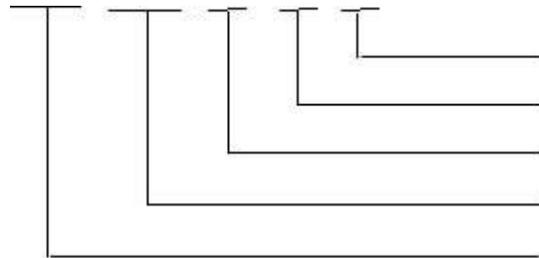


● Introduction

Microwave Dielectric Duplexer filter series are designed to be used in mobile & cordless phones with low insertion loss and high attenuation as well as chip design , which can simplify your complex tuning and circuit design .

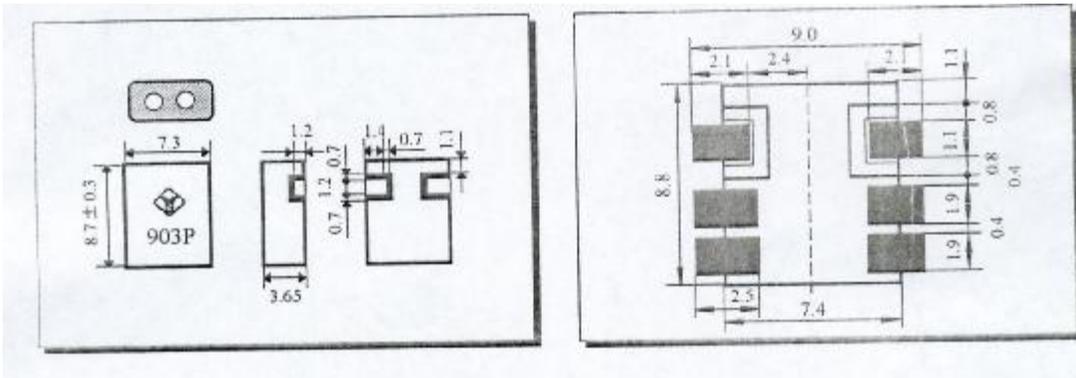
● Part Number

DFC 903 P 02 A



A:  $\lambda/4$ , B:  $\lambda/2$   
 ( MHz ) Bandwidth  
 P: 2 cavity  
 Center Frequency  
 Dielectric Filter chip

● Dimension Unit mm



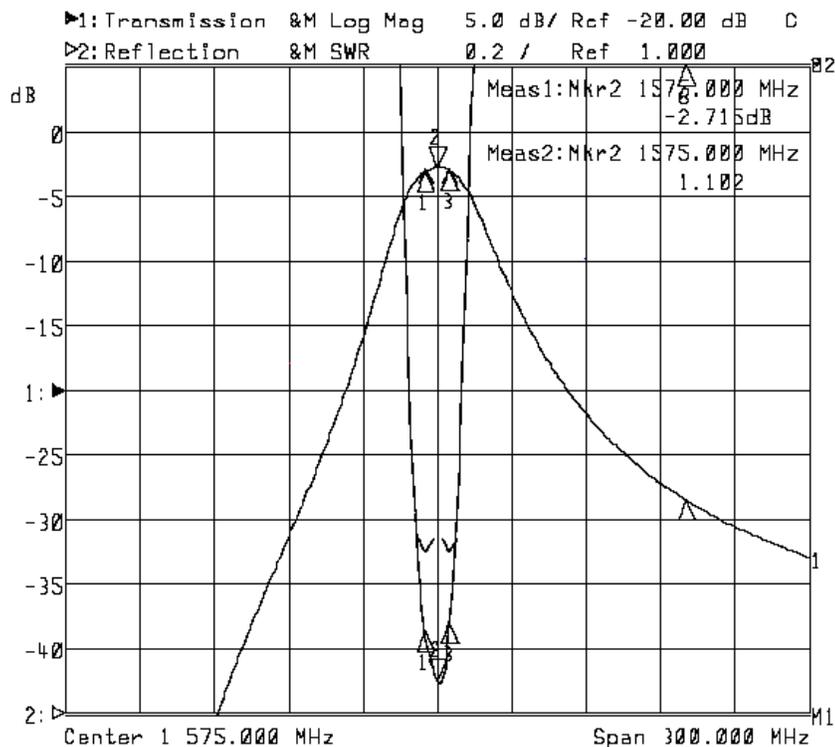
● Structure and Material

NO	Part Name	Structure and material
4.1	Filter	Dielectric material
4.2	Number of pole	2 pole
4.3	In/output Terminals	AgPlated
4.4	Ground Base	AgPlated

● Electrical Characteristics

NO	Item	Specifications	Post Environmental Tolerance
5.1	Center frequency (fo)	903.00 MHz	-/+1.5MHz
5.2	Insertion loss	4.0 dB	-/+0.5 dB
5.3	Band width	fo-/+1.0MHz	-/+0.5 MHz
5.4	Ripple (in BW)	0.5 dB Max.	-/+0.5 dB
5.5	V.S.W.R (in BW)	2.0 Max.	-/+0.5
5.6	Attenuation (Absolute value)	25 (in 927MHz)	-/+2 dB
5.7	Permissible Input power (Max)	1 Watt	
5.8	In/output impedance	50	

● Characteristic curve



- **Environmental specifications**

Post Environmental Tolerance (Refer to the table 2)

Temperature range 25-/+3 °C

Relative Humidity range 55~75%RH

Operating Temperature range -10 °C ~+70 °C

Storage Temperature range -25 °C ~+85 °C

- **Moisture Proof**

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to the temperature 40-/+2 °C and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

- **Vibration Resist**

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

- **Drop Shock**

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

- **High Temperature Endurance**

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to temperature 80-/+5 °C for 24-/+2 hours and 1~2 hours recovery time under normal temperature.

- **Low Temperature Endurance**

The device should also satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to the temperature -25 °C-/+3 °C for 24-/+2 hours and to 2 hours recovery time under normal temperature.

- **Temperature Cycle Test**

The device should also satisfy the electrical characteristics specified in paragraph 5.1~5.6 after exposed to the low temperature -25 °C and high temperature +85 °C for 30-/+2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

- **Solder Heat Proof**

The device should be satisfied after preheating at 120 °C ~150 °C for 60 seconds and dipping in soldering Sn at 260 °C +10 °C for 10-/+0.5 seconds.

- Tensile Strength of Terminal

The device should not be broken after tensile force of 1.0kg is slowly applied to pull a lead pin of the fixed device in the lead axis direction for 10-/+1 seconds.

- Bending Resist Test

Weld the product to the center part of the PCB with the thickness 1.6-/+0.2mm as the illustration shows, and keep exerting force arrow-ward on it at speed of :

1mm/S , and hold for 5-/+1S at the position of 2mm bending distance , so far , any peeling off of the product metal coating should not be detected .

