

**ACCURATE TECHNOLOGY CO., LTD.**
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3708

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2480MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

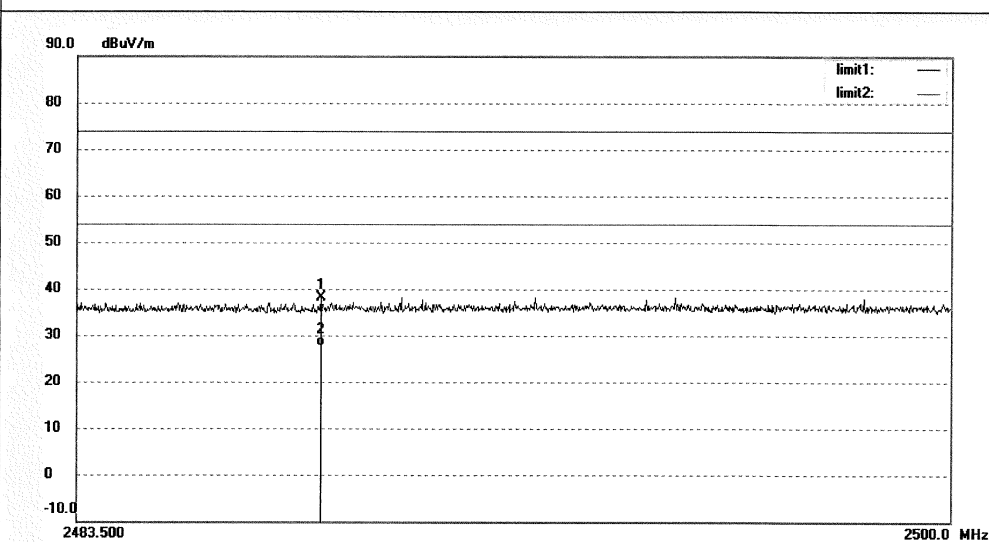
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: Bluetooth 4.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2488.104	45.53	-7.38	38.15	74.00	-35.85	peak			
2	2488.104	34.92	-7.38	27.54	54.00	-26.46	AVG			

Appendix B

Test Results of RF Exposure - Bluetooth 4.0 Low Energy Mode

APPENDIX B.1: RF EXPOSURE COMPLIANCE	2
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Appendix B.1: RF Exposure Compliance

Radio Frequency Exposure Compliance

RESULT:

Pass

Test standard : FCC 1.1310
RSS-102 Issue 5
KDB 447498 D01 General RF Exposure Guidance v06

This device is Bluetooth 4.0 Low Energy and 2.4 GHz wireless device. The EUT has only one antenna, Bluetooth 4.0 Low Energy and 2.4 GHz wireless cannot transmit simultaneously.

This RF exposure evaluation is only for Bluetooth 4.0 Low Energy operation.

Since the maximum peak output power of the transmitter is 0.83 mw, and the separation between body and antenna is 5 mm. The maximum peak output power is less than 10mW (FCC Limit) and 4mW (IC Limit), hence the EUT is excluded from SAR evaluation according to FCC KDB 447498 D01: Mobile Portable RF Exposure and RSS-102 Issue 5.

Appendix C

Test Results of 2.4 GHz Wireless Mode

APPENDIX C.1: SPURIOUS EMISSIONS OF 2.4 GHZ WIRELESS OPERATION 2

Low Channel..... 2

Middle Channel..... 11

High Channel..... 20

APPENDIX C.2: RADIATED EMISSIONS IN RESTRICTED BANDS - 2.4 GHZ WIRELESS OPERATION 29

Low Channel..... 29

High Channel..... 31

Appendix C.1: Spurious Emissions of 2.4 GHz Wireless operation Low Channel

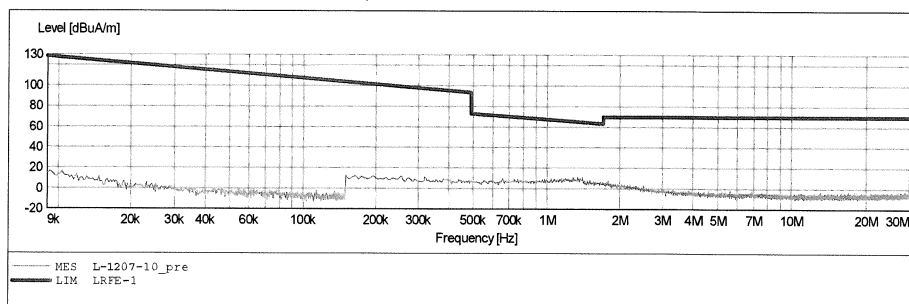
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FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2402MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



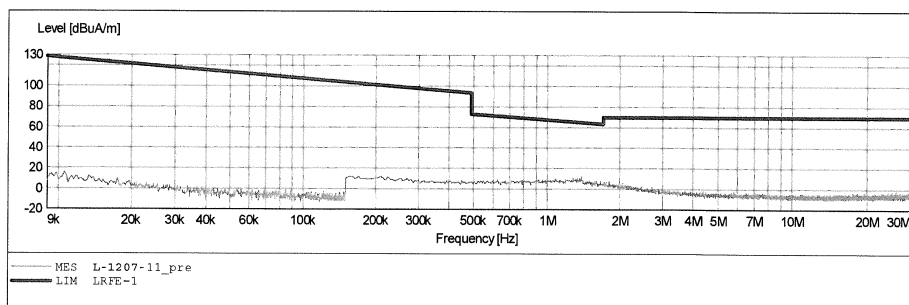
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2402MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description: SUB_STD_VTERM2 1.70				Detector	Meas. Time	IF Bandw.	Transducer
Start Frequency	Stop Frequency	Step Width					
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M	
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M	



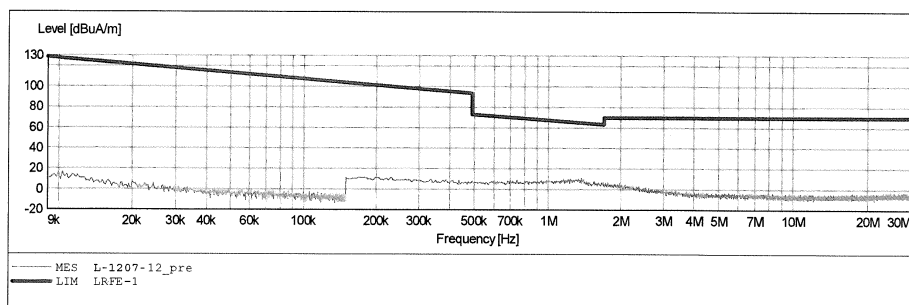
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2402MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Z
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M





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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3758

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2402MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

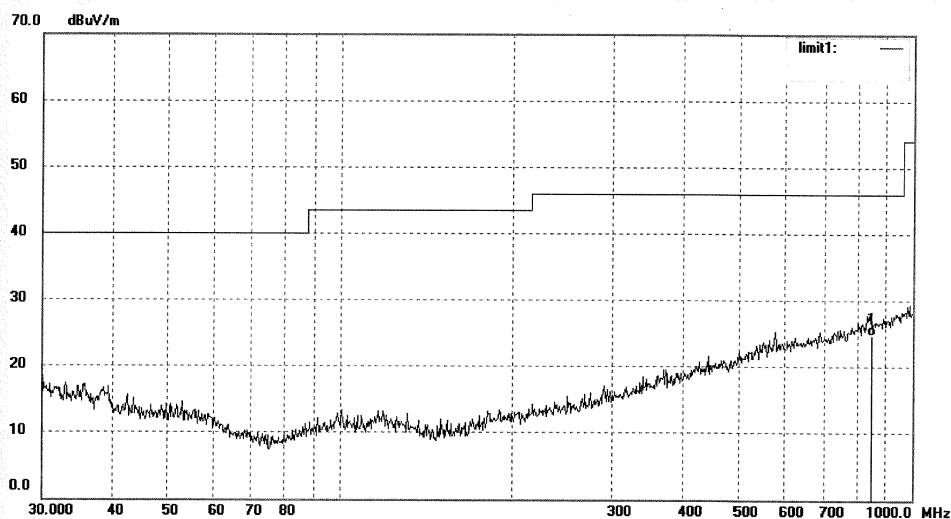
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	845.0878	24.13	0.69	24.82	46.00	-21.18	QP			



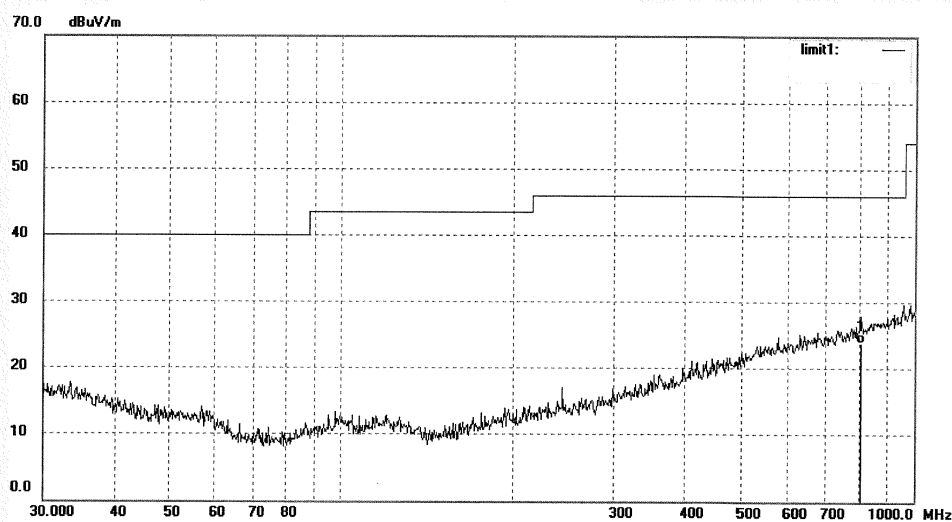
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3757	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/12/03/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: ThinkPad X1 Mouse	Engineer Signature: PEI
Mode: TX 2402MHz	Distance: 3m
Model: MOBTJNL	
Manufacturer: Lenovo	

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	804.6028	23.72	0.11	23.83	46.00	-22.17	QP			

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3694

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2402MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

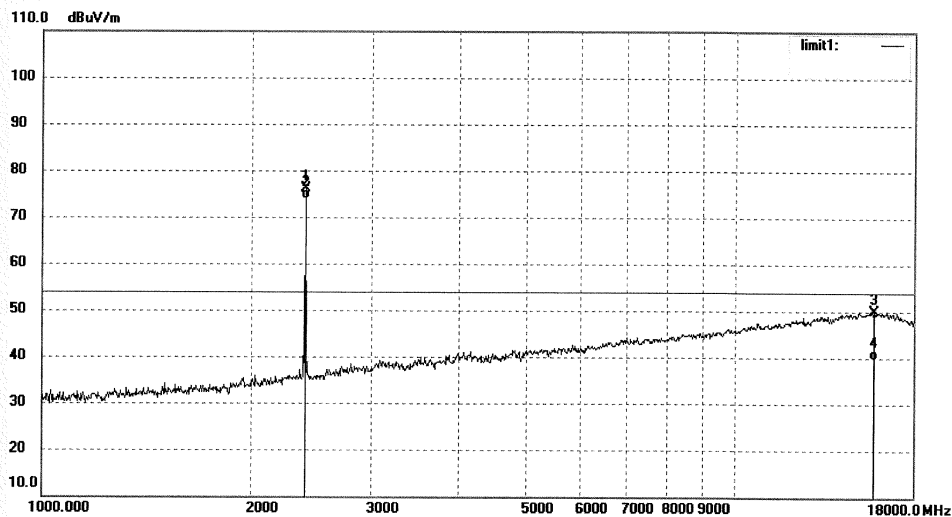
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	83.50	-7.45	76.05	/	/	peak			
2	2402.000	81.45	-7.45	74.00	/	/	QP			
3	15759.048	9.89	40.05	49.94	74.00	-24.06	peak			
4	15759.048	-0.45	40.05	39.60	54.00	-14.40	QP			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3693

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2402MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

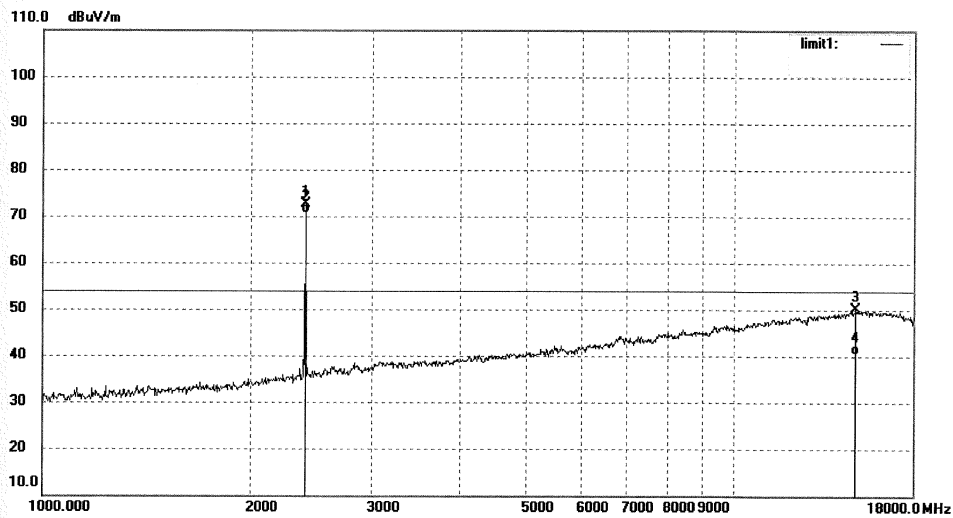
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	80.01	-7.45	72.56	/	/	peak			
2	2402.000	78.13	-7.45	70.68	/	/	AVG			
3	14830.959	8.61	41.61	50.22	74.00	-23.78	peak			
4	14830.959	-1.34	41.61	40.27	54.00	-13.73	AVG			



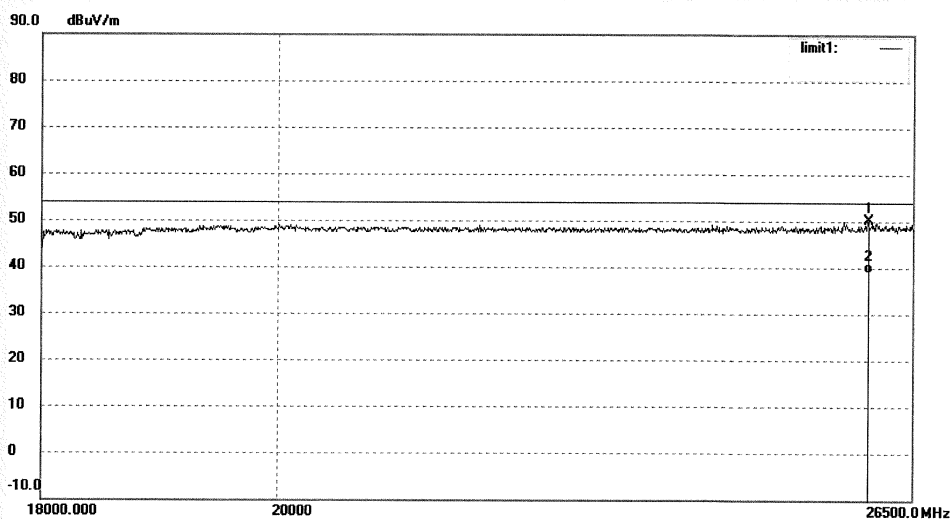
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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3710	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/12/03/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: ThinkPad X1 Mouse	Engineer Signature: PEI
Mode: TX 2402MHz	Distance: 3m
Model: MOBTJNL	
Manufacturer: Lenovo	

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25972.351	32.99	17.25	50.24	74.00	-23.76	peak			
2	25972.351	21.72	17.25	38.97	54.00	-15.03	AVG			



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3709

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2402MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

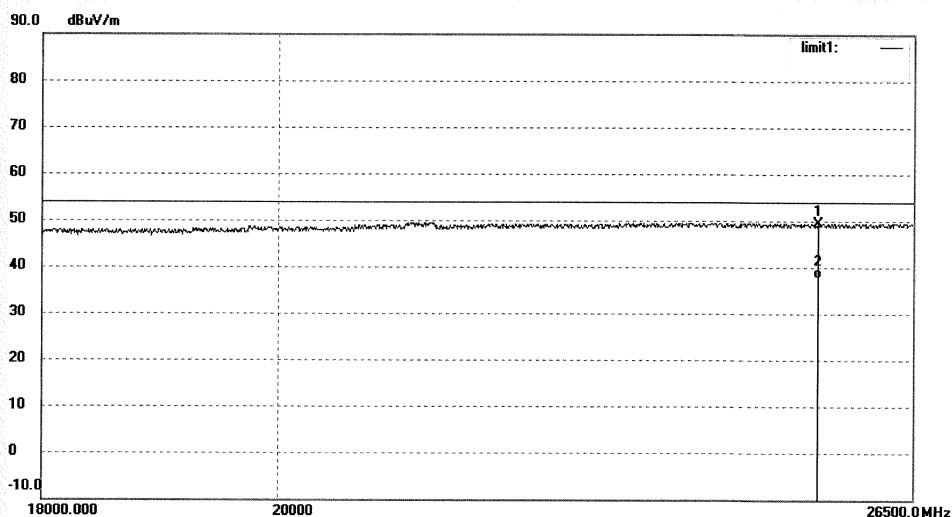
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25386.383	31.85	17.64	49.49	74.00	-24.51	peak			
2	25386.383	20.04	17.64	37.68	54.00	-16.32	AVG			

Middle Channel

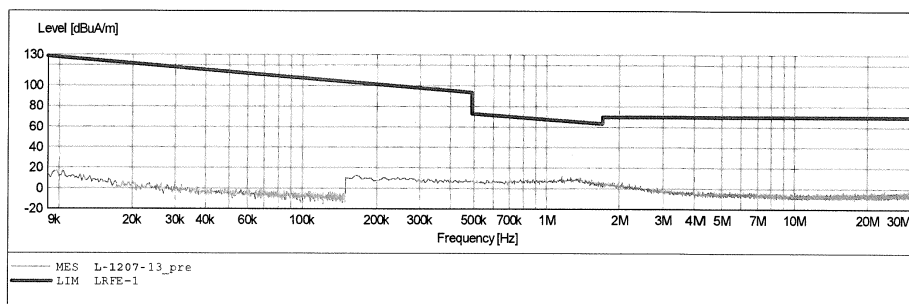
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FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2441MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



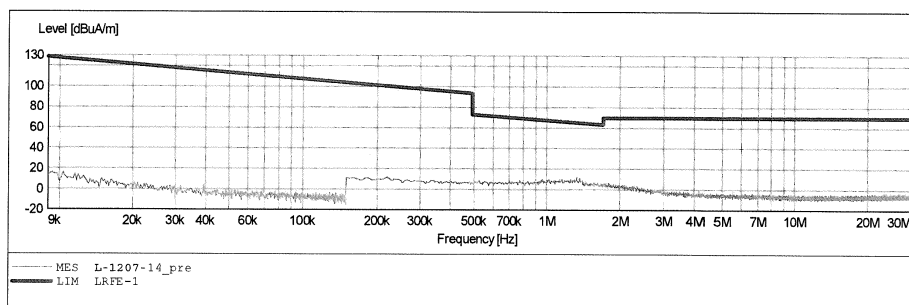
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FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2441MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



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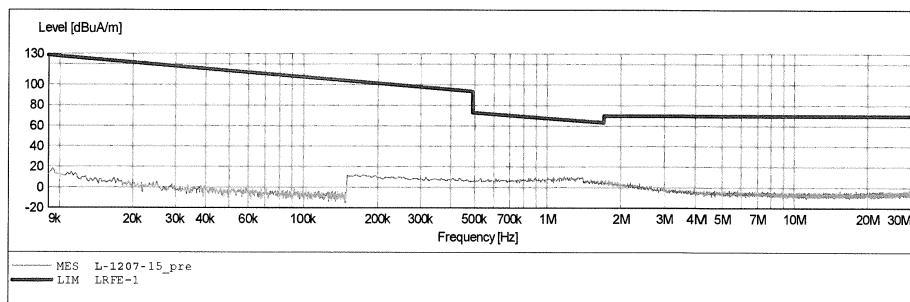
FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2441MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Z
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description: SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M





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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3759

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2441MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

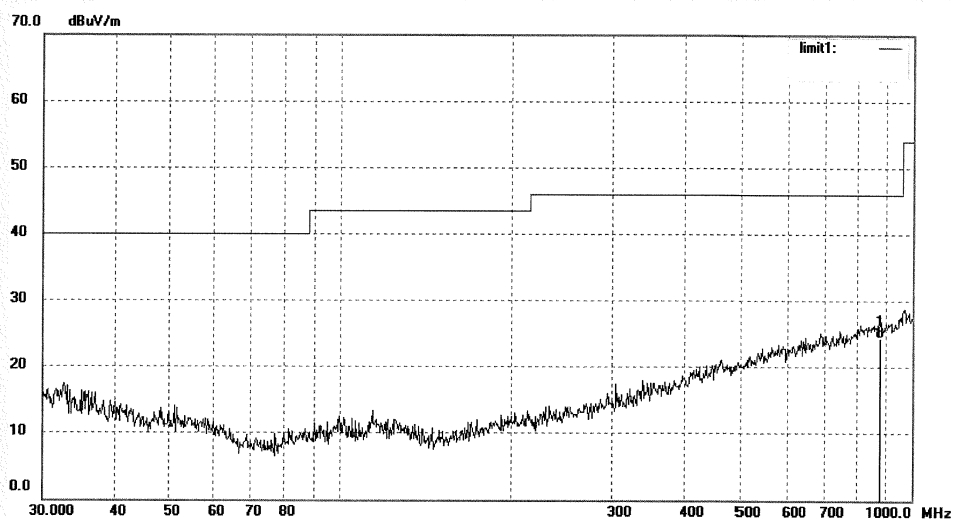
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	878.3214	23.34	1.13	24.47	46.00	-21.53	QP			



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3760

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2441MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

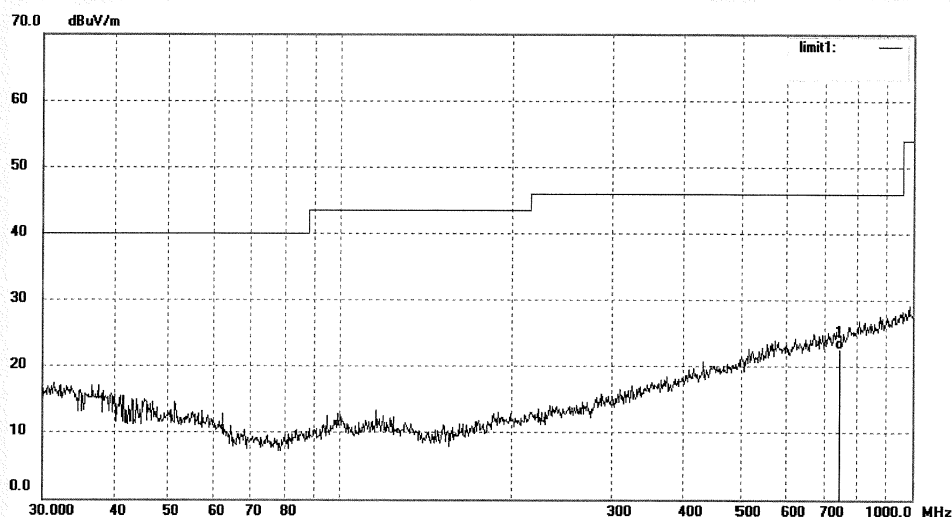
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	747.4825	23.72	-1.07	22.65	46.00	-23.35	QP			



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3695

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2441MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

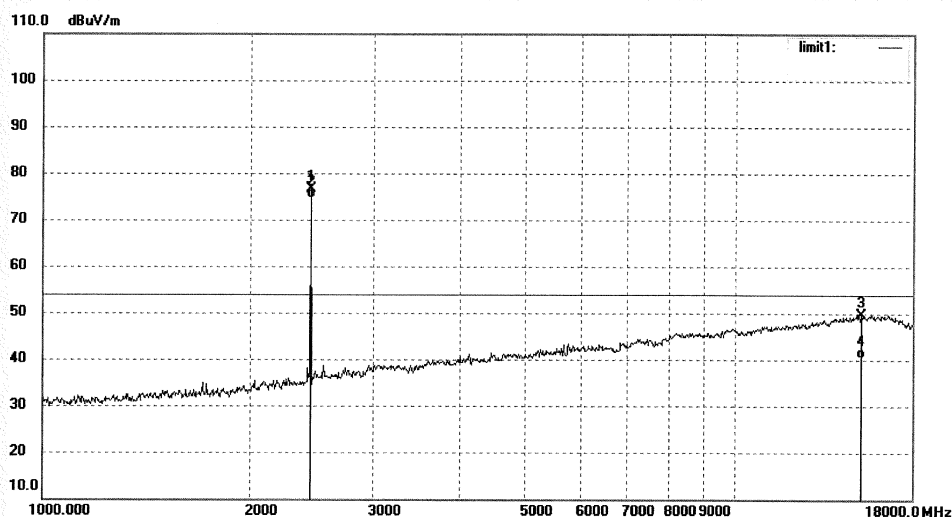
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	84.04	-7.35	76.69	/	/	peak			
2	2441.000	81.98	-7.35	74.63	/	/	AVG			
3	15221.824	9.01	40.66	49.67	74.00	-24.33	peak			
4	15221.824	-0.23	40.66	40.43	54.00	-13.57	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3696

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2441MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

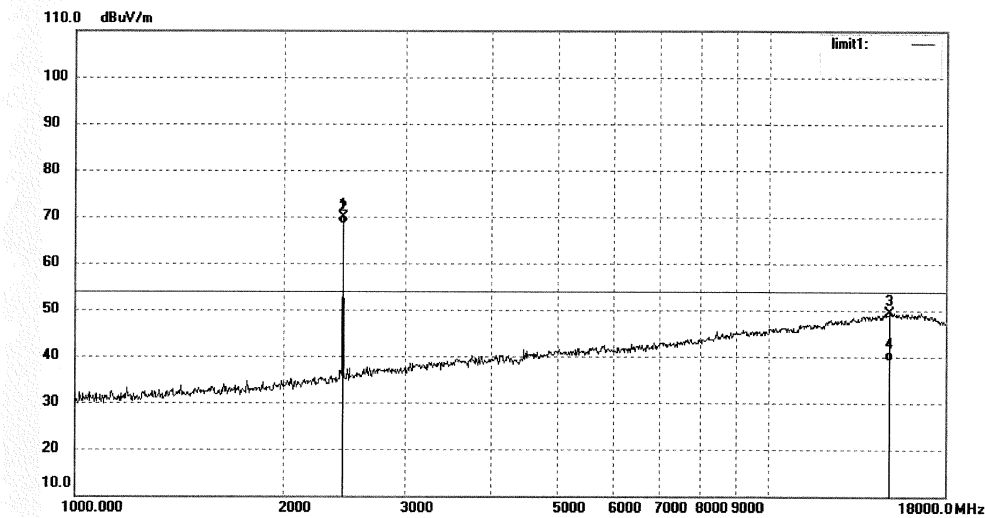
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	77.19	-7.35	69.84	/	/	peak			
2	2441.000	75.79	-7.35	68.44	/	/	AVG			
3	15003.422	8.39	41.09	49.48	74.00	-24.52	peak			
4	15003.422	-1.88	41.09	39.21	54.00	-14.79	AVG			

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Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3711

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2441MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

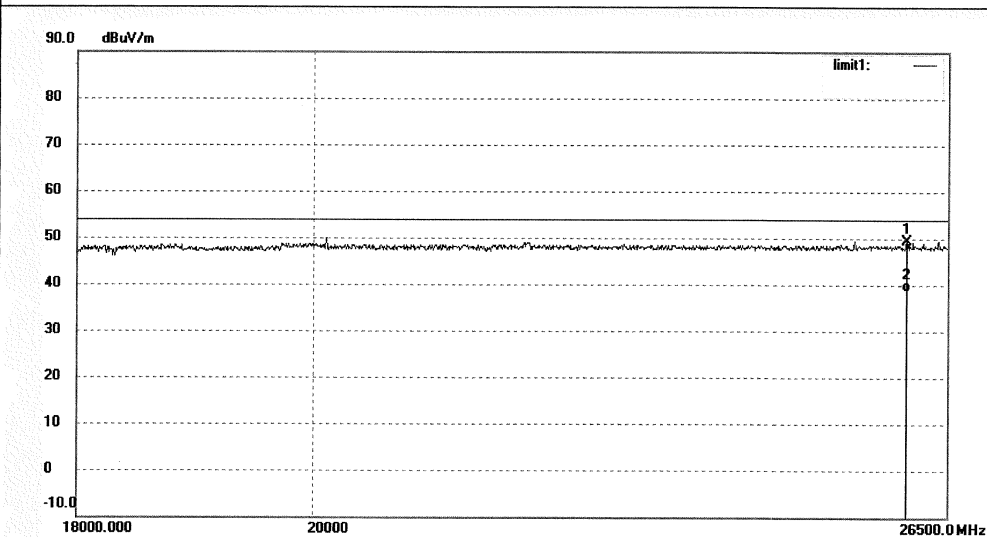
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26032.693	32.22	17.21	49.43	74.00	-24.57	peak			
2	26032.693	21.45	17.21	38.66	54.00	-15.34	AVG			



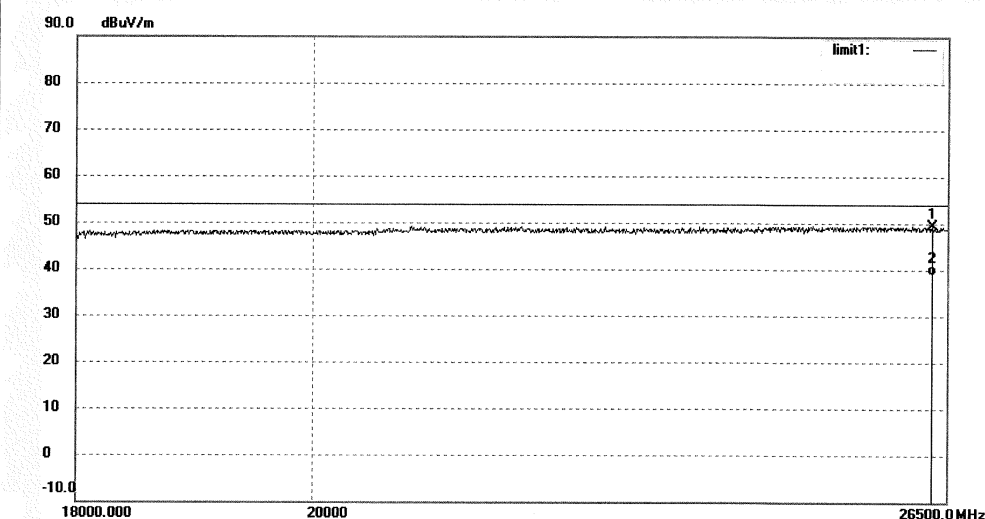
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3712	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/12/03/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: ThinkPad X1 Mouse	Engineer Signature: PEI
Mode: TX 2441MHz	Distance: 3m
Model: MOBTJNL	
Manufacturer: Lenovo	

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26326.330	32.46	17.02	49.48	74.00	-24.52	peak			
2	26326.330	21.82	17.02	38.84	54.00	-15.16	AVG			

High Channel

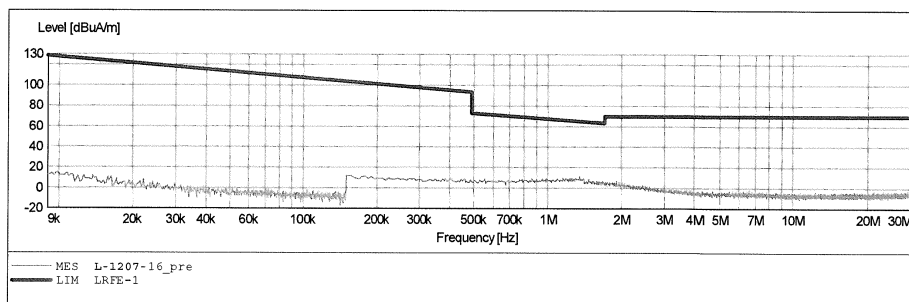
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2479MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			_SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



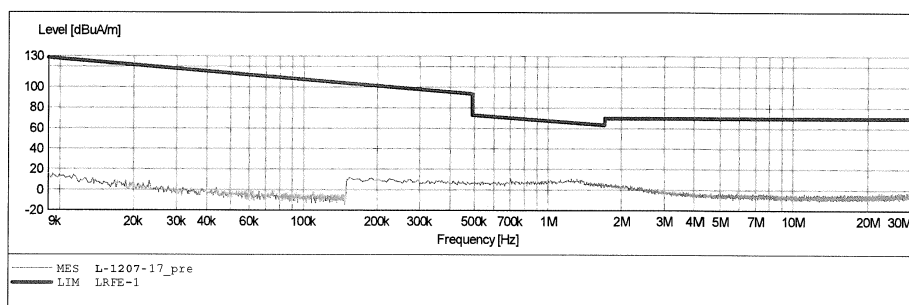
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2479MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



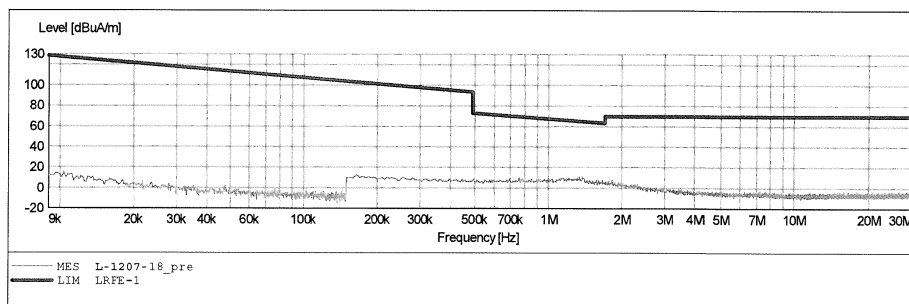
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3M Radiated

EUT: ThinkPad X1 Mouse PC M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: TX 2479MHz
 Test Site: 2# Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Z
 Start of Test: 2015-12-7 /

SCAN TABLE: "LFRE Fin"

Short Description:			SUB_STD_VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M





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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3762

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

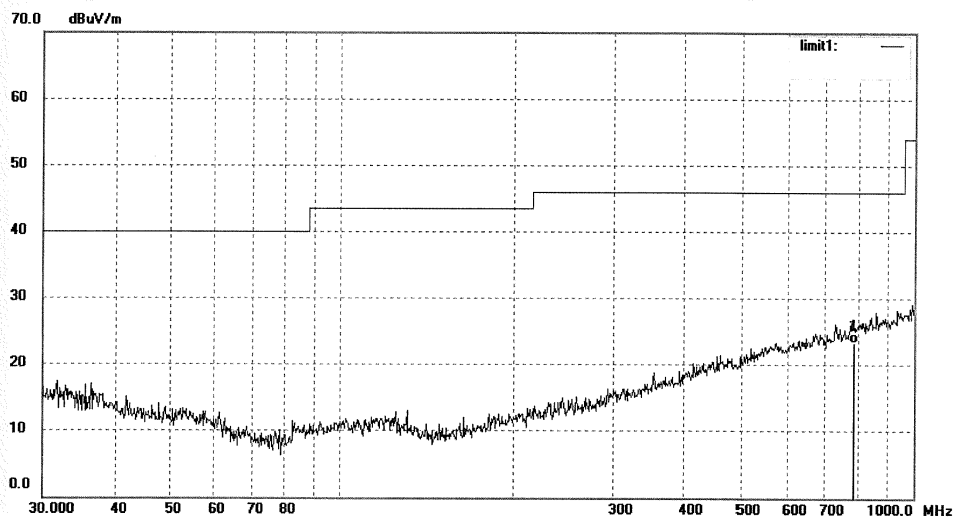
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	785.0933	23.75	-0.32	23.43	46.00	-22.57	QP			

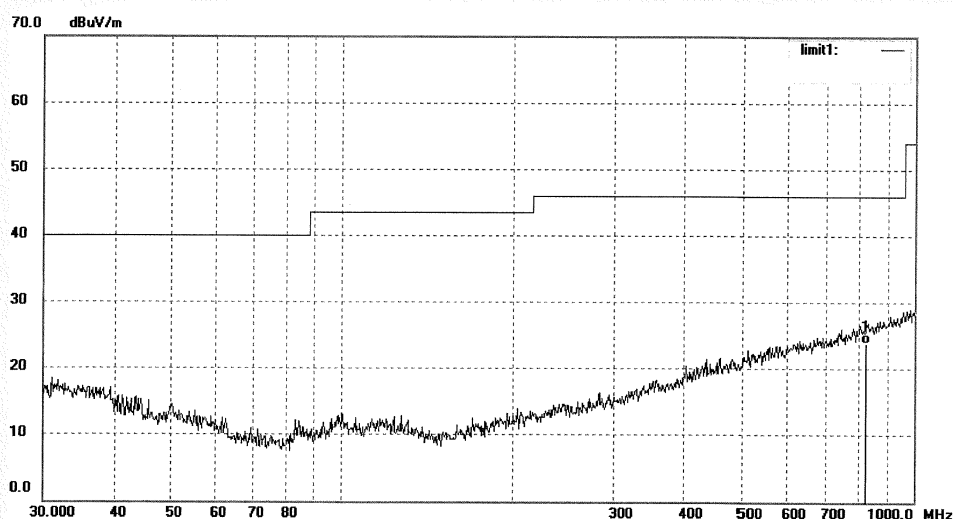


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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LAN2015 #3761	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/12/03/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: ThinkPad X1 Mouse	Engineer Signature: PEI
Mode: TX 2479MHz	Distance: 3m
Model: MOBTJNL	
Manufacturer: Lenovo	

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	824.5968	23.48	0.42	23.90	46.00	-22.10	QP			

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Fax:+86-0755-26503396

Job No.: LAN2015 #3698

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

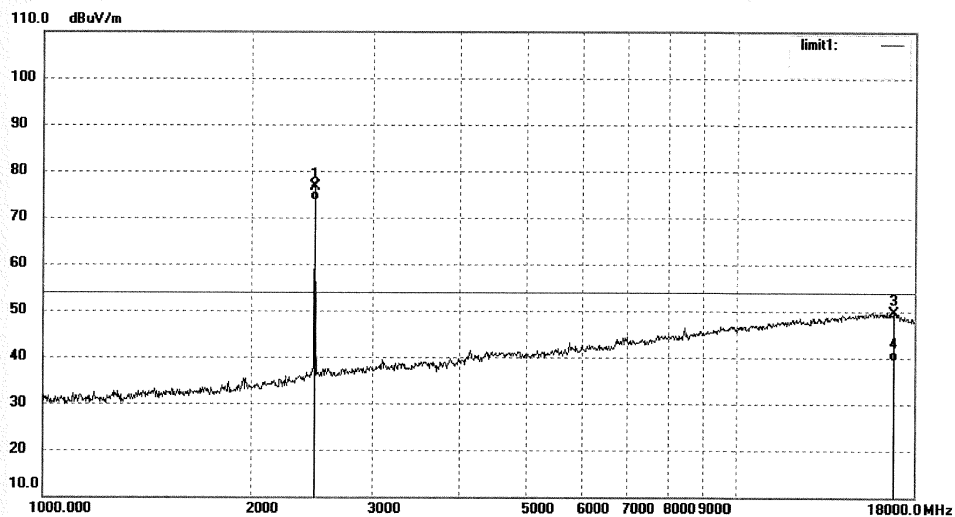
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2479.000	83.92	-7.37	76.55	/	/	peak			
2	2479.000	81.07	-7.37	73.70	/	/	AVG			
3	16793.683	8.63	41.12	49.75	74.00	-24.25	peak			
4	16793.683	-1.78	41.12	39.34	54.00	-14.66	AVG			



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Fax:+86-0755-26503396

Job No.: LAN2015 #3697

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

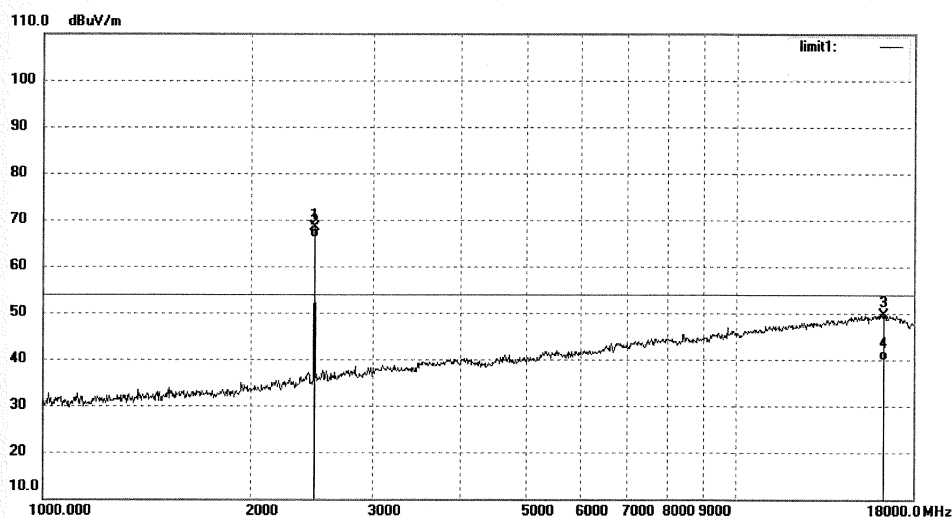
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2479.000	75.79	-7.37	68.42	/	/	peak			
2	2479.000	73.45	-7.37	66.08	/	/	AVG			
3	16315.231	9.48	40.19	49.67	74.00	-24.33	peak			
4	16315.231	-0.24	40.19	39.95	54.00	-14.05	AVG			



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Fax:+86-0755-26503396

Job No.: LAN2015 #3714

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

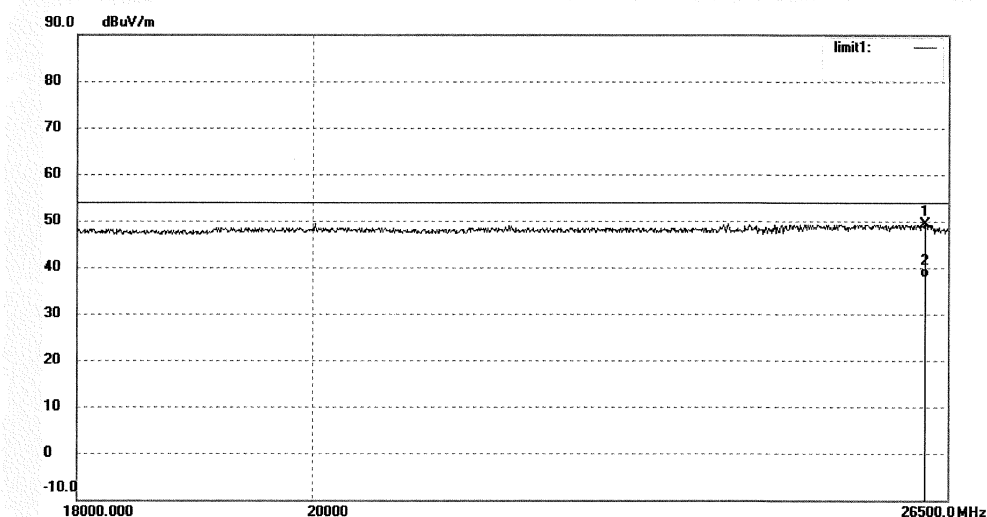
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26234.849	32.23	17.08	49.31	74.00	-24.69	peak			
2	26234.849	20.80	17.08	37.88	54.00	-16.12	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3713

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 3.7V

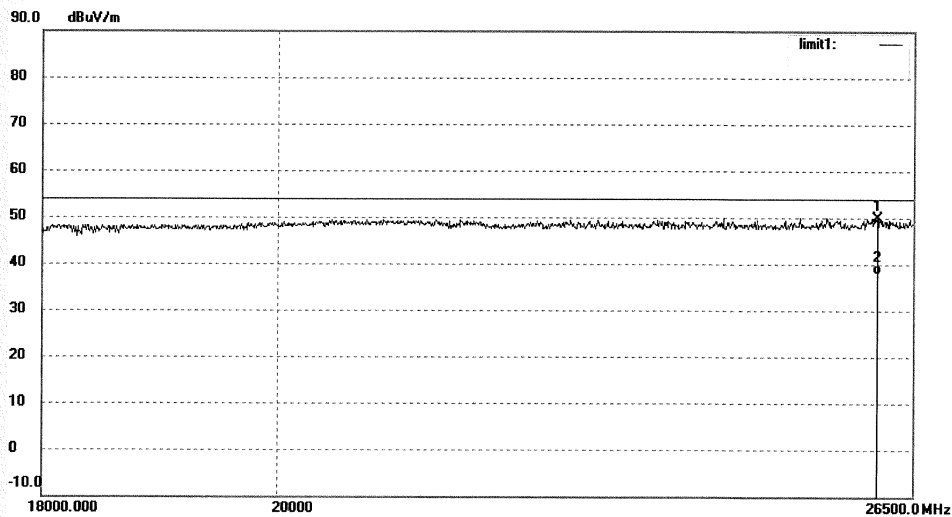
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26083.086	32.74	17.18	49.92	74.00	-24.08	peak			
2	26083.086	20.79	17.18	37.97	54.00	-16.03	AVG			

Appendix C.2: Radiated Emissions in Restricted Bands - 2.4 GHz Wireless operation
 Low Channel
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Site: 2# Chamber

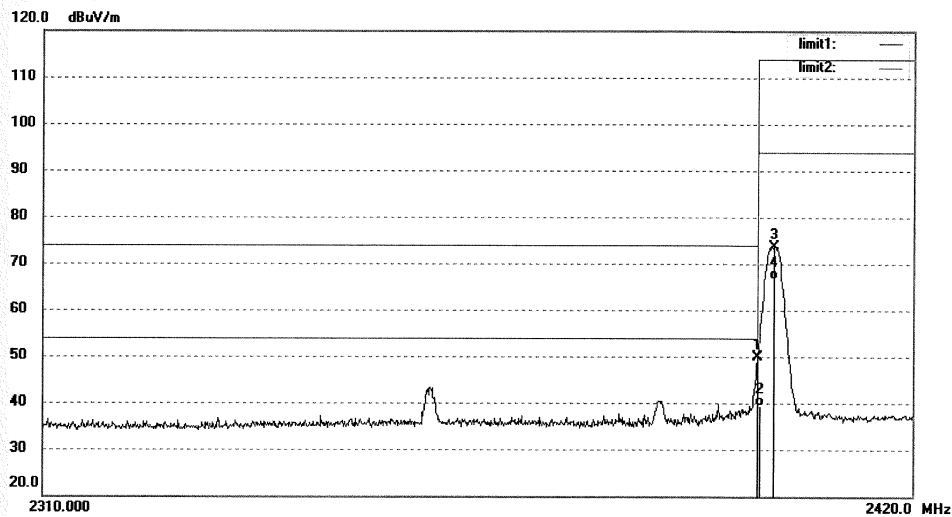
Tel:+86-0755-26503290

Fax:+86-0755-26503396

 Job No.: LAN2015 #3682
 Standard: FCC (Band Edge)
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 23 C / 48 %
 EUT: ThinkPad X1 Mouse
 Mode: TX 2402MHz
 Model: MOBTJNL
 Manufacturer: Lenovo

 Polarization: Horizontal
 Power Source: DC 3.7V
 Date: 15/12/03/
 Time:
 Engineer Signature: PEI
 Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2400.000	57.23	-7.46	49.77	74.00	-24.23	peak			
2	2400.000	46.79	-7.46	39.33	54.00	-14.67	AVG			
3	2402.000	81.03	-7.45	73.58	114.00	-40.42	peak			
4	2402.000	73.96	-7.45	66.51	94.00	-27.49	AVG			



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Site: 2# Chamber

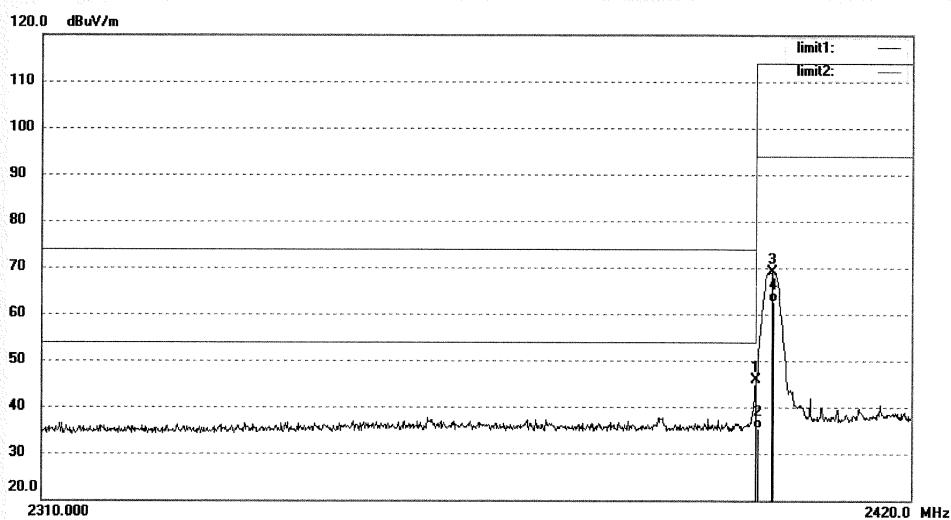
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3681
Standard: FCC (Band Edge)
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: ThinkPad X1 Mouse
Mode: TX 2402MHz
Model: MOBTJNL
Manufacturer: Lenovo

Polarization: Vertical
Power Source: DC 3.7V
Date: 15/12/03/
Time:
Engineer Signature: PEI
Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2400.000	53.40	-7.46	45.94	74.00	-28.06	peak			
2	2400.000	42.96	-7.46	35.50	54.00	-18.50	AVG			
3	2402.000	76.55	-7.45	69.10	114.00	-44.90	peak			
4	2402.000	69.97	-7.45	62.52	94.00	-31.48	AVG			

High Channel

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3684

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: TX 2479MHz

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 3.7V

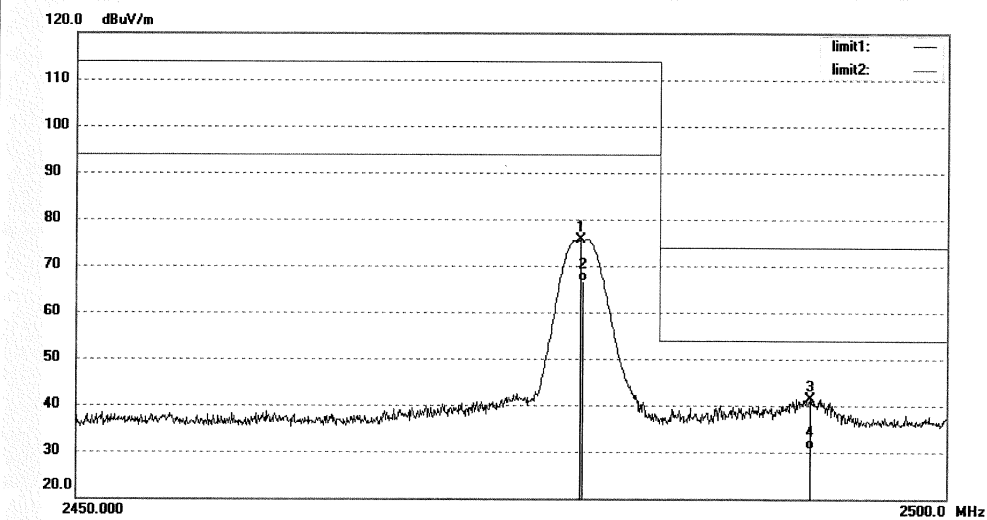
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2479.000	82.97	-7.37	75.60	114.00	-38.40	peak			
2	2479.000	74.08	-7.37	66.71	94.00	-27.29	AVG			
3	2492.200	48.80	-7.39	41.41	74.00	-32.59	peak			
4	2492.200	37.94	-7.39	30.55	54.00	-23.45	AVG			



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Site: 2# Chamber

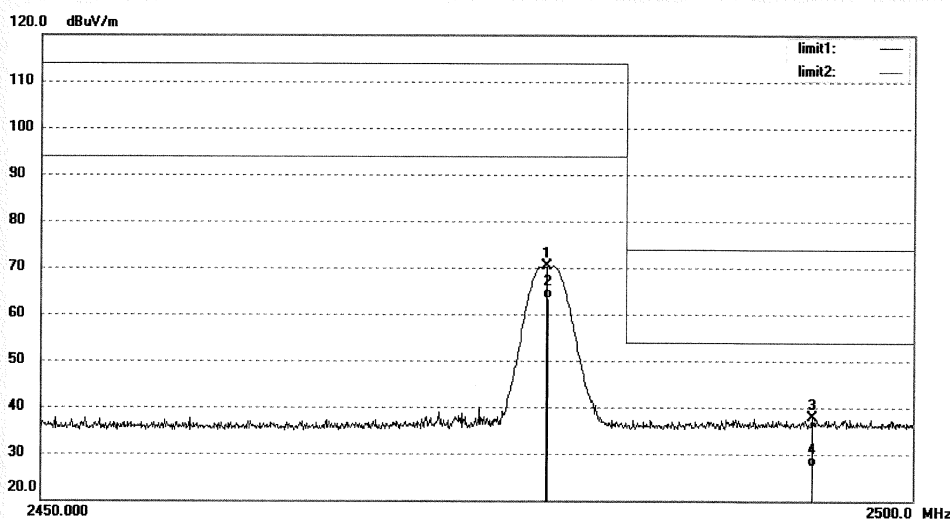
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3683
Standard: FCC (Band Edge)
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: ThinkPad X1 Mouse
Mode: TX 2479MHz
Model: MOBTJNL
Manufacturer: Lenovo

Polarization: Vertical
Power Source: DC 3.7V
Date: 15/12/03/
Time:
Engineer Signature: PEI
Distance: 3m

Note: 2.4GHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2479.000	77.68	-7.37	70.31	114.00	-43.69	peak			
2	2479.000	70.79	-7.37	63.42	94.00	-30.58	AVG			
3	2494.250	45.38	-7.39	37.99	74.00	-36.01	peak			
4	2494.250	34.67	-7.39	27.28	54.00	-26.72	AVG			

Appendix D

Test Results of RF Exposure - 2.4 GHz Wireless Mode

APPENDIX D.1: RF EXPOSURE COMPLIANCE	2
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Appendix D.1: RF Exposure Compliance

Radio Frequency Exposure Compliance

RESULT:

Pass

Test standard : FCC 1.1310
RSS-102 Issue 5
KDB 447498 D01 General RF Exposure Guidance v06

This device is Bluetooth 4.0 Low Energy and 2.4 GHz wireless device. The EUT has only one antenna, Bluetooth 4.0 Low Energy and 2.4 GHz wireless cannot transmit simultaneously.

This RF exposure evaluation is only for 2.4 GHz wireless operation.

Since the maximum peak output power of the transmitter is 0.97 mw, and the separation between body and antenna is 5 mm. The maximum peak output power is less than 10mW (FCC Limit) and 4mW (IC Limit), hence the EUT is excluded from SAR evaluation according to FCC KDB 447498 D01: Mobile Portable RF Exposure and RSS-102 Issue 5.

Appendix E

Test Results of Battery Charging Mode

APPENDIX E.1: RADIATED EMISSIONS, BATTERY CHARGING WITH PC..... 2

APPENDIX E.2: CONDUCTED EMISSIONS, BATTERY CHARGING WITH PC 6

Appendix E.1: Radiated Emissions, Battery Charging with PC**ACCURATE TECHNOLOGY CO., LTD.**
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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3795

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/12/03/

Temp.(C)/Hum.(%) 23 C / 48 %

Time:

EUT: ThinkPad X1 Mouse

Engineer Signature: PEI

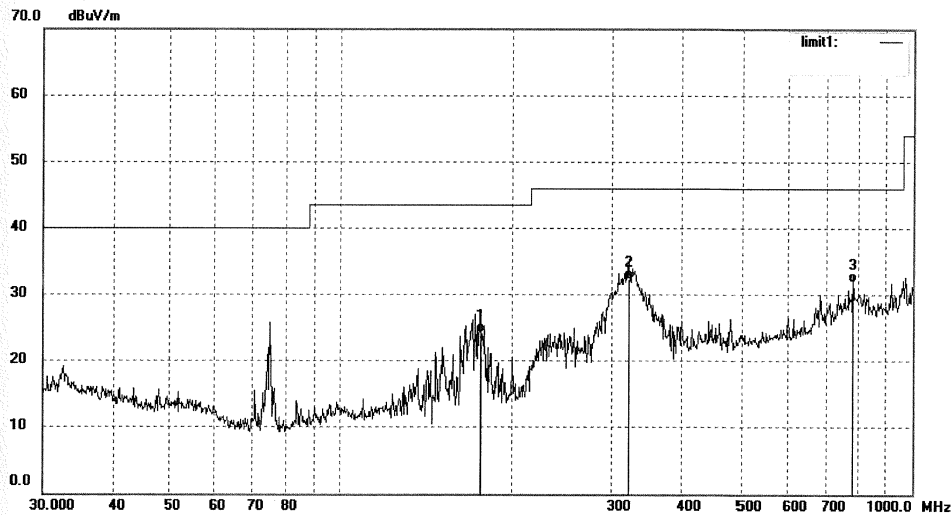
Mode: C

Distance: 3m

Model: MOBTJNL

Manufacturer: Lenovo

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	175.6516	37.58	-13.37	24.21	43.50	-19.29	QP			
2	321.0605	40.92	-8.70	32.22	46.00	-13.78	QP			
3	782.3451	32.37	-0.37	32.00	46.00	-14.00	QP			



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Site: 2# Chamber

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Fax:+86-0755-26503396

Job No.: LAN2015 #3796

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: C

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 5V

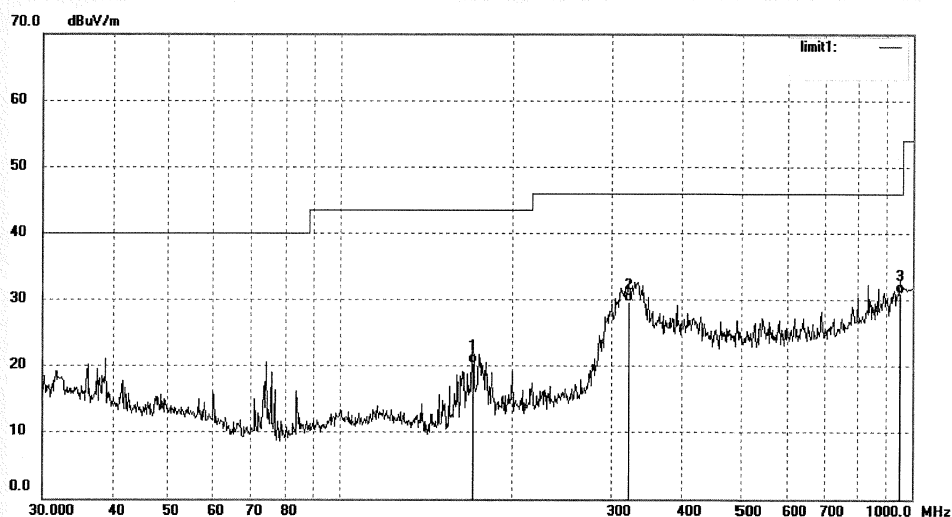
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	170.1947	33.76	-13.42	20.34	43.50	-23.16	QP			
2	321.0605	38.43	-8.70	29.73	46.00	-16.27	QP			
3	952.0937	28.92	2.21	31.13	46.00	-14.87	QP			



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Fax:+86-0755-26503396

Job No.: LAN2015 #3799

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: C

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Horizontal

Power Source: DC 5V

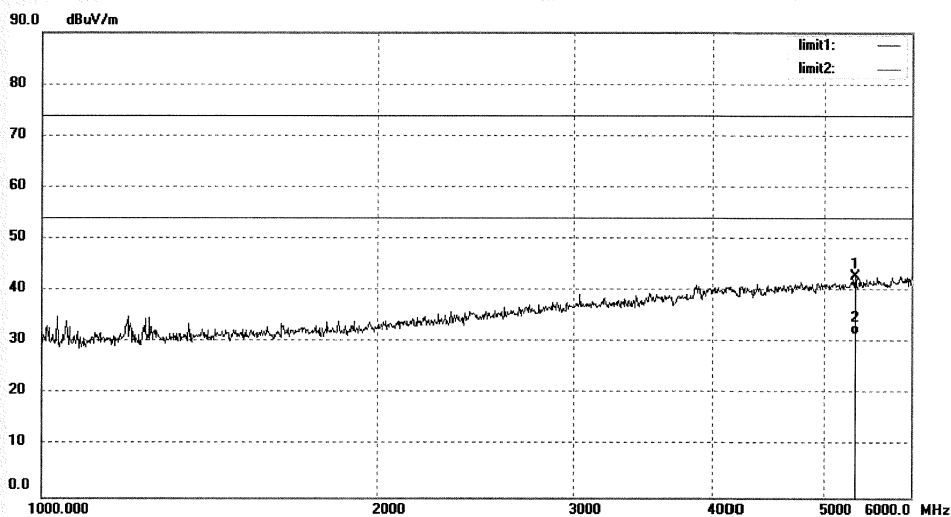
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	5340.371	41.96	0.88	42.84	74.00	-31.16	peak			
2	5340.371	30.64	0.88	31.52	54.00	-22.48	AVG			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2015 #3800

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: ThinkPad X1 Mouse

Mode: C

Model: MOBTJNL

Manufacturer: Lenovo

Polarization: Vertical

Power Source: DC 5V

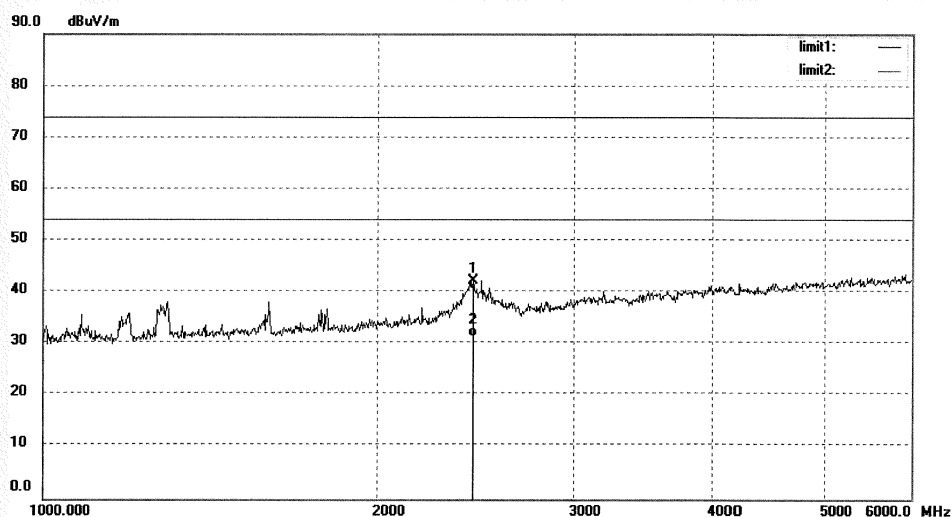
Date: 15/12/03/

Time:

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2427.643	49.63	-7.39	42.24	74.00	-31.76	peak			
2	2427.643	38.74	-7.39	31.35	54.00	-22.65	AVG			

Appendix E.2: Conducted Emissions, Battery Charging with PC

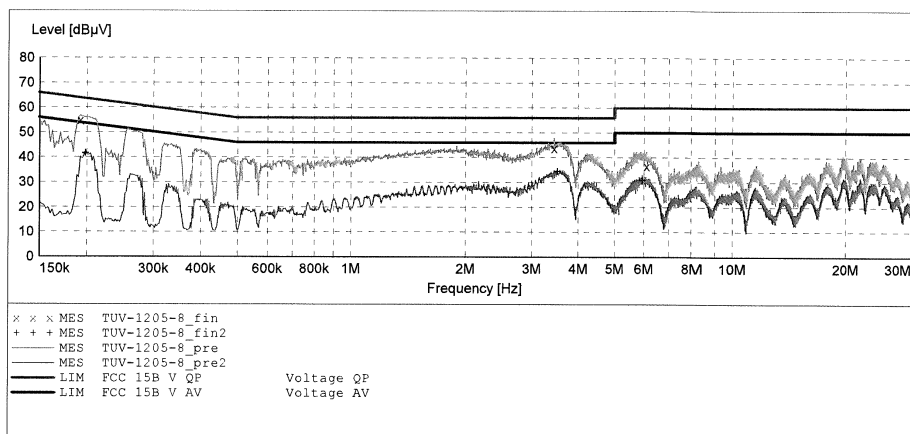
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: ThinkPad X1 Mouse M/N:MOBTJNL
Manufacturer: Lenovo
Operating Condition: C
Test Site: 1#Shielding Room
Operator: LAN
Test Specification: L 120V/60Hz
Comment: Mains Port
Start of Test: 2015-12-5 /

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
Average



MEASUREMENT RESULT: "TUV-1205-8_fin"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.192000	54.90	10.6	64	9.0	QP	L1	GND
3.440000	43.70	11.7	56	12.3	QP	L1	GND
6.095000	36.60	11.8	60	23.4	QP	L1	GND

MEASUREMENT RESULT: "TUV-1205-8_fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198000	41.50	10.6	54	12.2	AV	L1	GND
3.507500	34.40	11.7	46	11.6	AV	L1	GND
5.937500	30.90	11.8	50	19.1	AV	L1	GND

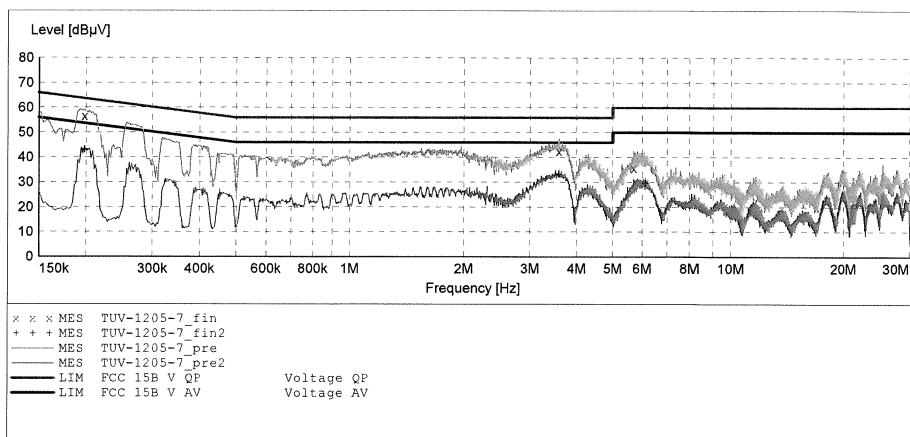
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: ThinkPad X1 Mouse M/N:MOBTJNL
 Manufacturer: Lenovo
 Operating Condition: C
 Test Site: 1#Shielding Room
 Operator: LAN
 Test Specification: N 120V/60Hz
 Comment: Mains Port
 Start of Test: 2015-12-5 /

SCAN TABLE: "V 150K-30MHz fin"

Short Description: SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TUV-1205-7_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.198000	56.60	10.6	64	7.1	QP	N	GND
3.579500	42.40	11.7	56	13.6	QP	N	GND
5.694500	35.70	11.8	60	24.3	QP	N	GND

MEASUREMENT RESULT: "TUV-1205-7_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.198000	43.00	10.6	54	10.7	AV	N	GND
3.579500	33.10	11.7	46	12.9	AV	N	GND
6.113000	29.60	11.8	50	20.4	AV	N	GND