

DSL Filter DT60-0032AP



Introduction:

Plain old telephone service (POTS) splitters and microfilters are used on telephone lines to ensure voice and data call quality. This document describes splitters and microfilters and how and when to use them. POTS splitters result in the best data and voice performance when the router and the telephone are used on the same telephone line.

Features:

- All Delta ADSL Microfilters are used to block any noise generated by other phones, fax, answering machines and analog modems are being introduced on the POT line, and pass high frequency signal to ADSL Modem.
- Complies with Full Rate G.dmt(G.992.1) or G.lite(G.992.2) ADSL.
- Use one Microfilter for each telephone device. If several devices are connected to the same telephone wall jack, use only one Microfilter between the first device and the wall jack.
- Supports up to 5 Microfilters without any degradation in line quality.
- Minimize voice band interference transmission, signaling and supervision.
- Our in-line DSL filter design electronically isolates the high-speed DSL data streams from the voice band Plain Ordinary Telephone Service (POTS) This design effectively blocks the ADSL and other radio frequencies up to 10 Megahertz.
- G Lite, V.90 and Metallic Loop Testing compatible.
- FCC CFR 47 Part 68 and UL 1950 Compliant and listed.

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Description:

Microfilters are installed on telephones to improve voice call quality when voice and data equipment are using the same telephone line (twisted pair). The DT60-0032AP series is an in-line filter designed to expedite the service delivery and improve the performance of Asymmetric Digital Subscriber Line (ADSL) services. This model filters all telephone sets, facsimile machines, answering machines, etc individually or in groups on line 1 only.

Applications:

The DT60-0032AP series filters are used with other filters distributed throughout the subscribers' premises to isolate all voice band equipment devices such as telephone sets (including cordless types), answering machines, facsimile (fax) machines, 56Kb/s and lower rate modems, automatic dialers, and recorder connectors. The filters may also be used to isolate the telephone network jack connected to a digital cable and/or satellite television set-top box. The DT60-0032AP series in-line DSL filter is one of many filters manufactured by Delta Electronic, Inc. for subscriber installed digital services within homes, offices, and hotels.

DSL Filter DT60-0032AP series Specification:

Line side differential input blocking impedance	
At 20 kHz	>2k
At 30 kHz	>3k
From 5 MHz to 10 MHz	>2k
From 10 MHz to 400 MHz	N/A
1 kHz insertion loss between 600 Ohm resistive	
Single filter	<0.1
With 5 filters	<0.1
1 kHz/2.8 kHz slope between 600 Ohm resistive	
Single filter	<0.2

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With 5 filters	<0.4
DC resistance in Ohms	
Tip to Tip, and Ring to Ring	<4.5
Tip to Ring	>10M
Longitudinal Balance per IEEE method	
From 200 – 1 kHz	>58dB
From 1 kHz – 3 kHz	>53dB
Common mode rejection	
40 kHz	>60dB
1.1 Mhz	>40dB
Inter-Modulation Distortion First and Second order products	>60dB
Envelope Delay 300 Hz – 2800 Hz	<60us
600 Ohm Return Loss into phone side with 600 Ohm line termination with ATU-R	
Single filter SRL Low	>30dB
ERL	>14dB
SRL high	>17dB
Three filters SRL Low	>36dB
ERL	>23dB
SRL high	>13dB
Five filters SRL low	>26dB
ERL	>15dB
SRL high	>8dB
Complex*Return Loss with ATU-R	
Single filter SRL Low	>27dB
ERL	>14dB
SRL high	>6dB
Three filters SRL Low	>19dB
ERL	>14dB
SRL high	>3dB
Five filters SRL low	>15dB

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ERL	>7dB
SRL high	>2dB

[Table 1: Specification List](#)

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