

SPECIFICATION 规格书		承认书编号	ZF-ZRS-09472841133
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WR ITT EN 制定	Fairy	审 核	
		APP'D 审批	
MODEL SERIES NAME 系列名称:		射频隔离保护器	
1:MODEL NO 产品型号:		CBIP-I(L)-RS	
RATING 额定值:			

## 2. 方式:

### 2.1 Frequency Range

频率范围 VHF BAND 48. 5MHz ~470MHz

UHF BAND 470MHz ~ 870MHz

### 2.2 Input System

输入方式

VHF/UHF Terminal, 75Ω Unbalanced.

VHF/UHF 同轴输入75Ω不平衡式

### 2.3 Output System

输出方式

IF Output , 75Ω Unbalanced.

IF 输出阻抗, 75Ω不平衡式

## 3. RATING AND TEST CONDITIONS

额定及试验条件

Measurement shall be made under the ambient conditions of normal temperature and humidity.

The following conditions shall be applied for the measurement of electrical characteristics unless otherwise specified

除了特别的规定, 调谐器的测试应在周围环境保持在常温和常湿的条件下。

### 3.1 Operating guaranteed temperature

使用温度范围-10 ~ +65℃

### 3.2 Storage temperature

保存温度范围-25 ~ +70℃

### 3.3 Measuring temperature

测定温度25℃±5℃

3.4 Operation guaranteed humidity

动作保证湿度MAX 95%， +40℃

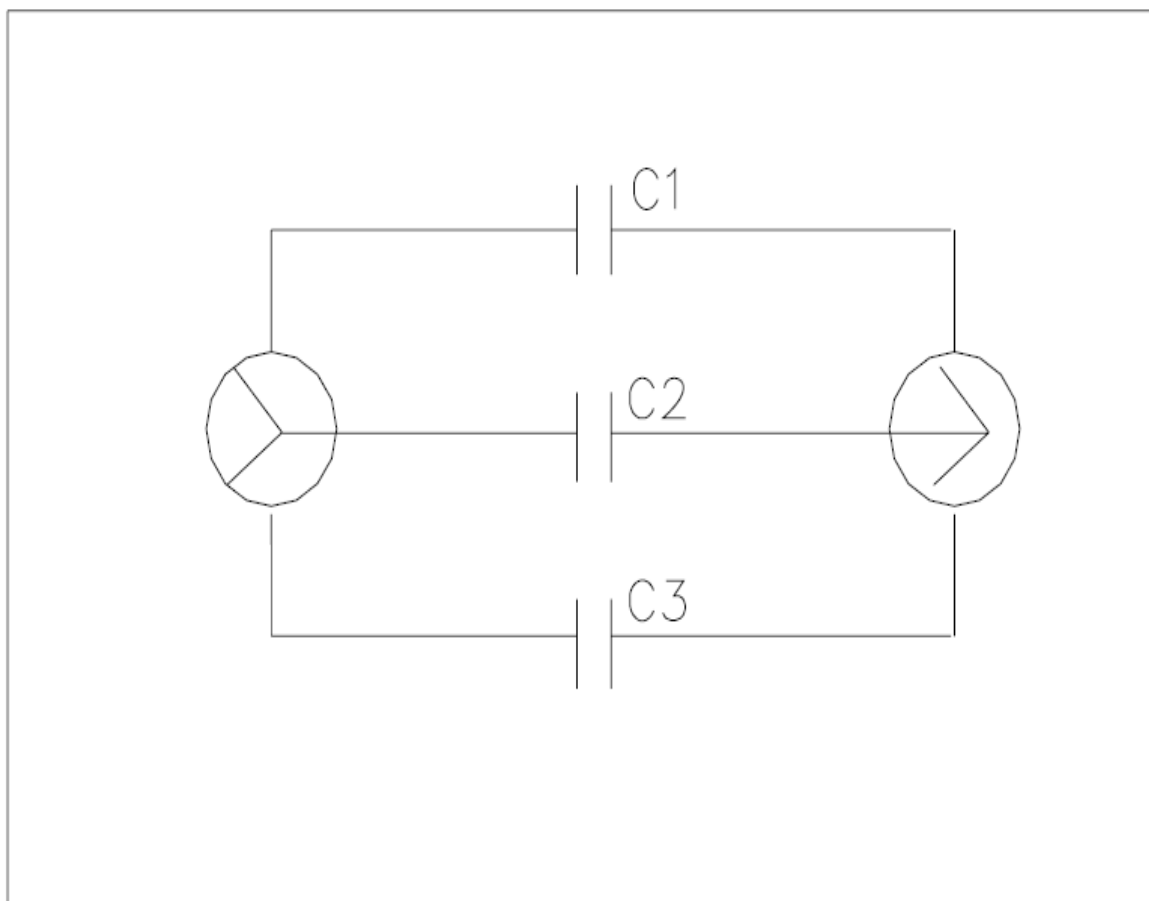
3.5 Atmospheric pressure 60~106KPa

大气压力

#### 4.RF DCISOLATED PROTECTOR SCHEMATIC

隔离保护器原理图

电原理图



#### 5. TECHNICAL REQUIREMENT AND TESTING METHOD

## 技术要求和测试方法

### 5.1 Buffer Shape and dimension

天线输入器形状和尺寸

### 5.2 Withstanding voltage

耐压

There is no abnormality under the application of 300V AC(5mA) between the single terminal or ANT terminal and put terminal, lasting 1 minute.

在信号端子或ANT端子与输出端子间施加AC300V（5mA）电压，时间持续1分钟，应无异常现象。

### 5.3 Insulation resistance

绝缘电阻

When input and output short respectively, insulated resistance between input and output could not be less than 100MΩ.(DC250V)

Input and output's inner and outer insulated resistance could not be less than 100MΩ. (DC250V)

输入器在输入端和输出端分别短路时，输入端和输出端之间的绝缘电阻应不小于100MΩ。(DC250V)

输入端和输出端的内、外导体间的绝缘电阻应不小于100MΩ。(DC250V)

### 5.4 Plug loss

插入损耗

#### 5.4.1 Technical requirement

技术要求

**VHF: 1.5dB max**

**UHF: 2.5dB max**

#### 5.4.2 Testing method

测试方法

First, Connected according to drawing 1, and record signal level A and c1 with losser displaying, then Connected according to drawing 2, changing the value of losser displaying to c2, the signal level A is same. At last, the Plug loss of this testing frequency is  $\alpha=C1-C2(\text{dB})$

先按图1 连接，在测试频段记录下信号显示高度位置A 与衰减器指示值C1，再将被测隔离器按图2 连接，改变衰减器指示值至C2，使显示器在频段上的信号显示高度位置仍为A 则该测试频段的插入损耗为： $\alpha=C1-C2(\text{dB})$ 。

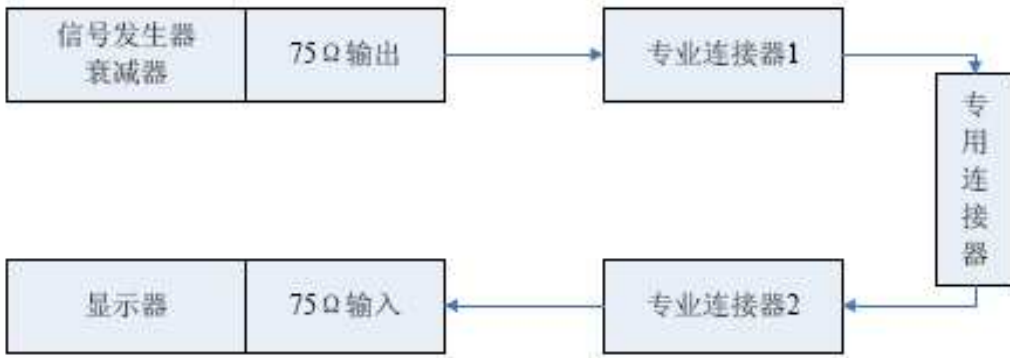


图1



图2

## 5.5 Input VSWR

输入端电压驻波比

### 5.5.1 Technical requirement

技术要求

VHF(48.5MHz ~470MHz): 3.5max

UHF(470MHz ~ 870MHz): 4.0 max (load 负载75Ω)

### 5.5.2 Testing method

测试方法

First, Connected according to drawing 3, and record signal level B at the setting frequency, then Connected according to drawing 4, changing the value of loss, the signal level B is same, the changing value of the loss is c(dB), the VSWR of this testing frequency is

先按图3 连接, 在设定的测试频段记录下信号显示高度位置B, 再按图4 连接, 改变衰减器的衰减量, 使显示器在相应频段上的信号显示高度位置仍为B, 此时衰减量变化值为C(dB), 该测试频段的电压驻波比按下式计算:

$$VSWR = \frac{1 + 10^{-\frac{C}{20}}}{1 - 10^{-\frac{C}{20}}}$$

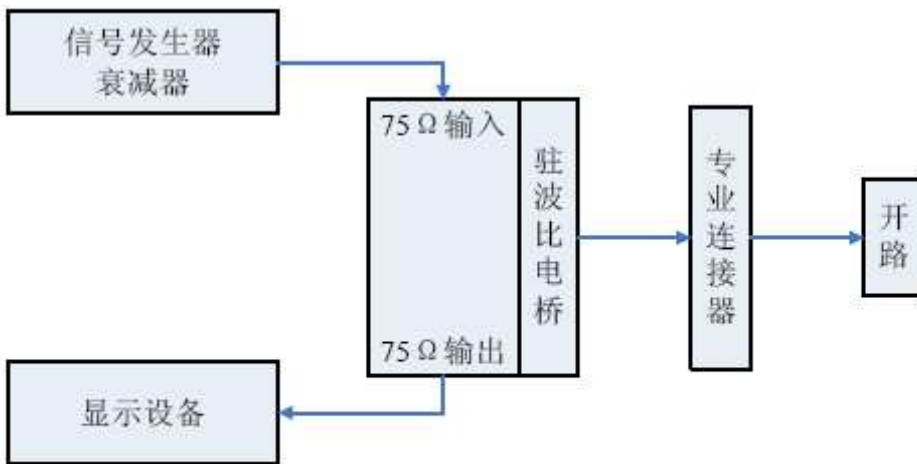


图3

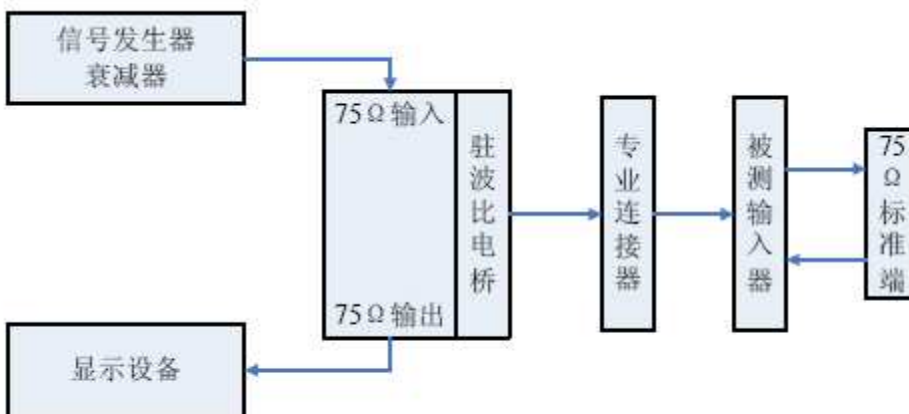


图4

### 5.6 Insertion force

插入力

70N MAX

### 5.7 Extraction force

拔出力

4N~30N

## 5.8 Holding strength of Connector

保持力

The holding strength of Input inner conductor is 3N min, outer conductor is 3N min.

输入端内导体的保持力为3N min,外导体的保持力为3N min.

## 6. ENVIRONMENTAL CHARACTERISTICS

### 6.1 Low temp.

低温

The product can bear the temperature of  $-25\pm 2^{\circ}\text{C}$  for 2 hours. After recover normal condition,

Produce must meet the requirement of 5.1~5.5 .

产品应能承受温度为 $-25\pm 2^{\circ}\text{C}$ 持续2h 的作用。恢复到正常条件后，应满足5.1~5.5 条的要求。

### 6.2 High temp.

高温

The product can bear the temperature of  $+65\pm 2^{\circ}\text{C}$  for 2 hours. After recover normal condition,

Produce must meet the requirement of 5.1~5.5 .

产品应能承受温度为 $+65\pm 2^{\circ}\text{C}$ 持续2h 的作用。恢复到正常条件后，应满足5.1~5.5 条的要求。

### 6.3 Vibration.

振动

The product can bear the vibration frequency of 10-55Hz, amplitude 0.75mm cycle 10 time.

Produce must meet the requirement of 5.1~5.5 .

产品应能经受振频为10~55 Hz，位移幅值为0.75mm 的扫频循环次数为10 次的振动作用。

试验后应满足5.1~5.5 条的要求。

### 6.4 Temperature varying test.

温度变化

Temp. range :  $-25\pm 3^{\circ}\text{C} \sim +55\pm 2^{\circ}\text{C}$  ( 5 circular experiment ), After recover normal condition,

Product must meet the requirement of 5.1~5.5 .

产品应能承受温度为 $+55, -25^{\circ}\text{C}$ 的温度循环作用，高温和低温各放30min.过渡时间为2~3min,共循环 5 次的温度变化试验。恢复到正常条件后，应满足5.1~5.5 条的要求。

### 6.5 High temp life

高温耐久性

The product can bear the temperature of  $+65\pm 2^{\circ}\text{C}$  for 21 days. After recover normal condition,

Produce must meet the requirement of 5.1~5.5 .

产品应能承受温度为 $+65\pm 2^{\circ}\text{C}$ ，持续21 天的作用。恢复到正常条件后，应满足5.1~5.5 条的要求。

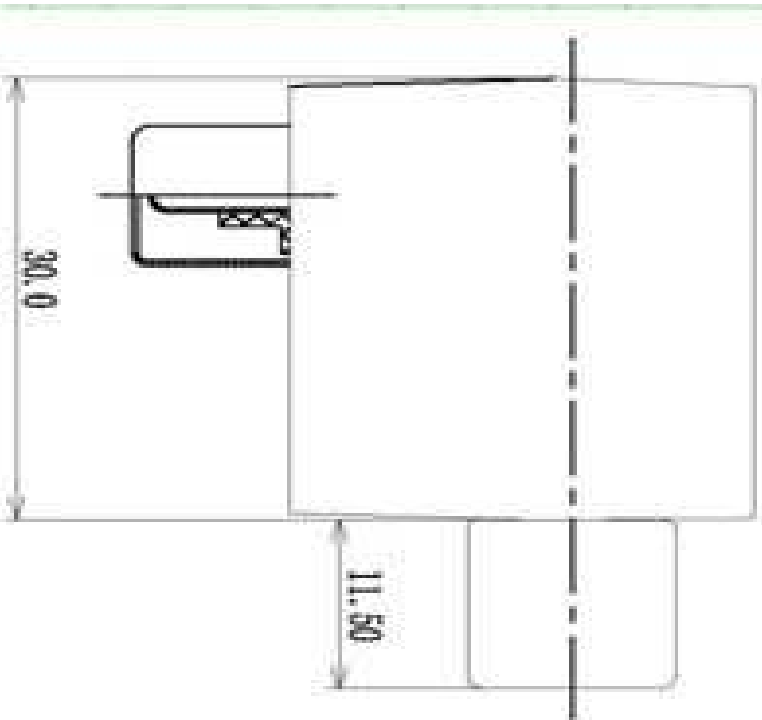
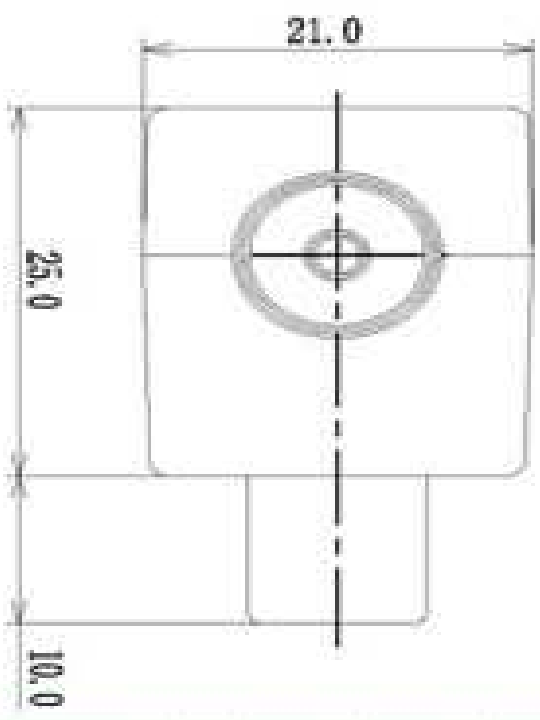
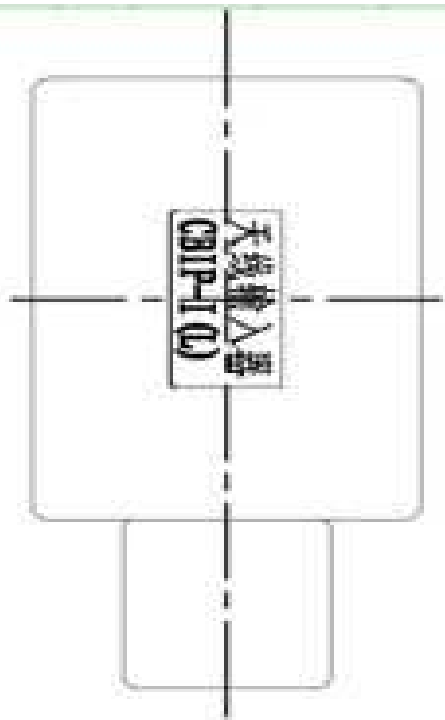
### 6.6 Impact test

碰撞

The product can bear the frequency of 40-80 times for every minute, acceleration of 10g/m2 for

1000 times. Produce must meet the requirement of 5.1~5.5 .

产品应能承受冲频为每分钟40~80 次，加速度10g 的1000 次碰撞作用。试验后应满足5.1~5.5 条的要求。



**技术要求:**

1. 各焊点均须光滑, 无虚焊, 焊点间无短路等; 焊接时, 不得损伤陶瓷芯管; 电路板与金属型壁的焊点应有足够的机械强度以抵抗振动冲击;
2. 焊接时插针组件和输入管管角度保证  $90^\circ \pm 1.5^\circ$  ;
3. 上下盖组装后配合间隙不得大于 0.10mm