

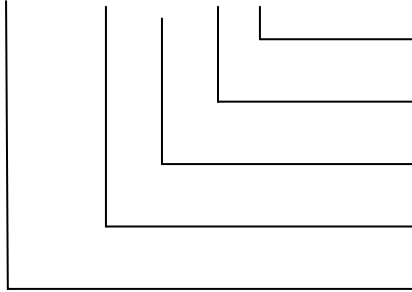
## 1. 概述 INTRODUCTION

DIP 双工器系列产品由低通滤波器和高通滤波器 ( 或带通滤波器 ) 组成, 用于 EPON+EOC 有线电视网络双向改造工程, 具有低插入损耗、高隔离度和低反射等特点。能减少复杂的调校工作, 可以简化电路设计。

"Group-Tek" DIP Diplexer series is formed with LP and HP (or BPF) to be applied for EPON+EOC CATV bidirectional rebuild Network, with low insertion loss high isolation and low return, which can simplify your complex tuning and circuit design .

## 2. 型号 Part Number

DIP - 2MLB - 65 87



高通频率 High Frequency: 87 ~860MHz

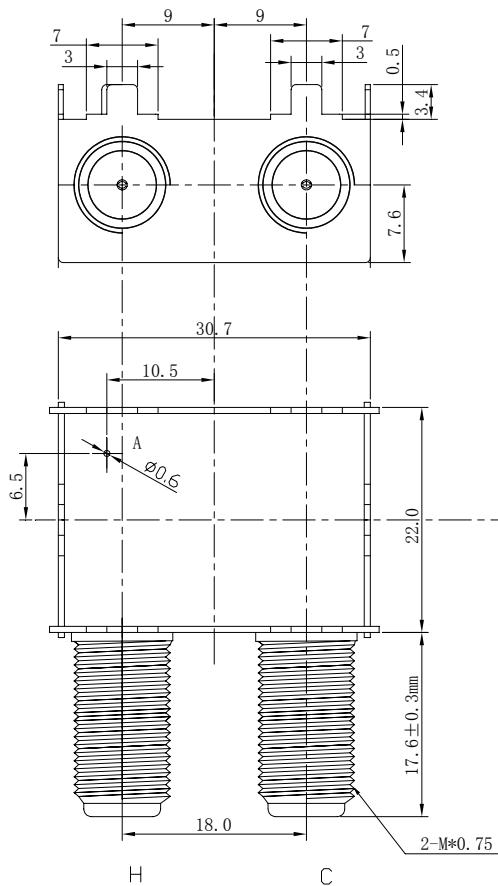
低通频率 Low Frequency: 2 ~65MHz

特征序号 Serial number : 1~9 或 A~Z

接头特征 : Connectors : 2 公制 F 头

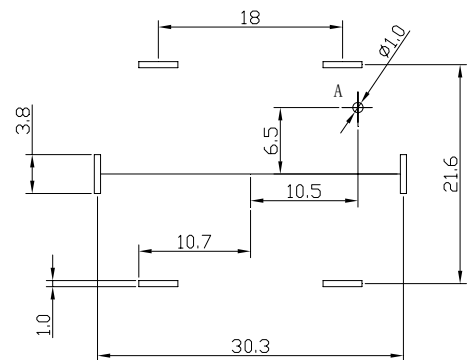
双工器 Diplexer

## 3. 外型尺寸 Dimension (Unit: mm)



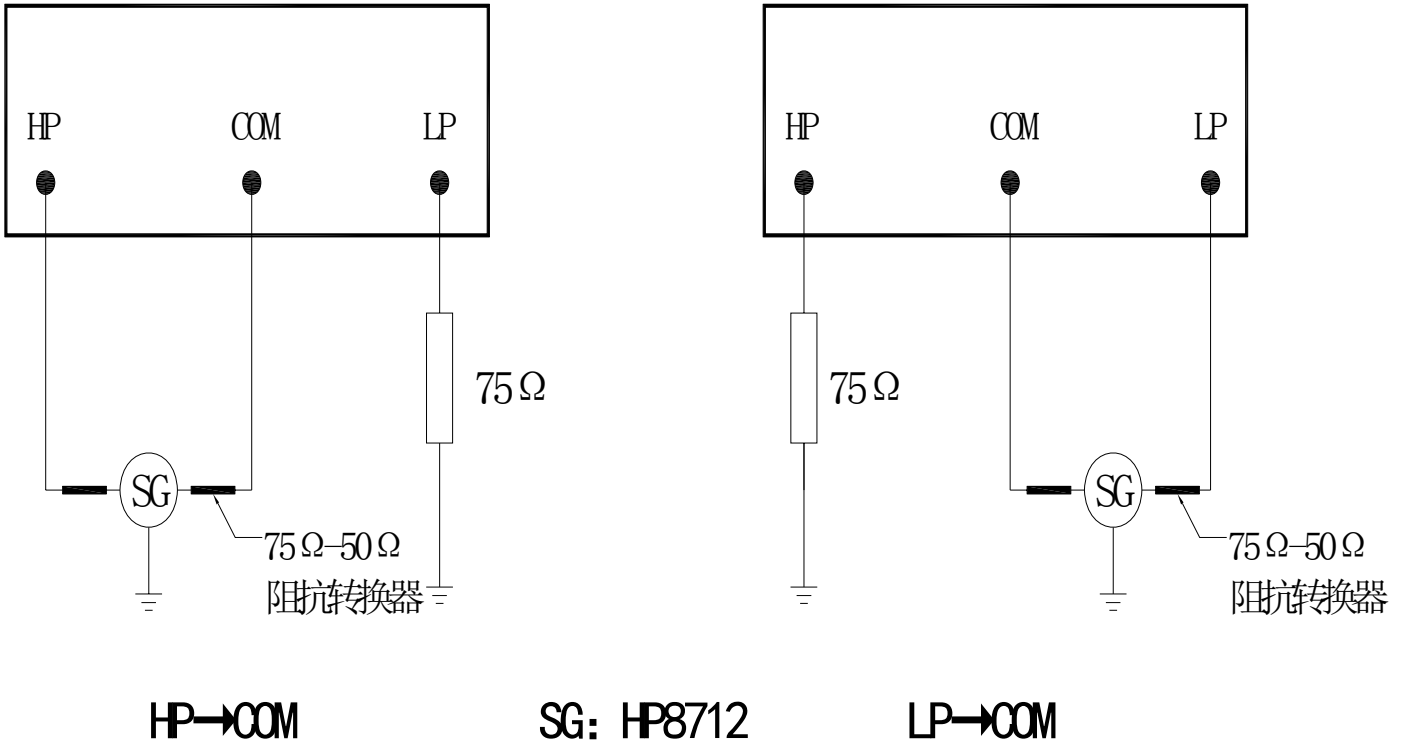
注:

1. A 为LP信号端;
2. F头为公制;
3. 未注公差±0.2mm



建议的客户PCB图

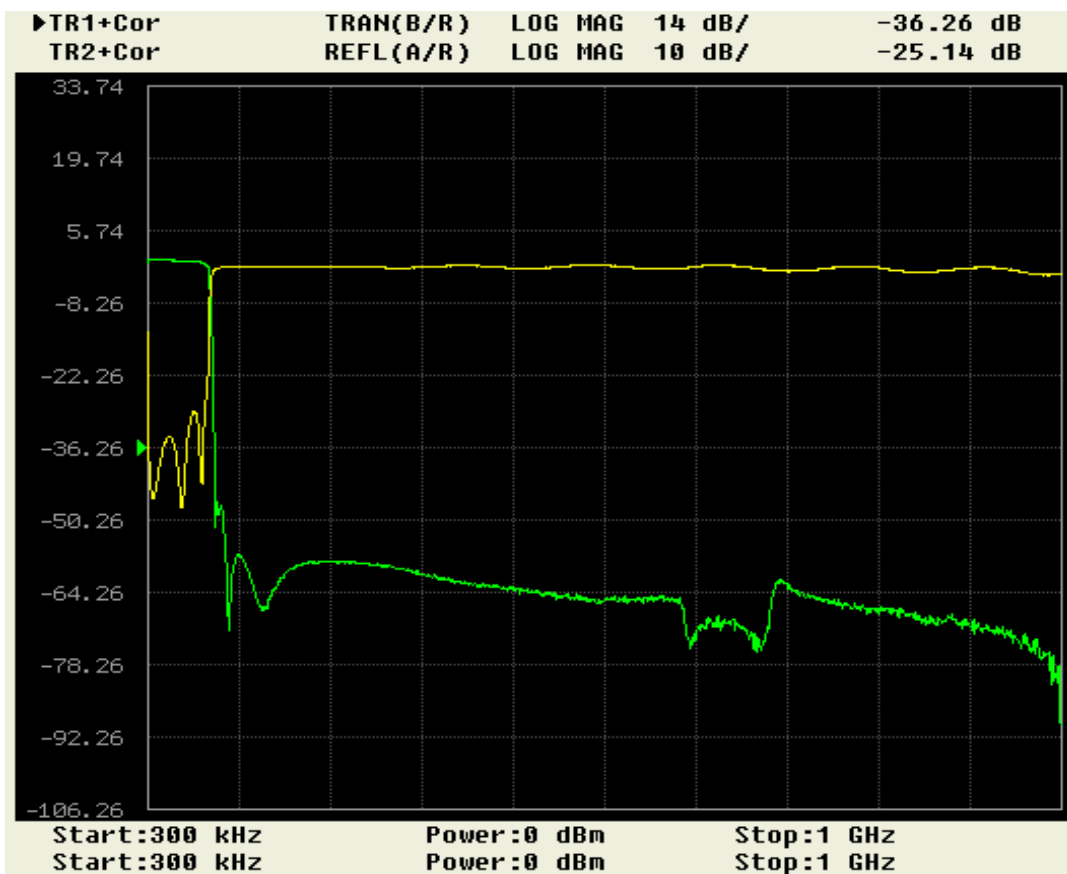
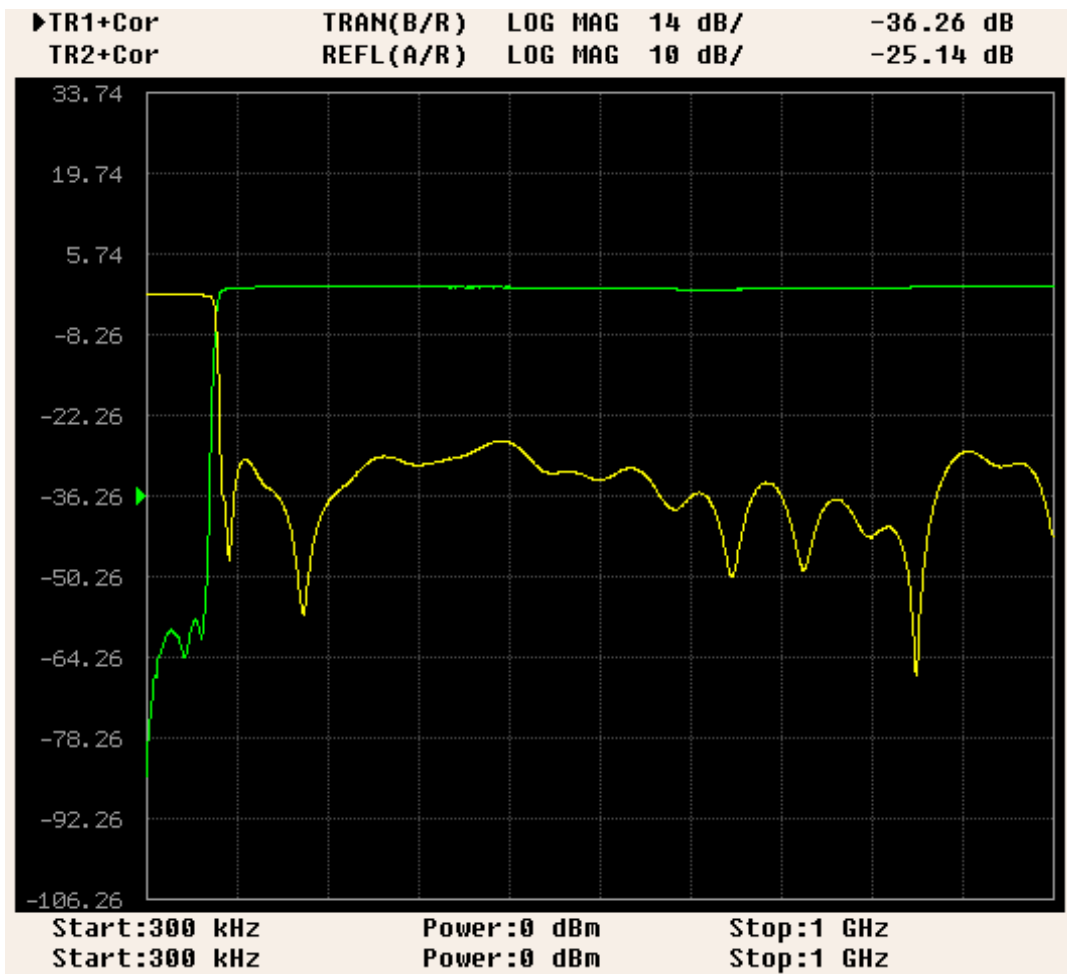
#### 4.测试电路 Evaluation Board

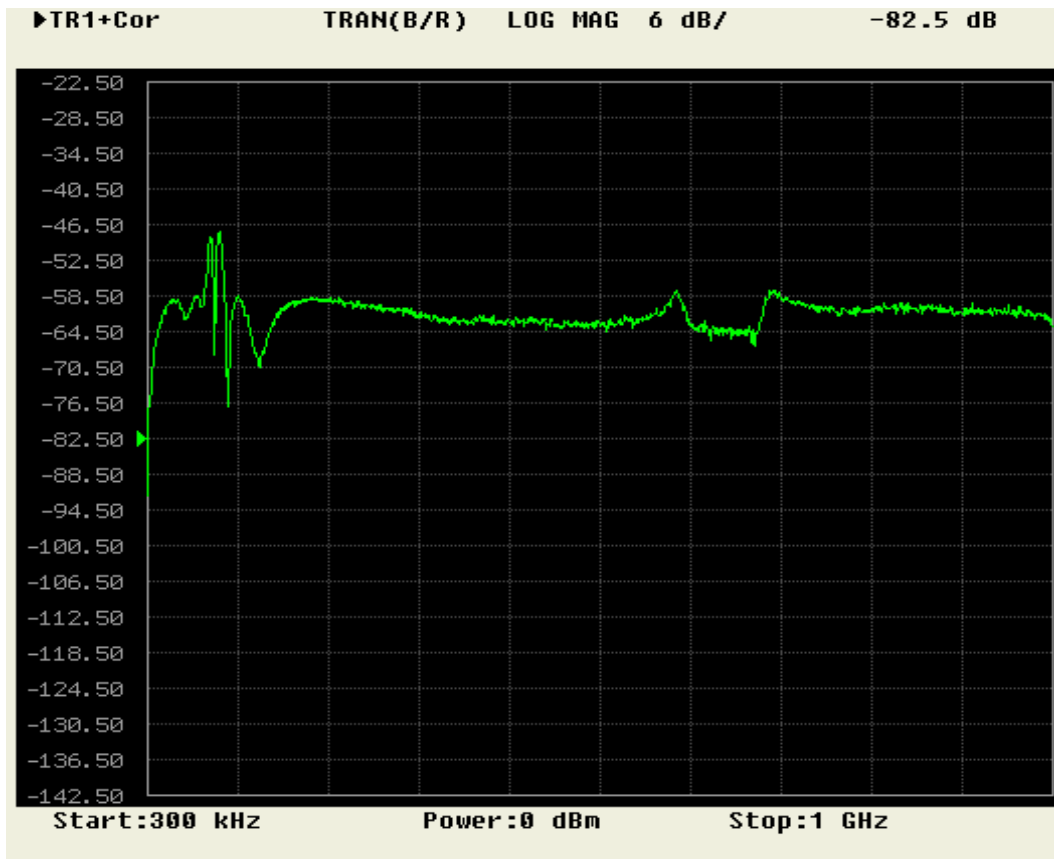


#### 5.电气性能 Electrical Characteristics

No	Item (项目)	Specifications (特性)
5.1	Low Frequency 低通频率	2~65 MHz
5.2	High Frequency 高通频率	87~1000MHz
5.3	Insertion loss 插入损耗	≤1.5dB (at 2~65MHz) ≤1.5dB (at 87~1000MHz)
5.4	LOG Mag 反射	≥16dB (at 2~65MHz) ≥16dB (at 87~1000MHz)
5.5	Attenuation (Absolute value) 阻带衰耗 (绝对值)	≥50 dB (at 2~65MHz) ≥50 dB (at 87~1000MHz)
5.6	Isolation 隔离度	≥50 dB (at 2~65MHz) ≥50dB (at 87~1000MHz)
5.7	In/output impedance 输入输出阻抗	75 Ω

## 6. 特性曲线 Characteristic curve





### 7.经环境试验后允许比起始读

No.	Item (项目)	Post Environmental Tolerance (环境试验后允许附加误差)
7.1	Insertion Loss 插入衰耗	±0.5 dB
7.2	Ripple (in BW) 通带波动	±0.5 dB
7.3	LOG Mag 反射	±2.0 dB
7.4	Isolation 隔离度	±2.0 dB

数据偏差下表

Post Environmental Tolerance (Refer to the table)

### 8.环境试验 Environmental Test

基准条件：温度范围 Temperature range 25±5°C  
 相对湿度范围 Relative Humidity range 55~75%RH  
 工作温度 Operating Temperature range -40°C~+85°C  
 贮藏温度 Storage Temperature range -40°C~+85°C

#### 8.1 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 7.1~7.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 7.1~7.4 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in

X , Y and Z directions.

## 8.2 耐跌落冲击 Drop Shock

在 100cm 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 7.1~7.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 7.1~7.4 after dropping onto the hard wooden board from the height of 100cm for 3 times each facet of the 3 dimensions of the device.

## 8.3 耐湿热特性 Moisture Proof

在温度为  $60\pm 2^{\circ}\text{C}$  , 相对湿度 90~95% 的恒温恒湿箱中放置 96 小时 , 在常温中恢复 1~2 小时后测试 , 符合表 7.1~7.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 7.1~7.4 after exposed to the temperature  $60\pm 2^{\circ}\text{C}$  and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition .

## 8.4 高温特性 High Temperature Endurance

在温度为  $85\pm 5^{\circ}\text{C}$  的恒温箱中放置  $96\pm 2$  小时 , 在常温中恢复 1~2 小时后测试。符合表 7.1~7.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 7.1~7.4 after exposed to temperature  $85\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and 1~2 hours recovery time under normal temperature.

## 8.5 低温特性 Low Temperature Endurance

在温度为  $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  低温箱中放置  $96\pm 2$  小时后恢复 1~2 小时测试符合表 7.1~7.4 规定。

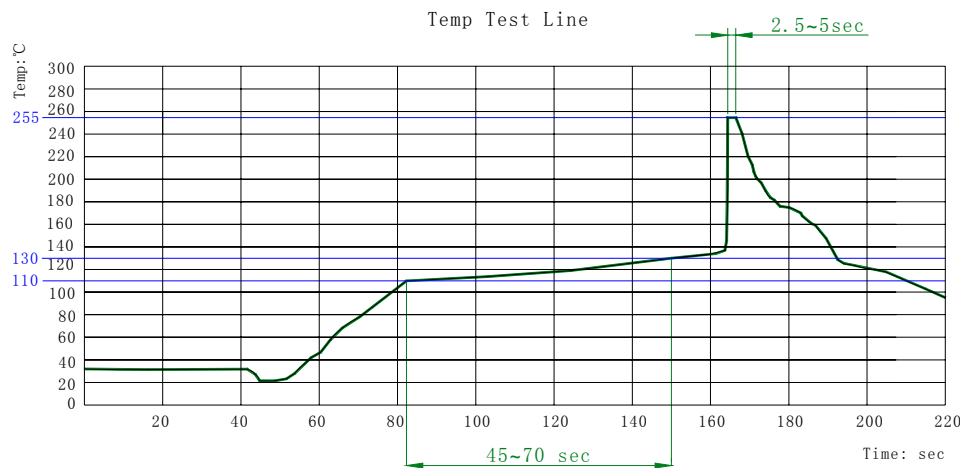
The device should also satisfy the electrical characteristics specified in paragraph 7.1~7.4 after exposed to the temperature  $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and to 2 hours recovery time under normal temperature.

## 8.6 温度循环 Temperature Cycle Test

在  $-40^{\circ}\text{C}$  温度中保持 30 分钟 , 再在  $+85^{\circ}\text{C}$  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 7.1~7.4 规定。

The device should also satisfy the electrical characteristics specified in paragraph 7.1~7.4 after exposed to the low temperature  $-40^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

## 8.8 波峰焊温度 Wave crest Soldering Standard Condition



注:

1. 预热温度  $110\sim 130^{\circ}\text{C}$  时间为  $45\sim 70\text{sec}$ ;
2. 焊接温度  $255^{\circ}\text{C}$  时间为  $2.5\sim 5.0\text{sec}$ ;
3. 焊料为锡银铜合金。