



VDSL Splitter for German Market
P/N: VL901



Product Specification

Product Number: VL0901

Product Design History:

Revision	Designer	Description	Date
A01	Jack Yang	New Released	12/01,'07

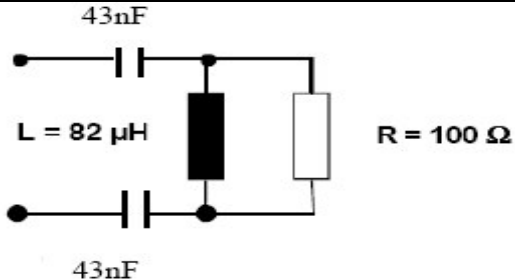
1. Introduction

This is a VDSL splitter which designed to implement the functionality of low pass filter for VDSL over ISDN application.

2. Features

- ◆ Compact package
- ◆ DC loop current is less than 100mA
- ◆ Circuit Protection for line overstress
- ◆ Meet K21

3. Electrical Specification

General Electrical Specification		
Item	Description	Spec.
Bandwidth		DC-94KHz
Impedance ISDN	Z_{ISDN}	150ohms
Impedance LINE	Z_{LINE}	135ohms
Impedance VDSL	150KHz – 30MHz	100ohms
Modem Impedance		100ohms
Z_{VDSL-1}	0Hz to 4KHz	 <p style="text-align: center;"> $L = 82 \mu H$ $R = 100 \Omega$ </p>
Max. Operating Voltage		250Vdc
DC Loop Current		Less than 80mA

DC Electrical Specification		
Item	Description	Spec.
TIP to Ring	100VDC	> 5Mohms
TIP to Ring	ISDN port shorted	< 12.5ohms
DC current		< 60mA

ISDN Electrical Specification		
Item	Description	Spec.
Insertion Loss	Z _{ISDN} /1KHz to 60KHz	< 1.2dB
	Z _{ISDN} /60KHz to 80KHz	< 2.0dB
Return Loss	Z _{ISDN} /1KHz to 60KHz	< 16.0dB
	Z _{ISDN} /60KHz to 80KHz	< 14.0dB
Delay Distortion	300Hz to 80KHz	< 20usec.

POTS Electrical Specification		
Item	Description	Spec.
Insertion Loss	1000Hz	< 1.0dB
	11.94Hz-17KHz	< 3.0dB
Attenuation Distortion	600Hz-1.6KHz	< ±0.5dB
	300Hz-3.4KHz	< ±1.0dB
	200Hz < f < 4KHz	< ±1.0dB



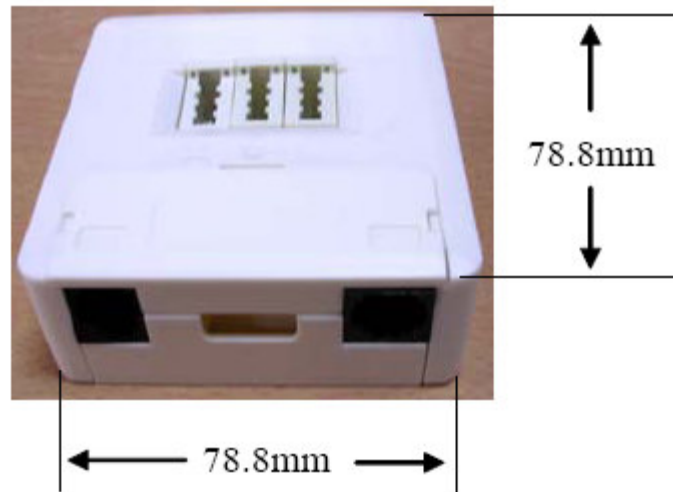
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Stop Band Electrical Specification					
Splitter Parameter	Range	Value	Port		
			VDSL	ISDN	LIN
Isolation	138KHz – 150KHz	> 55dB			
	150KHz – 1.1MHz	> 65dB	Z_{VDSL-1}	Z_{ISDN}	Z_{LINE}
	1.1MHz – 30MHz	> 55dB			
VDSL Insertion Loss	120KHz – 170KHz	< 3dB	Z_{VDSL-1}	Z_{ISDN}	Z_{LINE}
	170KHz – 30MHz	< 1dB		Z_{POTS}	
LCL	3.4KHz – 30KHz	> 40dB	---	---	---
	30KHz – 1104KHz	> 50dB	---	---	---
	1104KHz – 30MHz	> 30dB	---	---	---

4. Mechanical (with real product photo)



Connector	Function	Type	TIP	Ring
Amt	Line	RJ11 Jack	Pin1	Pin6
Con3	Phone	TAE	W	E
DSL	VDSL	RJ45 Jack	Pin4	Pin5



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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