ORION AMERICA, INC.

PO-0803

ORION PLACE, PRINCETON, IN 47670 TEL: (812) 386-3000 FAX (812) 385-5200

FEBRUARY 24, 1999

MR.. TANNAHILL

IT IS MY UNDERSTANDING THAT THE DATA THAT IS OVER THE LIMIT IN THE SPURIOUS EMISSION MEASUREMENTS SHOULD BE CONSIDERED AS THE ASTERISKS(**) WHICH ARE INDICATED IN THE LOWER PORTION OF THE TEST RESULTS. THE FOLLOWING PAGE IS THE SUPPORT DOCUMENT FOR MY UNDERSTANDING. IF MY UNDERSTANDING IS INCORRECT PLEASE LET ME KNOW AS SOON AS POSSIBLE.

THANK YOU

DAVID M. THOMPSON

MITSUNI, ELĒCTRONICS CORP CHICAGO

FEDERAL COMMUNICATIONS COMMISSION

AUTHORIZATION & STANDARDS DIVISION P.O. SOX 429 COLUMBIA, MD \$1048-0429

March 13, 1985

RECEIVED

MAR 1 4 1985

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Hitsumi Electronics Corporation 1895E Rohlwing Road Rolling Meadows, Illinois 60008

Attention: Mr. Scott Saveragi - Engineering

Re: Request stated in your letter of March 11, 1985, regarding measurement of lower audio sideband

Gentlemen:

For purposes of certification we will accept a measurement report for the instant equipment in which the resolution bandwidth has been reduced to 10 kHz for measurement of the lower sudio sideband only.

In order to more fully investigate the situation we are asking for a sample of the equipment to be submitted to the Laboratory at the time application for certification is made.

Sincarely yours,

Phillip I. Ingla

Electronics Engineer

Equipment Authorization Branch

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ENGINEERING TEST REPORT

6.5 Test Results

Emission Frequency [MHz]	Corr. Factor [dB]	Meter Reading [dBμV/50Ω]	Maximum Signal Level [dBμV/75Ω]	Limit [dBμV/75Ω]	Maximum EUT Operation (*)
Test Channe	1 #3	I			
 54.28 55.33 56.65 69.40 122.49 183.74 ** 56.65	2.0 2.0 2.0 2.0 2.1 2.4 2.0	17.0 19.5 38.6 13.5 14.9 15.2	19.0 21.5 40.6 15.5 17.0 17.6	39.5 39.5 39.5 39.5 39.5 39.5	3 5 5 3 9 9 9 9
60.30 61.34 62.65 75.38 76.25 134.50 ** 62.65	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.2	17.1 19.0 37.4 13.4 13.1 13.5	19.1 21.0 39.4 15.4 15.1 15.7	39.5 39.5 39.5 39.5 39.5 39.5	99999999

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ENGINEERING TEST REPORT

- Continued -

[Environment]

Temperature: 24 °C Humidity: 42 %

[Note]

1) * ; ① Playback mode

- 2 Record mode (IV VITS Signal Input)
- 3 Record mode (5V VITS Signal Input)
- @ Record mode (1V VITS Signal Input)
- (5) Record mode (5V VITS Signal Input)
- @ Record mode (O dBmV NTSC TV Signal Input)
- Record mode (25 dBmV NTSC TV Signal Input)

2)**: To except the effect of lower sideband of sound sub-carrier frequency component, if set the resolution bandwidth of spectrum analyzer to 30 kHz, these interference become to this value.

3) The correction factor consist of the voltage loss of the impedance matching transformer and the coaxial cable used for the test. And the meter readings described above are corrected by the gain of pre-amplifier.

[Sample calculation]

Frequency : 54.28 [MHz] (Test Channel #3)

Meter Reading : $17.0 \text{ [dB} \mu\text{V}/50\Omega\text{]}$ Correction Factor : 2.0 [dB]

Then, the emission level is calculated as follows.

Signal Level = $17.0 + 2.0 = 19.0 [dB \mu V/75 \Omega]$

[Summary of Test Results]

Minimum margin was 18.0 dB at 55.33 MHz, test channel #3.

Tested Date : December 1, 1998

Signature

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ENGINEERING TEST REPORT

6.5 Test Results

Emission Frequency [MHz]	Corr. Factor [dB]	Meter Reading [dBμV/50Ω]	Maximum Signal Level [dBμV/75Ω]	Limit [dBμV/75Ω]	Maximum EUT Operation (*)
Test Channe	1 #3	1			
55.48 56.03 56.65 70.26 122.51 183.77 ** 56.65 Test Channe	2.3 2.3 2.3 2.3 2.3 2.3 2.3	30.1 27.9 38.4 21.0 18.0 14.9	32.4 30.2 40.7 23.3 20.3 17.2	39.5 39.5 39.5 39.5 39.5 39.5	0000000 0
45.74 61.50 62.65 76.26 134.51 201.78	2.3 2.3 2.3 2.3 2.3 2.3 2.3	22.4 30.3 38.6 16.1 14.0 11.6	24.7 32.6 40.9 18.4 16.3 13.9	39.5 39.5 39.5 39.5 39.5 39.5	6 696666

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ENGINEERING TEST REPORT

- Continued -

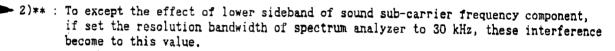
[Environment]

Temperature: 20 °C Humidity: 40 %

[Note]

1) * : 1 Playback mode

- 2 Record mode (1V VITS Signal Input)
- 3 Record mode (5V VITS Signal Input)
- @ Record mode (1V VITS Signal Input)
- (5) Record mode (5V VITS Signal Input)
- (B) Record mode (O dBmV NTSC TV Signal Input)
- TRecord mode (25 dBmV NTSC TV Signal Input)



3) The correction factor consist of the voltage loss of the impedance matching transformer and the coaxial cable used for the test. And the meter readings described above are corrected by the gain of pre-amplifier.

[Sample calculation]

Frequency : 55.48 [MHz] (Test Channel #3)

Meter Reading : $30.1 \text{ [dB} \mu\text{V}/50\Omega\text{]}$ Correction Factor : 2.3 [dB]

Then, the emission level is calculated as follows.

Signal Level = $30.1 + 2.3 = 32.4 [dB \mu V/75 \Omega]$

[Summary of Test Results]

Minimum margin was 6.9 dB at 61.50 MHz, test channel #4.

Tested Date : November 25, 1998

Signature

/ Yoshiko Kotani