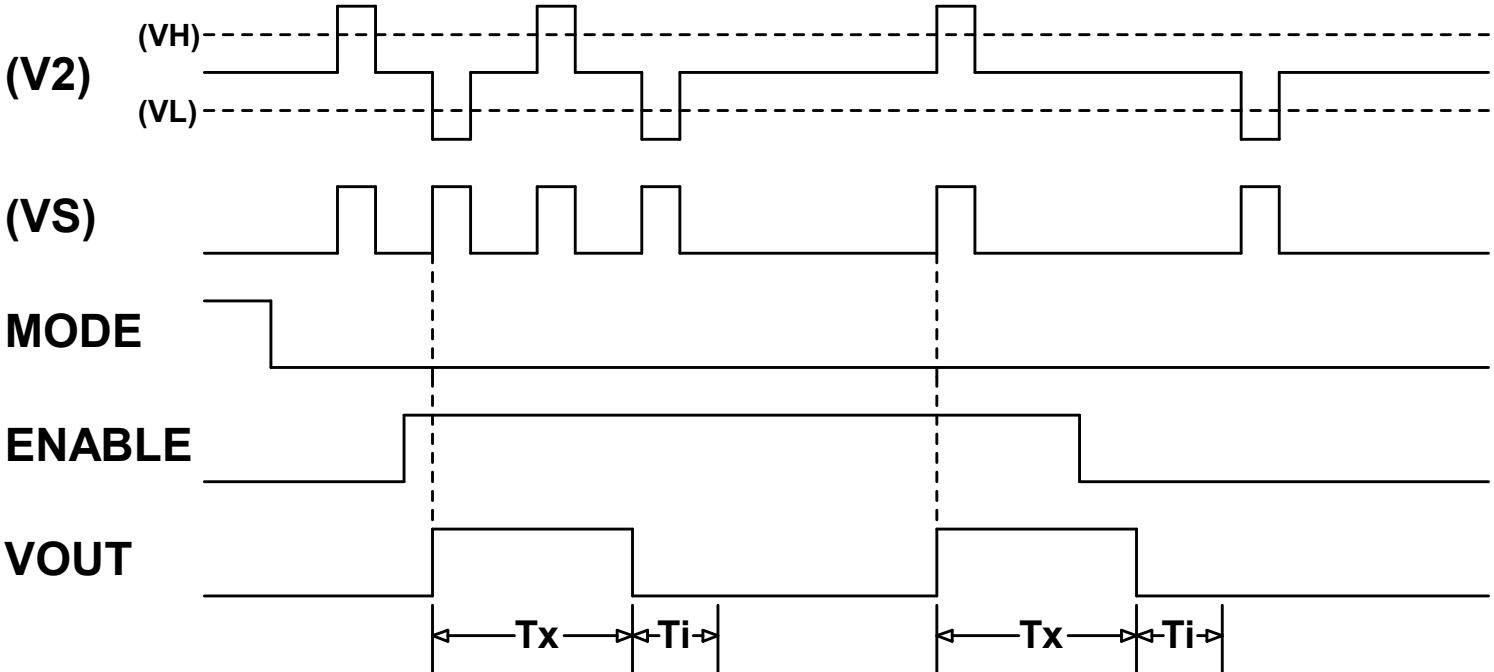
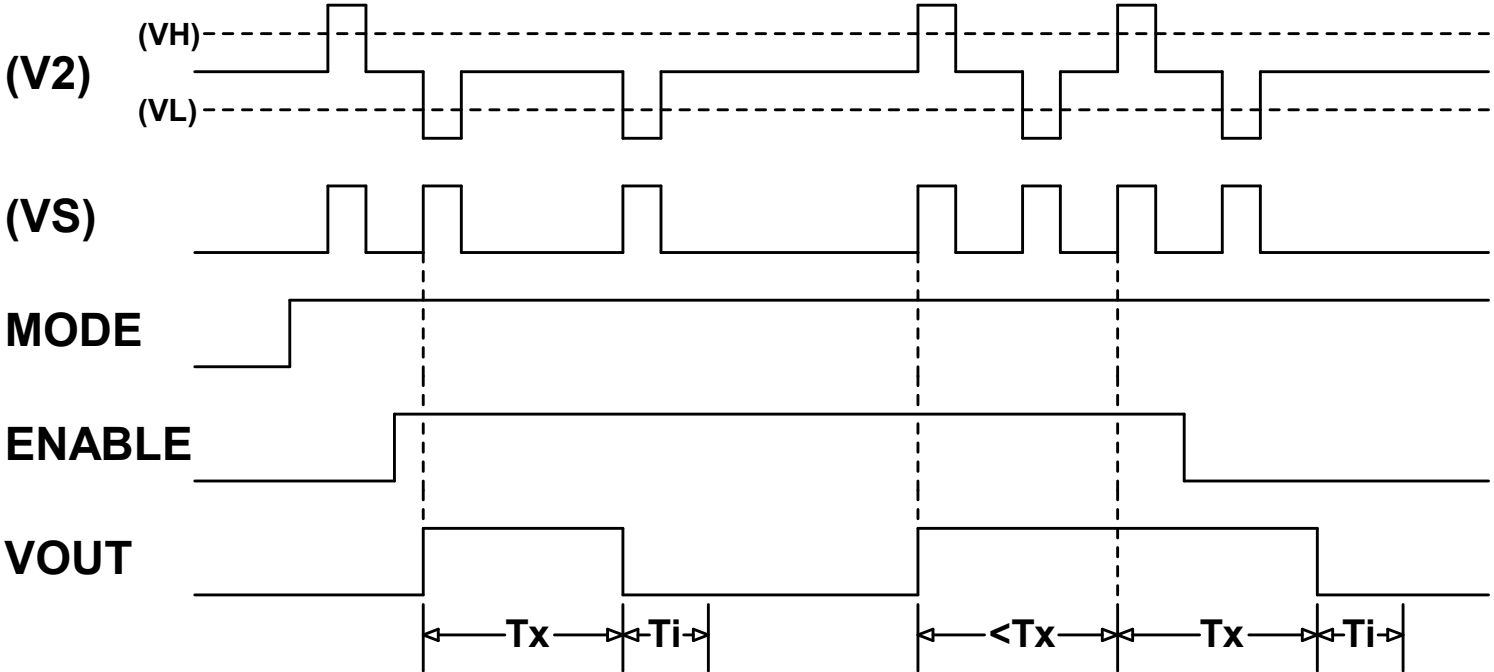
Notes

- 1. BISS0001: 8 is Vref/Reset# and 11 is VDD in (3-5V)
- 2. MODE: 1 = Re-triggerable, 0 = Non Re-triggerable
- 3. IB: Op-amp input bias current setting
- 4. Tx: Time VOUT remains high after triggering,  $\sim 24576 \times R \times C$
- 5. Ti: During this time period, triggering is inhibited,  $\sim 24 \times R \times C$



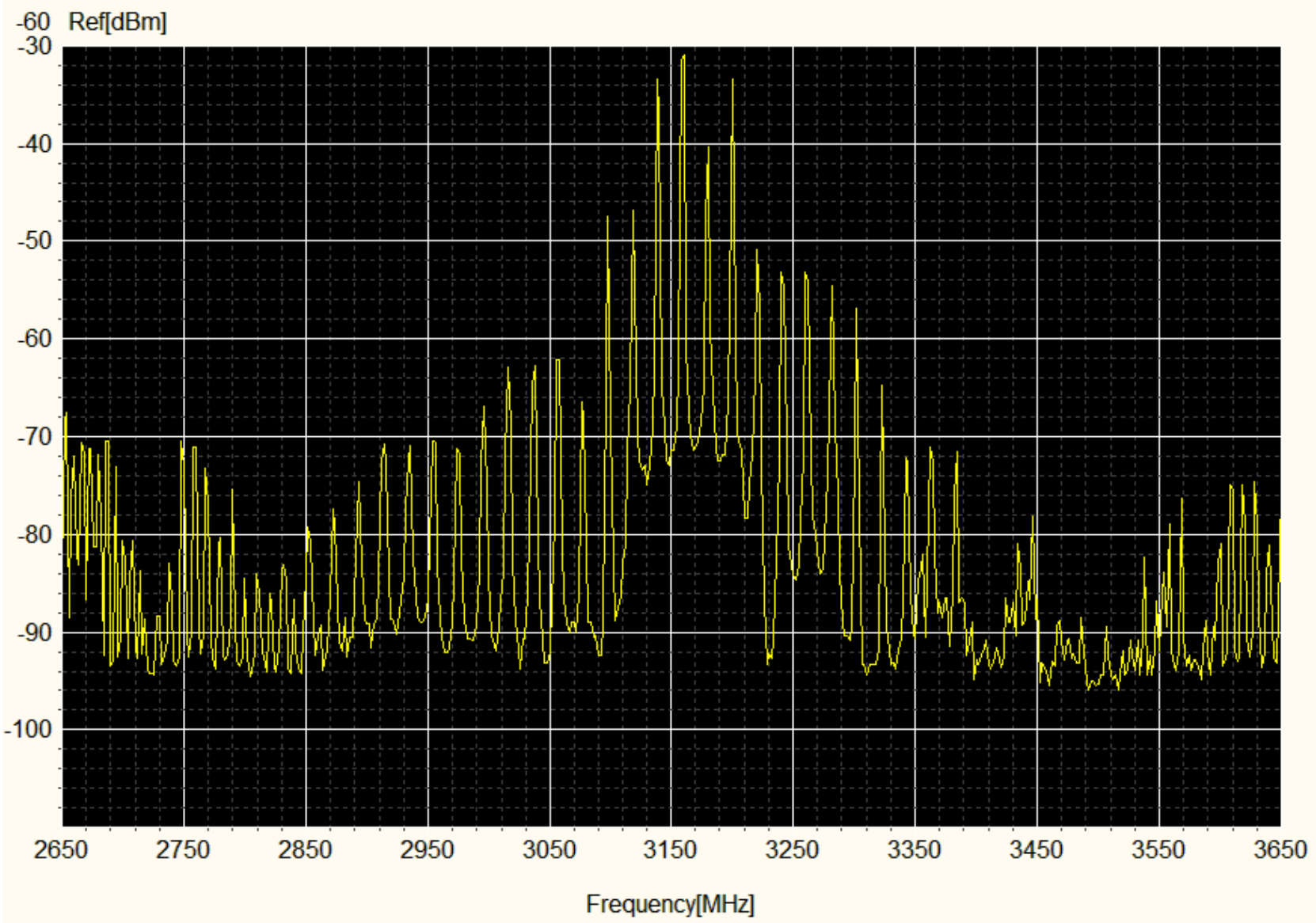
MODE = 1 = Retriggerable

MODE = 0 = Non-Retriggerable

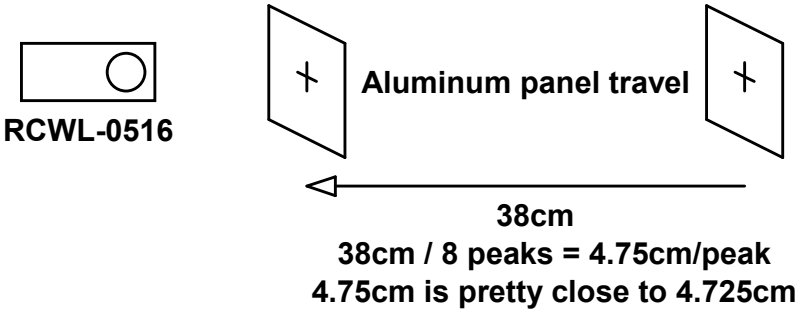
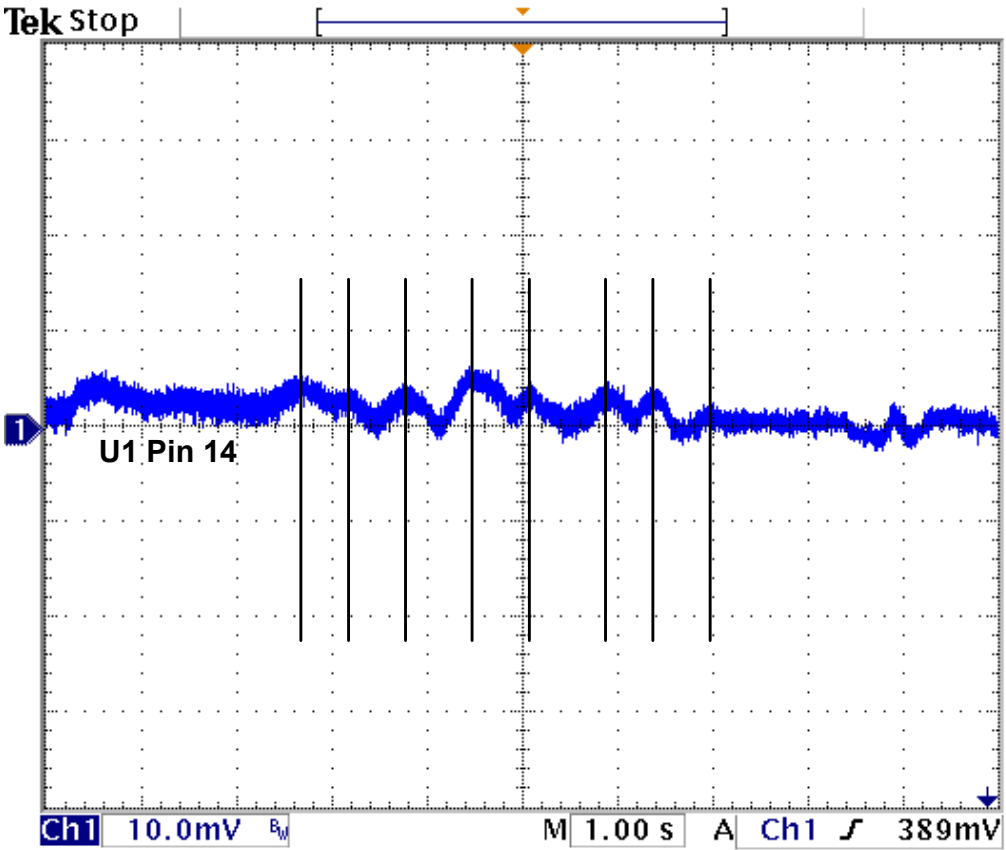


| APPROVALS     |          | DATE       | TITLE                                                 |                                |             |        |
|---------------|----------|------------|-------------------------------------------------------|--------------------------------|-------------|--------|
| DRAWN         | J TAYLOR | 2017/01/01 | RCWL-0516 3.2GHz motion detector<br>(U1 is RCWL-9196) |                                |             |        |
| CHECKED       |          |            |                                                       |                                |             |        |
| ENGINEER      |          |            |                                                       |                                |             |        |
| PROJ ENGINEER |          |            |                                                       |                                |             |        |
| APPROVED      |          |            | SIZE                                                  | FSCM NO.                       | DRAWING NO. | REV.   |
| QA            |          |            | B                                                     |                                | 0242        | -      |
| SCALE         |          | NONE       | © 2018 TES                                            | MODIFIED: 01/07/18 11:28:58 AM | SHEET       | 2 OF 3 |

| REVISION HISTORY |             |          |      |
|------------------|-------------|----------|------|
| REV              | DESCRIPTION | APPROVED | DATE |
|                  |             |          |      |



↑  
At 3175MHz, wavelength = 9.45cm  
1/2 wavelength = 4.725cm



| APPROVALS     |          | DATE       | TITLE                                                 |          |             |                                |
|---------------|----------|------------|-------------------------------------------------------|----------|-------------|--------------------------------|
| DRAWN         | J TAYLOR | 2017/01/01 | RCWL-0516 3.2GHz motion detector<br>(U1 is RCWL-9196) |          |             |                                |
| CHECKED       |          |            |                                                       |          |             |                                |
| ENGINEER      |          |            |                                                       |          |             |                                |
| PROJ ENGINEER |          |            |                                                       |          |             |                                |
| APPROVED      |          |            | SIZE                                                  | FSCM NO. | DRAWING NO. | REV.                           |
| QA            |          |            | B                                                     |          | 0242        | -                              |
|               |          |            | SCALE                                                 | NONE     | © 2018 TES  | MODIFIED: 01/07/18 11:28:58 AM |
|               |          |            |                                                       |          | SHEET       | 3 OF 3                         |

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