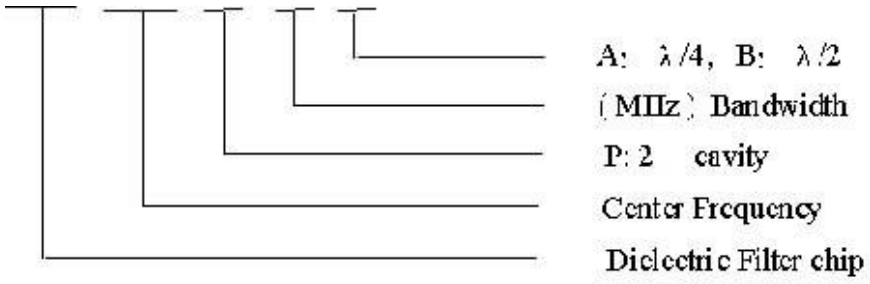
Introduction

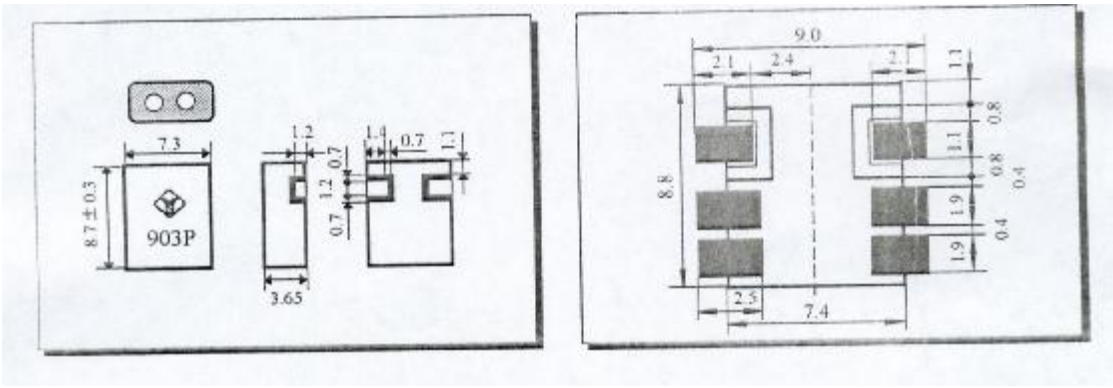
Microwave Dielectric Duplexer filter series are designed to be used in mobile & cordless phones with low insertion loss and high attenuation as well as chip design , which can simplify your complex tunning and circuit design .

Part Number

DFC 903 P 02 A



Dimension Unit mm



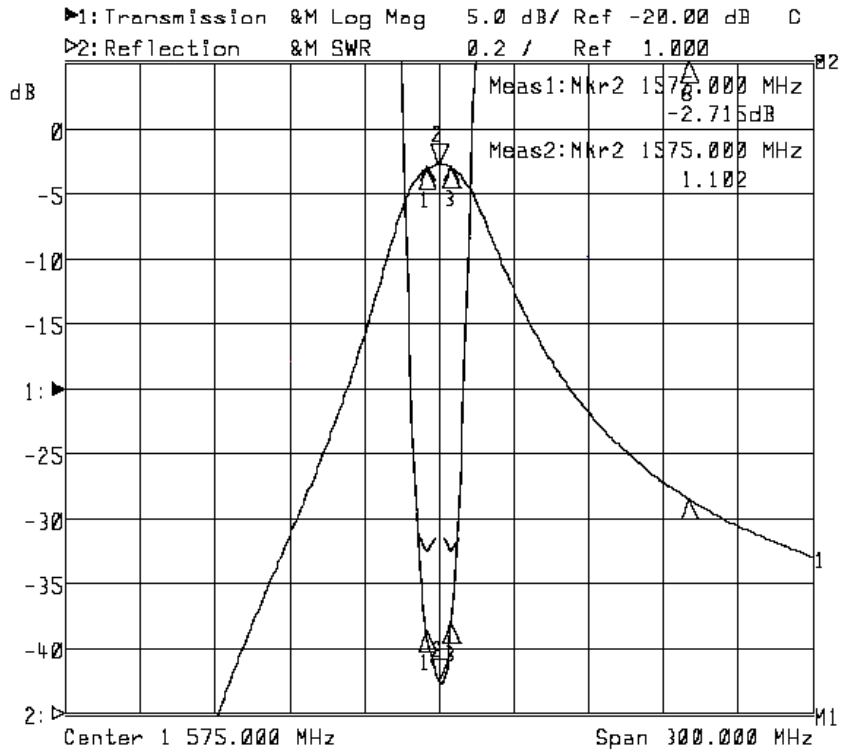
Structure and Material

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 condlition.

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 characteractics 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 .