● 概述 INTRODUTION

微波介质滤波器系列产品设计用于移动和无绳电话机中，具有低的插入损耗，高的衰减和片式设计，能减少复杂的调校工作，可以简化电路设计.

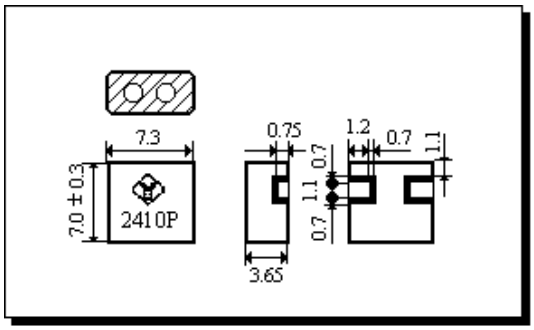
Microwave Dielectric filter series are designed to be used in mobile & cordless phones with low insertion loss and high attenuation as well as chip design , which can simplify your complex tunning and circuit design .

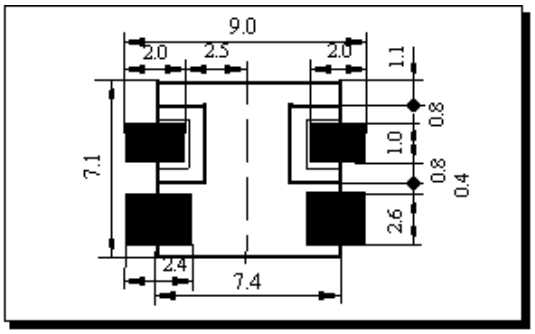
● 型号 Part Number

DFC 2410 P 10 A

- A 谐振腔结构 A: λ/4, B: λ/2
- 10 带宽 (MHz) Bandwidth
- P 谐振腔数 P: 2孔 cavity
- 2410 中心频率 Center Frequency
- DFC 片式介质滤波器 Dielectric Filter chip

● 外型尺寸 Dimension Unit mm





● 结构及材料 Structure and Material

表 1

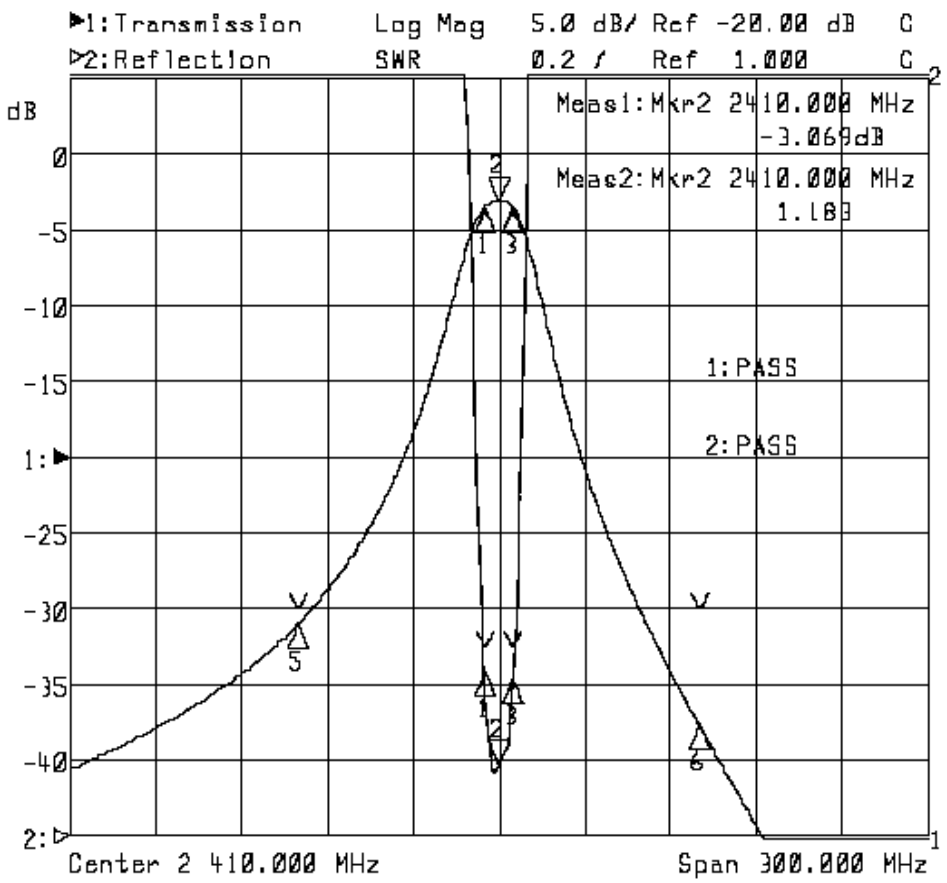
No.	Part Name	名称	Structure and material	结构及材料
4.1	Resonator	谐振体	Dielectric material	介质材料
4.2	Number of pole	电极数	2 pole	2个电极
4.3	In/output Terminals	输入输出端子	Ag Plated	镀银
4.4	Ground Base	接地面	Ag Plated	镀银

电气性能 Electrical Characteristics

表 2

No.	Item（项目）	Specifications（特性）	Post Environmental Tolerance（环境试验后允许附加误差）
5.1	Center frequency 中心频率(fo)	2410.00 MHz	±1.5MHz
5.2	Insertion loss 插入损耗	≤4.0 dB	±0.5 dB
5.3	Band width 通带宽度	fo±5.0 MHz	±0.5 MHz
5.4	Ripple (in BW) 通带波动	0.5 dB Max.	±0.5 dB
5.5	V.S.W.R (in BW) 驻波比	2.0 Max.	±0.5
5.6	Attenuation (Absolute value) 阻带衰耗（绝对值）	28dB min(fo±70MHz)	±2 dB
5.7	Permissible Input power (Max) 允许最大输入功率	1 Watt	——
5.8	In/output impedance 输入/输出阻抗	50Ω	——

特性曲线 Characteristic curve



- 环境试验 Environmental specifications

经环境试验后允许比起始读数偏差见表 2

Post Environmental Tolerance (Refer to the table 2)

基准条件: 温度范围 Temperature range 25-/+3℃

相对湿度范围 Relative Humidity range 55~75%RH

工作温度 Operating Temperature range -10℃ ~+70℃

贮藏温度 Storage Temperature range -25℃ ~+85℃

- 耐湿热特性 Moisture Proof

在温度为 40-/+2℃, 相对温度 90~95%的恒温湿箱中放置 96 小时, 在常温中恢复 1~2 小时后测试, 符合表 5.1~5.6 规定.

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

- 耐振动 Vibration Resist

在振动频率为 10~55Hz 振幅为 1.5mm 沿 X.Y.Z 方向各振动 2 小时后测试符合表 5.1~5.6 规定.

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.

- 耐跌落冲击 Drop Shock

在 30cm 高度处按 X,Y,Z 三个面分别自由跌落在木制地板上共 3 次后测试符合表 5.1~5.6 规定.

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.

- 高温特性 High Temperature Endurance

在温度为 80-/+5 ℃ 的恒温箱中放置 24-/+2 小时, 在常温中恢复 1~2 小时后测试. 符合表 5.1~5.6 规定.

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

- 低温特性 Low Temperature Endurance

在温度为-25 ℃-/+3 ℃ 低温箱中放置 24-/+2 小时后恢复 1~2 小时测试符合表 5.1~5.6 规定.

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

- 温度循环 Temperature Cycle Test

在-25℃温度中保持 30 分钟，再在+85℃温度中保持 30 分钟，共循环 5 次后在常温中恢复 1~2 小时后测试符合表 5.1~5.6 规定.

The device should also satisfy the electrical characteractics specified in paragraph 5.1~5.6 after exposed to the low temperature -25℃ and high temperature +85℃ for 30v2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

- 耐焊接热 Solder Heat Proof

能承受经 120~150℃的温度预热 60 秒后 在 260℃ +10℃的焊锡浸 10-/+0.5 秒.

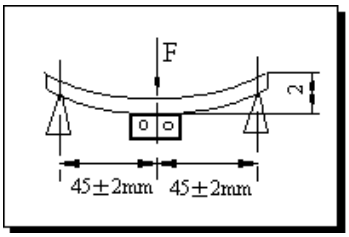
The device should be satisfied after preheating at 120℃ ~150 ℃ for 60 seconds and dipping in soldering Sn at 260℃ +10℃ for 10-/+0.5 seconds.

- 结合力试验 Tensile Strength of Terminal

在产品电极端子上或表面上应能承受 1kg 垂直拉力 10-/+1 秒.

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.

- 耐弯曲试验 Bending Resist Test



将产品按图焊在 1.6-/+0.2mm 的 PCB 板中间，由箭头方向施力:1mm/S，弯曲距离:2mm，保持 5-/+1S，产品金属层无脱落.

Weld the product to the center part of the PCB with 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 .

- 回流焊温度 Reflow Soldering Standard Condision