

2.1053 Field strength of spurious emissions

See section 5.7 for report J20021364A, page 14 and 15, OQT28SNP-03-02

Radiated spurious emissions were measured at a distance of 1, 3 and 10 meters from the product, up to a frequency of 200 MHz. Measurements from 30 – 2000 MHz were made as part of the FCC part 15 tests with a biconolog antenna at 10 meters, from 1 - 40 GHz with a EMCO 3115 and 3116 ridge guided at 3 meters and with Millitech mixers at 1 meter from the EUT from 40 - 200 GHz.

No spurious emissions could be found, which is technically understandable if one considers that the final RF output connects with a waveguide filter to the antenna.

2.1057 Range of antenna conducted spurious emissions and field strength

Conducted spurious emissions were made up to 40 GHz with a direct connect between the output of the RF amplifier (after the waveguide filter). Figures 6, 7 and 8 show examples of the data obtained. Only the emission from the carrier could be found within the dynamic range of the measurement system.

Conducted antenna measurements over 40 GHz could not be made directly because of the incompatibility of the waveguide flanges and the potential overloading of the Millitech mixers with the 1 Watt output of the RF amplifier. In lieu of this, radiated measurements were made with the coupling provided by the transmit antenna on the radio facing directly into the receive horn antenna's of the Millitech mixers, with a reference set at the actual transmit antenna. Again, no spurious emissions could be found within the dynamic range of this measurement setup.

The same measurement process was followed for FCC ID: OQT28ETP-FE-02, report J20019792A. Figures 5,6,7,8 and 9 show the conducted spurious scans up to 40 GHz. Similar to the SONET product detailed above, no radiated spurious emissions could be found within the dynamic range of the measurement system.