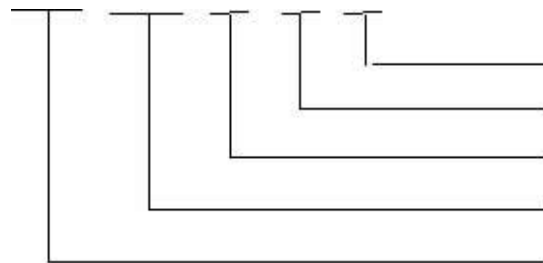


- INTRODUCTION

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 .

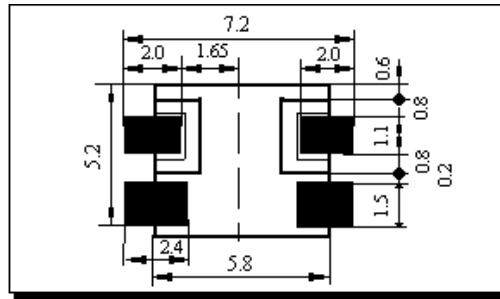
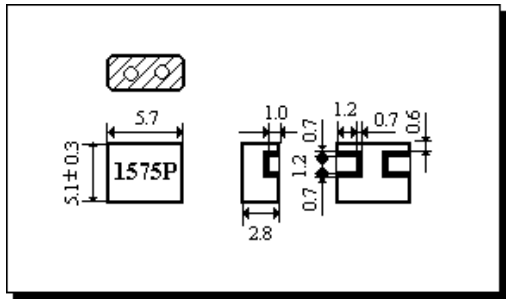
- Part Number

DFC 1575 P 10 A



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

- Dimension Unit mm



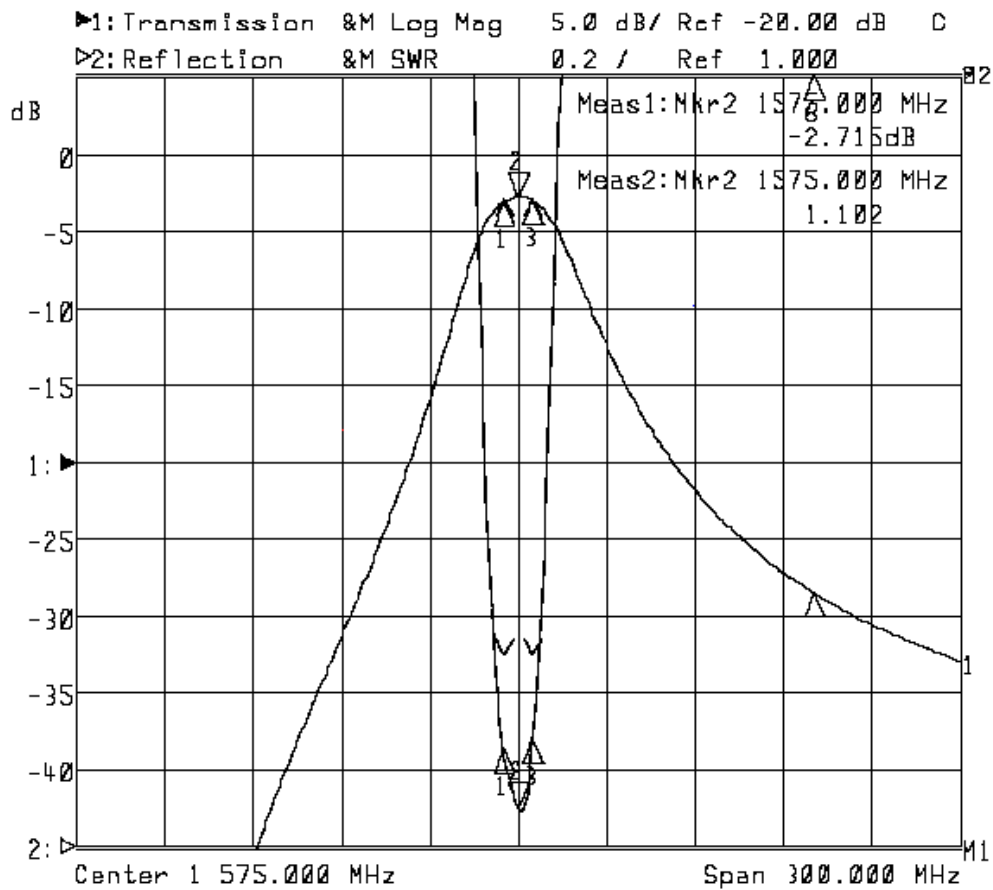
- Structure and Material

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

● Electrical Characteristics

NO	Item	Specifications	PostEnvironmental Tolerance
5.1	Center frequency (fo)	1575.42 \pm 2.0 MHz	\pm 2MHz
5.2	Insertion loss	3.0 dB	\pm 0.5 dB
5.3	Band width	fo \pm 5.0MHz	\pm 0.5 MHz
5.4	Ripple (in BW)	0.5 dB Max.	\pm 0.5 dB
5.5	V.S.W.R (in BW)	1.5 Max.	\pm 0.5
5.6	Attenuation (Absolute value)	25 (fo + 100MHz) 40 (fo - 100MHz)	\pm 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 $80\pm 5^{\circ}\text{C}$ 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 $-25^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 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 $+85^{\circ}\text{C}$ 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 $120^{\circ}\text{C}\sim 150^{\circ}\text{C}$ for 60 seconds and dipping in soldering Sn at $260^{\circ}\text{C}\pm 10^{\circ}\text{C}$ 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 .

