

## Pulse central office “SmartER Series” splitter modules are TR-127 compliant for VDSL2 applications.



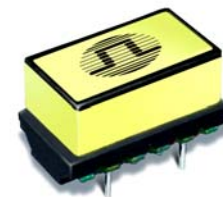
The TR-127 standard (Dynamic Testing of Splitters and In-Line Filters with xDSL Transceivers) was published by the Broadband Forum in May 2009. Pulse has implemented a test set-up to allow full compliance testing to this standard so is pleased to announce that our SmartER range of ADSL/VDSL splitter modules are fully compliant to the TR-127 standard for VDSL2 applications.

In the home, answering the telephone while it is ringing (Ring-Trip) can interfere with VDSL2 signals on the same line which may be carrying HDV (High Definition Video) to the consumer’s television. In these IPTV (Internet Protocol Television) applications, interference can cause pixelization or degradation of the television picture, which is not acceptable. To counteract this video degradation, high performance video grade splitters are required to protect the quality of the video service. The background to this issue is explained in depth in the article, and is available on our website: *“Tripping the Video Fantastic - Video Grade Splitters May Prevent the Ring Trip Problem”* by Author Greg Gough” (Aug 2007) (<http://www.ospmag.com/issue/article/082007-Tripping>)



Until the TR-127 standard was published there has been no defined or accepted method of testing the quality of video grade splitters. TR-127 defines the system test setup required, the different performance tests that must be completed, and the criteria required to pass and confirm compliance to the standard. The TR-127 standard is a 78 page document which has taken more than 3 years for industry experts to develop. For more technical information on the TR-127 standard and how it is implemented, this article contains an in-depth analysis of the standard, which will be available on our website soon. *“TR-127 ensures Quality of Service) for IPTV – by Author Leo Fitzpatrick”* (Jan 2010)

Pulse’s existing SmartER series of CO VDSL2 splitter modules have now been tested to the detailed requirements of the TR-127 standard. Pulse can confirm that its SmartER Series of CO splitter modules are TR-127 compliant for VDSL2 applications.



Note that many of the parts are TR-127 compliant for VDSL2 applications but not compliant for ADSL2+ applications. The main differences between ADSL2+ and VDSL2 (the frequencies used and the line lengths over which they must operate) are reflected in different requirements in the TR-127 standard. So all splitters need to be tested in both ADSL2+ and VDSL2 systems – results will often be different for the different applications. Pulse is currently working on expanding the SmartER range with models that are fully TR-127 compliant for both ADSL2+ and VDSL applications—to follow in a future press release

A summary of the range of Central Office (CO) splitter modules, their application, and the level of TR-127 compliance.

### Central Office SmartER Splitter Modules

Part Number	Application / Impedance	Application / Standard	TR-127 compliant for ADSL2+	TR-127 compliant for VDSL2	Datasheet
B8802NL	POTS – ANSI complex impedance	For ANSI ADSL (short loops only) and ANSI VDSL ATIS TRQ.10.2009 Type A (short loops only) and Type C fully compliant		√	B703
B8813NL	POTS – ANSI complex impedance	For ANSI ADSL (short and long loops only) and ANSI VDSL ATIS TRQ.10.2009 Type A fully compliant	√	√	B706
B8817NL	POTS – 600 Ω	For China ADSL and VDSL and ETSI 600ohm ADSL and VDSL YD/T 1187-2006 ADSL2+ 600 Ω fully compliant ETSI TS 101-952-1, v1.1.1 600 Ω fully compliant		√	B704
B8841NL	POTS – 600 Ω	For China ADSL and ETSI 600 Ω ADSL and VDSL YD/T 1187-2006 ADSL2+ 600 Ω fully compliant ETSI TS 101-952-1, v1.1.1 600 Ω fully compliant, including 12kHz metering pulse		√	B898
B8842NL	ISDN – 135 Ω /150 Ω	For ISDN only (2B3T and 4B1Q) ADSL (Annex B) and VDSL ETSI TS-101-952-1-3, v1.1.1 fully compliant	Not applicable	Not applicable	B705
B8845NL	POTS & ISDN – DT complex impedance & 150 Ω	For Germany (DT) POTS and ISDN ADSL (Annex B) and VDSL ETSI TS-101-952-1-4, v1.1.1 with DT complex load		√	B708
B8846NL	POTS – BT & ETSI complex impedances	For UK (BT) ADSL and VDSL and ETSI Option B ADSL and VDSL ETSI TS 101-952-1, v1.1.1 Option B fully compliant BT SIN-346, fully compliant		√	B899
B8849NL	POTS – ETSI complex impedance	For ETSI Option A ADSL and VDSL ETSI TS 101-952-1, v1.1.1 Option A relaxed return loss specification		√	B893
B8859NL	POTS – ETSI complex impedance	For ETSI Option A ADSL and VDSL ETSI TS 101-952-1, v1.1.1 Option A fully compliant, including 12kHz metering pulse		√	B701
B8891NL	POTS – 600 Ω	For China ADSL YD/T 1187-2006 ADSL2+ 600 Ω fully compliant		√ (up to 12 MHz)	B709

For all enquiries please contact:

Ronan Kelly (Product Marketing Engineer)

E-mail: [rkelly@pulseeng.com](mailto:rkelly@pulseeng.com)

Cell: +353 86 8277520

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