



財團 台灣電子檢驗中心
法人

測試場:台北縣林口鄉頂福村5鄰34號

ELECTRONICS TESTING CENTER, TAIWAN

EMI Laboratory : No. 34, 5 Ln. Ding Fu Tsun,

Linkou Town, Taipei Hsien, Taiwan

Fax: 886-2-26010910 Tel: 886-2-26023054 ext._

To : Applications Processing Branch

Date : August 11, 1999

Attn : Mr. Joe Dichoso

Page. No. : 1

Fax 002-1-301-3442050

Tel. No.

No.:

From : ETC /EMC Department
K. C. Chen

Hand Scan in

EA# 94581

Subj. : Replying to Ref. Number 8749, Application for FCC ID
"N3Q9VM0519T"

Dear Mr. Joe Dichoso,

Sorry for the delay! Regarding the application for FCC ID "N3Q9VM0519T", we have finished the testing on radiated emission in three orthogonal planes, please kindly check attached test data.

About the final product shape, this device may be sold to a manufacturer who can just incorporate it to his own product and become a new one with radio function. So, a case is not required. Or, if this device is sold to a end user, then a plastic case will be assembled, please see attached photos. Could FCC accept such application? If a case is necessary, the applicant will always sold this device with the plastic case. Please kindly advise your opinion and thank you very much!

If you need any further information or have other instructions, please kindly directly inform us at follows:

E-mail Address: etcemi@m2.dj.net.tw

FAX No. : 886-2-26010910

Wish you with the best,

K. C. Chen

ETC/ EMC Department

66. ..

Radiated Emission Data

Tx Portion

a. EUT Orientation: Horizontal

Operation Mode : Transmitting (CH1)

Fundamental Frequency : 2411 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBuV)				Factor (dB) Corr.	Result @3m (dBuV/m) Peak Ave		Limit @3m (dBuV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H Peak	H Ave	V Peak	V Ave								
2411.020	89.8	***	91.1	***	-3.0	88.1	***	114.0	94.0	-5.9	0	1.00
4822.000	44.1	***	43.2	***	2.6	46.7	***	74.0	54.0	-7.3	0	1.30
7233.000	---	---	---	---	5.8	---	---	74.0	54.0	---	---	---
9644.800	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12055.100	---	---	---	---	9.2	---	---	74.0	54.0	---	---	---
14466.120	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
16877.140	---	---	---	---	12.1	---	---	74.0	54.0	---	---	---
19288.160	---	---	---	---	8.8	---	---	74.0	54.0	---	---	---
21699.180	---	---	---	---	9.8	---	---	74.0	54.0	---	---	---
24110.200	---	---	---	---	10.4	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "****" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

a. EUT Orientation: Horizontal

Operation Mode : Transmitting (CH2)

Fundamental Frequency : 2431 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBuV)				Factor (dB) Corr.	Result @3m (dBuV/m) Peak Ave		Limit @3m (dBuV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H Peak	H Ave	V Peak	V Ave								
2431.025	91.0	***	90.3	***	-3.0	88.0	***	114.0	94.0	-6.0	0	1.50
4862.000	43.1	***	43.6	***	2.7	46.3	***	74.0	54.0	-7.7	0	1.00
7293.000	---	---	---	---	5.9	---	---	74.0	54.0	---	---	---
9724.100	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12155.125	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14586.150	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
17017.175	---	---	---	---	12.8	---	---	74.0	54.0	---	---	---
19448.200	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
21879.225	---	---	---	---	9.9	---	---	74.0	54.0	---	---	---
24310.250	---	---	---	---	10.6	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark “***” means that Peak result is meet average limit.
3. Remark “---” means that the emissions level is too low to be measured.
4. Item “Margin” referred to Average limit while there is only peak result.

a. EUT Orientation: Horizontal

Operation Mode : Transmitting (CH4)

Fundamental Frequency : 2471 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBUV)				Factor (dB) Corr.	Result @3m (dBUV/m) Peak Ave		Limit @3m (dBUV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H Peak	H Ave	V Peak	V Ave								
2471.000	84.7	***	83.6	***	-2.8	81.9	***	114.0	94.0	-12.1	0	1.50
4942.000	43.0	***	43.7	***	2.8	46.5	***	74.0	54.0	-7.5	0	1.00
7413.000	---	---	---	---	6.1	---	---	74.0	54.0	---	---	---
9884.000	---	---	---	---	7.4	---	---	74.0	54.0	---	---	---
12355.000	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14826.000	---	---	---	---	11.5	---	---	74.0	54.0	---	---	---
17297.000	---	---	---	---	14.8	---	---	74.0	54.0	---	---	---
19768.000	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
22239.000	---	---	---	---	10.1	---	---	74.0	54.0	---	---	---
24710.000	---	---	---	---	11.0	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

b. EUT Orientation: Vertical

Operation Mode : Transmitting (CH1)

Fundamental Frequency : 2411 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBuV)				Factor (dB) Corr.	Result @3m (dBuV/m) Peak Ave		Limit @3m (dBuV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H		V									
	Peak	Ave	Peak	Ave								
2411.020	90.6	***	92.9	***	-3.0	89.9	***	114.0	94.0	-4.1	90	1.00
4822.000	44.1	***	45.2	***	2.6	47.8	***	74.0	54.0	-6.2	90	1.00
7233.000	---	---	---	---	5.8	---	---	74.0	54.0	---	---	---
9644.800	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12055.100	---	---	---	---	9.2	---	---	74.0	54.0	---	---	---
14466.120	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
16877.140	---	---	---	---	12.1	---	---	74.0	54.0	---	---	---
19288.160	---	---	---	---	8.8	---	---	74.0	54.0	---	---	---
21699.180	---	---	---	---	9.8	---	---	74.0	54.0	---	---	---
24110.200	---	---	---	---	10.4	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

b. EUT Orientation: Vertical

Operation Mode : Transmitting (CH2)

Fundamental Frequency : 2431 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBUV)				Factor (dB) Corr.	Result @3m (dBUV/m) Peak Ave		Limit @3m (dBUV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H		V									
	Peak	Ave	Peak	Ave								
2431.025	89.5	***	94.7	***	-3.0	91.7	***	114.0	94.0	-2.3	90	1.00
4862.000	44.0	***	45.3	***	2.7	48.0	***	74.0	54.0	-6.0	90	1.00
7293.000	---	---	---	---	5.9	---	---	74.0	54.0	---	---	---
9724.100	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12155.125	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14586.150	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
17017.175	---	---	---	---	12.8	---	---	74.0	54.0	---	---	---
19448.200	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
21879.225	---	---	---	---	9.9	---	---	74.0	54.0	---	---	---
24310.250	---	---	---	---	10.6	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "****" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

b. EUT Orientation: Horizontal

Operation Mode : Transmitting (CH4)

Fundamental Frequency : 2471 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBUV)				Factor (dB) Corr.	Result @3m (dBUV/m) Peak Ave		Limit @3m (dBUV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H		V									
	Peak	Ave	Peak	Ave								
2471.000	89.7	***	91.5	***	-2.8	88.7	***	114.0	94.0	-5.3	90	1.00
4942.000	43.8	***	45.0	***	2.8	47.8	***	74.0	54.0	-6.2	90	1.00
7413.000	---	---	---	---	6.1	---	---	74.0	54.0	---	---	---
9884.000	---	---	---	---	7.4	---	---	74.0	54.0	---	---	---
12355.000	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14826.000	---	---	---	---	11.5	---	---	74.0	54.0	---	---	---
17297.000	---	---	---	---	14.8	---	---	74.0	54.0	---	---	---
19768.000	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
22239.000	---	---	---	---	10.1	---	---	74.0	54.0	---	---	---
24710.000	---	---	---	---	11.0	---	---	74.0	54.0	---	---	---

Note :

1. Item of margin shown in above table refer to average limit.
2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "****" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

c. EUT Orientation: Vertical (turn 90 degree from orientation b)

Operation Mode : Transmitting (CH1)

Fundamental Frequency : 2411 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBuV)				Factor (dB) Corr.	Result @3m (dBuV/m) Peak Ave		Limit @3m (dBuV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H Peak	H Ave	V Peak	V Ave								
2411.020	90.6	***	92.2	***	-3.0	89.2	***	114.0	94.0	-4.8	90	1.00
4822.000	44.3	***	45.3	***	2.6	47.9	***	74.0	54.0	-6.1	90	1.00
7233.000	---	---	---	---	5.8	---	---	74.0	54.0	---	---	---
9644.800	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12055.100	---	---	---	---	9.2	---	---	74.0	54.0	---	---	---
14466.120	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
16877.140	---	---	---	---	12.1	---	---	74.0	54.0	---	---	---
19288.160	---	---	---	---	8.8	---	---	74.0	54.0	---	---	---
21699.180	---	---	---	---	9.8	---	---	74.0	54.0	---	---	---
24110.200	---	---	---	---	10.4	---	---	74.0	54.0	---	---	---

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2. It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "****" means that Peak result is meet average limit.
3. Remark "---" means that the emissions level is too low to be measured.
4. Item "Margin" referred to Average limit while there is only peak result.

c. EUT Orientation: Vertical (turn 90 degree from orientation b)

Operation Mode : Transmitting (CH2)

Fundamental Frequency : 2431 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBUV)				Factor (dB) Corr.	Result @3m (dBUV/m) Peak Ave		Limit @3m (dBUV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
	H Peak	Ave	V Peak	Ave								
2431.025	89.3	***	93.0	***	-3.0	90.0	***	114.0	94.0	-4.0	90	1.00
4862.000	44.2	***	45.6	***	2.7	48.3	***	74.0	54.0	-5.7	90	1.00
7293.000	---	---	---	---	5.9	---	---	74.0	54.0	---	---	---
9724.100	---	---	---	---	7.3	---	---	74.0	54.0	---	---	---
12155.125	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14586.150	---	---	---	---	11.6	---	---	74.0	54.0	---	---	---
17017.175	---	---	---	---	12.8	---	---	74.0	54.0	---	---	---
19448.200	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
21879.225	---	---	---	---	9.9	---	---	74.0	54.0	---	---	---
24310.250	---	---	---	---	10.6	---	---	74.0	54.0	---	---	---

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c. EUT Orientation: Vertical (turn 90 degree from orientation b)

Operation Mode : Transmitting (CH4)

Fundamental Frequency : 2471 MHz

Test Date : AUG 05, 1999 Temperature : 28 °C Humidity : 65 %

Frequency (MHz)	Reading (dBUV)				Factor (dB) Corr.	Result @3m (dBUV/m) Peak Ave		Limit @3m (dBUV/m) Peak Ave.		Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
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	Peak	Ave	Peak	Ave								
2471.000	88.5	***	90.3	***	-2.8	87.5	***	114.0	94.0	-6.5	90	1.00
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7413.000	---	---	---	---	6.1	---	---	74.0	54.0	---	---	---
9884.000	---	---	---	---	7.4	---	---	74.0	54.0	---	---	---
12355.000	---	---	---	---	9.3	---	---	74.0	54.0	---	---	---
14826.000	---	---	---	---	11.5	---	---	74.0	54.0	---	---	---
17297.000	---	---	---	---	14.8	---	---	74.0	54.0	---	---	---
19768.000	---	---	---	---	8.6	---	---	74.0	54.0	---	---	---
22239.000	---	---	---	---	10.1	---	---	74.0	54.0	---	---	---
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