



UIC SUSTAINABILITY
LOWNOISEPAD Annex A
Graphic Reference Guide for Infrabel (Part1)

October 2023



INTERNATIONAL UNION
OF RAILWAYS

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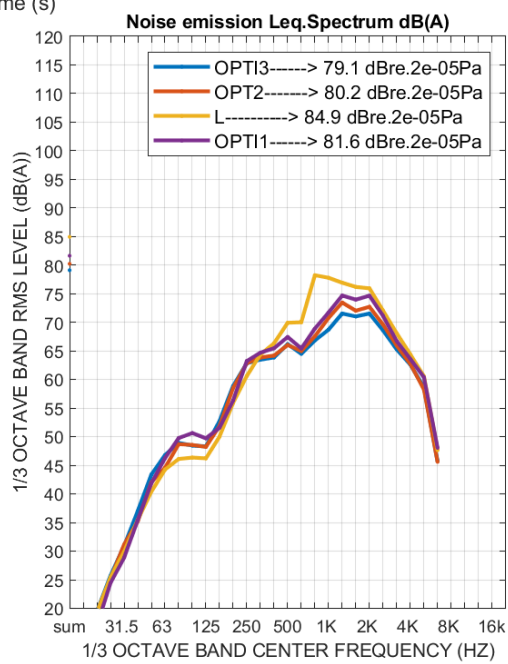
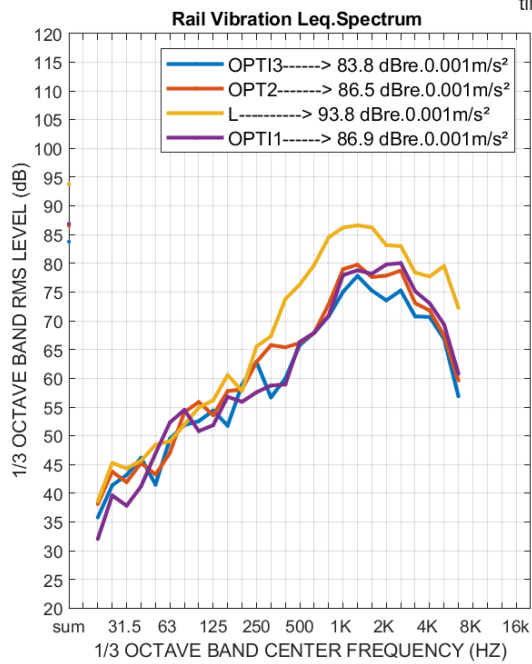
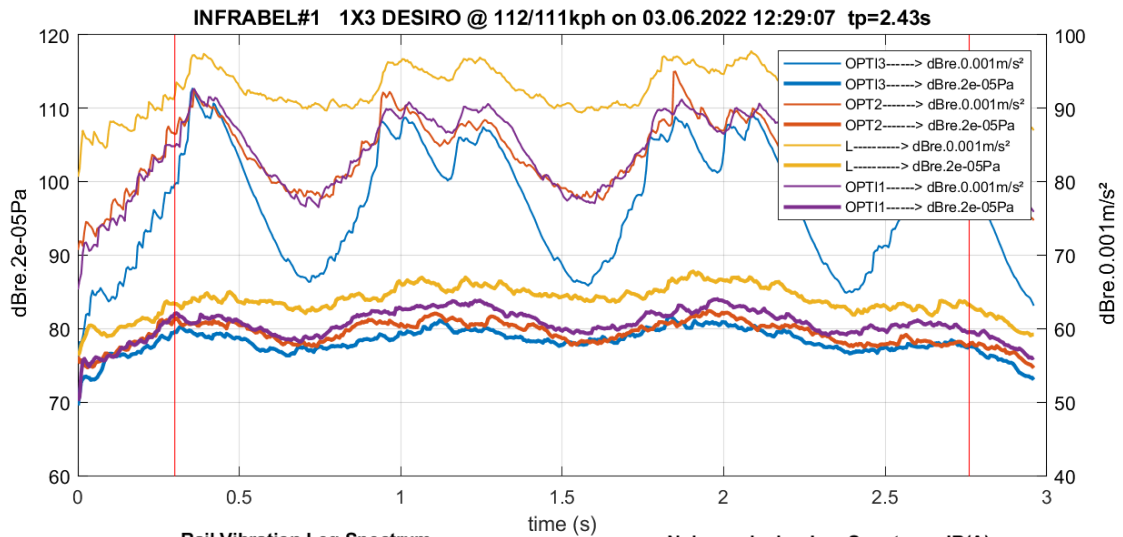
This annex, provided in a separate document, gives a detailed and graphic overview of the pass by data collected from each project member throughout the project. All results showing the noise reduction and detailed pass-by analysis, calculated on the basis of the data available in the LOWNOISEPAD software tool, are shown in a graph format for each type of rolling stock, given in an individual section for each PP (alongside Chapter 7 of this report). This annex should be used alongside the information gathered as part of the project carried out by UIC and the 12 project participants. It is not recommended to carry out analysis without first having reviewed the LOWNOISEPAD final report and the **Annex B**, and also without consulting and receiving authorisation from the project participants and UIC.

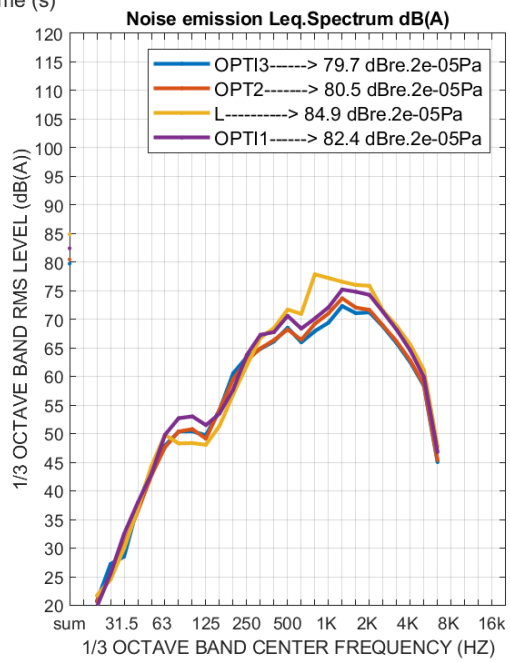
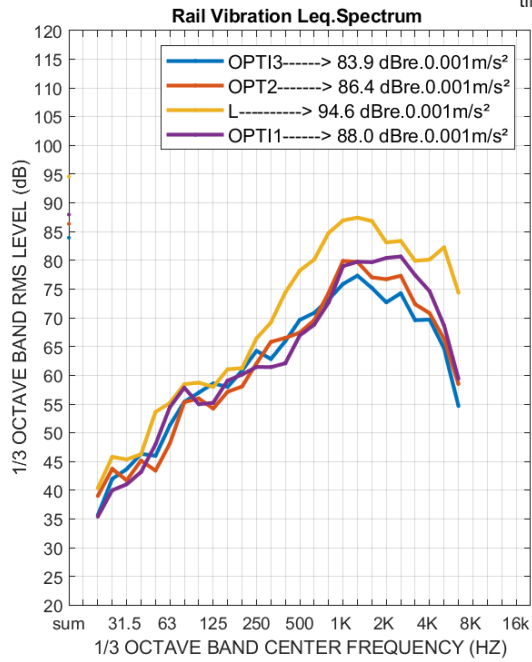
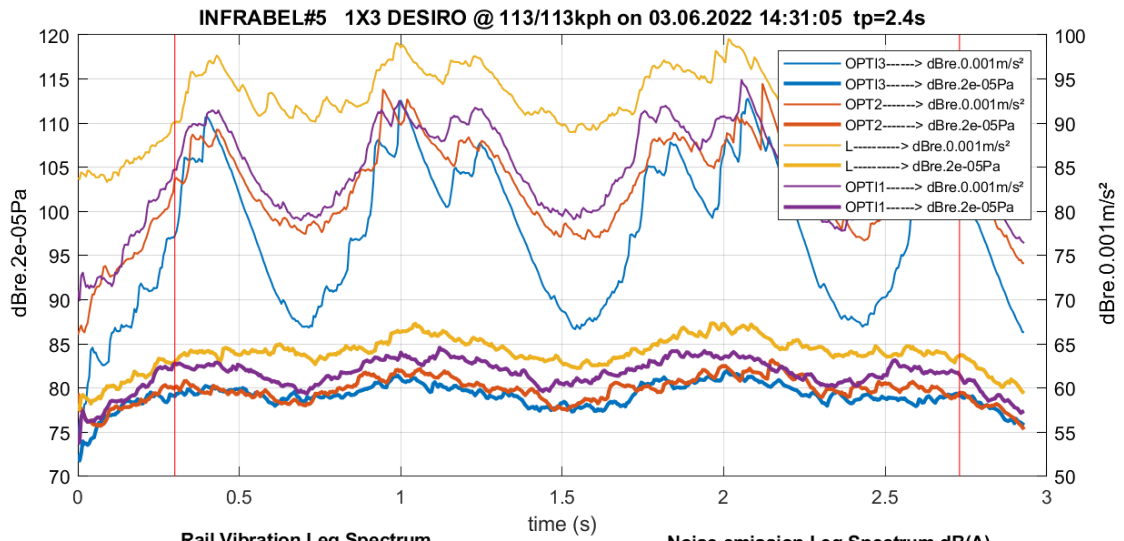


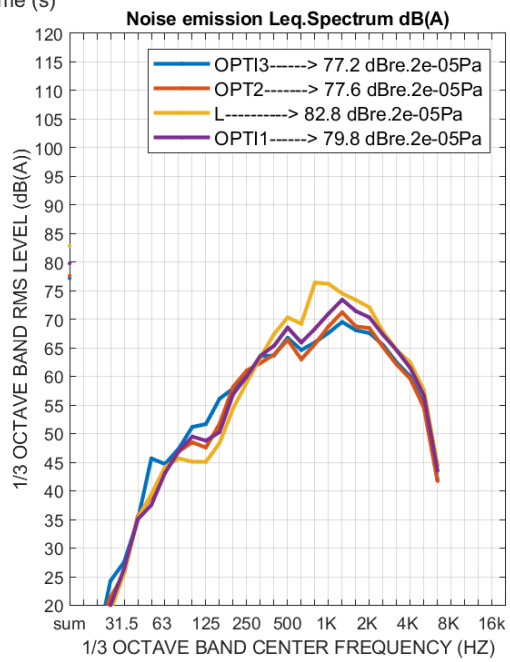
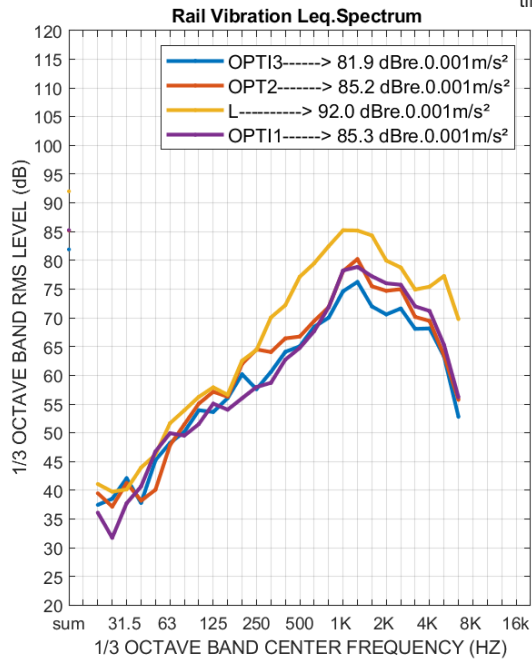
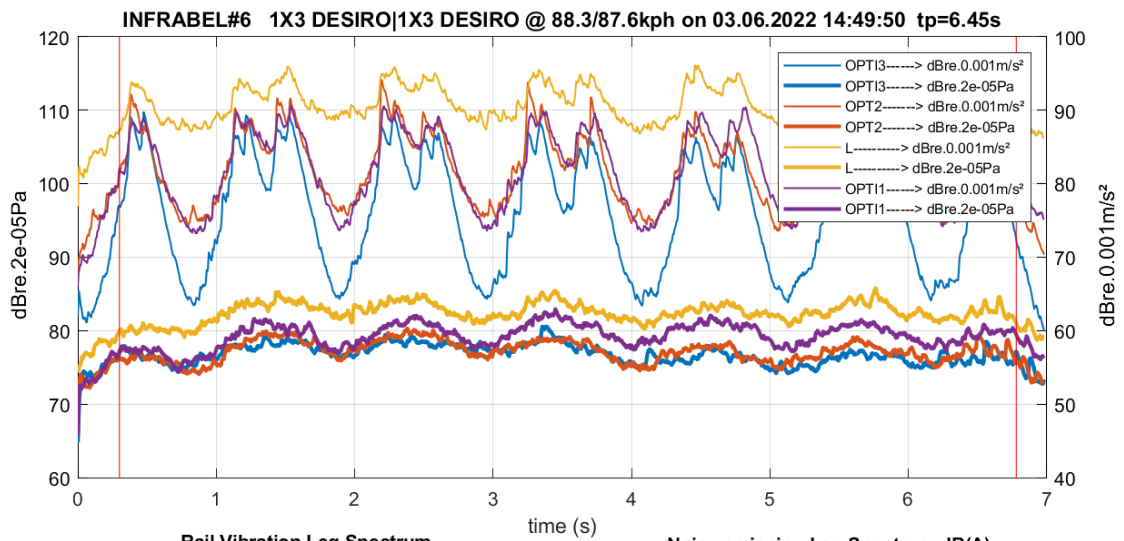
CONTENTS

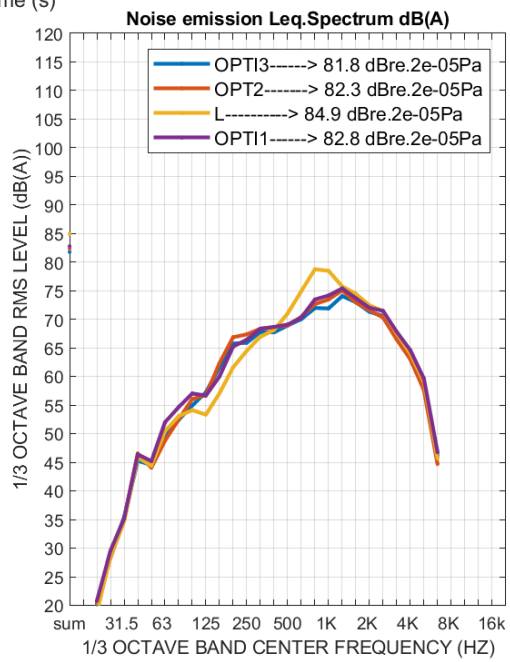
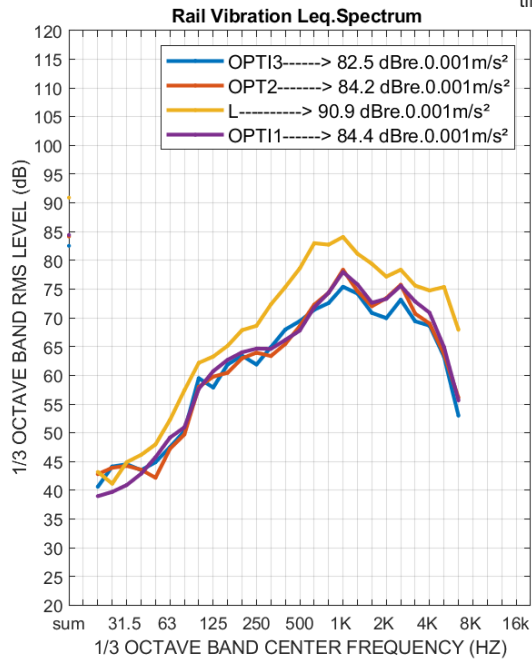
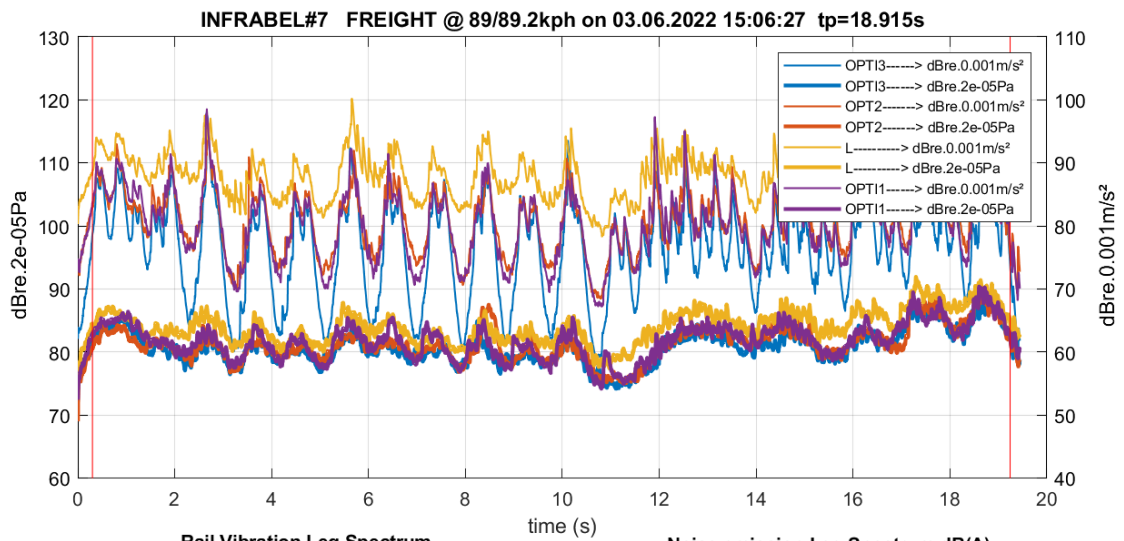
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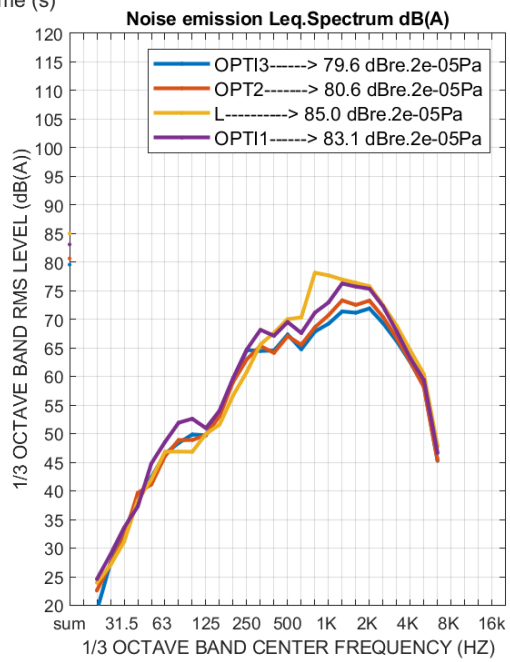
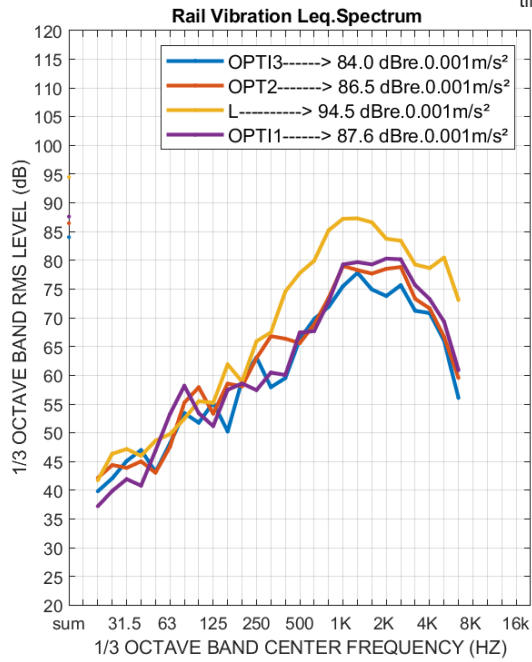
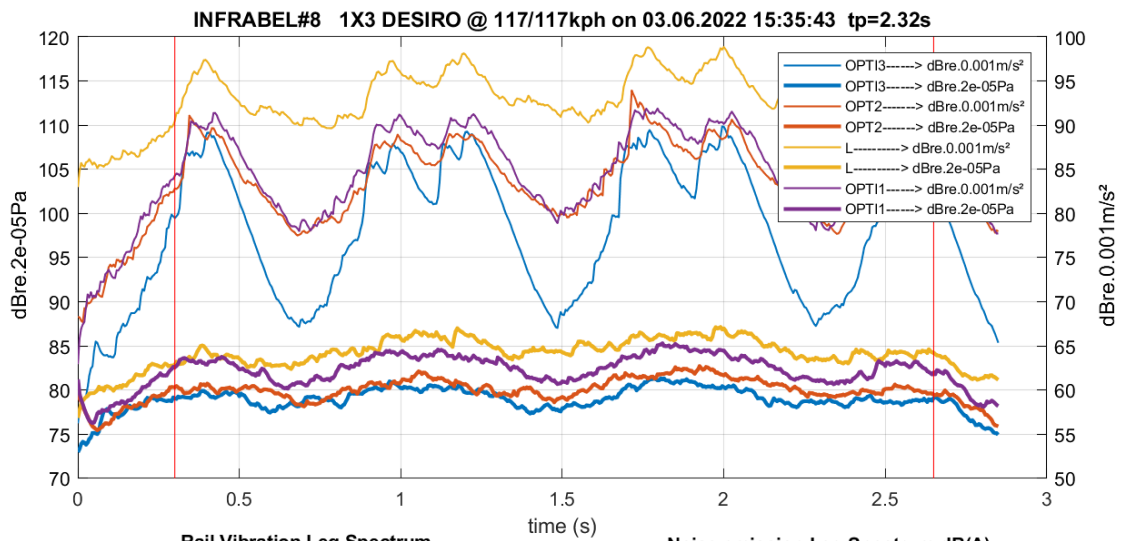
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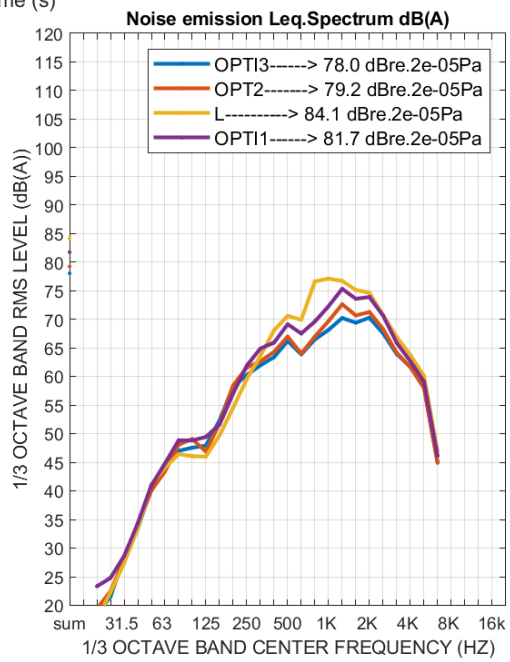
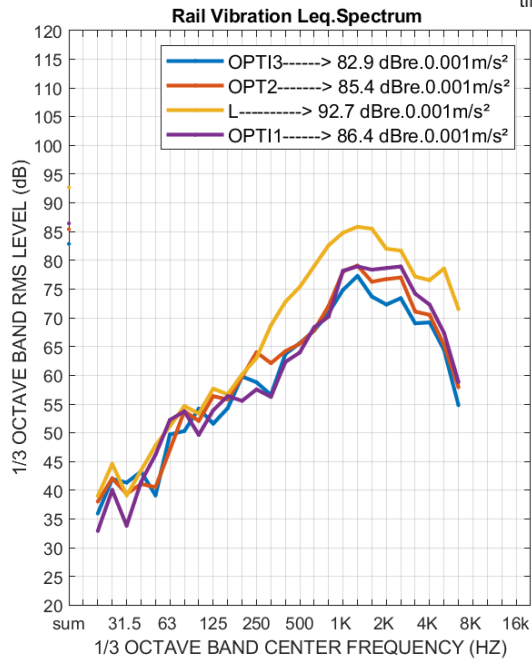
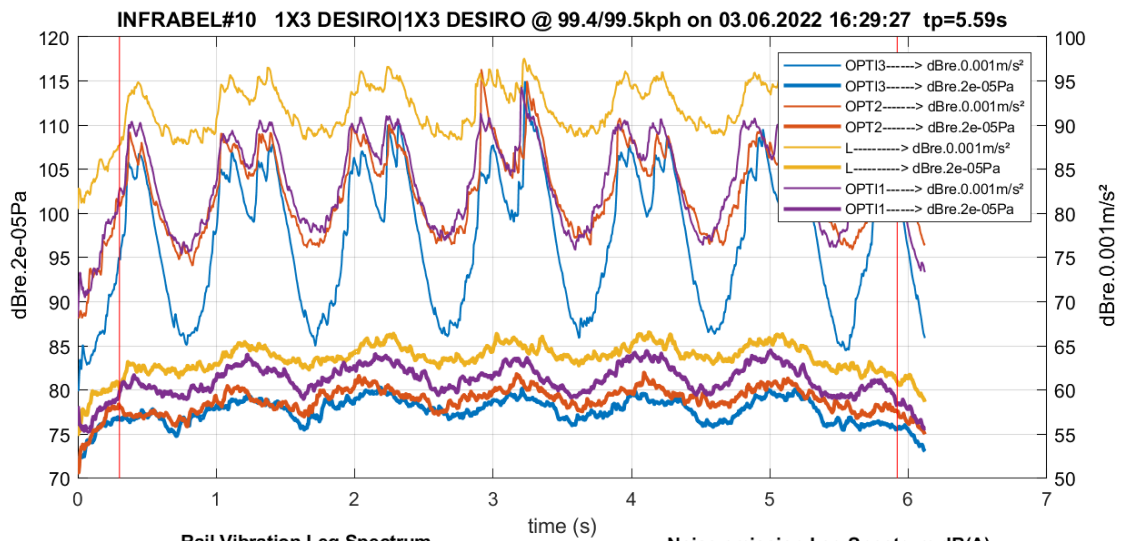


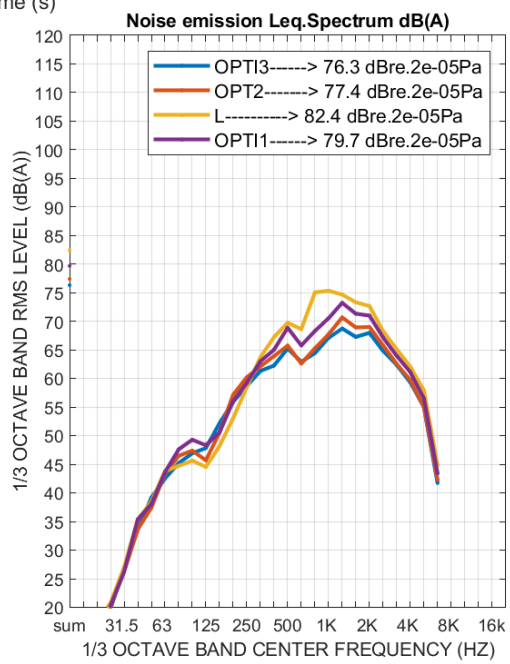
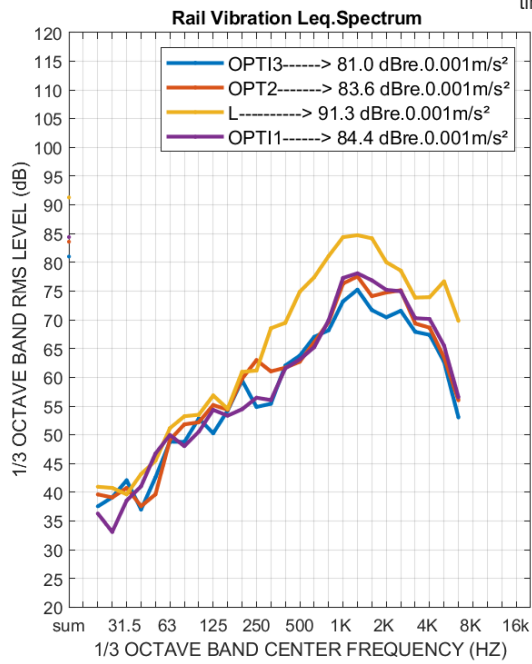
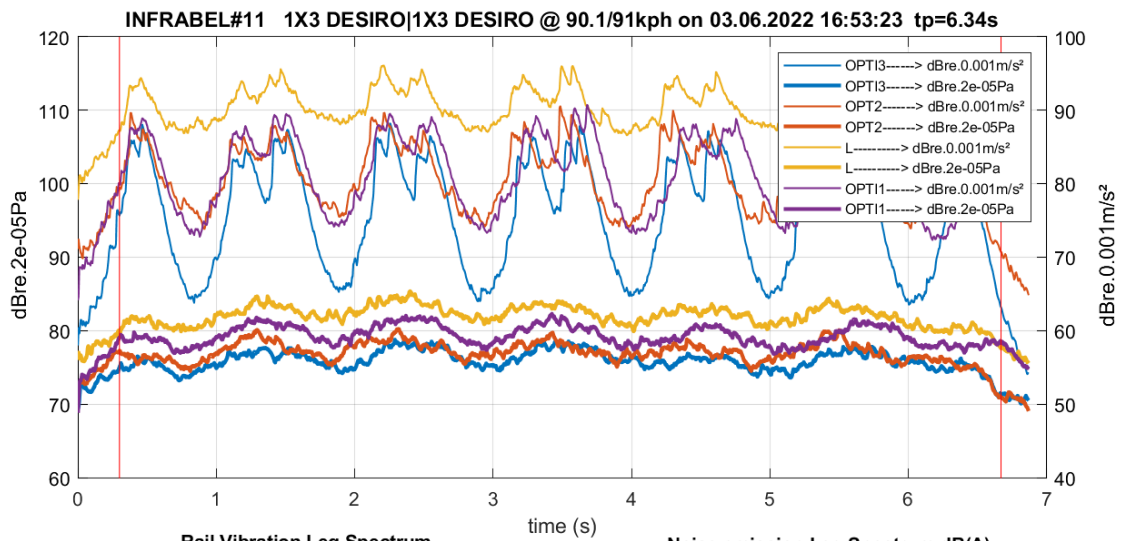


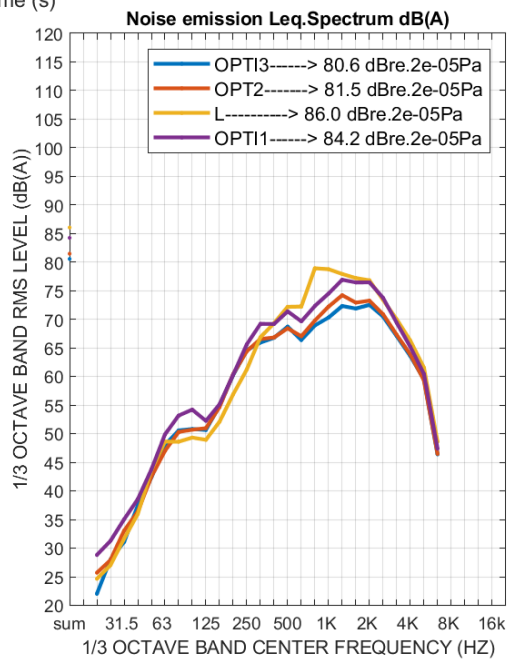
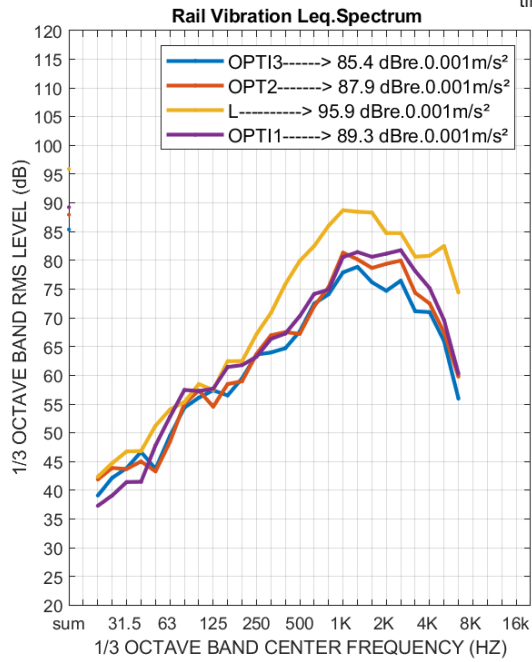
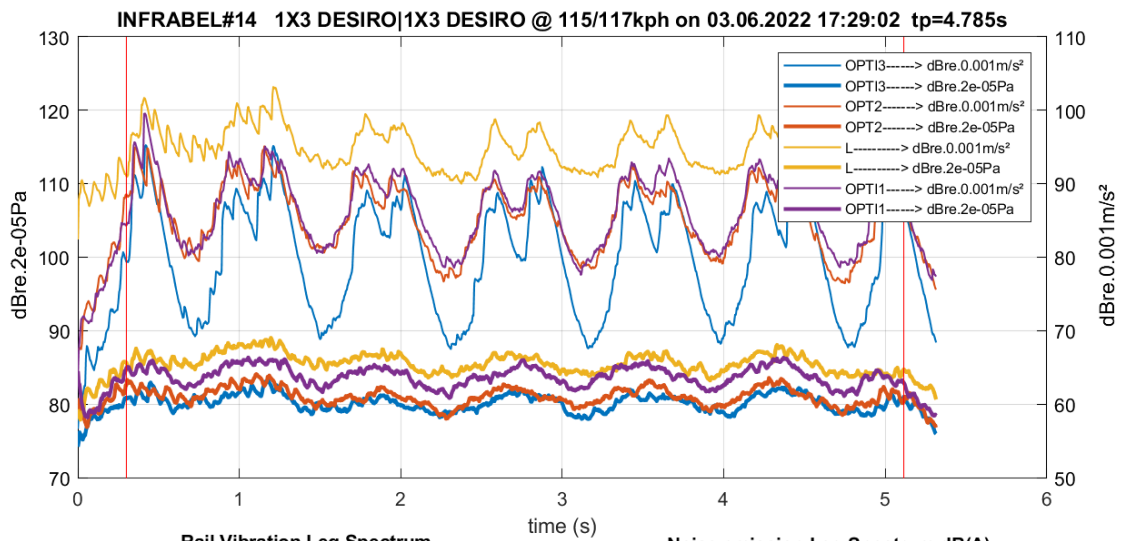


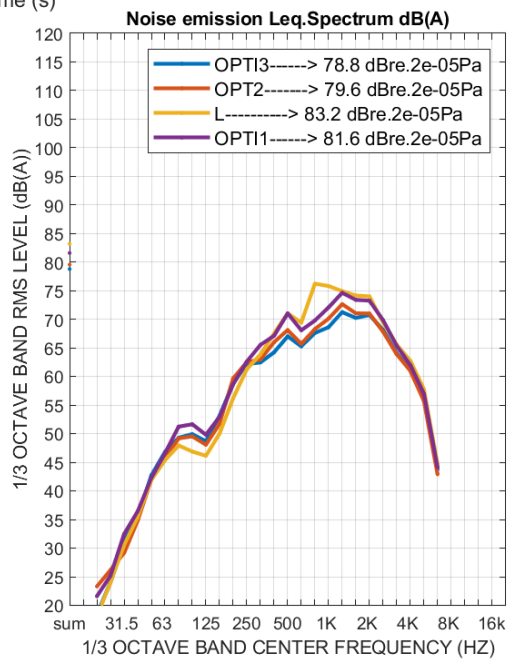
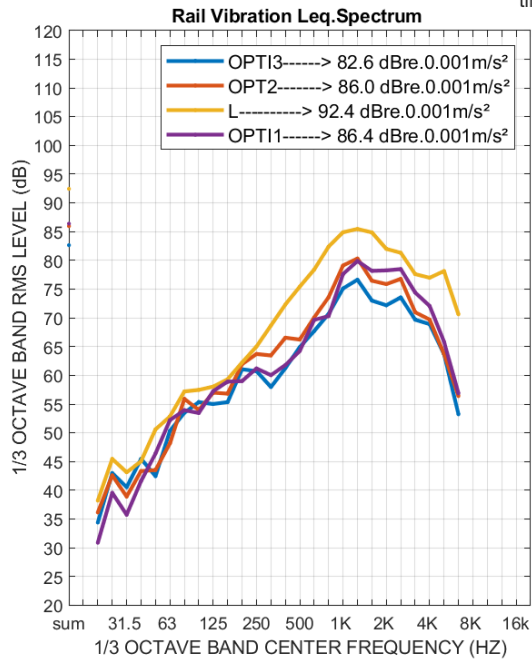
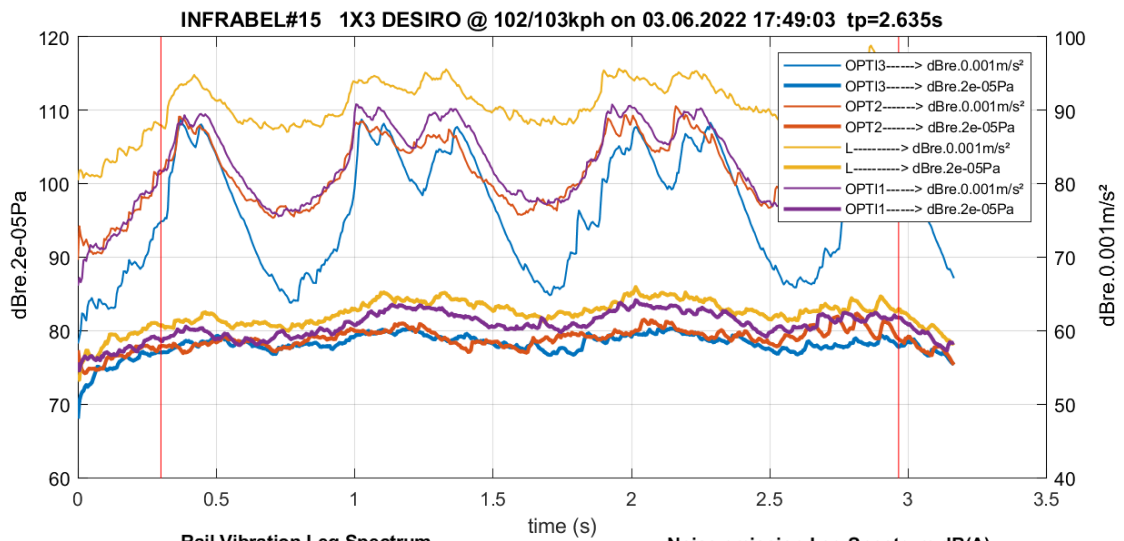




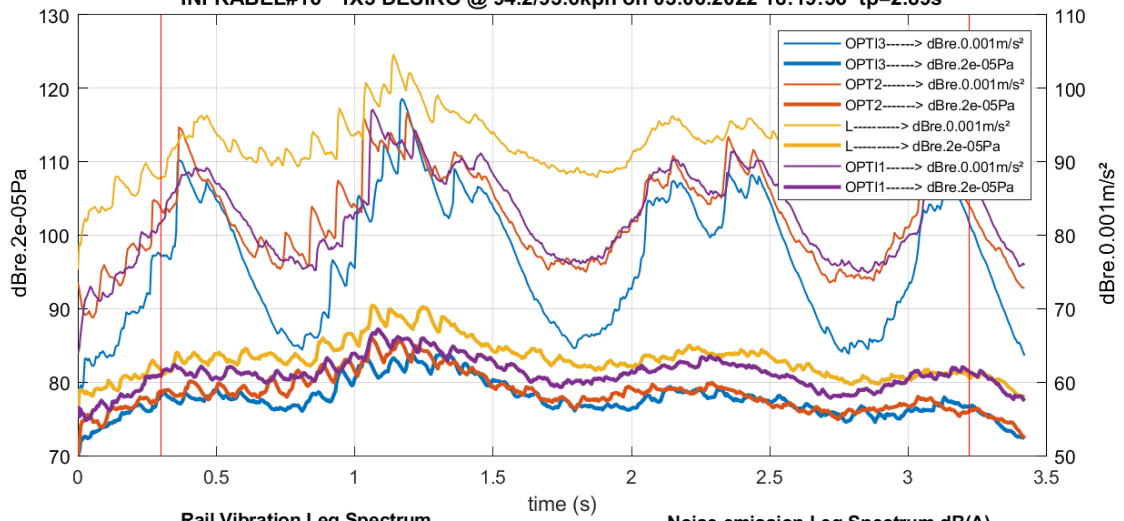




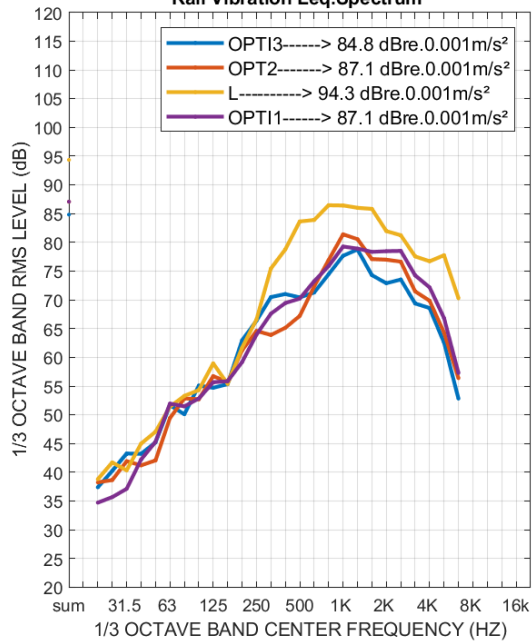




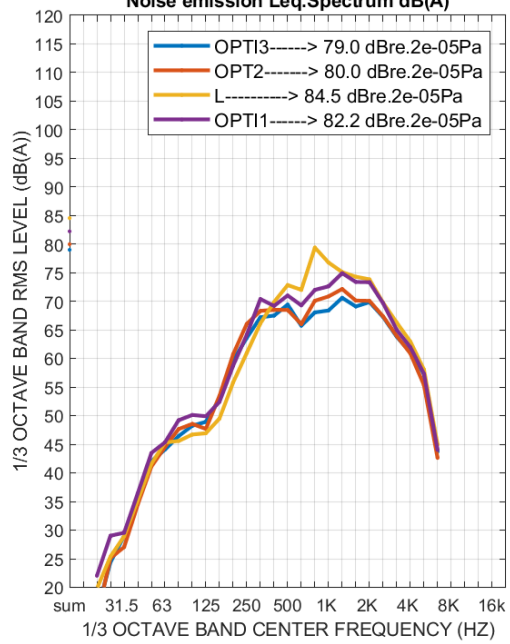
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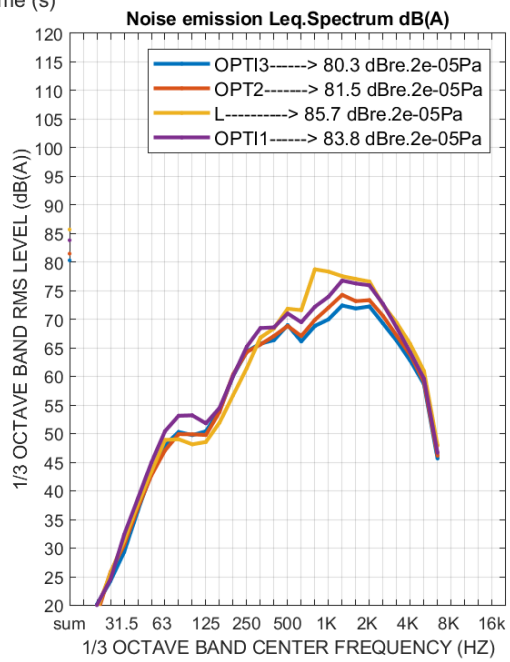
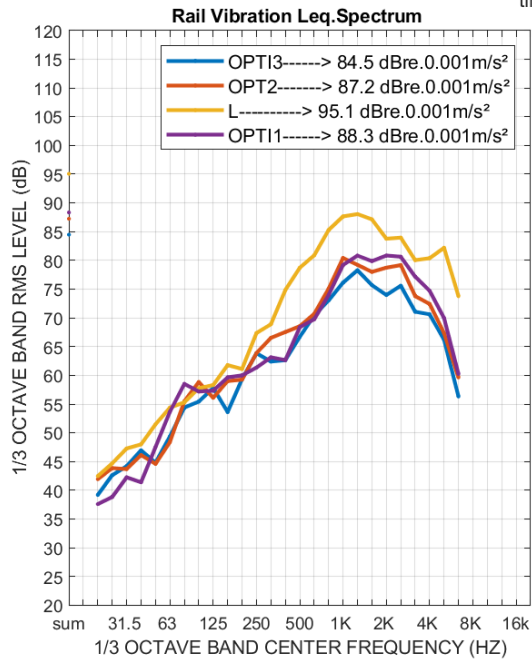
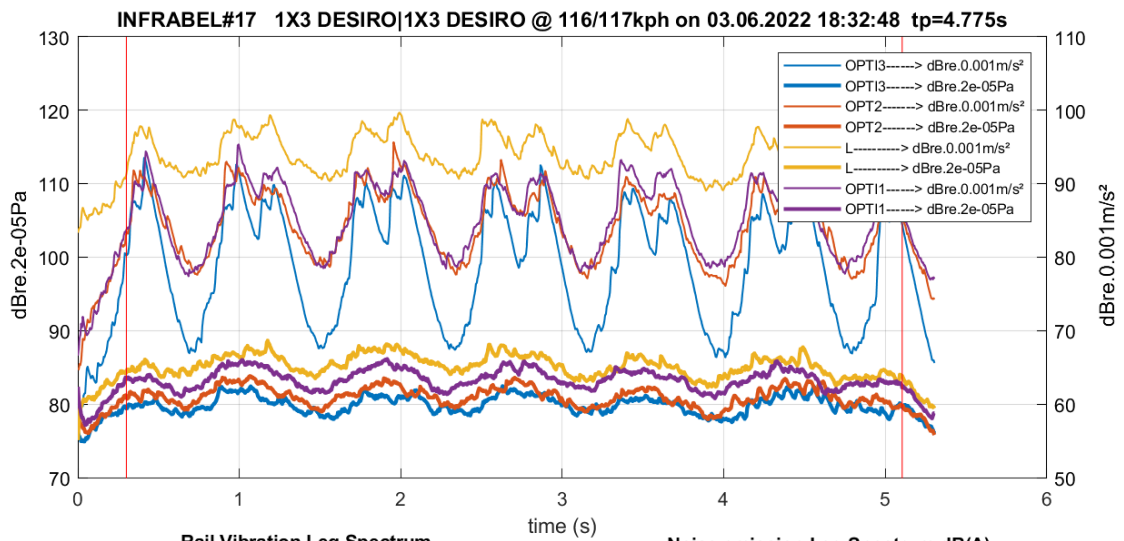


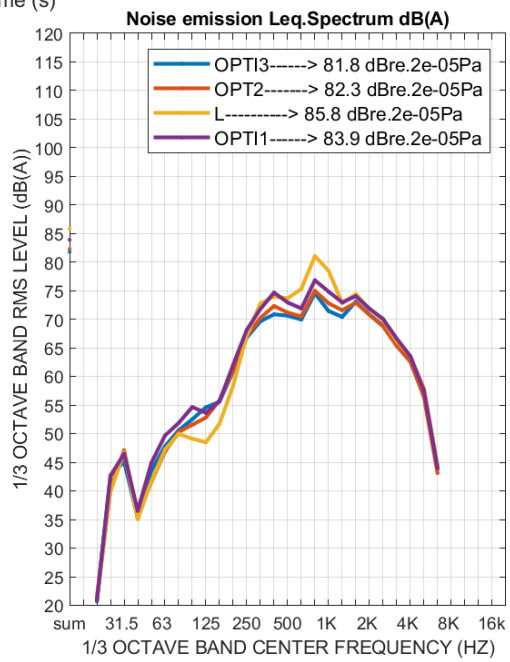
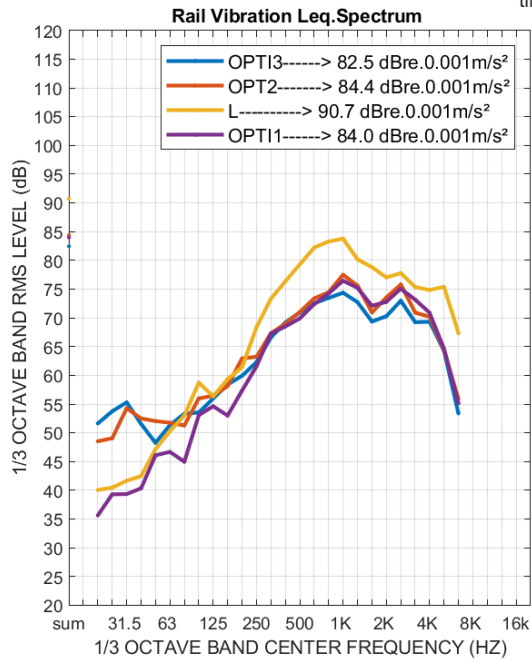
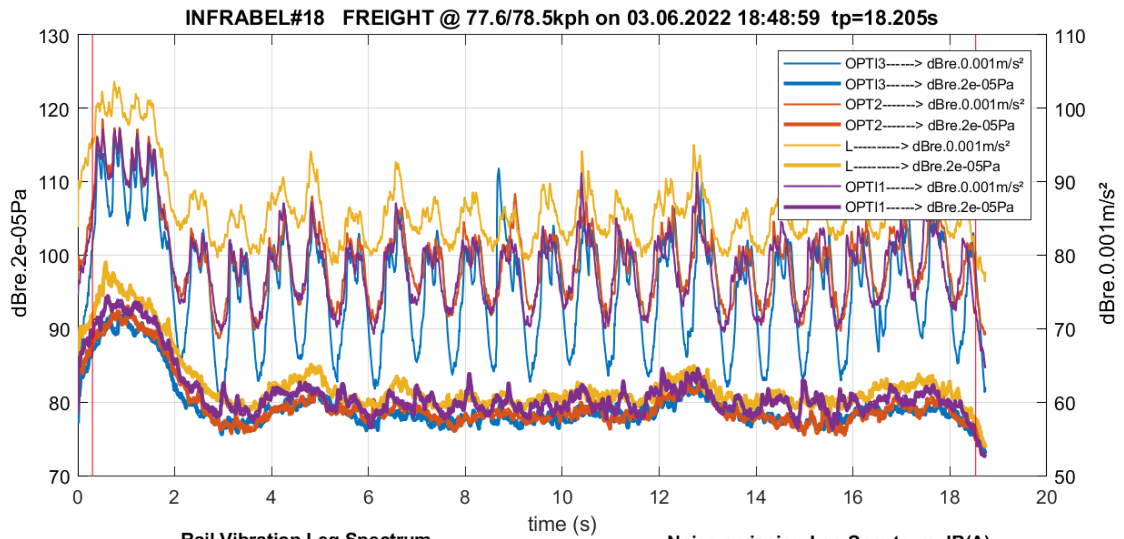
Rail Vibration Leq.Spectrum

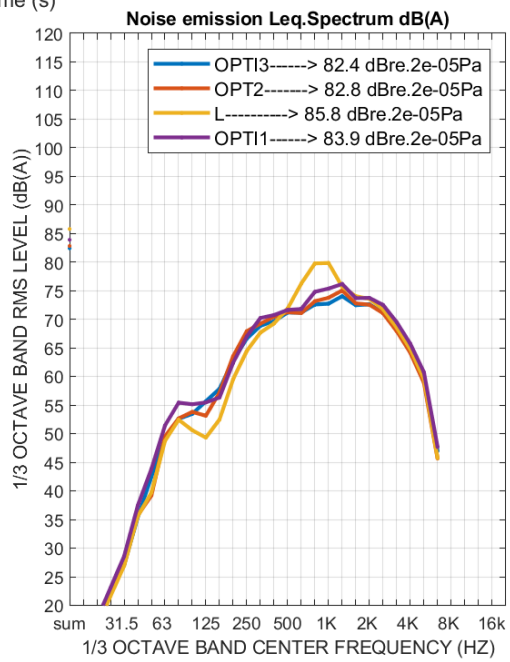
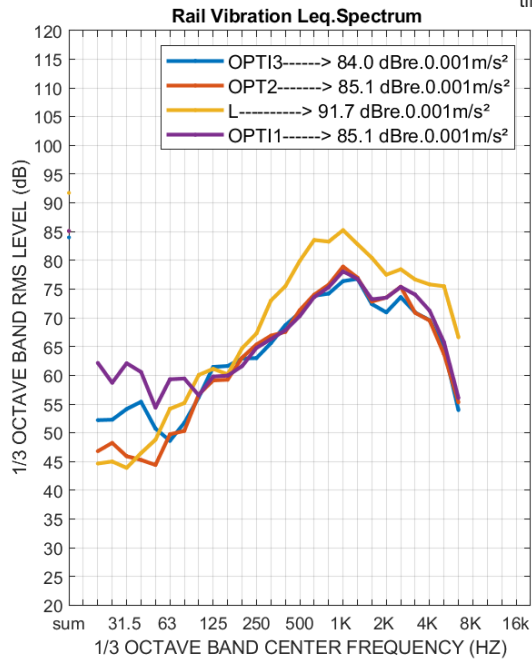
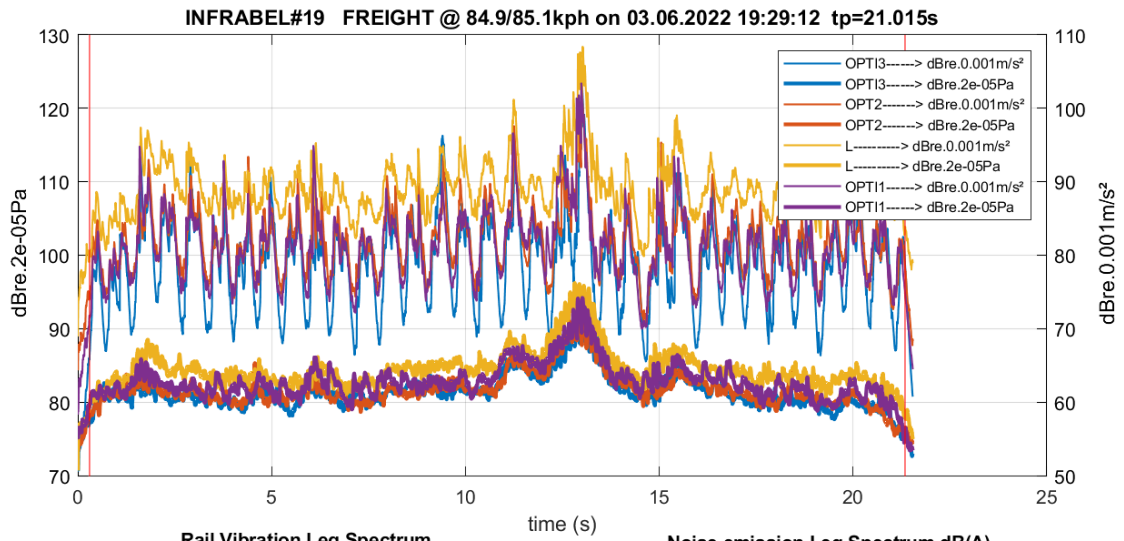


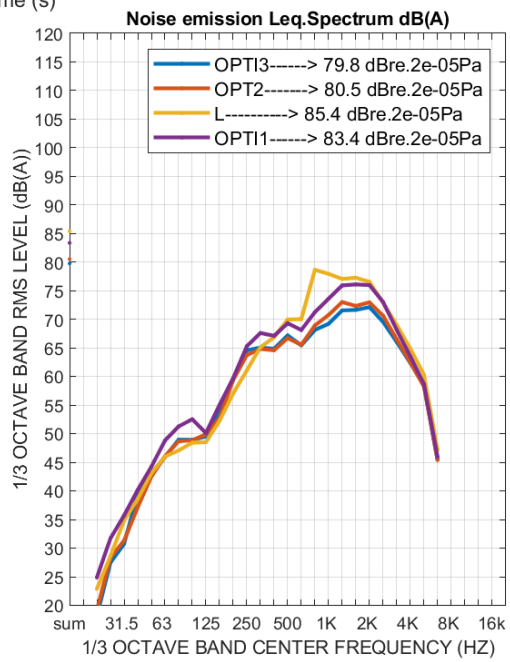
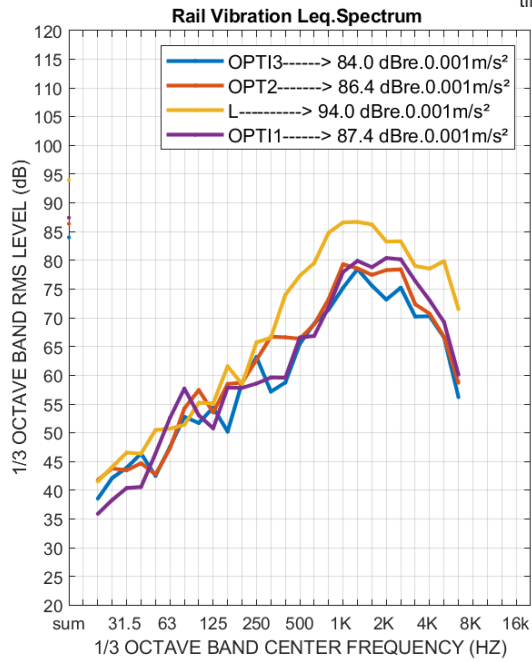
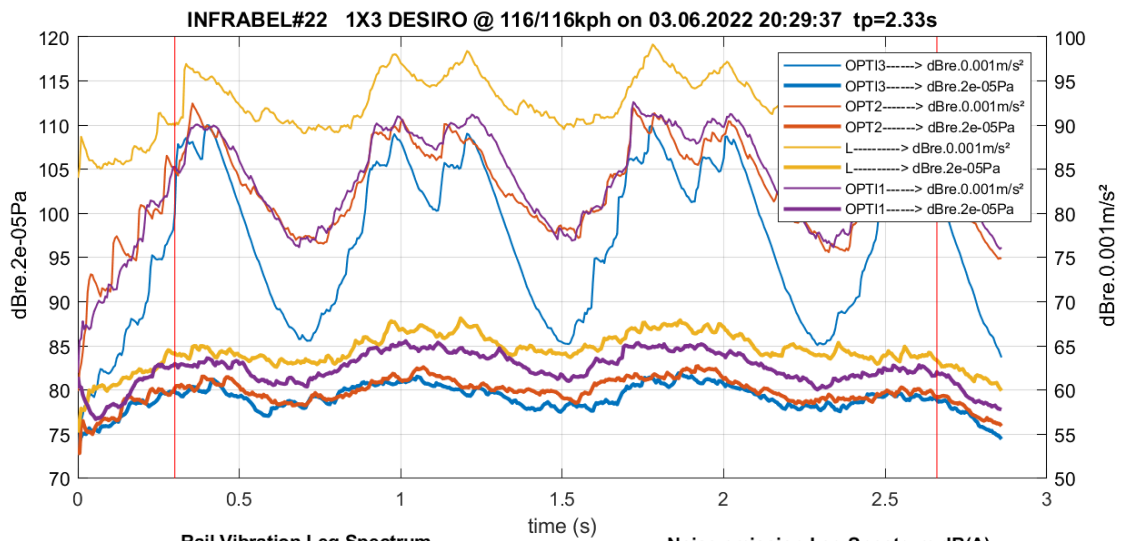
Noise emission Leq.Spectrum dB(A)

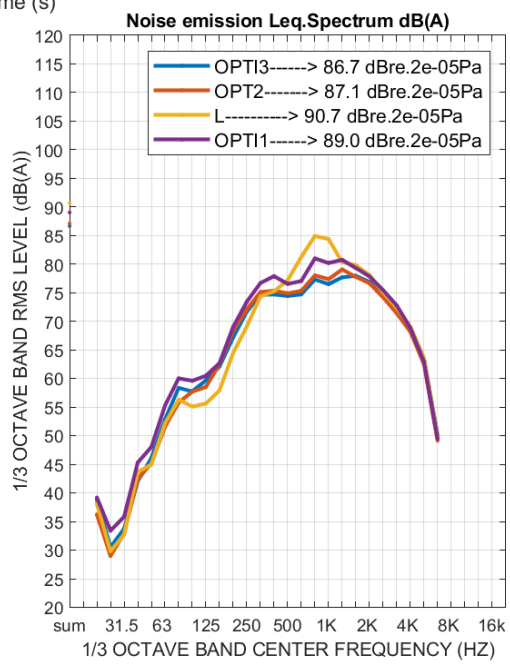
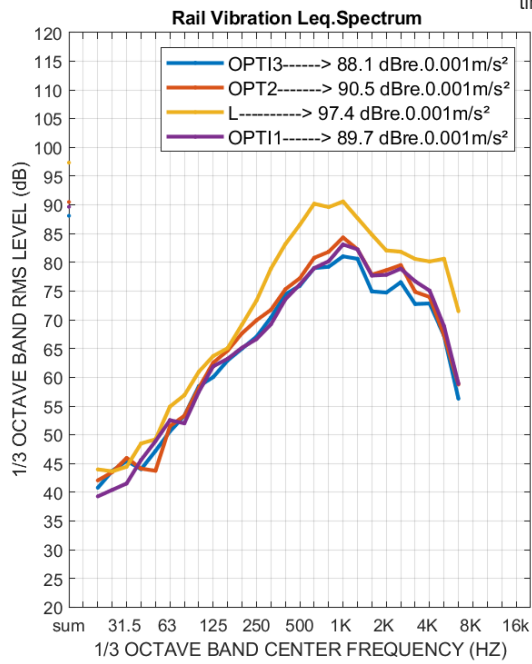
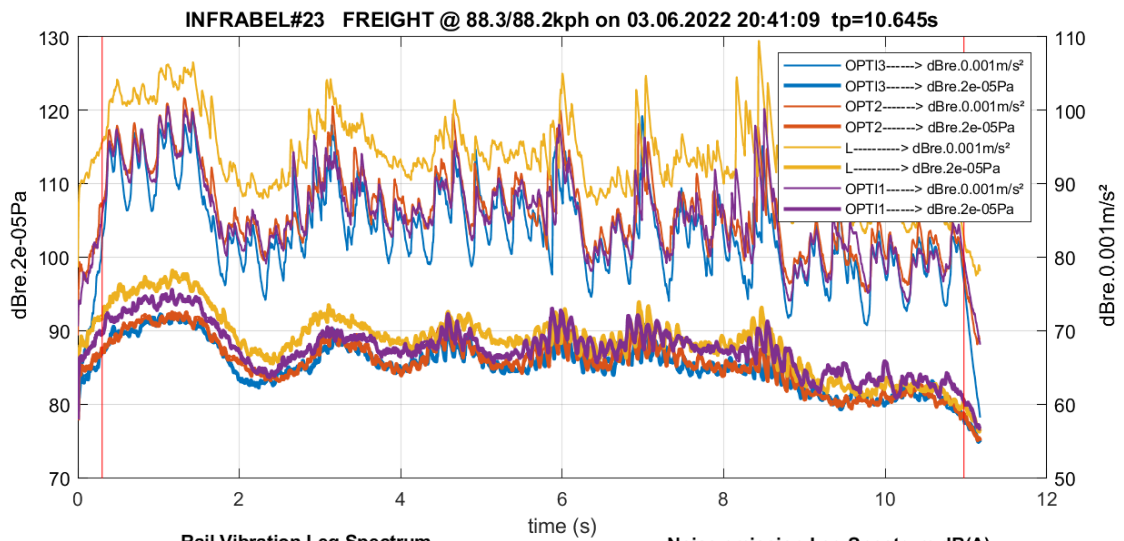


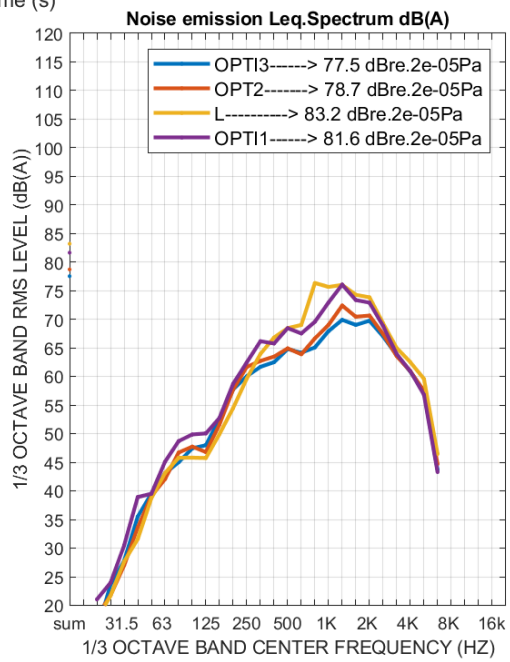
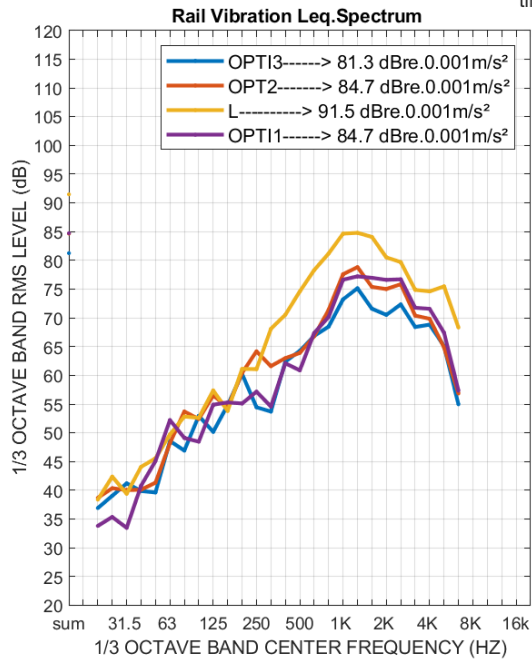
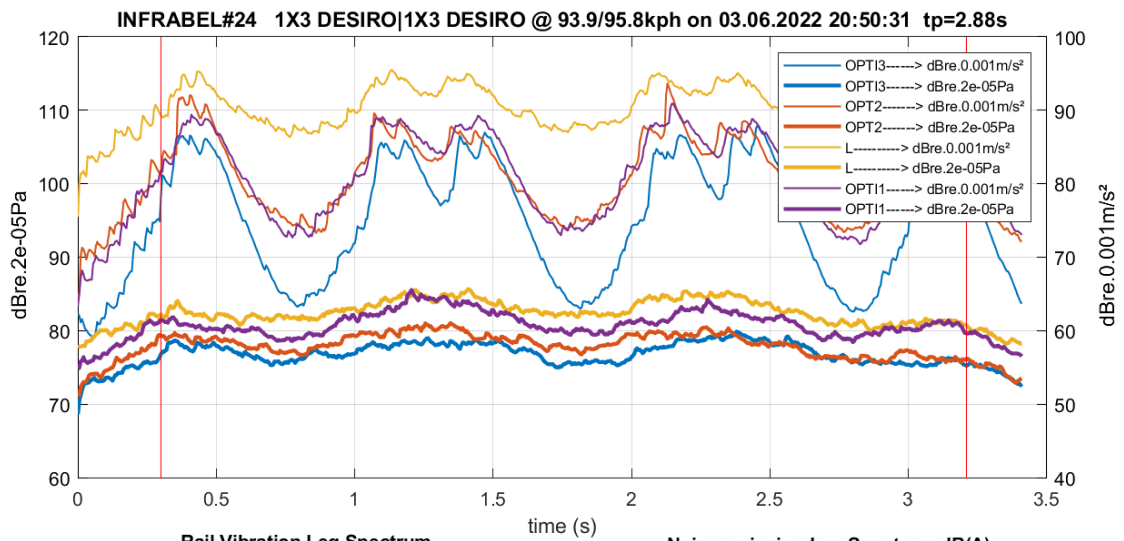


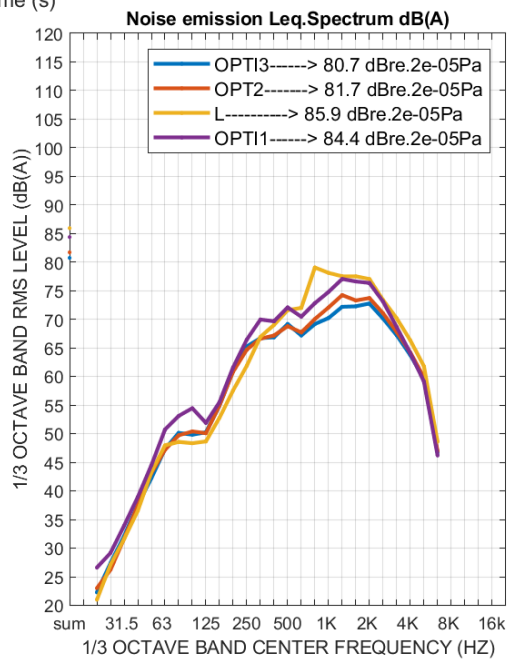
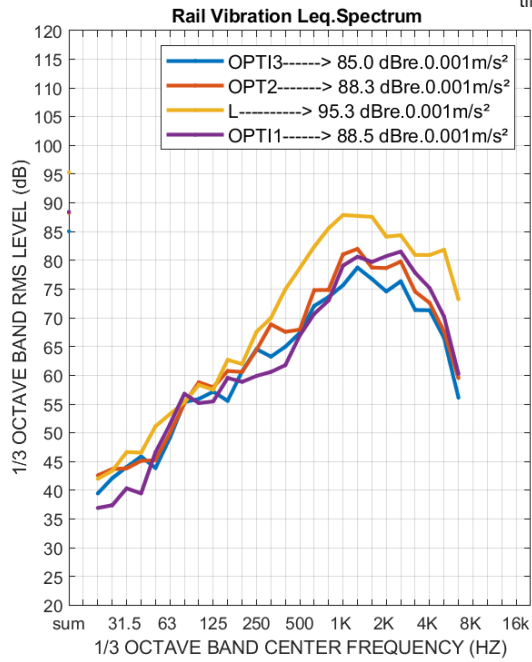
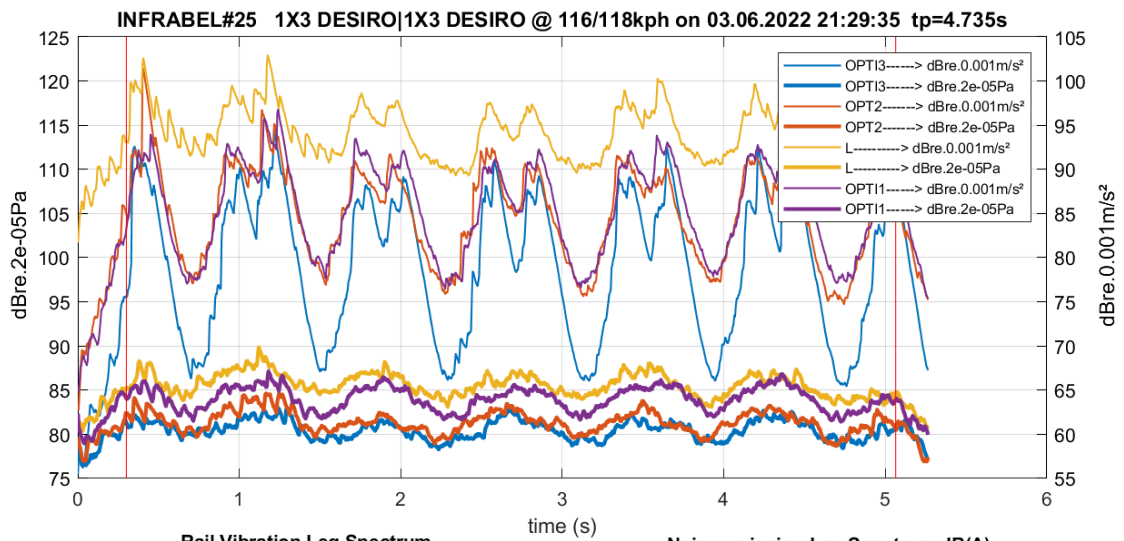


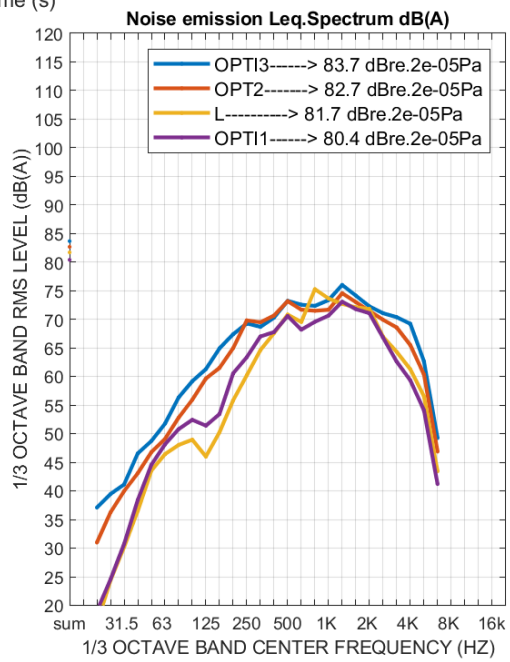
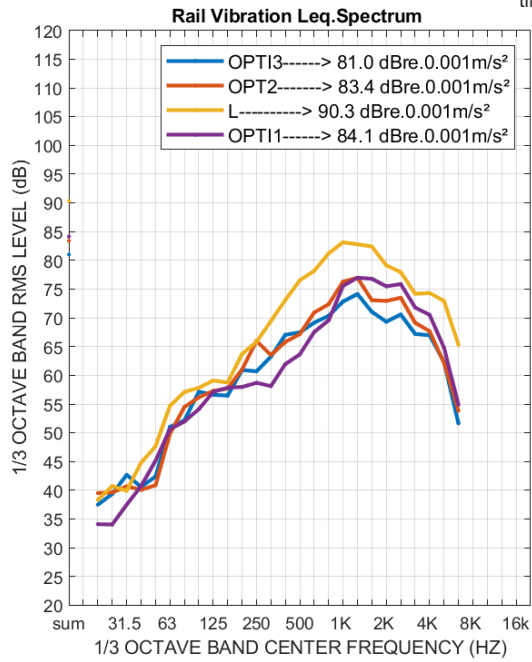
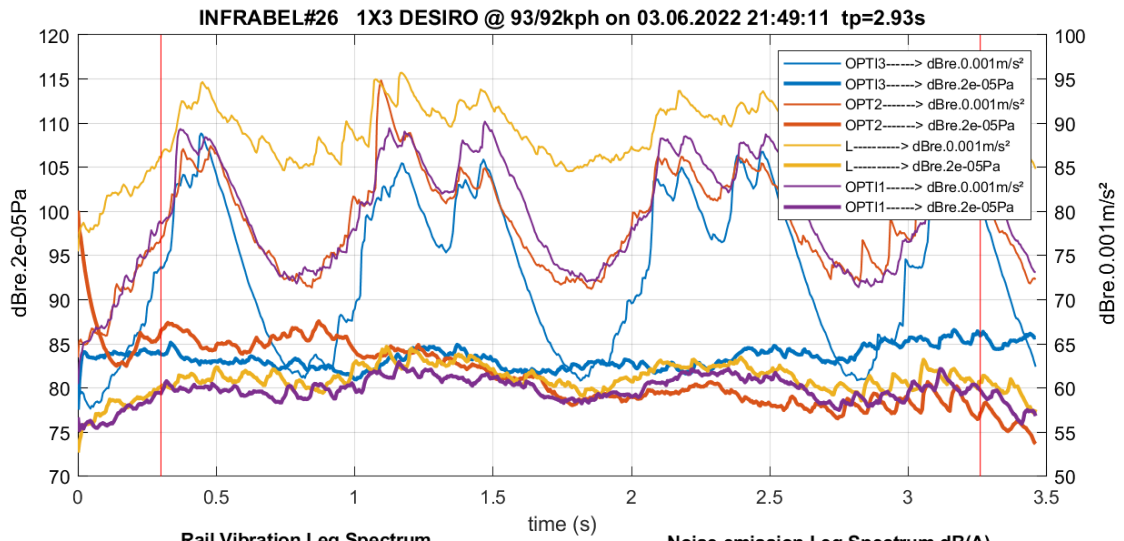




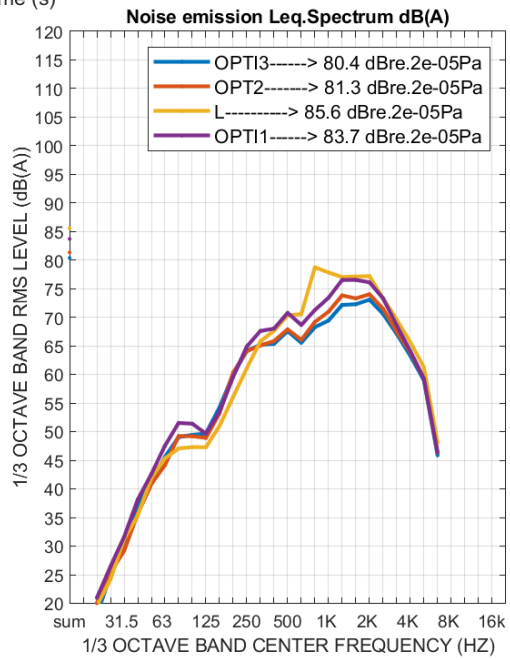
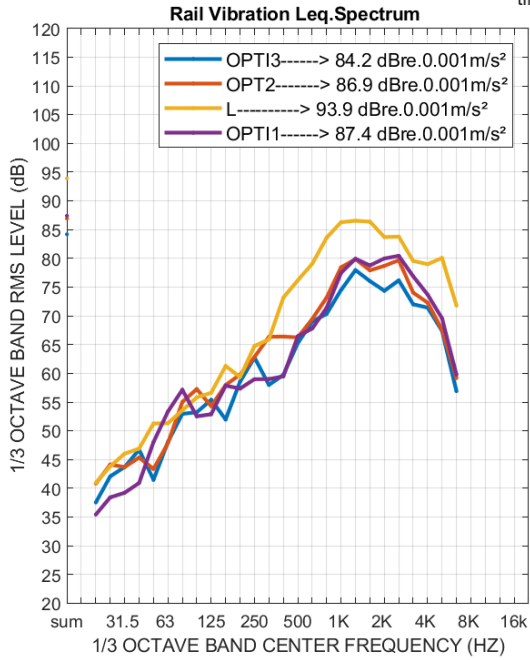
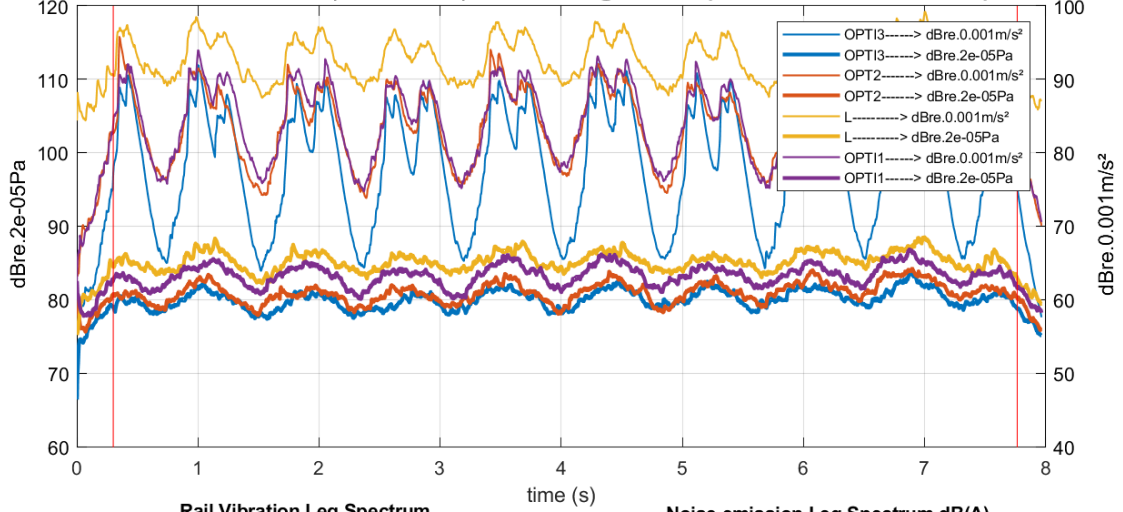


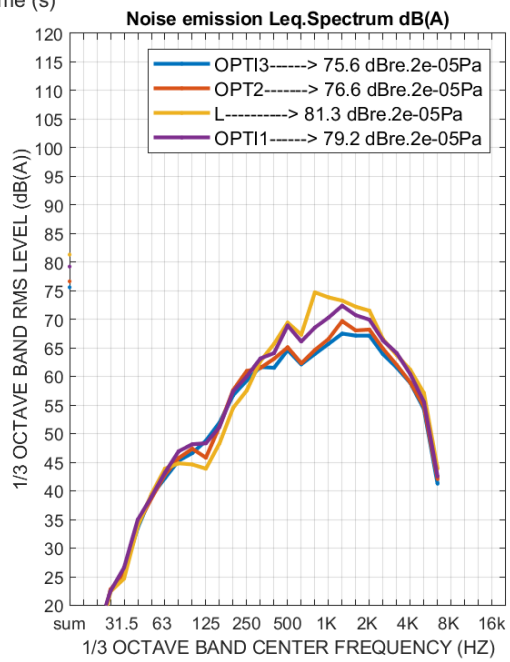
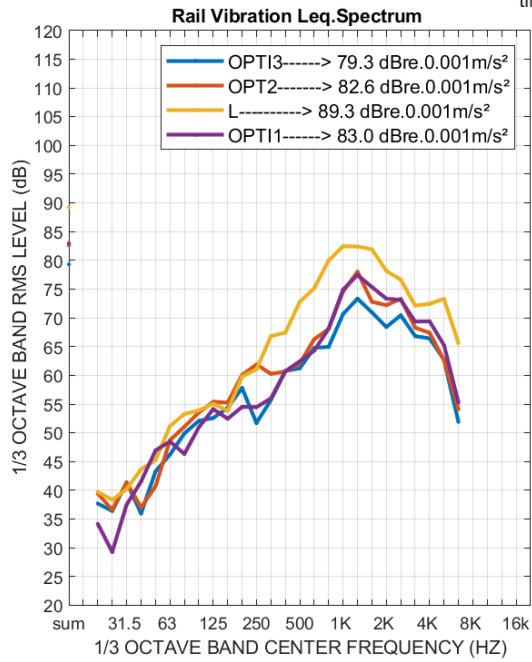
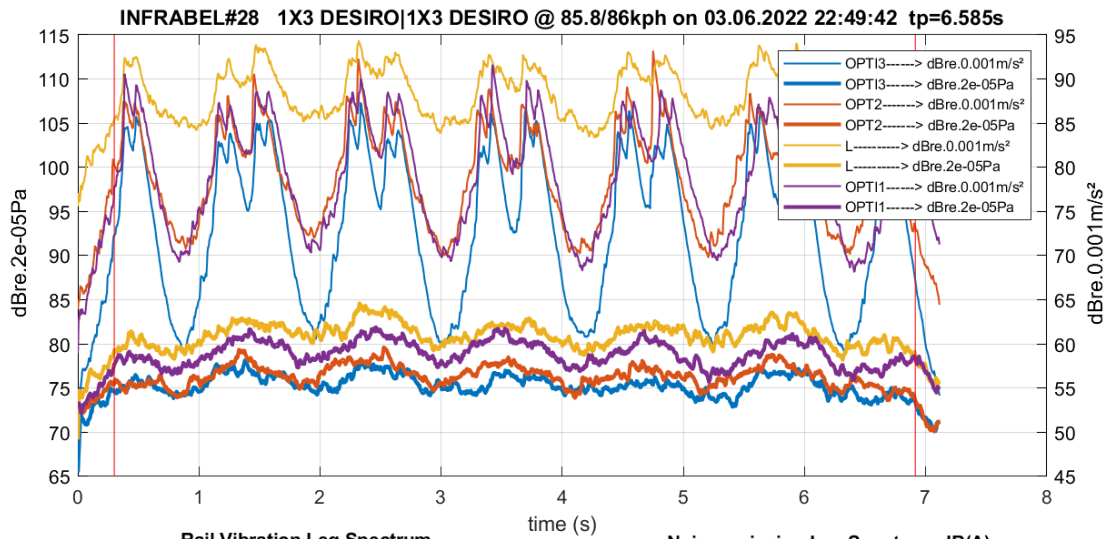


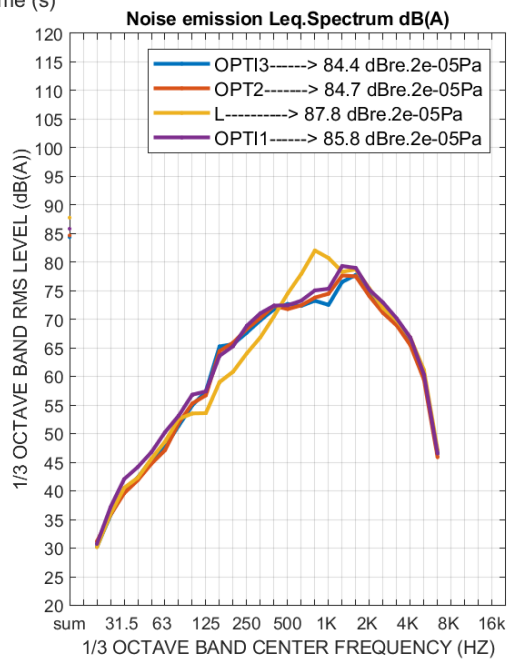
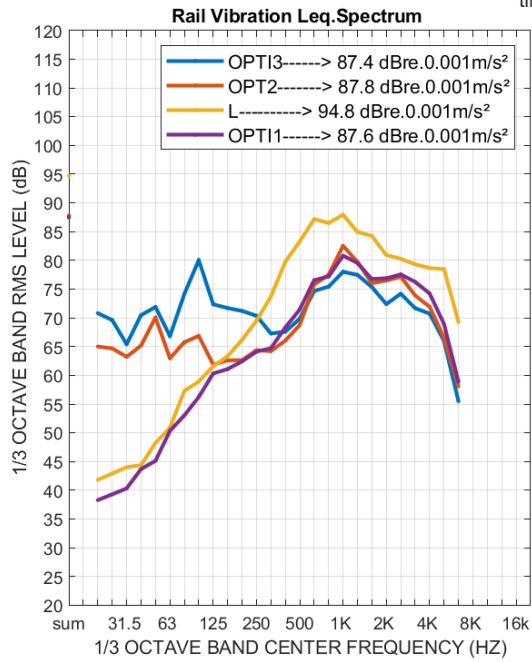
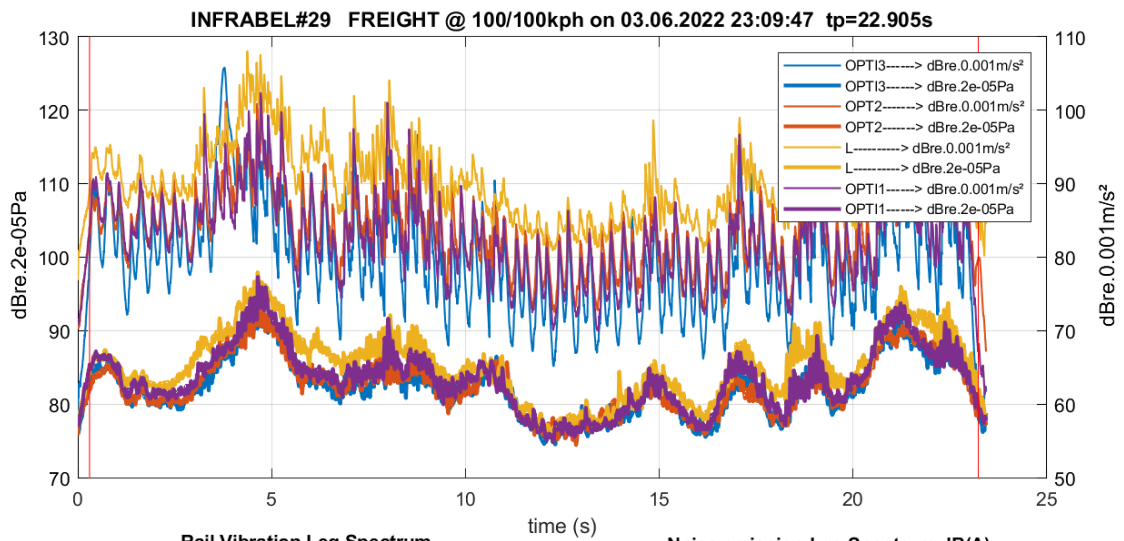




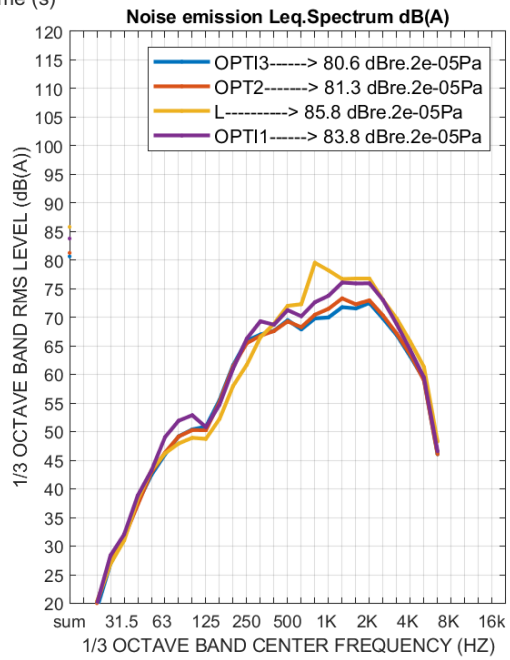
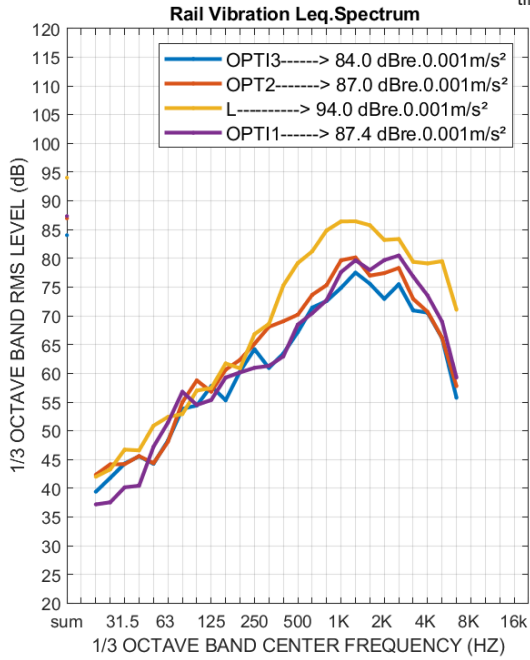
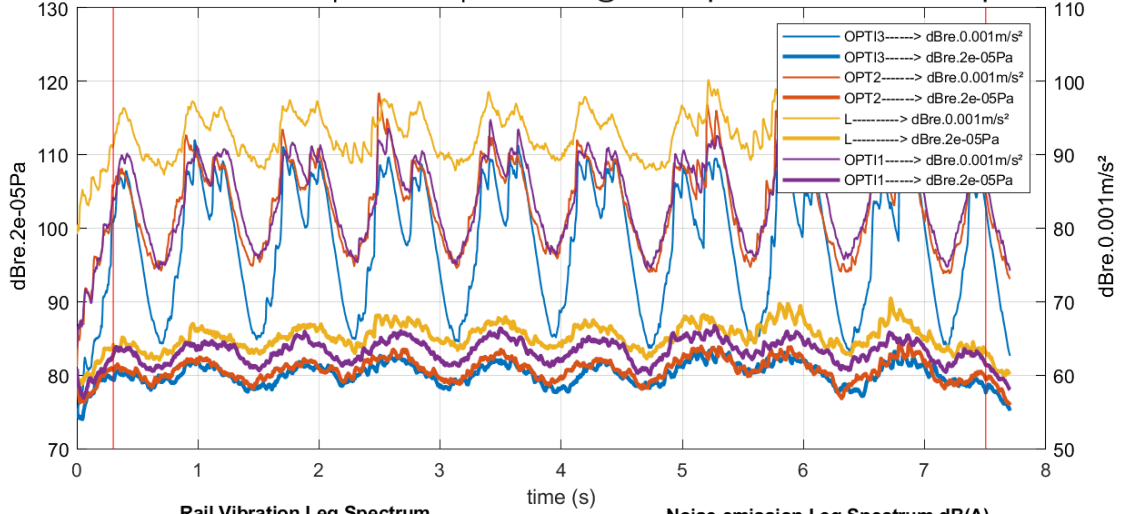
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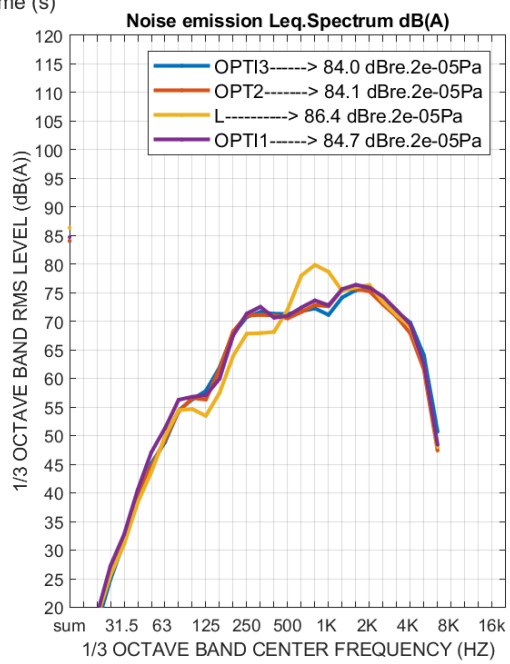
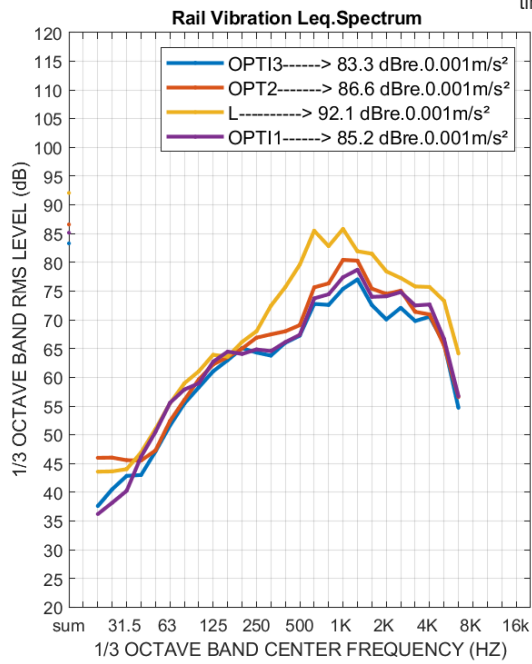
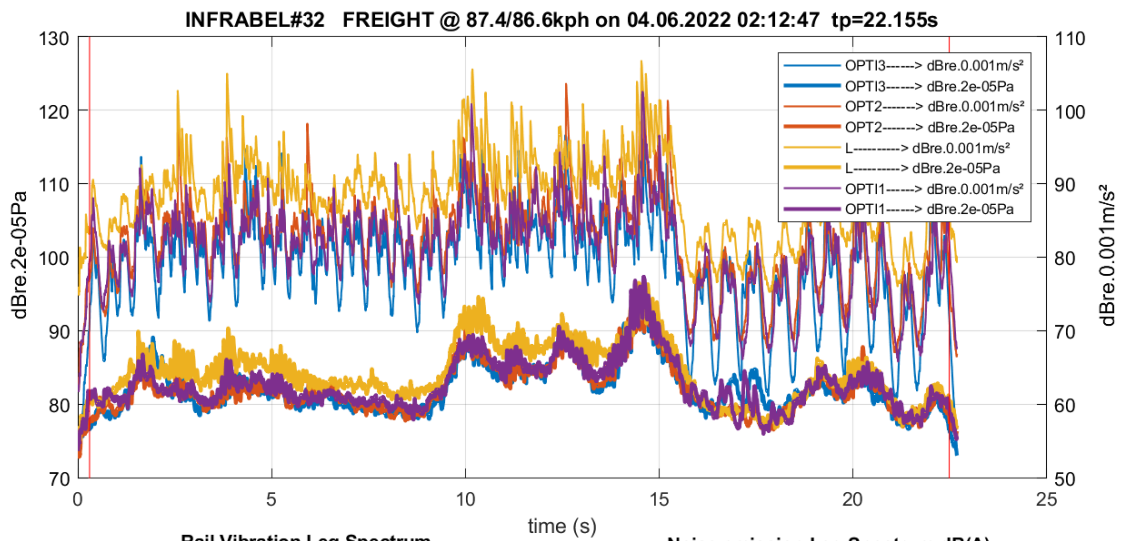


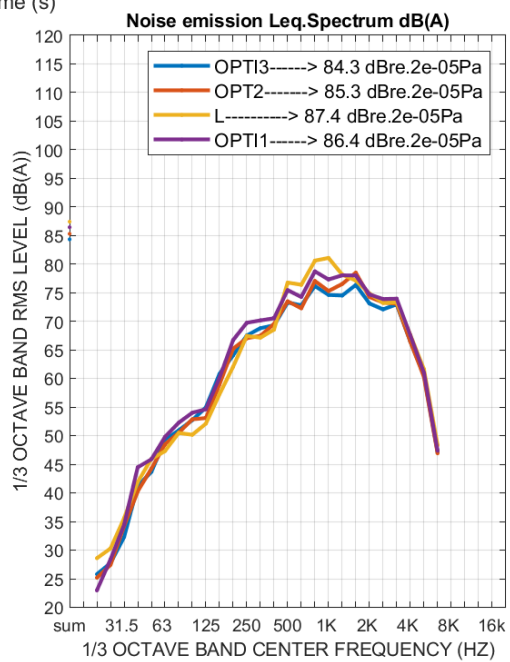
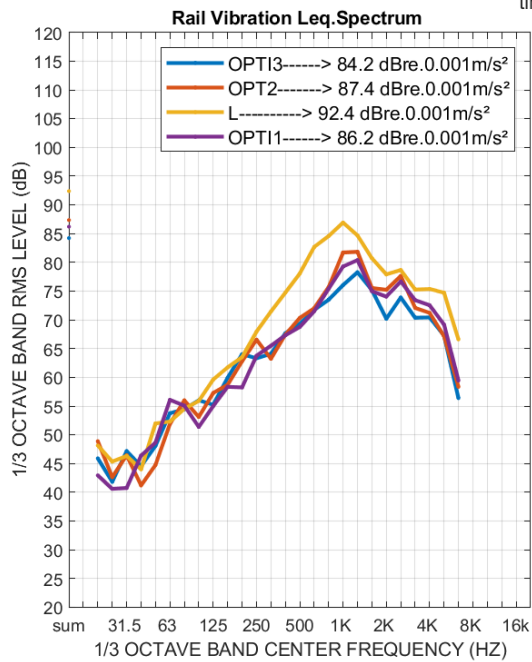
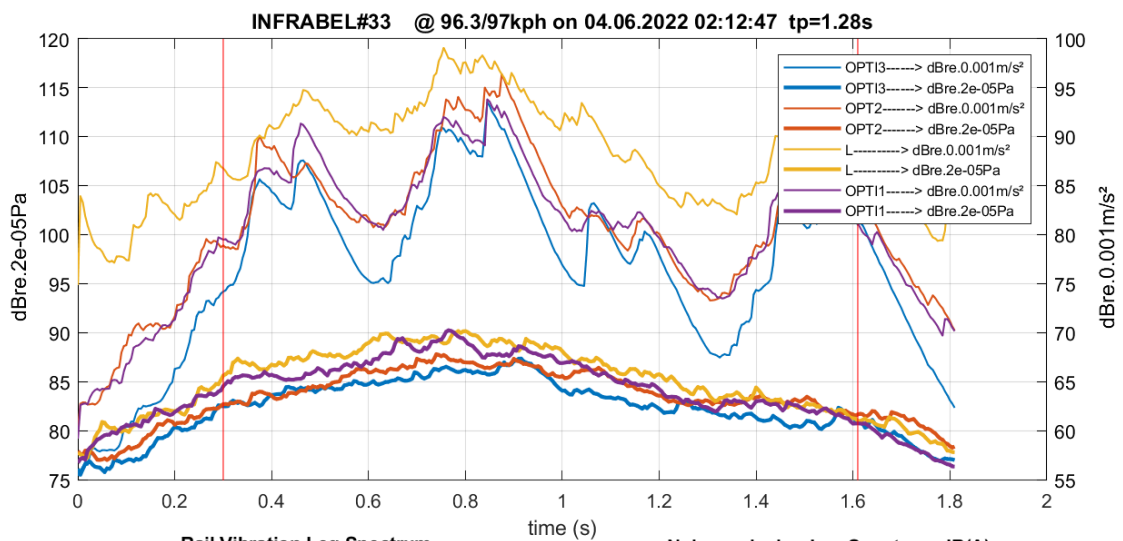


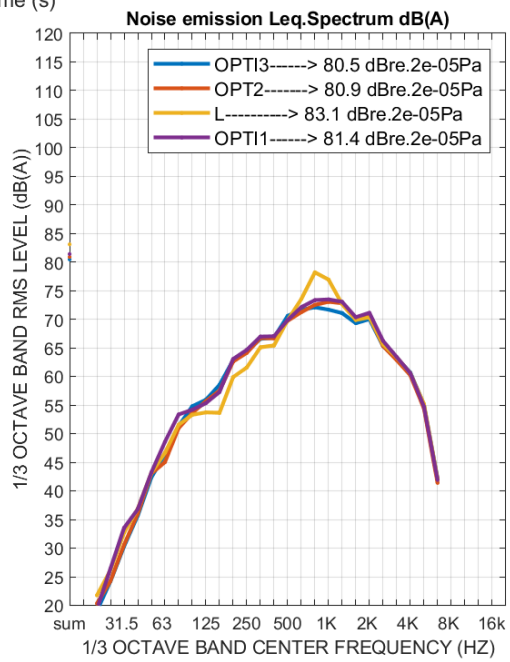
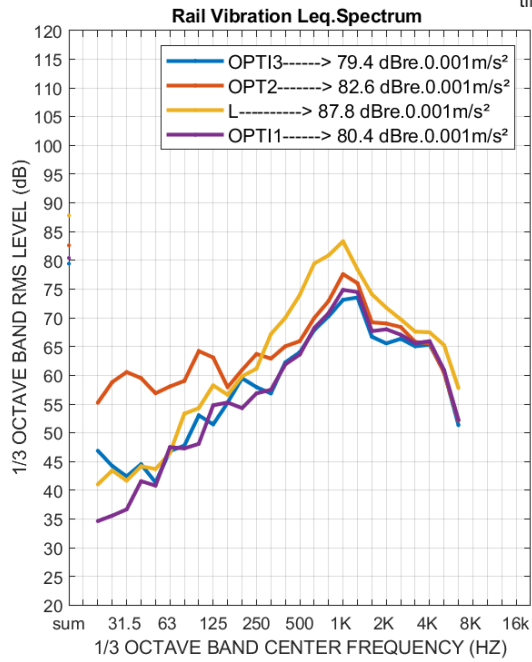
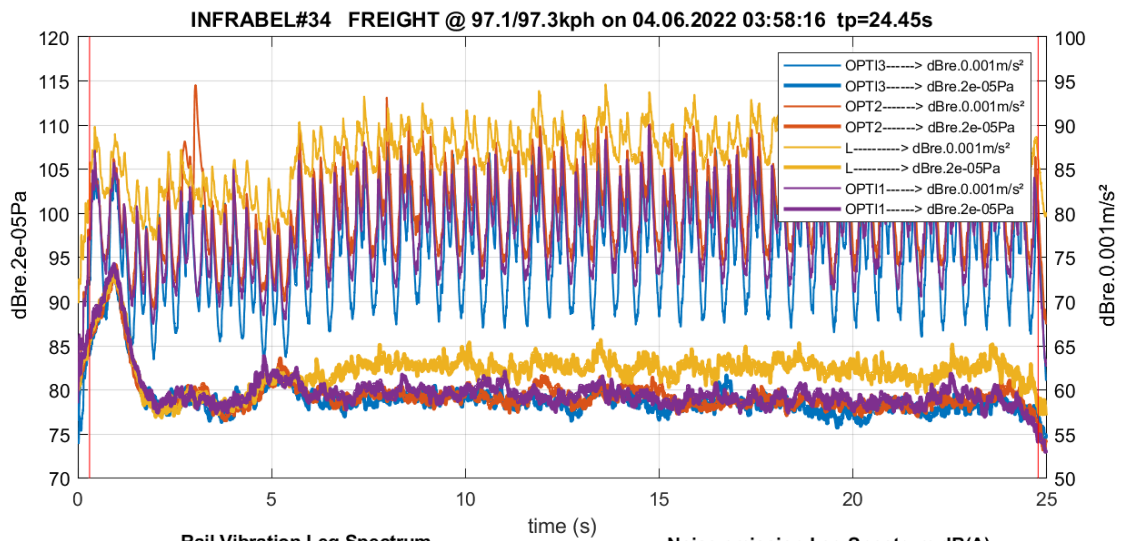


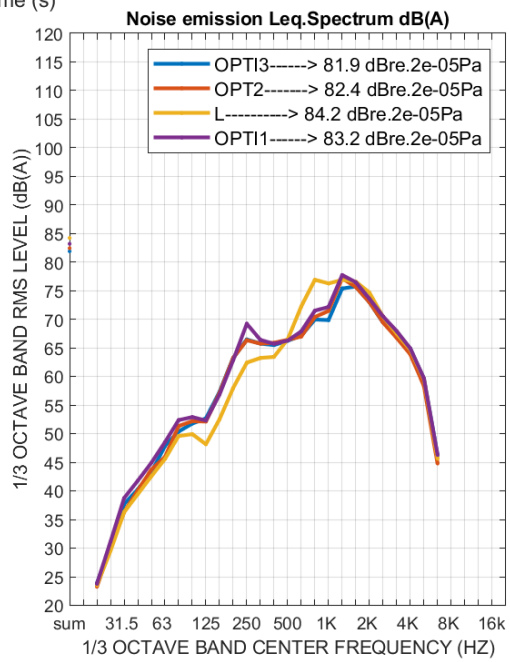
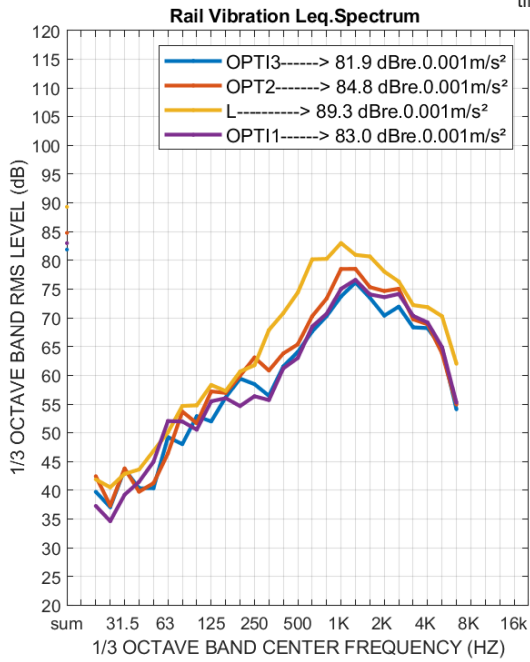
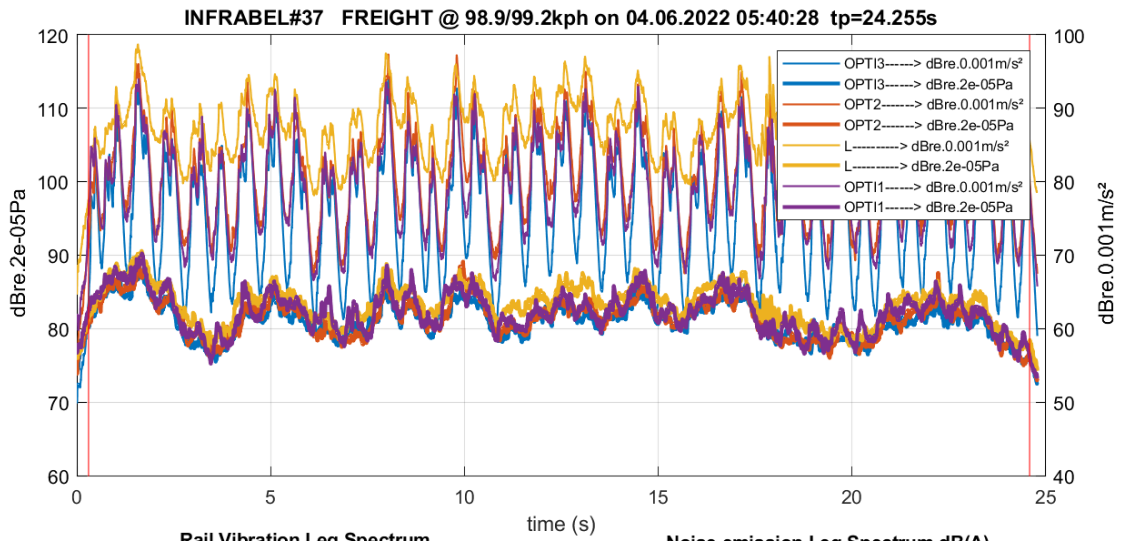
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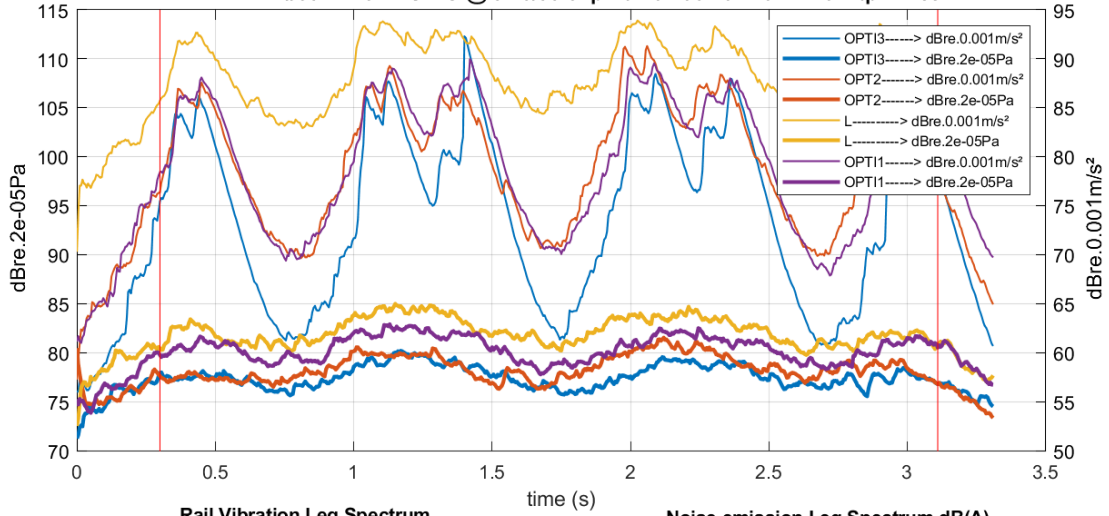




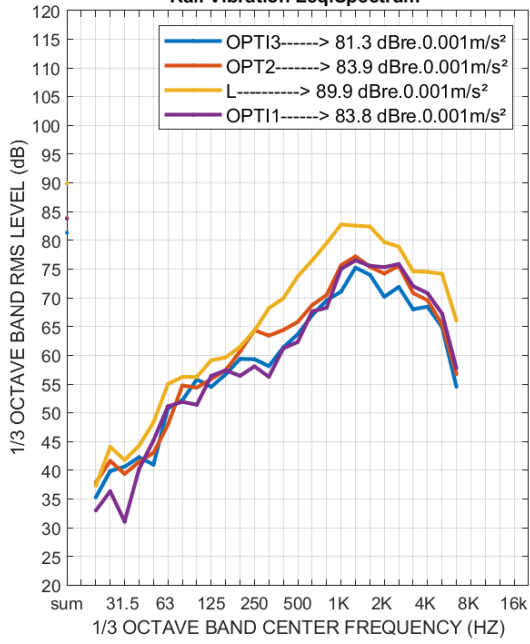




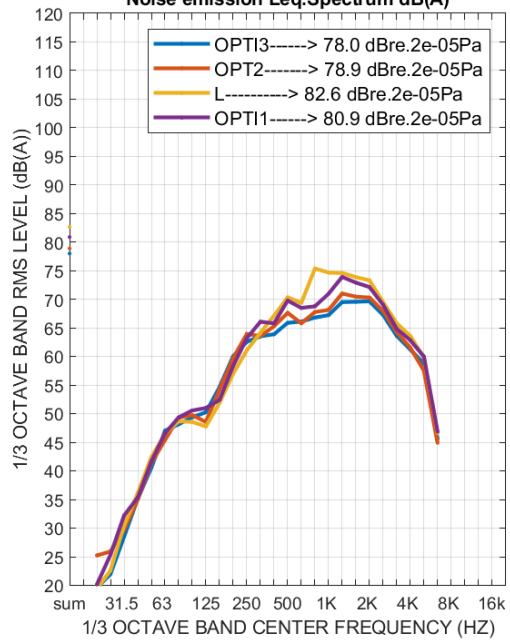
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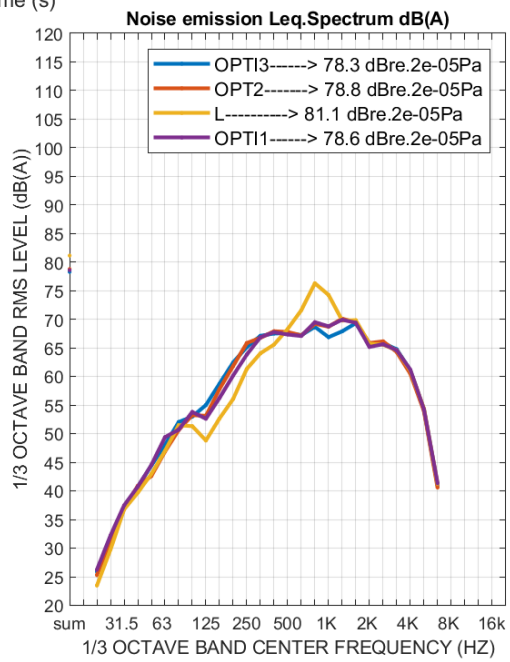
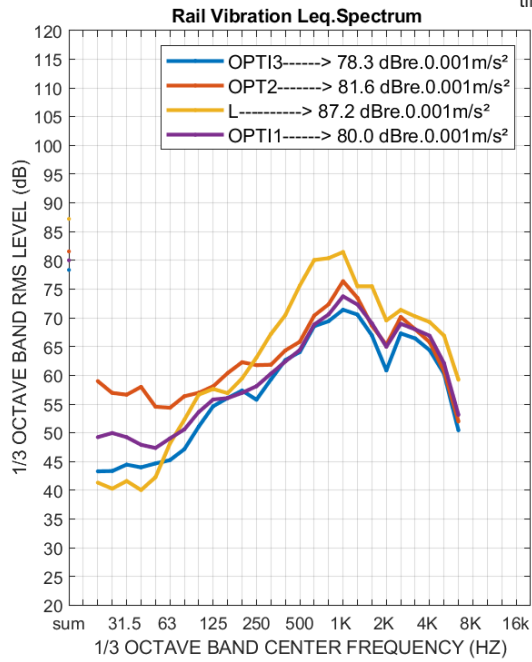
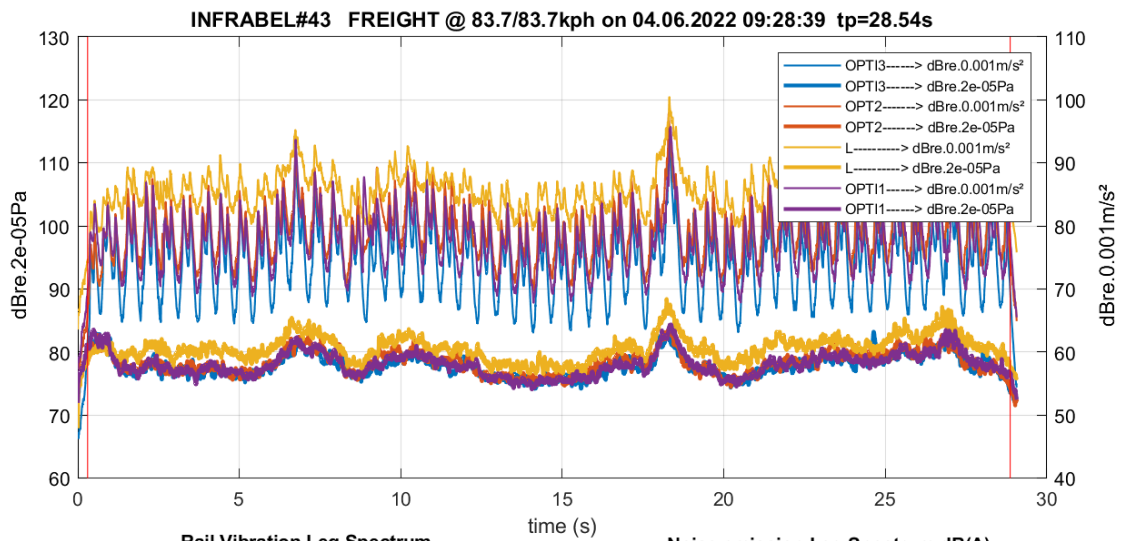


Rail Vibration Leq.Spectrum

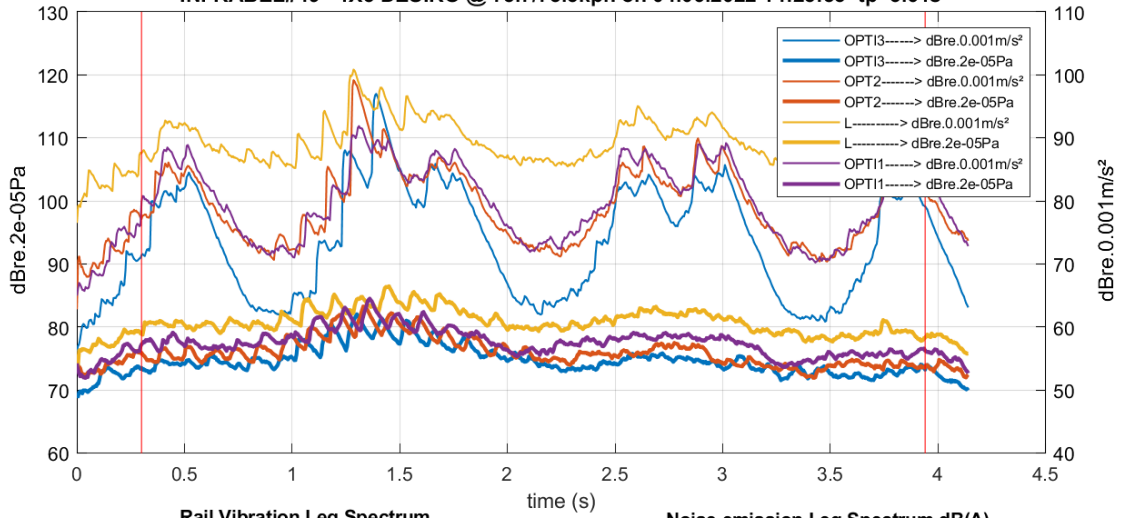


Noise emission Leq.Spectrum dB(A)

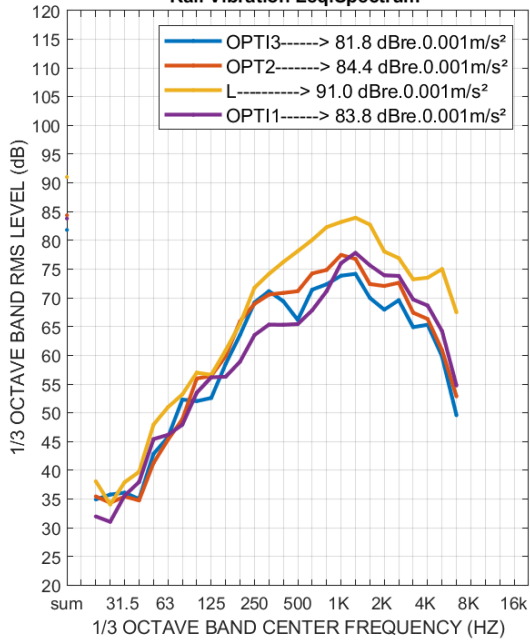




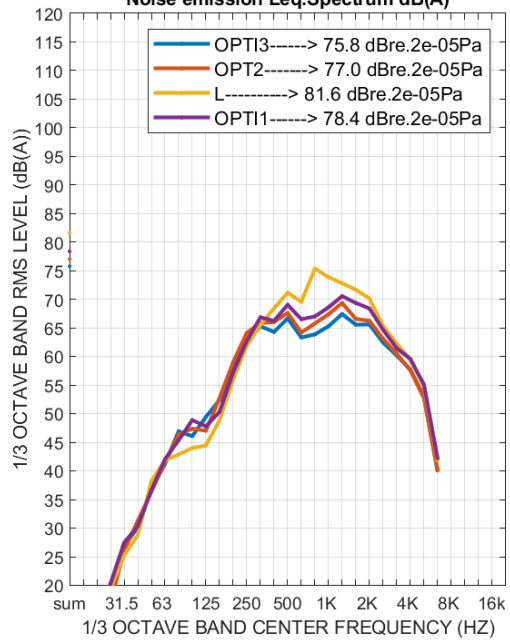
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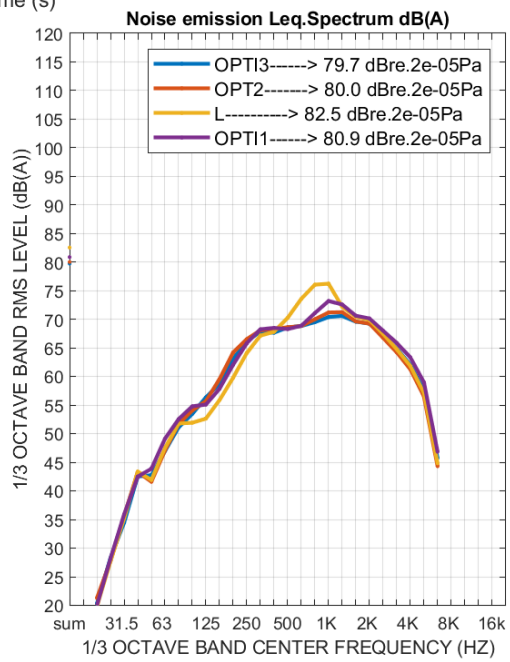
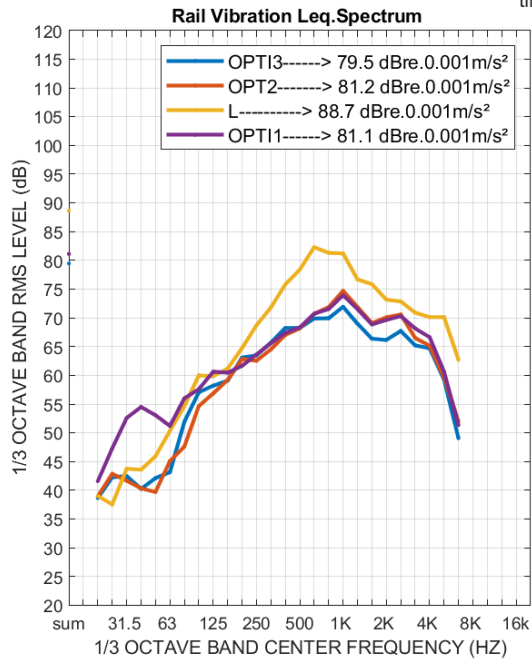
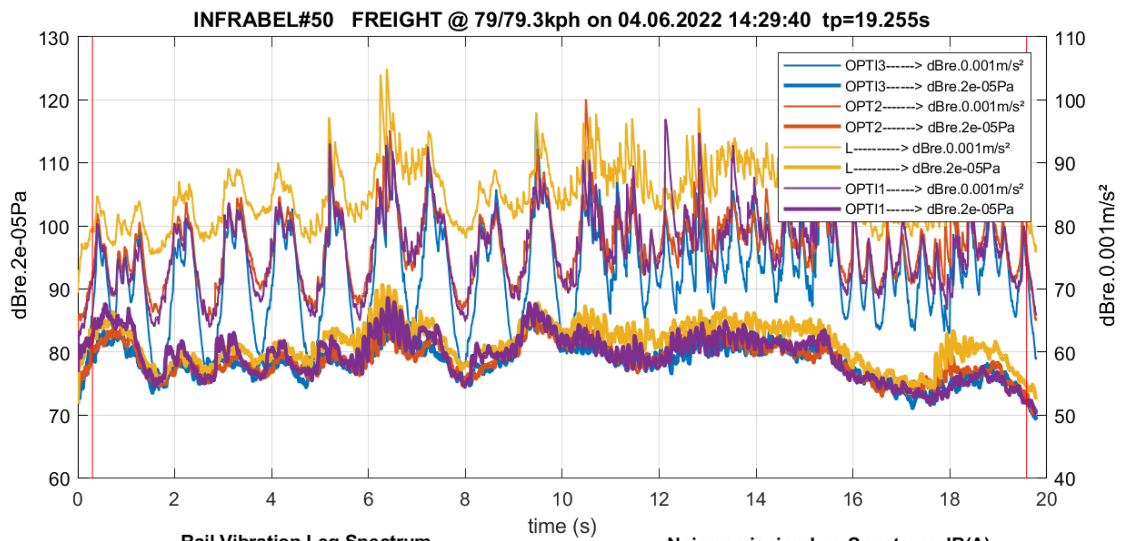


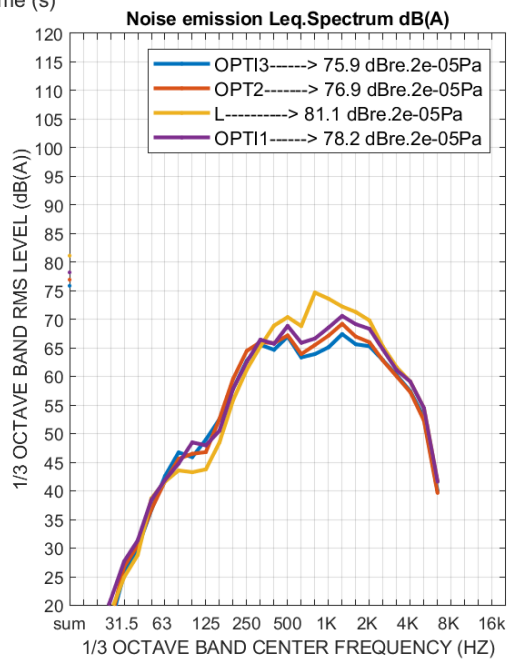
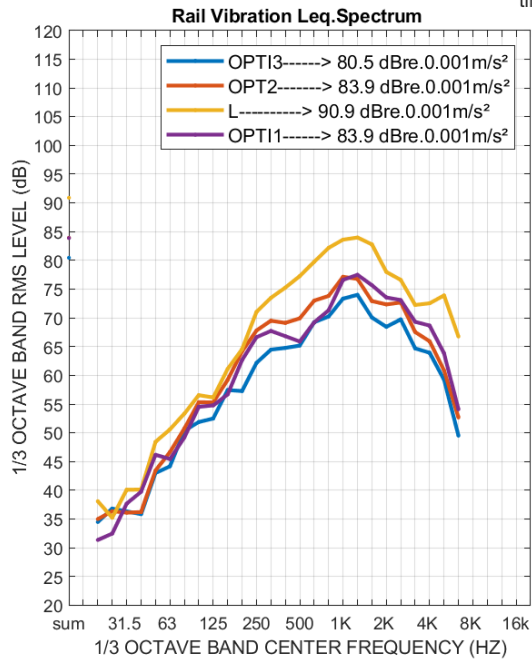
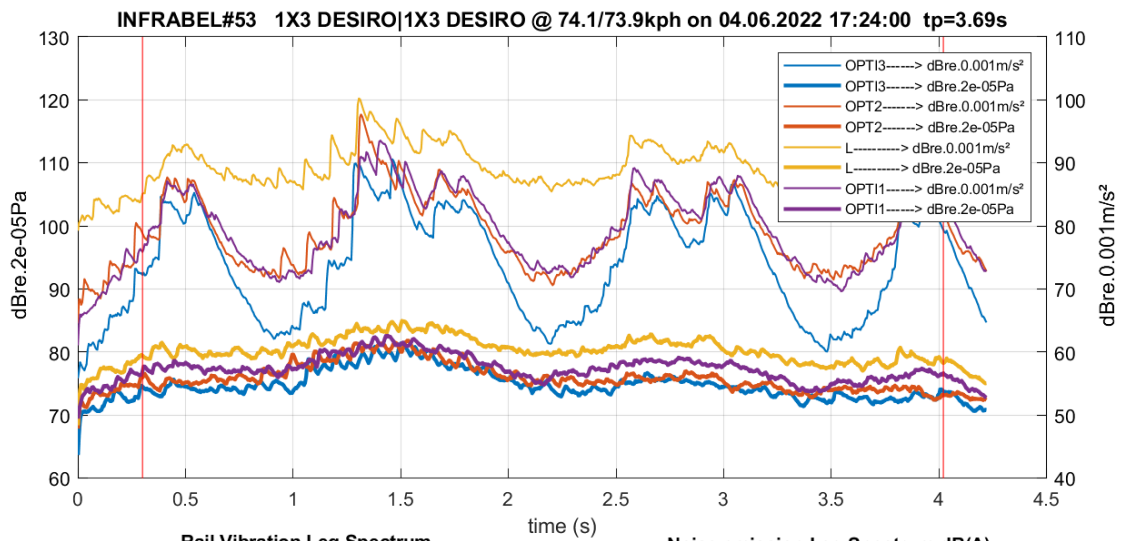
Rail Vibration Leq.Spectrum

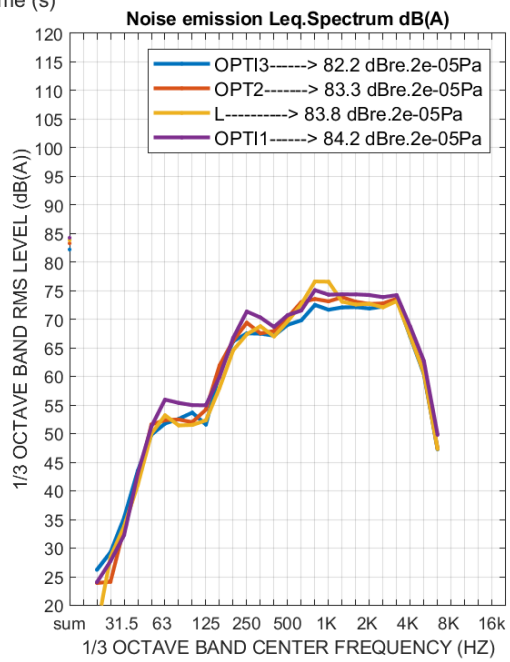
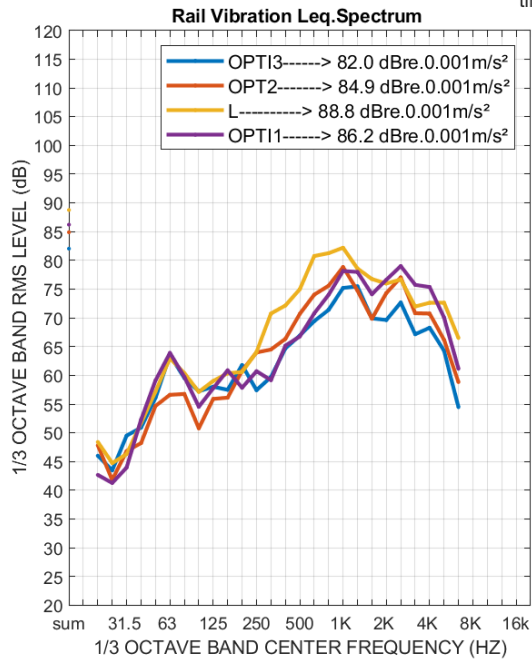
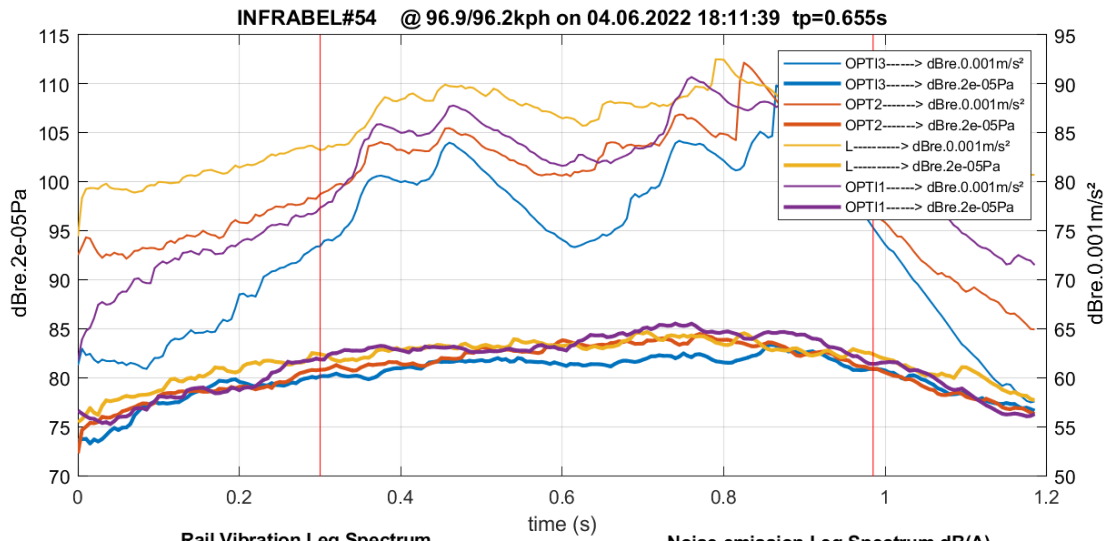


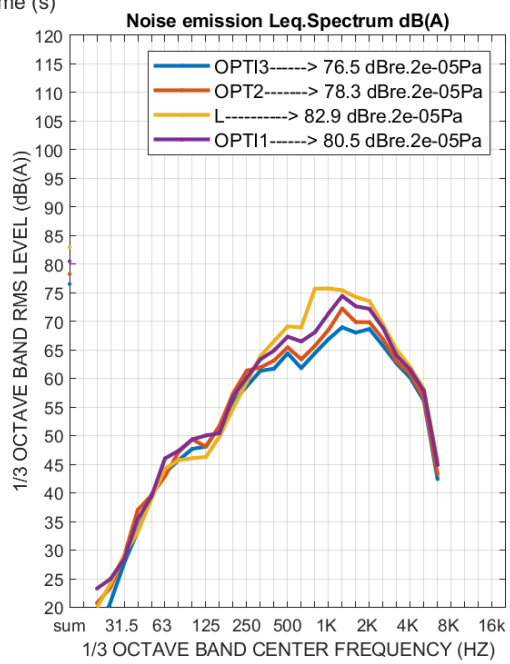
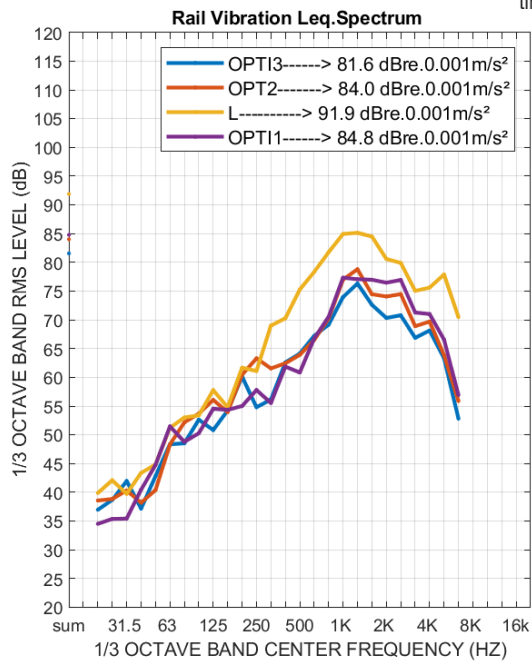
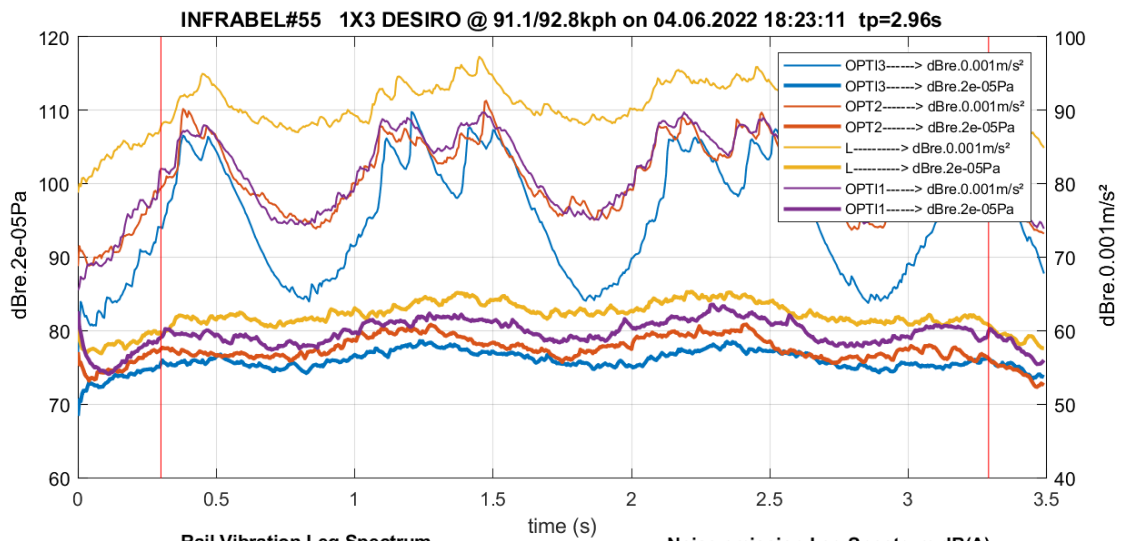
Noise emission Leq.Spectrum dB(A)

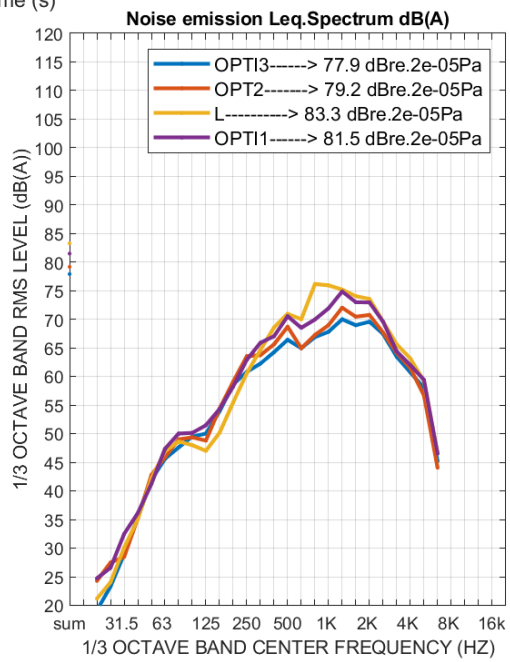
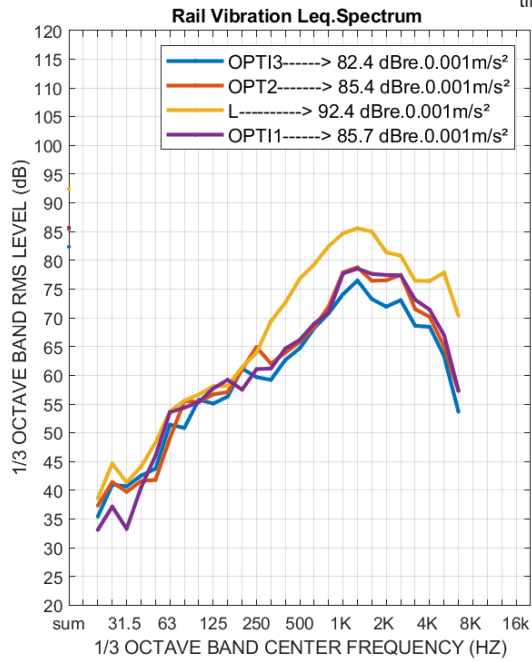
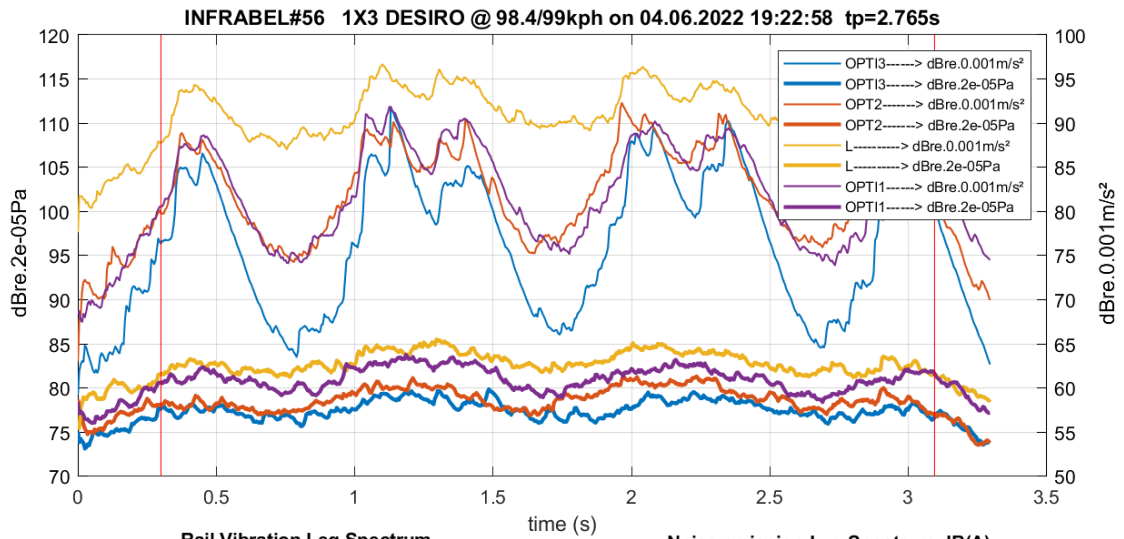


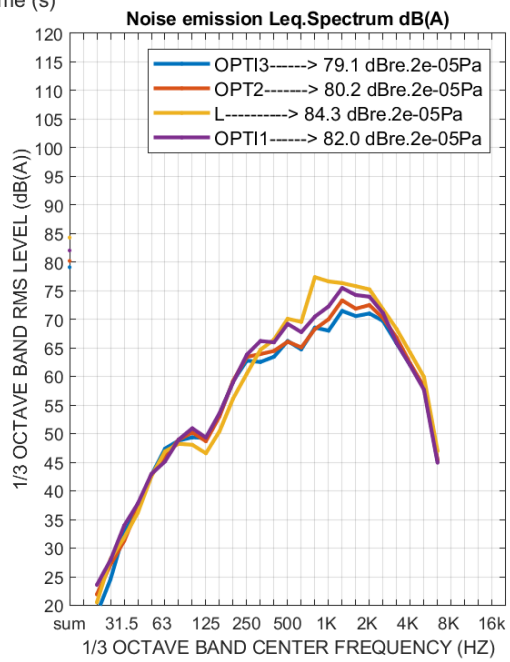
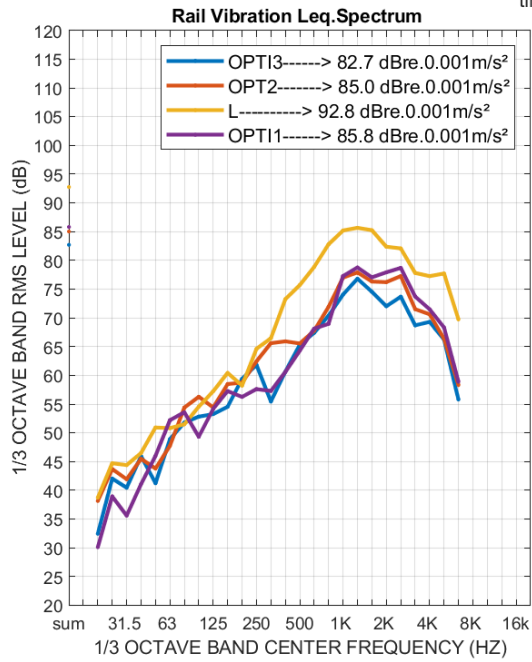
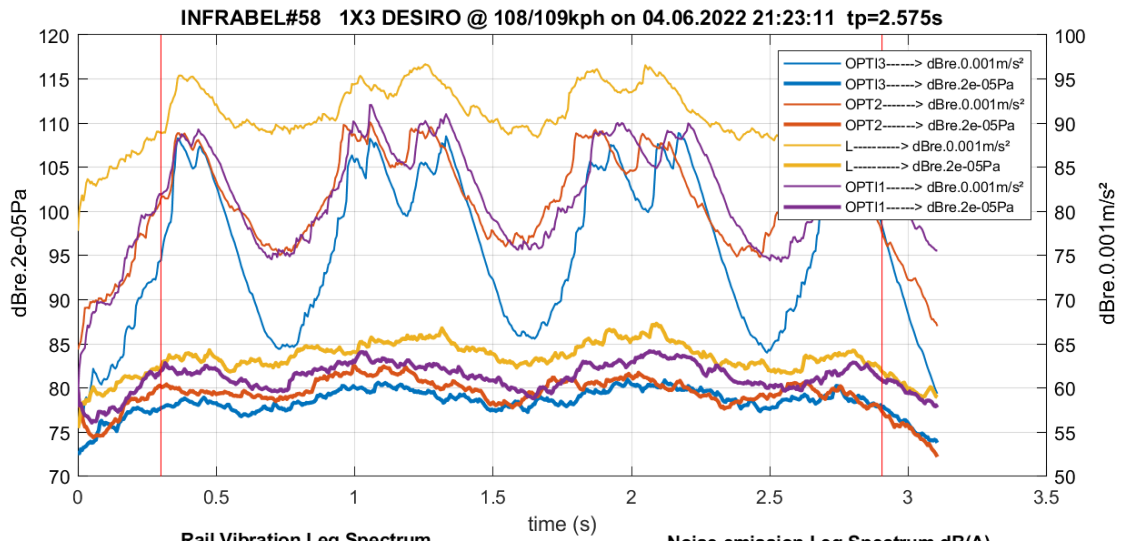


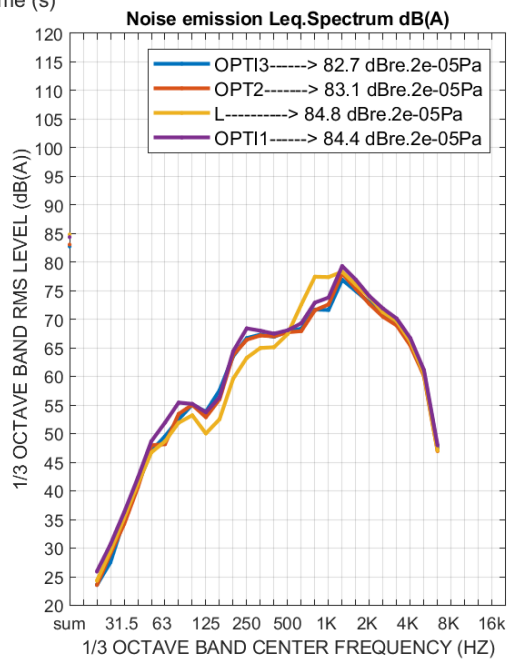
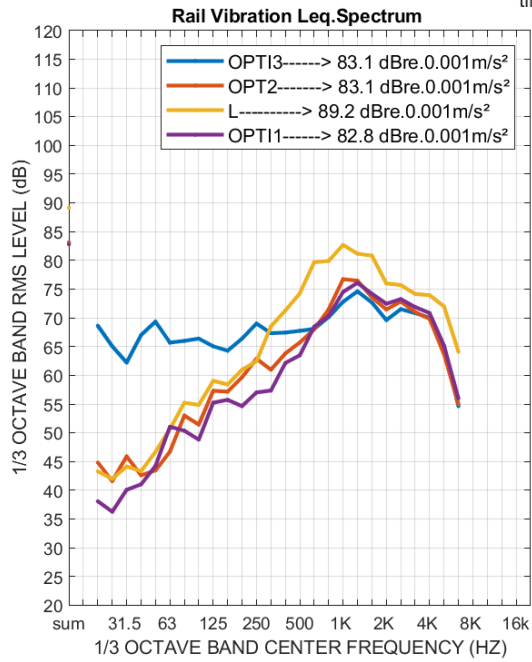
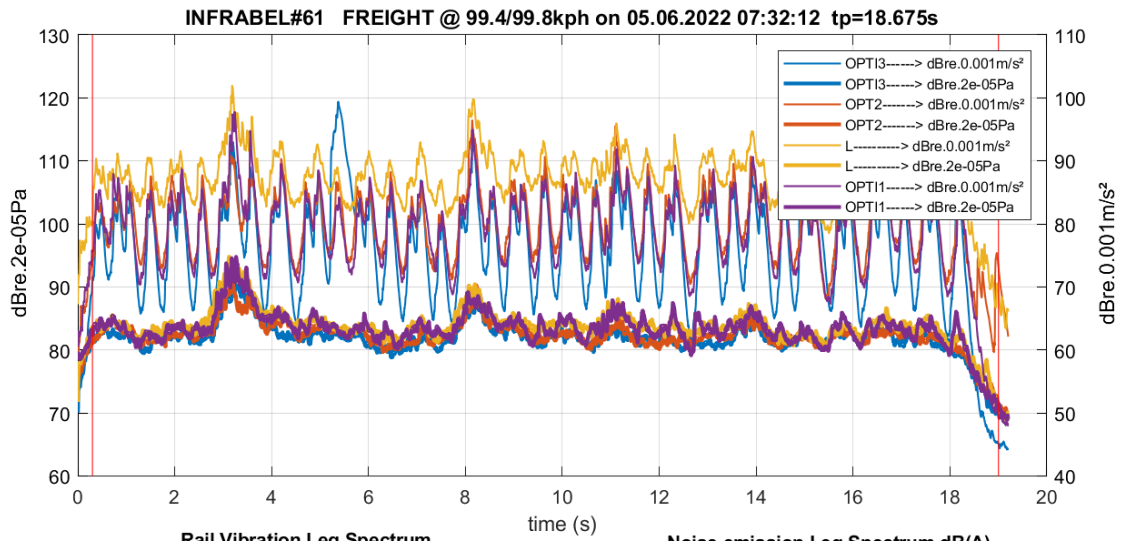




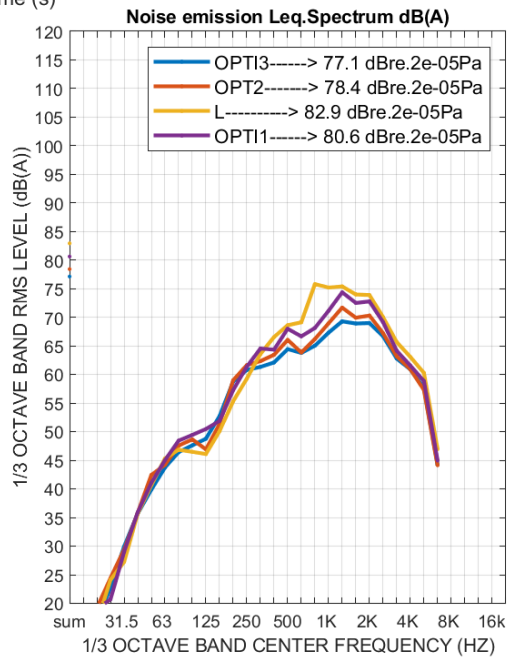
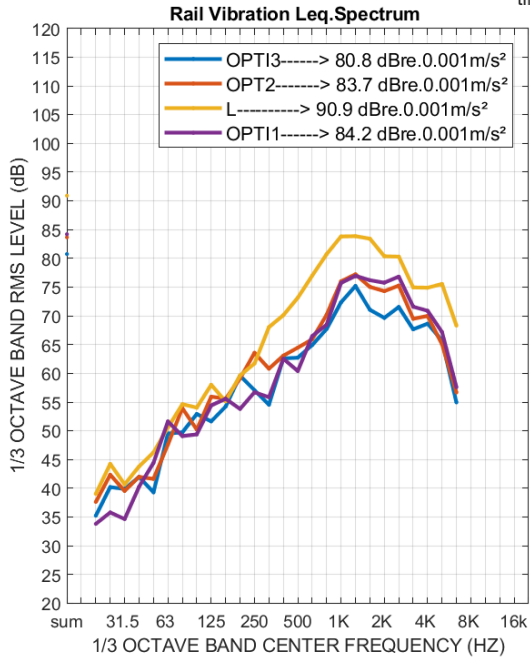
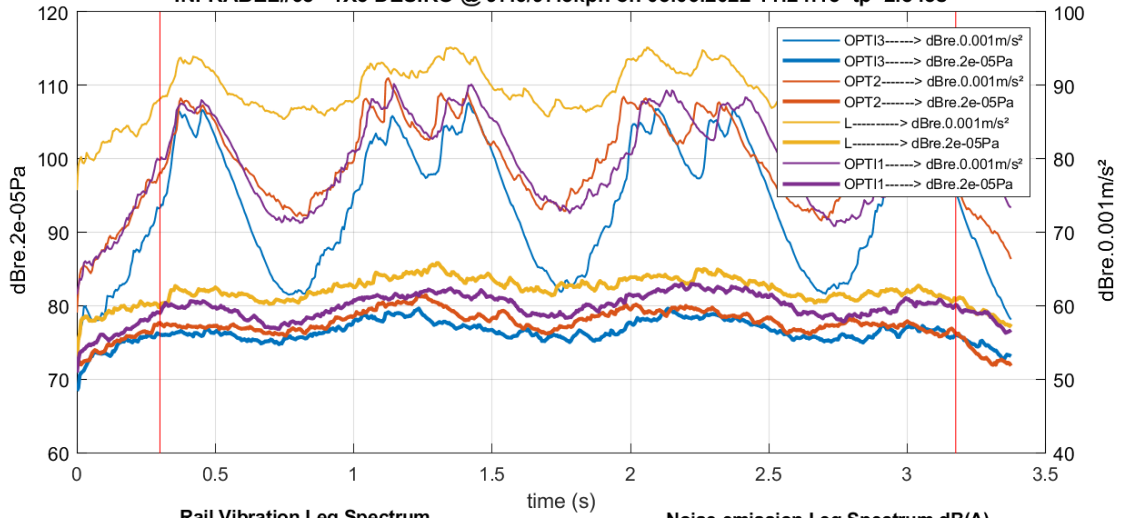


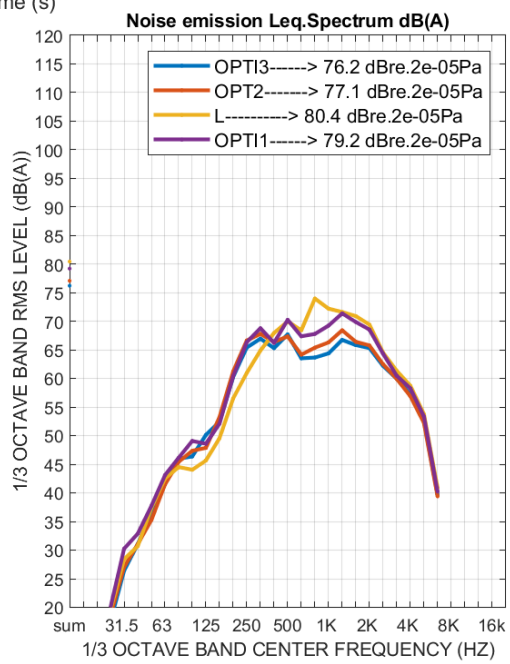
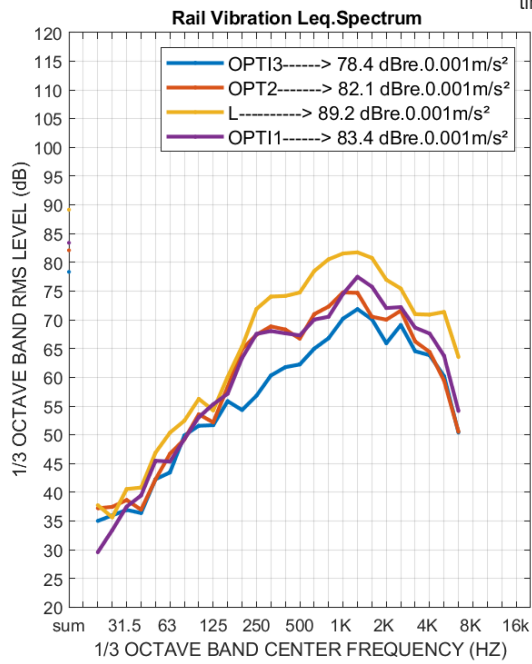
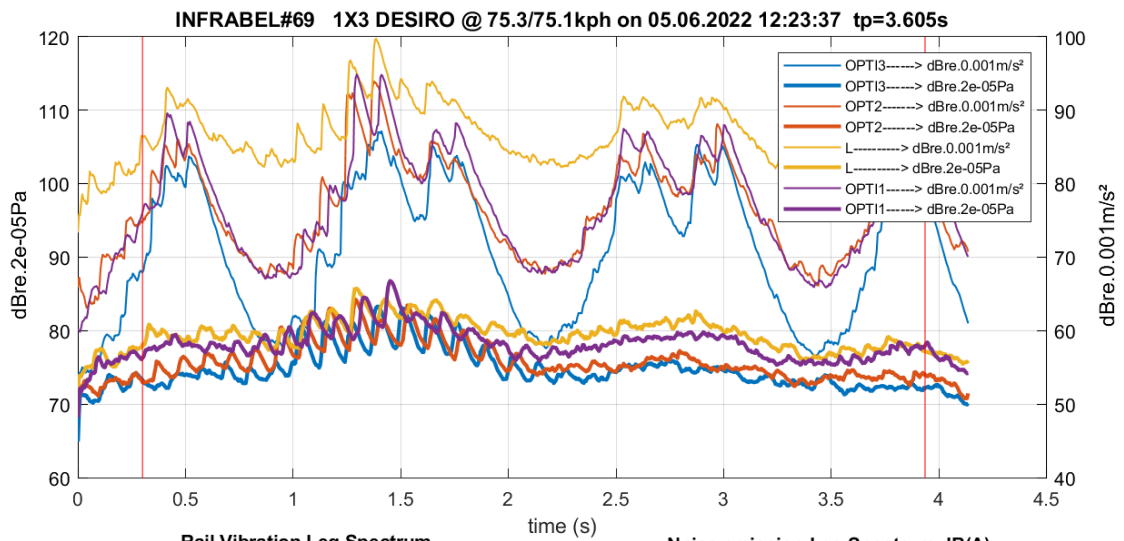


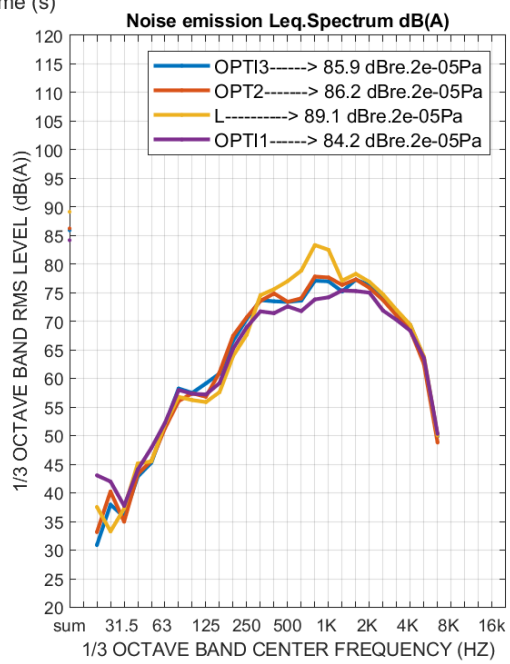
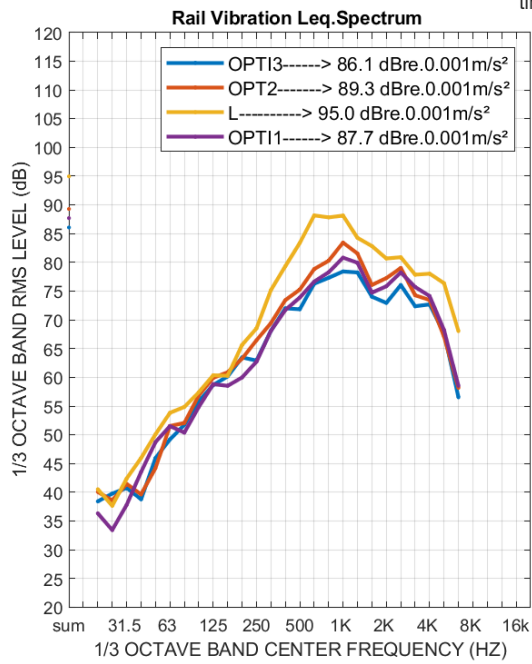
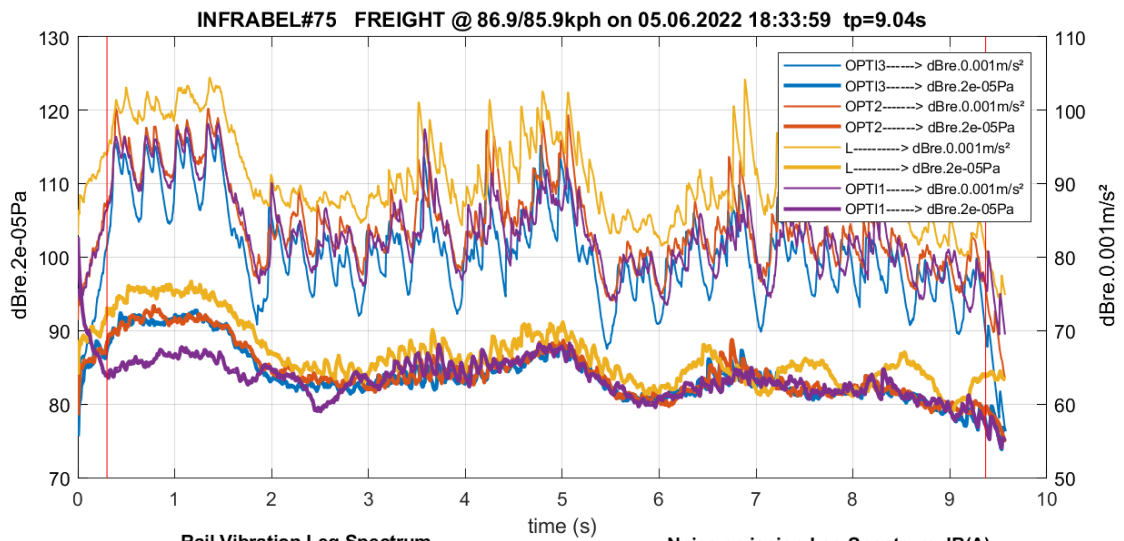


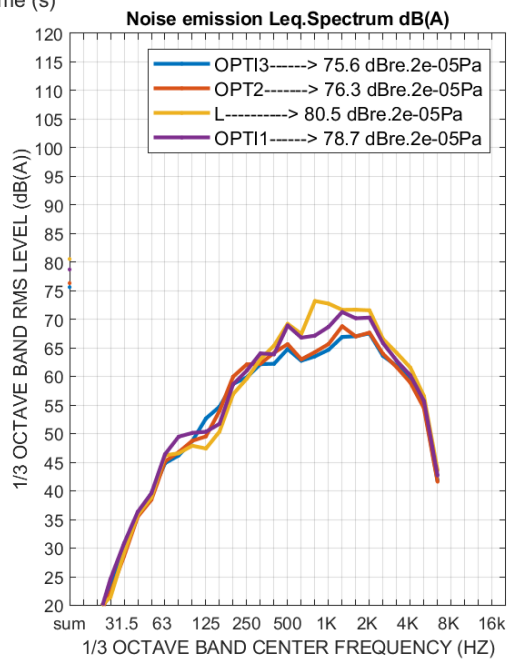
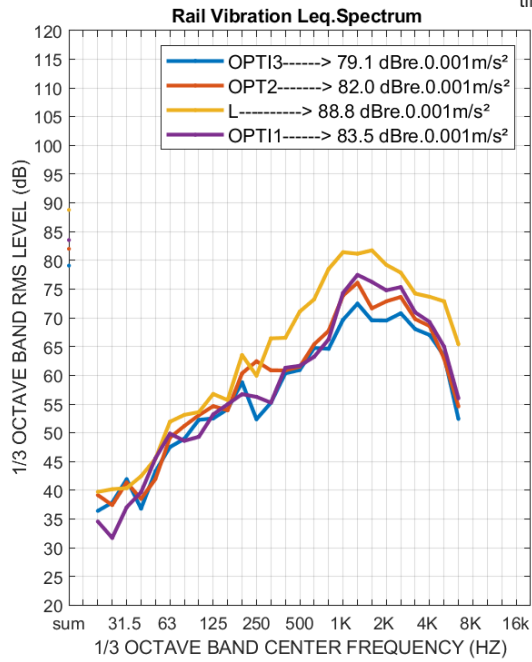
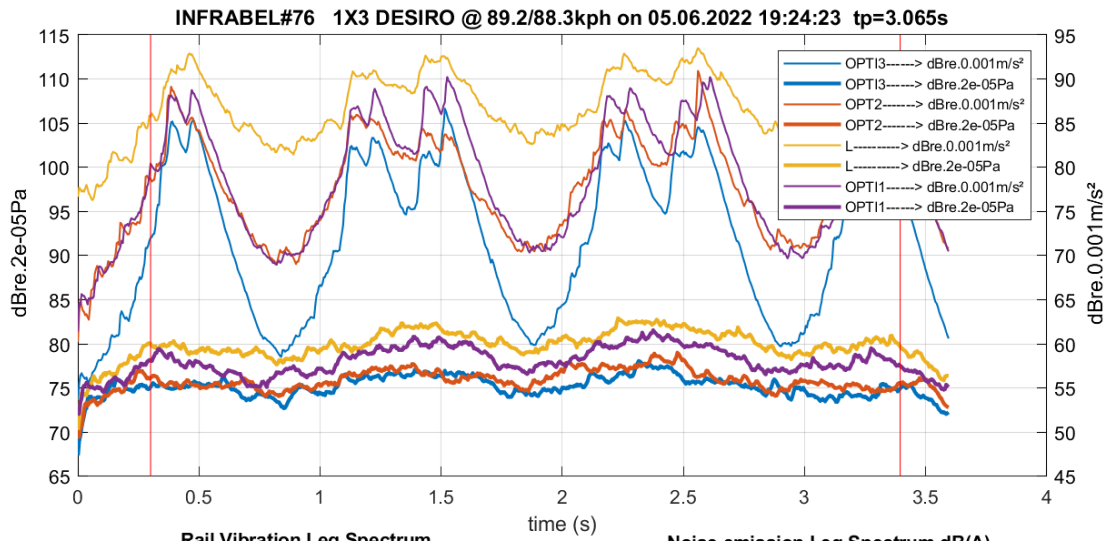


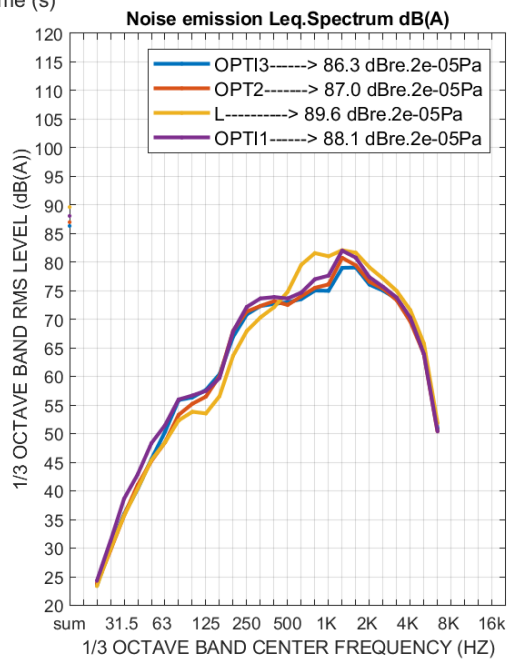
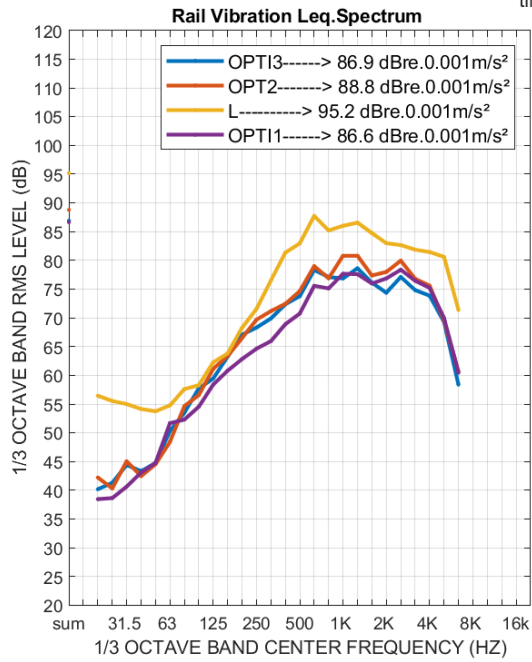
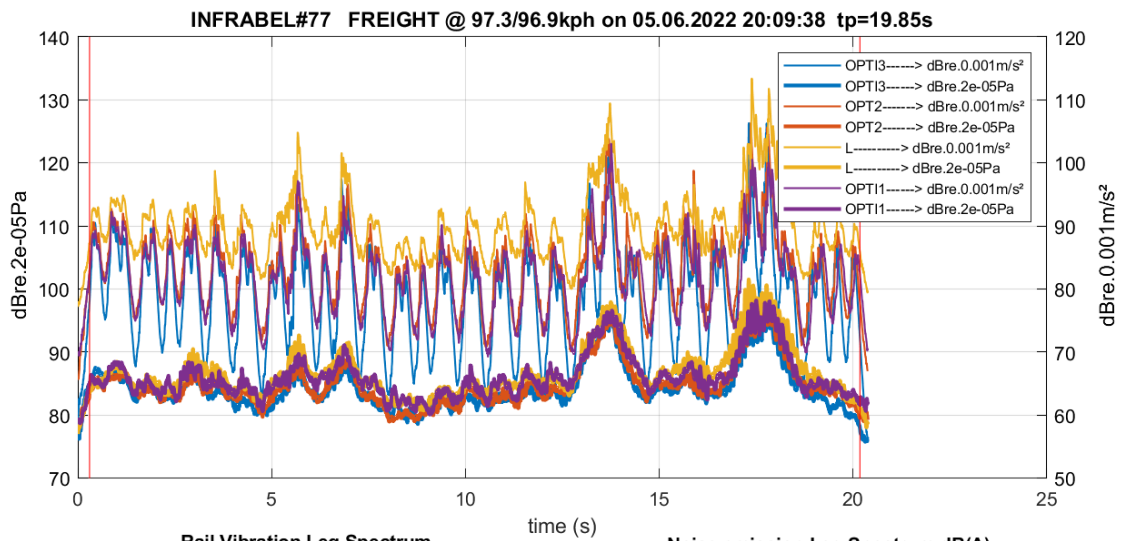
INFRABEL#68 1X3 DESIRO @ 97.6/97.5kph on 05.06.2022 11:24:15 tp=2.845s

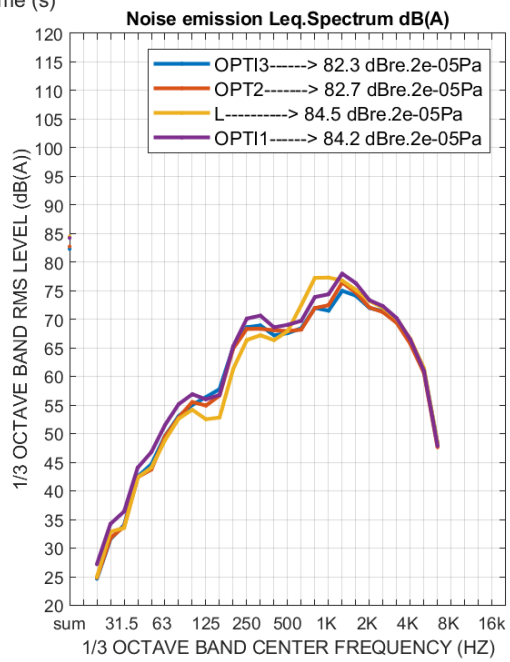
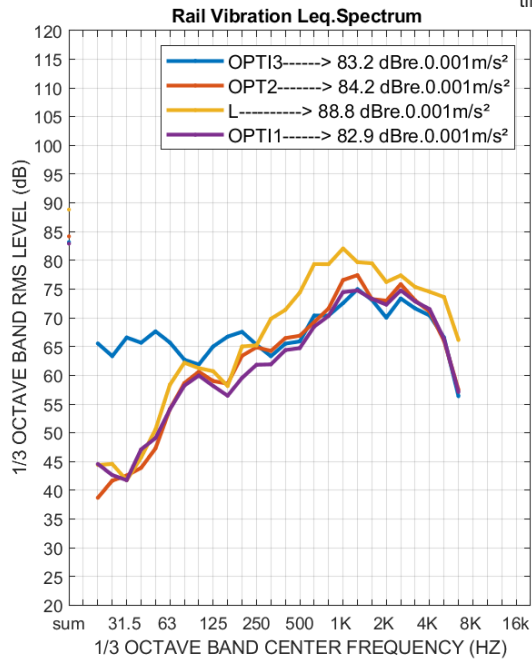
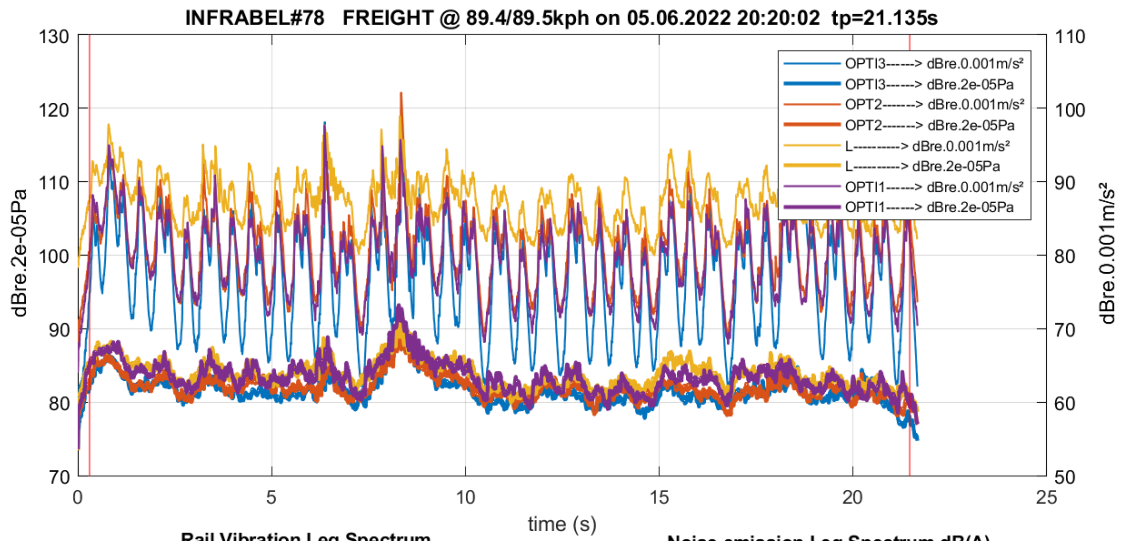


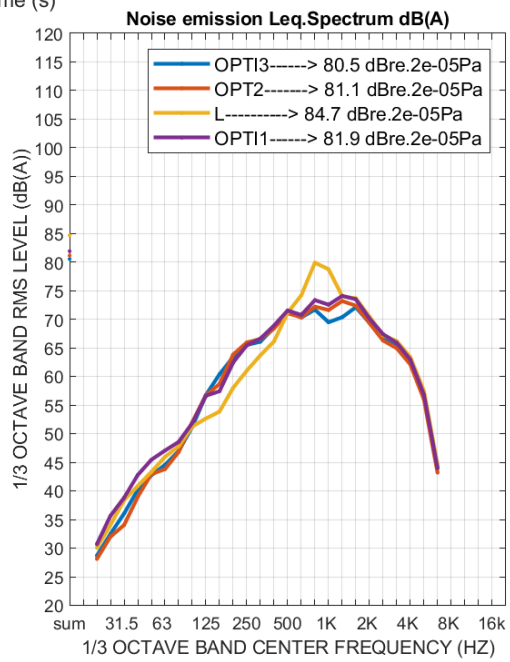
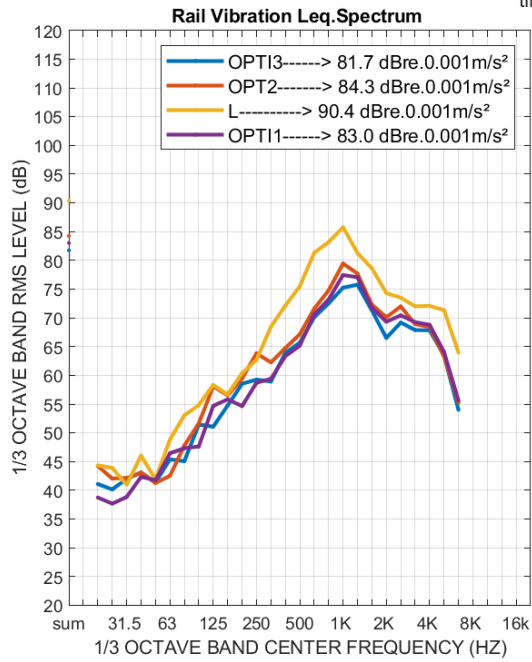
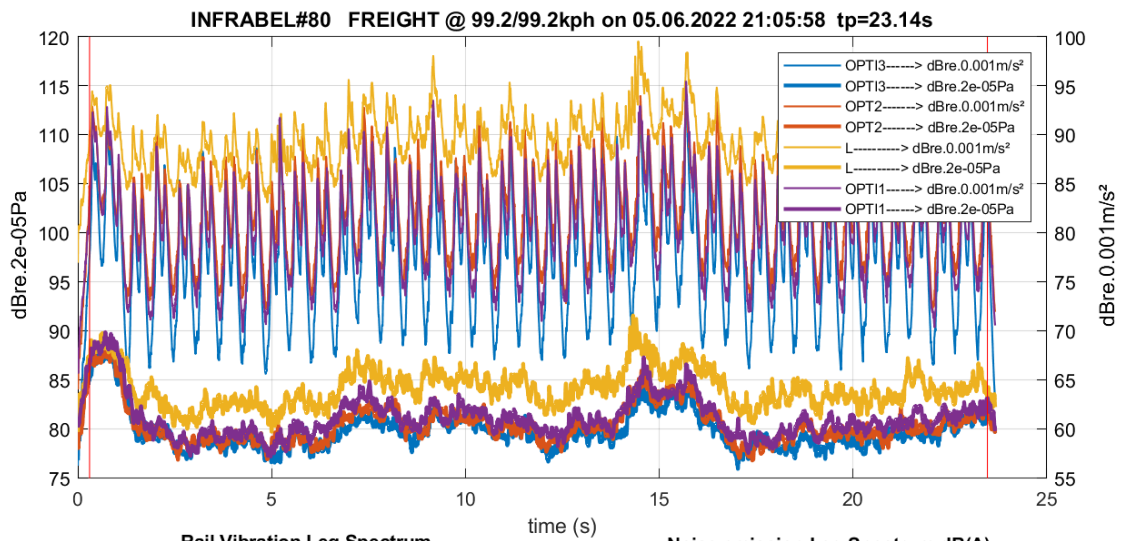


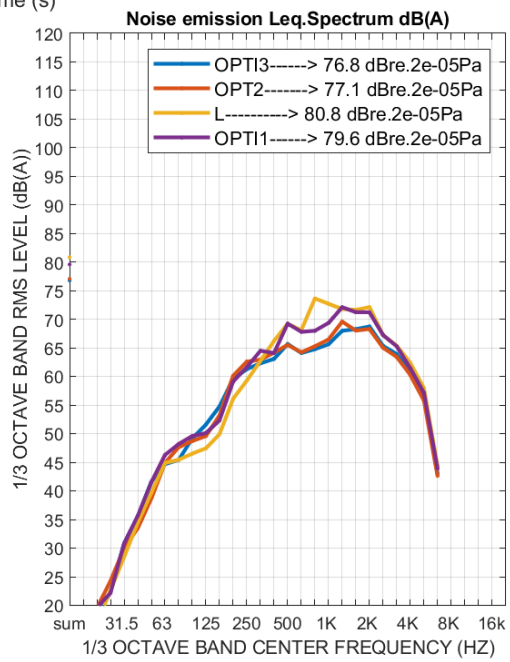
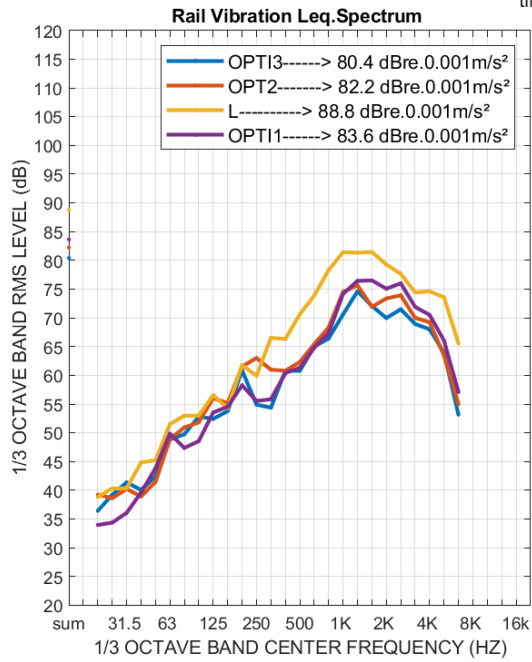
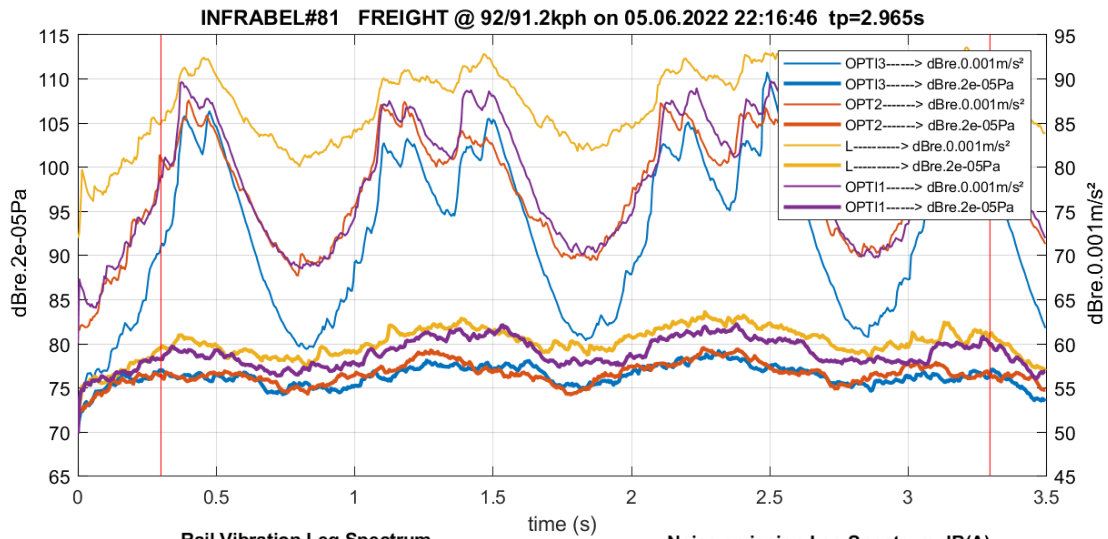


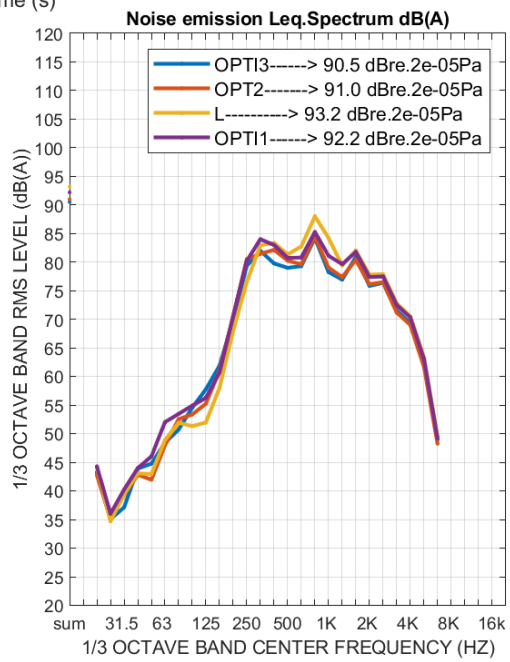
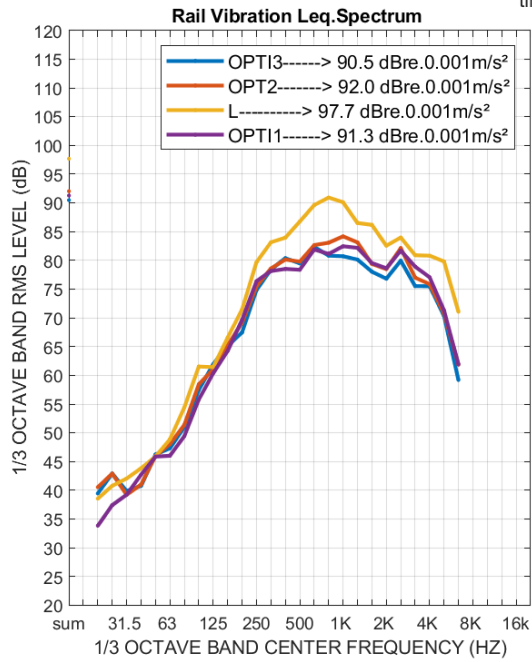
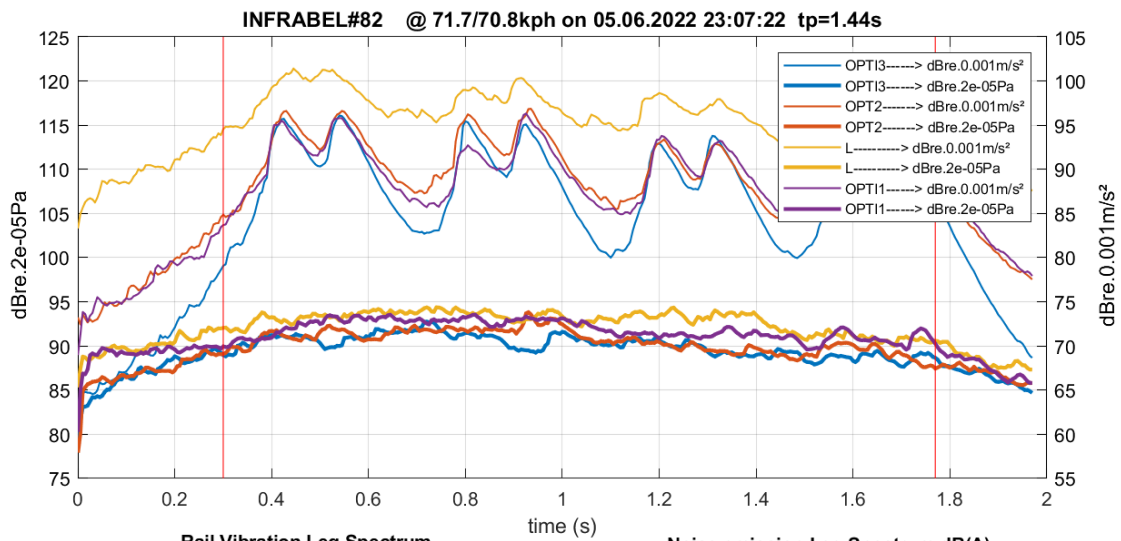


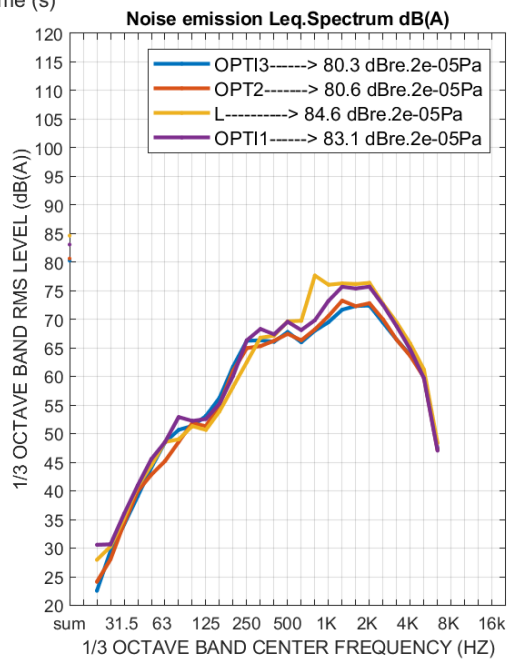
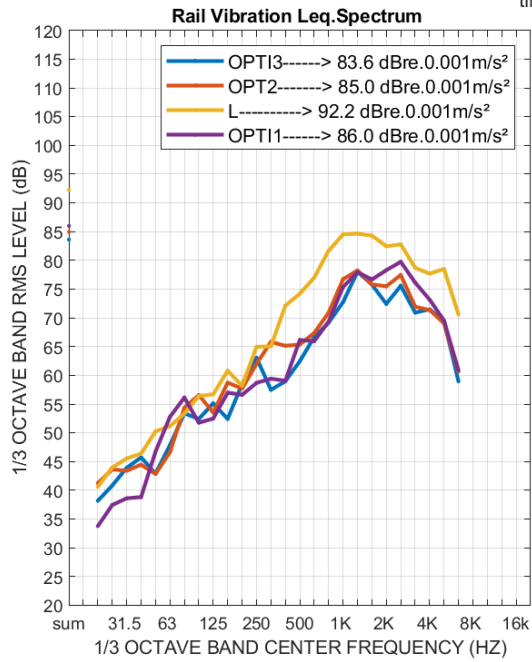
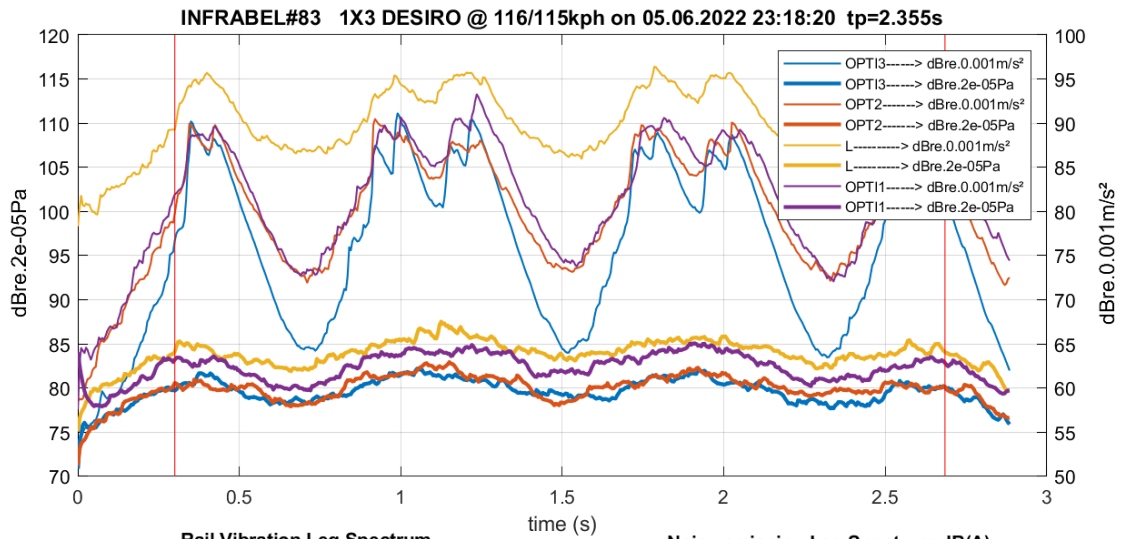


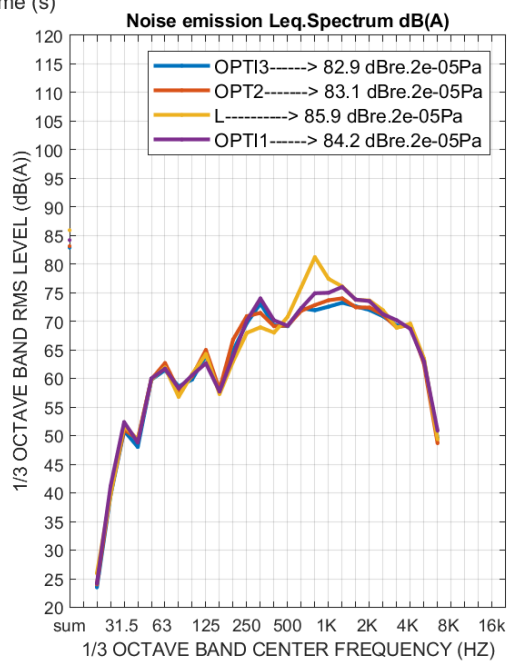
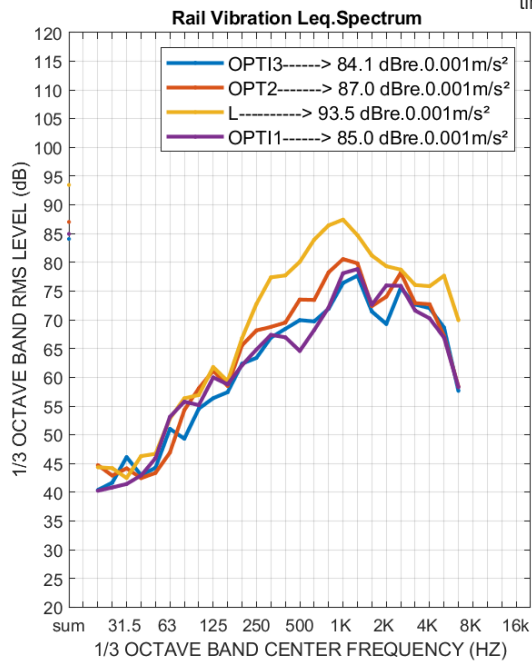
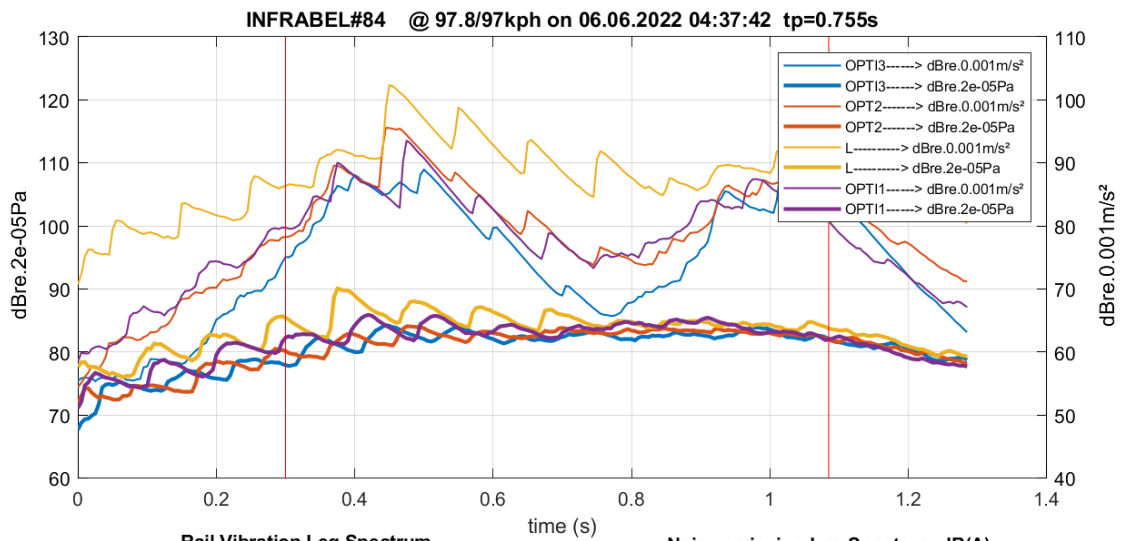


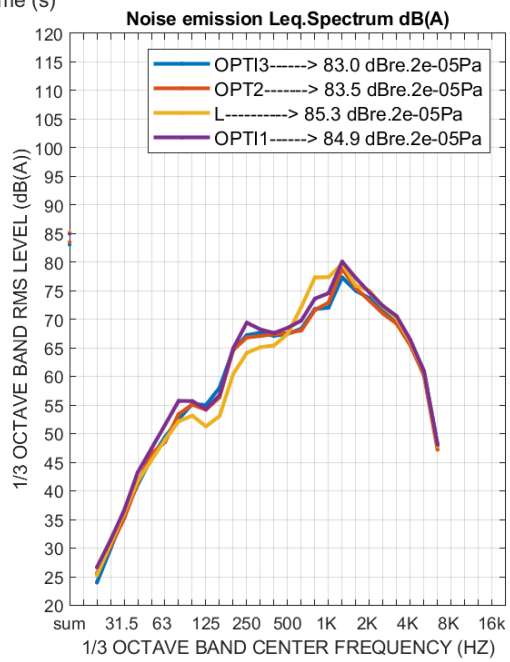
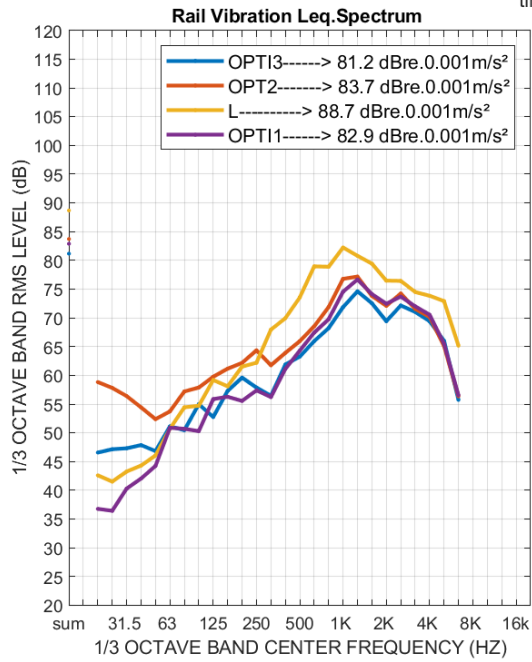
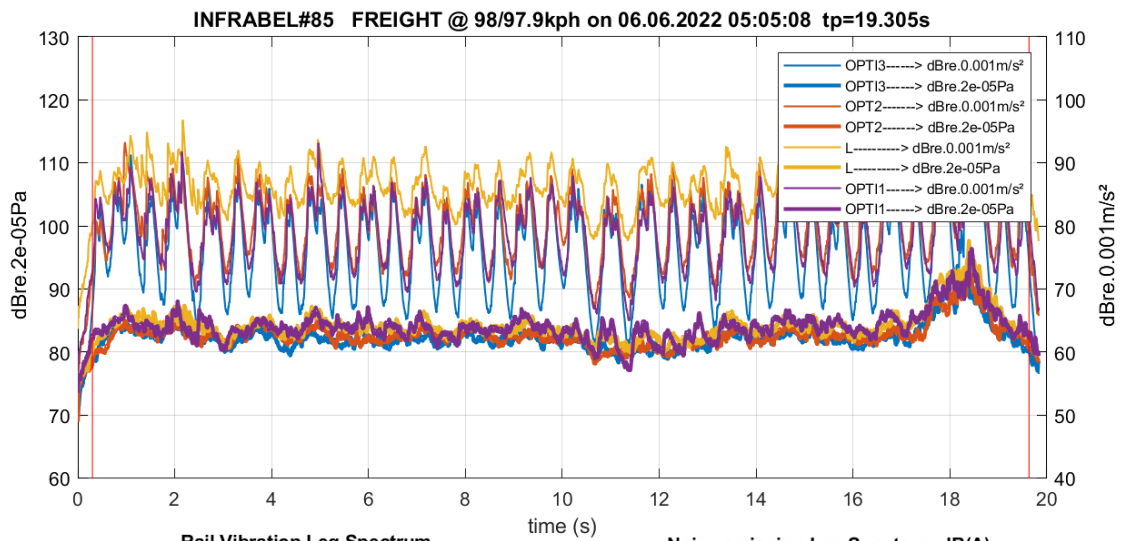




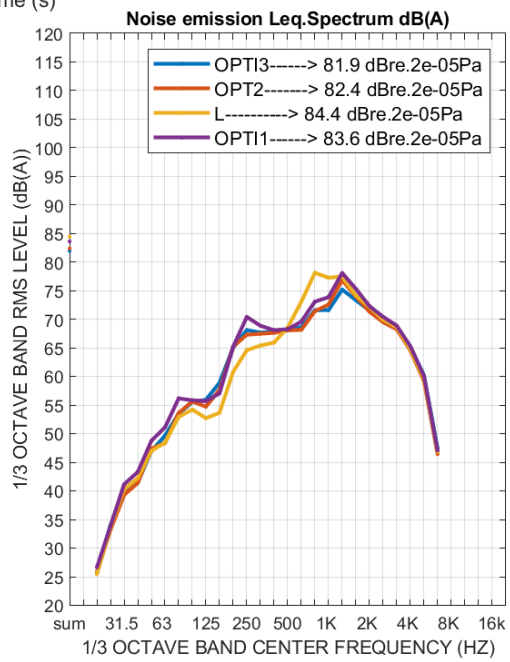
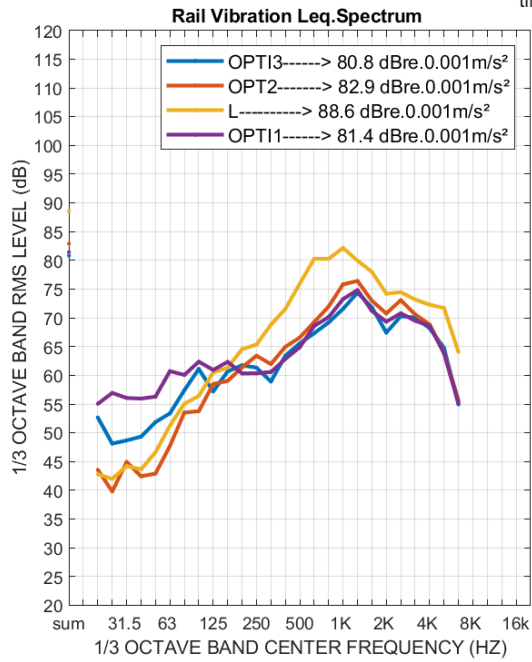
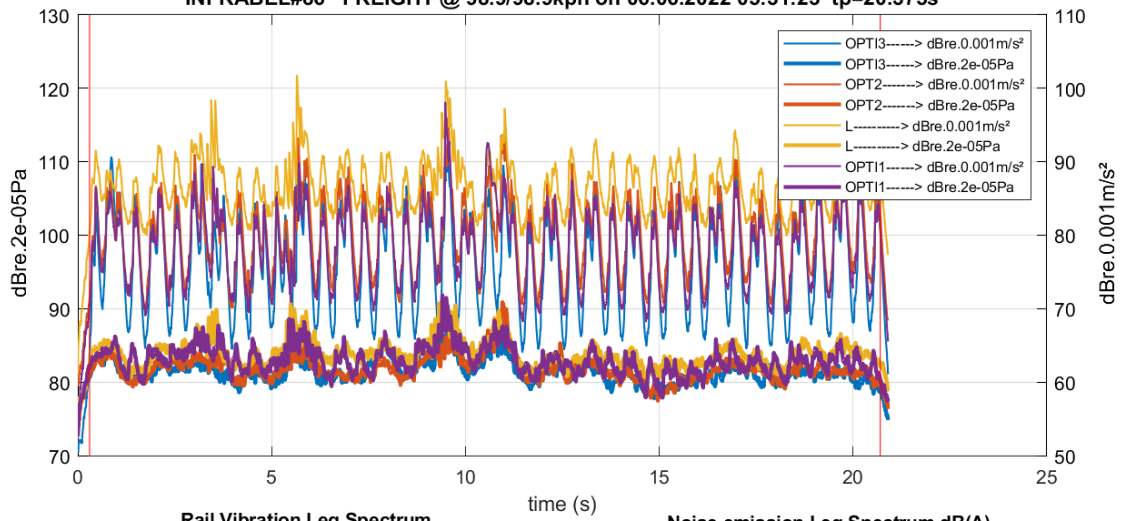


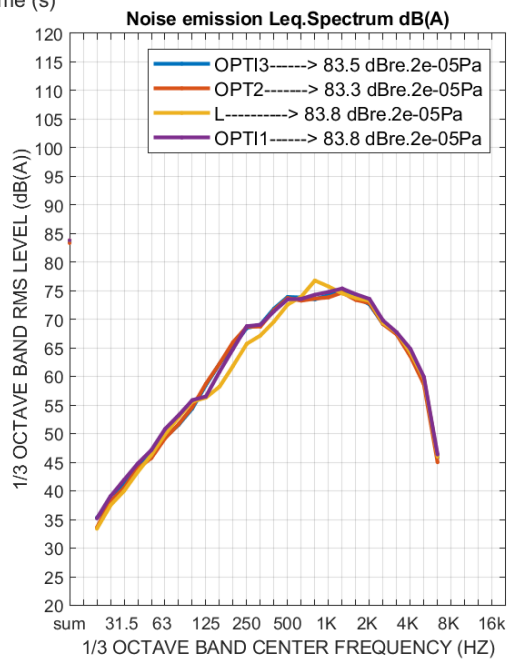
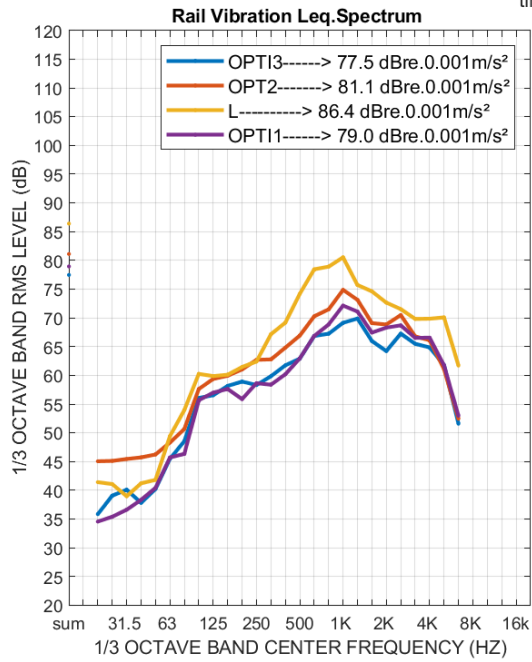
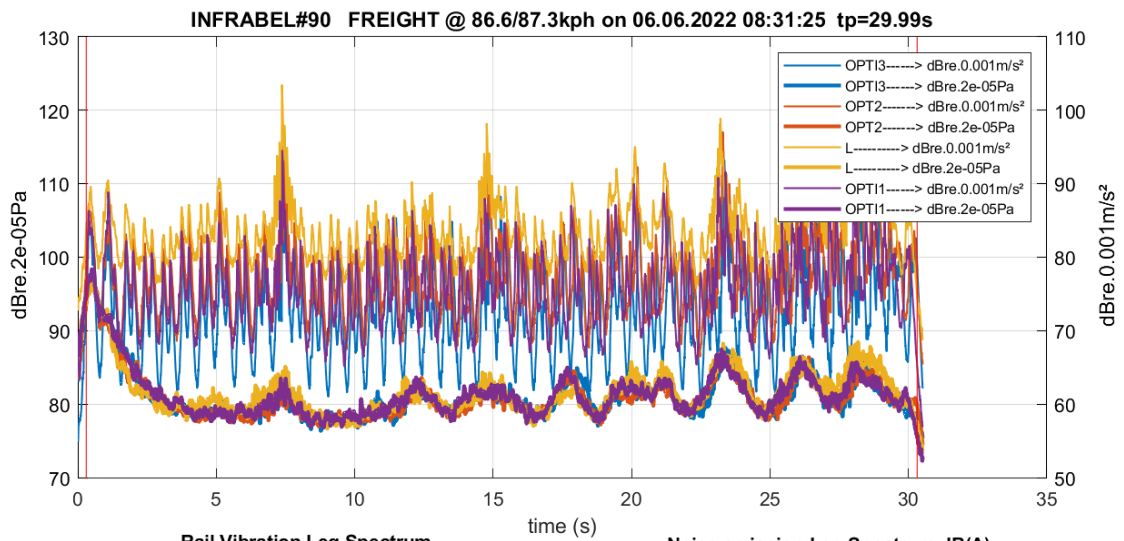


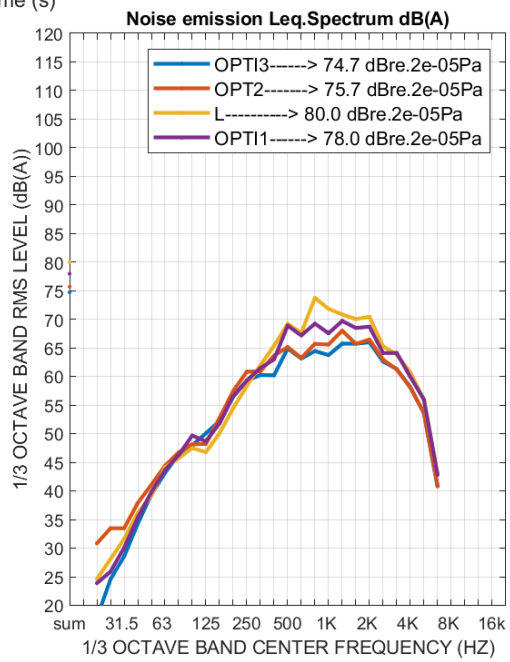
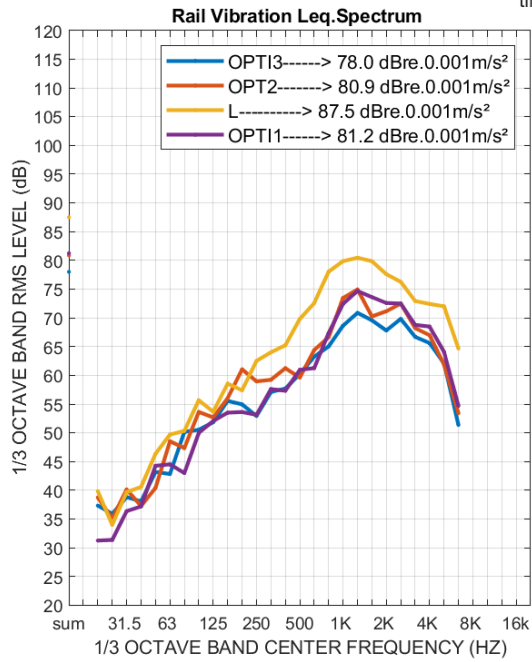
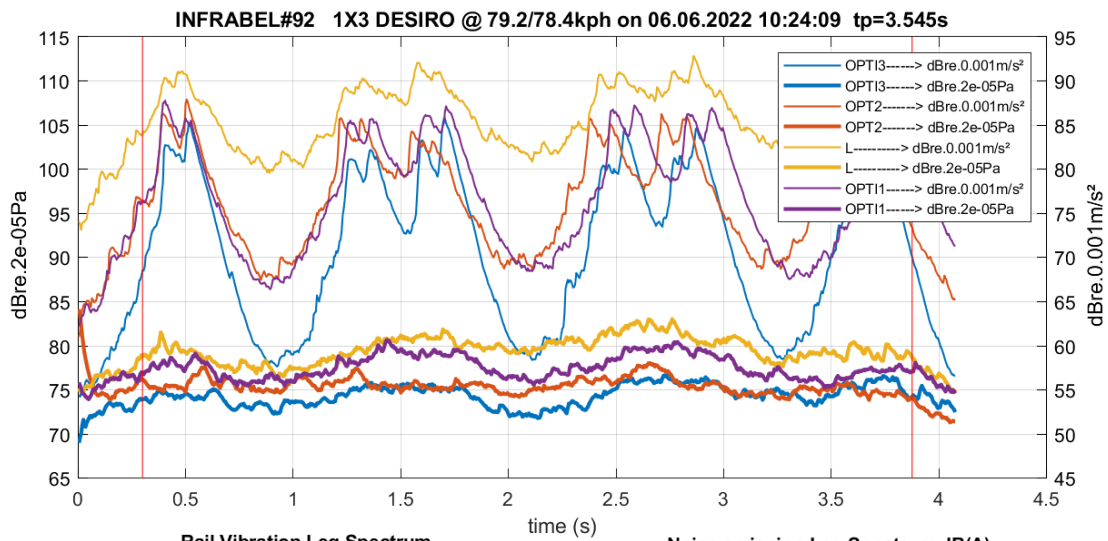


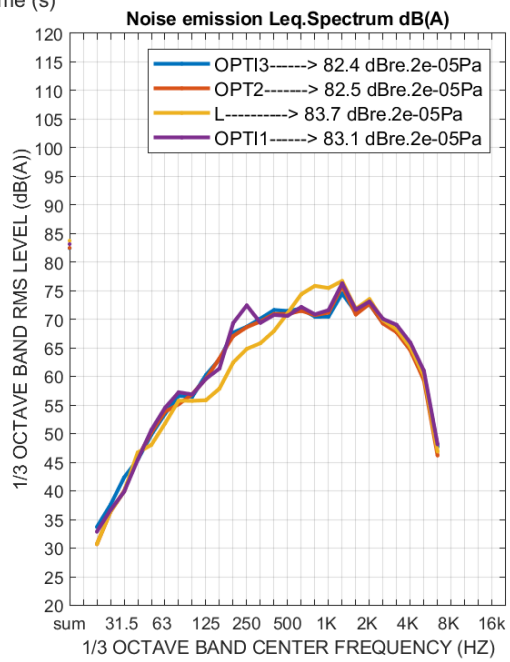
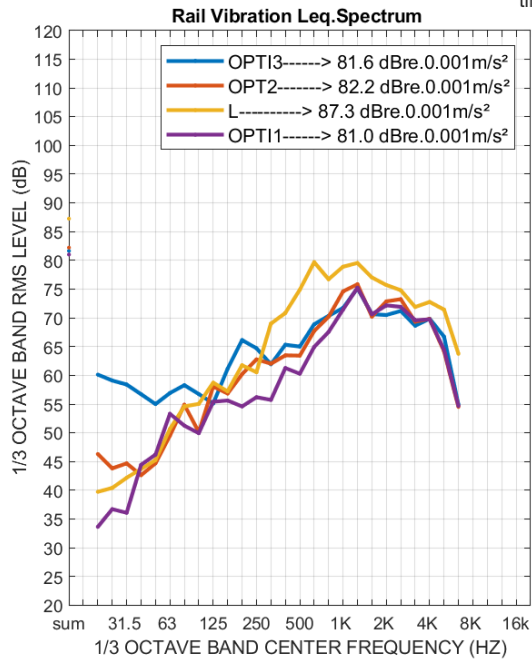
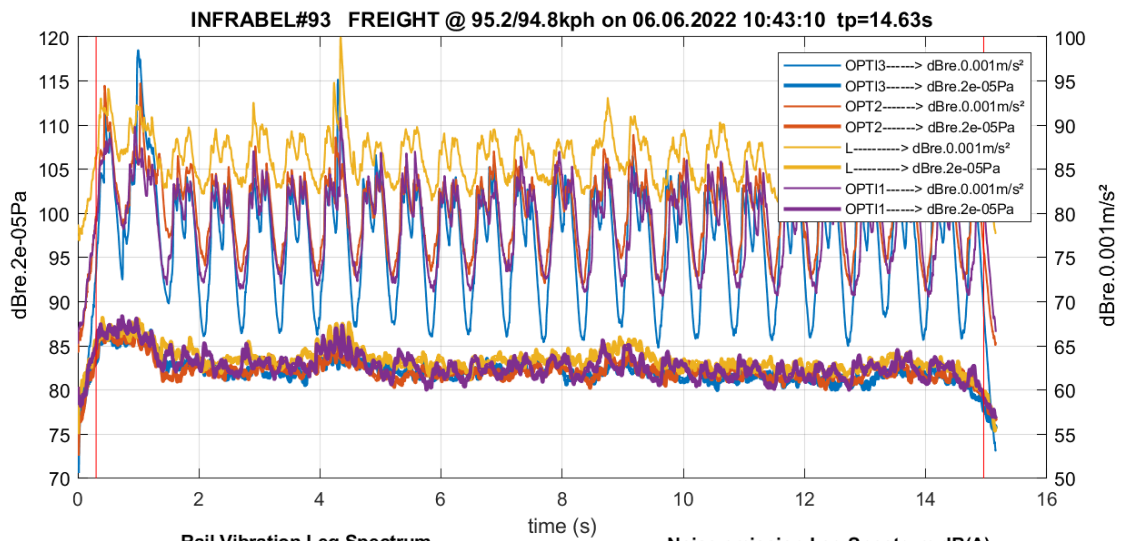


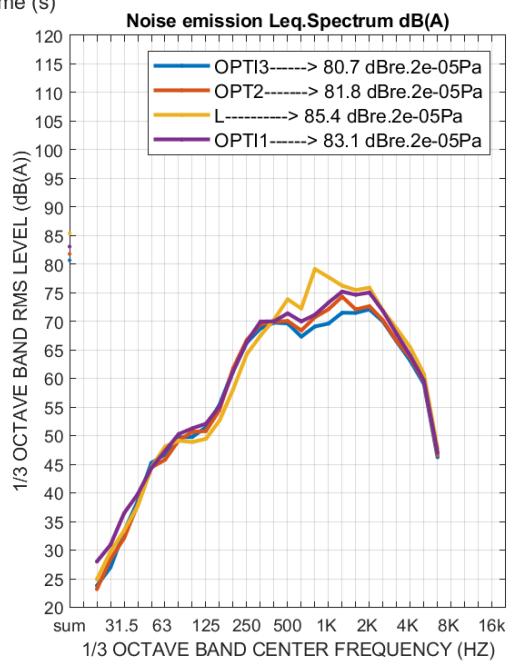
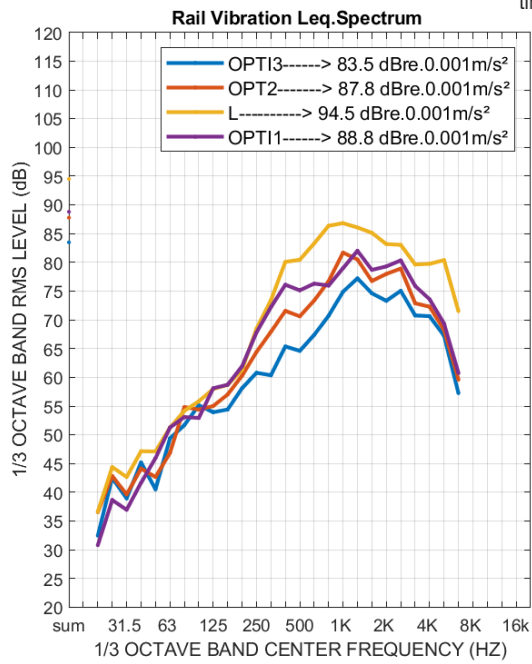
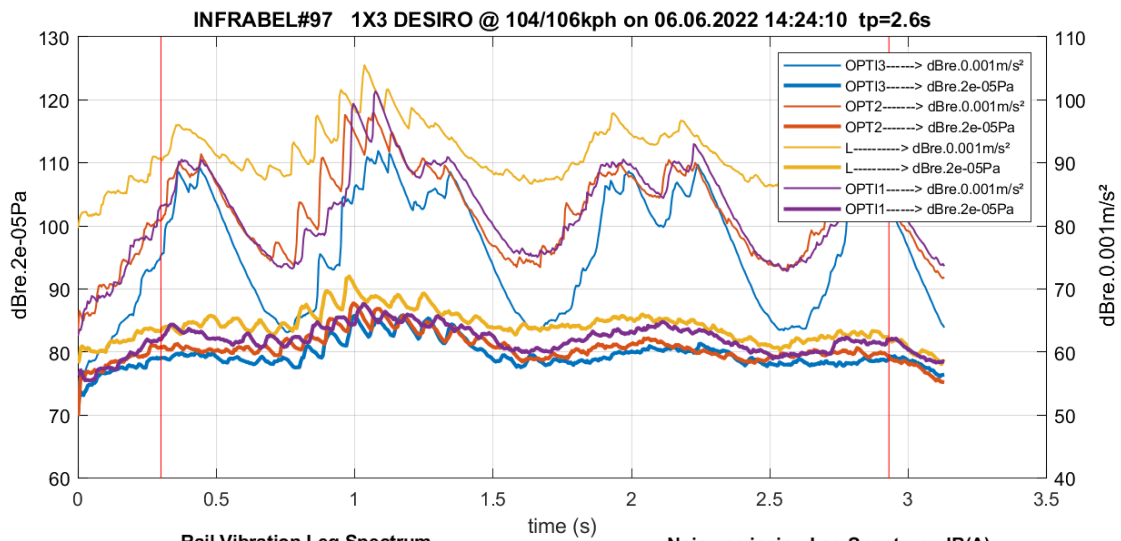
INFRABEL#86 FREIGHT @ 98.9/98.9kph on 06.06.2022 05:31:23 tp=20.375s



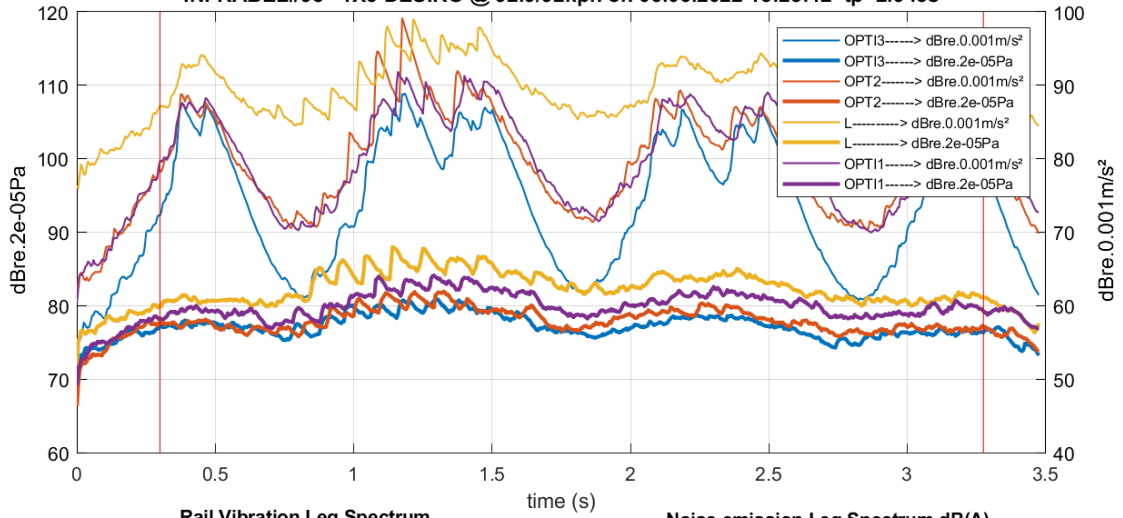




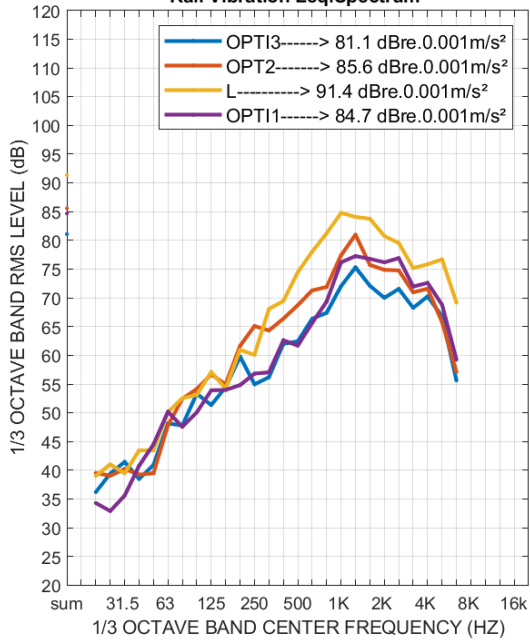




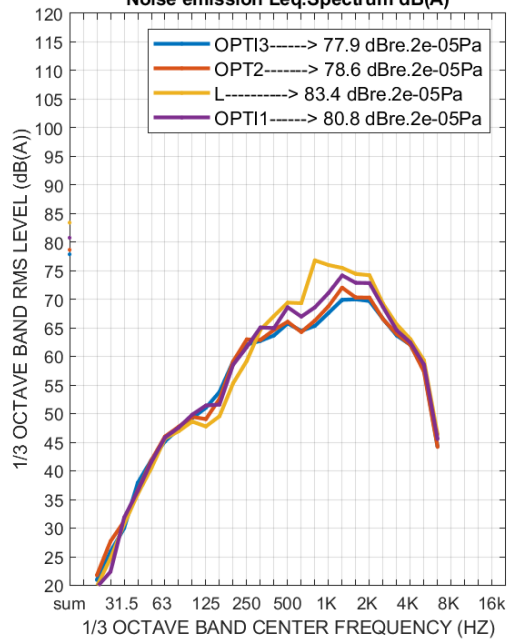
INFRABEL#98 1X3 DESIRO @ 92.9/92kph on 06.06.2022 15:23:12 tp=2.945s

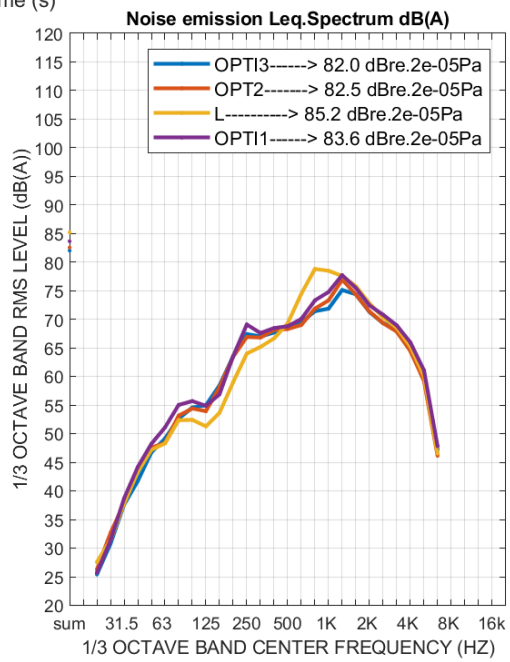
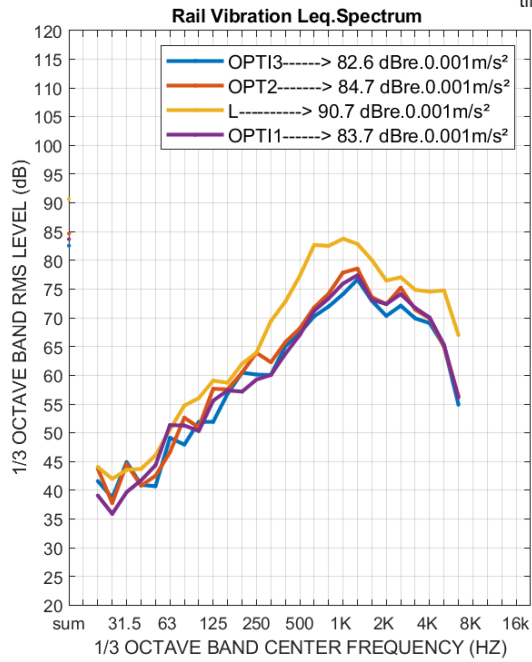
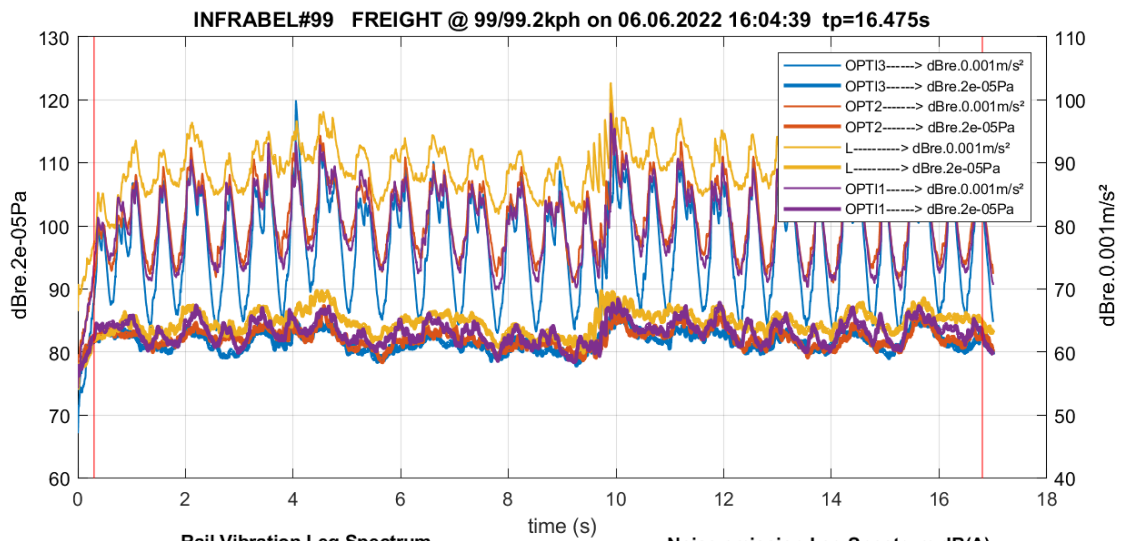


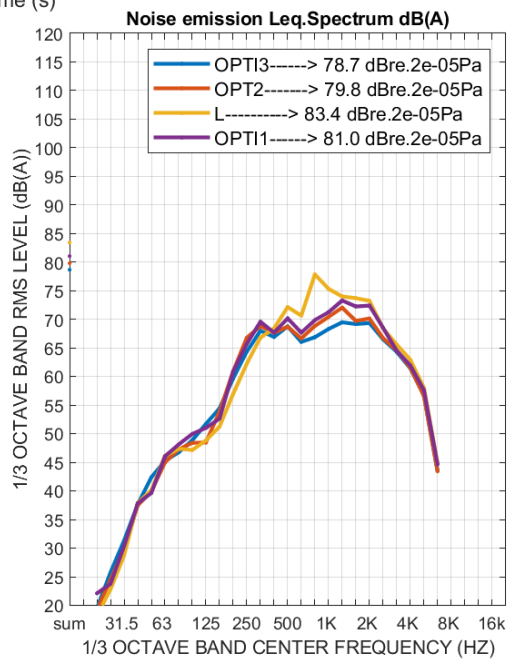
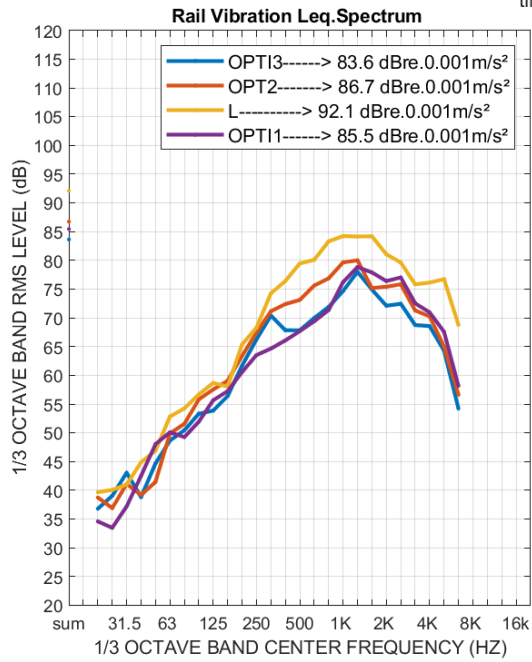
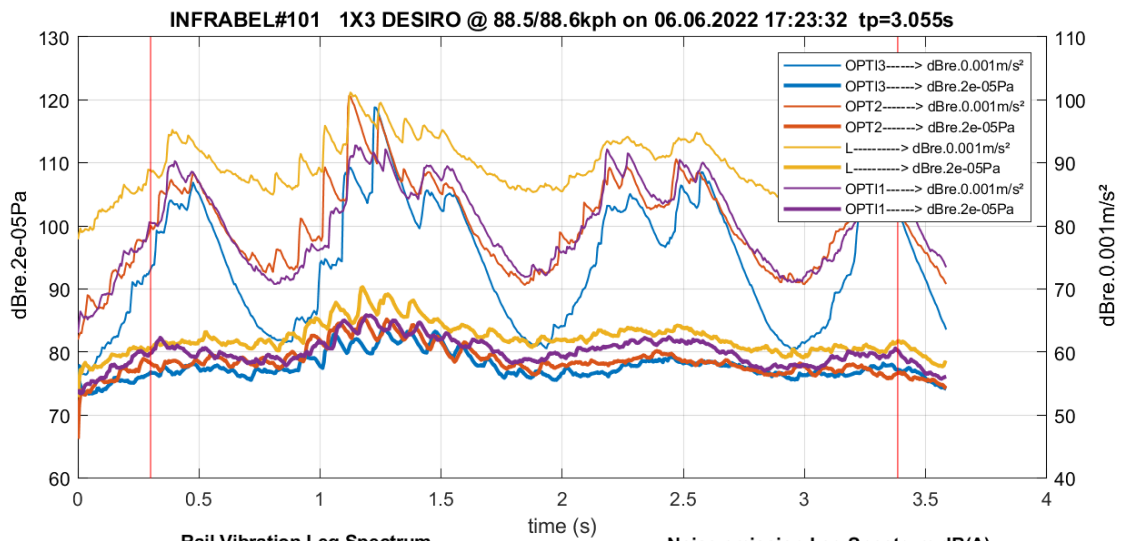
Rail Vibration Leq.Spectrum

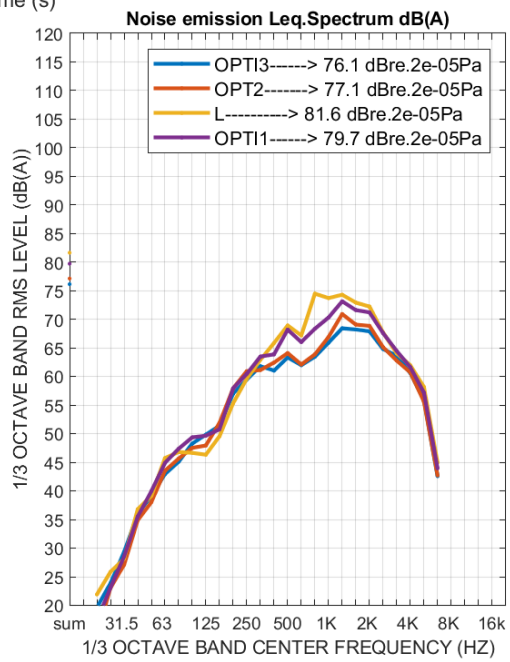
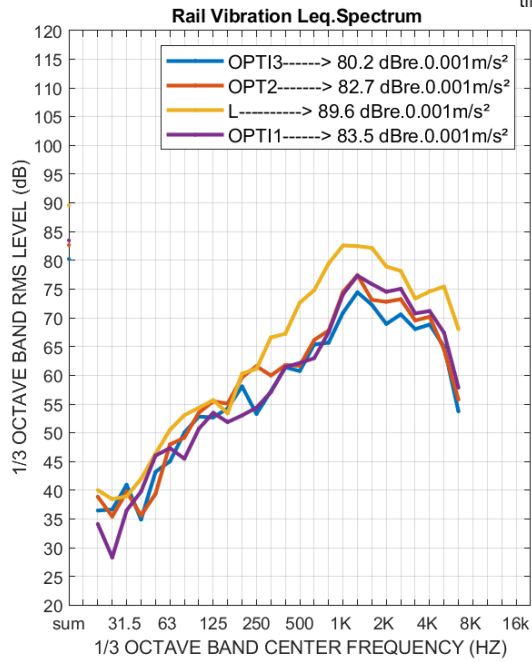
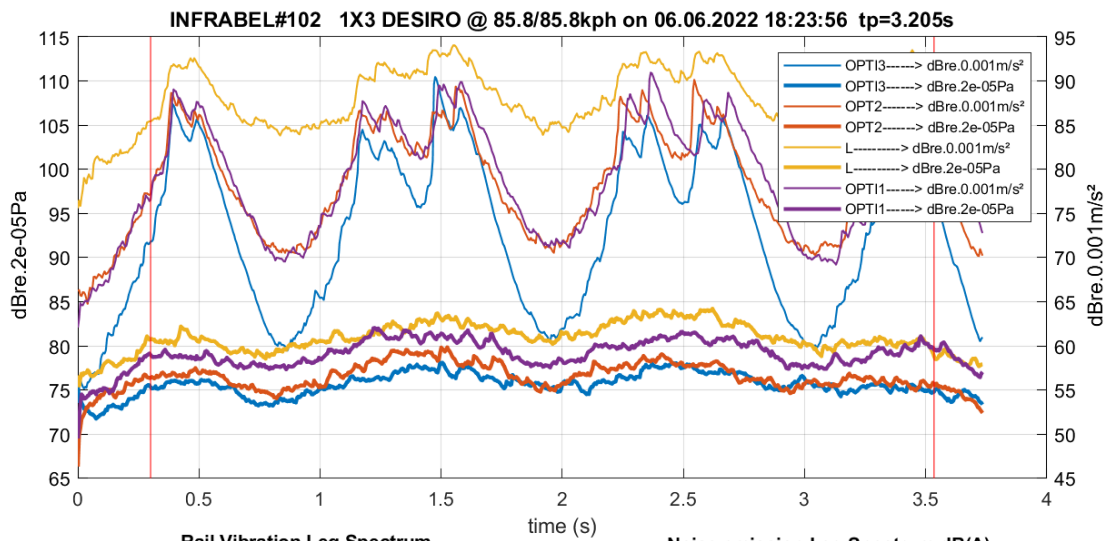


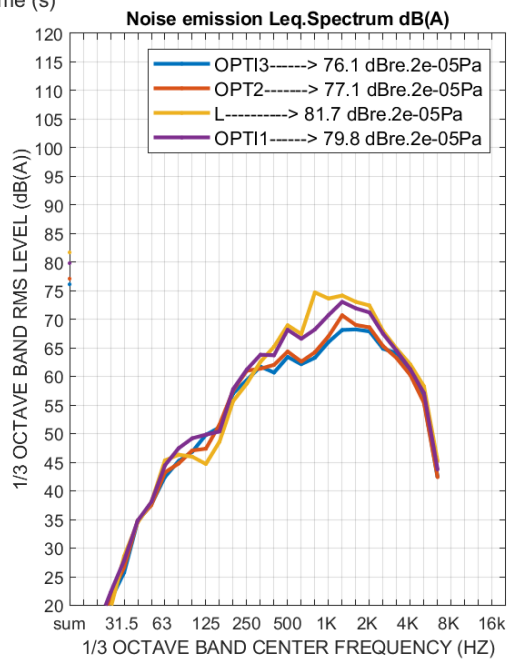
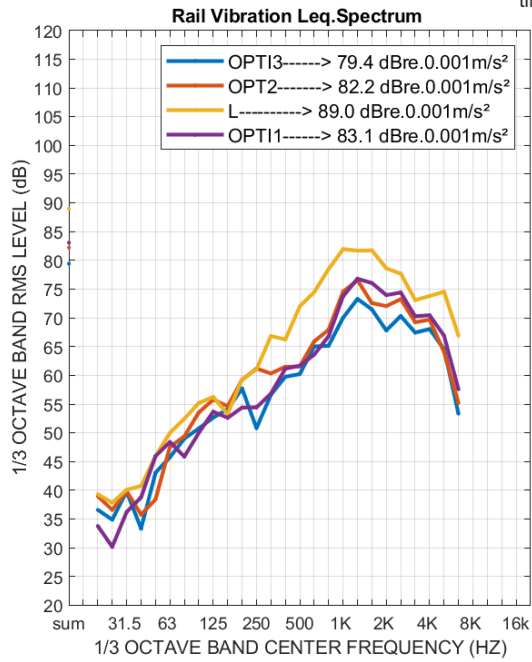
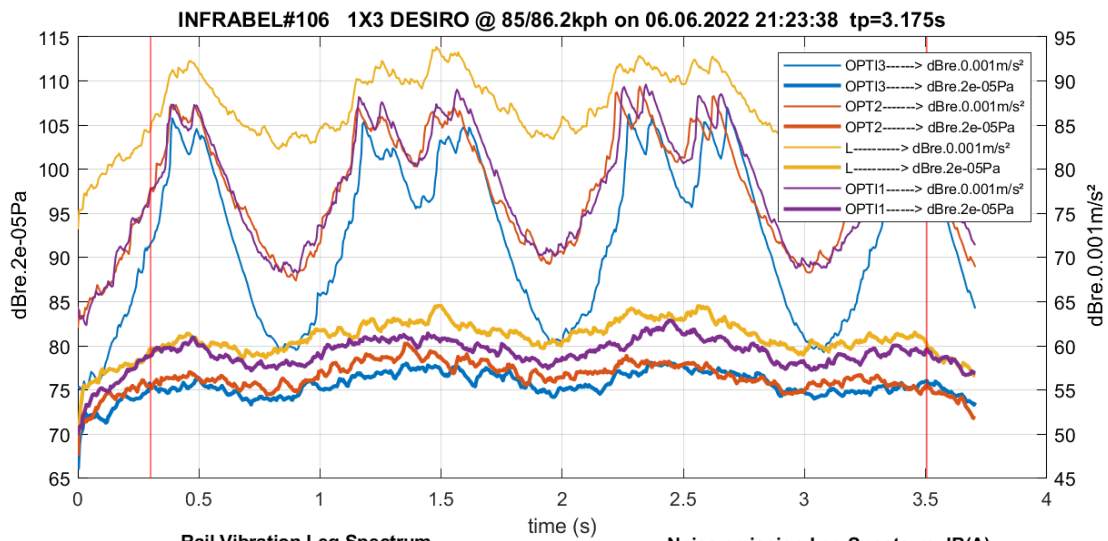
Noise emission Leq.Spectrum dB(A)

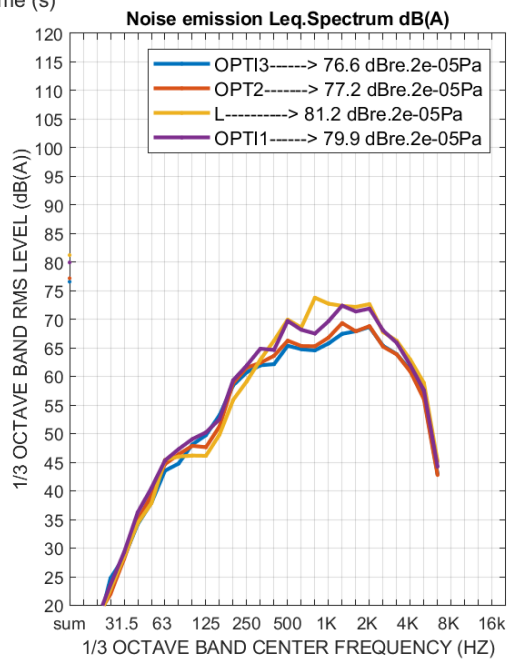
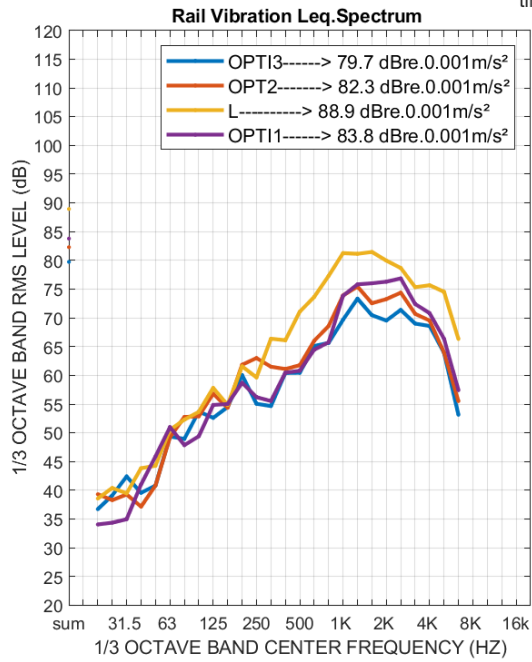
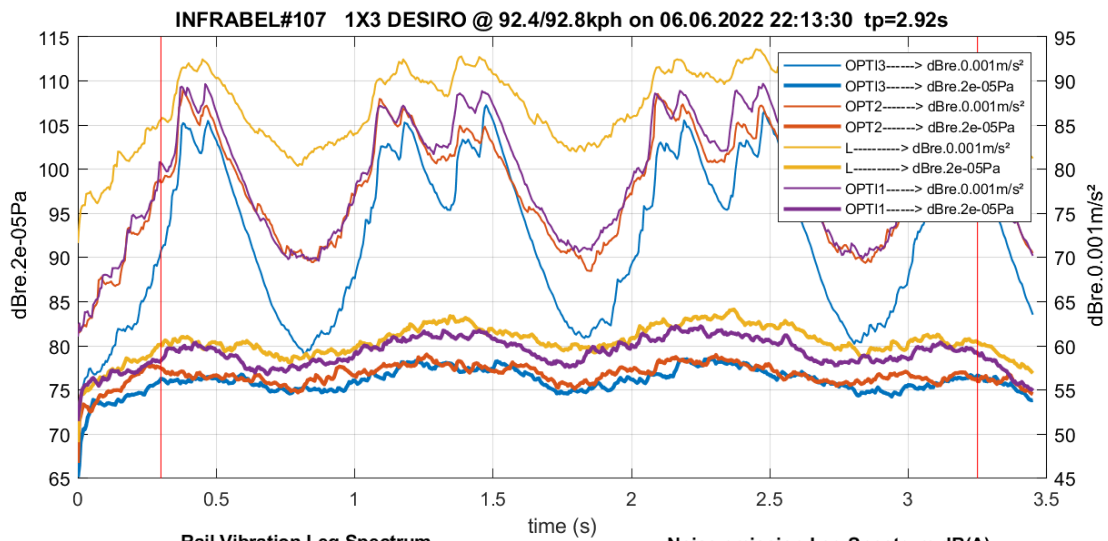


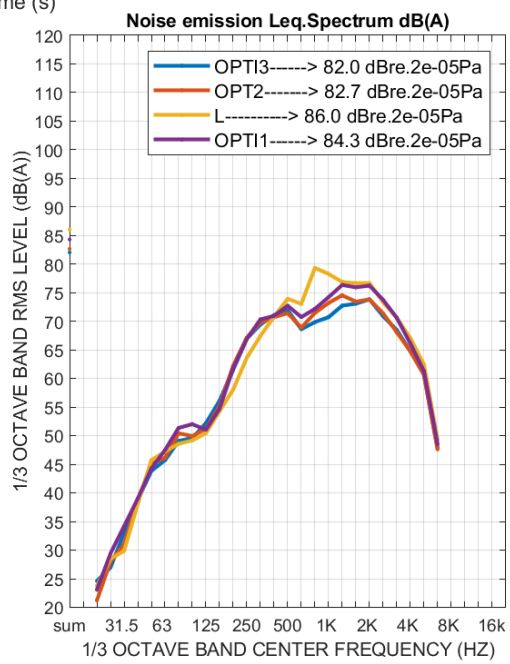
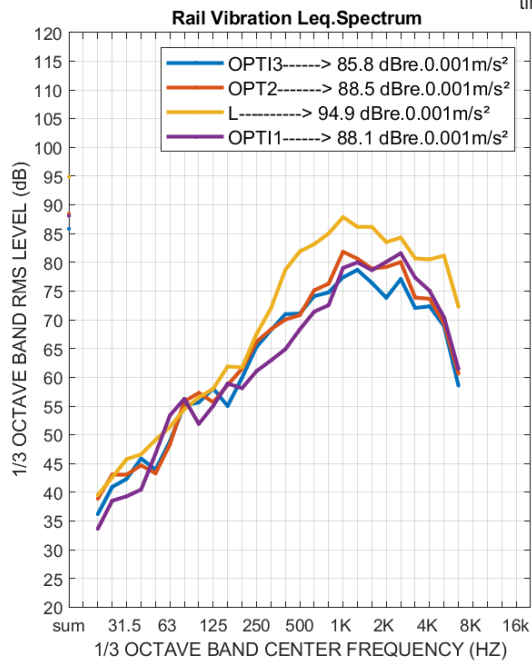
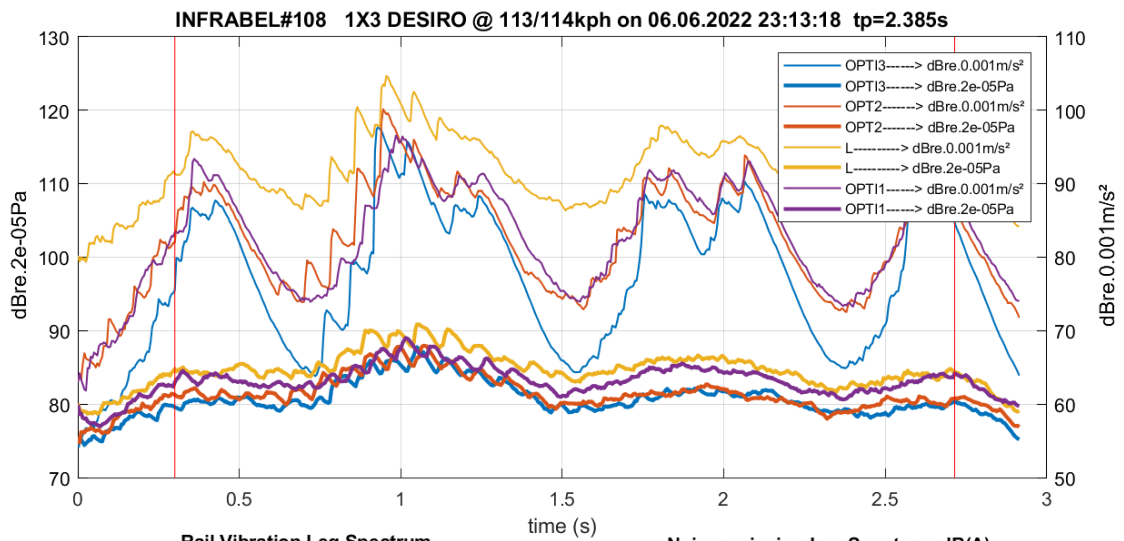


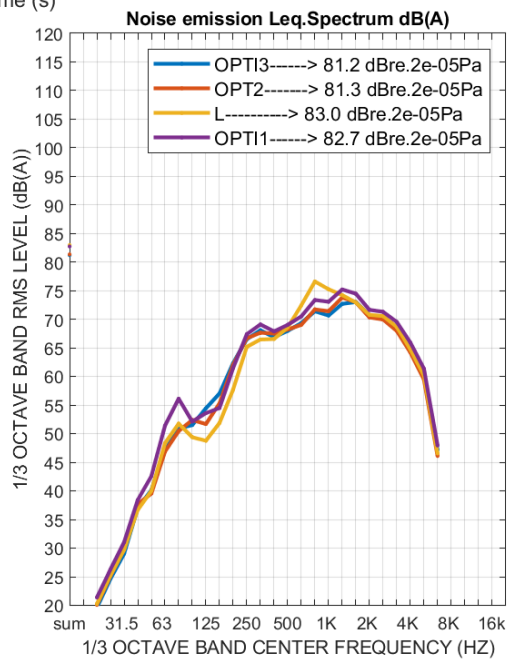
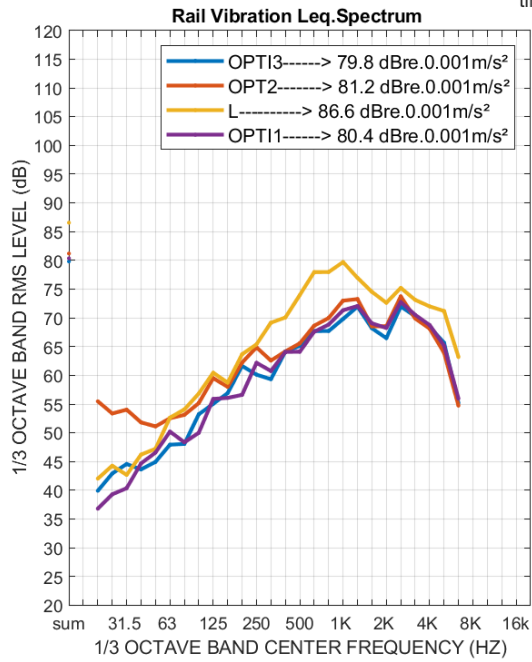
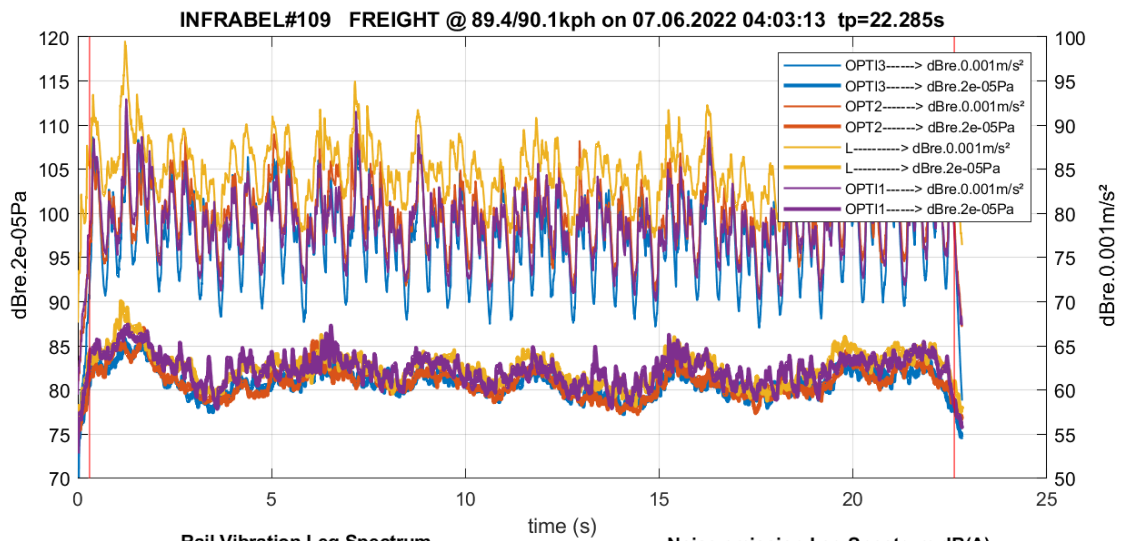


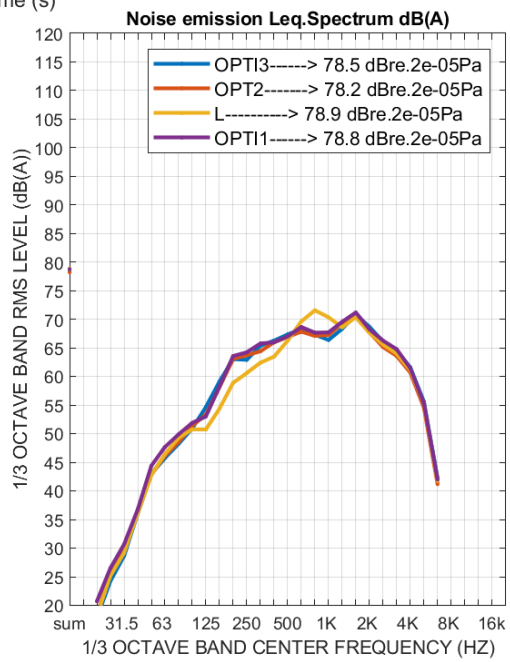
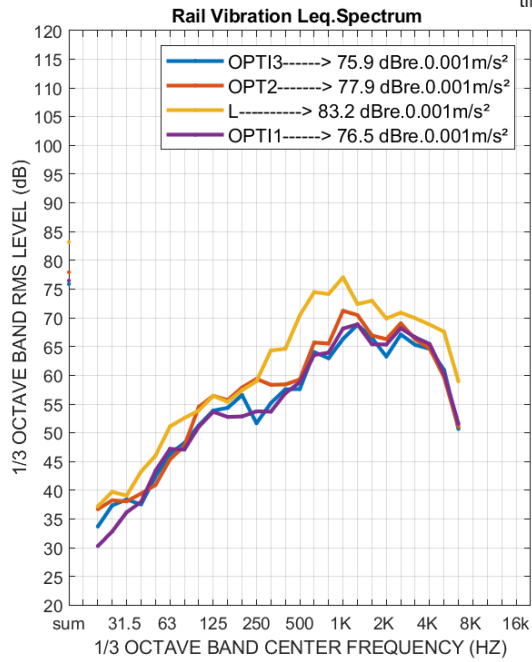
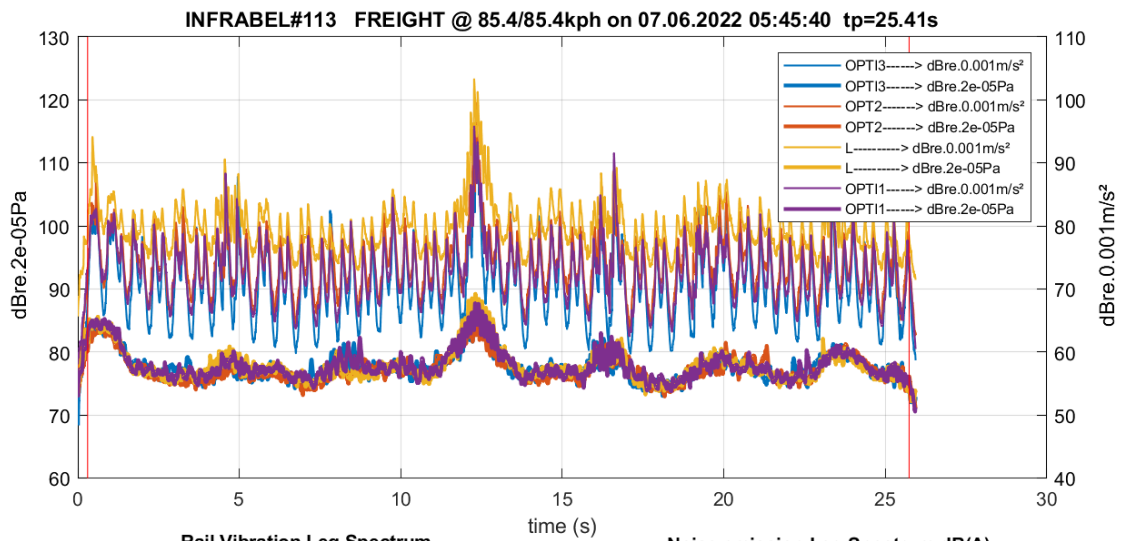


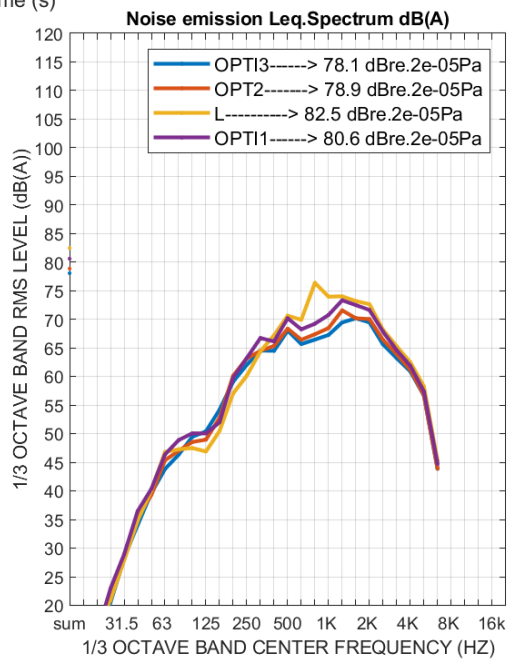
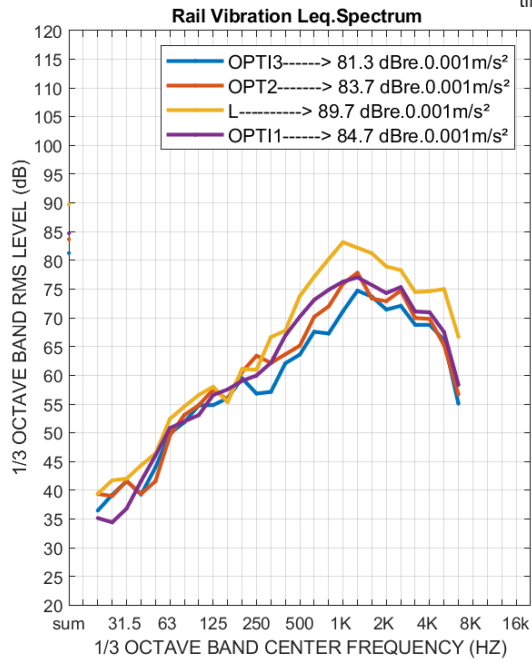
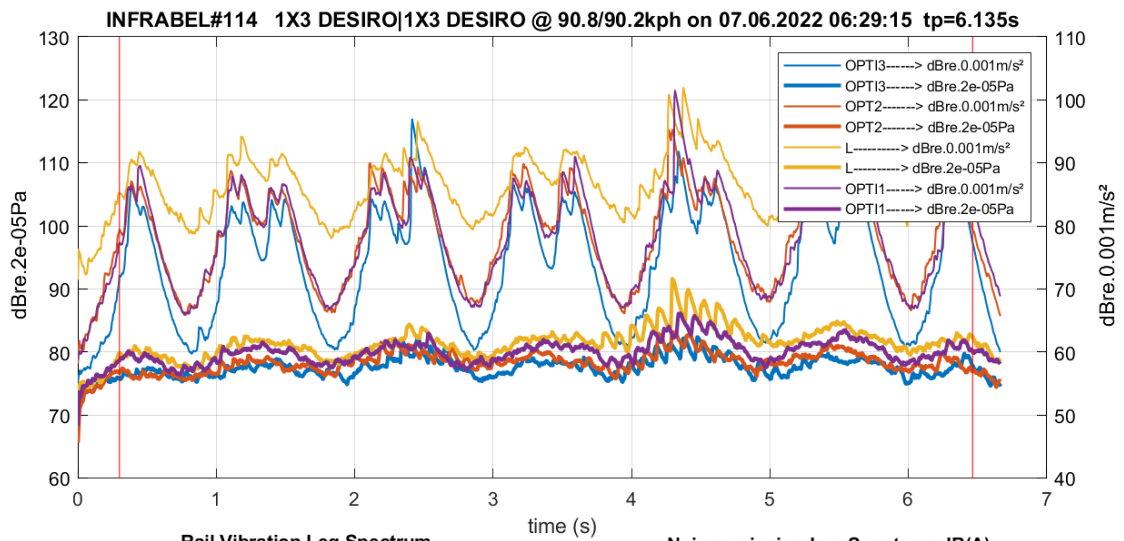


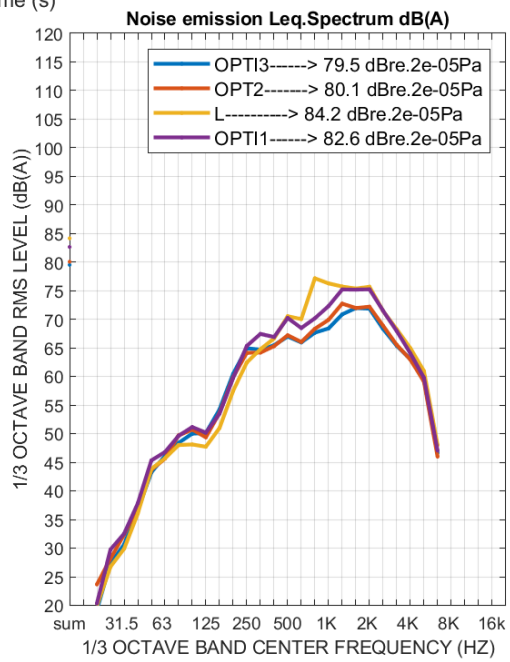
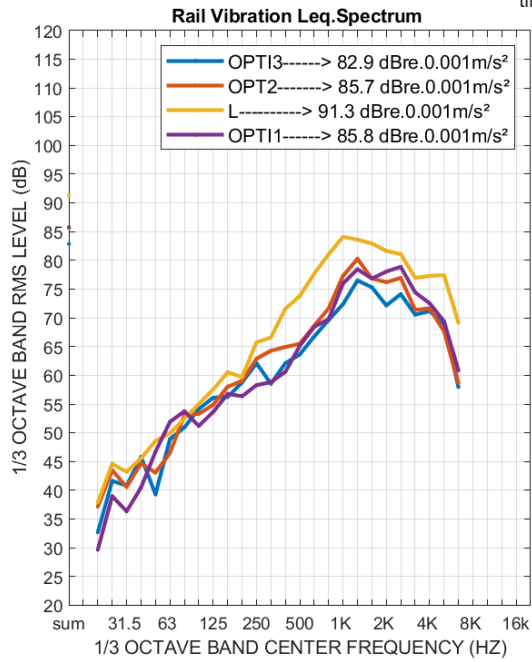
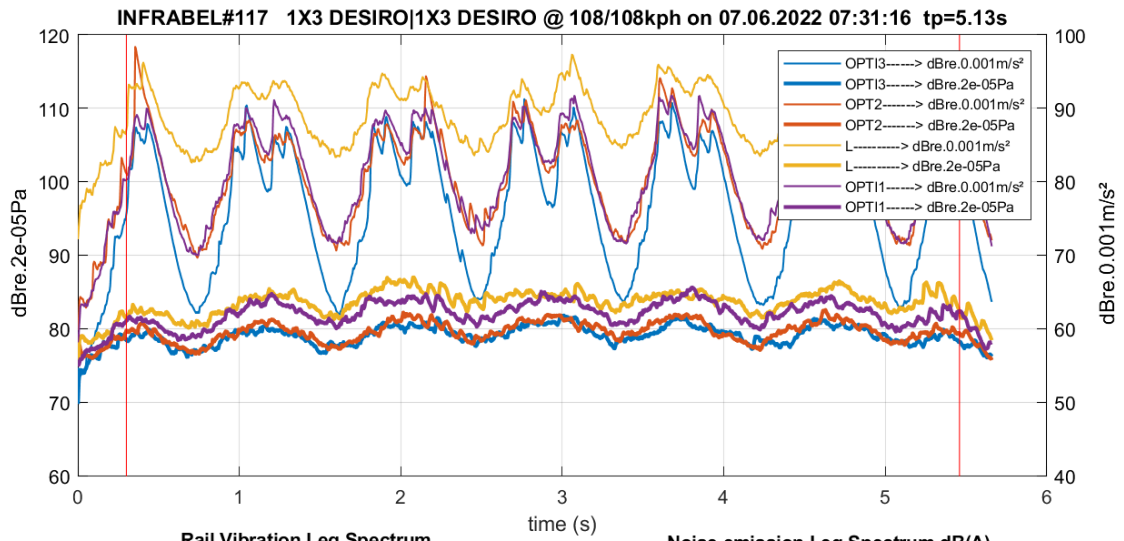


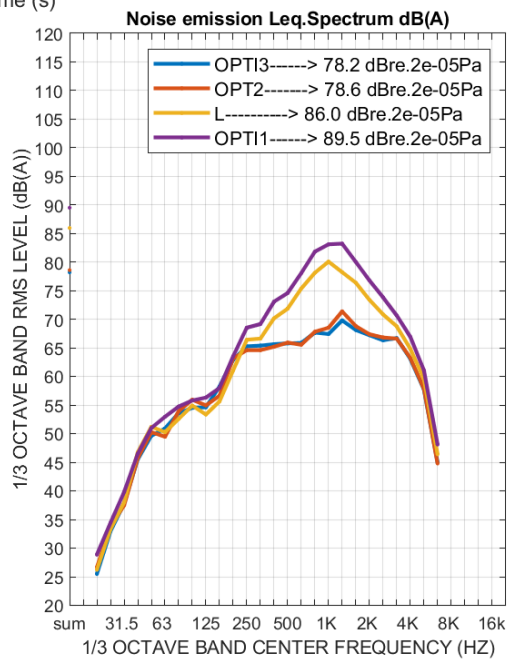
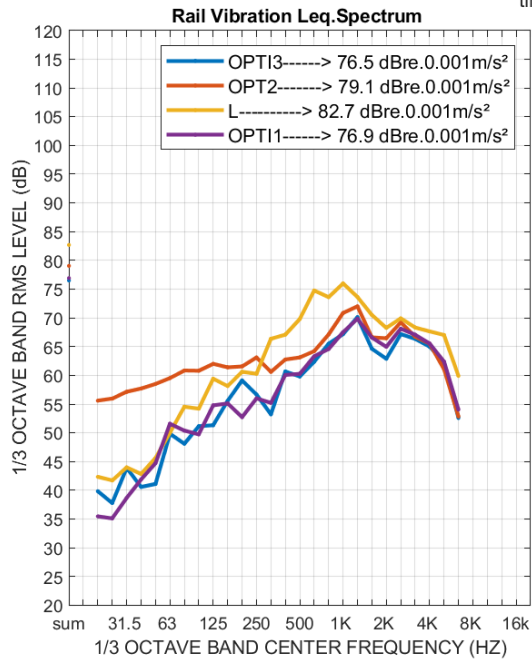
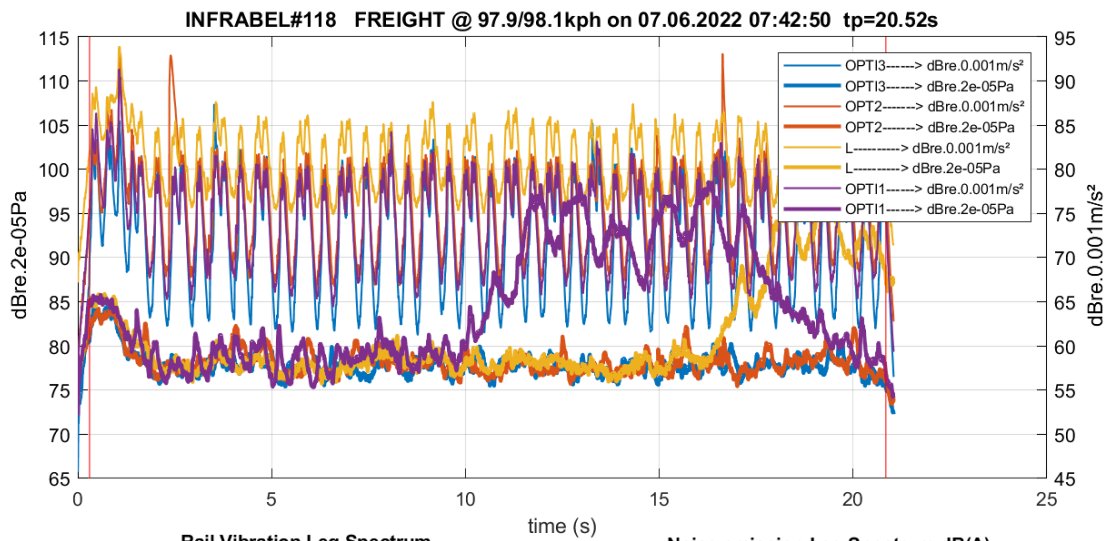


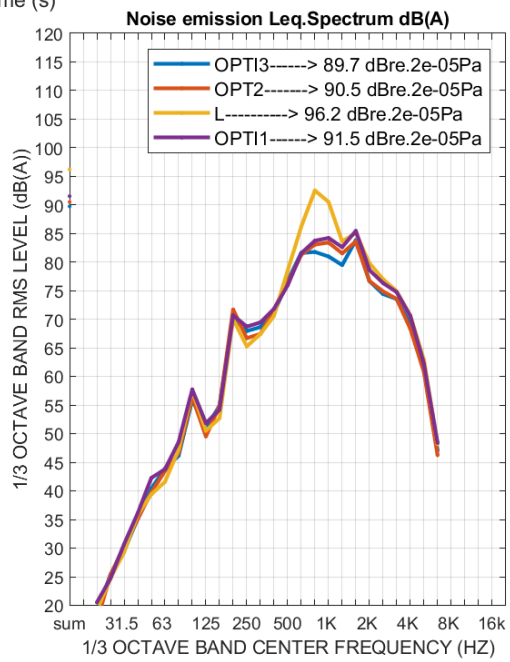
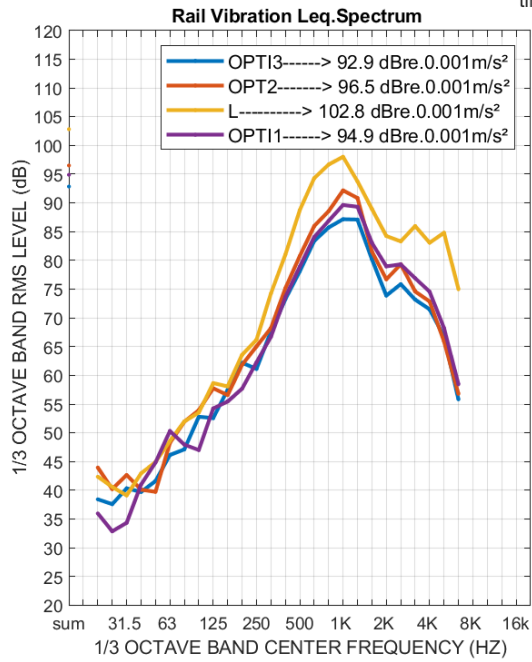
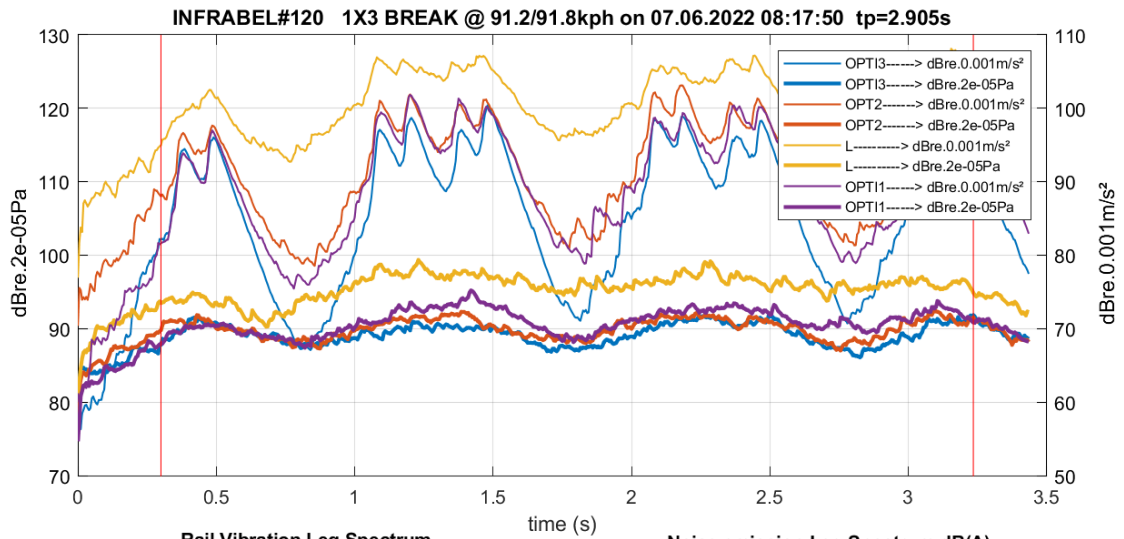


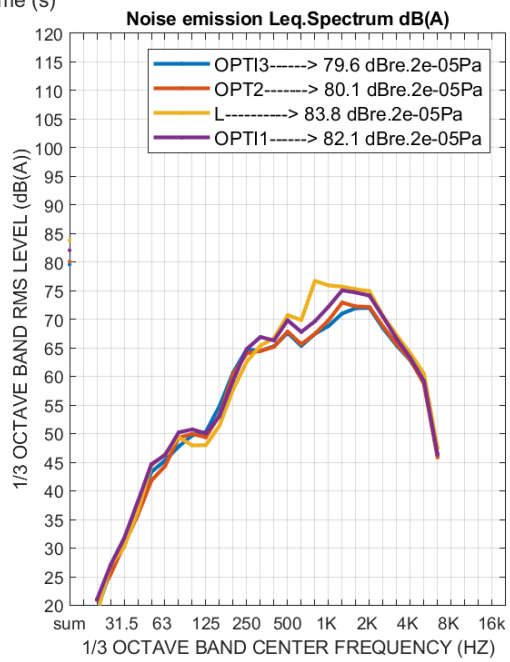
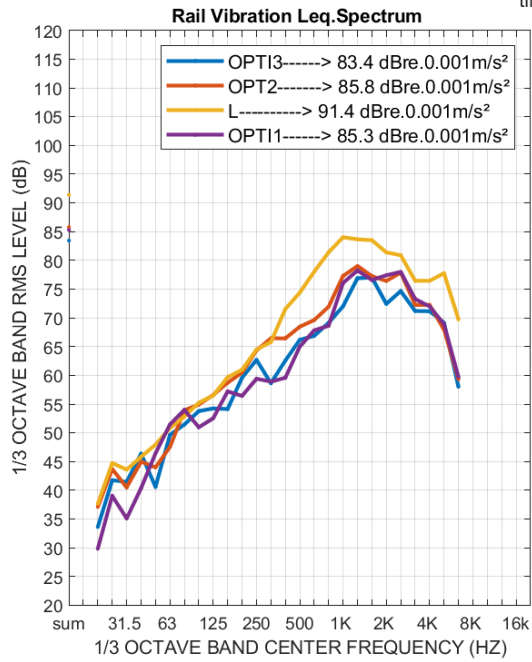
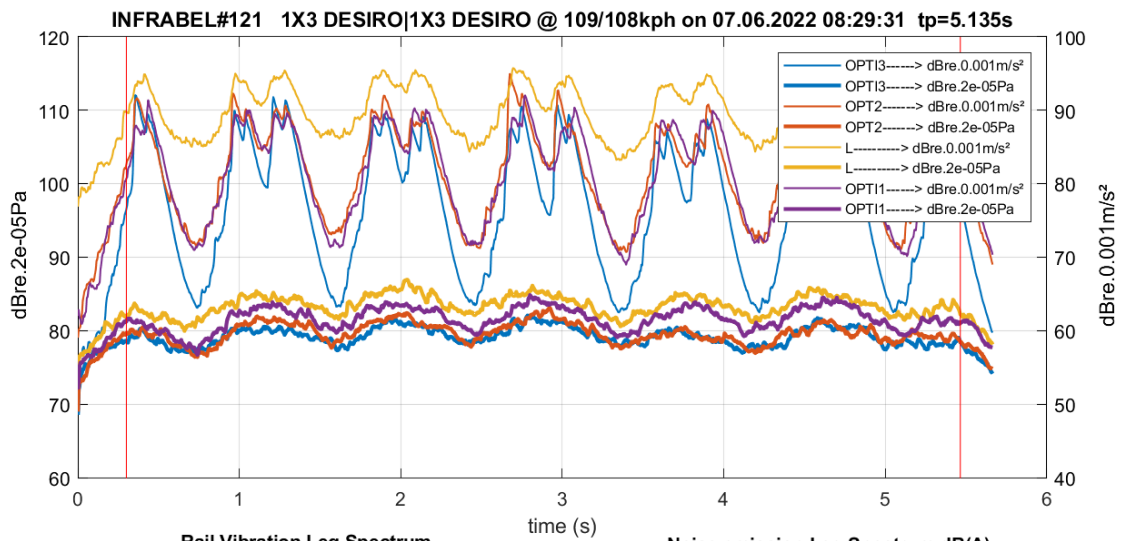


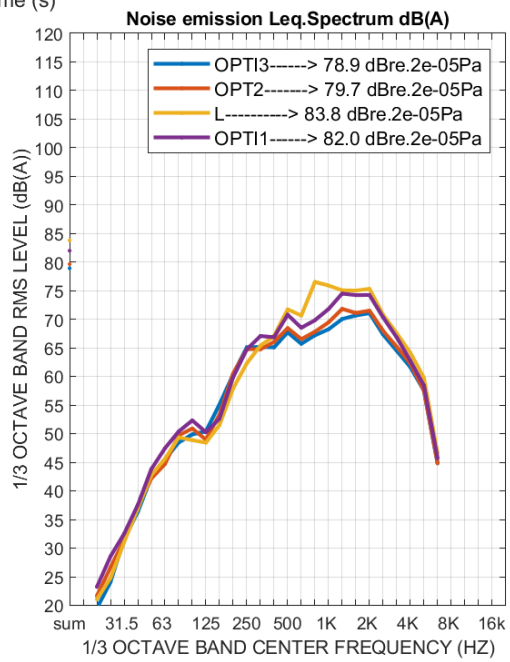
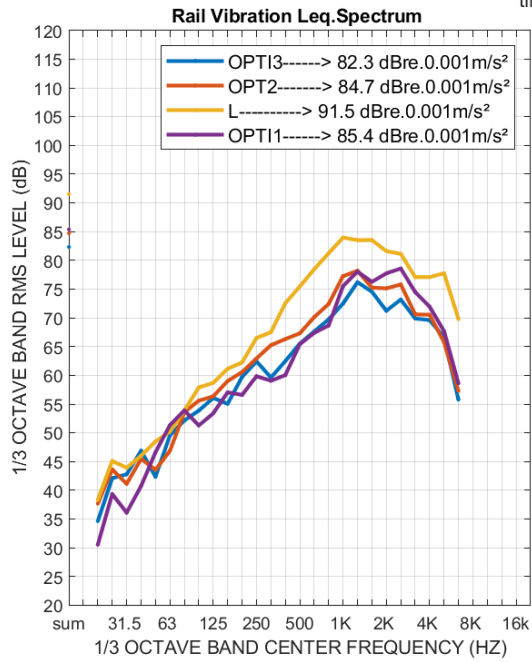
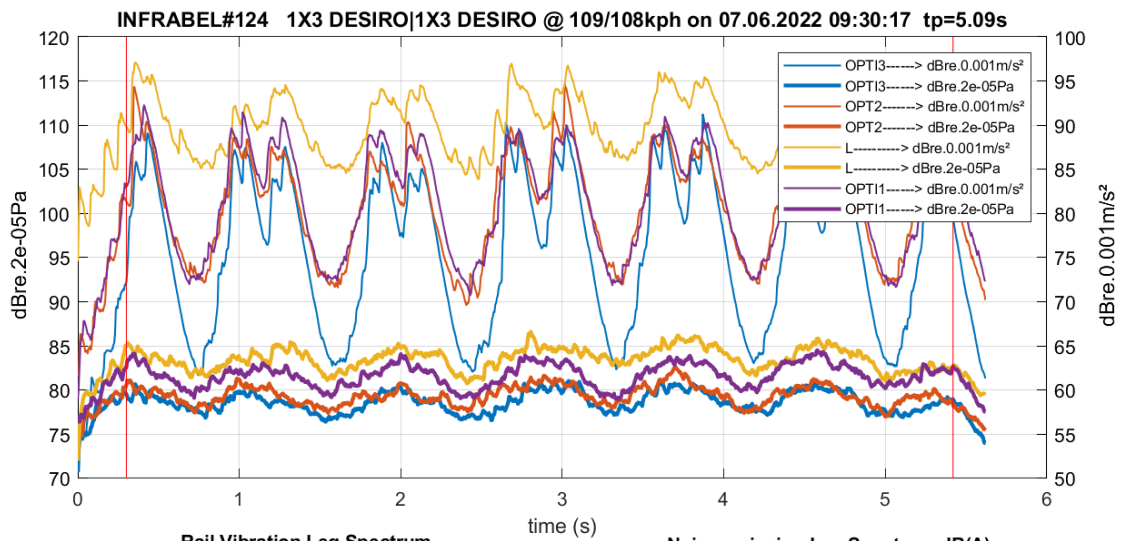




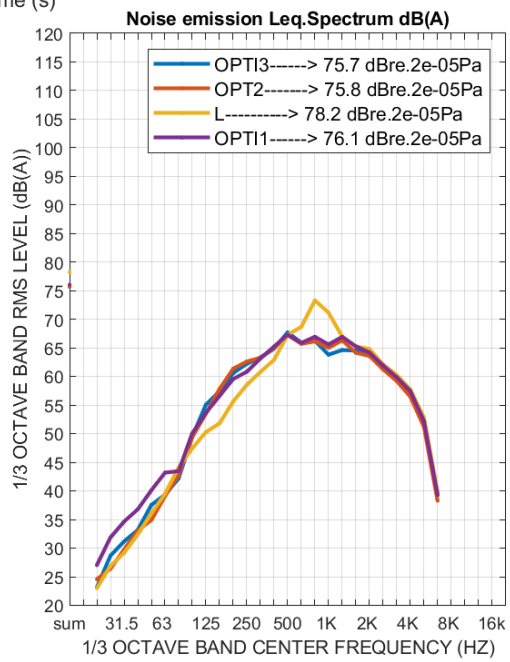
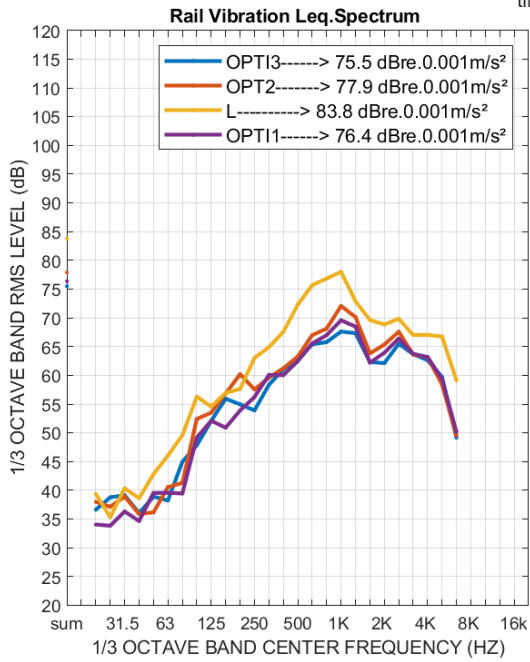
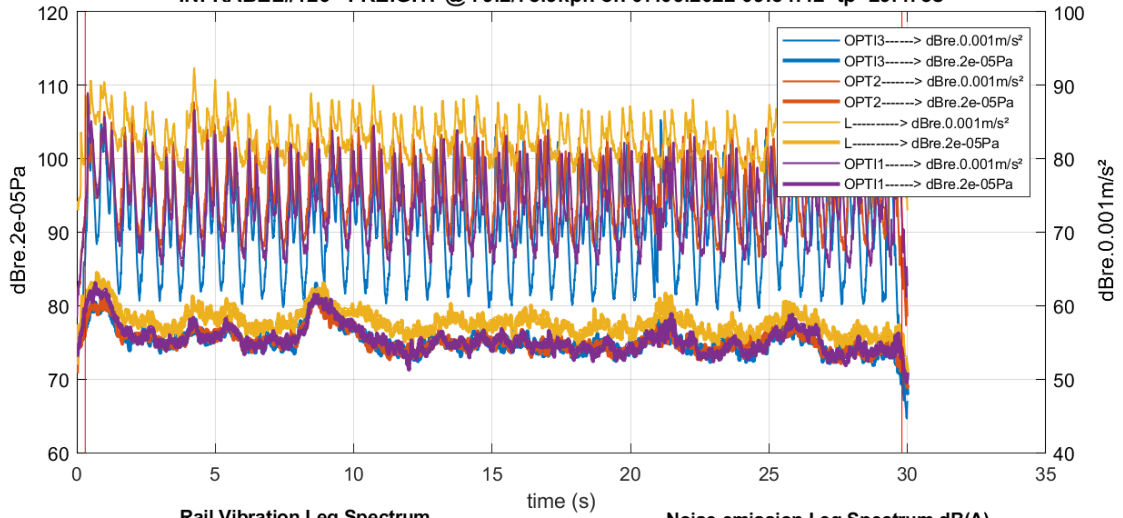


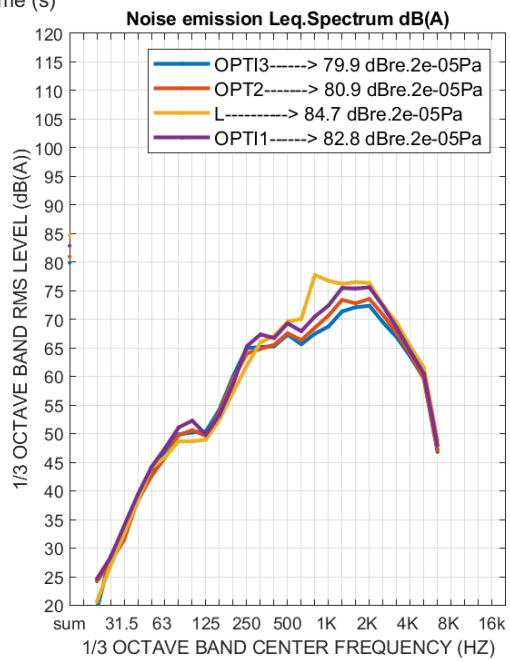
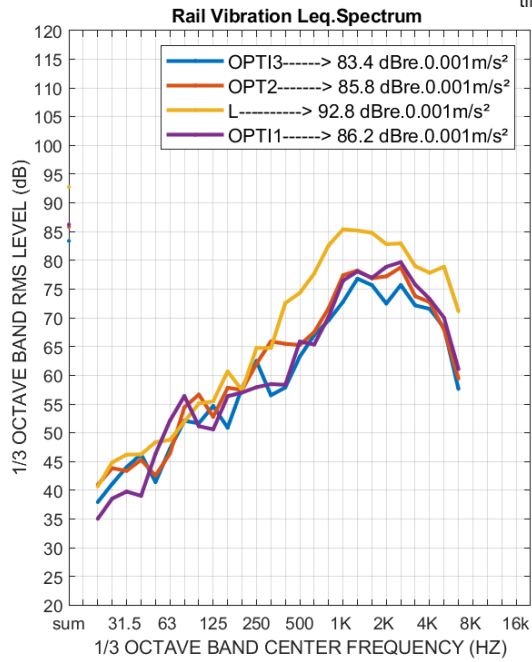
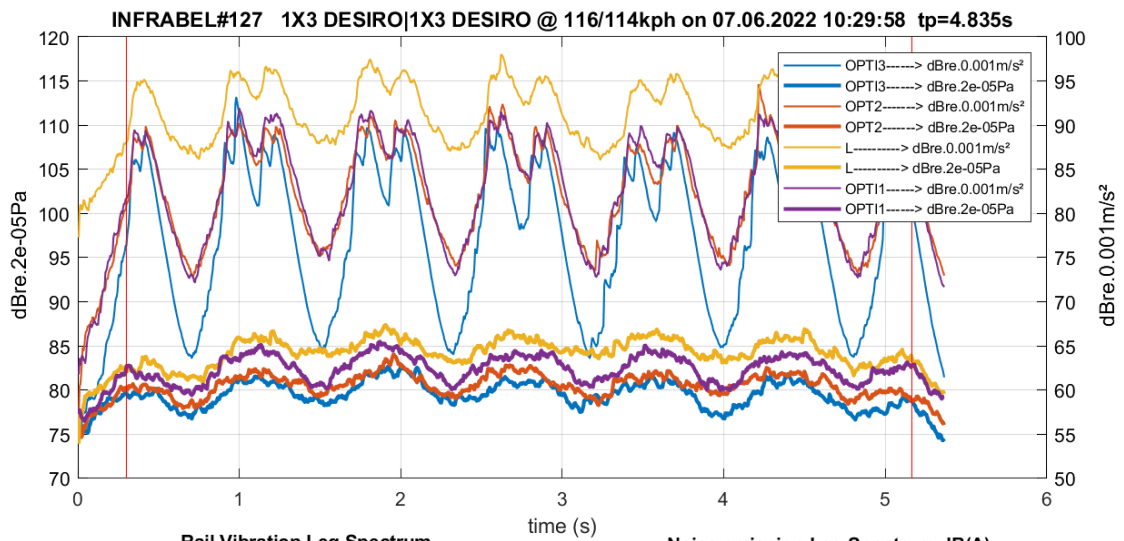


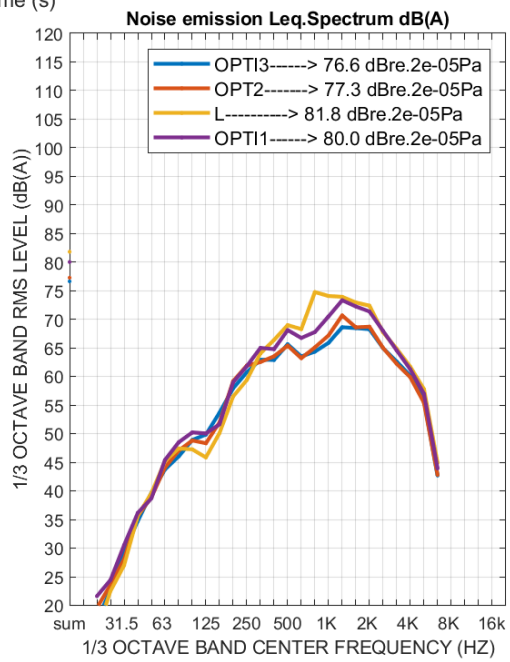
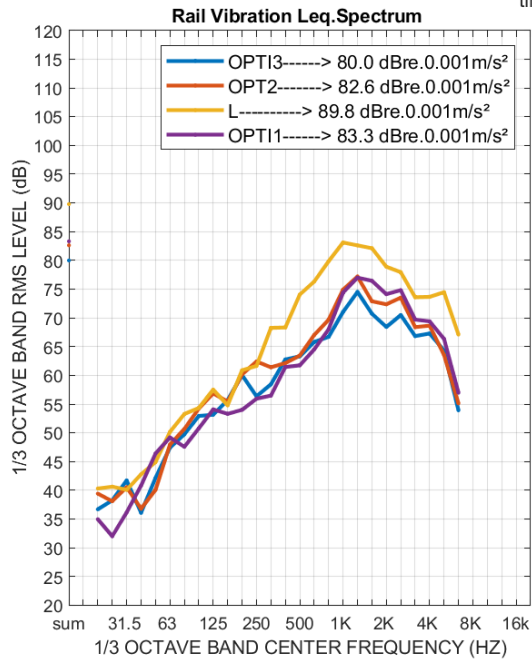
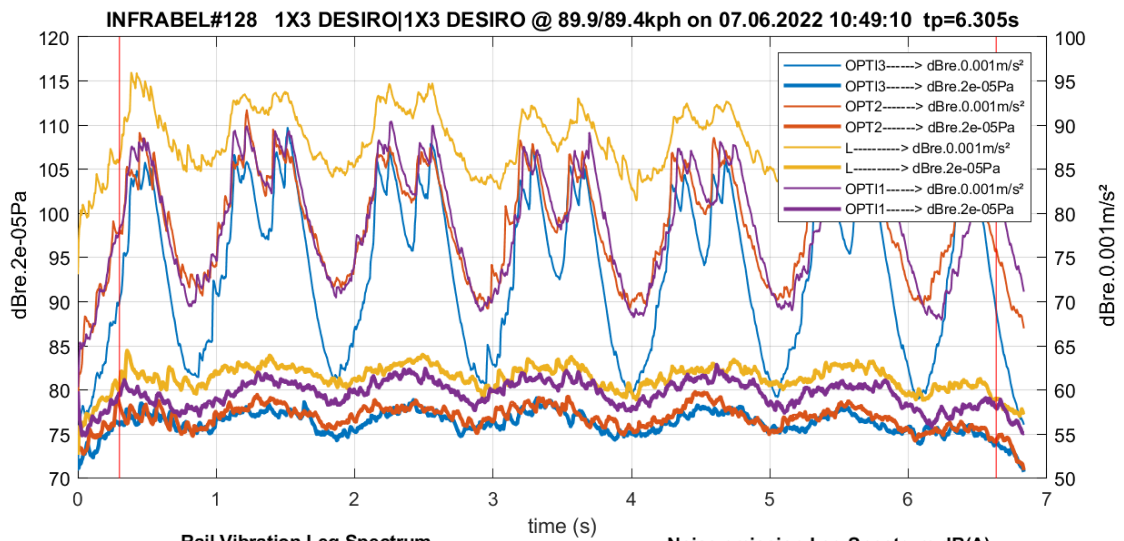


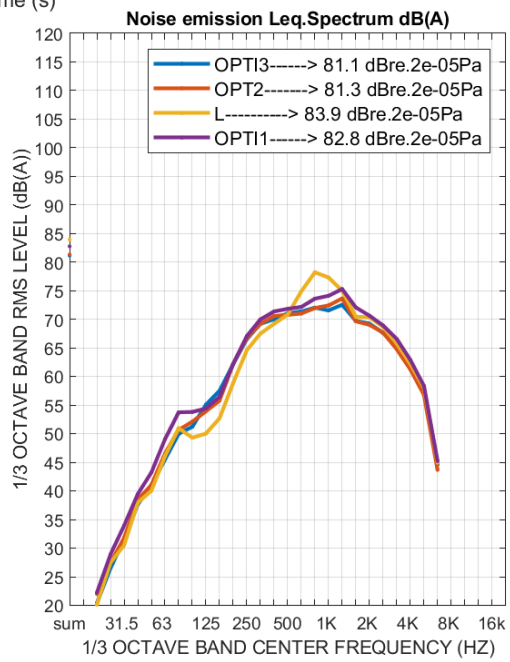
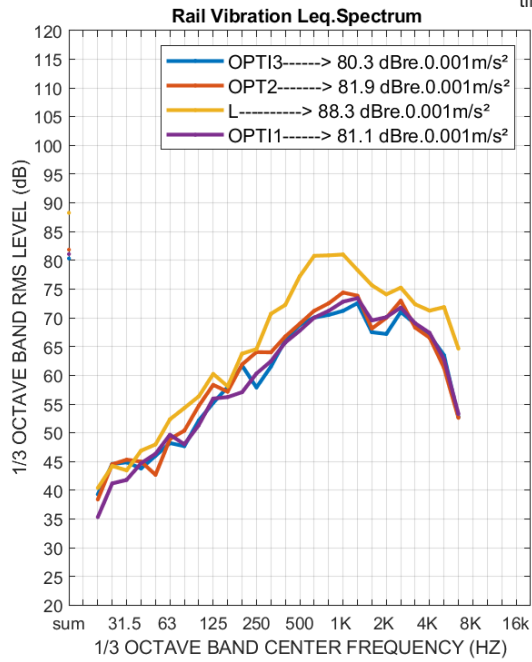
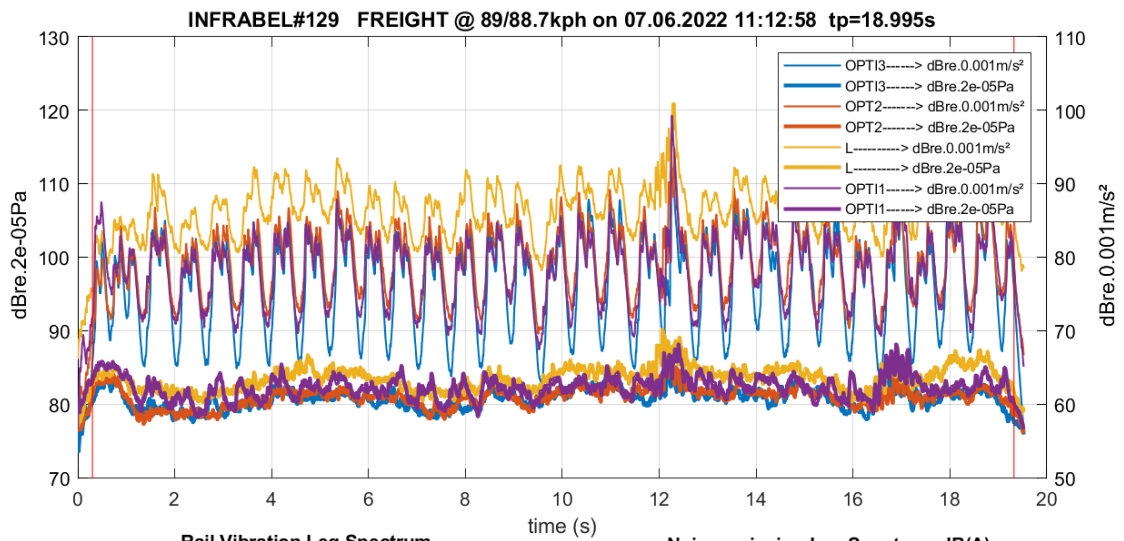


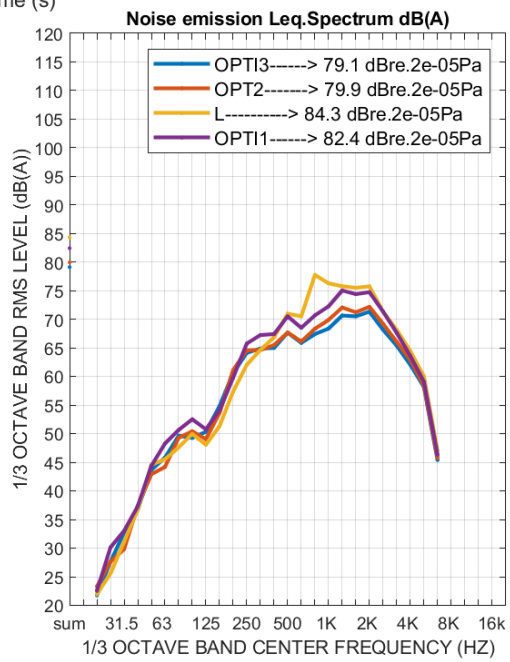
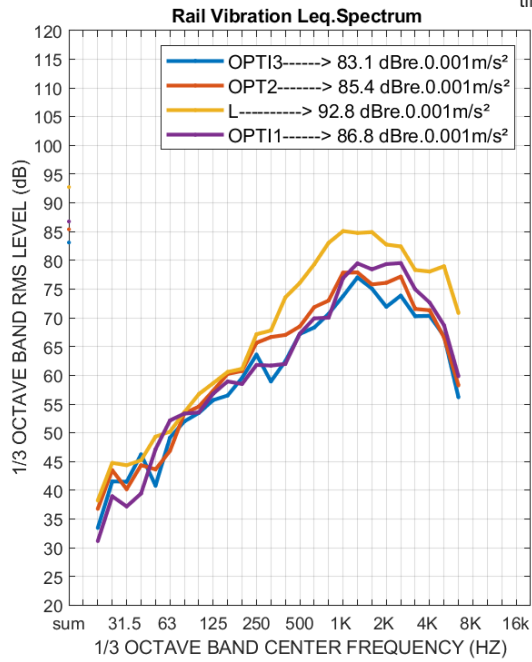
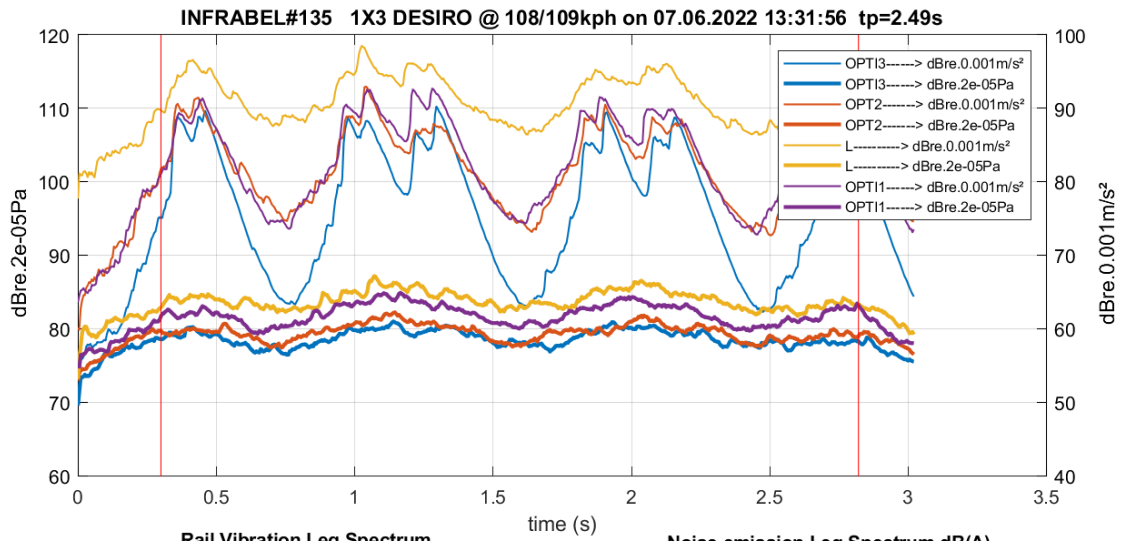
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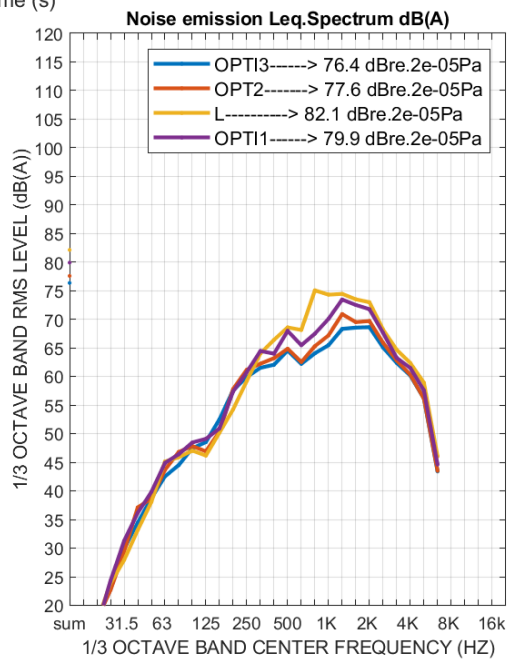
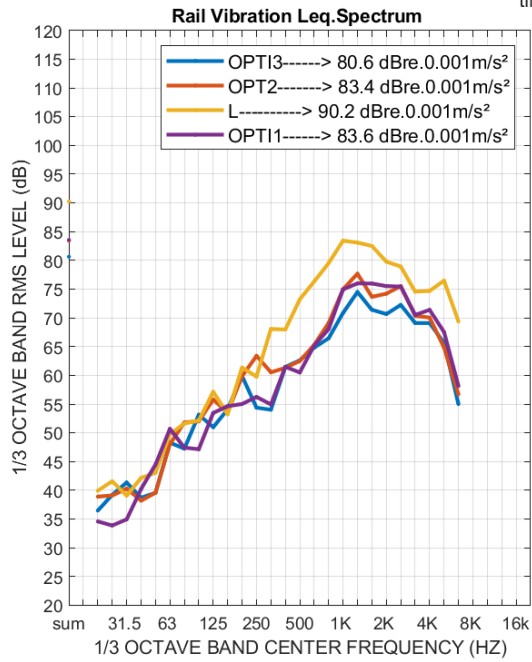
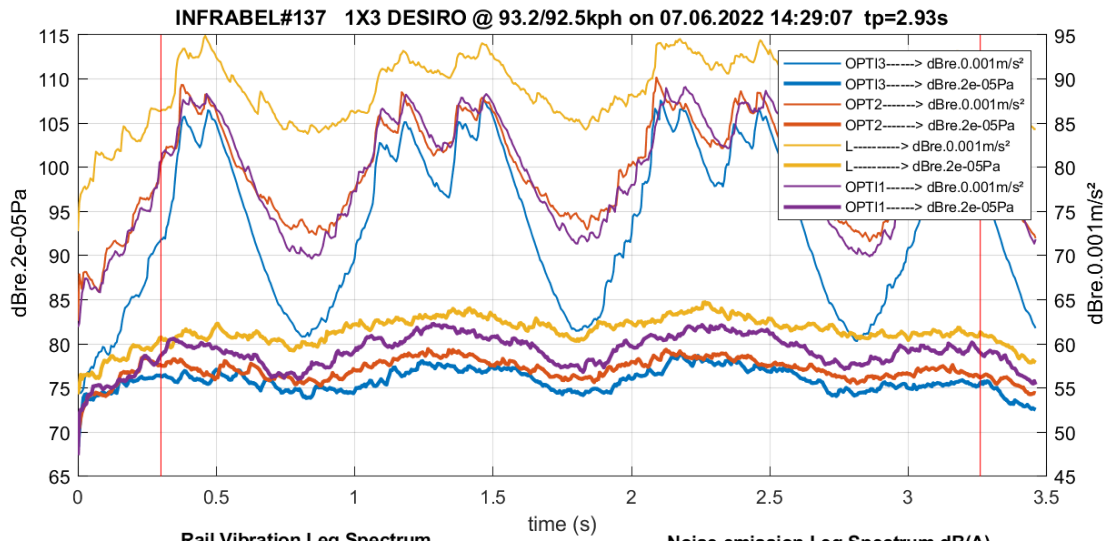


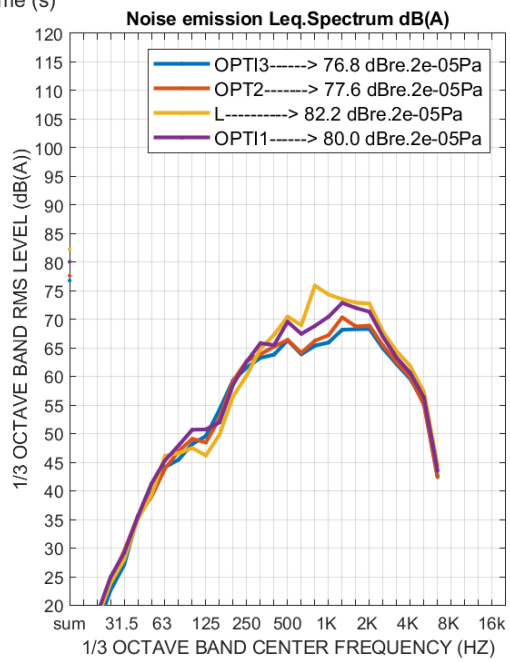
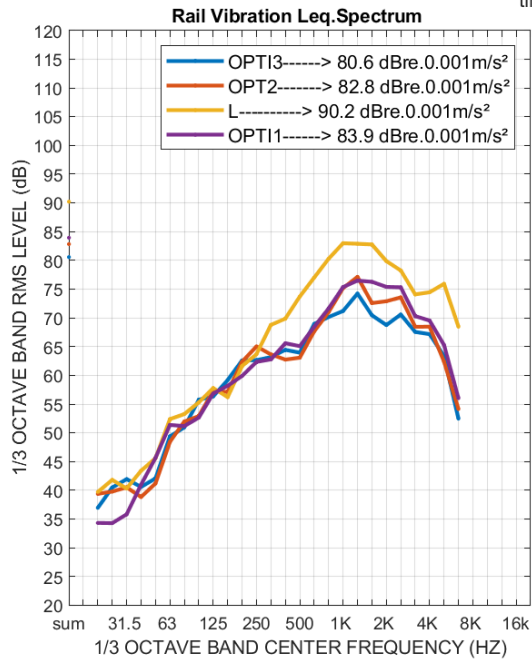
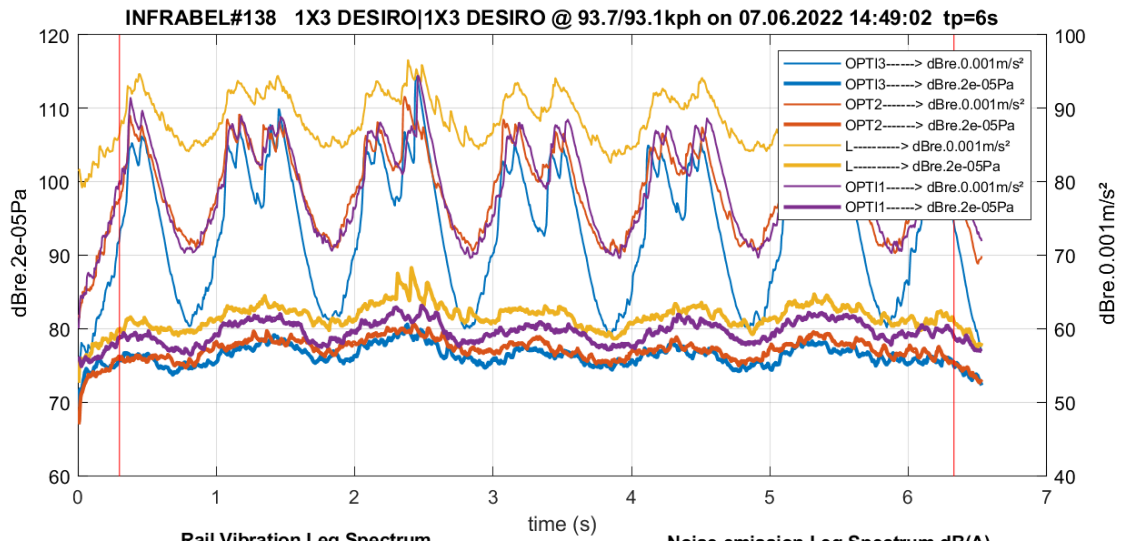


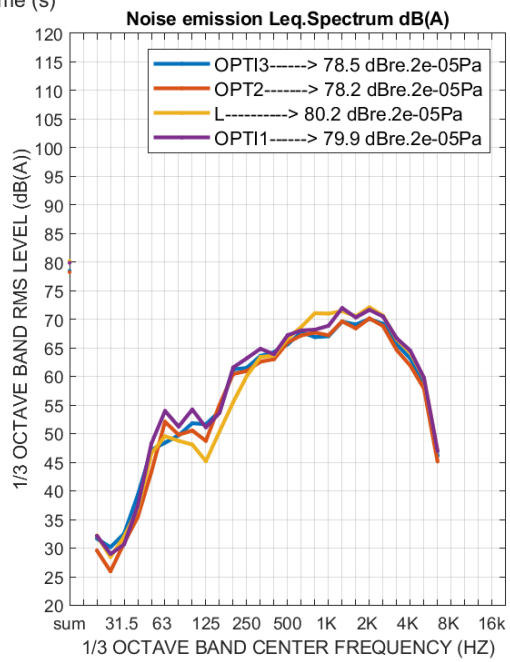
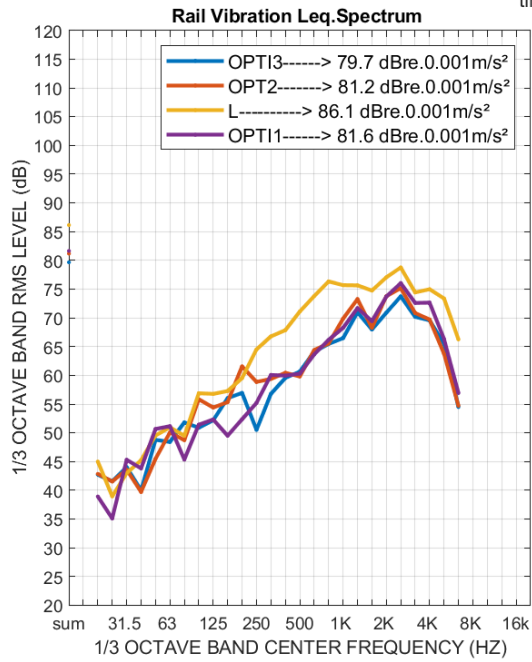
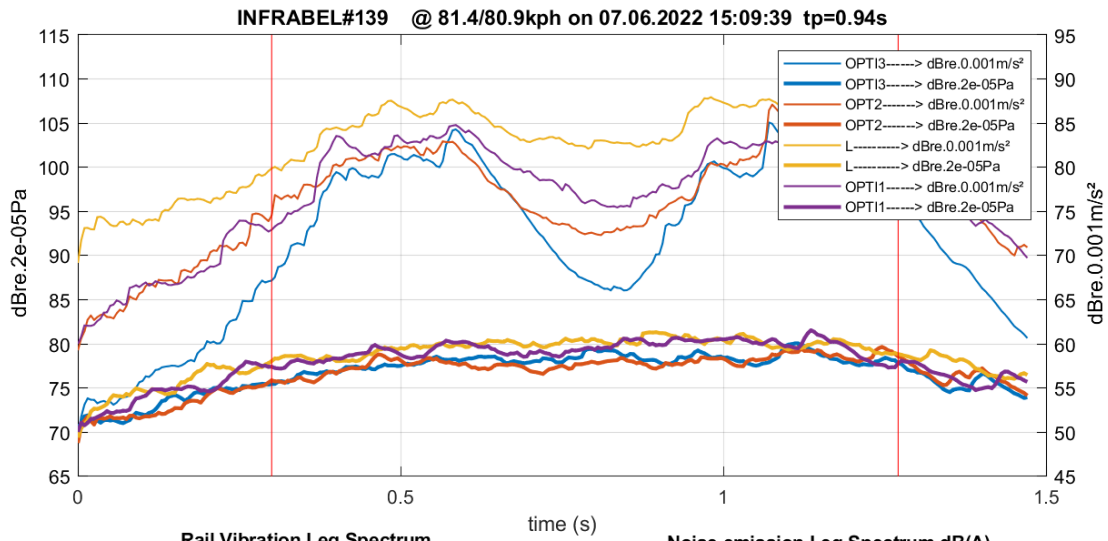


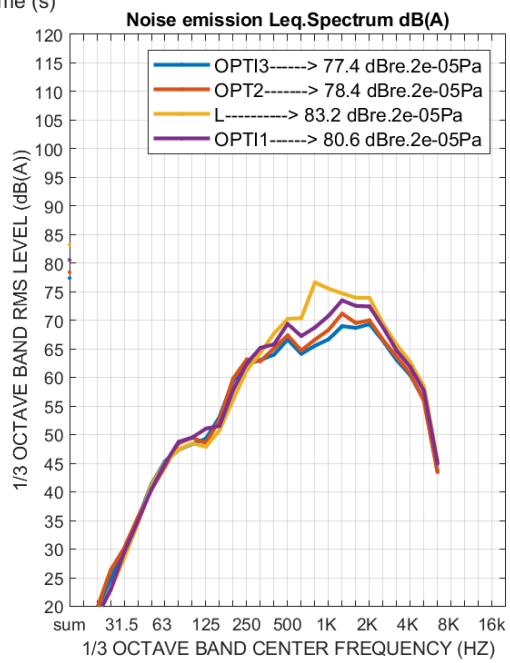
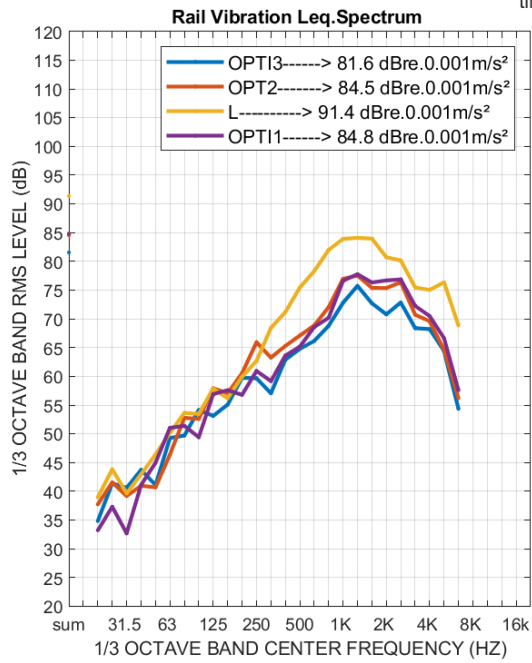
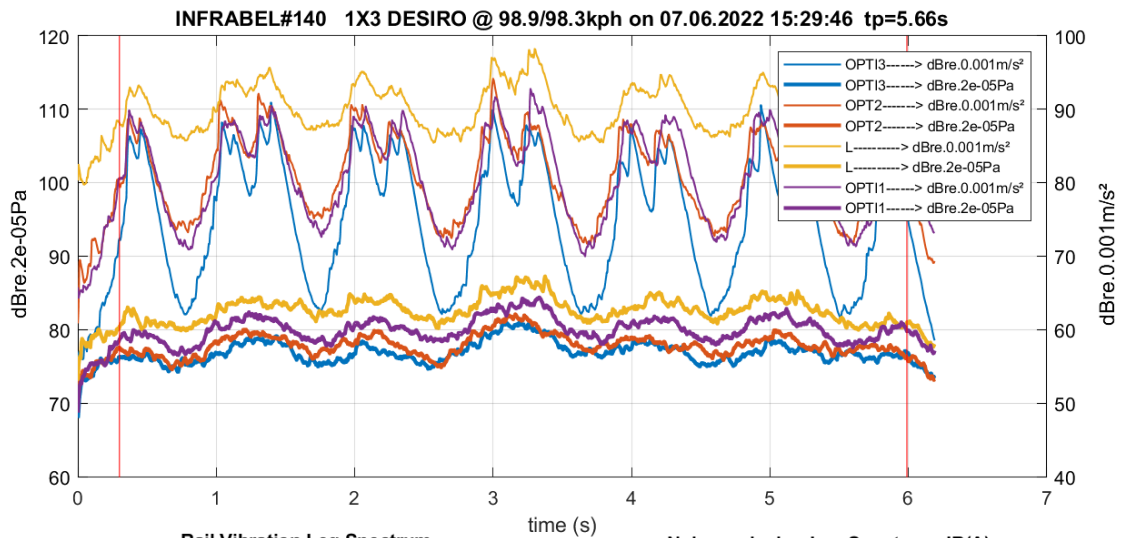


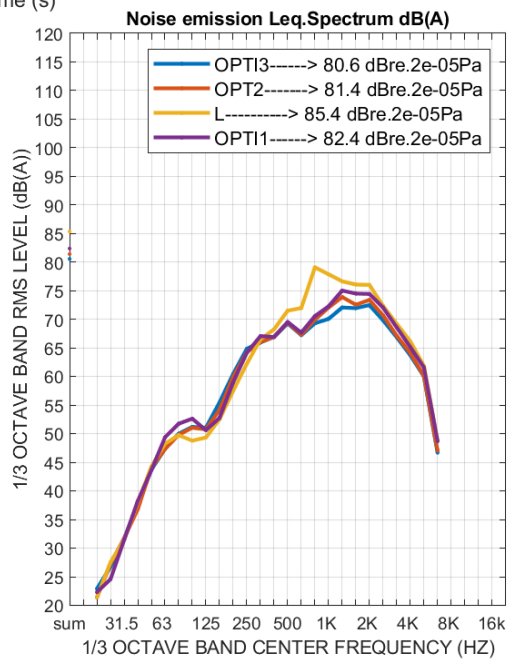
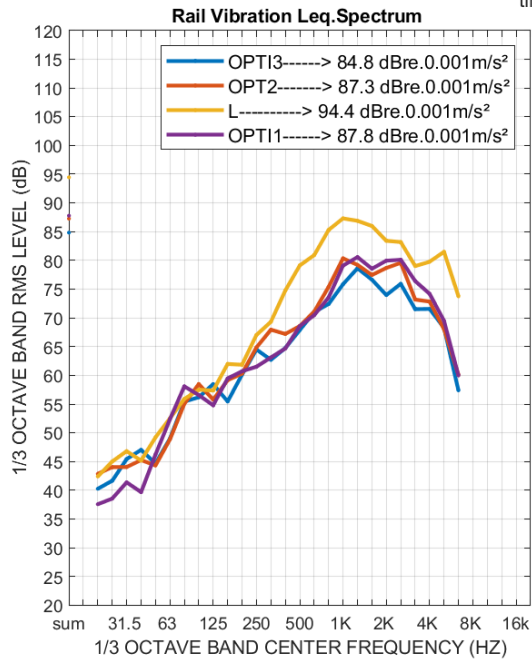
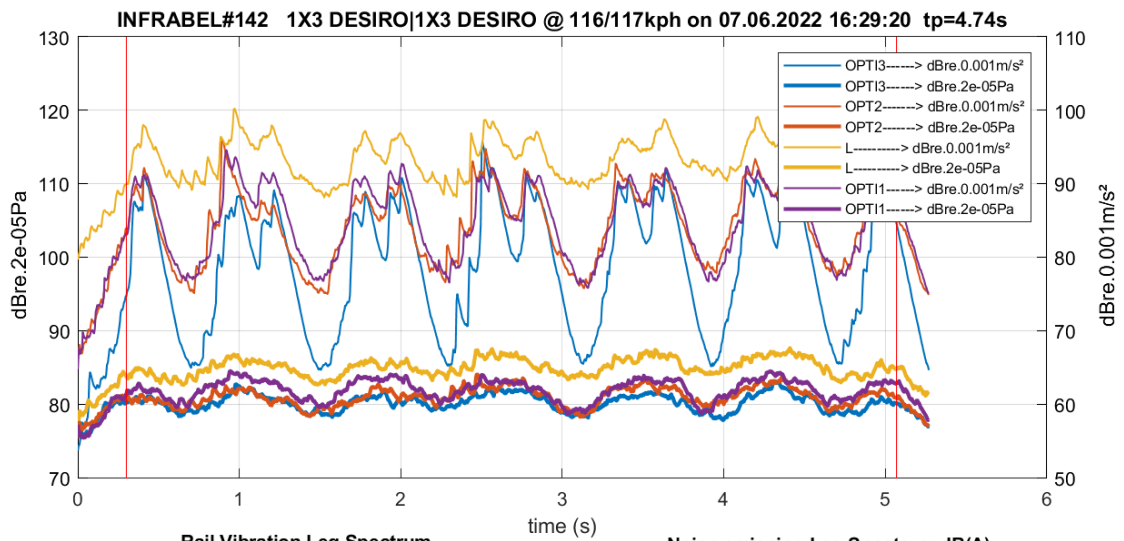


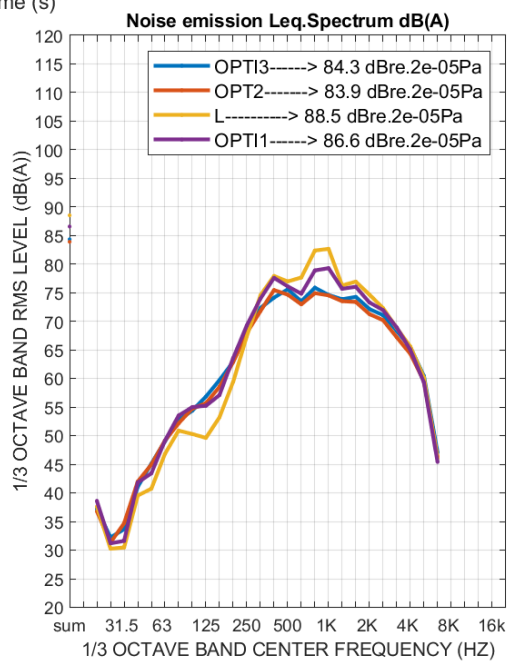
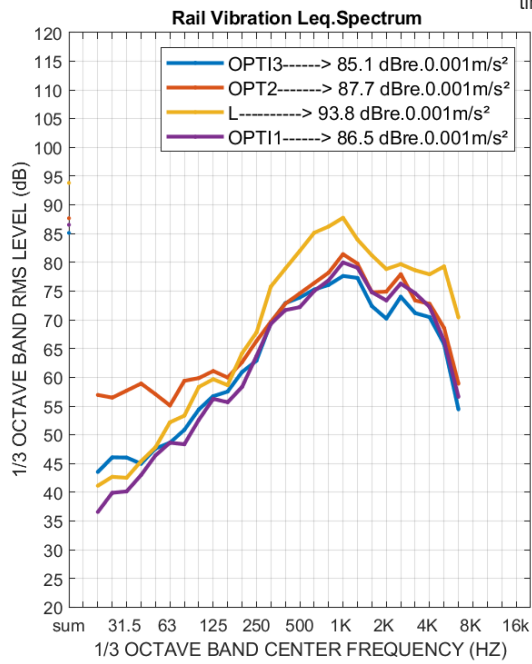
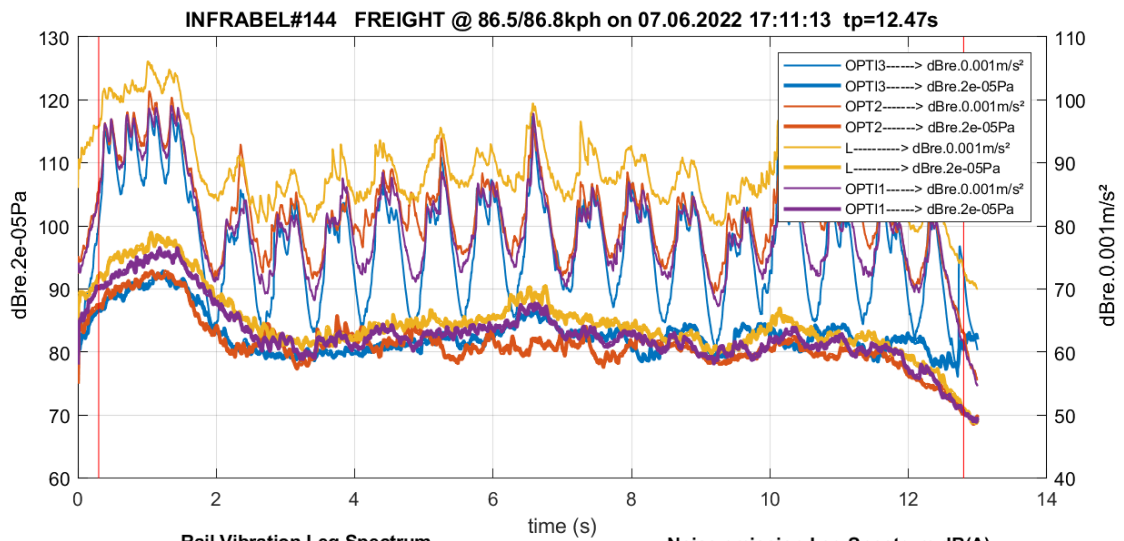


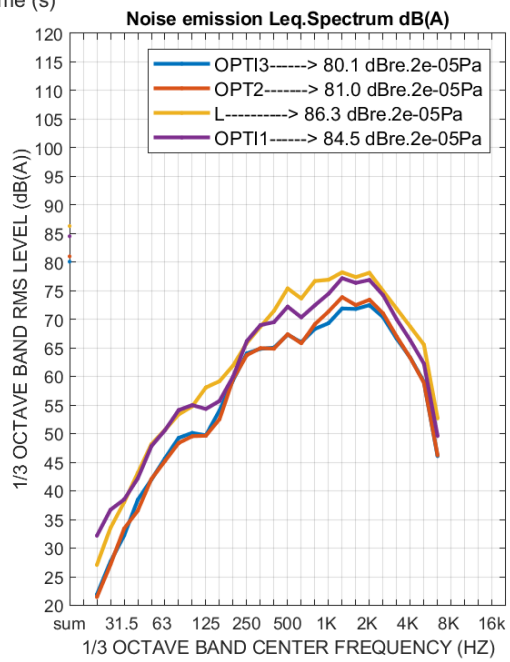
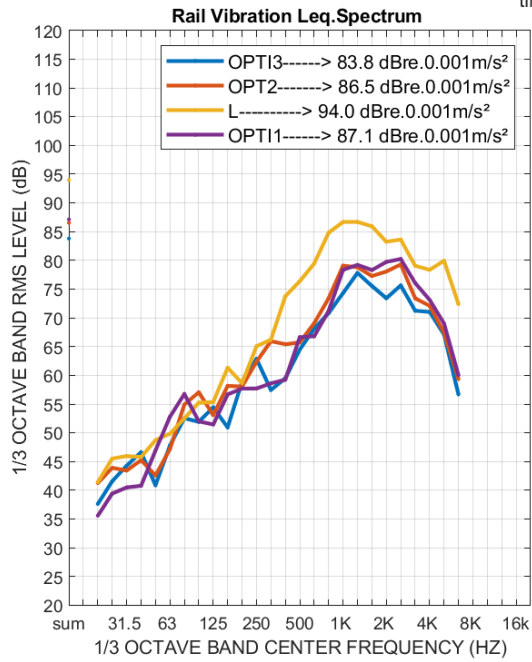
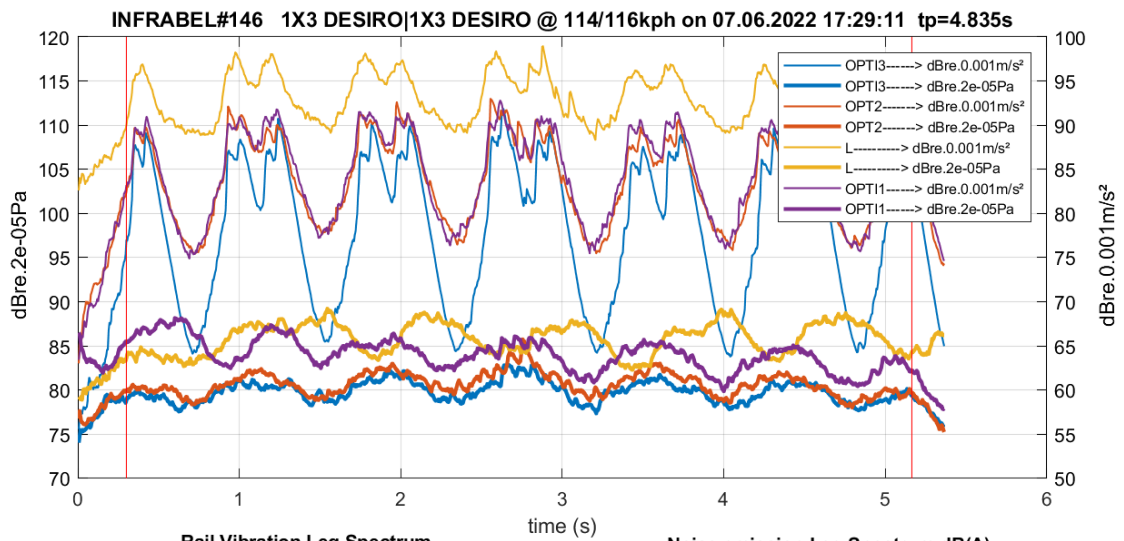


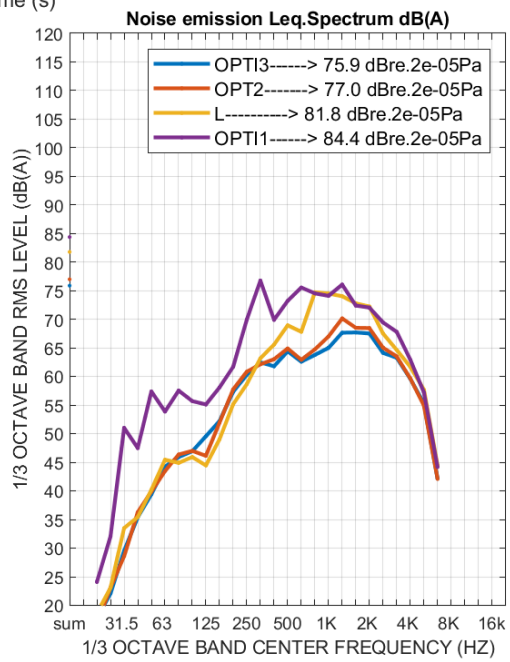
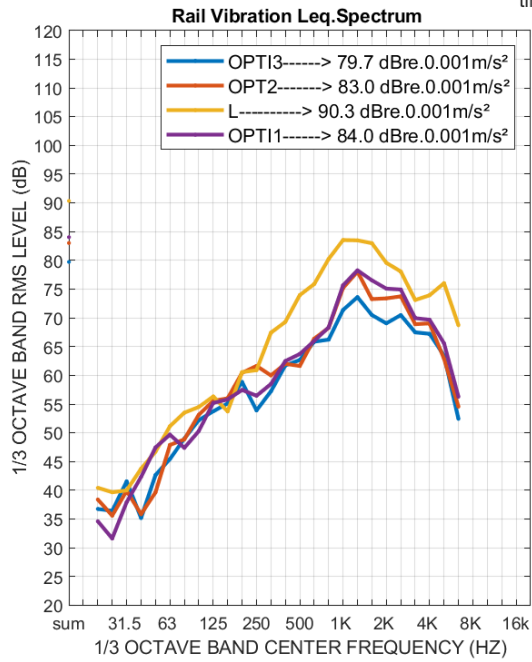
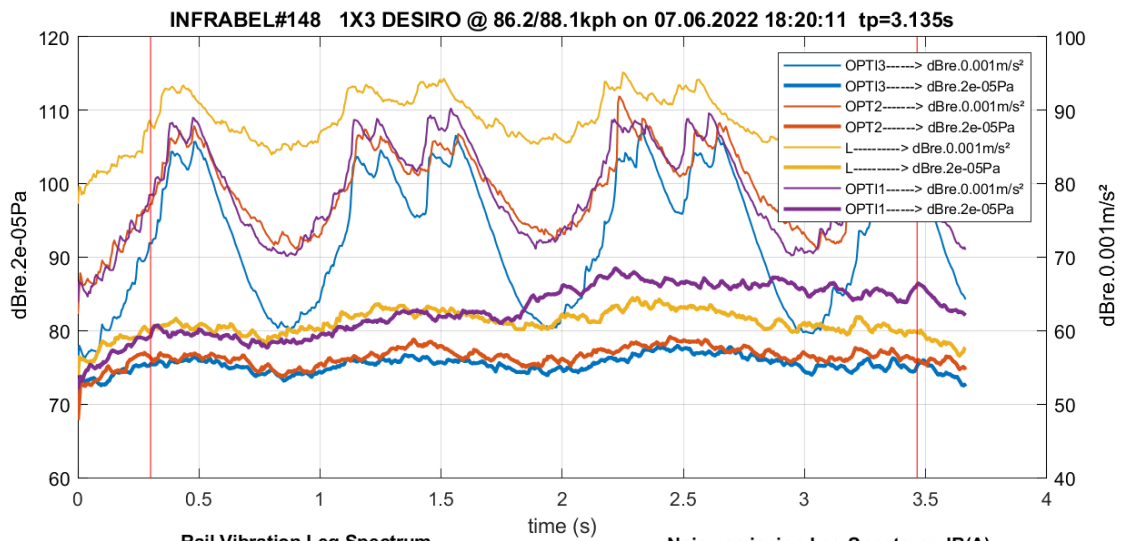


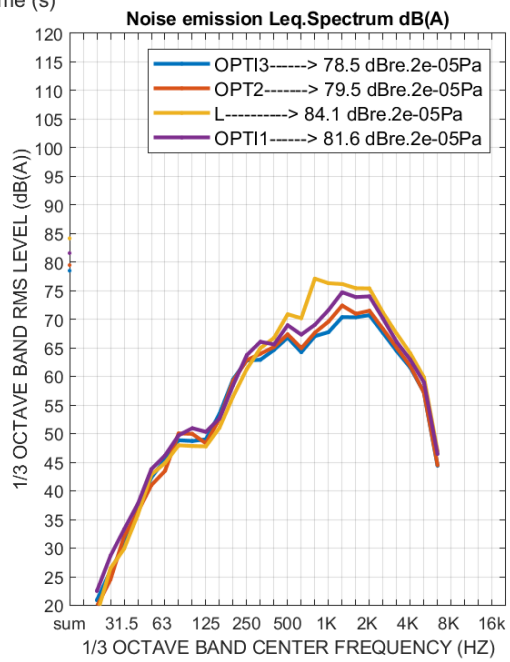
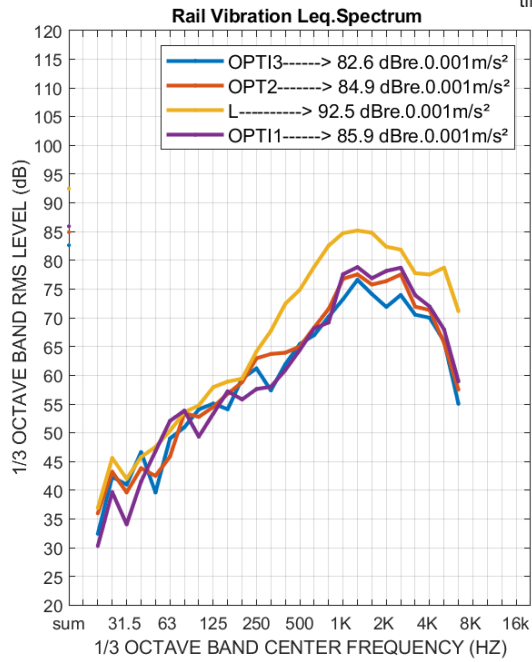
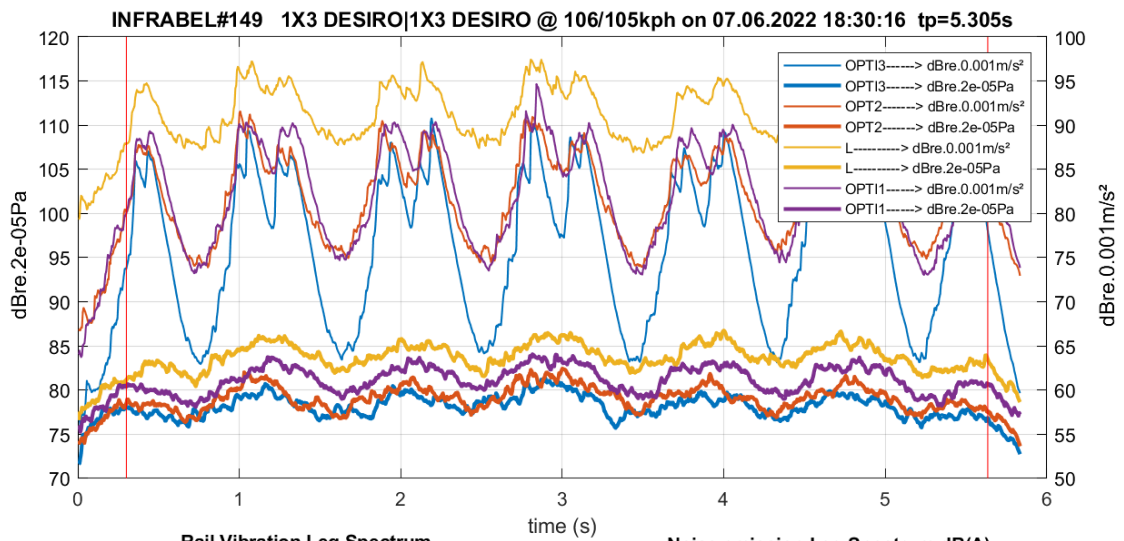


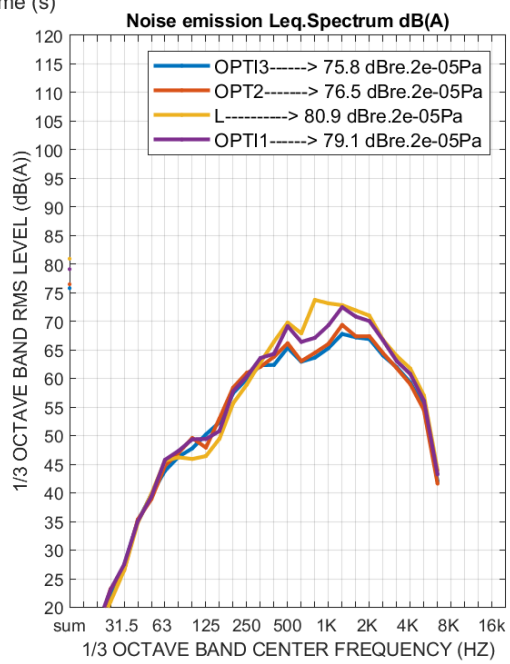
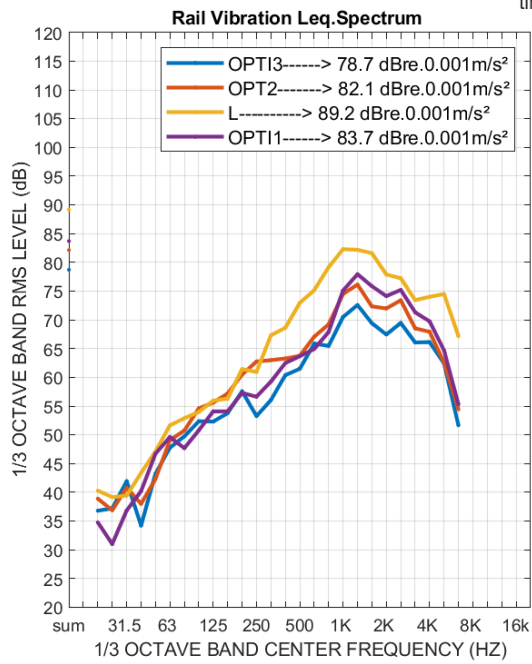
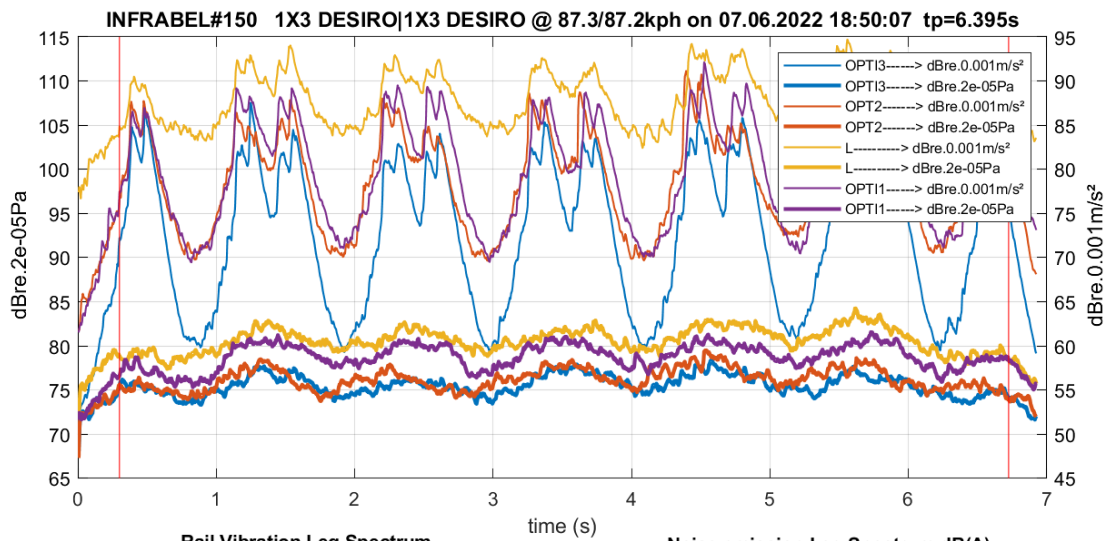


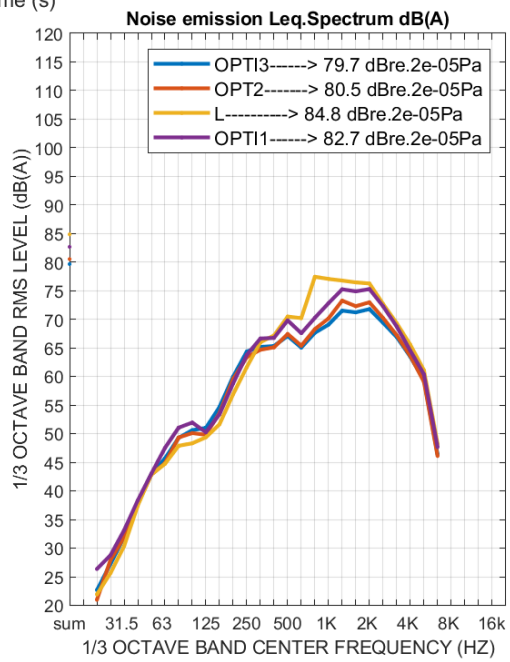
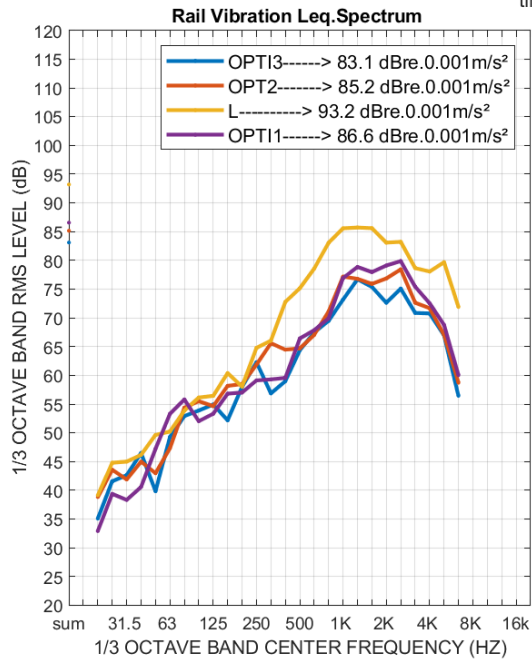
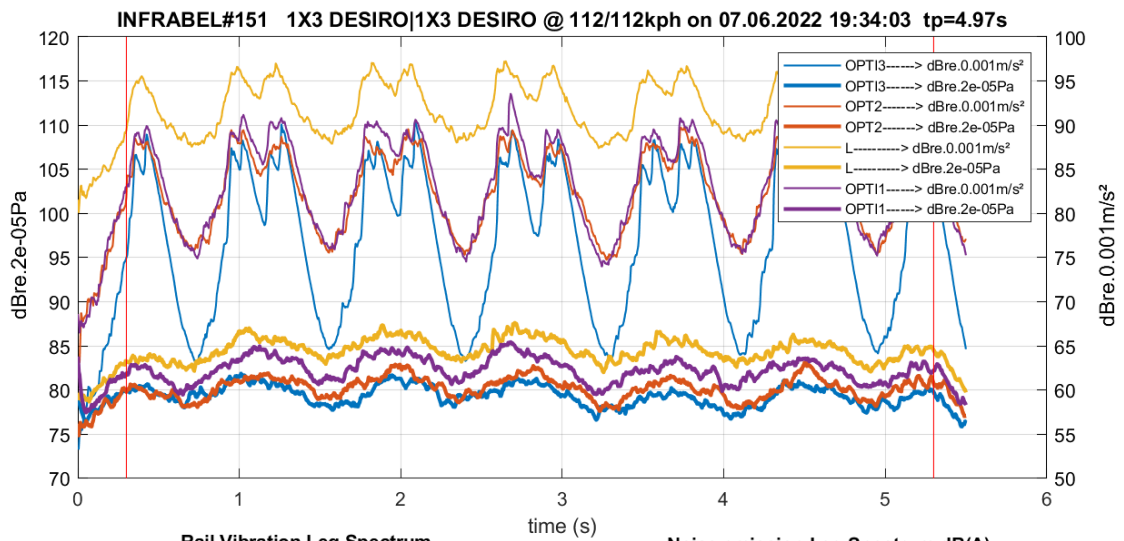


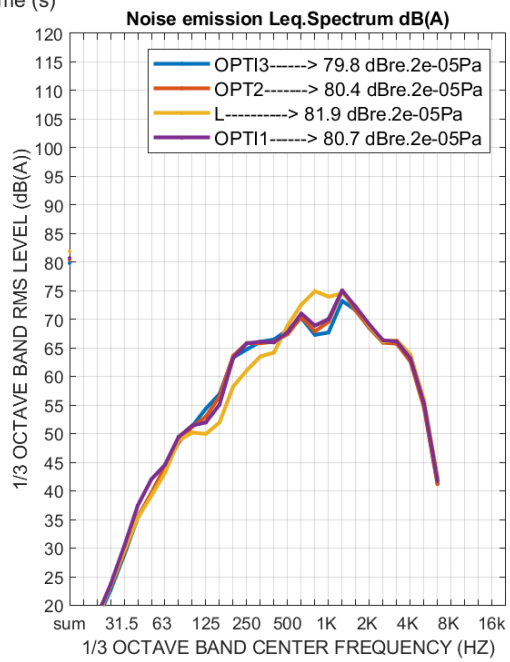
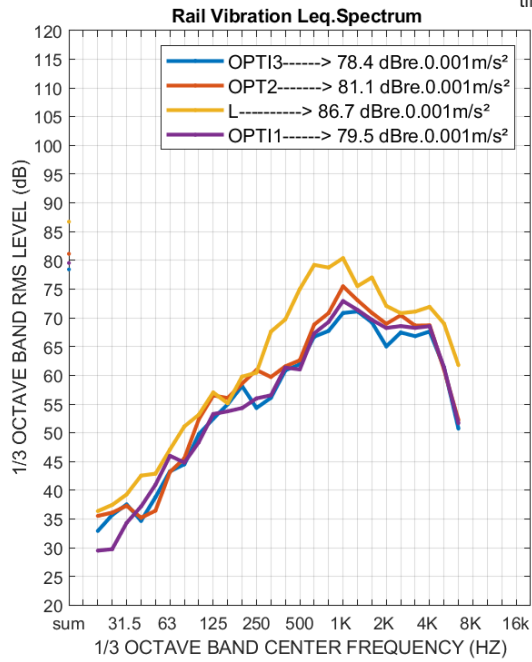
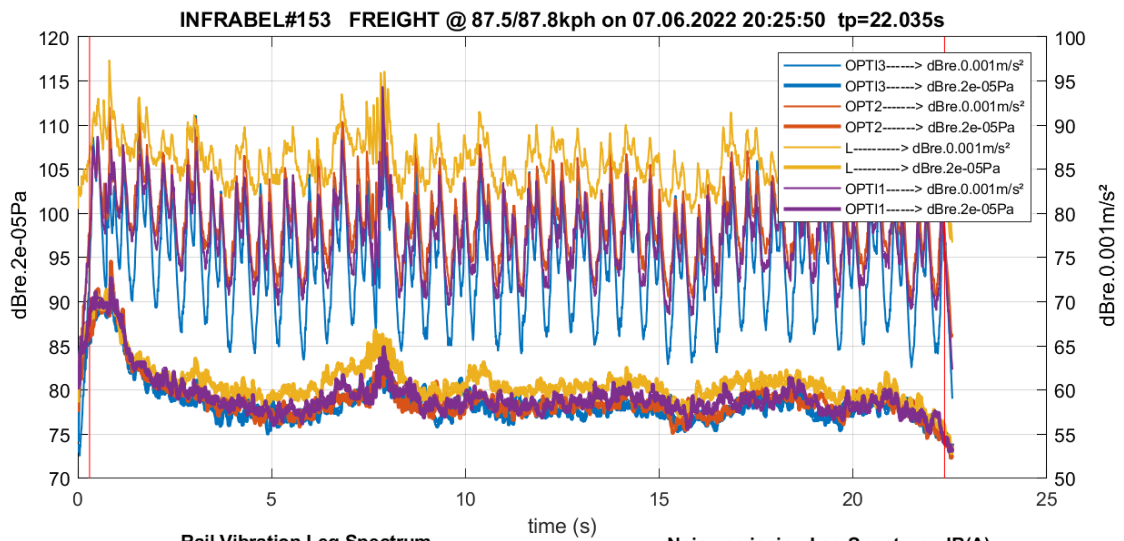


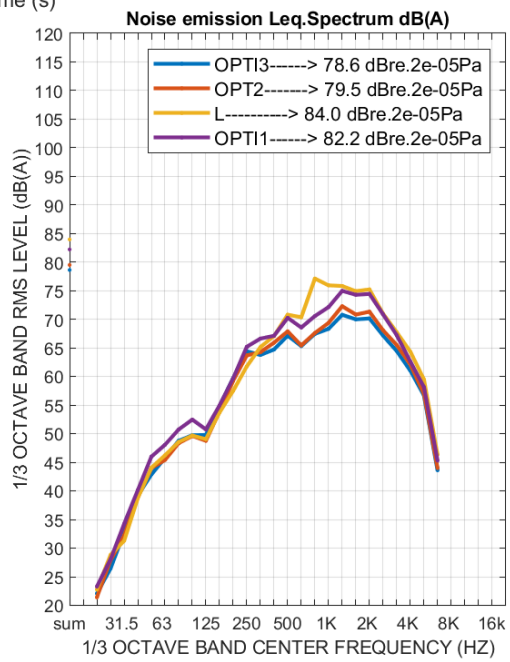
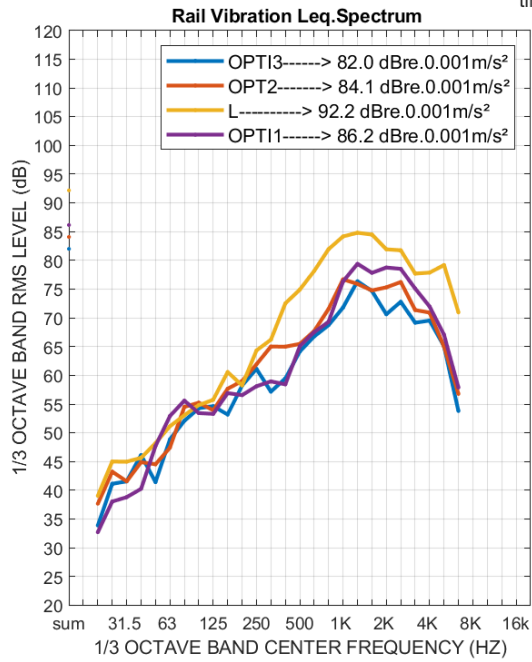
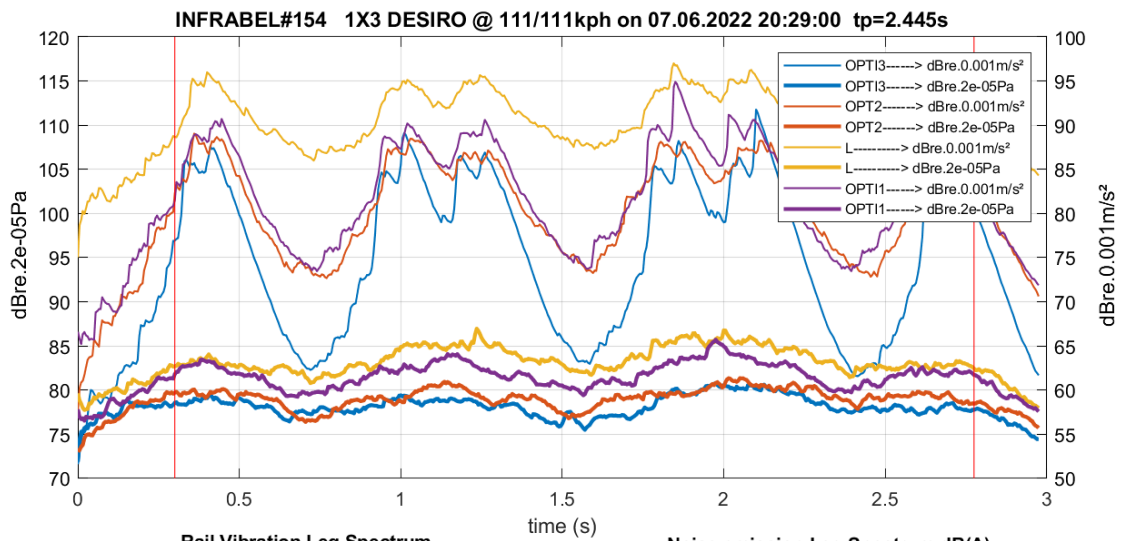


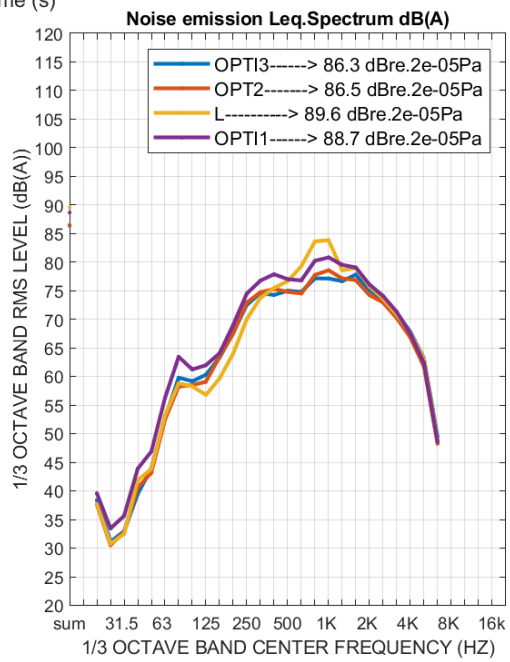
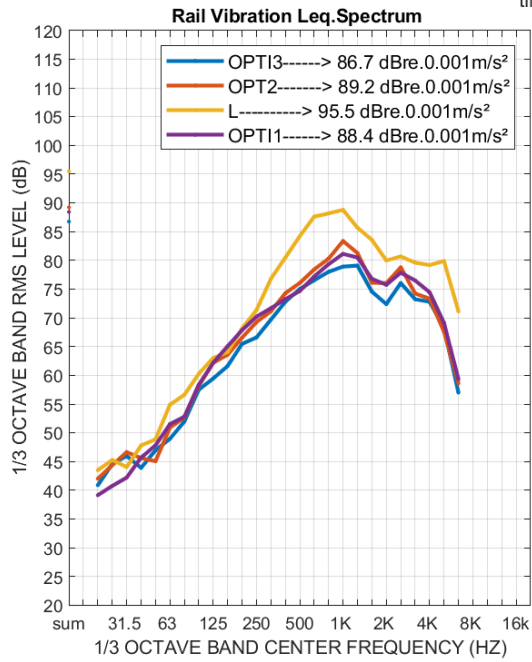
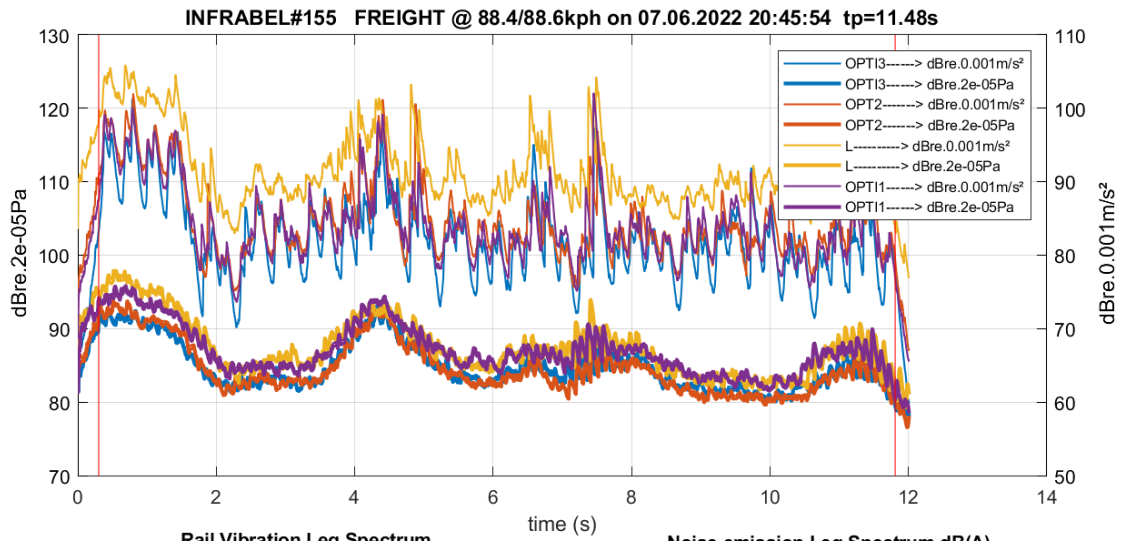


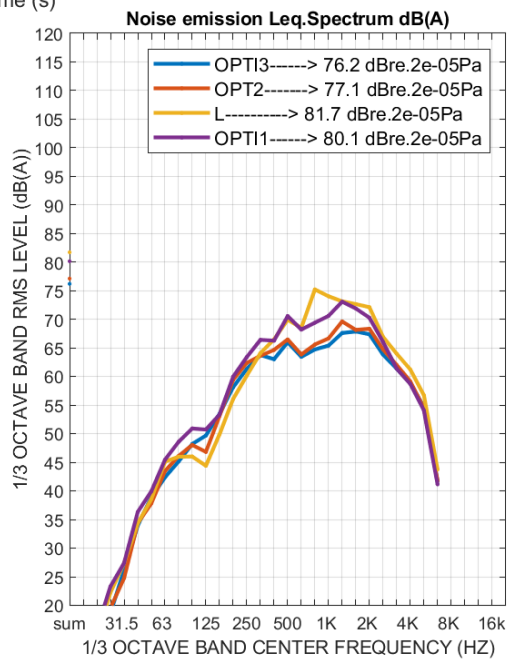
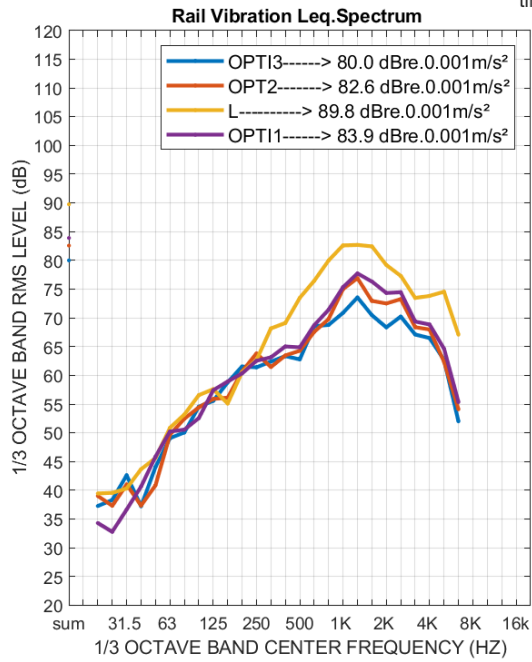
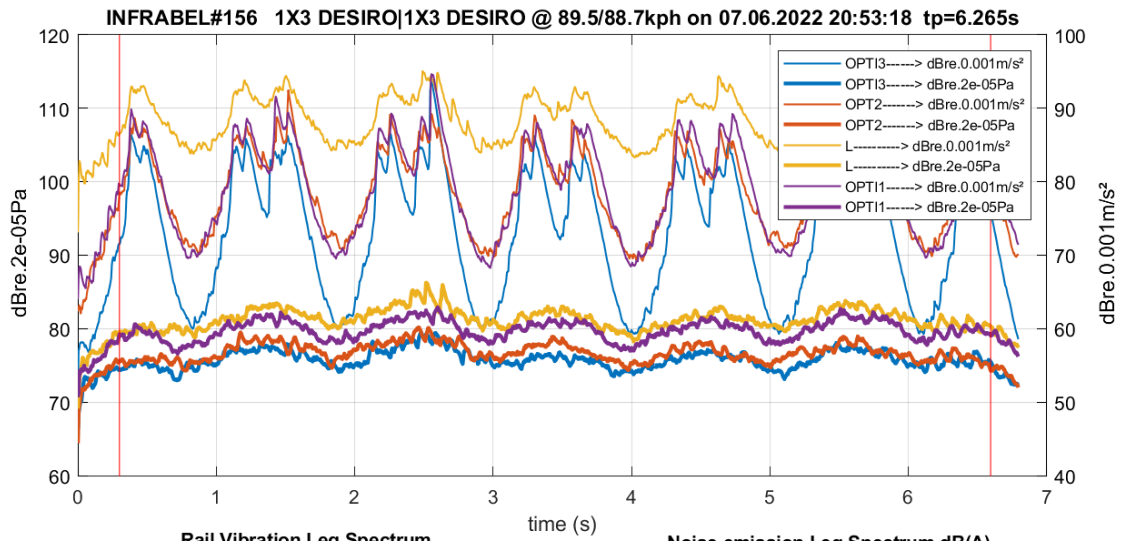


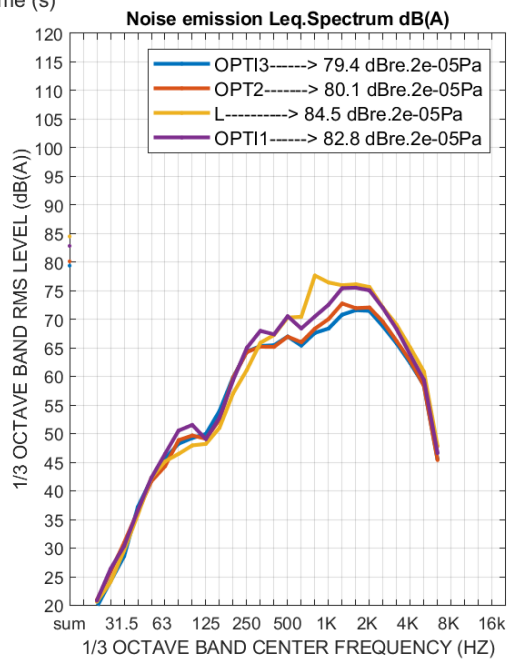
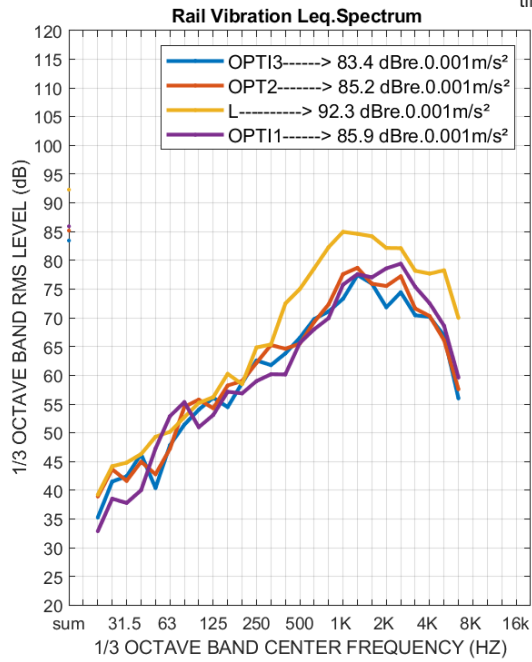
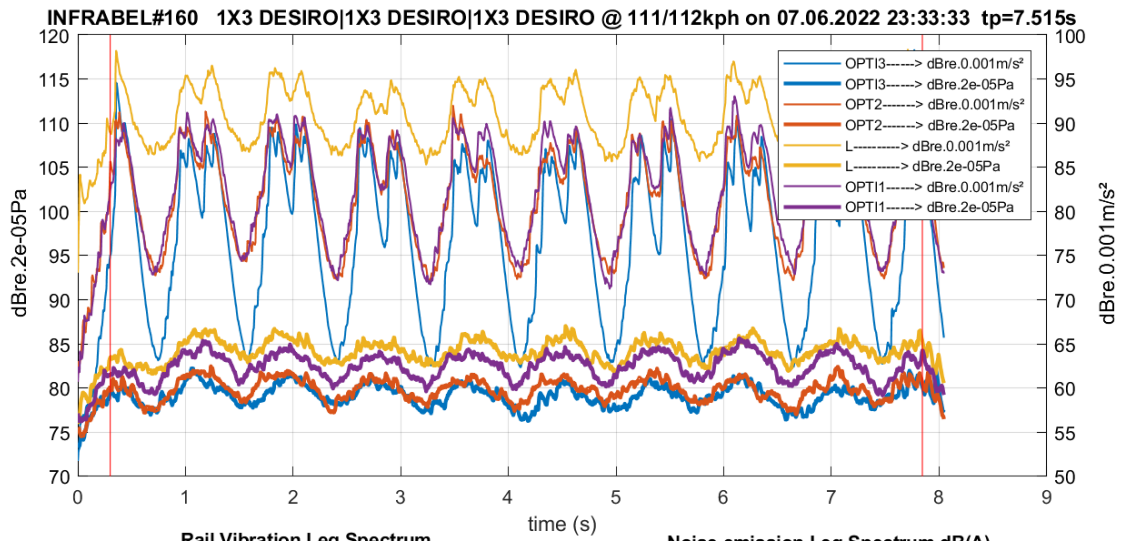


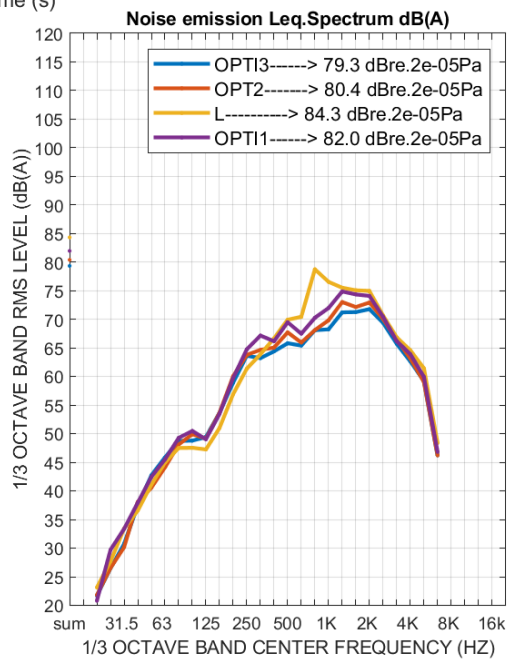
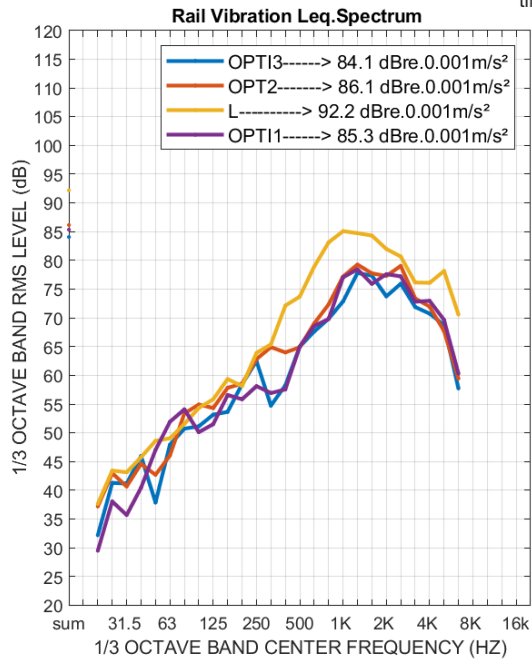
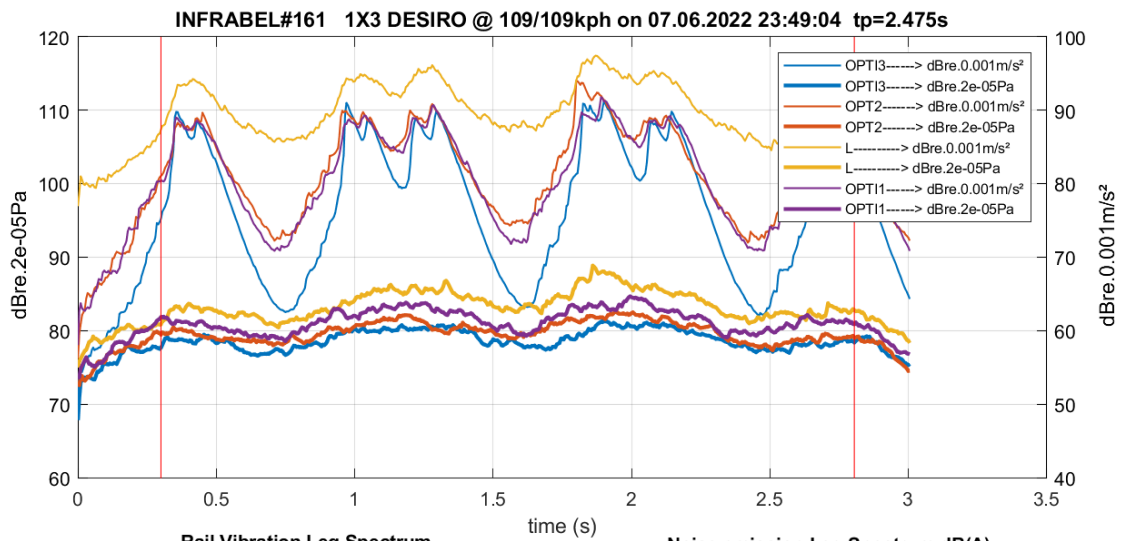


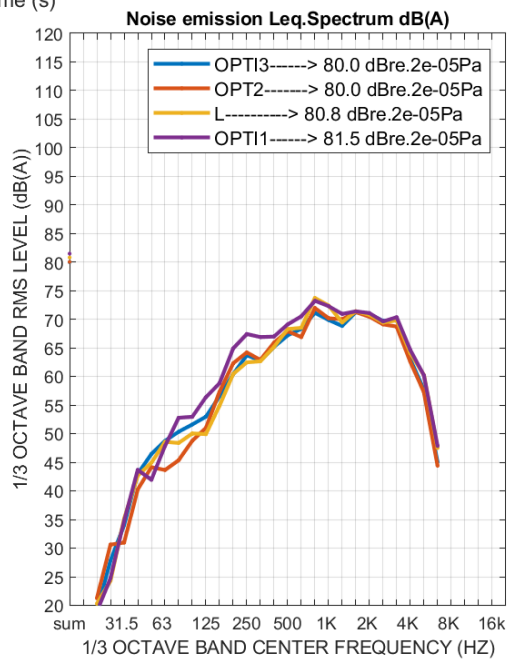
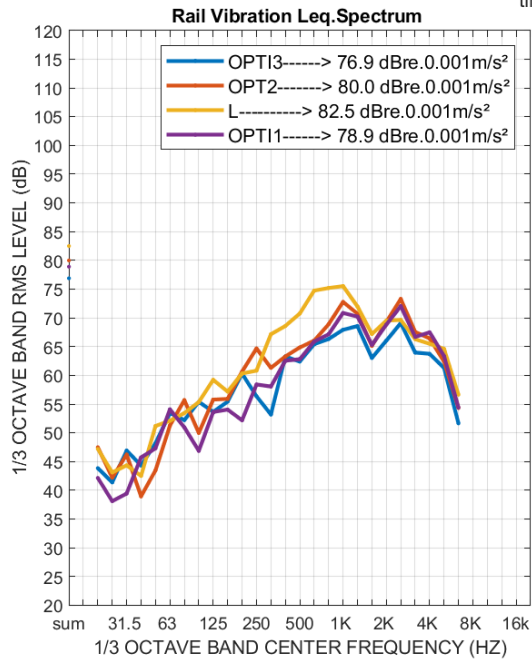
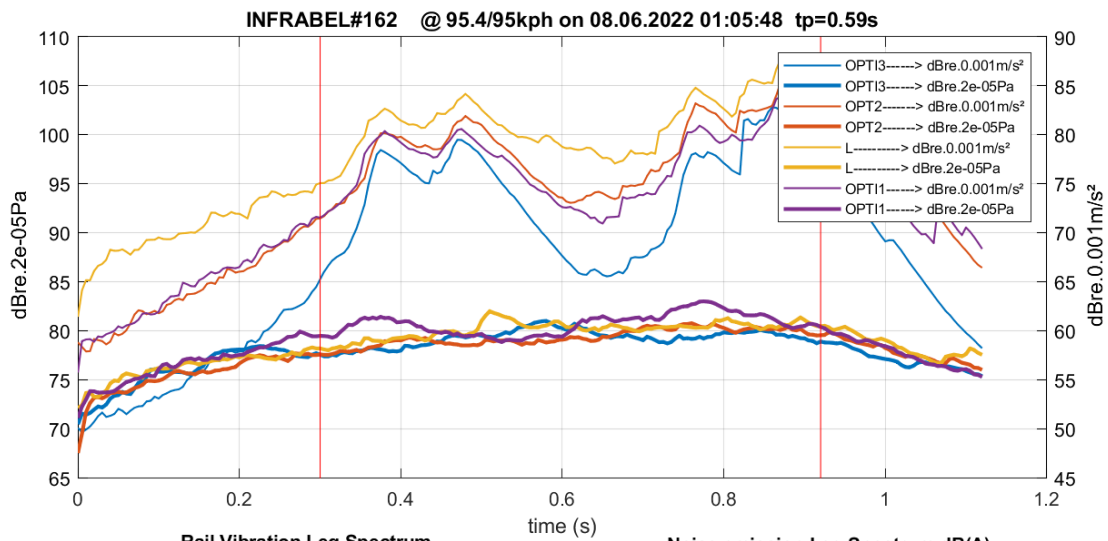


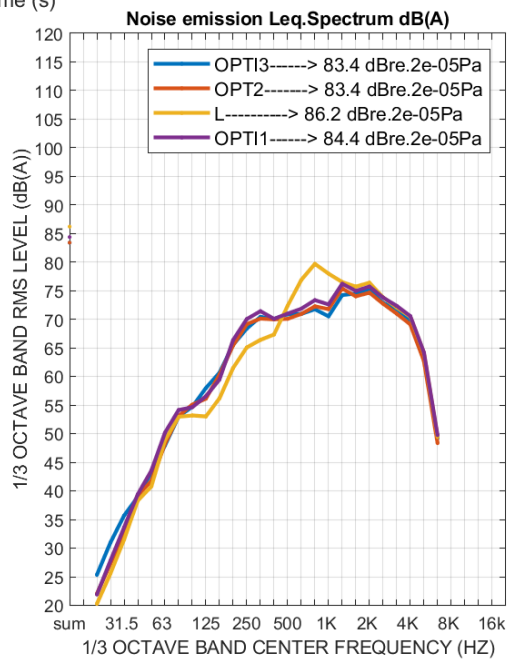
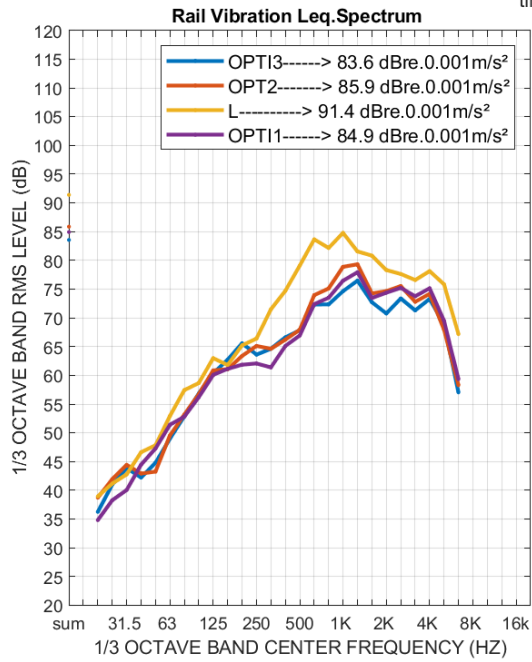
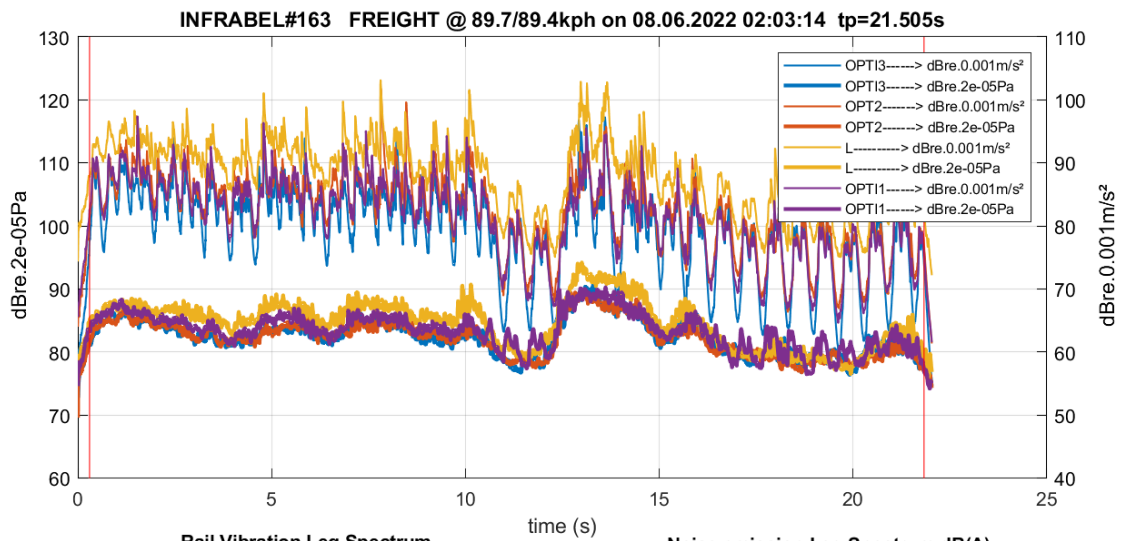


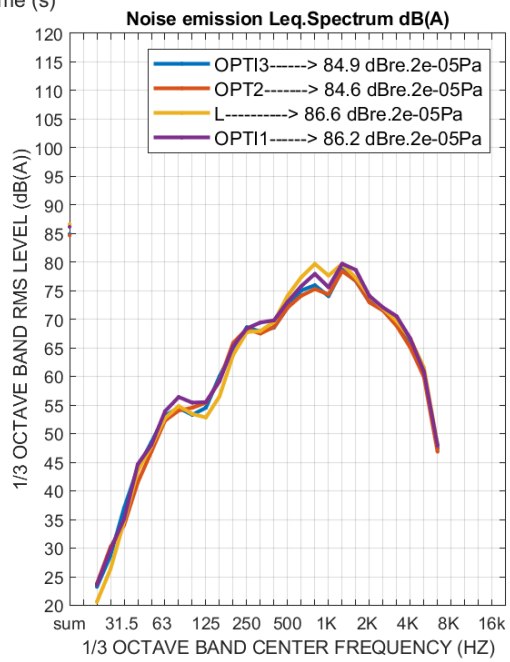
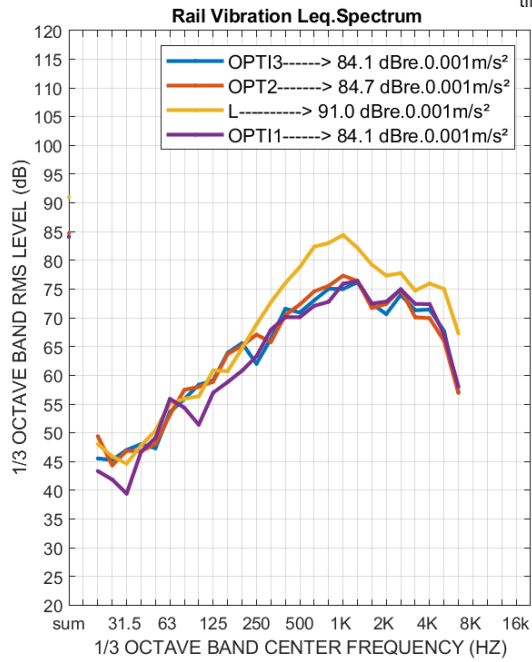
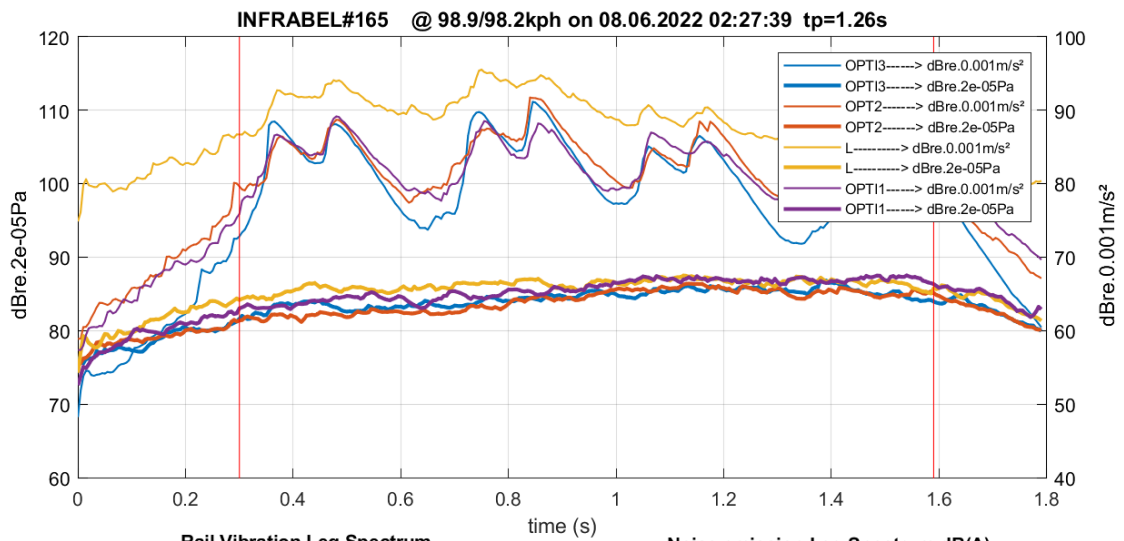




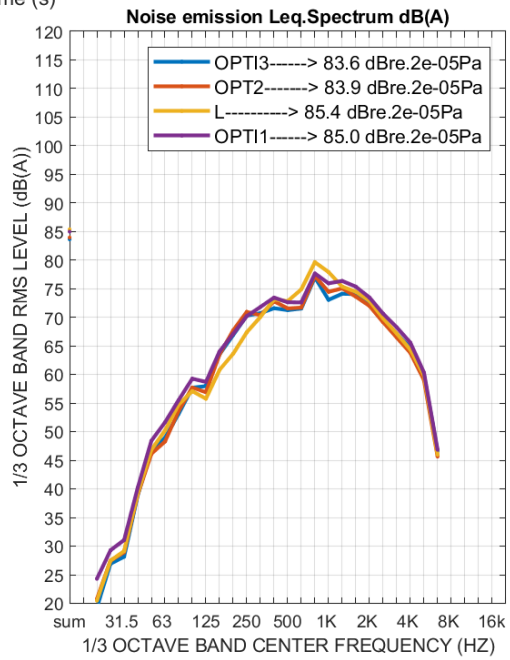
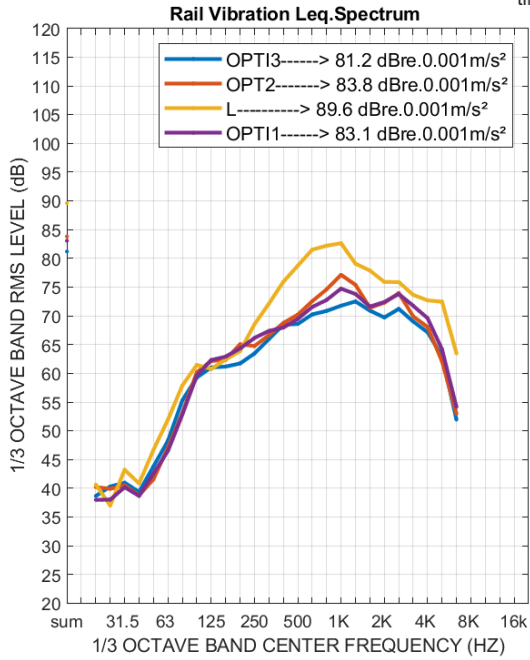
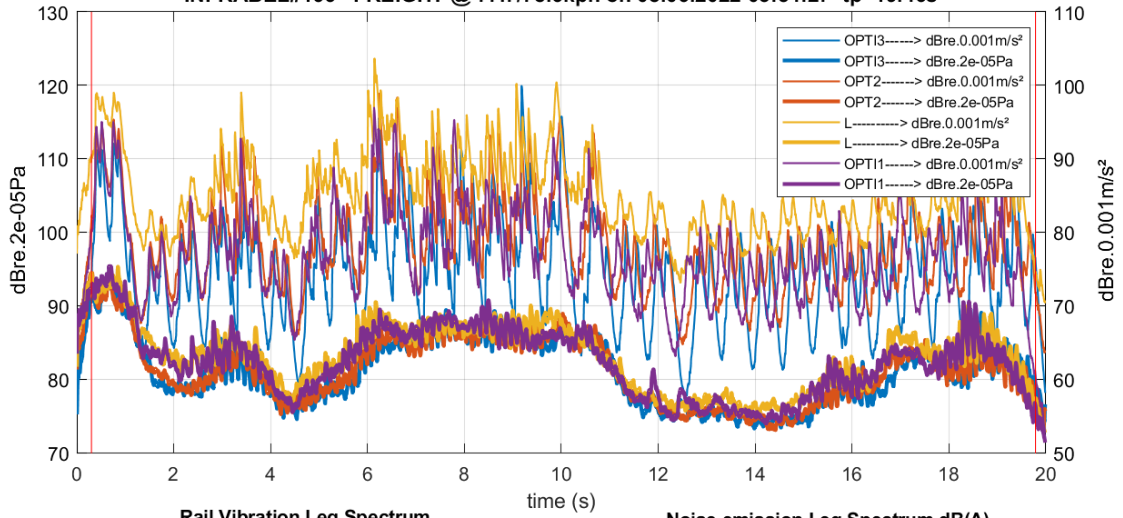


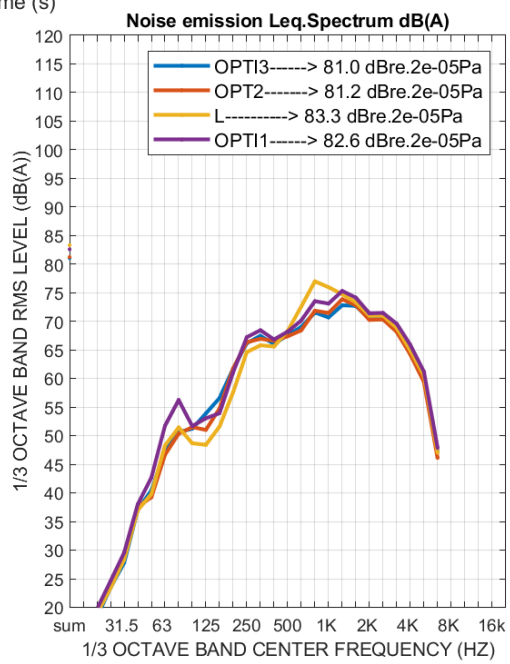
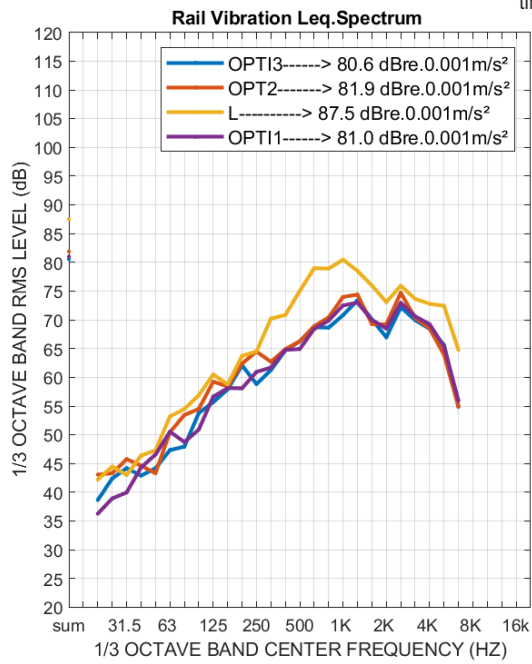
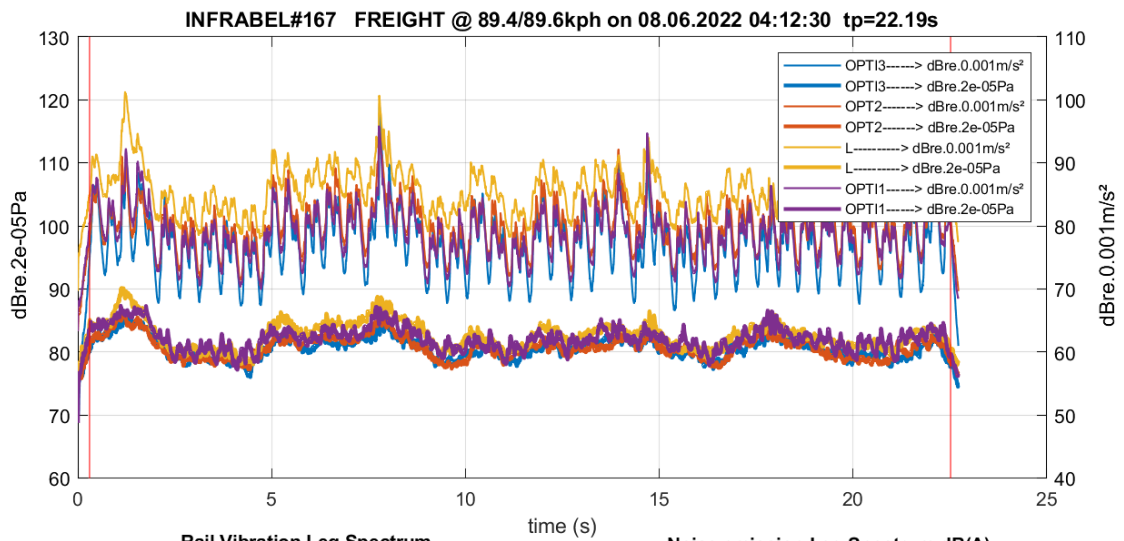


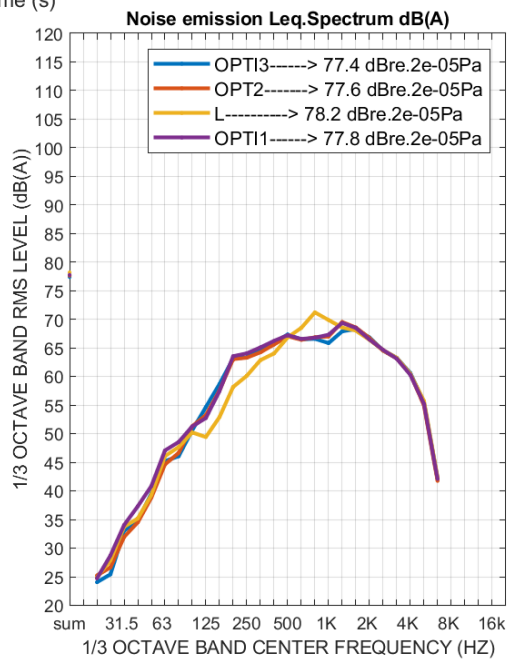
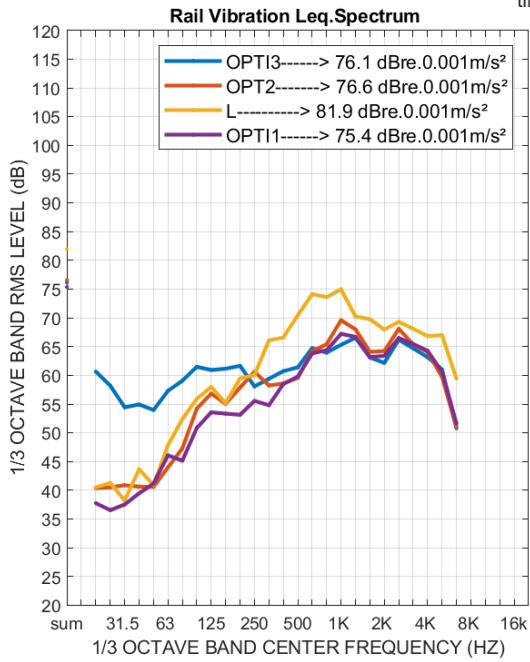
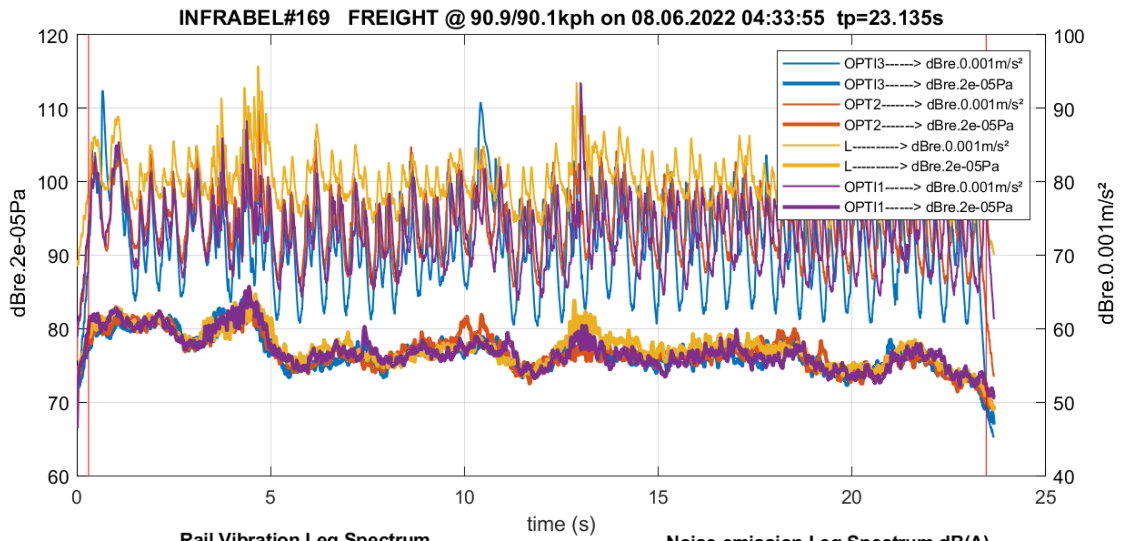


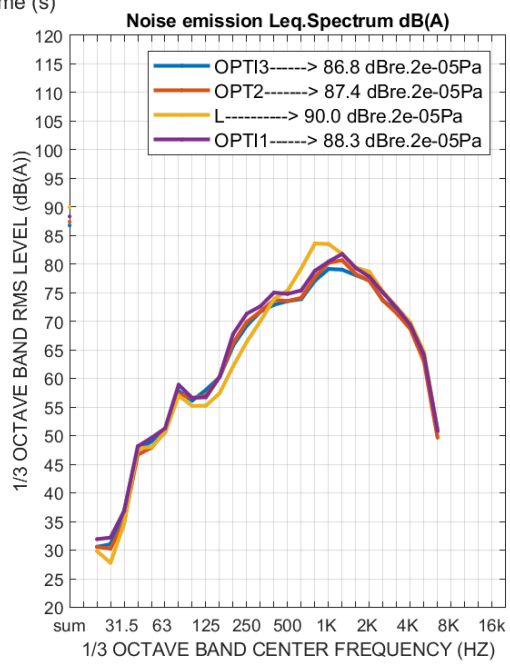
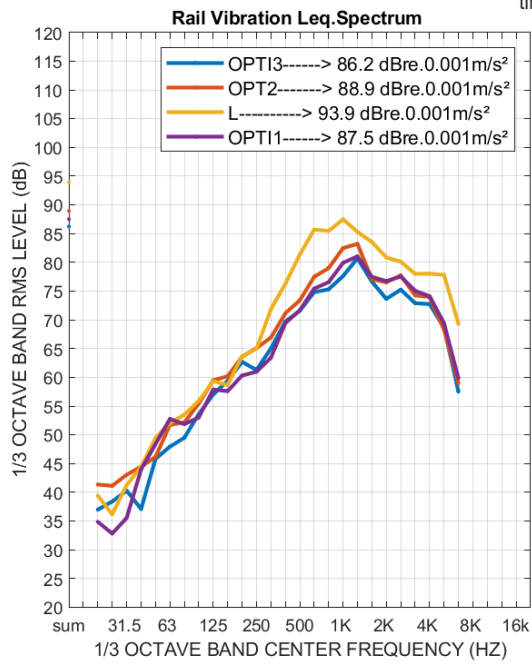
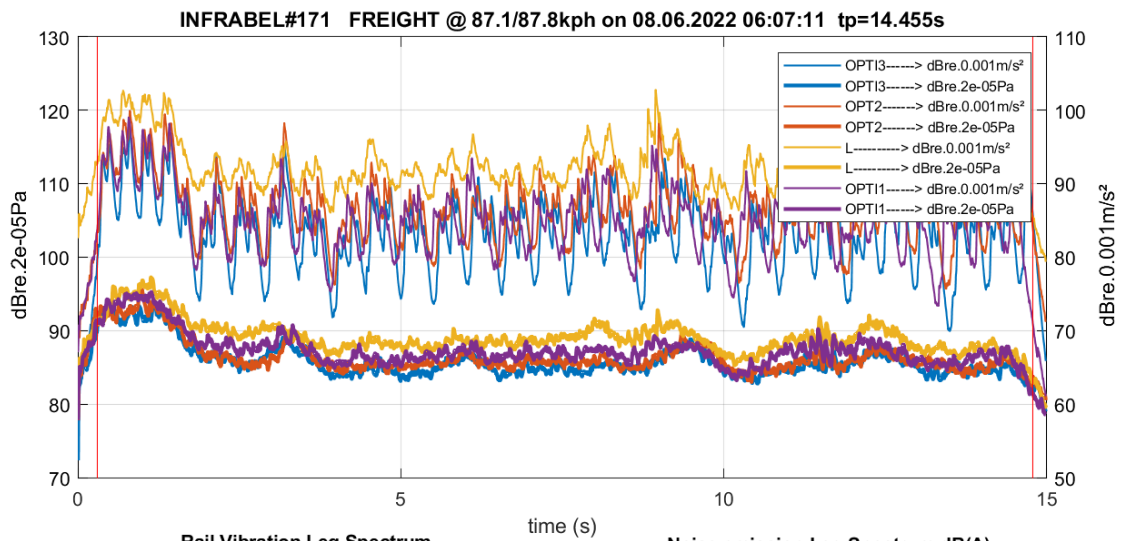


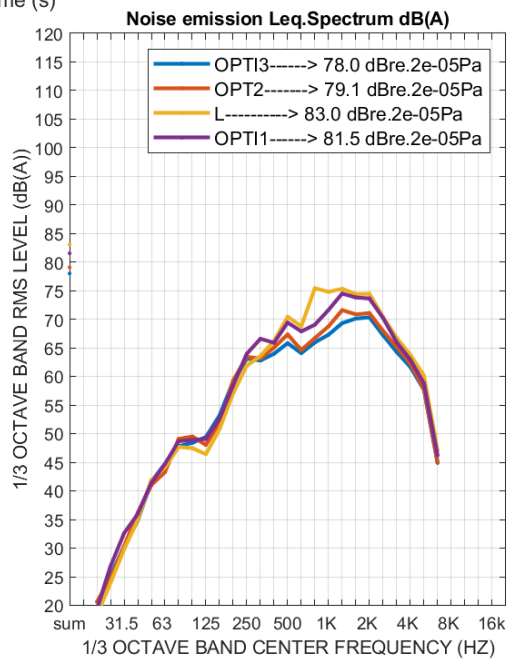
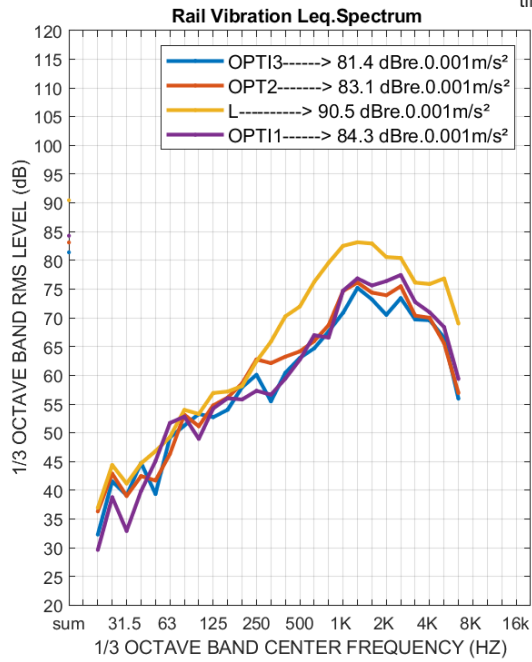
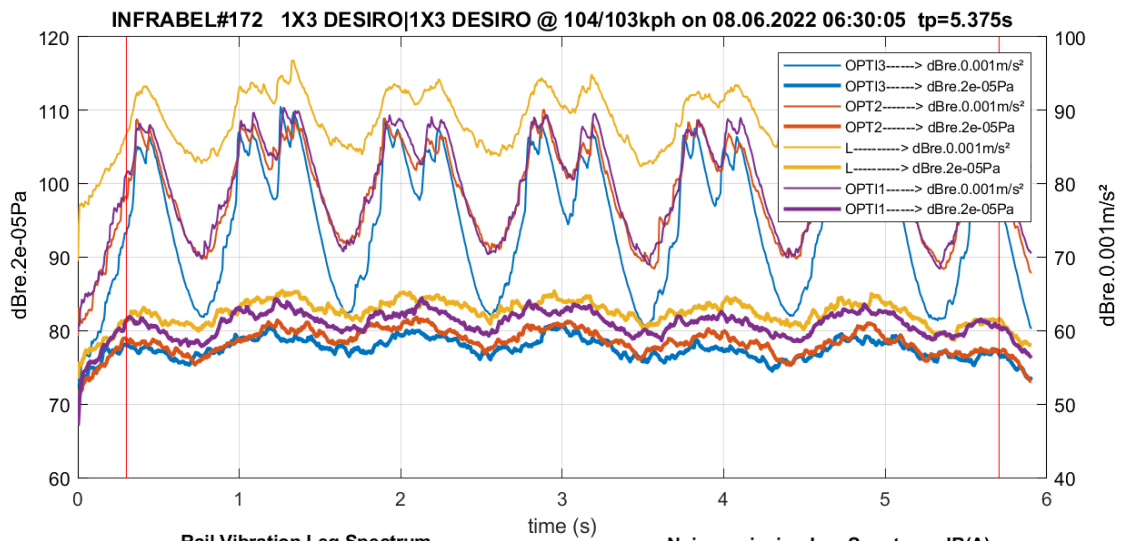
INFRABEL#166 FREIGHT @ 77.7/78.6kph on 08.06.2022 03:54:27 tp=19.46s



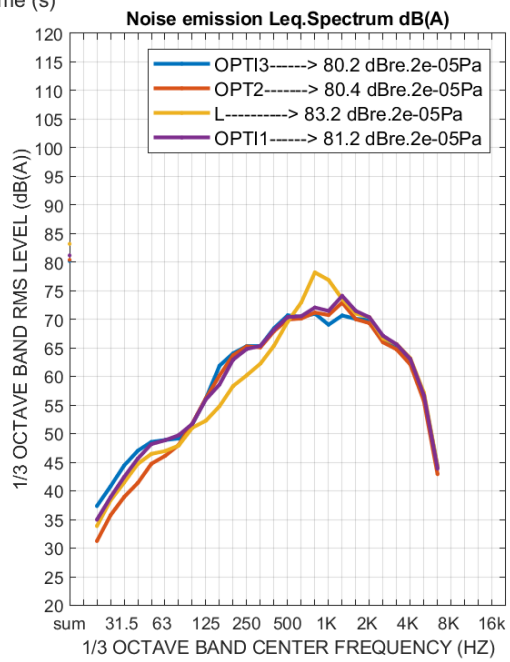
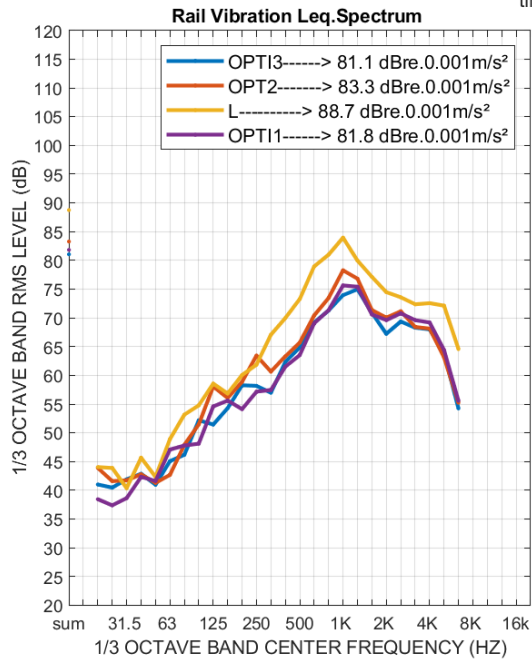
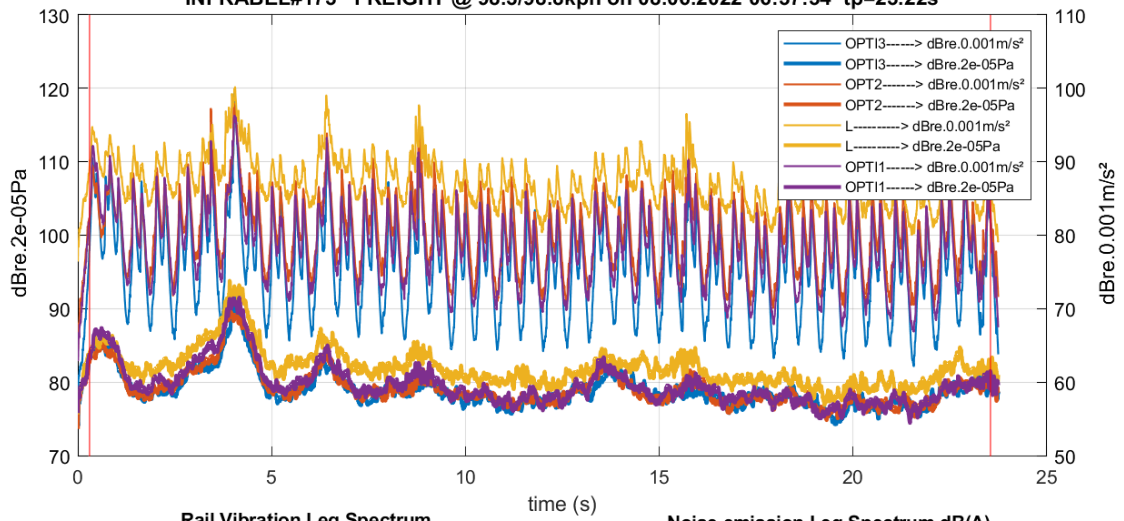


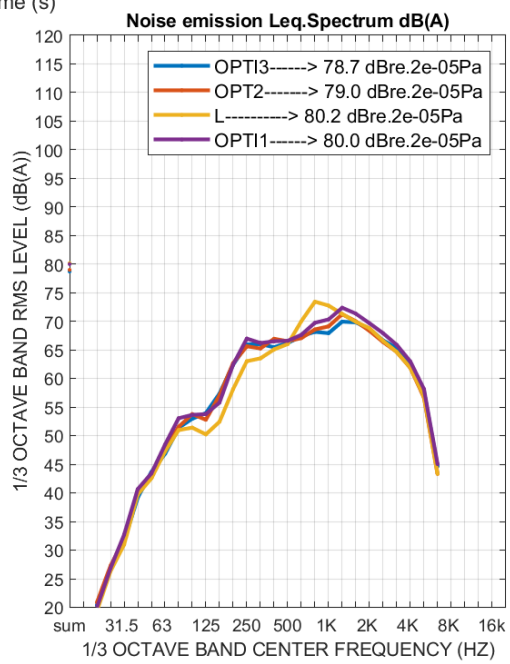
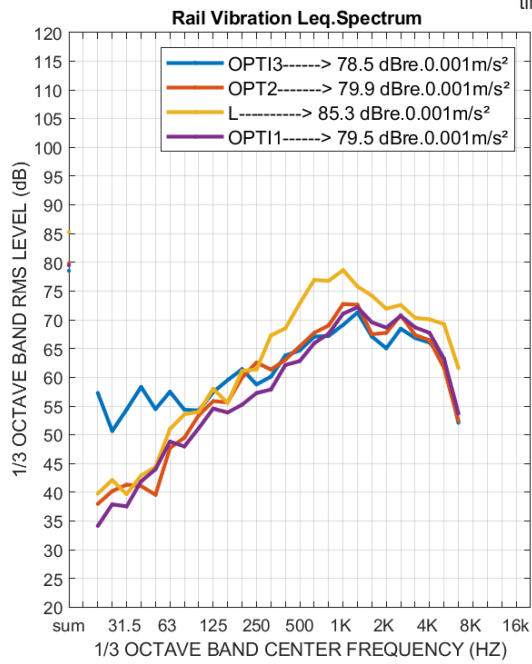
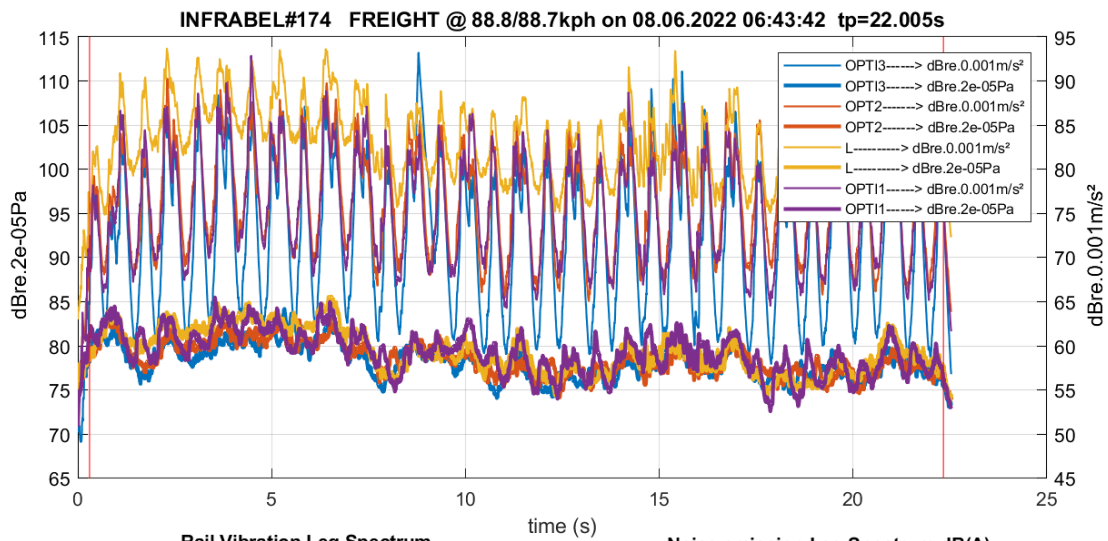


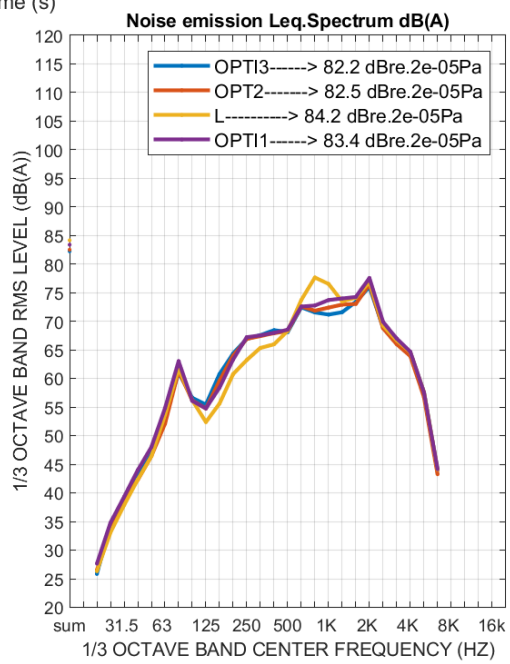
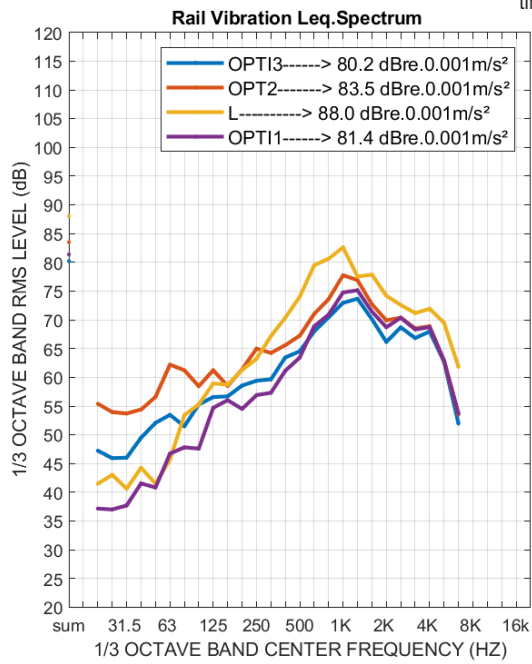
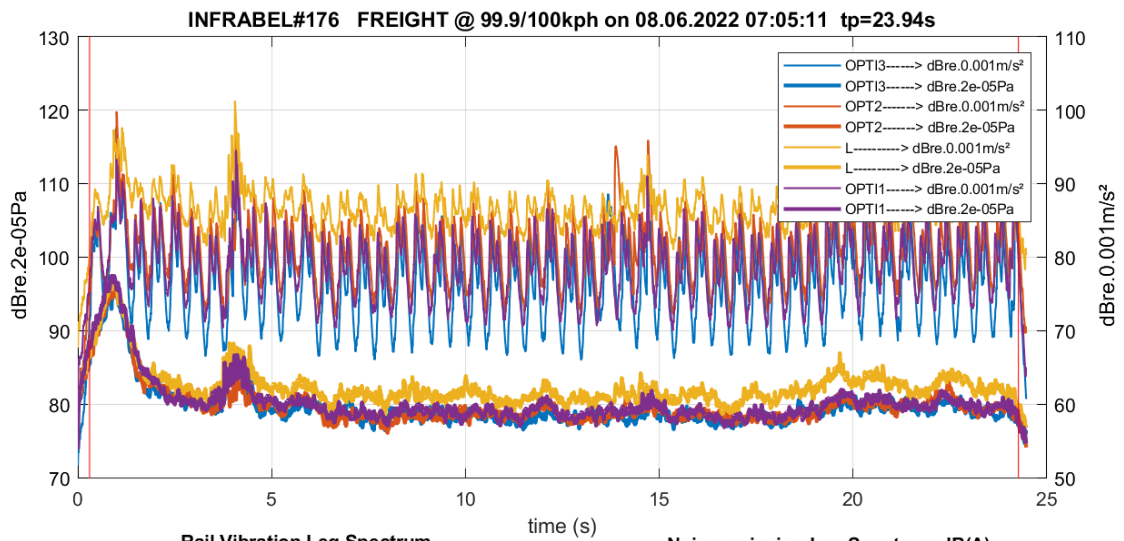


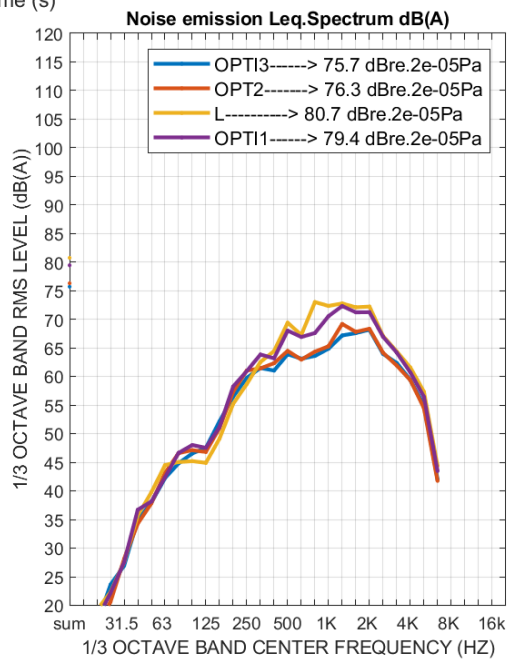
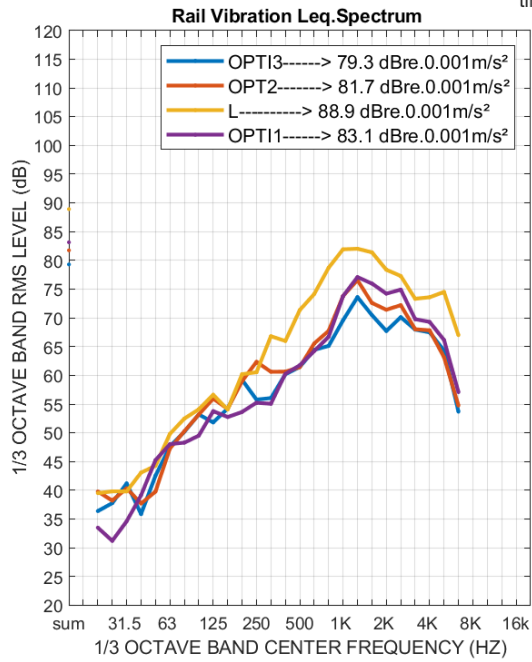
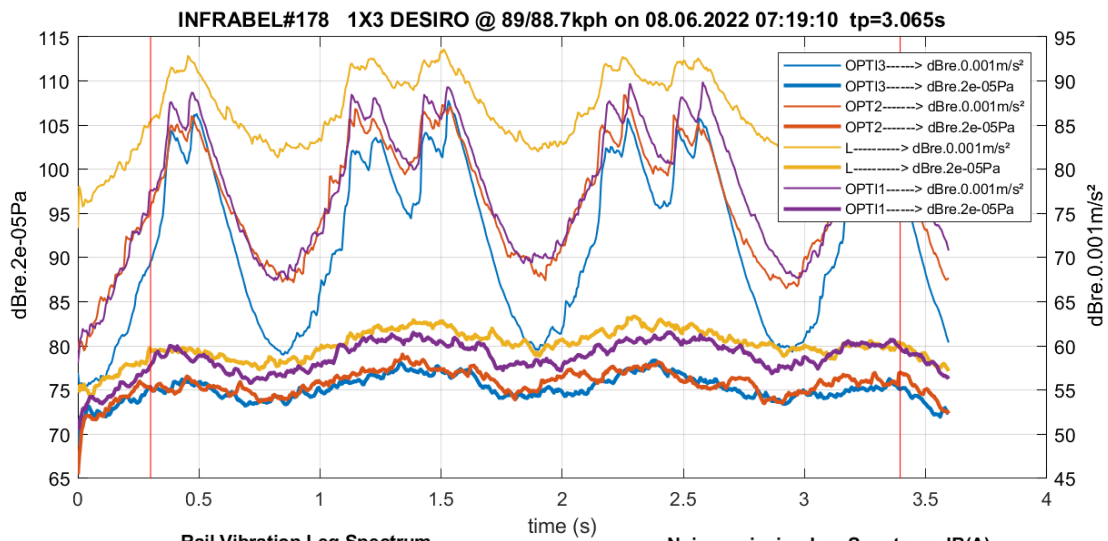


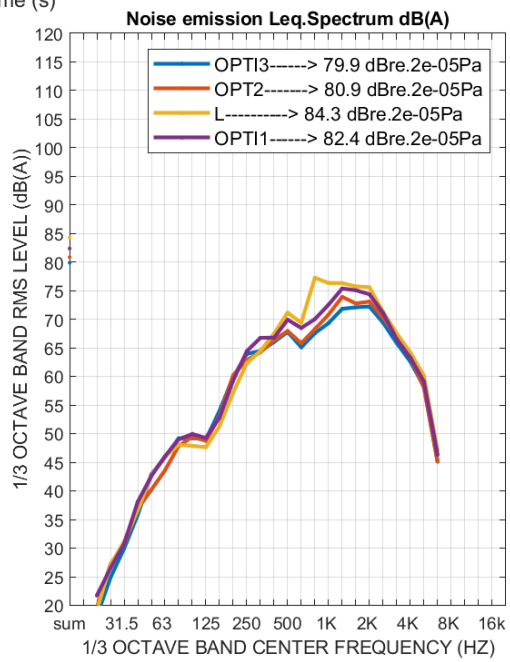
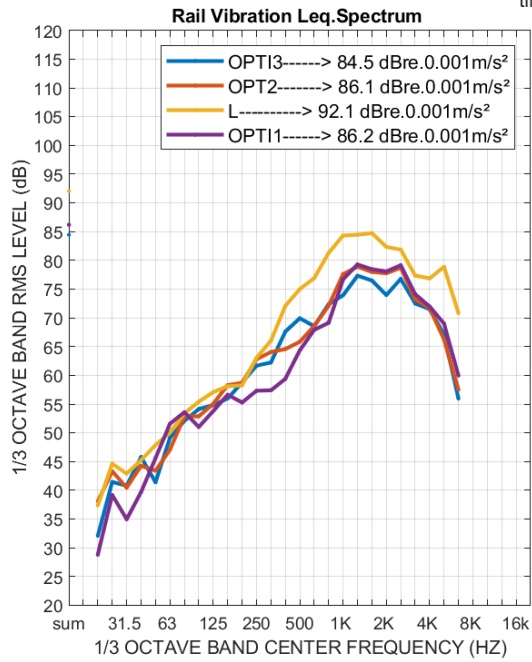
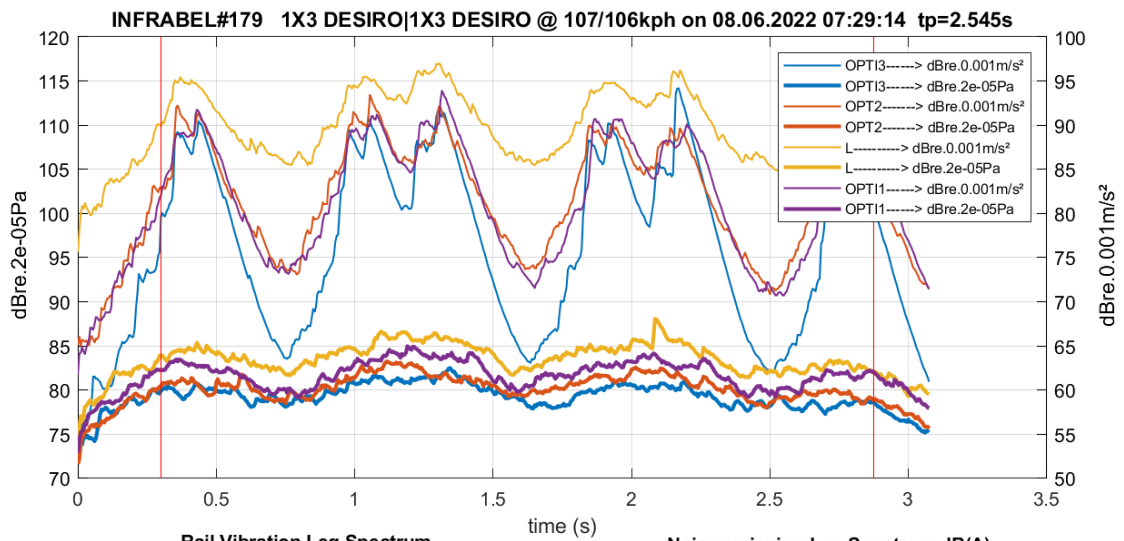
INFRABEL#173 FREIGHT @ 98.3/98.8kph on 08.06.2022 06:37:34 tp=23.22s

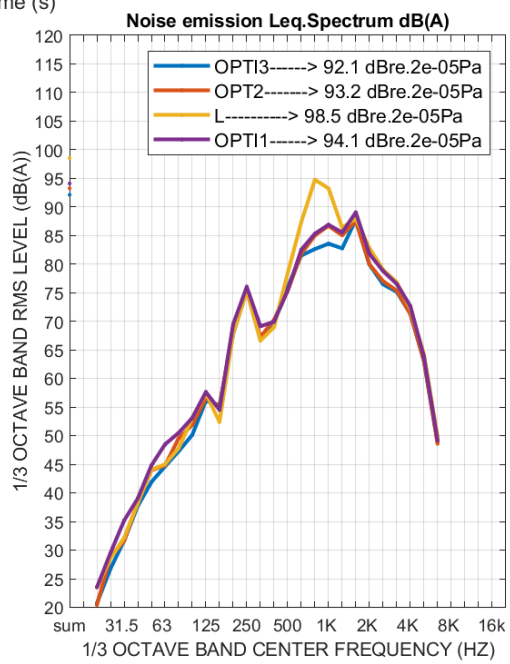
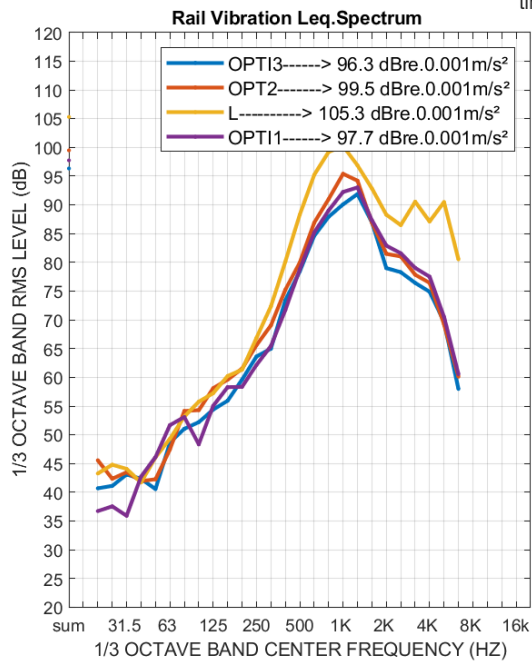
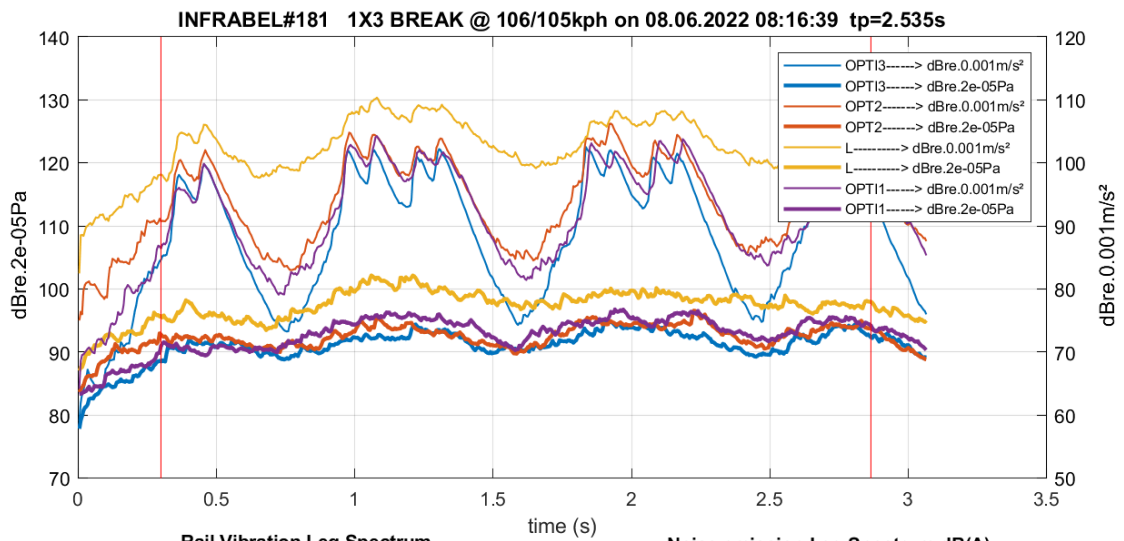


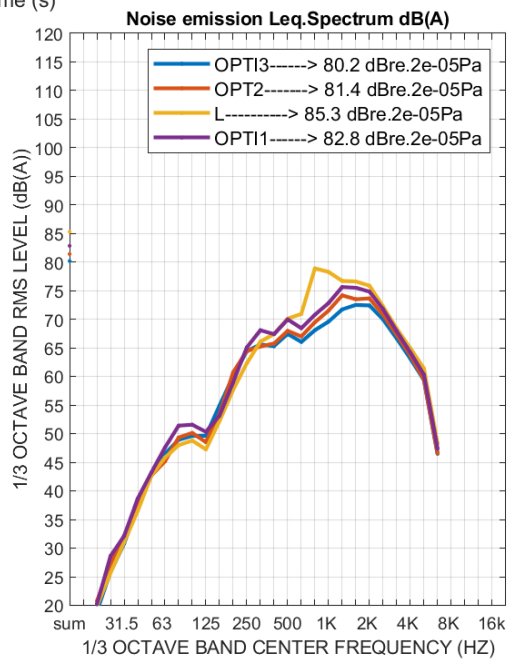
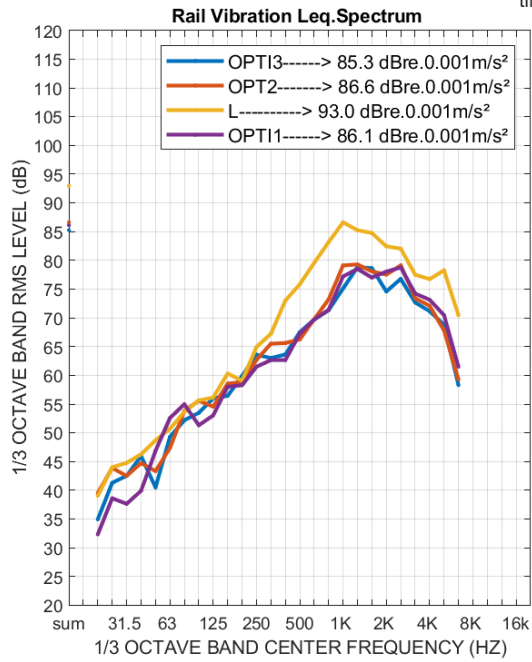
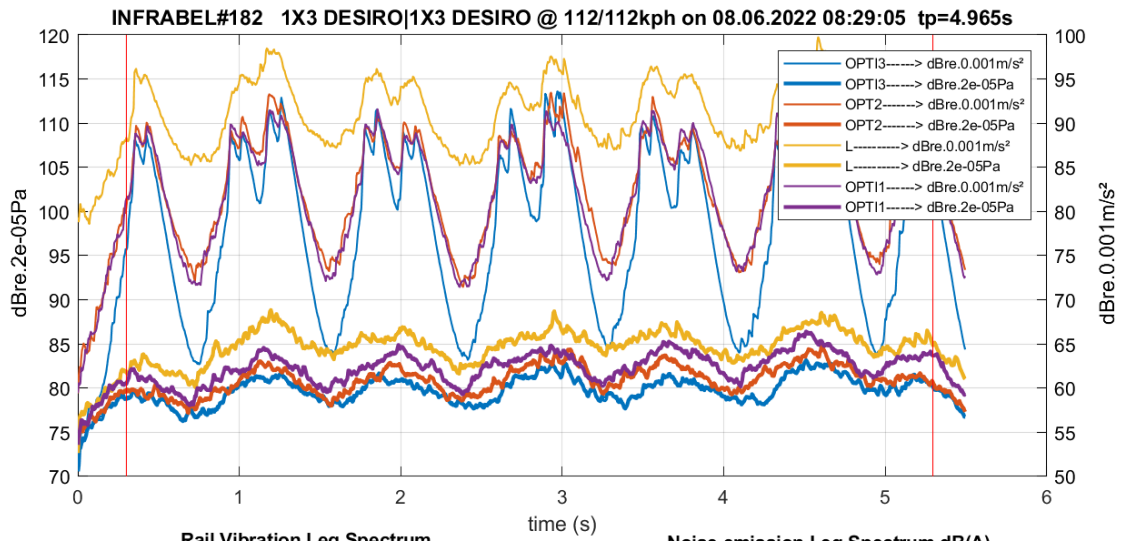


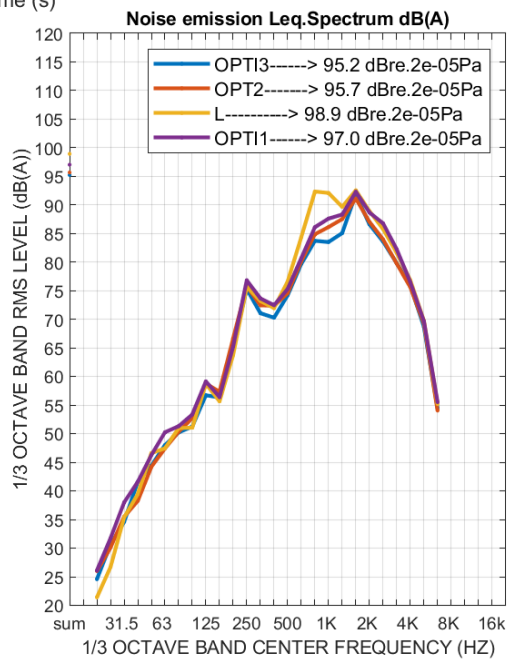
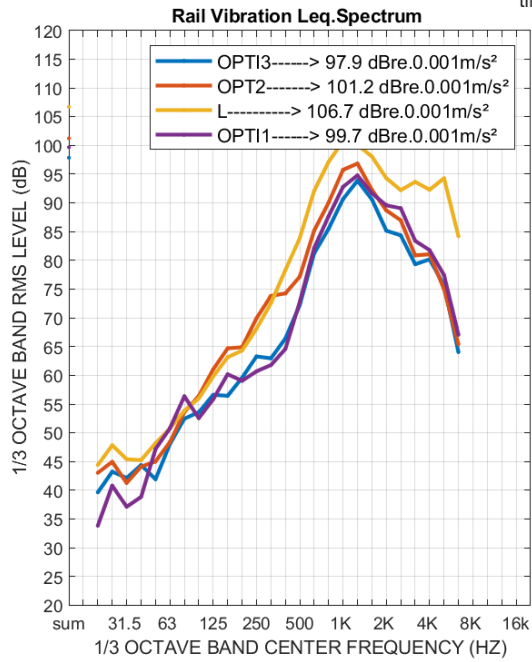
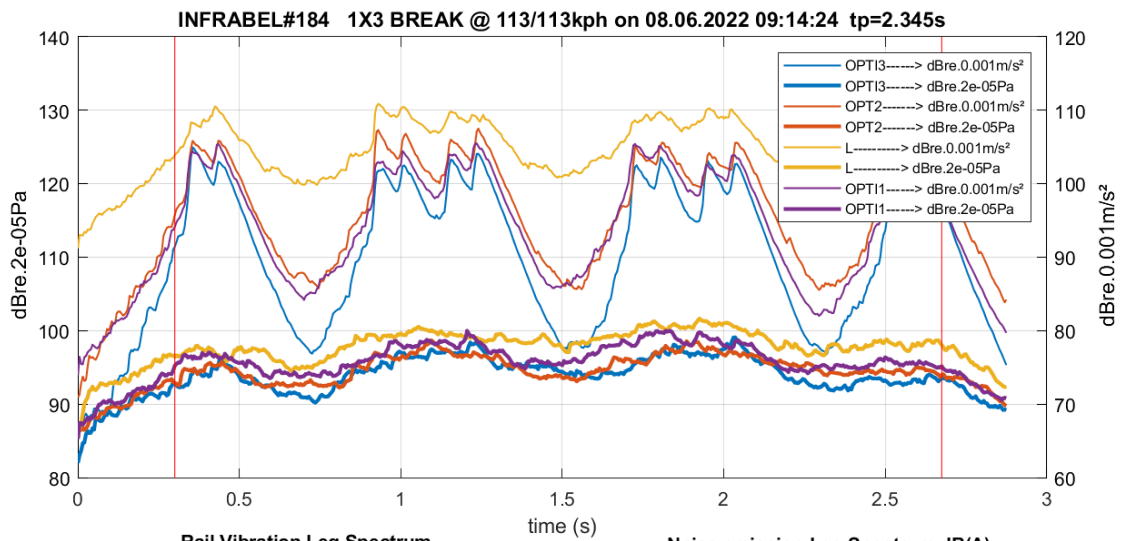


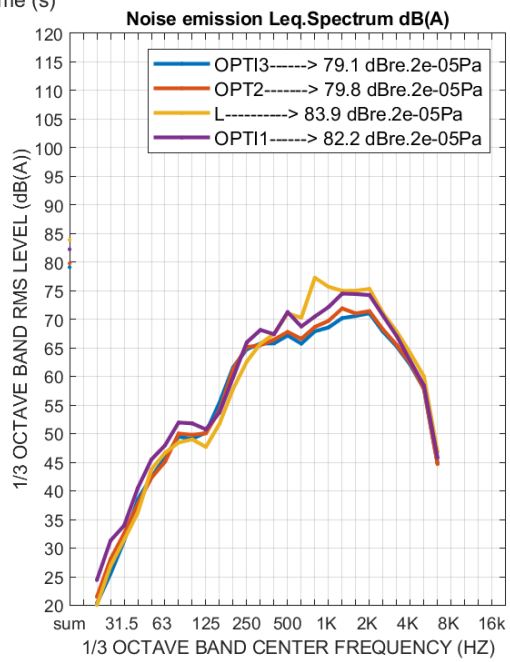
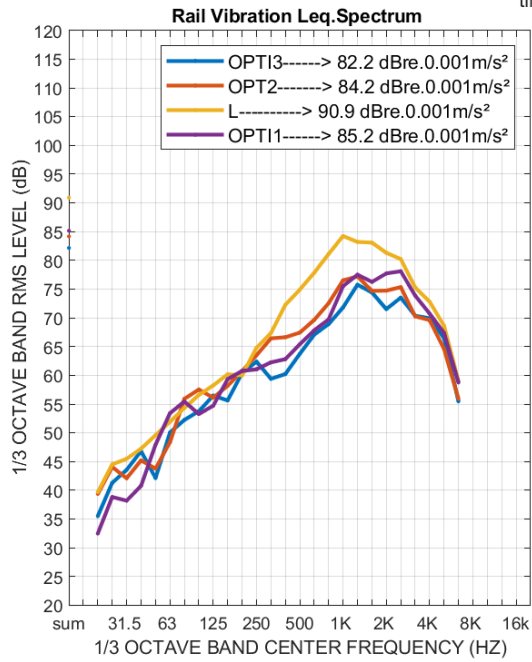
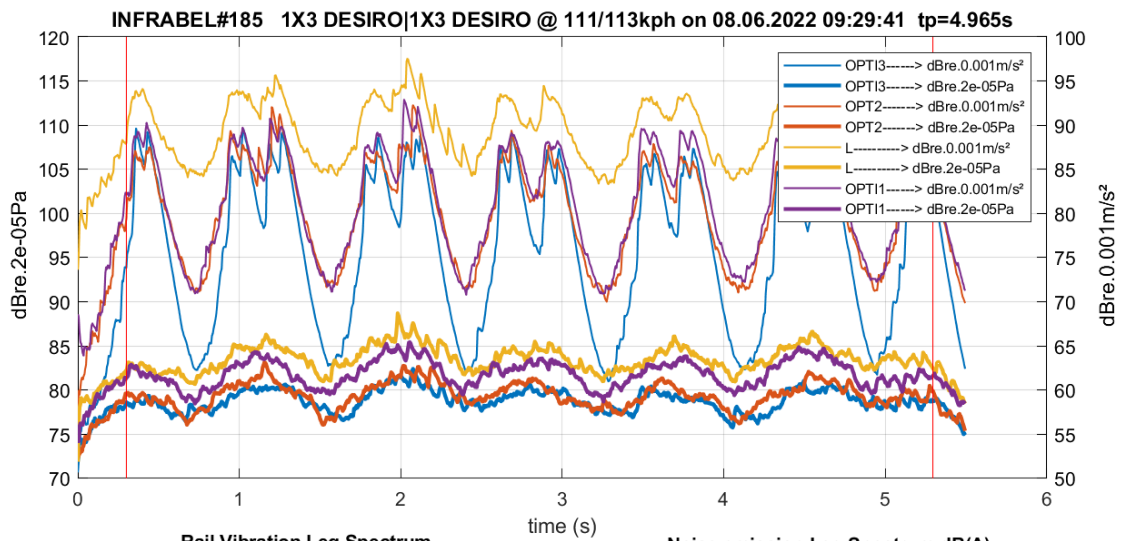


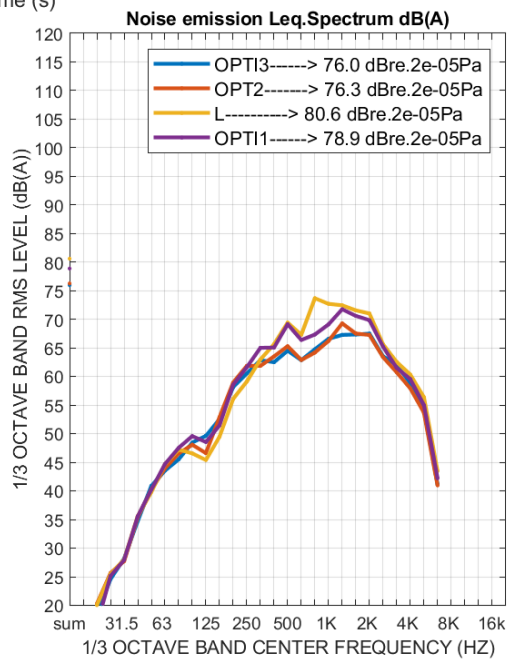
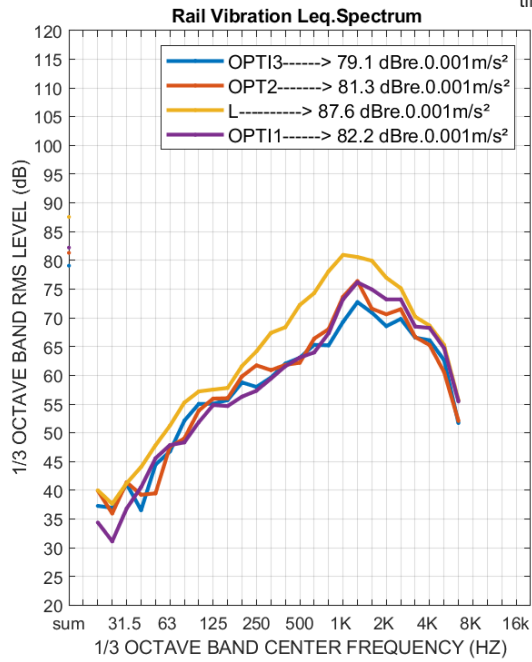
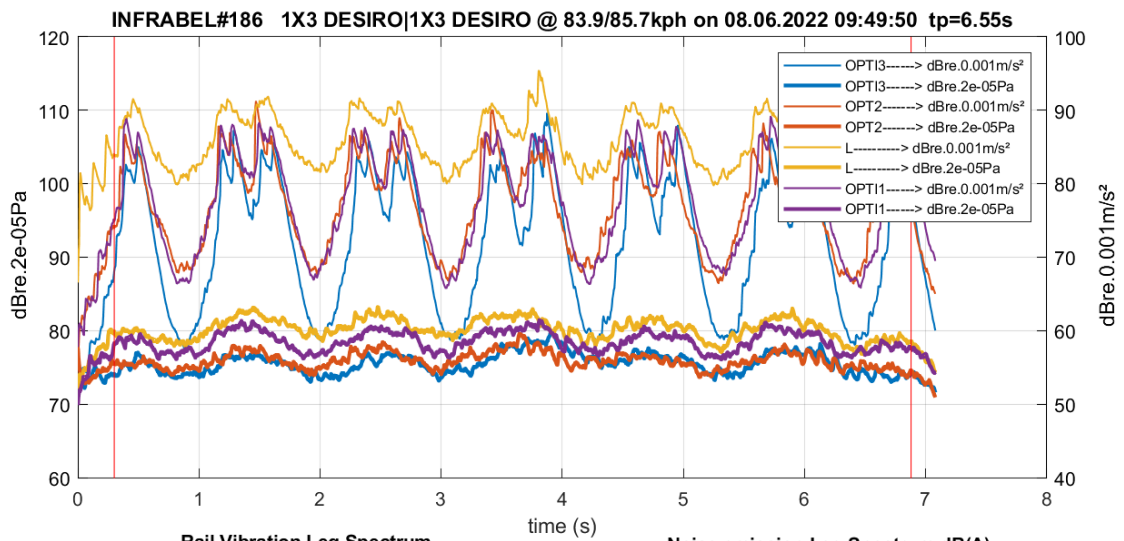












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