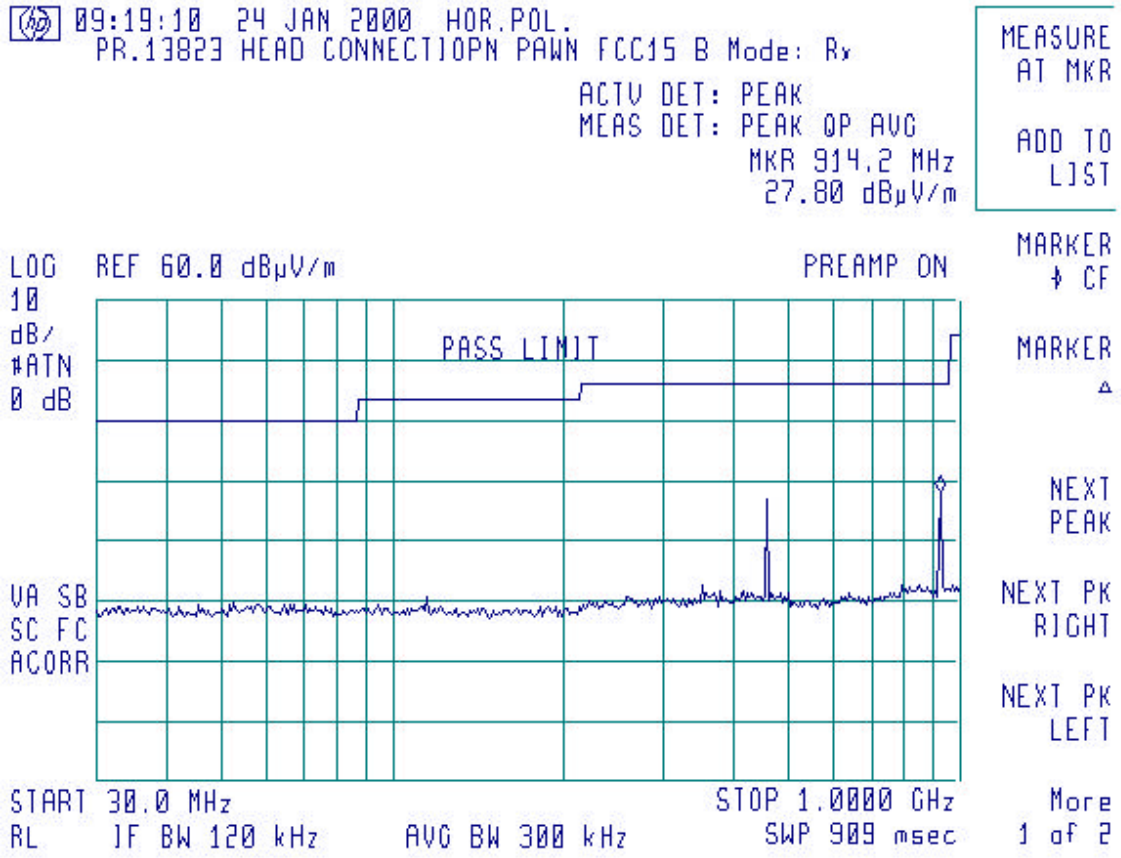
Plot 4.1.2 Radiated emission measurements test results,
electric field, frequency range 30 MHz - 1 GHz
Stand-by mode, horizontal polarization



Plot 4.1.3 Radiated emission measurements test results,
electric field, frequency range 1 GHz – 2 GHz
Stand-by mode, vertical and horizontal polarization

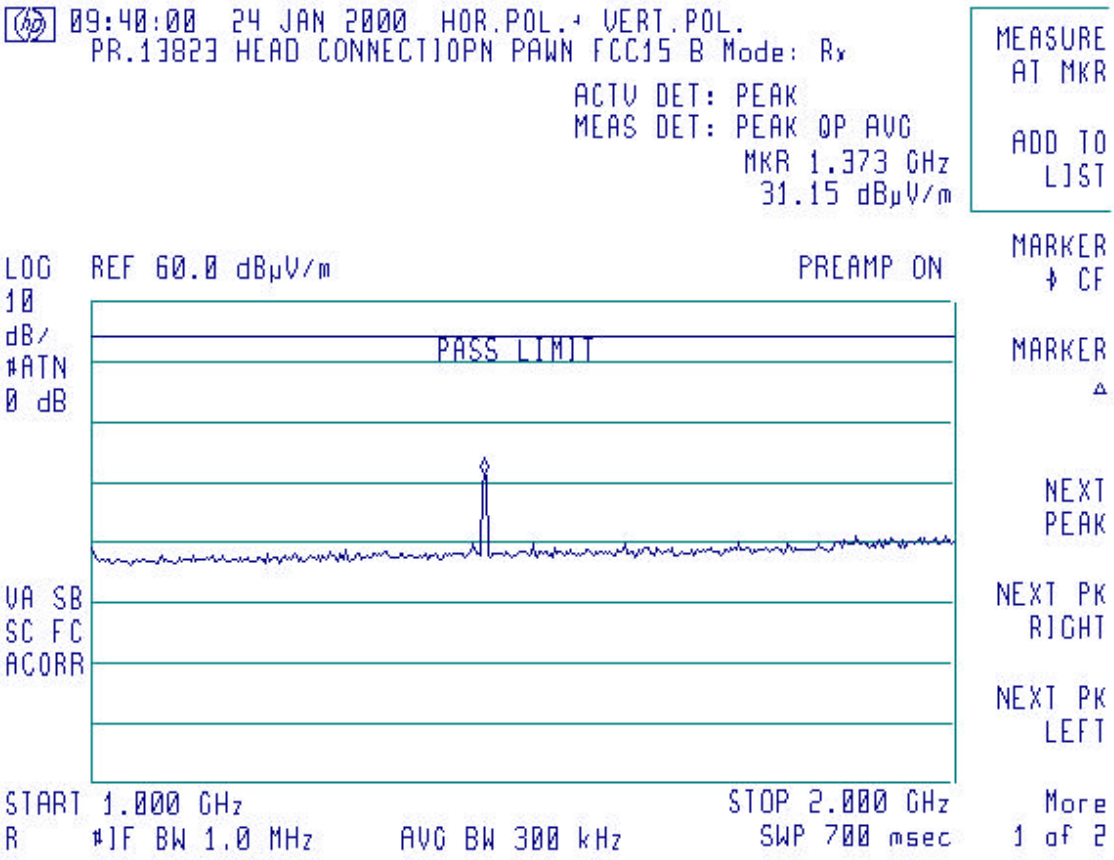
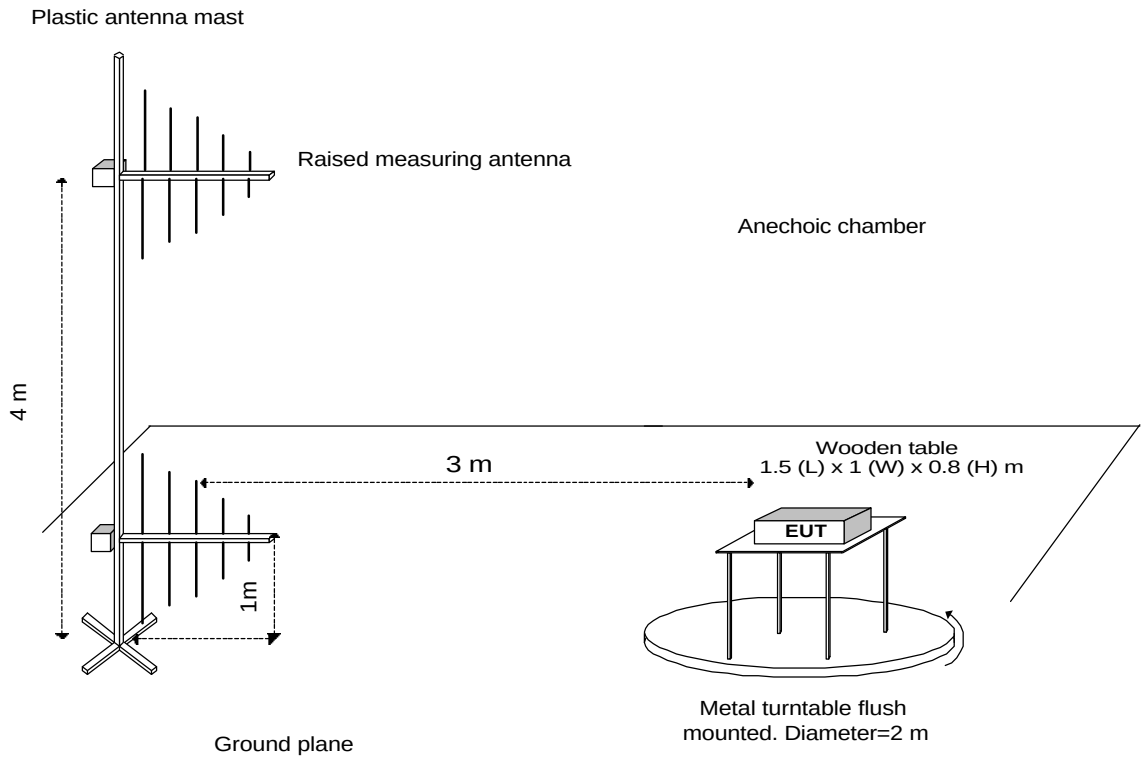
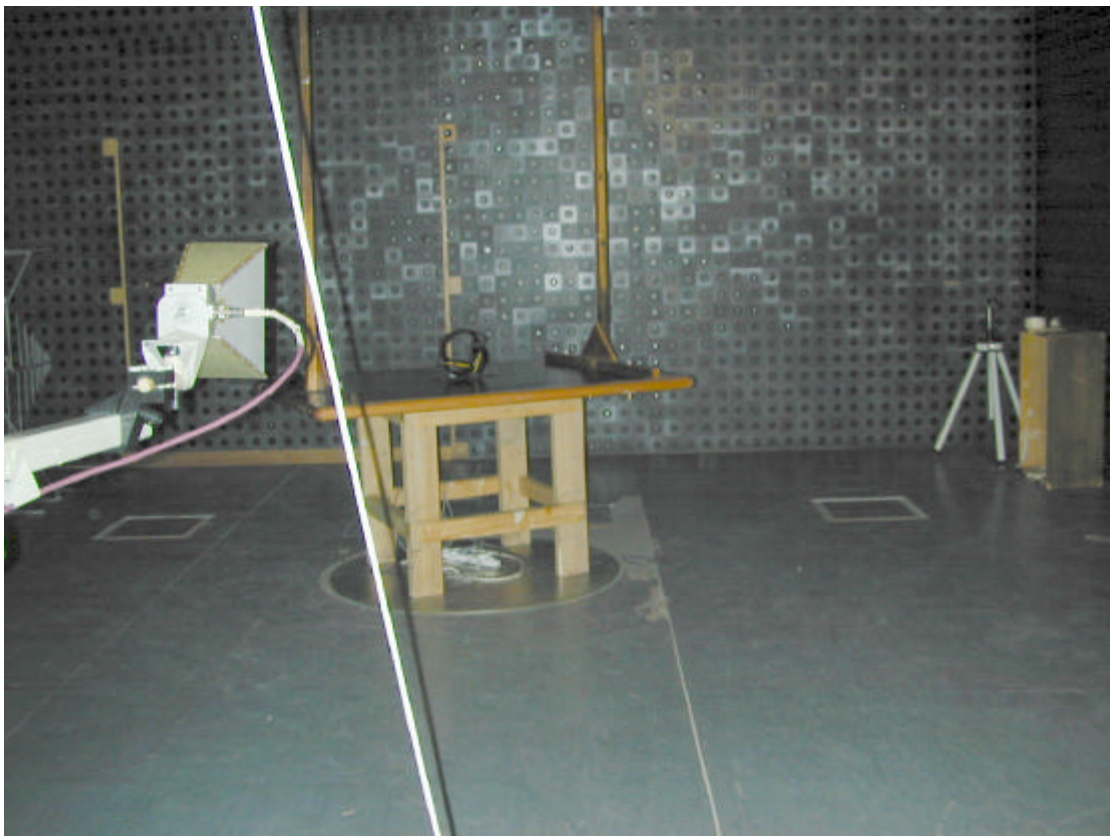


Figure 4.2.1
Radiated emissions test setup for table-top equipment



Photograph 4.2.1
Setup for radiated emission measurements
1 – 2 GHz



Photograph 4.2.2
Setup for radiated emission measurements

4.3 Effective radiated power measurements according to FCC part 90 paragraph 267 (a3)

4.3.1 General

This test was performed to determine maximal effective radiated power.
The standard specification limit is 2 W ERP = 33 dBm.

4.3.2 Test procedure

The EUT was tested according to the substitution method with dipole antenna. The test was performed at HL open field test site at 3-meter test distance, i.e. the distance between measuring antenna and EUT boundary.
The EUT was placed on wooden table, as shown in Photograph 4.3.1. Electric field power values were recorded. Then the EUT was replaced with dipole antenna connected to signal generator. The generator output was adjusted to obtain an electric field power level equal to that of the EUT.

Maximum ERP was calculated from equation:

$$ERP_{max} = P_{out\ gen} - \text{Cable loss} + \text{Antenna gain}$$

Test results are recorded in Table 4.3.1.

Reference numbers of test equipment used

HL 0465	HL 0521	HL 0589	HL 0604	HL 0614	HL 0661	HL 1175

Full description is in Appendix A.

Table 4.3.1
ERP measurement

Frequency, MHz	E, dBmV/m	P_{gen}, dBm	Cable loss, dB	Antenna gain, dB	ERP_{max}, dBm	Limit, dBm	Pass/ Fail
451.017	115.12	17	0.5	0.56	17.06	33	Pass
460.65	117.95	20	0.5	0.56	20.06	33	Pass
469.98	118.07	20	0.5	0.56	20.06	33	Pass