To: Anthony Chan ITS/ES-HKG
Cc: Ada WH Chan ITS/ES-HKG
Subject: RE: DSI (HK) Limited FCC ID: KNZ48417
Dear Anthony:

Thank you for the revised plot. I am concerned that it still does not display any effect of modulation limiting - that is, the modulation % flattens out, or stops increasing, as the input increases. Instead, this curve continued to increase rapidly as the input increases.above 137 dB - even though the actual frequency deviation at that level is well below the maximum allowed. I am going to request an FCC opinion on this situation, just to be sure.

Regards,
Roland

-----Original Message-----
From: Anthony Chan ITS/ES-HKG
Sent: Tuesday, April 15, 2003 3:38 AM
To: Roland Gubisch ITS/ES-Box
Cc: Ada WH Chan ITS/ES-HKG
Subject: RE: DSI (HK) Limited FCC ID: KNZ48417

Dear Roland,

Pls find attached file as a revised plot. Due to our test equipment is during cal. and currently use equipment can't produce 144dB, So I use a approximation method for finding the frequency deviation. The approximate frequency deviation of 2500Hz at 144db is 0.05kHz

<< File: Mod-freq-temp-LPF6.xls >>

Best Regards,

Anthony Chan
Lead Engineer
Intertek Testing Services Hong Kong Ltd.
ETL SEMKO
Tel: 852-2173 8517
Fax:852-2742 9149
anthonyc@itslabtest.com
www.etlsemko.com

-----Original Message-----
From: Roland Gubisch ITS/ES-Box
Sent: Friday, April 11, 2003 6:27 AM
To: Anthony Chan ITS/ES-HKG
Cc: Ada WH Chan ITS/ES-HKG
Subject: RE: DSI (HK) Limited FCC ID: KNZ48417

Dear Anthony:

Thank you for the additional information, and please excuse the delay in responding. I have once again reviewed the test report, the exhibits and your reply to my original observations. There remain two issues: (1) the lack of

agreement between the plot of modulation limiting characteristics and Table 3 of data; and (2) the lack of any evidence of modulation limiting.

(1) Your exhibit "mlc.pdf" shows frequency deviation everywhere lower at 127 dB modulation input than at 117 dB. This does not correspond to the data in Table 3 of the test report. The data in Table 3, when plotted per the attached "ModLim.xls," continues to increase from 117 dB to 127 dB to 137 dB. This does not demonstrate modulation limiting.

Please explain the discrepancy between the exhibit "mlc.pdf" and the data in Table 3; they should correspond exactly, and the plot should show the data points from Table 3 for 137 dB input.

(2) You indicated that the occupied bandwidth was measured at an input of 144 dB, which should be with an input frequency of 2500 Hz, per 2.1049(a)(1).

Please indicate the frequency deviation at that input level, so that the data point can be added to the correct modulation limiting curve.

In order for this application to proceed to certification, modulation limiting must be clearly demonstrated.

Thank you,
Roland

<< File: ModLim.xls >>

-----Original Message-----
From: Anthony Chan ITS/ES-HKG
Sent: Thursday, April 10, 2003 12:07 AM
To: Roland Gubisch ITS/ES-Box
Cc: Ada WH Chan ITS/ES-HKG
Subject: RE: DSI (HK) Limited FCC ID: KNZ48417

Dear Roland,

Is there any comments for my reply? Due to client need the Cert. urgently, and he also received RSS 210 Cert.
If you have any other comments, pls kindly inform me.
Thanks

Best Regards,

Anthony Chan
Lead Engineer
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-----Original Message-----
From: Anthony Chan ITS/ES-HKG
Sent: Monday, March 31, 2003 2:48 PM
To: Roland Gubisch ITS/ES-Box
Subject: RE: DSI (HK) Limited FCC ID: KNZ48417

Dear Roland,

Thanks for your comments. The followings are my reply

(1): No deviation data shown on the table at 137 dBSPL last time was due to no frequency deviation detecting during the measurement at these levels.

(2),(3): The input sound level is 144 dBSPL which is the largest output from the sound source.

Best Regards,

Anthony Chan
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-----Original Message-----
From: Wilbur Ng ITS/ES-HKG
Sent: Thursday, March 27, 2003 9:09 AM
To: Anthony Chan ITS/ES-HKG; Ivan Wong ITS/ES-HKG
Subject: FW: DSI (HK) Limited FCC ID: KNZ48417

-----Original Message-----
From: Roland Gubisch ITS/ES-Box
Sent: Thursday, March 27, 2003 4:34 AM
To: Wilbur Ng ITS/ES-HKG
Cc: Danielle Gravelle ITS/ES-Box
Subject: DSI (HK) Limited FCC ID: KNZ48417

Dear Wilbur:

Review of this application is complete. Please respond to the following comments:

1) 2.1047(b) modulation limiting: The modulation limiting curve mlc.pdf does not extend to 137 dBSPL. The data in Table 3 have been re-plotted per the attachment to include 137 dBSPL, and modulation limiting is not demonstrated as required.
<< File: ModLim.xls >>
2) 2.1049 occupied bandwidth: What is the input signal level to achieve 16 dB above 50% modulation? It cannot be estimated from the modulating limiting chart, and appears to be much higher than 137 dBSPL. The occupied bandwidth is given as 1.15 kHz. This amount of deviation is not shown on the modulation limiting chart, and should be.

3) 2.1051 spurious emissions: What is the input signal level during spurious measurement? It does not appear in the test report.

Thank you,

Roland