



ADSL POTS SPLITTER FOR 600 OHMS IMPEDANCE



P/N: POTS612

Product Specification

Product Number: POTS612

Product Design History:

| Revision | Designer | Description | Date |
|----------|-----------|--------------|-----------|
| A01 | Jack Yang | New Released | 12/01,'08 |
| | | | |
| | | | |



Contents

| | |
|---------------------------------|-----|
| 1. Preliminary | 3 |
| 2. Features | 3 |
| 3. Standard reference documents | 3 |
| 4. Design | 4 |
| 4-1 Schematic | 4 |
| 4-2 Electrical | 4-5 |
| 4-3 Mechanical | 6 |
| 5. Environmental | 7 |
| 5-1 Over voltage and current | 7 |
| 5-2 Operating temperature | 7 |
| 6. Reliability | 7 |



1. Preliminary

This is a POTS splitter which designed to implement for ADSL over POTS application.

2. Features

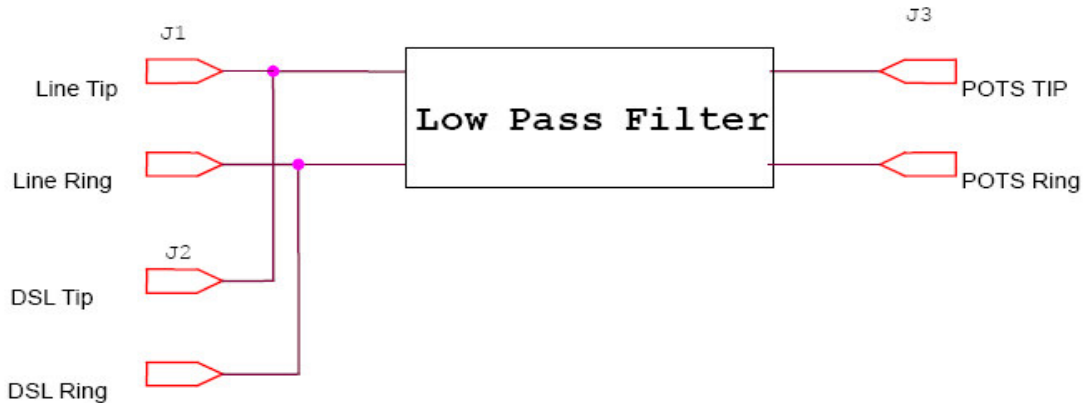
- ◆ Compact package
- ◆ DC loop current is less than 100mA

3. Standard reference documents

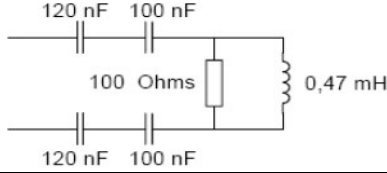
- ◆ ETSI TS 300 001
- ◆ ANSI T1E1.4 G.992.2
- ◆ ITU-T G.992.5 ANNEX E

4. Design

4-1 Schematic



4-2 Electrical

| General | | |
|------------------------|------------------|---|
| Item | Description | Spec. |
| Bandwidth | | DC-4.0KHz |
| 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 to 4KHz |  |
| Max. Operating Voltage | | 250Vdc |
| DC Loop Current | | Less than 100mA |



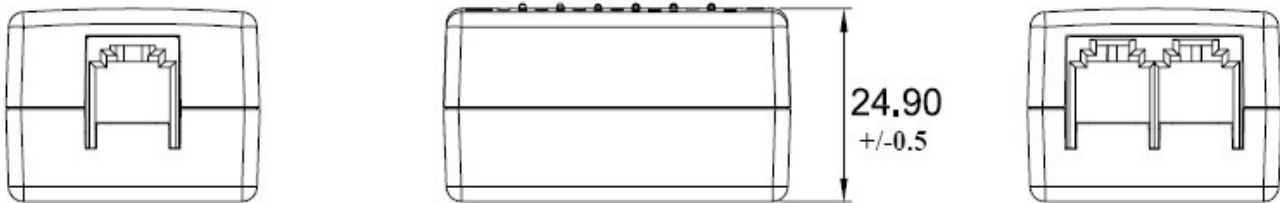
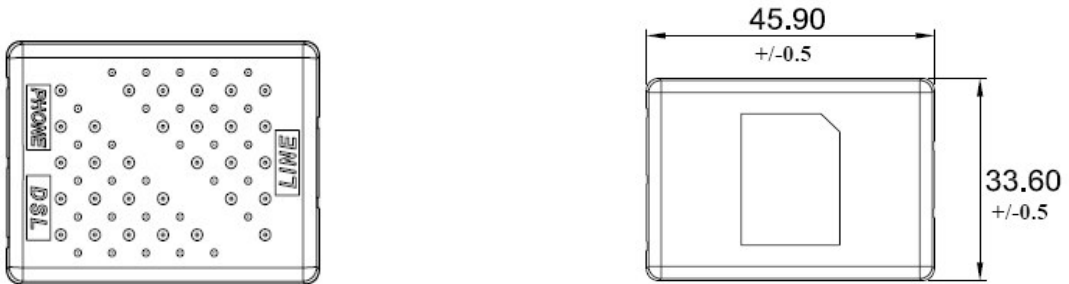
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| Electrical | | |
|-----------------------------------|-------------------|-------------|
| Item | Description | Spec. |
| TIP to Ring | 100VDC | > 5Mohms |
| TIP to Ring | POTS port shorted | < 25ohms |
| Insertion Loss at 600ohms | 1004Hz | < 0.5dB |
| Attenuation distortion at 600ohms | 200Hz < f < 4KHz | < +/- 1.0dB |
| Return Loss at 600ohms | 300Hz – 500Hz | > 14dB |
| | 500Hz – 2.0KHz | > 18dB |
| | 2KHz – 3.4KHz | > 14dB |
| LCL | 200Hz to 1KHz | > 58dB |
| | 3KHz | > 53dB |
| Group Delay Distortion 600ohms | 200Hz – 4KHz | < 100us |
| ADSL Band Attenuation | 30KHz-80KHz | > 30dB |
| | 80KHz-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