



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



Product Specification

Product Name	CPPAA002
Product Type	Customer Premise Splitter
System Application	ADSL Over POTS
Author	Alvin Liou
Approved By	Sundi Lin



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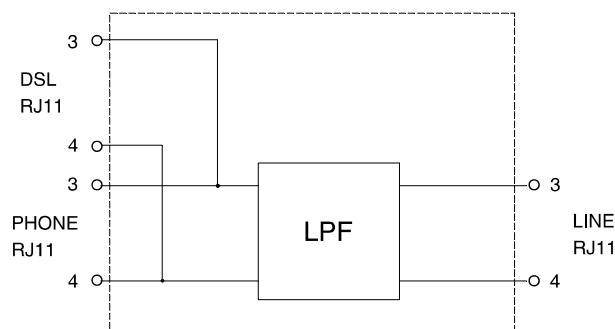
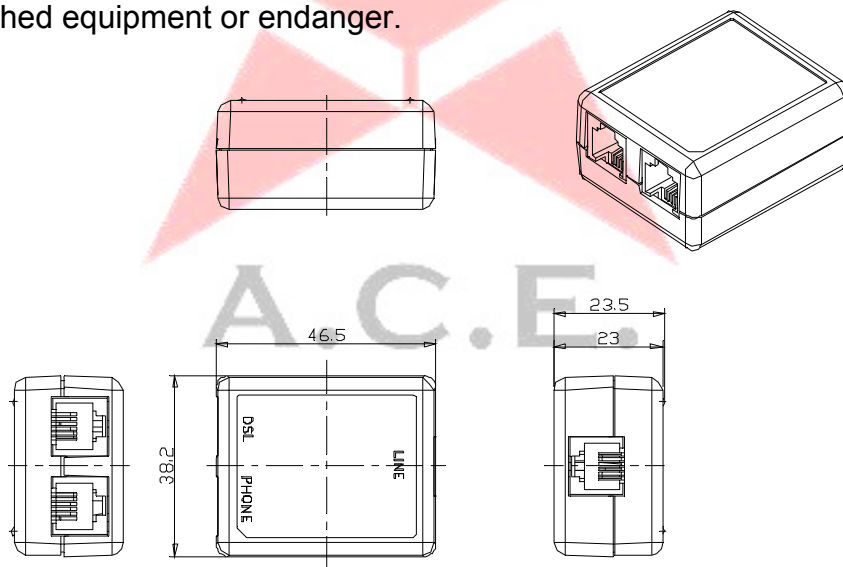


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The CPPAA002 is a splitter which has been designed to implement the functionality of low pass filter in an ADSL over POTS application.

Asymmetric Digital Subscriber Line (ADSL) is a technology used to transmit broadband information over existing copper wires that connect home and businesses to the Public Switched Telephone Network (PSTN). ADSL is very viable technology to support high-speed access, enabling a theoretical maximum downstream rate of 9Mbps and a maximum upstream rate of 640kbps. POTS service can coexist with ADSL without interruption or degradation of service due to the filtering action of the ADSL/POTS splitter.

The CPPAA002 is functionally a low pass filter which separates the transmission of POTS signals and ADSL band signals. A second purpose is to isolate poorly balanced POTS equipment from the line at ADSL band frequencies in order to prevent unnecessary egress (and ingress) from ADSL signals. As the POTS splitter connects directly to the Subscriber Line media, it must also provide some protection for externally induced line hits or faults which could damage any attached equipment or endanger.





Reference :

ANSI T1.413	Network and Customer Installation Interfaces- Asymmetric Digital Subscriber Line (ADSL) Metallic Interface.
ITU-T G.992.x T1E1.4/2001-007R3 47 CFR Part 68	In-Line Filter Standard Connection of terminal equipment to the telephone network, Federal Communications Commission, code of Federal regulations
UL 60950	

Requirements :

Title	Conditions	
DC resistance	< 12 ohms	Tip to Tip / Ring to Ring
Insertion Loss between 600Ω	< 0.3 dB	1004 Hz , single filter
	< 0.5 dB	1004 Hz , with 5 filters
Attenuation Distortion between 600ohms	< 0.5 dB	200 to 3.4 kHz , single filter (relative to 1004 Hz)
	< 0.75 dB	3.4 kHz to 4 kHz , single filter (relative to 1004 Hz)
	< 2.5 dB	200 to 3.4 kHz , with 5 filters
	< 4 dB	3.4 kHz to 4 kHz , with 5 filters
Return Loss between 600ohms	> 30 dB	SRL-L , single filter
	> 20 dB	ERL , single filter
	> 17 dB	SRL-H , single filter
	> 20 dB	SRL-L , with 5 filters
	> 13 dB	ERL , with 5 filters
Return Loss with Complex* ZNL-r	> 7 dB	SRL-H , with 5 filters
	> 25 dB	SRL-L , single filter
	> 15 dB	ERL , single filter
	> 7 dB	SRL-H , single filter
	> 15 dB	SRL-L , with 5 filters
Longitudinal conversion loss (LCL)	> 7 dB	ERL , with 5 filters
	> 1.5 dB	SRL-H , with 5 filters
Loading of ADSL signal path	> 58 dB	200 Hz to 1 kHz
	> 53 dB	1 kHz to 3 kHz
ADSL band attenuation	< 0.25 dB	30 kHz to 2208 kHz
	> 26 dB	30 kHz to 300 kHz
	> 65 dB	300 kHz to 2208 kHz



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Revision History:

Rev.	Author	Approved by	Description of change	Issued date
0	Alvin	Sundi	New release	2011/08/31

