



ADSL POTS SPLITTER FOR 600 OHMS IMPEDANCE



P/N: POTS601

## Product Specification

Product Number: POTS601

Product Design History:

Revision	Designer	Description	Date
A01	Jack Yang	New Released	9/17,'08
A02	Jack Yang	Improve billing tone performance	11/13,'08



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## 1. Preliminary

This is a POTS splitter which designed to implement for low pass filter application of ADSL over POTS.

## 2. Features

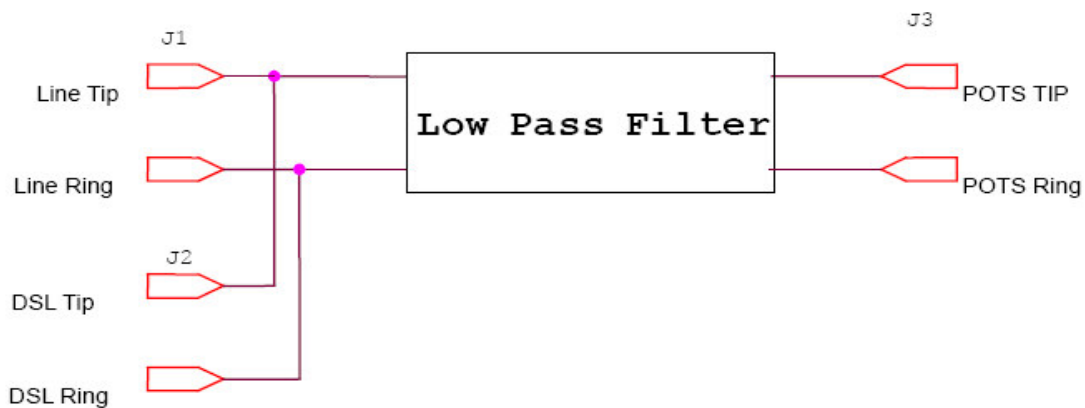
- ◆ Compact package, easy to install for user
- ◆ 100mADC loop current capacity

## 3. Standard reference documents

- ◆ ETS 300 001
- ◆ ANSI T1E1.4 G.992.2
- ◆ ITU-T G.992.5 ANNEX E

## 4. Design

### 4-1 Schematic





4-2 Electrical

General		
Item	Description	Spec.
Bandwidth		DC-16.0KHz
Voice Band		0.3-3.4KHz
Ringing Frequency		15.3Hz to 68Hz
ADSL Band		30KHz-1104KHz
Line Impedance	300Hz to 3.4KHz	600ohms
Modem Impedance	30KHz to 1104KHz	100ohms
ZADSL	0Hz-4KHz	
Max. Operating Voltage to Ground		250VDC
DC Loop Current		Less than 100mA
Billing Tone	16KHz	3dB



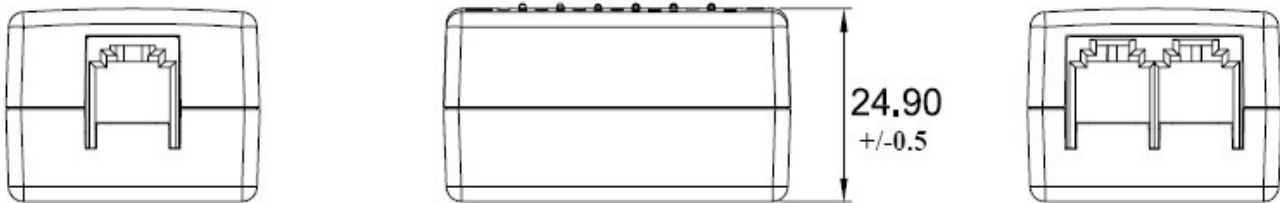
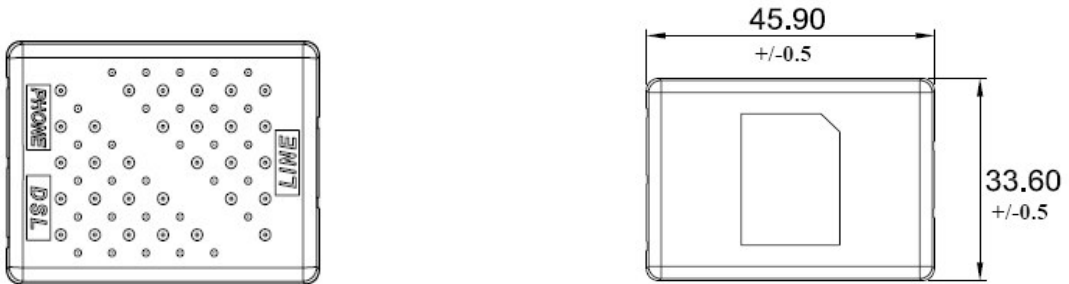
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Electrical		
Item	Description	Spec.
TIP to Ring	100VDC	> 5M ohms
TIP to Ring	POTS port shorted	< 50 ohms
Insertion Loss @ 600ohms	1004Hz	< 0.5dB
Attenuation distortion at 600ohms	200Hz < f < 4KHz	< +/-1.0dB
Return Loss	200Hz to 3.0KHz	> 8dB
	3.0KHz to 4.0KHz	> 6dB
LCL	200Hz to 1KHz	> 58dB
	1KHz to 3KHz	> 53dB
Delay Distortion	200Hz to 4KHz	< 100us
ADSL Band Attenuation	30KHz-300KHz	> 15dB
	300KHz-1104KHz	> 50dB

4-3 Mechanical (unit:mm)



Connector	Function	Type	TIP	Ring
J1	DSL	RJ11 Jack	Pin3	Pin4
J2	Line	RJ11 Jack	Pin3	Pin4
J3	Phone	RJ11 Jack	Pin3	Pin4



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## 5. Environmental

### 5-1 Over voltage and current

ITU-T Recommendation K.21 Electrical Safety requirements.

### 5-2 Operating temperature

- ◆ Operating temperature: -20 to + 60 degrees
- ◆ Storage temperature: -40 to + 80 degrees
- ◆ Humidity: 0 to 95% (non-condensing)

## 6. Reliability

- ◆ Thermal shock: -20 to +85 degrees for 5 cycles
- ◆ Humidity exposure: +50 degrees/95RH, 96hrs
- ◆ Vibration: X axis/10mins, Y axis/10mins