

Period of Testing: 30.10.2018 – 18.12.2018

Name of Scenario	Test Name	Results
APPI_TEST_1A)	APPI-COM radios with a 1/4 wave in open (rural) area.	Range is 2.6 km
APPI_TEST_1B)	APPI-COM radios with a 1/4 wave in forested area.	Range is 620m
APPI_TEST_1C)	APPI-COM radios with a 1/4 wave in Suburban area - low buildings.	Range is 600m.
APPI_TEST_1D)	APPI-COM radios with a 1/4 wave in Urban area.	Range is 920m.
APPI_TEST_2A)	APPI-COM radios with a 1/2 wave in open (rural) area.	Range is 3.8km.
APPI_TEST_2B)	APPI-COM radios with a 1/2 wave in forested area.	Range is 670m.
APPI_TEST_2C)	APPI-COM radios with a 1/2 wave in Suburban area - low buildings.	Range is 860m.
APPI_TEST_2D)	APPI-COM radios with a 1/2 wave in Urban area.	Range is 1.4km.
APPI_TEST_3A)	Inside the building with 1/4 wave antenna BS-APC-ANT02.	Range is 3 floors (about 9 meters).
APPI_TEST_3B)	Inside the building with 1/2 wave antenna BS-APC-ANT01.	Range is 7 floors (about 21 meters).
APPI_TEST_4A)	Inside/outside a sewer with 1/2 wave antenna BS-APC-ANT01.	Range is about 100 meters.

Environment conditions:

► **Tests in the open (rural) area:** out in the lowland, flat area, consisting of farmlands and few trees belts. Temperature: 8°C, full cloudy, humidity: 85%, wind: 18kmph, no precipitation.

► **Tests in the forested area:** out in lowland, flat and forested area, consisting of coniferous and deciduous trees. The Reference Point was inside the forest, while the tests points were along the asphalt road inside forest. Weather conditions: Temperature: 11°C, moderate cloudy, humidity: 70%, wind: 15kmph, no precipitation.

► **Tests in Suburban area:** were carried out in the densely built-up area of single-family houses
Weather conditions: Temperature: 11°C, moderate cloudy, humidity: 70%, wind: 15kmph, no precipitation.

► **Tests in the densely, urban area:** several-story buildings. Temperature: 10°C, partly cloudy, humidity: 80%, wind: 6kmph, no precipitation.

► **Tests inside building:** out in the 10-storey building, where floors were made of concrete with iron reinforcement.

► **Tests inside/outside a sewer:** sewer under around 15m of concrete, in town, around 2meters in diameter, with water flowing in the center canal. Inspectors (inside) are walking on the catwalk. The controller's (outside) radio is eventually hanging (half Hight) in the sewer.