

{ Z-BLOCKER® }

# Z-A431PJ31X

## DSL Filter for Residential Telephone Line Alarm Systems

DSL Internet access providers and alarm-system service providers are finding out—sometimes the hard way—that DSL and home alarm systems are often incompatible. In fact, most alarm systems can disconnect DSL signals when an alarm call is generated, and many interfere with DSL signals even when there's no alarm call.

Now there's an effective, inexpensive way to keep telephone line broadband/networking services and home alarm systems working together perfectly—the Z-A431PJ31X alarm filter from Excelsus. This patent-pending filter is the first for use with home alarm systems that share the telephone line with DSL or home phone networking (HPN) equipment.

### A Unique Filter for DSL, Home Networking and Home Alarm Panels

Designed specifically for homes with DSL, HPN technologies such as HomePNA, and alarm systems, the Z-A431PJ31X alarm filter keeps all these systems functioning as they should. With its patented Z-BLOCKER filter technology, the alarm filter blocks DSL and HPN signals from interfering with the alarm system's voice-band modem. At the same time, it isolates DSL and HPN equipment from alarm equipment impedances. With this two-way protection, the alarm filter keeps the alarm system operating reliably around the clock and ensures fast, uninterrupted DSL and HPN access even while the alarm system is dialing.

The UL-approved alarm filter is compatible with every major home alarm system. It provides full support for G.dmt Annex A and G.lite DSL technologies and complies with Annex E Type 2



requirements. The alarm filter is also compatible with HPN technologies like HomePNA, V.90 voice band modems, and telephone company services like Caller ID. It even handles the extra telephone line wiring path used for cut-line protection. Installation is a snap for the service technician—just plug the filter into the alarm panel's RJ31X or RJ38X telephone connection. The alarm filter's premium performance and reliability mean more satisfied customers, fewer service calls for providers, and cost savings for everyone. With all this, there's no other filter like the Excelsus alarm filter. No wonder the world's #1 choice for DSL filters is the choice for alarm filters as well.

### Only Excelsus Delivers:

- Reliable, uninterrupted DSL/HPN and alarm operation
- Compatible with all major ADSL, HPN and alarm systems
- Easy plug-in installation for RJ31X through RJ38X
- A wide range of DSL filters for peak performance with every telephone line device

**The Number One Selling Brand of DSL Filters**

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# Z-A431PJ31X

## DSL Filter for Residential Telephone Line Alarm Systems—Specifications

### Line side differential input blocking impedance

20 kHz	>2 k $\Omega$
30 kHz	>3 k $\Omega$
5 MHz–10 MHz	>4 k $\Omega$
10 MHz–400 MHz	>2 k $\Omega$

### 1 kHz insertion loss between 600 ohm resistive

Single filter	<0.5 dB
With 5 filters	<1.0 dB

### 1 kHz/2.8 kHz slope between 600 ohm resistive

Single filter	<0.4 dB
With 5 filters	<0.8 dB

### DC resistance

Tip to tip, and ring to ring	<40 $\Omega$
Tip to ring	>10 m $\Omega$

### Longitudinal balance per IEEE 743-1995 method

300 Hz–1 kHz	>58 dB
1 kHz–3 kHz	>53 dB

### Common mode rejection

40 kHz	>50 dB
1.1 MHz	>50 dB

### Low pass roll off (slope) between 600 ohm and ADSL transmission unit—remote

	>24 dB
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### Intermodulation distortion first- and second-order products

	>60 dB
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### Envelope delay 300 Hz–2800 Hz

	<150 $\mu$ s
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### 600 ohm return loss into phone side with 600 ohm line termination with ATU-R

Single filter	SRL low	>25 dB
	ERL	>25 dB
	SRL high	>24 dB
+2 bridged filters	SRL low	>29 dB
	ERL	>22 dB
	SRL high	>12 dB
+4 bridged filters	SRL low	>28 dB
	ERL	>16 dB
	SRL high	>6 dB

### Complex\* return loss with ATU-R

Single filter	SRL low	>28 dB
	ERL	>17 dB
	SRL high	>9 dB
+2 bridged filters	SRL low	>20 dB
	ERL	>11 dB
	SRL high	>6 dB
+4 bridged filters	SRL low	>16 dB
	ERL	>8 dB
	SRL high	>3 dB

\* 1330 ohms in parallel with (100 nfd in series with 348 ohms)

### DC loop current

Meets specifications between 20 and 100 milliamps DC

Isolates dial pulses and on-hook/off-hook transitions from the digital subscriber line.

### Dimensions

Length 2.5 inches (63.5 mm), width 1.75 inches (44.45 mm), height 0.88 inches (22.35 mm), cord length 3.0 inches (76.2 mm)

UL approved. Patent pending.

