

## 1. Scope.

This specification applied to SV1212-3750R5V100M

## 2. Ratings

|   | ITEM                  | SYMBOL | RATING     | UNIT |
|---|-----------------------|--------|------------|------|
| 1 | Supply Voltage        | Vcc    | 5±0.25     | V    |
| 2 | Tuning Voltage        | Vt     | 0.5 ~ 4.5  | V    |
| 3 | Operating Temperature | Top    | -20 ~ +60  | °C   |
| 4 | Storage Temperature   | Tstg   | -50 ~ +100 | °C   |
| 5 | Storage Humidity      | Hstg   | 0 ~ 95%    | %    |

## 3. Electrical Characteristics

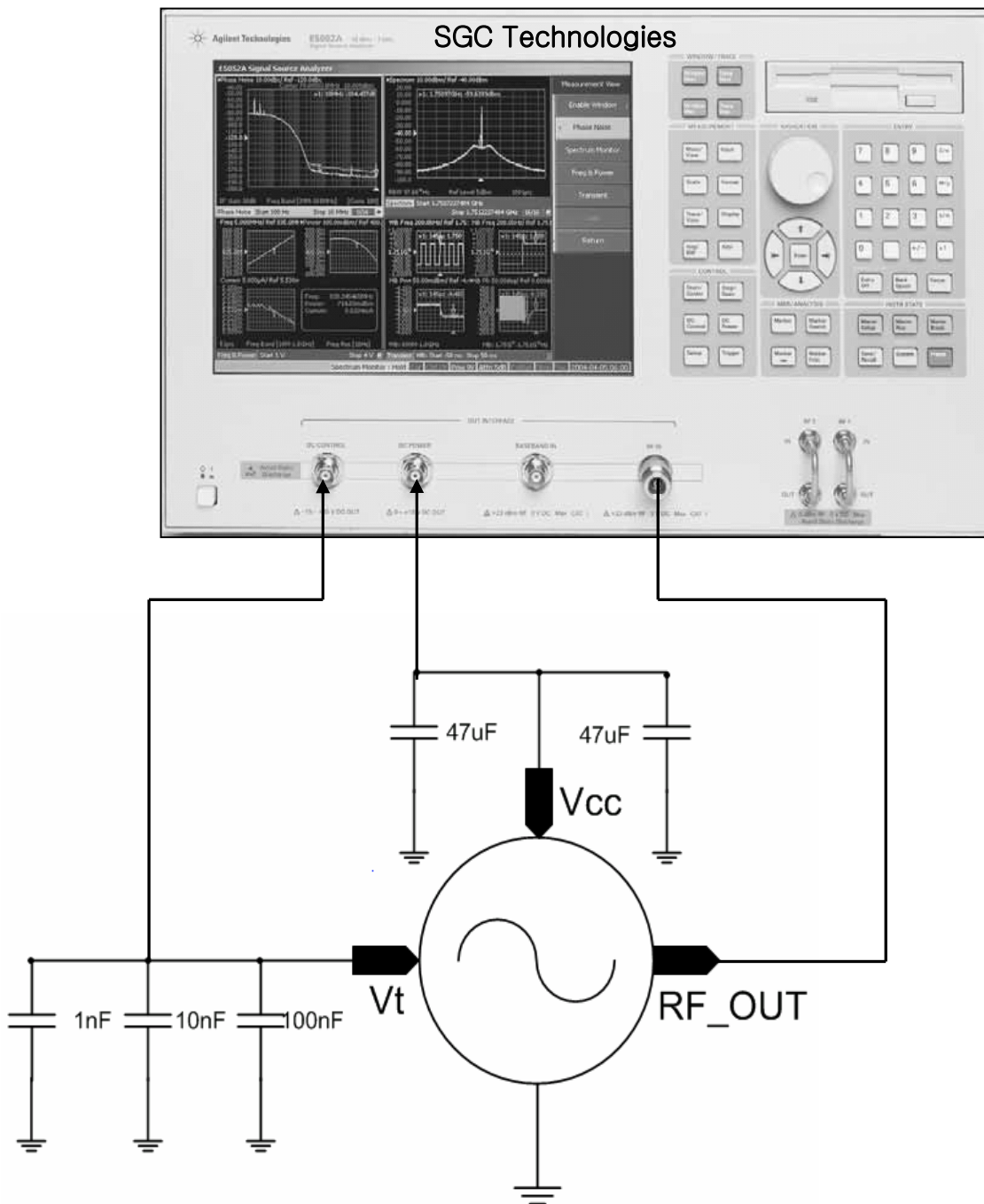
(Over output frequency range, T<sub>A</sub> -20 to +60 °C, Vcc=5.0V, Output load 50Ω, Unless otherwise stated)

| ITEM                     | SPEC. |      |      | UNIT   | Test conditions                                   |
|--------------------------|-------|------|------|--------|---|
|                          | Min   | Typ  | Max  |        |   |
| Supply Voltage           |       | 5    |      | V      | DC Voltage  |
| Frequency                |       |      | 3700 | MHz    | Vcc = 5.0V, Vt = 0.5V                             |
|                          | 3800  |      |      |        | Vcc = 5.0V, Vt = 4.5V                             |
| Current                  |       | 25   | 30   | mA     | Vcc = 5.0V, Vt = 2.5V                             |
| Output Level             | 0     | 3    | 6    | dBm    | Vcc = 5.0V, Vt = 0.5V ~ 4.5V                      |
| Phase Noise (C/N)        |       | -78  | -75  | dBc/Hz | 1kHz offset, Vcc=5.0V, Vt =2.5V                   |
|                          |       | -98  | -95  | dBc/Hz | 10kHz offset, Vcc=5.0V, Vt =2.5V                  |
|                          |       | -118 | -115 | dBc/Hz | 100kHz offset, Vcc=5.0V, Vt =2.5V                 |
|                          |       | -    | -    | dBc/Hz | 1MHz offset, Vcc=5.0V, Vt =2.5V                   |
|                          |       | -    | -    | dBc/Hz | 10MHz offset, Vcc=5.0V, Vt =2.5V                  |
| 2 <sup>nd</sup> Harmonic |       | -15  | -10  | dBc    | Vcc = 5.0V, Vt = 2.5V                             |
| Tuning Sensitivity       |       | 30   |      | MHz/V  | Vt = 0.5V ~ 4.5V                                  |
| Pulling                  |       | <1   |      | MHz    | Vcc = 5.0V, Vt = 2.5V<br>VSWR = 1.5 : 1 All phase |
| Pushing                  |       | <1   |      | MHz    | Vcc = 5.0V ±0.25V, Vt= 2.5V                       |
| Input Capacitance        |       | 47   |      | pF     |   |

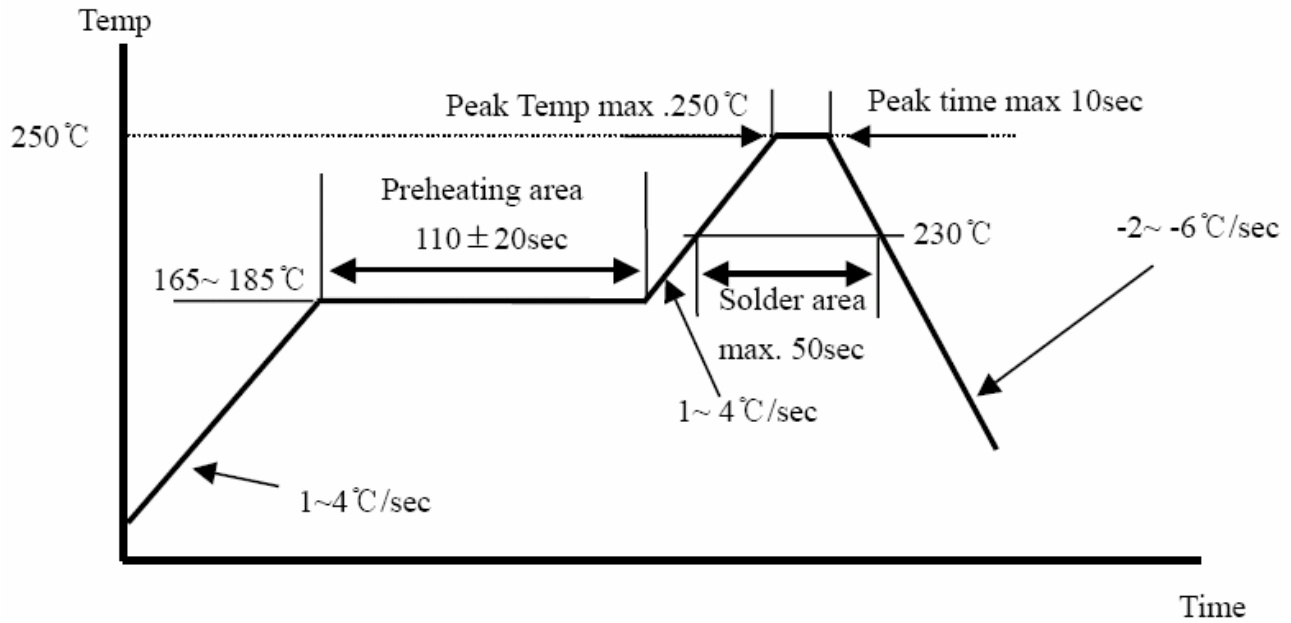
Testing temperature at 25±5 °C

#### 4. Measurement Circuit

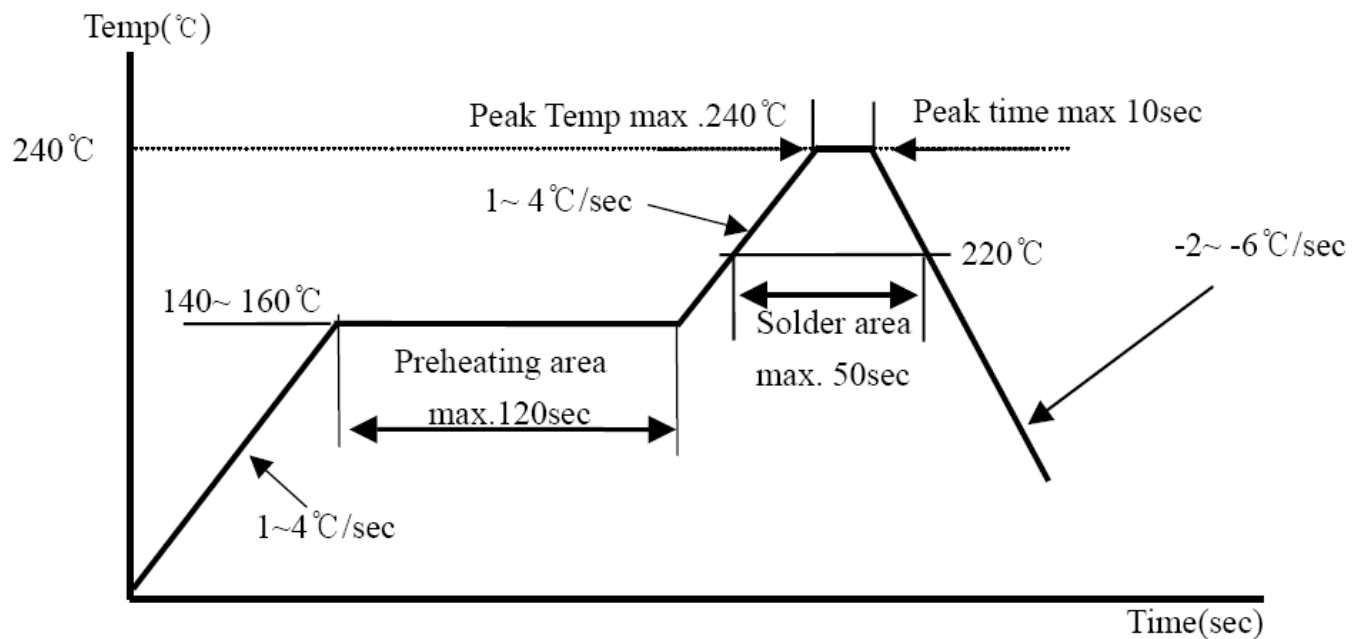
### Test Equipment : Agilent E5052A or 4352B



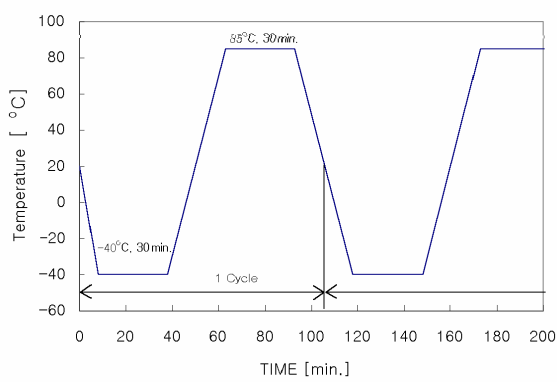
### 5. Recommendable Reflow Soldering Profile (Pb - Free)



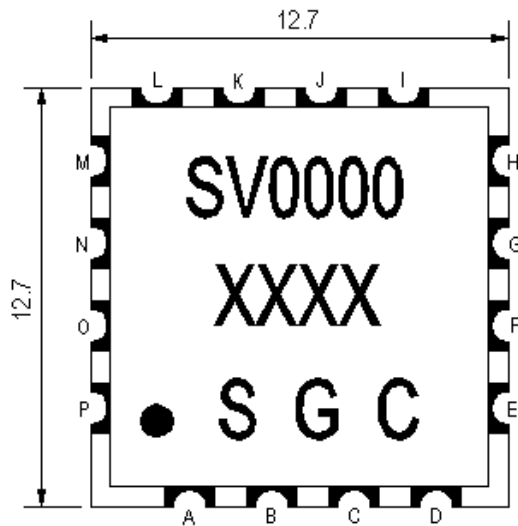
### 6. Recommendable Reflow Soldering Profile (Sn : Pb = 63:37))



## 7. Environmental Requirement

| No | ITEM                             | Condition and Method   | Evaluation  |
|----|----------------------------------|--|---|
| 1  | High Temperature Test            | Temp. : +85°C ± 2°C<br>Time : 96hrs ± 2hrs<br>When measured after 2 to 24 hours in normal condition  | It shall be satisfied electrical requirement, and not be mechanical damage. |
| 2  | Low Temperature Test             | Temp. : -40°C ± 2°C<br>Time : 96hrs ± 2hrs<br>When measured after 2 to 24 hours in normal condition  |   |
| 3  | High Temperature & High Humidity | Temp. : +60°C ± 2°C<br>Humi. : 90~95%RH<br>Time : 72hrs ± 2hrs<br>When measured after 2 to 24 hours in normal condition  |   |
| 4  | Temperature Cycle                |  <p>-40°C 30min., +85°C 30min., 5 Cycle<br/>                     When measured after 2 to 24 hours in normal condition</p> |   |
| 5  | Vibration Test                   | Freq. : 10 ~ 30Hz, Amplitude : 1.52mm<br>Freq. : 30~60Hz, 6G<br>Cycle : 20 min. / Cycle<br>Position : Three perpendicular planes.  |   |
| 6  | Shock Test                       | Height : 75cm<br>Times : 3<br>Method : Dropped onto wood surface   |   |

### 8. Mechanical Characteristics



### TITLE OF TERMINAL

A,C,D,E,F,G,H,I,K,L,M,O,P : Ground

N : Power Supply

J : Output Power

B : Control Voltage

\* Unit : mm

