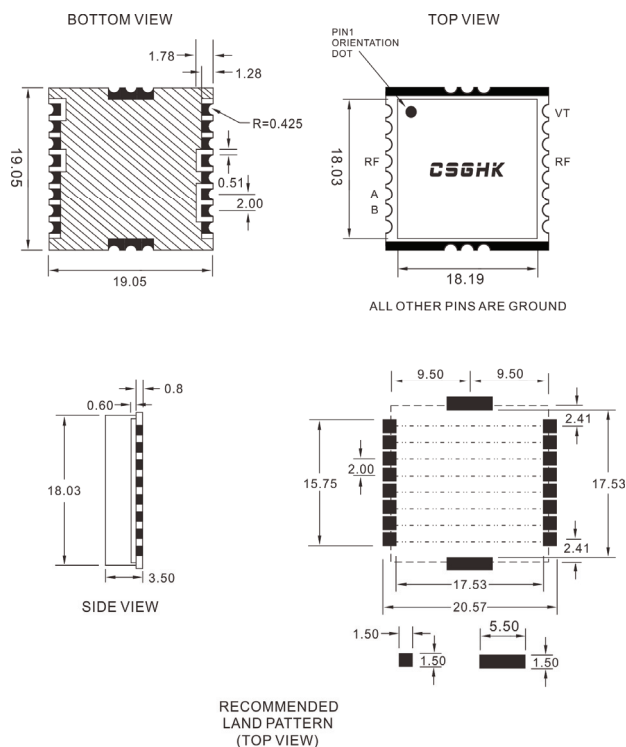
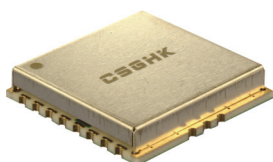


## SURFACE MOUNT MODEL TUNABLE BANDPASS FILTERS

Frequency 108-410MHz

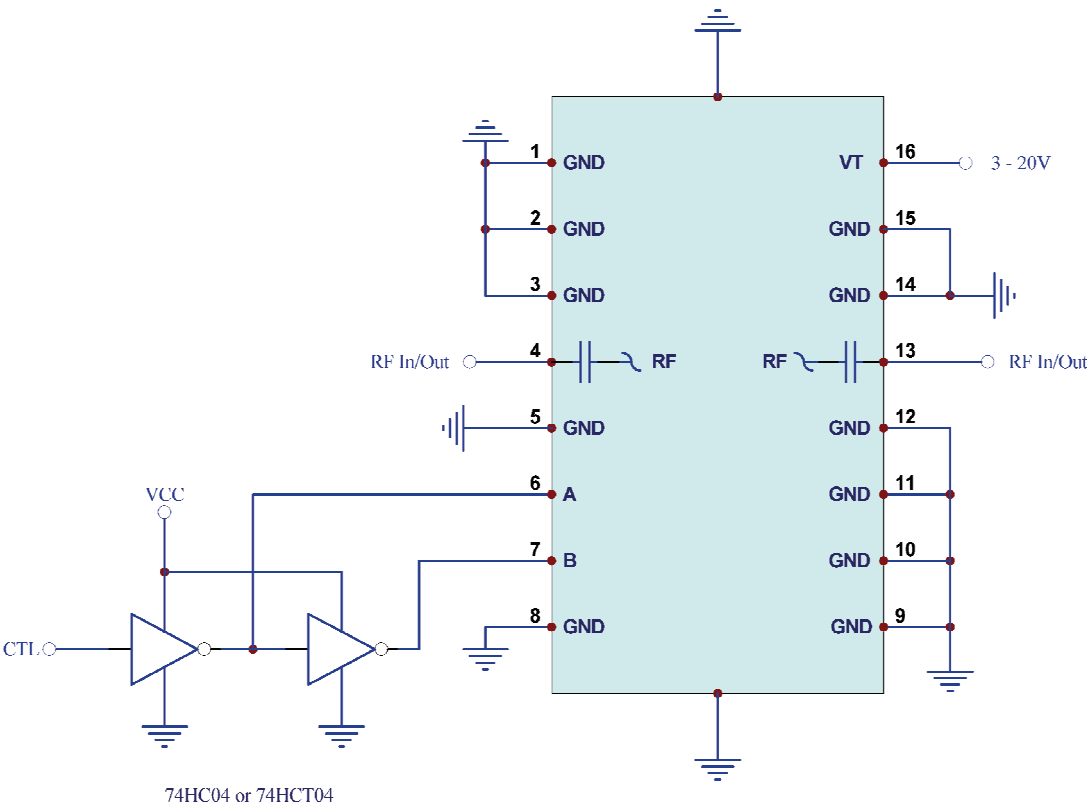
S108410M



### Electrical Specifications, $T_A = +25^{\circ}\text{C}$ .

| Parameter                       | Min               | Typ | Max | Units                   |
|---------------------------------|-------------------|-----|-----|-------------------------|
| RF1 Frequency Coverage          | 108               |     | 230 | MHz                     |
| RF2 Frequency Coverage          | 220               |     | 410 | MHz                     |
| Tuning Voltage (V)              | 3.0               |     | 20  | Vdc                     |
| Inband RF Power Handling        |                   | 0   | 2   | dBm                     |
| Insertion Loss                  | 2.5               | 3.5 | 4.5 | dB                      |
| Percent Bandwidth(3dB)          | 9                 | 10  | 11  | %                       |
| RF1 Shape Factor (30 dB / 3 dB) | 6.5               | 7.0 | 7.5 |                         |
| RF2 Shape Factor (30 dB / 3 dB) | 6.0               | 6.5 | 7.0 |                         |
| Inband Input/Output VSWR        |                   | 1.5 | 2.0 |                         |
| Input/Output Impedance          |                   | 50  |     | $\Omega$                |
| Center Frequency Drift          |                   | 120 |     | PPM/ $^{\circ}\text{C}$ |
| Operating Temperature Range     | -40               |     | +85 | $^{\circ}\text{C}$      |
| Size                            | 19.05x19.05x3.5mm |     |     |                         |

Typical Application Circuit



Truth Table

\*Control Input Voltage Tolerances are  $\pm 0.2$  Vdc.

| Control Input* |            | Control Current |            | Signal Path State      |                        |
|----------------|------------|-----------------|------------|------------------------|------------------------|
| A<br>(Vdc)     | B<br>(Vdc) | Ia<br>(uA)      | Ib<br>(uA) | RF toRF1<br>108-230MHz | RF toRF2<br>220-410MHz |
| 0              | +3         | -0.05           | +0.05      | ON                     | OFF                    |
| +3             | 0          | +0.05           | -0.05      | OFF                    | ON                     |
| 0              | +5         | -2              | +2         | ON                     | OFF                    |
| +5             | 0          | +2              | -2         | OFF                    | ON                     |
| 0              | +7         | -15             | +15        | ON                     | OFF                    |
| +7             | 0          | +15             | -15        | OFF                    | ON                     |

