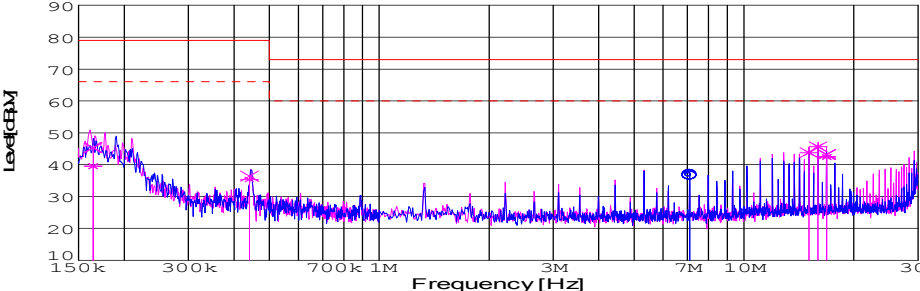
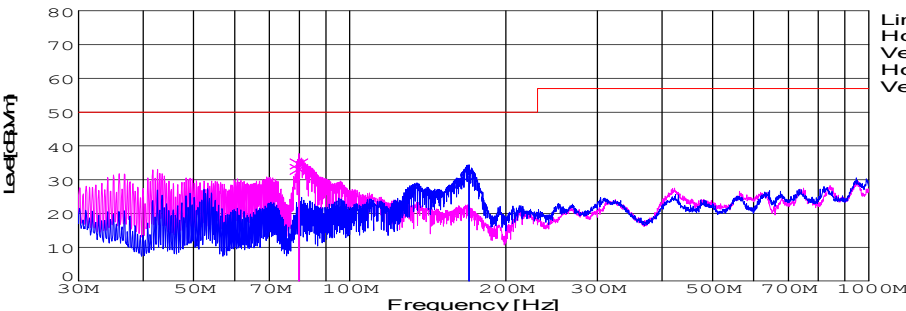
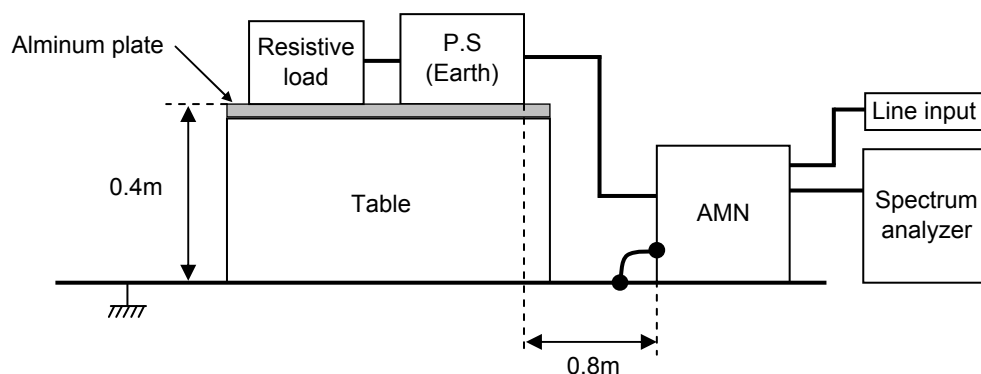


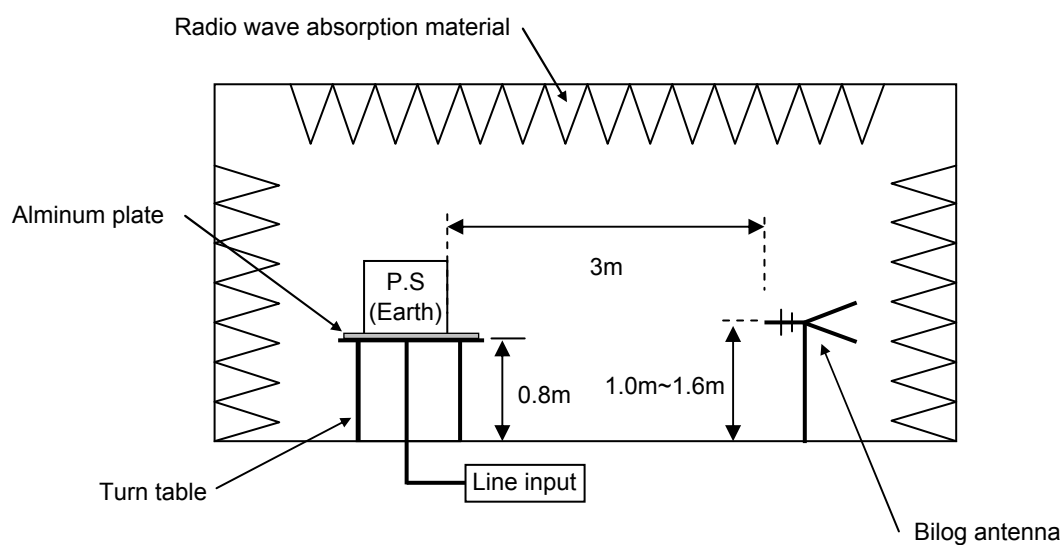
DATA SHEET							Date	Aug 6,2007																																																																															
Model	CES24033-25						Temp.	25 degreeC																																																																															
Test	EMI Line conduction & Radiated emission						Humid.	45 %RH																																																																															
							Tested by	T.Mizuhara																																																																															
LINE CONDUCTION																																																																																							
Model Name : CES24033-25			Temp. : 25degC																																																																																				
Model No. :			Humi. : 45%Rh																																																																																				
Serial No. :			Date : 2007/8/6 19:51																																																																																				
Points : 6			Test Equip. : R3132,ESPC																																																																																				
Detector : PEAK/QP/Ave.			Load Line :																																																																																				
Line Mode : VA/VB			Comment :																																																																																				
Power Supply : DC 24V																																																																																							
Limit1: [EN 55022] Class A(QP)																																																																																							
Limit2: [EN 55022] Class A(Ave.)																																																																																							
							Limit1(QP) ——— Limit2(Ave.) - - - VA(PEAK) ——— VB(PEAK) ——— VA(QP) ○ VA(Ave.) ○ VB(QP) × VB(Ave.) ×																																																																																
							Vin:DC24V Vo:3.3V Io:25A																																																																																
<table><tr><th>Frequency [MHz]</th><th>Meter Reading (Ave.) [dBuV]</th><th>Meter Reading (QP) [dBuV]</th><th>Factor [dB]</th><th>Level(Ave.) [dBuV]</th><th>Level(QP) [dBuV]</th><th>Line</th><th>Limit(Ave.) [dBuV]</th><th>Limit(QP) [dBuV]</th><th>Margin(Ave.) [dB]</th><th>Margin(QP) [dB]</th></tr><tr><td>7.0973</td><td>26.6</td><td>26.3</td><td>10.1</td><td>36.7</td><td>36.4</td><td>VA</td><td>60</td><td>73</td><td>23.3</td><td>36.6</td></tr><tr><td>0.1643</td><td>29.7</td><td>35.5</td><td>9.8</td><td>39.5</td><td>45.3</td><td>VB</td><td>66</td><td>79</td><td>26.5</td><td>33.7</td></tr><tr><td>0.4407</td><td>25.4</td><td>26.5</td><td>9.9</td><td>35.3</td><td>36.4</td><td>VB</td><td>66</td><td>79</td><td>30.7</td><td>42.6</td></tr><tr><td>15.0787</td><td>33.5</td><td>33.6</td><td>10.2</td><td>43.7</td><td>43.8</td><td>VB</td><td>60</td><td>73</td><td>16.3</td><td>29.2</td></tr><tr><td>15.9668</td><td>35.5</td><td>35.4</td><td>10.2</td><td>45.7</td><td>45.6</td><td>VB</td><td>60</td><td>73</td><td>14.3</td><td>27.4</td></tr><tr><td>16.8528</td><td>32.2</td><td>33</td><td>10.2</td><td>42.4</td><td>43.2</td><td>VB</td><td>60</td><td>73</td><td>17.6</td><td>29.8</td></tr></table>											Frequency [MHz]	Meter Reading (Ave.) [dBuV]	Meter Reading (QP) [dBuV]	Factor [dB]	Level(Ave.) [dBuV]	Level(QP) [dBuV]	Line	Limit(Ave.) [dBuV]	Limit(QP) [dBuV]	Margin(Ave.) [dB]	Margin(QP) [dB]	7.0973	26.6	26.3	10.1	36.7	36.4	VA	60	73	23.3	36.6	0.1643	29.7	35.5	9.8	39.5	45.3	VB	66	79	26.5	33.7	0.4407	25.4	26.5	9.9	35.3	36.4	VB	66	79	30.7	42.6	15.0787	33.5	33.6	10.2	43.7	43.8	VB	60	73	16.3	29.2	15.9668	35.5	35.4	10.2	45.7	45.6	VB	60	73	14.3	27.4	16.8528	32.2	33	10.2	42.4	43.2	VB	60	73	17.6	29.8
Frequency [MHz]	Meter Reading (Ave.) [dBuV]	Meter Reading (QP) [dBuV]	Factor [dB]	Level(Ave.) [dBuV]	Level(QP) [dBuV]	Line	Limit(Ave.) [dBuV]	Limit(QP) [dBuV]	Margin(Ave.) [dB]	Margin(QP) [dB]																																																																													
7.0973	26.6	26.3	10.1	36.7	36.4	VA	60	73	23.3	36.6																																																																													
0.1643	29.7	35.5	9.8	39.5	45.3	VB	66	79	26.5	33.7																																																																													
0.4407	25.4	26.5	9.9	35.3	36.4	VB	66	79	30.7	42.6																																																																													
15.0787	33.5	33.6	10.2	43.7	43.8	VB	60	73	16.3	29.2																																																																													
15.9668	35.5	35.4	10.2	45.7	45.6	VB	60	73	14.3	27.4																																																																													
16.8528	32.2	33	10.2	42.4	43.2	VB	60	73	17.6	29.8																																																																													
RADIATED EMISSION																																																																																							
Model Name : CES24033-25			Temp. : 25degC																																																																																				
Model No. :			Humi. : 45%Rh																																																																																				
Serial No. :			Date : 2007/8/6 20:26																																																																																				
Points : 3			Test Equip. : R3132,ESPC																																																																																				
Detector : PEAK/QP			Load Line :																																																																																				
Polarization : Hori. & Vert.			Comment :																																																																																				
Power Supply : DC 24V																																																																																							
Limit: [EN 55022] Class A<3m>																																																																																							
							Limit(QP) ——— Horizontal(PEAK) ——— Vertical(PEAK) ——— Horizontal(QP) ○ Vertical(QP) ×																																																																																
							Vin:DC24V Vo:3.3V Io:25A																																																																																
<table><tr><th>Frequency [MHz]</th><th>MeterReading (QP) [dBuV]</th><th>Ant. Type</th><th>Antenna Factor [dB/m]</th><th>Cable &amp; Preamp [dB]</th><th>Level(QP) [dBuV/m]</th><th>Angle [°]</th><th>Height [cm]</th><th>Polar.</th><th>Limit [dBuV/m]</th><th>Margin [dB]</th></tr><tr><td>169.826</td><td>48.3</td><td>BL</td><td>8.8</td><td>-26</td><td>31.1</td><td>351</td><td>160</td><td>Hori.</td><td>50</td><td>18.9</td></tr><tr><td>79.789</td><td>53</td><td>BL</td><td>7</td><td>-26.9</td><td>33.1</td><td>293</td><td>143</td><td>Vert.</td><td>50</td><td>16.9</td></tr><tr><td>79.805</td><td>54.5</td><td>BL</td><td>7</td><td>-26.9</td><td>34.6</td><td>289</td><td>130</td><td>Vert.</td><td>50</td><td>15.4</td></tr></table>											Frequency [MHz]	MeterReading (QP) [dBuV]	Ant. Type	Antenna Factor [dB/m]	Cable & Preamp [dB]	Level(QP) [dBuV/m]	Angle [°]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	169.826	48.3	BL	8.8	-26	31.1	351	160	Hori.	50	18.9	79.789	53	BL	7	-26.9	33.1	293	143	Vert.	50	16.9	79.805	54.5	BL	7	-26.9	34.6	289	130	Vert.	50	15.4																																	
Frequency [MHz]	MeterReading (QP) [dBuV]	Ant. Type	Antenna Factor [dB/m]	Cable & Preamp [dB]	Level(QP) [dBuV/m]	Angle [°]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]																																																																													
169.826	48.3	BL	8.8	-26	31.1	351	160	Hori.	50	18.9																																																																													
79.789	53	BL	7	-26.9	33.1	293	143	Vert.	50	16.9																																																																													
79.805	54.5	BL	7	-26.9	34.6	289	130	Vert.	50	15.4																																																																													

DATA SHEET		Date	Aug 6,2007
Model	Circuit used for measurement	Temp.	25 degreeC
Test	EMI Line conduction & Radiated emission	Humid.	45 %RH
		Tested by	T.Mizuhara

## 1. Line conduction



## 2. Radiated emission



## Conditions

Test : EMI

Model Name : CES24

Photographs of Test Set-Up

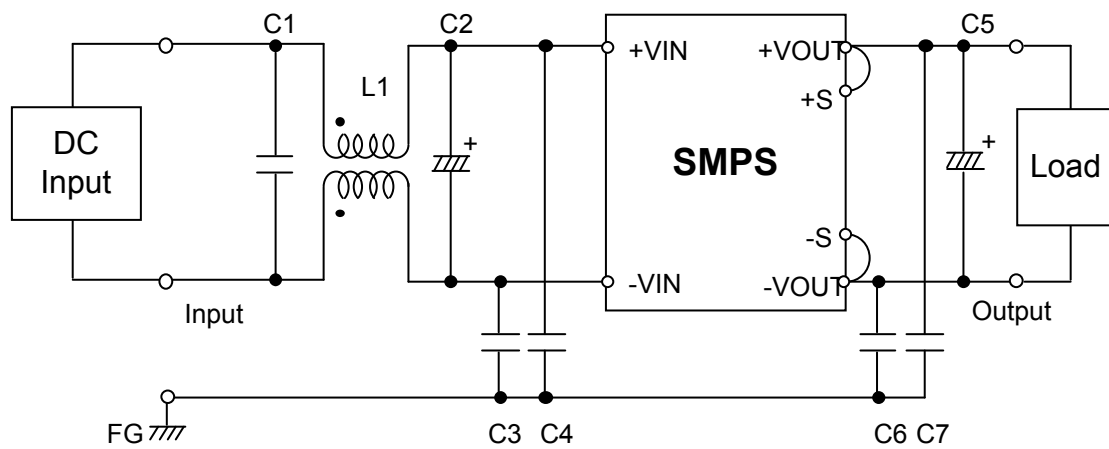
LINE CONDUCTION



RADIATED EMISSION



Testing circuitry



L1	: SC-10-10J	NEC/TOKIN	or equivalent.
C1	: 2.2 $\mu$ F 100V	Film capacitor	
C2	: 220 $\mu$ F 50V	Electric capacitor	
C3,4	: 0.068 $\mu$ F 630V	Film capacitor	
C5	: 10 $\mu$ F 25V	Electric capacitor	
C6,7	: 0.033 $\mu$ F 630V	Film capacitor	