APPENDIX 2: Data of EMI test

Radiated Emission below 30MHz (Fundamental and Sprious Emission)

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DATA OF MAGNETIC RADIATED EMISSION TEST

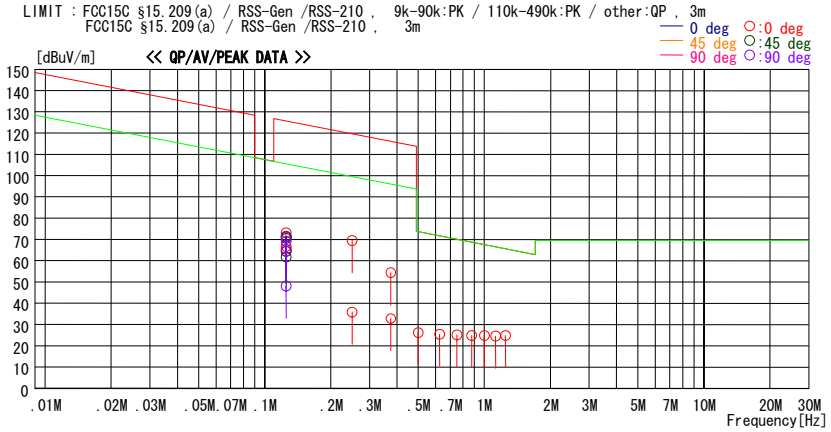
UL Apex Co.,LTD. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2006/11/02 10:22:43

Company : BRIDGESTONE Co., Ltd.
Kind of EUT : HAND READER
Model No. : K111
Serial No. : ES0001

Report No. : 27BE0262-HO
Power : DC2.4V
Temp./ Humi. : 23deg.C / 45%
Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 125kHz, (Max:Z-axis)

LIMIT : FCC15C §15.209(a) / RSS-Gen /RSS-210 , 9k-90k:PK / 110k-490k:PK / other:QP , 3m
FCC15C §15.209(a) / RSS-Gen /RSS-210 , 3m



Freq [MHz]	Reading [dBuV]	DET	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Antenna	Table [deg]	Comment
0.12500	72.4	PEAK	19.5	5.9	26.2	71.6	125.7	54.1	0deg	360	X-axis
0.12500	72.2	PEAK	19.5	5.9	26.2	71.4	125.7	54.3	45deg	360	X-axis
0.12500	69.9	PEAK	19.5	5.9	26.2	69.1	125.7	56.6	90deg	58	X-axis
0.12500	74.0	PEAK	19.5	5.9	26.2	73.2	125.7	52.5	0deg	280	Z-axis,MAX
0.12500	71.4	PEAK	19.5	5.9	26.2	70.6	125.7	55.1	45deg	280	Z-axis
0.12500	72.1	PEAK	19.5	5.9	26.2	71.3	125.7	54.4	90deg	60	Z-axis
0.12500	67.7	AV	19.5	5.9	26.2	66.9	105.7	38.8	0deg	280	Z-axis,MAX
0.12500	65.2	AV	19.5	5.9	26.2	64.4	105.7	41.3	45deg	280	Z-axis
0.12500	65.3	AV	19.5	5.9	26.2	64.5	105.7	41.2	90deg	60	Z-axis
0.12500	66.3	PEAK	19.5	5.9	26.2	65.5	125.7	60.2	0deg	360	Y-axis
0.12500	62.7	PEAK	19.5	5.9	26.2	61.9	125.7	63.8	45deg	360	Y-axis
0.12500	49.0	PEAK	19.5	5.9	26.2	48.2	125.7	77.5	90deg	137	Y-axis
0.25000	71.5	PEAK	19.5	5.9	27.3	69.6	119.6	50.0	0deg	280	
0.25000	37.9	AV	19.5	5.9	27.3	36.0	99.6	63.6	0deg	280	
0.37500	56.7	PEAK	19.5	5.9	27.7	54.4	116.1	61.7	0deg	360	
0.37500	35.2	AV	19.5	5.9	27.7	32.9	96.1	63.2	0deg	360	
0.50000	28.5	QP	19.5	6.0	27.8	26.2	73.6	47.4	0deg	360	
0.62500	27.8	QP	19.5	6.0	27.9	25.4	71.7	46.3	0deg	360	
0.75000	27.6	QP	19.5	6.0	27.9	25.2	70.1	44.9	0deg	360	
0.87500	27.3	QP	19.5	6.0	27.9	24.9	68.8	43.9	0deg	360	
1.00000	27.3	QP	19.5	6.0	27.9	24.9	67.6	42.7	0deg	360	
1.12500	26.9	QP	19.5	6.0	27.9	24.5	66.6	42.1	0deg	360	
1.25000	27.0	QP	19.6	6.1	27.9	24.8	65.7	40.9	0deg	360	

CHART : WITH FACTOR , ANT TYPE : LOOP , Except for the data below : adequate margin data below the limits.
CALCULATION : READING + ANT FACTOR + LOSS(CABLE + ATTEN.-AMP.)

Radiated Emission above 30MHz (Sprious Emission)

DATA OF RADIATED EMISSION TEST

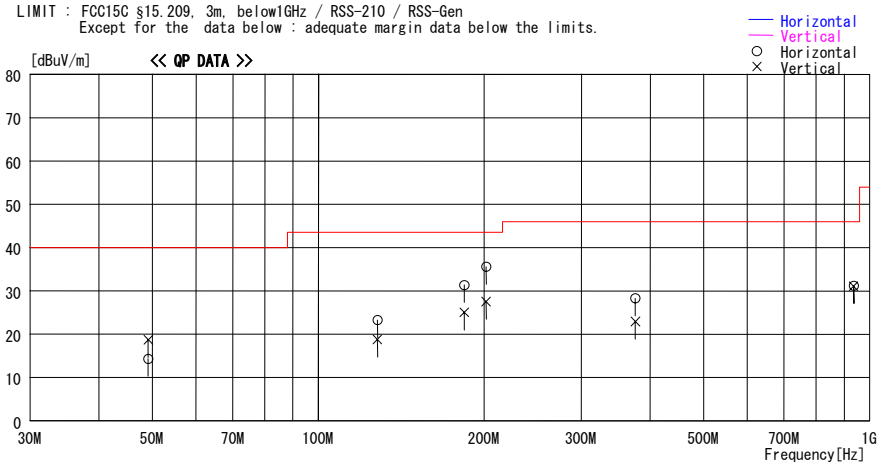
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2006/11/02 14:13:11

Applicant : BRIDGESTONE Co., Ltd.
Kind of EUT : HAND READER
Model No. : K111
Serial No. : ES0001

Report No. : 27BE0262-HO
Power : DC2.4V
Temp./Humi. : 23deg.C. / 45%
Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 125kHz (Max:Z-axis)

LIMIT : FCC15C §15.209, 3m, below1GHz / RSS-210 / RSS-Gen
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
49.151	28.3	QP	10.4	-20.0	18.7	0	350	Vert.	40.0	21.3
49.151	23.9	QP	10.4	-20.0	14.3	0	210	Hori.	40.0	25.7
128.000	28.5	QP	13.4	-18.6	23.3	0	175	Hori.	43.5	20.2
128.000	24.0	QP	13.4	-18.6	18.8	270	100	Vert.	43.5	24.7
183.999	32.5	QP	16.8	-17.9	31.4	0	178	Hori.	43.5	12.1
183.999	26.1	QP	16.8	-17.9	25.0	278	168	Vert.	43.5	18.5
201.659	35.7	QP	17.5	-17.6	35.6	182	154	Hori.	43.5	7.9
201.659	27.6	QP	17.5	-17.6	27.5	270	100	Vert.	43.5	16.0
376.000	27.5	QP	17.3	-16.5	28.3	359	100	Hori.	46.0	17.7
376.000	22.1	QP	17.3	-16.5	22.9	257	100	Vert.	46.0	23.1
936.129	22.9	QP	22.5	-14.2	31.2	0	175	Hori.	46.0	14.8
936.129	22.8	QP	22.5	-14.2	31.1	0	100	Vert.	46.0	14.9

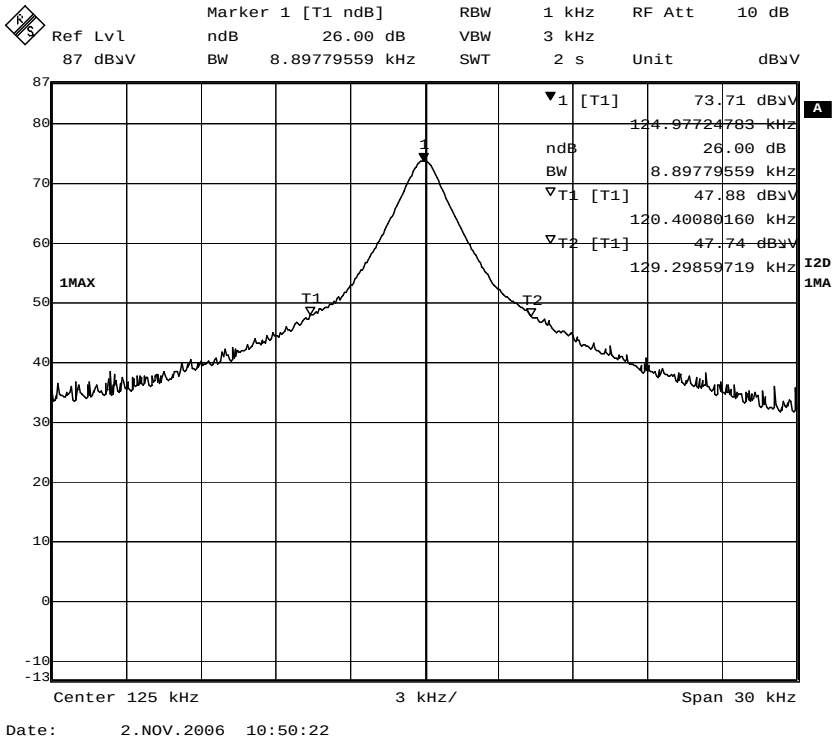
CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

-26dB Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

COMPANY	:	BRIDGESTONE Co., Ltd.	REPORT NO	:	27BE0262-HO
EQUIPMENT	:	HAND READER	REGULATION	:	Reference data
MODEL	:	K111	TEST DISTANCE	:	3m
S/ N	:	ES0001	DATE	:	11/02/2006
POWER	:	DC2.4V	TEMPERATURE	:	23 deg.C
MODE	:	Tx	HUMIDITY	:	48 %
	:	Ant-Max	Engineer	:	Hiroka Umeyama

	FREQ [kHz]	-26dB Bandwidth [kHz]
	125.5	8.898

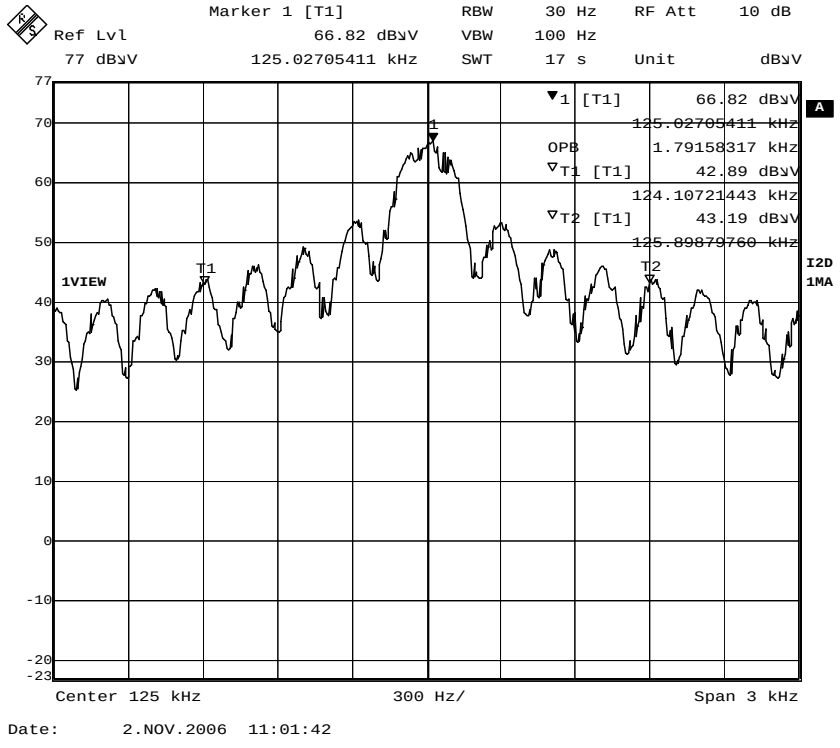


99% Occupied Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

COMPANY	:	BRIDGESTONE Co., Ltd.	REPORT NO	:	27BE0262-HO
EQUIPMENT	:	HAND READER	REGULATION	:	RSS-Gen 4.4.1
MODEL	:	K111	TEST DISTANCE	:	3m
S/ N	:	ES0001	DATE	:	11/02/2006
POWER	:	DC2.4V	TEMPERATURE	:	23 deg.C
MODE	:	Tx	HUMIDITY	:	48 %
	:	Ant-Max	Engineer	:	Hiroka Umeyama

	FREQ [kHz]	99% Occupid Bandwidth [kHz]
	125.2	1.792



APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2005/11/14 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	RE	2004/11/25 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MJM-01	Measure	KDS	ES19-55	RE	-
MLPA-02	Loop Antenna	Rohde & Schwarz	HFH2-Z2	RE	2005/12/06 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/Agilent/TSJ	-	RE	2005/12/18 * 12
MCC-31	coaxial cable	ULApex	-	RE	2006/05/29 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2006/05/27 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/10/07 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/10/07 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/TSJ	-	RE	2006/02/20 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2006/10/14 * 12

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item:

RE: Radiated Spurious Emission