

## Description

The Z-330TJA is a small, ANSI T1.421 compliant in-line filter designed to expedite the service delivery and improve the performance of digital subscriber line (DSL) and home phone line network (HPN) services. This model filters all telephone sets, facsimile machines, answering machines, etc. individually or in groups and includes an additional unfiltered jack for use with an xDSL modem and/or HomePNA device. Our in-line filter design electronically isolates the high-speed DSL and HPN data streams from the voice band plain old telephone service (POTS). This third order filter design effectively blocks the xDSL, HPN and other radio frequencies up to 30 Megahertz (MHz).



Z-BLOCKER® Z-330TJA

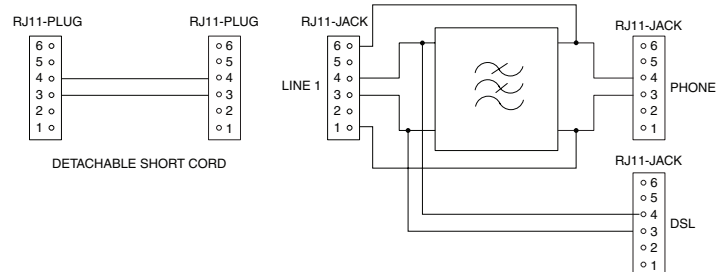
## Features

- Isolates telephone equipment impedances from the xDSL and HPN systems
- Provides a convenient DSL/HPN jack for easy broadband access
- Attenuates DSL & HPN signals to phone equipment to prevent conversion to voice band signals
- Attenuates HPN signals to unbalanced phone equipment to prevent radiation into electronic equipment
- Attenuates radio signals picked up by an unbalanced telephone acting as an antenna from affecting DSL or HPN receivers
- Minimizes voice band interference --- transmission, signaling and supervision
- Compatible with all major xDSL standards including ADSL Full Rate (ITU-T G.992.1), ADSL G.Lite (ITU-T G.992.2), ADSL2 (ITU-T G.992.3 and .4), ADSL2+ (ITU-T G.992.5 in analog mode) ADSL2++, VDSL (ITU-T G.993.1), VDSL2; also V.90 and Metallic Loop Testing compatible

- Compliant with ANSI T1.421, FCC CFR 47 Part 68; UL/CSA 60950
- RoHS and WEEE Compliant
- CE Mark certified

## Applications

The Z-330TJA filter is used with other Z-BLOCKER® filters distributed throughout the subscribers' premises to isolate all voice band equipment devices such as corded/cordless telephones, answering machines, fax machines, 56Kb/s and lower rate modems, automatic dialers, recorder connectors and satellite television set-top boxes.



Z-BLOCKER® Z-330TJA block schematic

**Z-BLOCKER Z-330TJA Filter Specifications**

DC Resistance	
Network port at 20mA	<25Ω
Tip and Ring to Ground at < 100 Vdc	>10 MΩ
Tip and Ring to Ground at > 100 Vdc and < 200 Vdc	>30 kΩ
Operating Current	5 to 90mA
Operating Voltages	
Network tip to ring	0 to -80Vdc
Network tip to ring level with ringing signal of 17 to 23Hz and 40 to 106 Vrms	-20 to -80Vdc
On-hook Voice Band Insertion Loss	
Single filter	-0.5dB to 1.5dB
With 5 filters	-1.0dB to 6.5dB
On-hook Voice Band Insertion Loss Distortion	
Single filter, 200 to 1000 Hz	-1.5dB to 1.5dB
With 5 filters, 200 to 1000 Hz	-5.5dB to 2.0dB
Single filter, 1 to 2.8 kHz	-1.5dB to 1.5dB
With 5 filters, 1 to 2.8 kHz	-2.0dB to 2.0dB
On- or Off-hook Envelope Delay 300 Hz - 2800 Hz	<250μs
Off-hook Voice Band Insertion Loss	
Single filter	-0.5dB to 0.5dB
With 5 filters	-1.0dB to 1.0dB
Off-hook Voice Band Insertion Loss Distortion	
Single filter, 200 to 3400 Hz	-1.0dB to 0.5dB
With 5 filters, 200 to 3400 Hz	-1.5dB to 2.5dB
Single filter, 3.4 to 4 kHz	-1.5dB to 1.0dB
With 5 filters, 3.4 to 4 kHz	-2.0dB to 3.25dB
Off-hook impedance distortion	
Phone Port    SRL Low	>13dB
"            ERL	>9dB
"            SRL High	>3dB
Network Port  SRL Low	>12dB
"            ERL	>10dB
"            SRL High	>5dB
Inter-Modulation Distortion Second and Third order products	>60dB
On-hook High Band Stopband Attenuation	
From 25 to 50 kHz, between 20 and 90 mA	>12dB
From 50 k to 12 MHz between 20 and 90 mA	>12dB
Off-hook High Band Stopband Attenuation	
From 25 to 50 kHz, between 20 and 90 mA	>21dB
From 25 to 50 kHz, between 7 and 20 mA	>13dB
From 50 k to 12 MHz, between 20 and 90 mA	>25dB
From 50 k to 12 MHz, between 7 and 20 mA	>22dB
Bridging Loss	
Single filter, 25 kHz to 1.2 MHz	<0.5dB
With 5 filters, 25 kHz to 1.2 MHz	<1.25dB
Single filter, 25 kHz to 1.2 MHz	<3.0dB
With 5 filters, 25 kHz to 1.2 MHz	<4.0dB

Isolates dial pulses and on-hook/off-hook transitions from the Digital Subscriber Line

Dimensions: Length 2.0in (51.3mm), Width 1.2in (30.5mm), Height 0.75in (19.1mm), Cord Length = approx. 4.0 in (102mm)