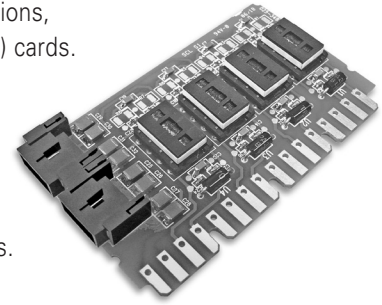


CO & CPE Products

CENTRAL OFFICE (CO*) DSL SPLITTER CIRCUITS FOR TELECOM APPLICATIONS

Our comprehensive line of CO splitter designs can be customized for various types of installations, including DSLAMs, rack-mount cards, cross-connect blocks, and main distribution frame (MDF) cards.

- Innovative, high-density designs, like the SmartER series, result in components that are one third the size of a typical design for this application.
- Delivers more channels on smaller cards.
- Scalable capacity from single-line to 96-lines.
- Customized solutions can be developed quickly, saving OEMs time and development costs.
- VDSL2 designs support TelcoTV and IPTV applications.



For assistance with a custom design, e-mail Pulse's Telecom Division at: prodinfo_telecom@pulseelectronics.com

CO* & CPE* SPLITTER FILTER MODULES

SmartER™ xDSL High-density, Low Pass, Splitter/Filter Modules



- Common pinout 12mm x 11mm (0.472" x 0.433")
- Surface Mount available
- Integrated Protection available
- Contact Pulse for custom CO Splitter Modules or Single/Multichannel MDF boards.

SmartER™ Series: ADSL, ADSL+, VDSL, VDSL2 Low Pass Filter Modules for CO and CPE*				
RoHS Part Number ¹	Standard/Applications	Note/Comment	Data Sheet	
B8802NL	XDSL/POTS ATIS TRQ.10.2009 Type A & C	CO short loop and CPE	B703	
B8813NL	XDSL/POTS ATIS TRQ.10.2009 Type A	CO short and long loops	B706	
B8817NL	XDSL/POTS China MII YD/T1187	relaxed spec	B704	
B8841NL	XDSL/POTS 600 R ETSI A&B	12KHz, 16KHz billing tone	B898	
B8842NL	XDSL/ISDN 2B1Q/4B3T	—	B705	
B8845NL	XDSL/ISDN 4B3T + POTS DT complex	—	B708	
B8846NL	XDSL/POTS ETSI B complex and BT SIN-346 complex	—	B899	
B8849NL	XDSL/POTS ETSI A complex	—	B893	
B8859NL	XDSL/POTS ETSI A complex	12 kHz billing tone	B701	
B8891NL	ADSL2+/POTS China MII YD/T1187	—	B709	
B8887NL	XDSL/POTS China MII	—	B900	

1. Contact Pulse for custom CO splitter or MDF boards.

SMART™ Series: xDSL, Low Pass, Filter Modules ¹ for CO and CPE*				
Part Number	RoHS	Standard/Applications ²	Note/Comment	Data Sheet
—	B8041NL	ETSI 600 W-ADSL/POTS	—	B881
—	B8042NL	ETSI Ann B-ADSL/ISDN 2B1Q	—	B815
—	B88046NL	UK Complex BT SIN-346-ADSL/POTS	relaxed spec*	B810
—	B8049NL	ETSI Complex option A-ADSL/POTS	compliant	B826
B8049E	B8049ENL	ETSI Complex option A-ADSL/POTS	compliant/low profile	B882
B8120	—	ANSI-ADSL/POTS	—	B827
B8120A	—	ANSI-ADSL/POTS	w/signature circuit	B827
B8216	B8216NL	UK Complex BT SIN-346-ADSL/POTS	w/protections (K20 basic)	B883
B8245	B8245NL	ETSI Ann B - ADSL/POTS/ISDN 4B3T	compliant	B879
B8546	—	—	—	—
B8546E	B8546ENL	UK Complex BT SIN-346-ADSL/POTS	compliant/low profile	B707
BX8214	BX8214NL	ANSI-ADSL/POTS	low profile	B878
BX8214V	BX8214VNL	ANSI-ADSL/VDSL2/POTS	VDSL2 compliant/low profile	B886
—	BX8270NL	ITU G992.1-ADSL/POTS + VoIP	CPE for Korea/Asia	B872
—	BX8296NL	ANSI-ADSL/POTS + VoIP	CPE for North America	B871

SMART™ xDSL, Low Pass, Splitter/Filter Modules

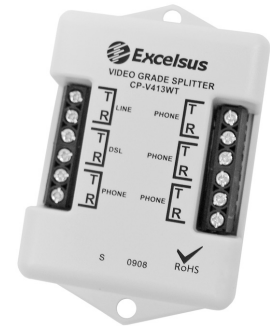


Common pinout 44.70mm x 10mm (1.760" x 0.394")

EXCELSUS CPE PRODUCTS

Pulse provides high-quality DSL filters, splitters, and accessories for broadband Internet access over conventional telephone lines. Customers include DSL end-users, telephone companies, equipment providers, and Internet service providers worldwide. Various splitter and filter types, such as inline, wall-mount, dual-line, tri-jack, dynamic and even alarm panel filters, meet the demanding ETSI, ITU and ANSI specifications.

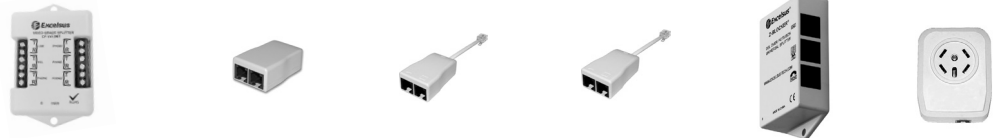
For years Pulse has been providing innovative DSL splitters, filter transformers, and inductors for customer premises (CPE) and central office (CO) applications worldwide. Now our CPE product line has expanded to offer video-grade splitters for error-free performance on TelcoTV networks.



- Error-free and jitter-free performance that maintains high-quality signals in the customer premises
- VDSL2 versions support TelcoTV and IPTV applications
- On-site system testing for xDSL environments, from DSLAM's to customer premises

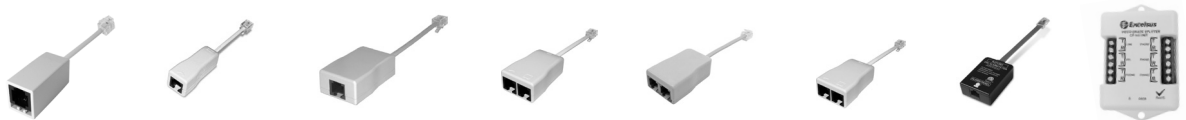
Contact Pulse for custom Central/Master splitter solutions.

ADSL and ADSL2+ Micro Filters



Part Number:	CP-V413WT	Z-401TJ11	CP-V501TJ	CP-V503TJ	CP-404TJ45	CP-421SE
Filter Type:	Distributed DSL Filters					
wConnector	Screw	RJ11			RJ45	Swedish
Region	—	Europe				Sweden
Specification	ANSI T1.413	ETSI 952-1-1	ETSI 952-2-1	ETSI 952-2-3	ETSI 952-1-4	ANSI T1.421
Certification	FCC Part 68, UL 60950	CE				
Surge Protection	ITU K.21					

ADSL and ADSL2+ Micro Filters



Part Number:	Z-321NF	Z-301LS	Z-230PJ	Z-330P2J	Z-330TJA	Z-321P2J	Z-A431PJ31X-A	Z-A431EU
Filter Type:	Distributed DSL Filters							
Connector	RJ11					RJ31X		Screw
Impedance	600 Ω							
Region	Asia & Europe		North America					UK
Specification	—	—	ANSI T1.421					—
Certification	CE		CE, FCC Part 68			UL 60950		CE

EXCELSUS CPE PRODUCTS

ADSL2+ and VDSL2 Video Grade Splitters



Part Number:	CP-V413WT	Z-401TJ11	CP-V501TJ	CP-V503TJ	CP-404TJ45	CP-421SE
Filter Type:	Distributed DSL Filters					
Connector	Screw	RJ11			RJ45	Swedish
Region	—	Europe				Sweden
Specification	ANSI T1.413	ETSI 952-1-1	ETSI 952-2-1	ETSI 952-2-3	ETSI 952-1-4	ANSI T1.421
Certification	FCC Part 68, UL 60950	CE				
Surge Protection	ITU K.21					

Excelsus MDU Products



Part Number:	KHZ-023-6625FF	Z-D250P2J	Z-D250CWA	CP-V413WT
Filter Type:	Central/Master Splitters			
Connector	Punch-down	RJ11		Screw
Impedance	600 Ω			
Mounting Style	66 Punch-down Block	Wall Mount		
Ports	24	1		
Certification	FCC Part 68, UL 60950			

Excelsus HPNA Products



Part Number:	BZ-H175S	BZ-H175S-44
Filter Type:	In-Line Balun with HPN Band Pass Filter	
Connector	Twisted Pair (RJ11) to Coaxial	
Impedance	100 Ω to 75 Ω balun	600 Ω
HPN Frequency	12 MHz - 28 MHz	12 MHz - 44 MHz
Certification	FCC Part 68, UL 60950	