TECHNICAL REPORT

TR-127

Dynamic Testing of Splitters and In-Line Filters with xDSL Transceivers

Issue: 1 Corrigendum 1
Issue Date: April 2010

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Issue History

Issue Number	Issue Date	Issue Editor	Changes
1 Corrigendum 1	April 2010	Andre Holley, Sparnex Instruments	Corrigenda items for TR-127 Issue 1

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Table of Contents

Executive Summary

The document contains corrections to TR-127 Issue 1.

1 Purpose

1.1 Purpose

The corrections specified in the following sections apply to TR-127 Issue 1.

2 Correction to Section 2.2/TR-127

2.1 Add the following reference for *ATIS-TRQ.10.2009-*

[8]	ATIS-TRQ.10.2009	*Splitters Used for Line Splitting and Line Sharing Applications*	ATIS Recommendation	2009

3 Add a new Section 6.1.1/TR-127

6.1.1 DC blocking capacitors as reference high pass filter for xDSL over POTS:

The splitter DUT can contain DC blocking capacitors as shown in figure 6.3. In that case a reference high pass filter SHALL be used in certain measurement cases in which all splitters are absent, e.g. in the calibration cases. E.g. in figure 6.5 there is a reference high pass. This reference high pass models the two optional DC blocking capacitors of the DUT.

For POTS the reference high pass is composed of two DC Blocking capacitors, with 5% tolerance on the absolute value and a matching better than 1%. For ADSL, ADSL2, ADSL2plus and VDSL2 over POTS the DC blocking capacitors are 120 nF each as defined in ETSI TS 101 952 and ATIS-TRQ.10.2009.

When the DUT does not contain DC blocking capacitors, the reference high pass SHALL NOT be used.

4 Add new text above Note 1 in Section 6.2/TR-127

When a calibration test set-up is used, which is shown below in the upper part of figure 6-5, no splitters are present in the test set-up. To correctly assess the system in the absence of the splitter low pass, the optional DC blocking capacitors SHALL be inserted in the xDSL signal path to correctly model the signal propagation. For this purpose a reference high pass was defined in section 6.1.1. The reference high pass contains two DC blocking capacitors with nominal values, when the splitter DUT contains the (optional) DC blocking capacitors also. The reference high pass SHALL NOT be used when the splitter DUT does not contain DC blocking capacitors.

5 Replace Figure 6-5/TR-127

Replace Figure 6-5/TR-127 with the following figure

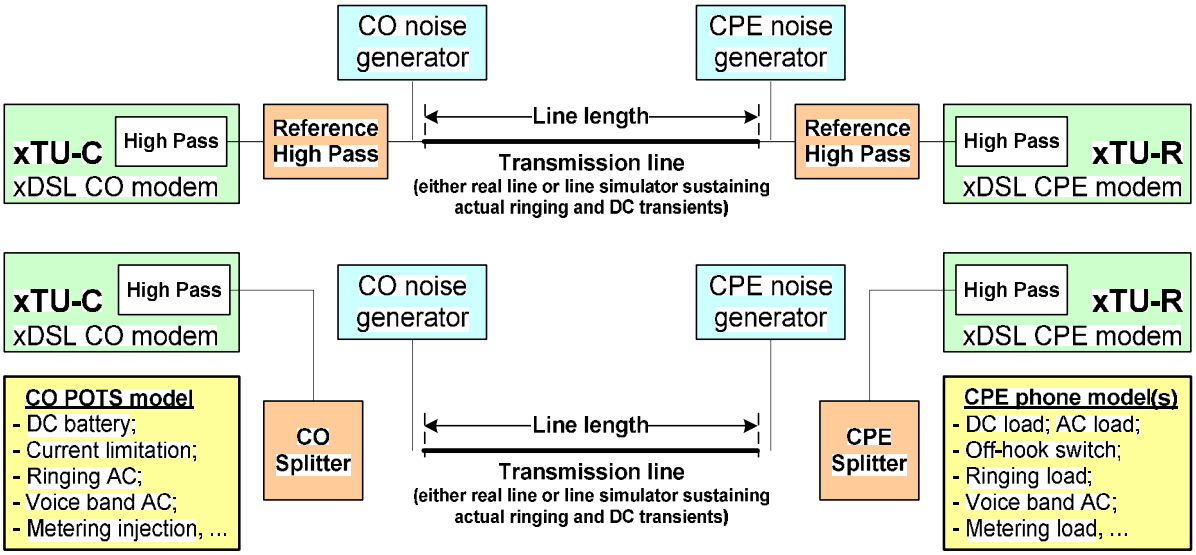

Figure 6-5: Double ended xDSL over POTS system interworking

6 Update Section 8.2.2/TR-127

8.2.2 Configuration

The set-up contains two xDSL transceivers, the loop or loop models, and the xDSL noise generators. Splitters, the CO POTS models, and the CPE phone model are not yet included except for two reference high pass filters. The loop or the loop simulator models SHALL remain the same for the rest of the tests in the remaining part of this chapter. To compensate the high pass in the splitter DUT, a reference high pass is included, as defined in section 6.1.1.

7 Replace Figure 8-2/TR-127

Replace Figure 8-2/TR-127 with the following figure

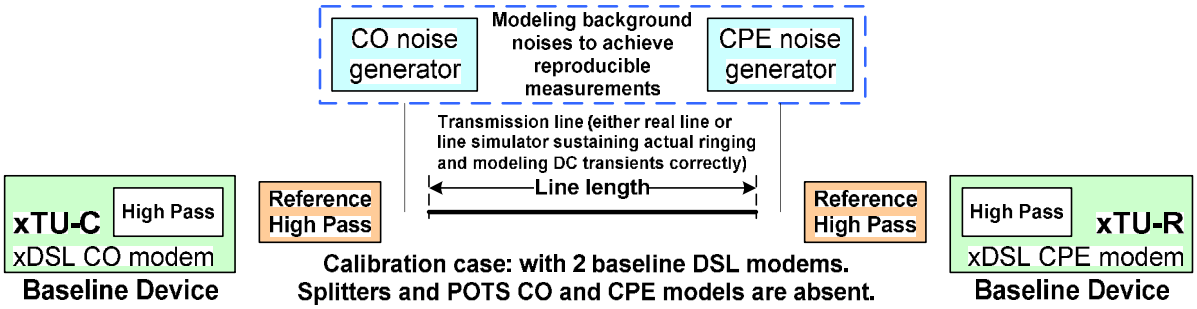

Figure 8-2: Calibration xDSL Baseline Test Procedure

8 Replace Figure 8-10/TR-127 and add explanatory text

Replace Figure 8-10/TR-127 with the following figure

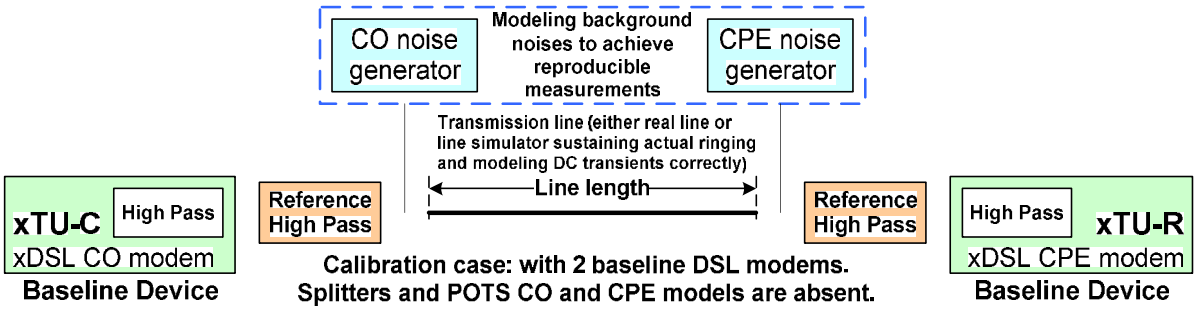

Figure 8-10: Bit Rate Performance Calibration

To compensate the high pass in the splitter DUT, a reference high pass is included in the figure above, as defined in section 6.1.1. When the DUT does not contain DC blocking capacitors, because they are merged with the input impedance of the xDSL transceiver, the reference high pass SHALL NOT be used.

9 Corrections to Section 8.1.2/TR-127

8.1.2 General test configuration

The loop could also be terminated with CPE in-line filters. In this case it is mandatory that there are three in-line filters connected in parallel on the line side. The ~~DSL~~ POTS ports of the in-line filter SHALL be terminated as follows: one with an off-hook impedance causing transients from on-hook to off-hook and back (Z_{trip}) and the other two in-line filters SHALL be terminated with on-hook impedance (Z_{ring}). Throughout this document wherever the term "CPE splitter lowpass" is used the term "CPE in-line filter" can be substituted. Optional tests with a single in-line filter terminated with a single off-hook impedance causing transients from on-hook to off-hook and back (Z_{trip}) can be performed.

End of Broadband Forum Technical Report TR-127