4.6 Photos of Radiation Measuring Setup

5 CONDUCTED EMISSION MEASUREMENT

5.1 Standard Applicable

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to § 15.107(a) and §15.207(a) respectively .

5.2 Measurement Procedure

1. Setup the configuration per figure 3.

2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.

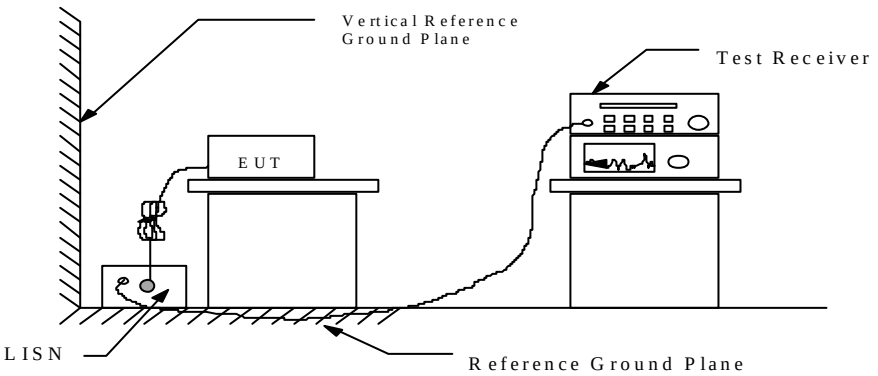
3. Record the 6 or 8 highest emissions relative to the limit.

4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then records the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.

5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.

6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 3 : Conducted emissions measurement configuration



5.3 Conducted Emission Data

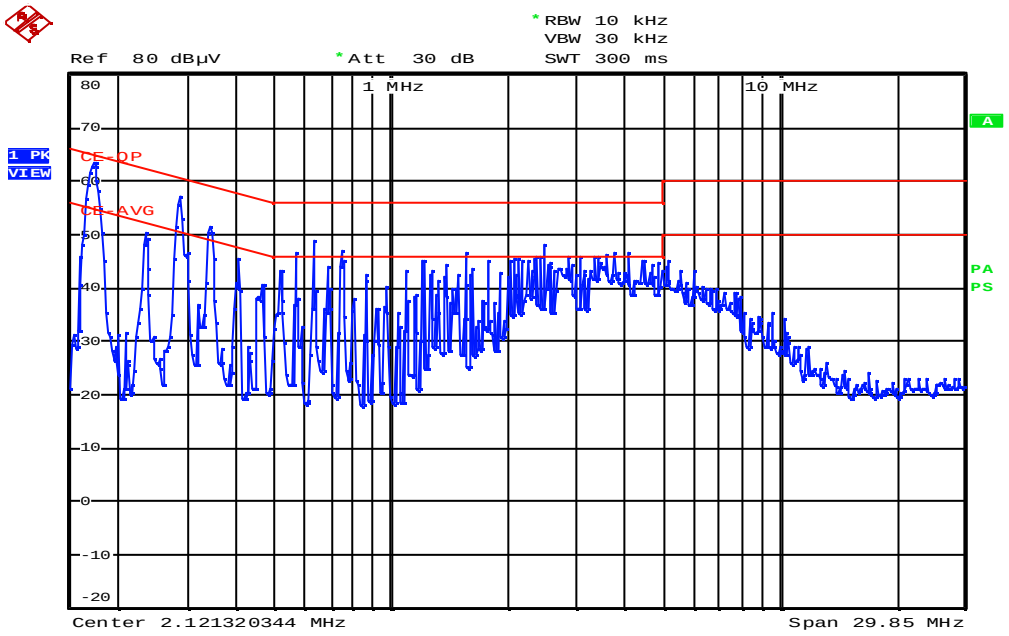
Operation Mode : Charge & Operation

Test Date : Mar. 03, 2007 Temperature : 20 °C Humidity : 65 %

Mode: Charge & Operation N1

Frequency (MHz)	Meter Reading (dBμV)		Factor (dB)	Result (dBμV)		Limit (dBμV)		Margin (dBμV)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.1625	60.0	50.0	0.2	60.2	50.2	65.3	55.3	-5.1	-5.1
0.2809	51.8	47.2	0.2	52.0	47.4	60.8	50.8	-8.7	-3.3
0.3510	49.2	40.1	0.3	49.5	40.4	58.9	48.9	-9.5	-8.6
0.6392	44.2	40.2	0.3	44.5	40.5	56.0	46.0	-11.5	-5.5
2.5100	42.8	40.1	0.5	43.3	40.6	56.0	46.0	-12.7	-5.4
6.7852	40.9	39.2	0.7	41.6	39.9	60.0	50.0	-18.4	-10.1

Note : 1. The expanded uncertainty of the conducted emission tests is 2.45 dB.



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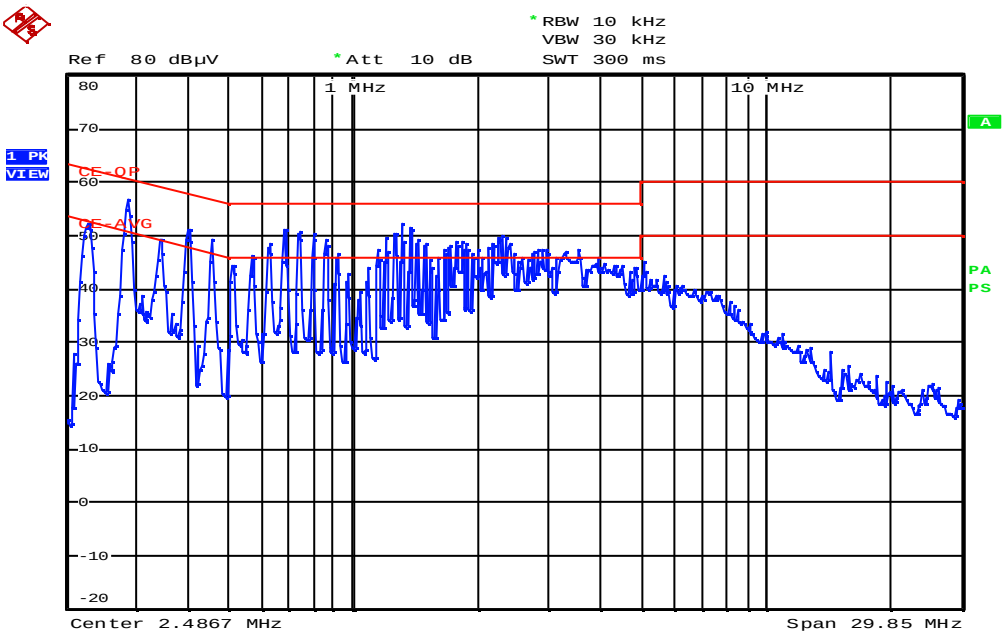
Mode: Charge & Operation L1

Frequency (MHz)	Meter Reading (dBμV)		Factor (dB)	Result (dBμV)		Limit (dBμV)		Margin (dBμV)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.1625	50.2	47.2	0.2	50.4	47.4	65.3	55.3	-14.9	-7.9
0.2815	51.2	46.2	0.2	51.4	46.4	60.8	50.8	-9.3	-4.3
0.3518	47.2	40.2	0.3	47.5	40.5	58.9	48.9	-11.4	-8.4
0.5520	44.2	40.2	0.3	44.5	40.5	56.0	46.0	-11.5	-5.5
0.5821	43.2	39.6	0.3	43.5	39.9	56.0	46.0	-12.5	-6.1
0.6120	42.9	38.9	0.3	43.2	39.2	56.0	46.0	-12.8	-6.8

Note : 1. The expanded uncertainty of the conducted emission tests is 2.45 dB.



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5.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

RESULT = READING + LISN FACTOR

Assume a receiver reading of 22.5 dBμV is obtained, and LISN Factor is 0.1 dB, then the total of disturbance voltage is 22.6 dBμV.

RESULT = 22.5 + 0.1 = 22.6 dBμV
Level in μV = Common Antilogarithm[(22.6 dBμV)/20]
= 13.48 μV

5.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test .

Equipment	Manufacturer	Model No.	Next Cal. Due
EMI Test Receiver	Rohde & Schwarz	ESCI	12/24/2007
LISN	EMCO	3825/2	10/08/2008
LISN	Rohde & Schwarz	ESH2-Z5	09/19/2008

5.6 Photos of Conduction Measuring Setup