Addendum 1: SPECIFICATION PTC 274:2016

REQUIREMENTS FOR
CONNECTION OF CPE
TO THE SPARK VDSL2
NETWORK

(Spark New Zealand, March 2016)

The following alteration will be reflected in the upcoming revision of
PTC274 Specification, section 6.8 (Basic Performance test and Compatibility test):

6.8. Basic Performance test and Compatibility test

*NOTE: This section is not applicable to any commercial equipment or any CPE which
requires a professional installer to commission it.*

*This section is applicable to any consumer equipment or a residential CPE intended for
installation without professional intervention where "out-of-box" programming is limited to
user name, password and basic network credentials.*

6.8.1 Requirement
This test sets the minimum downstream performance to be achieved by the modem on a
typical customer line, and also checks that the modem is compatible with the Spark VDSL2
service.

6.8.2 Test rationale
This test case is designed to give an indication that the modem will connect to the Spark
VDSL2 service and perform satisfactorily relative to a reference modem. This test is not a
comprehensive performance test but eliminates any product which is not fit for purpose.

6.8.3 Test procedure
Configure the modem as follows:

- **PPP Protocol:** PPPoE, (RFC 2516)
- **PPP User name:** user@xtrabb.co.nz
- **PPP Password:** password
- **PPP Auth Type:** PAP
- **Encapsulation:** 802.1Q
- **PCP marking:** 0
- **VLAN ID:** 10
- **MTU:** Auto, must support MTU of 1500 bytes as per RFC4638. If RFC4638 is not
  supported, then the modem must support MSS clamping to avoid any path mtu
  issues.

This test uses a short cable (< 1 km) between the Device under test and the Spark VDSL2
service.

- *1 km is not an absolute limit, as long as VDSL2 service has been successfully provisioned on the
  cable, it may be used for this test.*

1. Measure downstream and upstream speeds of a reference modem
2. Connect modem under test and measure downstream and upstream speeds
3. Repeat steps 1 and 2

The time between each test shall be not more than 5 minutes

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6.8.4 Result
1. The modem must be able to be configured as listed above.
2.   The default (out of the box) configuration shall be recorded.
3.   The average downstream speed of the two tests of the modem under test shall be not less than 60% of the average speed of the two tests of the reference modem.
4.   The average upstream speed of the two tests of the modem under test shall be not less than 60% of the average speed of the two tests of the reference modem.

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