



A.C.E. 泰華達股份有限公司
ArchiCore Electronics CO., LTD



Product Specification

| | |
|---------------------------|----------------------------------|
| Product Name | CPPAA003 |
| Product Type | Customer Premise Splitter |
| System Application | VDSL Over POTS |
| Author | Alvin Liou |
| Approved By | Sundi Lin |

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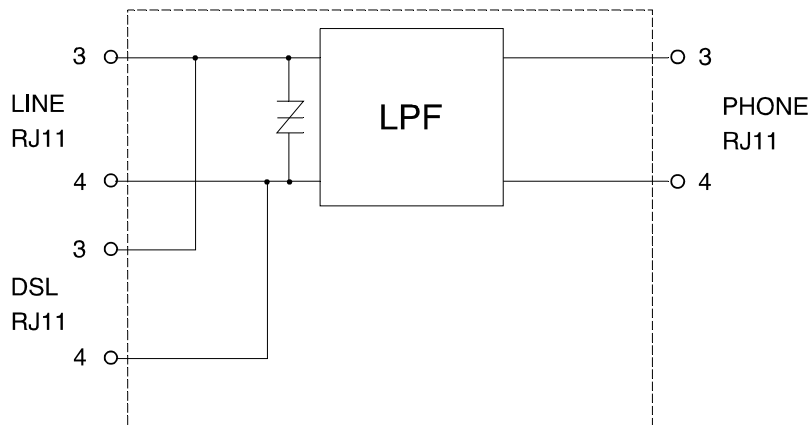
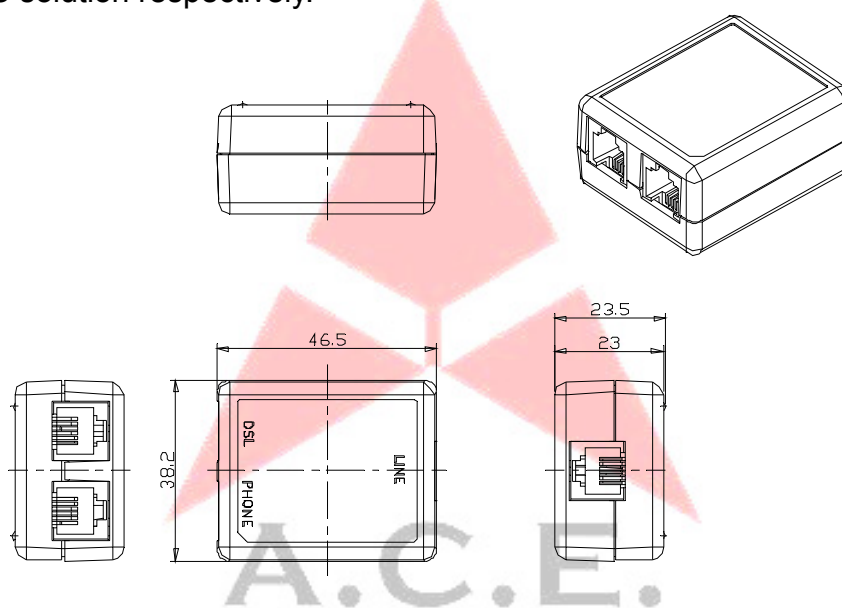
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The CPPAA003 is a customer premise splitter that has been specifically designed to implement the functionality of low pass filter in POTS over VDSL application. The CPPAA003 integrate low pass filter that block the high frequency energy from reaching the POTS device and provide isolation from impedance effects of the POTS device on VDSL. Because the splitter connects directly to the subscriber loop media, it must also provide some protection for externally induced line hits or faults which could damage any attached equipment or endanger humans interacting with the installed equipment.

The circuit protection will be provided mostly by standard central office line protection means and additional protection measures built into splitter to protect against line overstress which could damage the splitter itself. This splitter mainly consist of one low pass filter which provide POTS solution respectively.





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Reference :

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|------------------|---|
| ETSI ETS 300 001 | Attachments to Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN |
| ITU G.992.x | Asymmetric Digital Subscriber Line (ADSL) Transceivers |
| ITU-T K.21 | Resistibility of telecommunication switching equipment to Overvoltages and overcurrents |

Requirements :

| Title | | Conditions |
|---|-----------------|---|
| DC series resistance | < 25 ohms | From tip-to-ring at the POTS interface with the U-R interface shorted. |
| DC resistance to earth | > 5 Mohms | From tip to ground and from ring to ground at the POTS interface with the U-R interface open. |
| Insertion loss ZTc=900, ZTr=600 | Short loop | < 1.0 dB @ 1004 Hz |
| | Long loop | < 0.75 dB @ 1004 Hz |
| Attenuation distortion ZTc=900, ZTr=600 (relative to 1004 Hz) | Short loop | +1.5 to -1.5 dB 0.2 to 3.4 kHz |
| | | +2.0 to -2.0 dB 3.4 to 4.0 kHz |
| | Long loop | +0.5 to -1.5 dB 0.2 to 3.4 kHz |
| | | +1.0 to -1.5 dB 3.4 to 4.0 kHz |
| Return loss Zref=*ZNL-r Zterm=900 ohms + 2.16 uF | > 6 dB | ERL |
| | > 5 dB | SRL-L |
| | > 3 dB | SRL-H |
| Return loss Zref=*ZNL-r; Zterm=900 ohms + 2.16 uF Single freq. (2200 to 3400 Hz) | N / A | ERL |
| | N / A | SRL-L |
| | > 2 dB | SRL-H |
| * 1330 ohms in parallel with the series connection of a 348 ohms resistor and a 100 nF capacitor (long loop model seen from remote end) | | |
| Longitudinal balance | > 58 dB | 200 Hz to 1 kHz |
| | > 53 dB | 1 kHz to 3 kHz |
| Delay distortion ZTc=900, ZTr=600 | Short loop | < 200 us 0.6 kHz to 3.2 kHz |
| | | < 250 us 0.2 kHz to 4.0 kHz |
| | Long loop | < 200 us 0.6 kHz to 3.2 kHz |
| | | < 250 us 0.2 kHz to 4.0 kHz |
| Tip to ring capacitance | 20 nF to 115 nF | 20 Hz to 30 Hz |
| xDSL band attenuation | > 65 dB | 32 kHz to 300KHz |
| | > 55 dB | 300KHz to 30MHz |



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Revision History:

| Rev. | Author | Approved by | Description of change | Issued date |
|------|--------|-------------|-----------------------|-------------|
| 0 | Alvin | Sundi | New release | 2011/8/31 |
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