

RoomEQ Wizard(REW) SPL Measurement

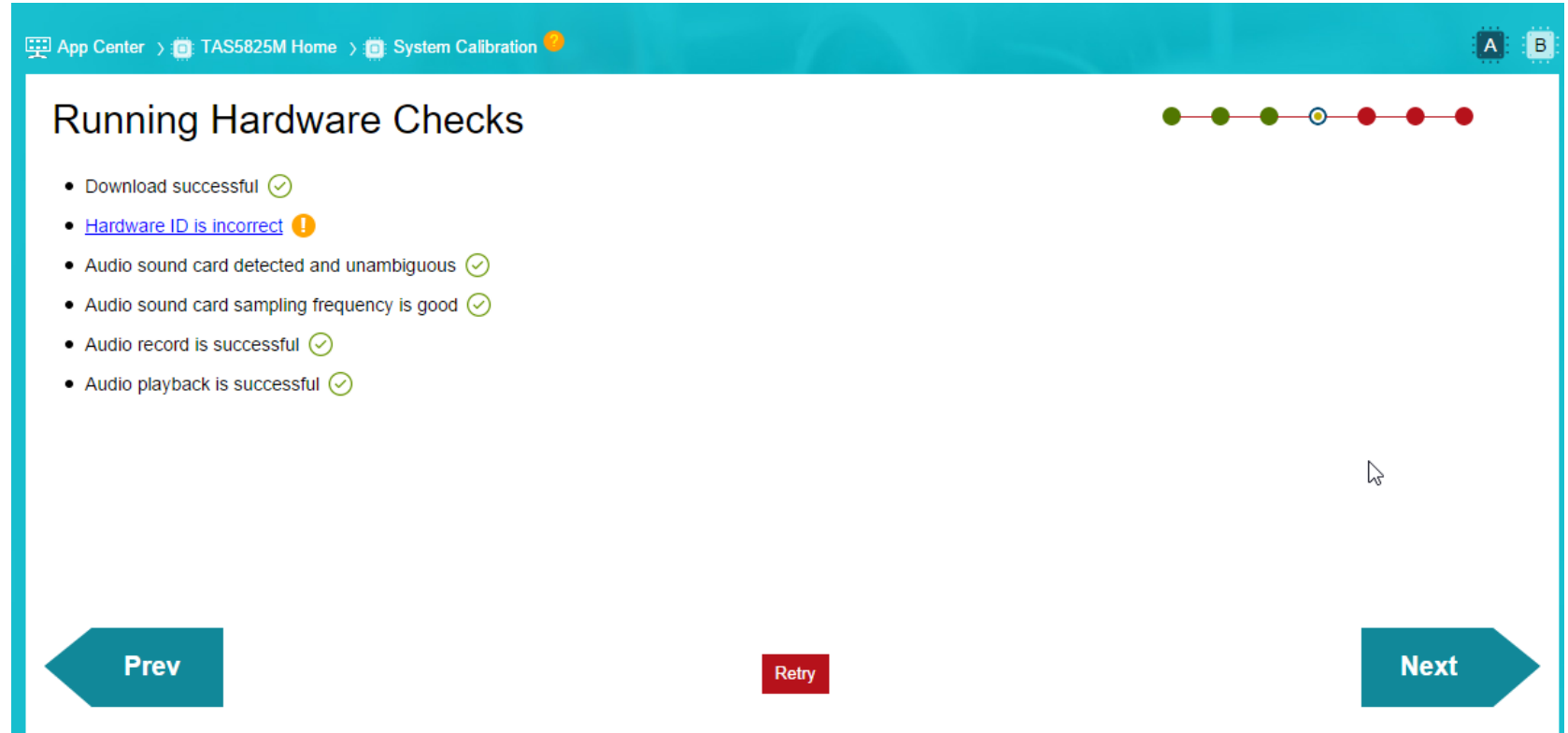
MPAA

What is REW

- REW or RoomEQ Wizard is a free software for acoustic measurement, loudspeaker measurement, and audio device measurement
- This software can be used to get the SPL response of a speaker that can then be imported to PPC3
- <https://www.roomeqwizard.com/>

Setting up the EVM

- For this example the TAS5825MEVM was used. For more detailed EVM setup refer to the EVM User's Guide
- Once the EVM is powered and connected run Hardware checks and confirm operation before plugging in the USB microphone



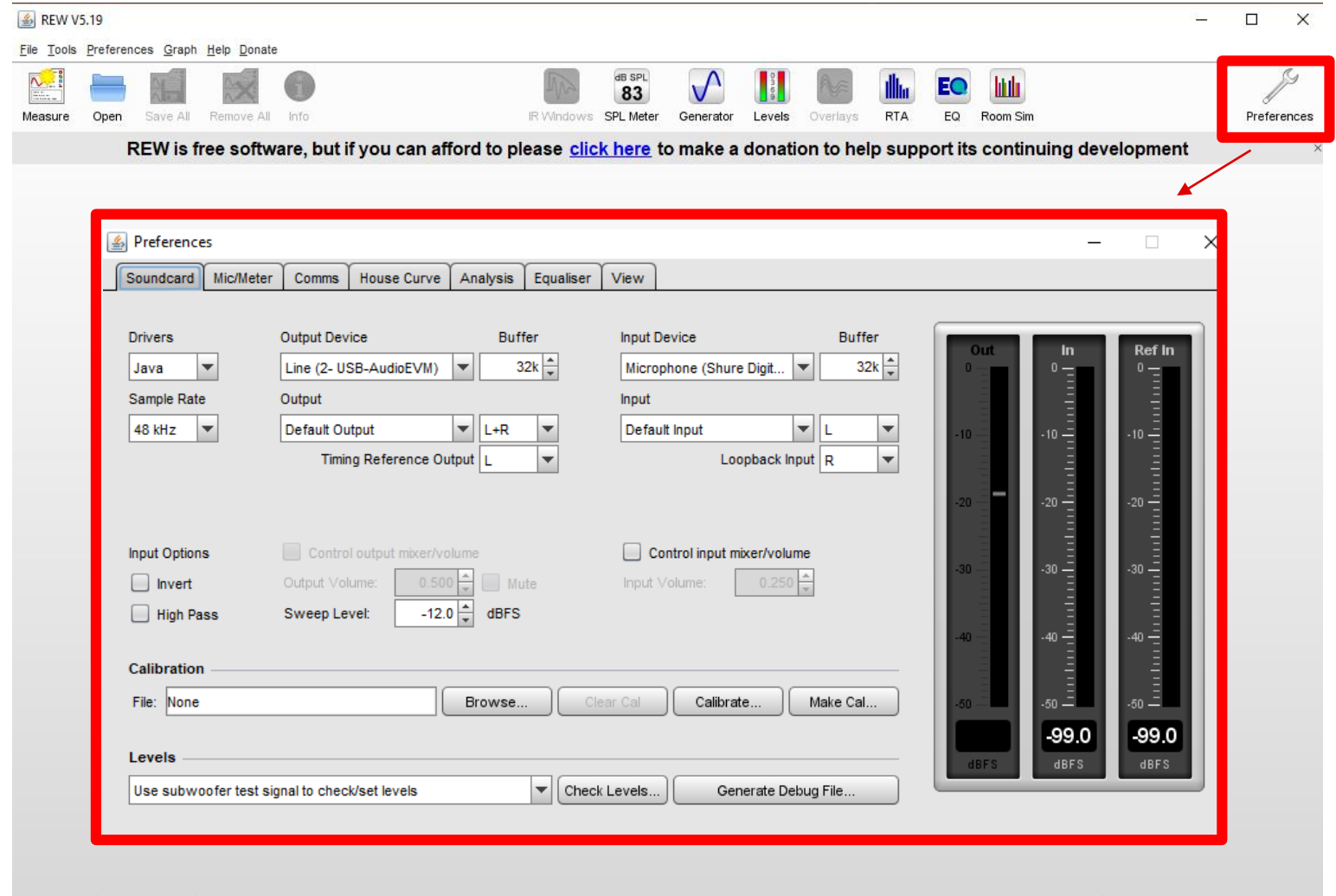
The screenshot shows the 'System Calibration' screen in the TAS5825M Home app. The title is 'Running Hardware Checks'. A progress indicator at the top right shows a sequence of seven colored dots: three green, one blue (the current step), and three red. Below the title, there is a list of six items:

- Download successful ✓
- [Hardware ID is incorrect](#) !
- Audio sound card detected and unambiguous ✓
- Audio sound card sampling frequency is good ✓
- Audio record is successful ✓
- Audio playback is successful ✓

At the bottom, there are three buttons: 'Prev' (left arrow), 'Retry' (red square), and 'Next' (right arrow).

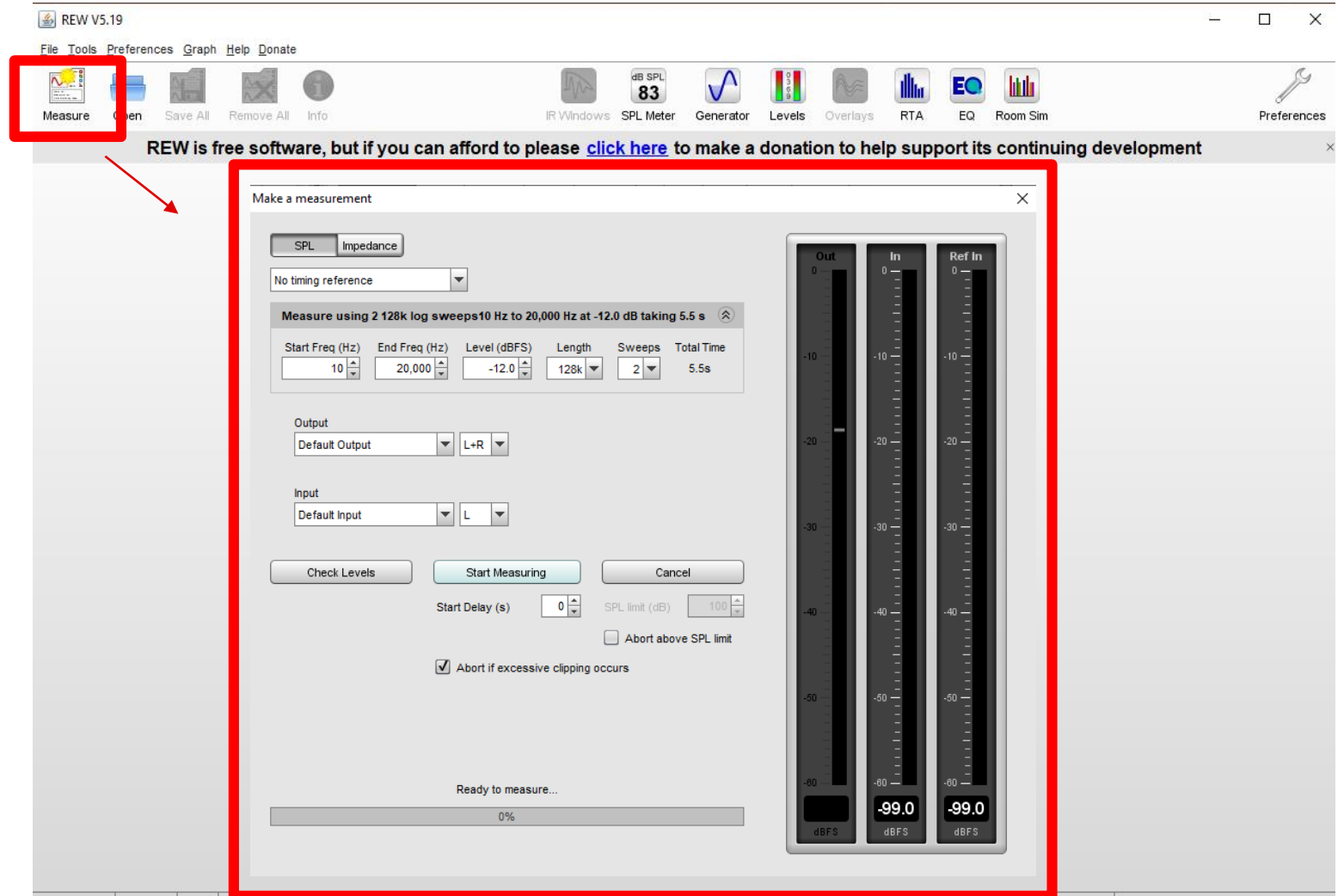
Setting up REW

- Once the EVM is setup plug in the USB microphone to the PC, once it is setup in your preference you configure the output device as the USB-AudioEVM, and the input Device as your usb measurement microphone



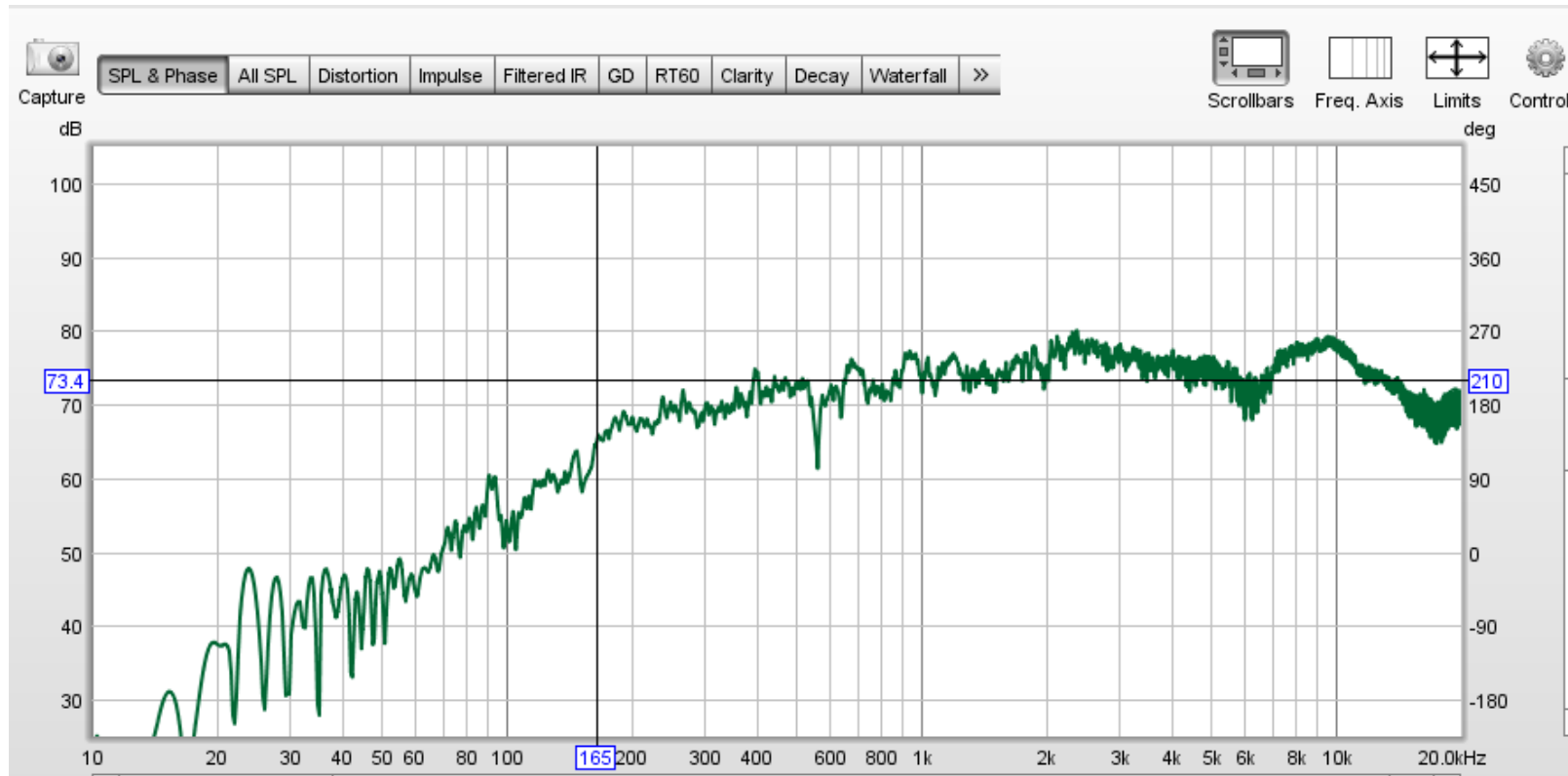
Collecting the SPL Measurement

- Once the sound settings are properly configured click the measurement button and run the sweep. If excessive clipping is encountered adjust the MIC gain on your measurement microphone



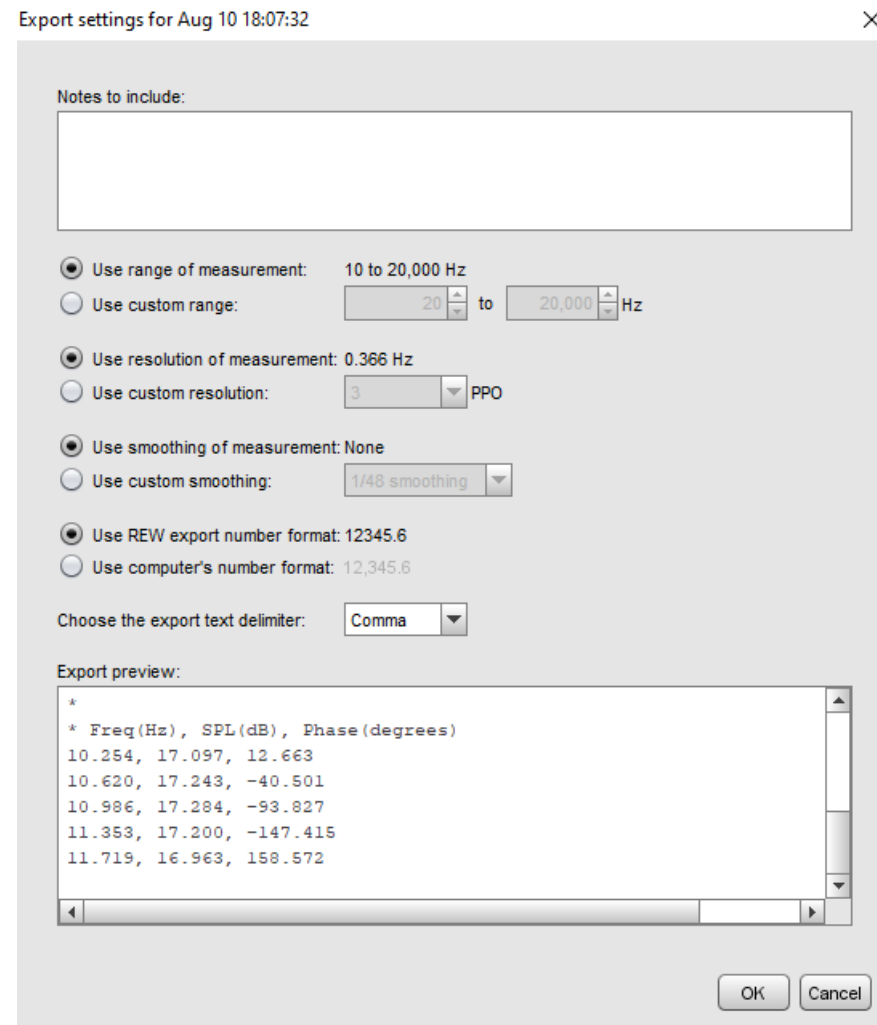
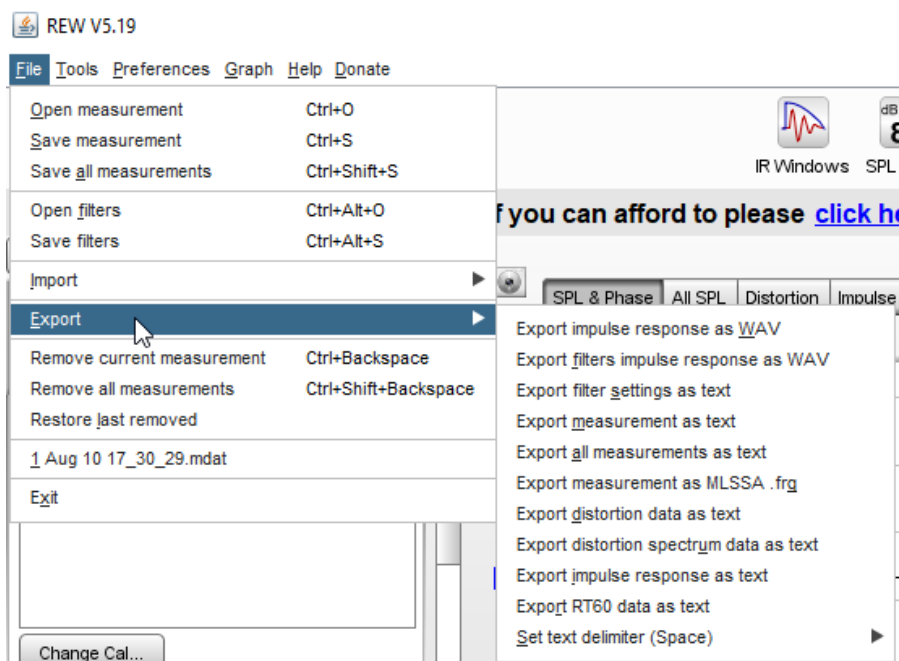
SPL Measurement Result

- Running the Measurement tool in REW will generate the resultant SPL response for the Speaker being used



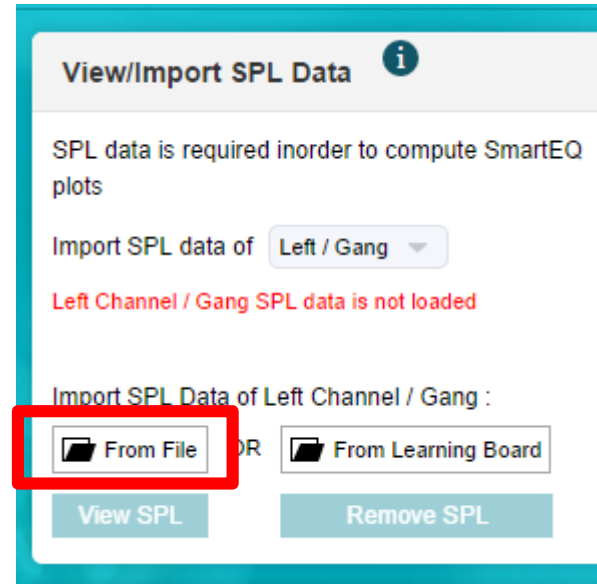
Exporting SPL Data

- **File->Export->Export measurement as text**
- The measurement can then be exported to a text file that can be used for importing SPL data to PPC3 for SmartEQ



Import SPL Data in PPC3

- Please note that the default REW generated SPL data might need to be modified to remove the default generated header text
- PPC3 outlines the format of the Data File for the SPL measurements with the 3 columns of Frequency, SPL, and Phase



The SPL Data file should conform to this format (shown below):

It can have 3 columns of data (separated by spaces or tab) the frequency, SPL and phase.

The title row for the columns is optional.

Freq [Hz]	dB SPL	Phase [Deg]
5.00	57.85	-79.59
5.04	57.74	-79.30
5.08	57.63	-78.99
5.12	57.52	-78.68
5.17	57.36	-78.22
5.21	57.13	-77.59
5.25	56.90	-76.94
5.30	56.68	-76.28