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February 8, 2002
KMSC-01F103
731 Confirmation Number: EA559209

To: Joseph Dichoso / FCC Application Processing Branch
From: Zameel Shahat / Matsushita Electric Corp. of America

Re: FCC ID ACJ96NKX-TDA0142
Applicant: Matsushita Electric Industrial Co Ltd
Correspondence Reference Number: 21824
731 Confirmation Number: EA559209

Please note we submit the following files to the FCC

1- new test report corrections.pdf
2- AC test report
3- Dummy bearer hop table.pdf
4- Traffic bearer hop table.pdf
5- Installation manual corrections.pdf

The following are the answers to your above referenced correspondence inquiry:

1- Q) The EIRP on page 16 does not agree with the EIRP of 656 mW. Also, A half wave dipole cannot have a gain of 4.77 dBi. Please correct these discrepancies. The EIRP must agree with the conducted output power + antenna gain.

A) first, please see the corrected test report (new test report.pdf).
We think it is very difficult avoiding difference from theoretical value and actual measured value. But our data in the test report is truly measured value.
Below are our comments about this subject as a general knowledge of radiated power measurement.
The measured field strength to calculate the EIRP does not agree with the EIRP calculated adding the transmitter power + antenna gain in the test report. For your question, it is understood that in the definition the EIRP measured in the substitution method is equal to the EIRP (adding the transmitter power + the antenna gain). In the test report, the both values are not equal by using the antenna gain indicated in page 4(less than 2.14dBi). Actually, they are not equal because of the chassis radiation and the secondary radiation. The completed condition of the equation is the ideal condition that the full transmitting power is cost in the transmitting antenna without reflection. The antenna gain indicated in page 4(less than 2.14dBi). is the specification in the antenna manufacturer. Less than 2.14dBi is not the value that is calculated from the EIRP and the transmitter power. Actually the chassis radiation and the secondary radiation add to the antenna radiation. In the radiation measurement, the multiplex radiation are included in the EIRP. This condition is not satisfied with the completed condition of the equation.

2- Q) Unless the device is battery operated, AC power line tests are required. Provide tests with a typical AC to DC adapter.

A) I submit the AC test report to FCC today.

3- Q) You verified how the pseudorandom sequence is derived but you did not submit a few examples of the hop sequence as requeted. Please submit them.
A)To establish the RF link, the system will broadcast a dummy bearer all the time it is powered up and operating. To avoid a sequence collision , the system select the one of proper Hopping pattern from Pattern 00 to pattern 74.
(Please refer to 'Dummy bearer hop table.pdf'.)
Once system have established the RF link to portable station, the Hopping sequence to be changed from dummy barer to traffic bearer.
(Please refer to the 'Traffic bearer hop table.pdf'.)
The table indicates the sequence of logical channel numbers.

4- Q) Provide conducted output power for the port not tested for verification purposes. If the data is higher, submit radiated tests.
A) We have measured conducted power of two antenna ports.
The port of 'ANT 1' is used for the submitted radiated data .

Measuring condition(spectrum analyzer)
RBW=1MHz, VBW=3MHz, SWP=20ms, MAX HOLD

Result

	CH0	CH46	CH91
ANT1	23.06	22.66	22.35
ANT2	22.71	22.16	21.65

（Unit：dBm)

As you see the data above, the Power of ANT1 is higher than Power of ANT2.

5- Q) Mobile, 20 cm, non-colocated.
A)we will have the following in our installation manual.

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CAUTION

To comply with FCC RF exposure requirements in uncontrolled environment:
• This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between antenna and all person’s body (excluding extremities of hands, wrist and feet) during wireless modes of operation.
• This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.”

Should you have any questions, please contact the undersigned. Thank you for your attention in this matter.

Sincerely yours,

Zameel Shahat

Zameel Shahat
Project Engineer