Z-BLOCKER® CP-V413WT
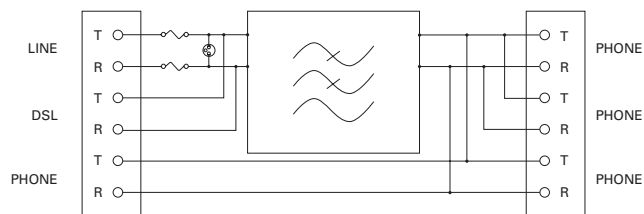# Video-Grade CPE Splitter

Description

The CP-V413WT is an ANSI-compliant, Video-Grade CPE splitter designed to expedite the service delivery and improve the performance of digital subscriber line (xDSL) services over plain old telephone service (POTS).

The CP-V413WT is ideal for digital video applications. The splitter uses Enhanced Transient Signal Suppression (ETSS)™ for short and long loops to minimize bit and frame errors during ringing and on/off-hook transitions. ETSS provides maximum data throughput and video quality for ADSL2+, VDSL and VDSL2 applications.

In addition, the CP-V413WT splitter filters all telephones, facsimile (fax) machines, answering machines, and other telephone equipment. Its design electronically isolates the high-speed xDSL data stream from voice-band frequencies to provide premium voice quality and optimal DSL data rates.

Applications

The CP-V413WT is easily mounted as the first connection to the subscribers' phone line to isolate all voice-band equipment connected to that line.

CP-V413WT VDSL2 Video-Grade CPE Splitter

The CP-V413WT Video-Grade CPE Splitter is one of many splitters and filters manufactured by Excelsus, a brand of Pulse, for digital services within homes, offices, and hotels. Excelsus is the number one selling brand of DSL filters and splitters worldwide.

Features

- Isolates telephone equipment impedances from DSL

- Blocks DSL signal from voice-band equipment

- Minimizes bit and frame error rates to maximize data throughput and video quality

- Compliant with ANSI T1.413-1998 Issue 2 Annex E and ITU-T G.992.1 E.2

- Environmentally hardened and sealed.

- Compatible with all major DSL standards including ADSL, ADSL2+, VDSL, and VDSL2, V.90 and Metallic Loop Testing

- Designed to meet GR-1089-CORE and ITU K.21 for surge and power cross

- UL / CSA 60950, FCC CFR 47 Part 68, and IC CS-03

CP-V413WT Block Schematic

Z-BLOCKER® CP-V413WT
Video-Grade CPE Splitter

Z-BLOCKER® CP-V413WT VDSL2 Video-Grade NID Splitter Module	
Electrical	
DC Loop Current	0 to 100 mA
DC Voltage (tip-to-ring)	-60 Vdc
Ringing Signals	103 Vrms, 20 to 30 Hz
DC Resistance (tip-to-ring)	< 25 Ω with line open
DC Resistance (tip-to-ground, ring-to-ground)	≥ 5 mΩ with line open
POTS Insertion Loss	< 1.0 dB @ 1004 Hz; Short Loop
	< 0.75 dB @ 1004 Hz; Long Loop
DSL to Line Insertion Loss	< 0.5 dB; 25 KHz to 30 MHz
Attenuaion Distortion	+1.5 to -1.5 dB; 200 to 3400 Hz, Short Loop
	+2.0 to -2.0 dB; 3400 to 4000 Hz, Short Loop
	+0.5 to -1.5 dB; 200 to 3400 Hz, Long Loop
	+1.0 to -1.5 dB; 3400 to 4000 Hz, Long Loop
Delay Distortion	< 200 μsec; 600 to 3200 Hz, Short and Long Loops
	< 250 μsec; 200 to 4000 Hz, Short and Long Loops
Return Loss	> 6 dB ERL, > 5 dB SRL-L
	> 3 dB SRL-H across frequency spectrum
	> 2 dB SRL-H for single frequencies
Intermodulation Distortion	≥ 57 dB second order
	≥ 60 dB second order
Longitudinal Balance (PSTN to Line port and Line port to PSTN; 25mA DC bias with xDSL port shorted)	> 58 dB; 200 to 1000 Hz
tip-to-ring Capacitance (POTS or PSTN port)	< 300 nF; 20 to 30 Hz
Capacitance-to-Ground (POTS or PSTN port)	< 1.0 nF; 20 to 30 Hz
xDSL Band Attenuation (input level = 10 dBm)	> 55 dB; 25 KHz to 30 MHz
Input Impedance (input level = 10 dBm)	< 0.25 dB; 30 to 1104 KHz
Mechanical	
Connectors: screw terminals for LINE, DSL and POTS (x4)	
Splitter Dimensions: Height: 3.3in. (85mm), Width: 2.1in. (54mm), Depth: 86in. (22mm)	
Splitter Weight:	2.4 oz. (68g)
Environmental	
Lightning Surge	Designed to meet GR-1089-CORE Level 1 and Level 2 surge
Power Cross	Designed to meet GR-1089-CORE First and Second Level AC Power Fault Immunity
Operating Temperature	-40˚C to +65˚C (-40˚F to +149˚F)
Relative Humidity	0 to 95%, non-condensing
Video: Upstream and downstream CRC's	≤ 1
Safety and Compliance	UL / CSA 60950, FCC CFR 47 Part 68, IC CS-03 and CE pending certification

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