

Date:April /25 /2002

To:Mr.Diane Poole, FCC Application Processing Branch

From:Iwao Oyaizu, Matsushita Electric Works,Ltd

Re: FCC ID HHV20011107

Applicant: Matsushita Electric Works Ltd

Correspondence Reference Number: 22428

Form731 Confirmation Number: EA829170

>EMC

>Please draw the emission mask for some of the

>Bandwidth Plot.

Reply:

Mask is added to each Bandwidth Plot of EXHIBIT 28 to 36 and it is uploaded.

>SAR

>1. Following statement from users manual has some

>grammar errors. Please see example body-worn

>statements in Suppl C and revise accordingly.

>This device was tested for typical body-worn

>operations using the belt-clip supplied with the

>product.

>The use of other belt-clip and other non-accessories

>may not comply with FCC RF exposure requirements

>and should be void.

Reply to item 1:

Correction has been made to EXHIBIT20 Operating Instructions

and it is uploaded.

>2. Because device is shaped like a phone, even with

>users manual instructions people may use it next to

>the head, in which case compliance with SAR limits

>should be evaluated. Please justify. The best way

>to prevent head use is a caution label on device.

Reply to Item 2:

Caution label of the following photo is attached. Also, caution label is uploaded..



>3. df 1 correct ?

Reply to Item 3: The following reply was received from SAR laboratory
During the SAR test, the phone was transmitting a CW (continuous wave)
signal (in test mode). Therefore, we
setup in the SAR System the Crest Factor = 1 which is equivalent to the Duty
Factor of 1"

>4. Form 731 power is 600mW ERP. EMC shows 619mW.
>SAR conducted power is 486mW. Tuneup procedure shows
>446mW. Please clarify what power is requested. Please
>use same power level in all tests as necessary. What
>is conducted power in EMC compared to SAR?

Reply to item 4:

EUT which was used for each measurement is identical.
The current application details are shown in TABLE 1.

Item which is not harmonized is Tune-up Procedure and Form731.

We will change Form731 as per TABLE2 to harmonize it.

This letter gives authorization to change the Rated RF Power Output from 0.6W to 0.619W on the Form 731

TABLE 1

Frequency	ERP 2.1046(a)	Conducted 2.1046(a)	Body SAR @ Conducted Power	TUNE-UP Procedure	FORM731
991ch/824.04MHz	0.619W / 27.92dBm	0.486W / 26.87dBm	1.41 W/kg @ 26.87dBm(0.486W)		0.6W ERP
383ch/836.49MHz	0.586W / 27.68dBm	0.449W / 26.52dBm	1.45 W/kg @ 26.52dBm(0.449W)	0.447W / 26.5dBm	
799ch/848.97MHz	0.594W / 27.74dBm	0.379W / 25.79dBm	1.39 W/kg @ 25.79dBm(0.379W)		

TABLE 2

Frequency	ERP 2.1046(a)	Conducted 2.1046(a)	Body SAR @ Conducted Power	TUNE-UP Procedure	FORM731
991ch/824.04MHz	0.619W / 27.92dBm	0.486W / 26.87dBm	1.41 W/kg @ 26.87dBm(0.486W)		0.619W ERP
383ch/836.49MHz	0.586W / 27.68dBm	0.449W / 26.52dBm	1.45 W/kg @ 26.52dBm(0.449W)	0.447W / 26.5dBm	
799ch/848.97MHz	0.594W / 27.74dBm	0.379W / 25.79dBm	1.39 W/kg @ 25.79dBm(0.379W)		

>5. SAR report pg 8/38 shows blisters or debris on
>phantom. Are same blisters in test area of phantom?

>9. SAR report pages 8,9 appear to show 2 different
>phantoms. Why? Was same liquid use in both phantoms.

Reply to items 5&9: The following reply was received from SAR laboratory
"5 & 9. Our phantom does not have blisters. There was a little remains of a
tape producing light reflections. We cleaned the phantom, and you can see
the bottom of the phantom on the attached photos. We have only one phantom.





>6. Please justify duty cycle = 1.

Reply to item 6: The following reply was received from SAR laboratory

6. The phone was tested in CW mode, so we used the Crest Factor of 1.

>7. FYI – direct contact SAR does not exactly simulate
>hand condition, because antenna loading will usually
>be different with hand.

Thank you for your advice.

>8. 900 MHz head probe factor incorrectly used for 835
>MHz body test. Please adjust or re-test all SAR values
>and plots.

Reply to item 8: The following reply was received from SAR laboratory

8. At the time when we performed the test we had a probe calibrated for
head tissue only. Later we asked SPIAG to perform the calibration for muscle
tissue. The conversion Factor for muscle is slightly less (5.72 instead of
5.83). Please see attached plot recalculated for the Conversion Factor of
5.72 (in worse case, 836 MHz). The SAR reading increased from 1.42 mW/g to
1.45 mW/g.

Revision has been made to EXHIBIT40 SAR Report of Measurements and it is uploaded.

>10. Some SAR plots show different liquid parameters.

>Please explain and correct as necessary.

Reply to item 10: The following reply was received from SAR laboratory

10. We used different liquid parameters for different frequencies: 824 MHz
(epsilon=56.2, sigma=0.92), 836 MHz (epsilon=55.2, sigma=0.97), 849 MHz
(epsilon=55.4, sigma=0.97). These numbers are what we measured."

>11. Operational desc. shows 26.5 dBm +2 dB = 708mW is
>possible. Please explain, or reduce power, also
>considering question 4 above. Tune-up shows 26.5 +
>0 dB. Please harmonize power across all parts of
>filing.

Reply to item 11:

Revision has been made to Page 1 of 15 of EXHIBIT 3 Descriptive Information and it is uploaded.

Sincerely,

Iwao Oyaizu
Matsushita Electric Works,Ltd