



RFM Integrated Device, Inc.

## PRODUCT SPECIFICATION

Part Number: CDR2008

DR Filter, Sub 6G/ 5th G, 3570  
MHz, BW 100, IL 1.5

ELECTRICAL CHARACTERISTICS:

This filter satisfies Table 1 at Temperature Range : -40 to

+85°C CENTER FREQUENCY :fo=3750 MHz

PASSBAND WIDTH :3700~3800 MHz

INPUT/OUTPUT IMPEDANCE :50Ω

Max. INPUT POWER : 10 W



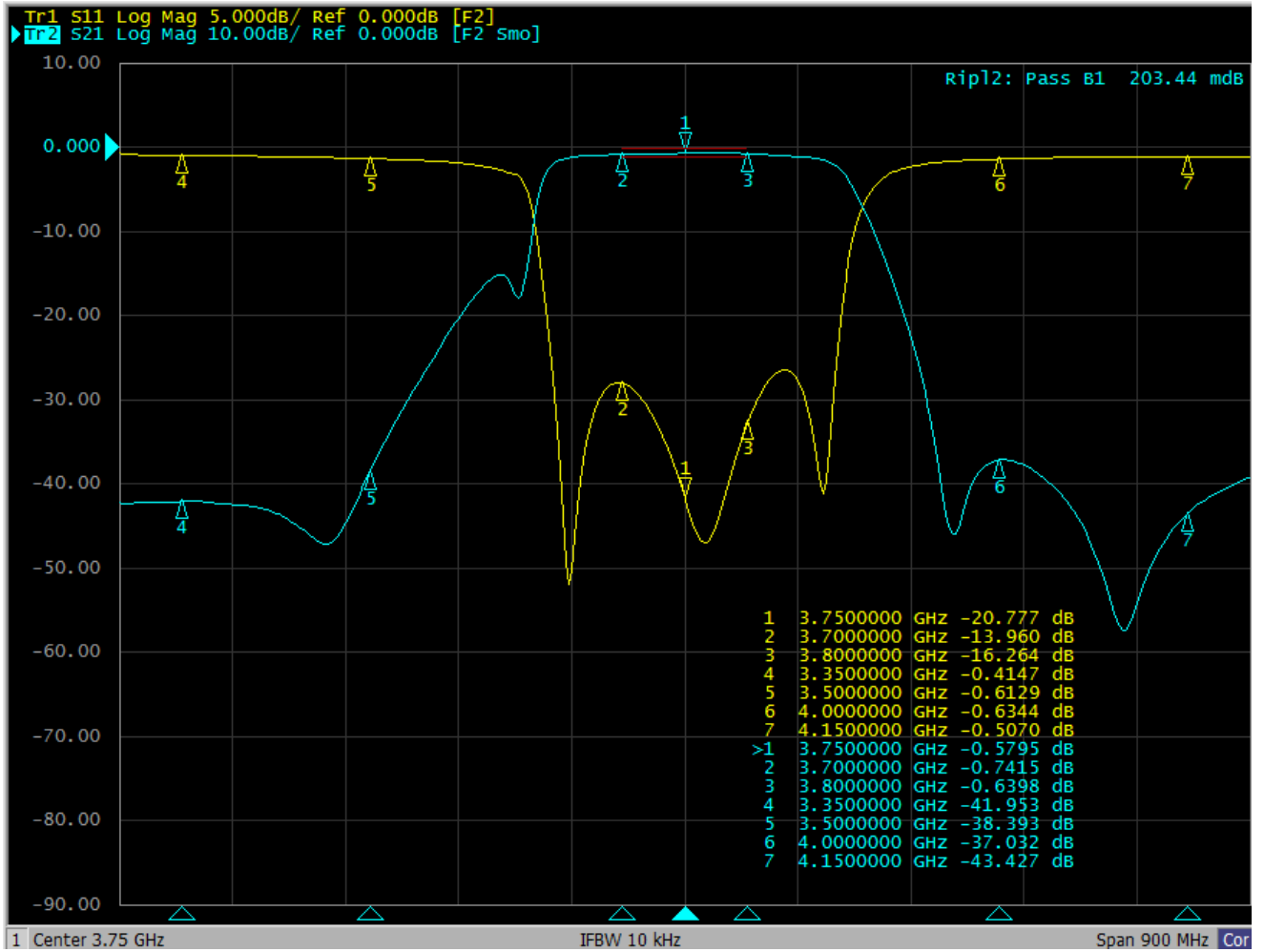
Moisture Sensitivity Level: MSL2a

TABLE 1

| NO.                                                    | ITEM                     |                  | SPECIFICATION |        |
|--------------------------------------------------------|--------------------------|------------------|---------------|--------|
|                                                        |                          |                  | Min           | Max    |
| 1                                                      | PASS BAND INSERTION LOSS |                  |               | 1.5 dB |
| 2                                                      | PASS BAND RIPPLE         |                  |               | 1.0 dB |
| 3                                                      | PASS BAND RETURN LOSS    |                  | 10 dB         |        |
| 4                                                      | STOP—BAND ATTENUATION    | at 3350~3500 MHz | 30 dB         |        |
|                                                        |                          | at 4000~4150 MHz | 30 dB         |        |
| Item NO.4 specifies the absolute value of attenuation. |                          |                  |               |        |

**※Data is measured on the manufacturer's EVB board**

## TYPICAL ELECTRICAL CHARACTERISTICS



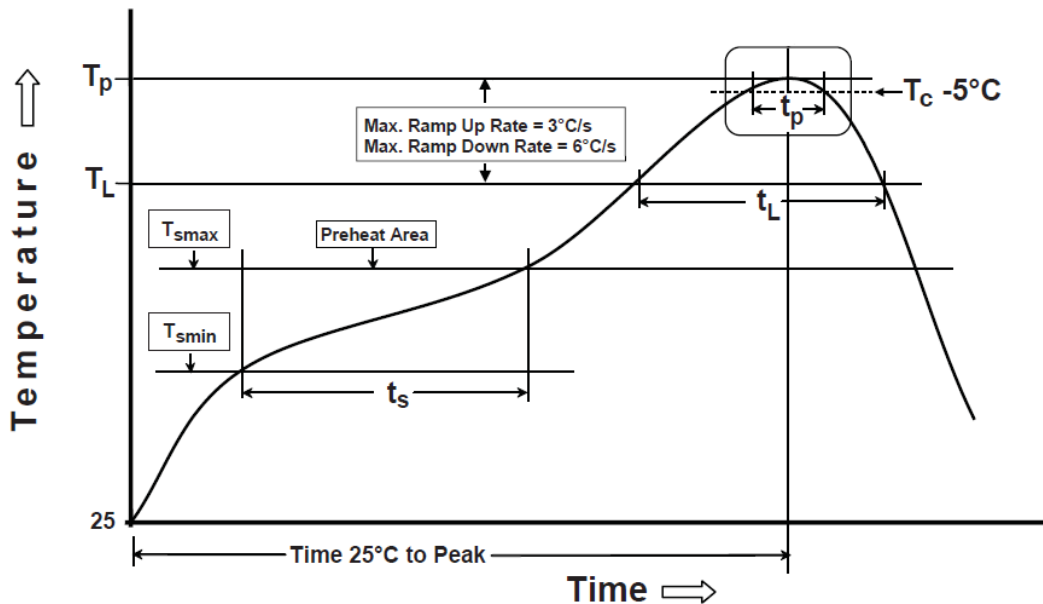
## 2. Recommended Reflow Soldering Profile

The products can be assembled following Pb-free assembly. According to the Standard **IPC/ JEDEC J-STD-020C**, the temperature profile suggested is as follow:

| Phase                              | Profile features                                                                                                     | Pb-Free Assembly (SnAgCu)        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| PREHEAT                            | -Temperature Min( $T_{smin}$ )<br>-Temperature Max( $T_{smax}$ )<br>-Time( $t_s$ ) form ( $T_{smin}$ to $T_{smax}$ ) | 150°C<br>200°C<br>60-120 seconds |
| RAMP-UP                            | Avg. Ramp-up Rate ( $T_{smax}$ to TP)                                                                                | 3°C/second(max)                  |
| REFLOW                             | -Temperature( $T_L$ )<br>-Total Time above $T_L$ ( $t_L$ )                                                           | 217°C<br>30-100 seconds          |
| PEAK                               | -Temperature( $T_P$ )<br>-Time( $t_p$ )                                                                              | 260°C<br>3 second                |
| RAMP-DOWN                          | Rate                                                                                                                 | 6°C / second max.                |
| Time from 25°C to Peak Temperature |                                                                                                                      | 8 minutes max.                   |
| Composition of solder paste        |                                                                                                                      | 96.5Sn/3Ag/0.5Cu                 |
| Solder Paste Model                 |                                                                                                                      | SHENMAO PF606-P26                |

Note : All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens



### Soldering With Iron:

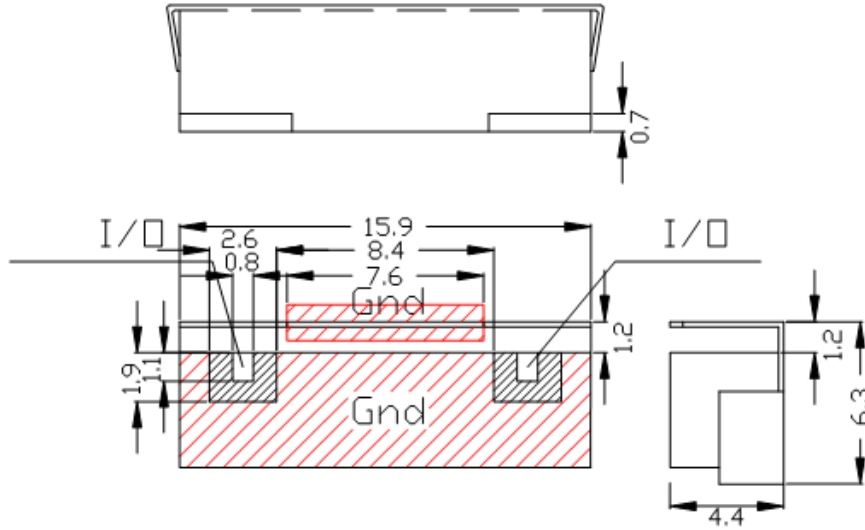
Soldering condition : Soldering iron temperature  $270 \pm 10$  °C.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270 \pm 10$  °C or 3 seconds, it will make component surface peeling or damage.

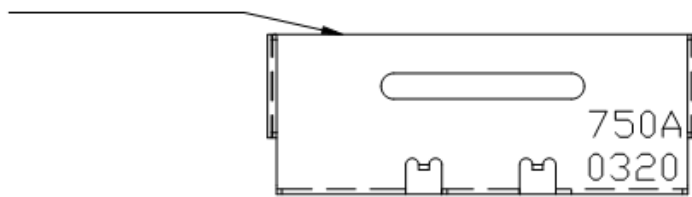
Soldering iron can not leakage of electricity.

### 3.DIMENSION AND PCB LAYOUT

#### 3-1 SHAPE AND DIMENSION



Case Material: Copper Nickel Alloy



Unit:mm  
Tolerance:±0.3

I/O: Input / Output  
Gnd:Ground

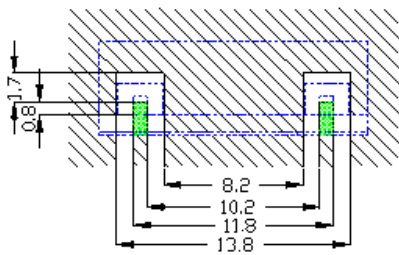
C: Company Code  
750A: product name(J3750A)  
0320: month/year(03/2020)  
Color: Black

### 3-2 PCB RECOMMENDED PATTERN FOR FILTER

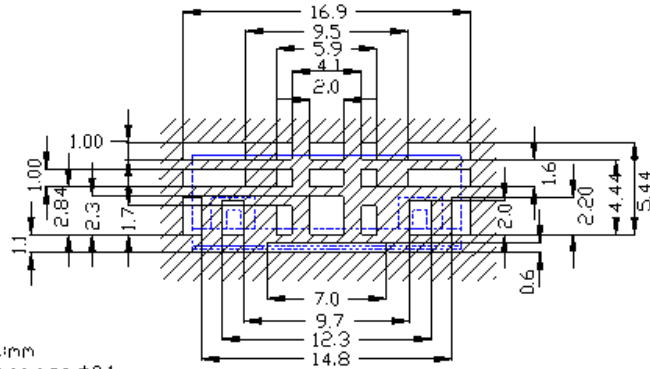
Note: Test PCB material: FR4 4.6, 1.0mm.

The filter use limit: the layout goes away PCB edge.


3-2-1  
Conductive Material Patten





3-2-2  
Solder resist Patten



Unit:mm  
Tolerance:±0.1

 Conductive Material:  
Ground,connected to  
lower ground diameter of  
0.3mm and max.distance  
of3.0mm.

 I/D Pads must be  
connected to lineswith  
50Ω impedance.  
in the application o  
termination of 50Ω  
must be realized.

 covered with solder  
resist.