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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **Description**

The Z-321P2J is a small in-line filter designed to expedite the service delivery and improve the performance of digital subscriber line (DSL) services. This model filters all telephone sets, facsimile machines, answering machines, etc. individually or in groups on line 1 only. It also provides a second convenience jack that is unfiltered for connecting DSL. This in-line DSL filter design electronically isolates the high-speed DSL data streams from the voice band plain old telephone service (POTS) equipment. This design effectively blocks the DSL, and other radio frequencies from 25 kilohertz to 30 Megahertz.

#### **Features**

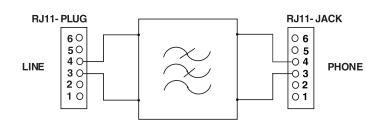
- Data Protection Isolates telephone impedances changes from DSL equipment
- Excellent DSL band attenuation which protects voice band equipment and prevents intermodulation distortion from degrading data rates
- Compatible with all major DSL standards including, ADSL, ADSL2+, VDSL, and VDSL2
- Voice Protection Isolates DSL band frequencies from voice band equipment
- Excellent longitudinal balance
- Compatible with Caller ID, facsimile and metallic loop testing
- RoHS compliant
- FCC CFR 47 Part 68; UL 1950, CE Mark
- Telmex approved



The Z-321P2J provides a DSL convenience jack for connecting a DSL modem

### **Applications**

The Z-321P2J filters are used with other Z-BLOCKER® filters distributed throughout the subscribers' premises to isolate all voice band equipment devices such as cordless telephones, answering machines, fax machines, dial-up modems, and satellite television set-top boxes. The Z-321P2J in-line DSL filter is one of many filters manufactured by Excelsus for subscriber installed digital services within homes, offices, and hotels. Excelsus is the number one selling brand of DSL filters worldwide.



Z-321P2J Block Schematic



# Z-BLOCKER® Z-321P2J xDSL over POTS In-Line Filter

Z-BLOCKER® Z-321P2J Fi	Iter Specifications	
Line side differential input b	<u> </u>	
At 20kHz	locking impedance	>2k
At 30kHz		>3k
From 5MHz to 10MHz		>2k
From 10MHz to 400MH	7	N/A
$1 \text{kHz}$ insertion loss between $600\Omega$ resistive		IN/A
Single filter	00052 TESISTIVE	<0.4
With 5 filters		<0.4
1kHz/2.8 kHz slope between	6000 registive	~0.0
Single filter	00022165151176	<0.1
With 5 filters		<1.1
DC resistance in Ohms		~1.1
	ina	<12
Tip to Tip, and Ring to Ring Tip to Ring		>10M
Longitudinal Balance per IE	CE mothod	~10lVI
From 200 - 1kHz	EE HICHIOU	>58dB
From 1kHz - 3kHz		>53dB
Common mode rejection, 40	Irlia and 1 1MHz	>45dB
		>45dB >26dB
Low pass roll off (slope) between $600\Omega$ and ADSL Transmission Unit - Remote Inter-Modulation Distortion First and Second order products		>60dB
Envelope Delay 300Hz - 2800Hz 600Ω Return Loss into phone side with 600Ω line termination with ATU-R		<100μs
	SRL Low	>30dB
Single filter ERL	SRL LOW	>30dB >14dB
SRL High	CDI I avv	>17dB
+2 bridged filters	SRL Low	>36dB
	ERL	>23dB
	SRL High	>13dB
+4 bridged filters	SRL Low	>26dB
	ERL	>15dB
	SRL High	>8dB
Complex* Return Loss with	ATU-R	
Single filter	SRL Low	>27dB
Single filter	ERL	>14dB
Single filter	SRL High	>6dB
+ 2 bridged filters	SRL Low	>19dB
	ERL	>14dB
	SRL High	>3dB
+ 4 bridged filtersSRL Low		>15dB
	ERL	>7dB
	SRL High	>2dB
* $1330\Omega$ in parallel with (100r		
	cifications between 20 and 100 milliamps DC	
	ok/off-hook transitions from the digital subscriber line	
	RJ11 Plug RJ-11 pins have $\geq 50$ micro-inches of gold thickness	
Compliant with UL / CSA 609		



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