

# RFM Integrated Device, Inc.

# PRODUCT SPECIFICATION

Part Number: CDR6004

DR Filter, GNSS, 1475 MHz, BW 100, IL 2

#### Halogen Free RoHS Compliant Product

#### ELECTRICAL CHARACTERISTICS

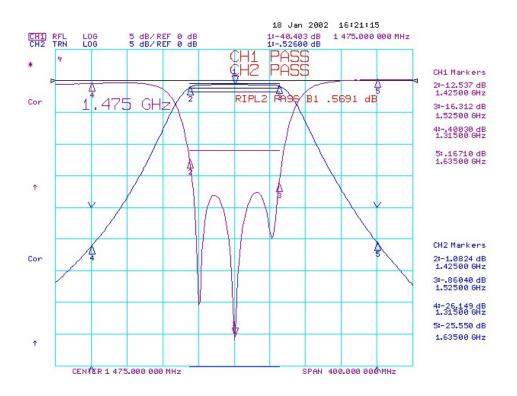
This filter satisfies Table 1 at Temperature Range : -30 to  $+85^{\circ}$ C

CENTER FREQUENCY : fo=1475MHzPASSBAND WIDTH :  $fo \pm 50$  MHz INPUT/OUTPUT IMPEDANCE :  $50 \Omega$ Max. INPUT POWER : 1 W

TABLE 1

NO.	ITEM		SPECIFICATION
1	PASS BAND INSERTION LOSS		2.0 dB or less
2	PASS BAND RIPPLE		1.0 dB or less
3	PASS BAND RETURN LOSS		9.6 dB or more
4	STOP—BAND	at fo-160MHz	19dB or more
	ATTENUATION	at fo+160MHz	19dB or more
Item NO.4 specifies the absolute value of attenuation.			

### ELECTRICAL RESPONSE



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#### 4.RELIABILITY

#### 4-1.STANDARD CONDITION

This standard shall satisfy the condition of Table 1 after the following test 4-2.

#### 4-2.TEST METHOD

The filter shall withstand the following test condition.

4-2-1.Low temperature hold test :-40 $^{\circ}$ C

Unit shall be subjected to the above condition for 10 hours and then be left for more than 2 hours at room temperature.

4-2-2.High temperature hold test:+85°C

Unit shall be subjected to the above condition for 10 hours and then be left for more than 2 hours at room temperature.

4-2-3. Humidity soak test :  $60\pm2^{\circ}$ C,  $90\sim95\%$  relative humidity.

Unit shall be subjected to the above condition for 24 hours and then be left for more than 2 hours at room temperature.

4-2-4. Vibration test

The vibration of 5 G acceleration (Freq. 5 to 500Hz) and the sweep (0.1 octave per minute) are applied in three directions for 2 hours each.

4-2-5.Shock test

A half sine wave shock with a maximum acceleration of 30 G/11 msec. Is applied in six directions at right angles to each other by three times each.

4-2-6.Heat test

After the lead pins of the unit are soaked in solder bath at 270  $\pm 10^{\circ}$ C for 5 seconds and then be left for more than 1 hour at room temperature.

#### 5.OTHER

In case of any problem regarding this specification, both customer and manufacturer shall discuss and solve it.

## 2.SOLDERING CONDITION (RECOMMENDED) SOLDER TEMPERATURE PROFILE (Reflow Soldering) 200 $150\pm10$ $130\pm10$ A/B A/B C C F

A : Preheating Times  $\rightarrow 80 \sim 120$  Sec.B : Preheating Times  $\rightarrow 40 \sim 80$  Sec.C : Soldering Time  $\rightarrow 20 \sim 30$  Sec.D : Top Temp.  $\rightarrow 220\pm10$  °CE : Max. $\rightarrow 10^{\circ}$ C / Sec.F : Max.  $\rightarrow 8^{\circ}$ C / Sec.Composition of Cream Solder : 62Sn / 36Pb / 2AgSoldering with iron

Soldering condition : Soldering iron temperature  $270\pm10$  °C Soldering time less than 3 seconds.

### 3. SHAPE AND DIMENSION

