



*Deliver more DSL capacity in CO systems
with Pulse CO splitter designs.*

Central Office DSL Splitter Circuits Customized for OEM Systems Worldwide

For years Pulse has been providing innovative DSL splitters, transformers, inductors and filters for central office (CO) and customer premises applications worldwide. Now our CO product line has expanded to offer cost-effective CO splitter solutions for central office, remote terminal or multi-tenant unit (MTU) applications.

Pulse's comprehensive library of CO splitter designs can be customized for various types of installations including DSLAM cards, rack mount cards, cross-connect blocks and main distribution frame (MDF) cards. Our proven success is

built on telecommunications-industry standards, manufacturing expertise and knowledge of market requirements. By using Pulse designs, OEMs can reduce time and development costs, focusing instead on their core CO product offerings.

High-Density, Scalable Solutions

One of the primary advantages of Pulse's splitter circuits is their density and scalability. Pulse has developed an innovative technique that creates a filter as much as *three times smaller* than typical designs. These unique circuits allow DSLAM manufacturers to fit more channels on smaller cards, and allow MDF cross-connect suppliers the ability to integrate DSL filtering into their high-density connection blocks.

Pulse splitter designs can be adapted to meet customer requirements, from single line modules for MDF applications to 96-line rack-mount cards for larger installations.

A Circuit for Every Standard

- ANSI T1.413 Annex E (The Americas)
- ETSI TS 101 952-1-1 through 1-4 (Europe)
- ETSI TS 101 952-2-1 through 2-4 (Europe)
- ETSI TR 101 728 (Europe)
- ITU-T G.992.1 E.2 (Asia)
- ITU-T G.992.1 E.4 (Japan)
- MII YD/T 1187 (China)

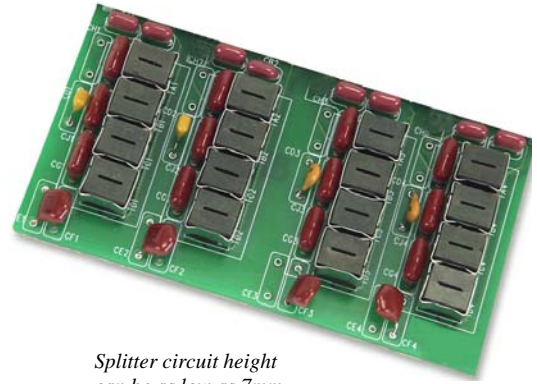
Benefits

- Innovative, high-density designs deliver 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
- For central office, remote terminal or MTU applications
- VDSL2 versions support TelcoTV and IPTV applications
- Engineering teams experienced in DSL circuit design and optimization
- Advanced production test capabilities and services

Splitter Features

Circuit Designs

- Single-line modules
- 8-line boards for MDF applications
- 12-line to 96-line boards for rack-mount installations
- Height as low as 7mm from PCB
- VDSL2 versions available
- Compliant with RoHS directive



Splitter circuit height can be as low as 7mm.

Electrical Options

- Signature circuit
- DC blocking capacitor
- Over-voltage and over-current protection
- Relays and controller
- Enhanced transient voltage peak suppression
- 30 MHz (VDSL2)

Region	Splitter Standard	Application		
		POTS	POTS & ISDN	ISDN
North America, South America, Central America	ANSI T1.413 Annex E	✓		
	Various hybrids	✓		
	ITU-T G.992.1 E.2	✓		
Europe	ETSI TS 101 952-1-1 through 1-4, plus ETSI TR 101 728	✓	✓	✓
	ETSI TS 101 952-2-1 through 2-4 (VDSL Splitter)	✓	✓	✓
Asia	ITU-T G.992.1 E.2 ITU-T G.992.1 E.4 (Japan) MII YD/T 1187 (China)	✓		

Testing Support

Automated Production Test

- Data logging
- Data archiving
- Data available via Intranet

System-Level Test Lab

- VDSL CO DSLAM and CPE modem
- IP video transmission capability
- Bit error testing

Pulse actively participates in these Standards Organizations

- ATIS NippNai
- ETSI TM6
- DSL Forum, Test & Interoperability Technical Group

For assistance with a custom design or for more information, please e-mail Pulse's Telecom Division at prodinfo_telecom@pulseeng.com.