
Foster STRD

EVT2.1 800Hz Rocking Investigation

16/Mar/2021 update

FOSTER

Sub Harmonic Study

1. Speaker mesh experiment with various mesh values such as 20 (POR), ~130, **260**, ~520 Rayls (EVT1: 2 or 3pcs, EVT2: 2 or 3pcs)
 - a. Test#1. Speaker sensitivity data - we need to understand the impact on the sensitivity. Please plot FR from 100Hz to 20kHz at 400mVrms

→ We have tried 20rayls, 121rayls, 260rayls, 379rayls

- b. Test#2. PRB measurements - we need to save recorded waveforms (.wav files) for post processing and listening evaluation.

→ Please refer to dropbox

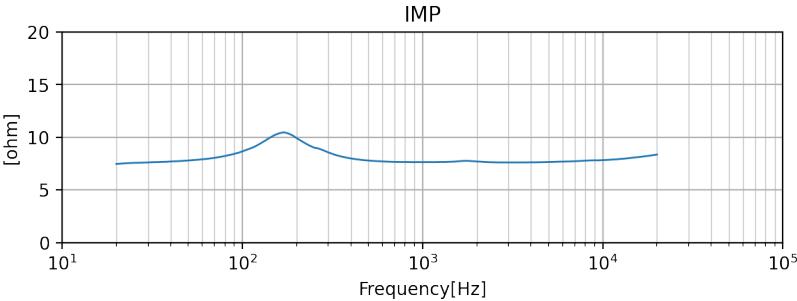
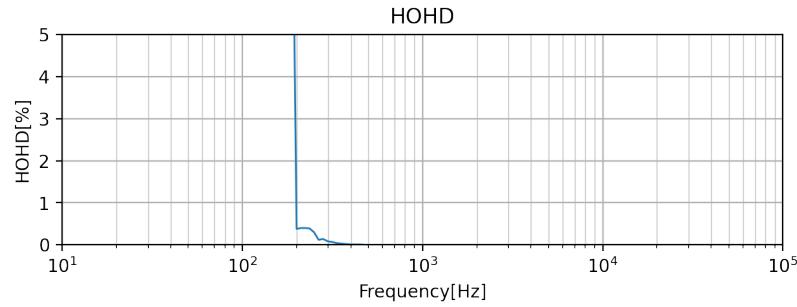
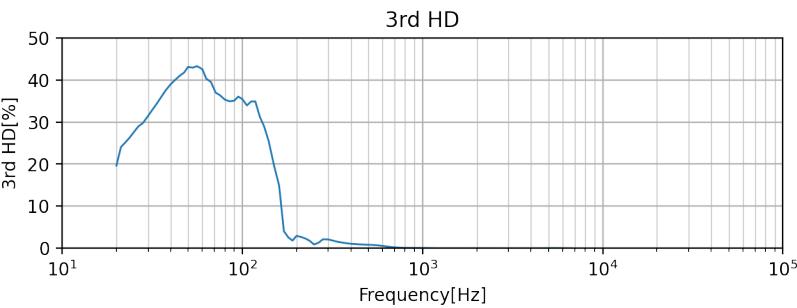
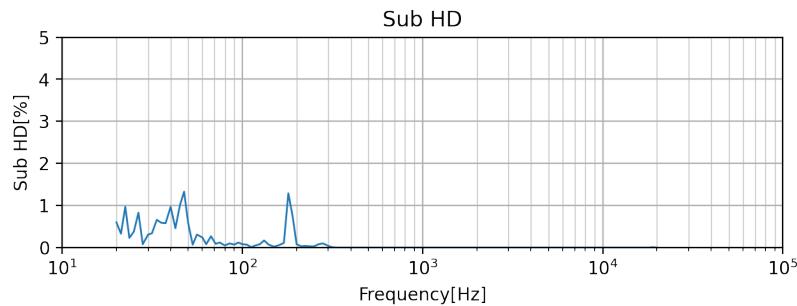
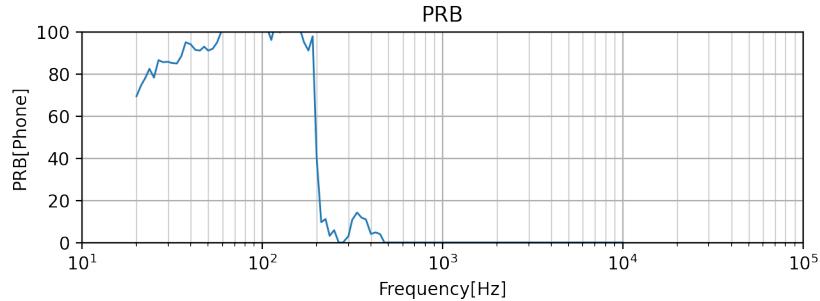
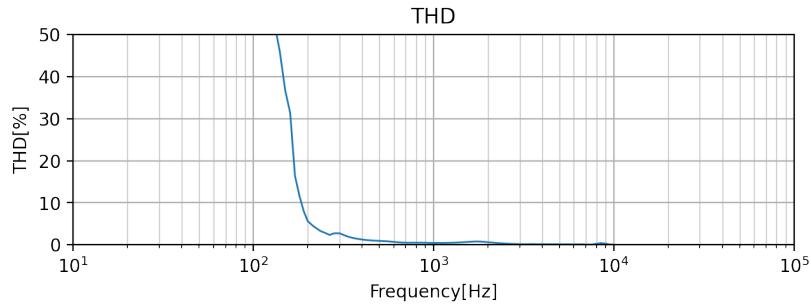
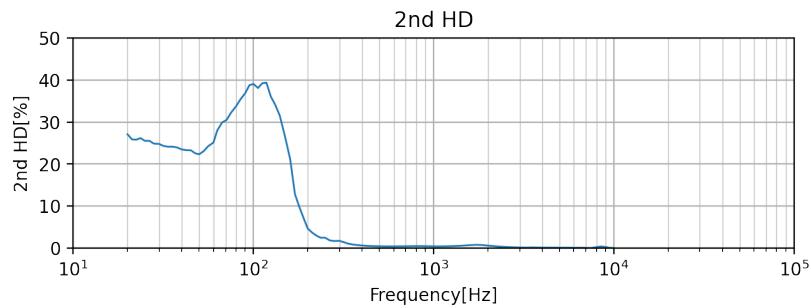
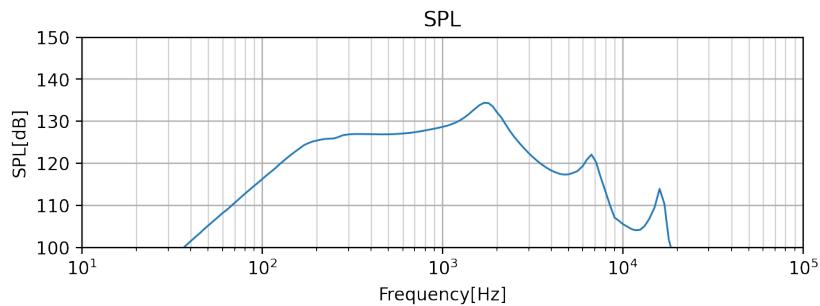
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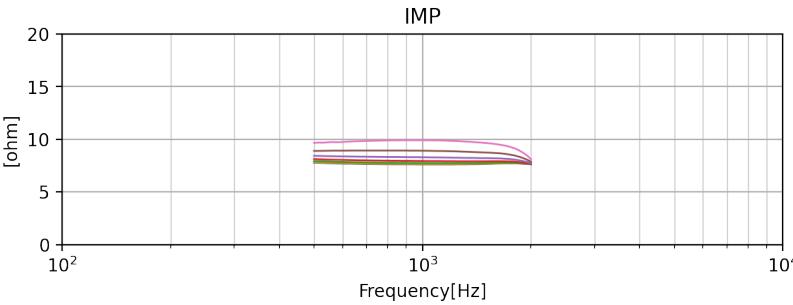
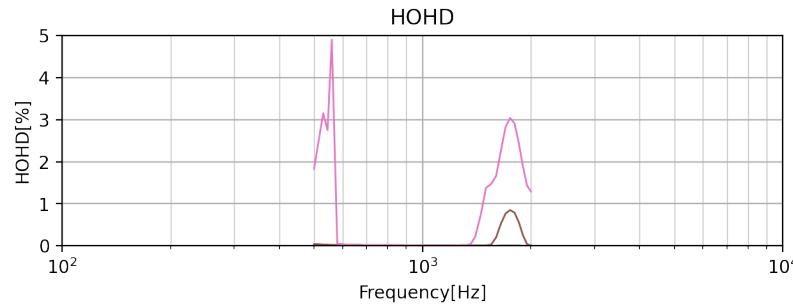
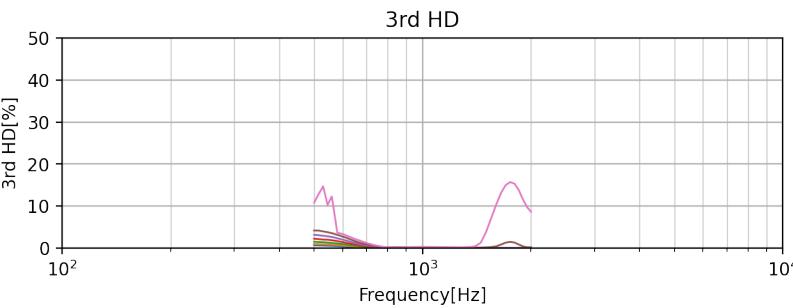
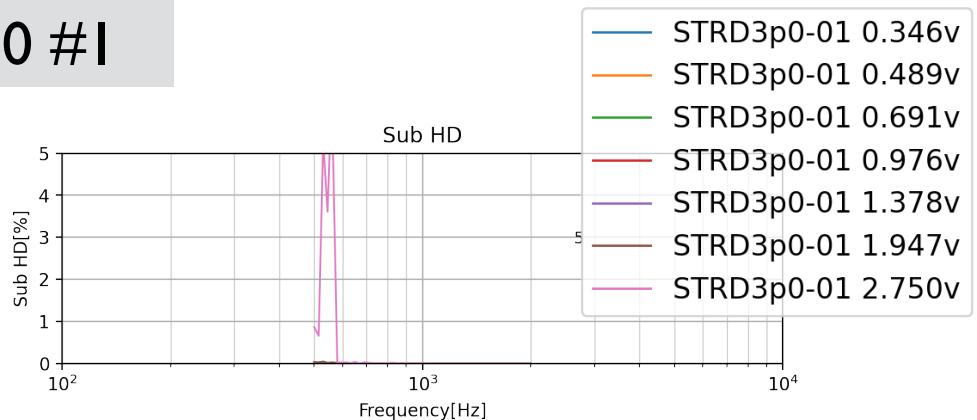
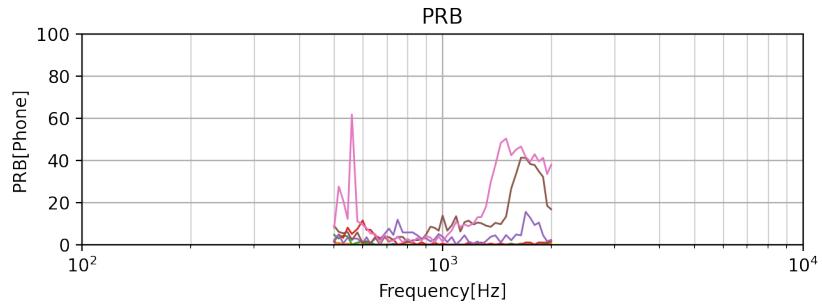
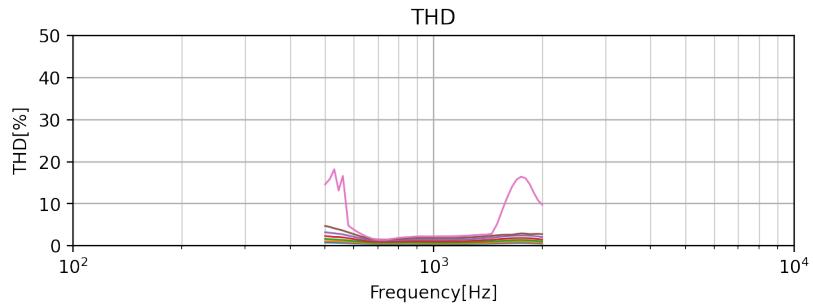
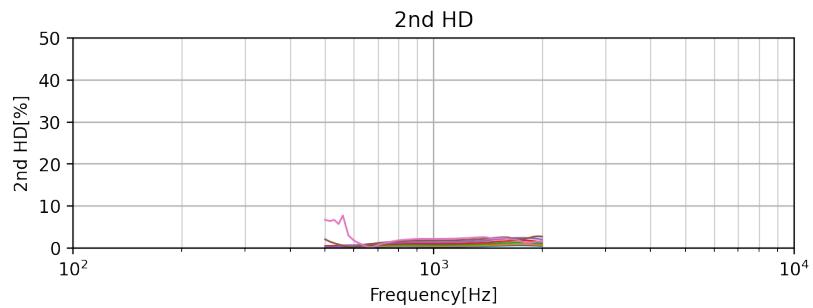
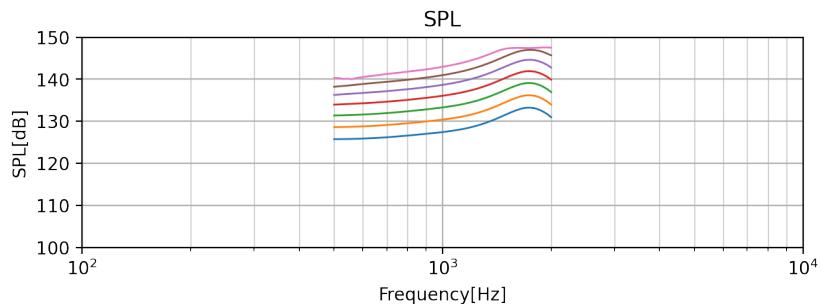
- c. Test#3. 0.5 Harmonic measurement using HarmonicTrak from 1.5kHz to 500Hz - This would be more straightforward to detect the rocking than PRB method. Input levels = 2.75Vrms (0dB), -3dB, -6dB, -9dB, -12dB, -15dB, -18dB

→ Please refer to the following slides and wav files and excel data in dropbox

Sub Harmonic Study

STRD3.0 #1

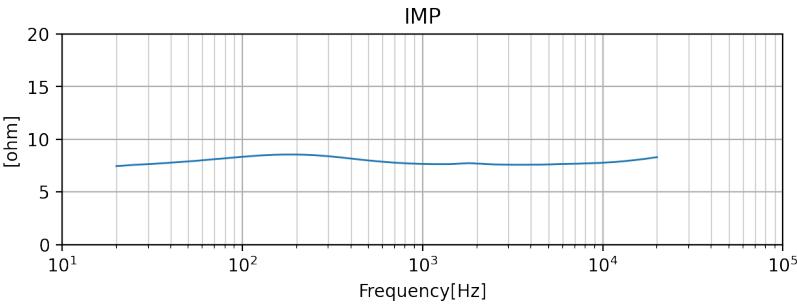
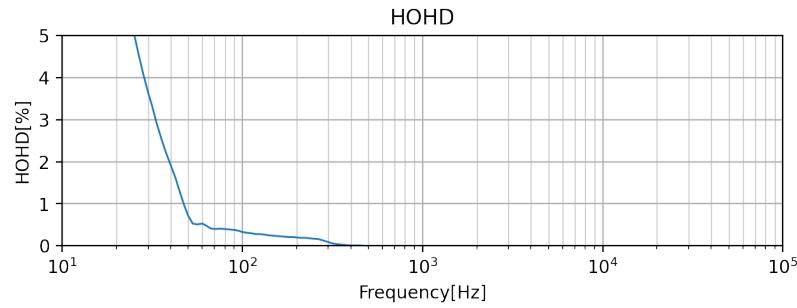
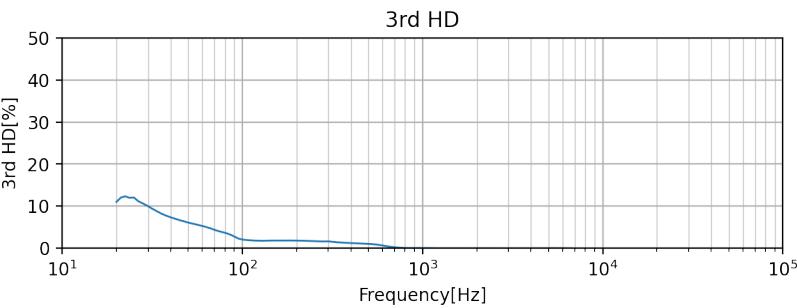
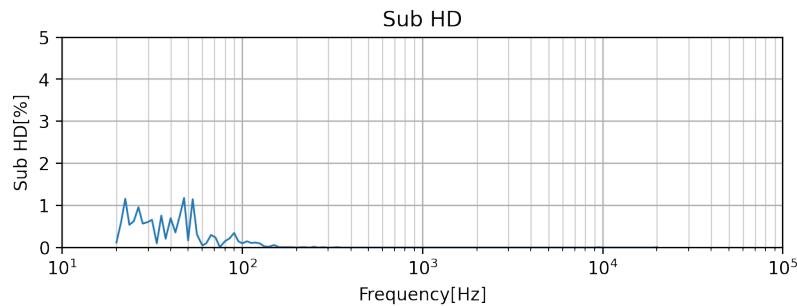
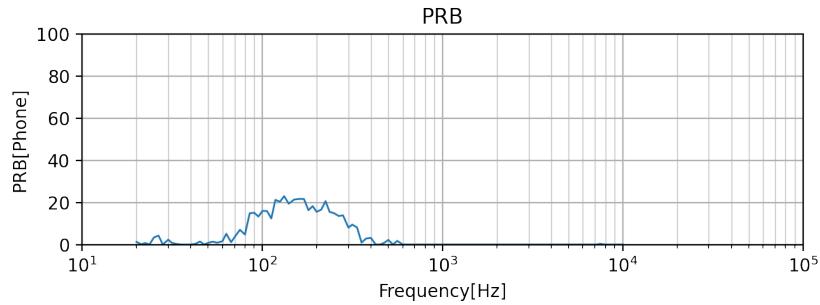
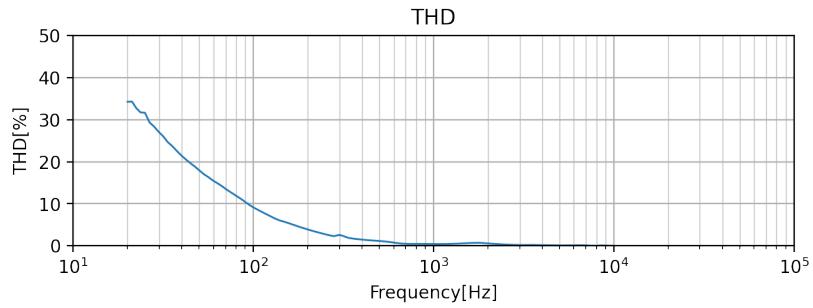
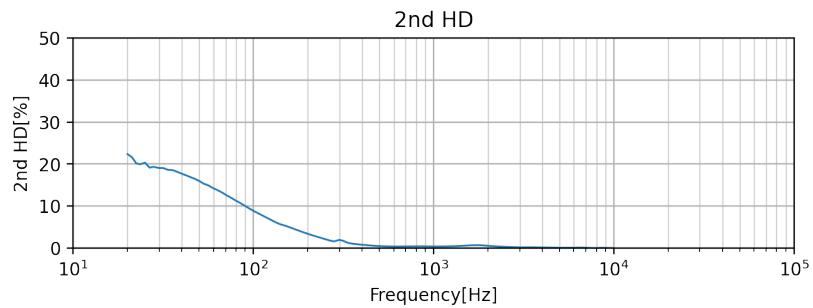
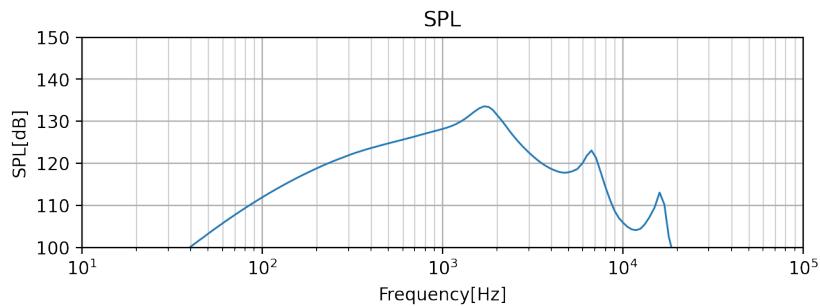
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD3.0 #I**

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| STRD3p0-01 0.691v |
| STRD3p0-01 0.976v |
| STRD3p0-01 1.378v |
| STRD3p0-01 1.947v |
| STRD3p0-01 2.750v |

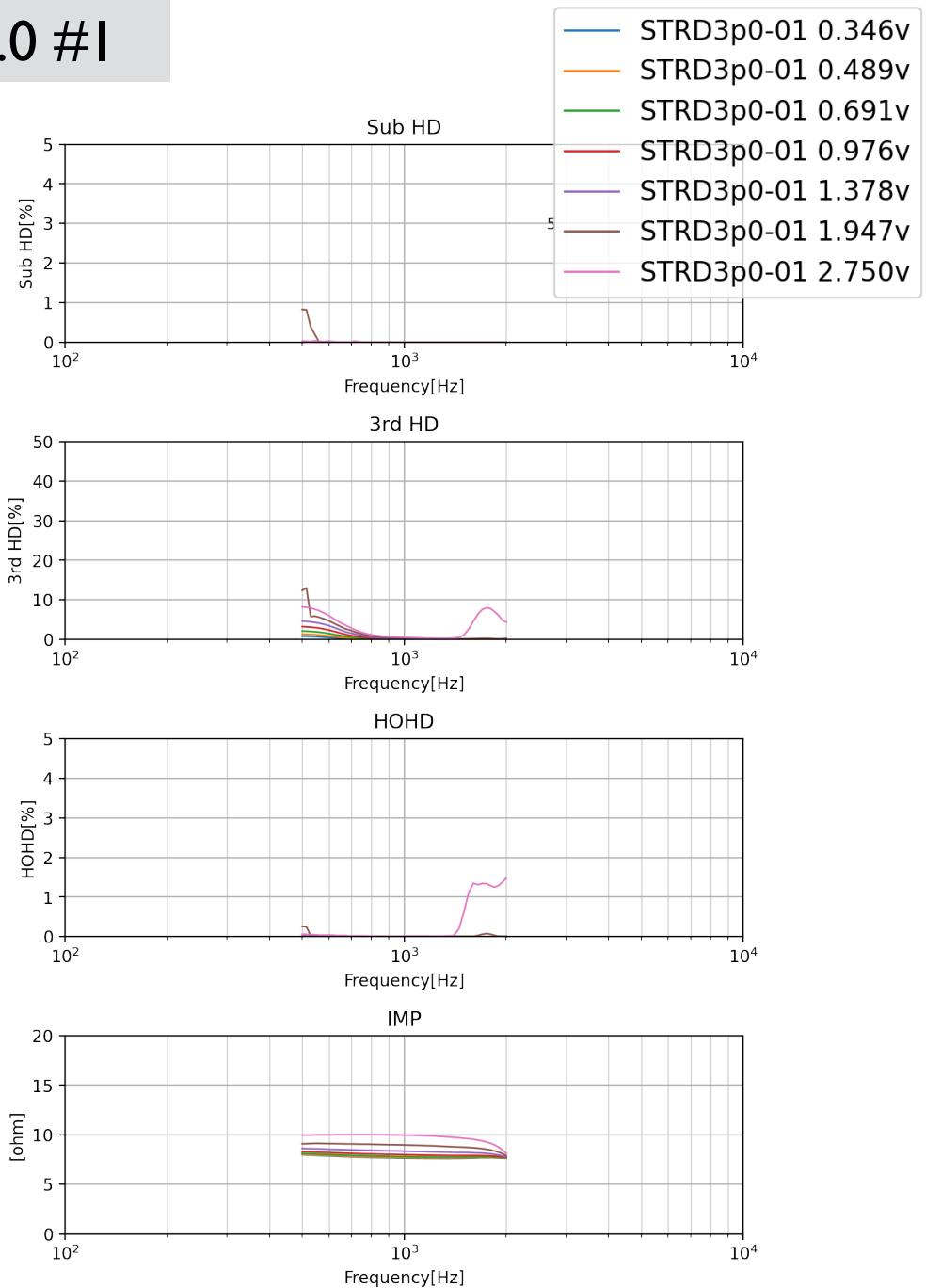
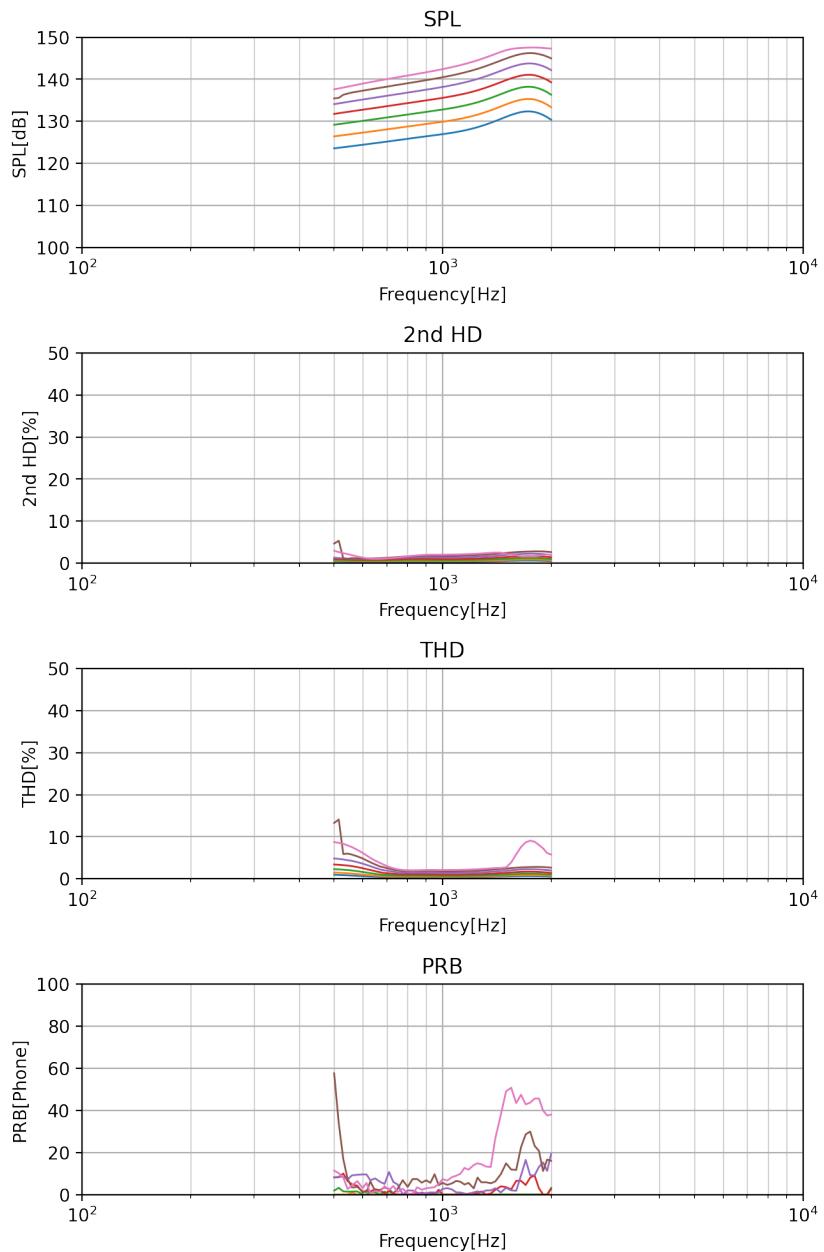
Sub Harmonic Study

STRD3.0 #1

0.4Vrms input, 20-20kHz

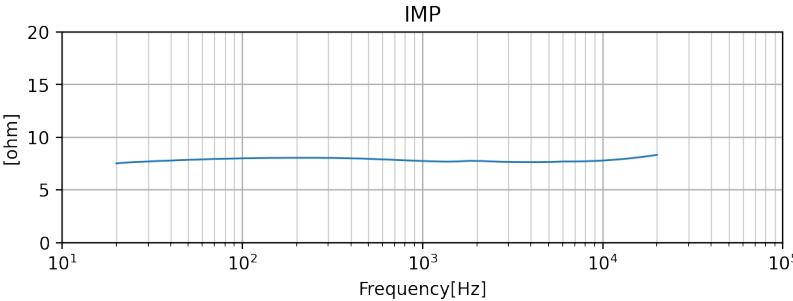
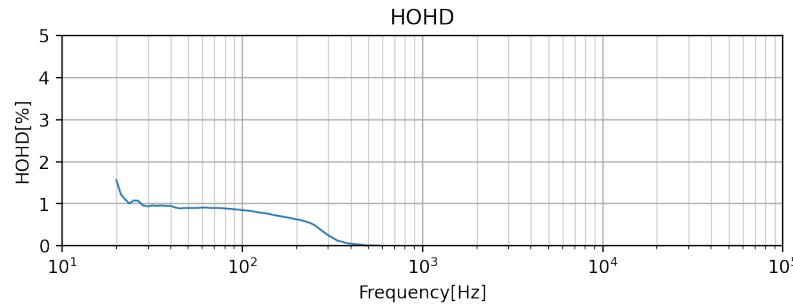
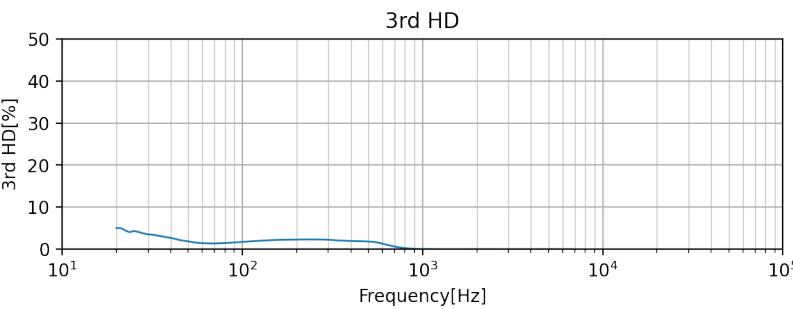
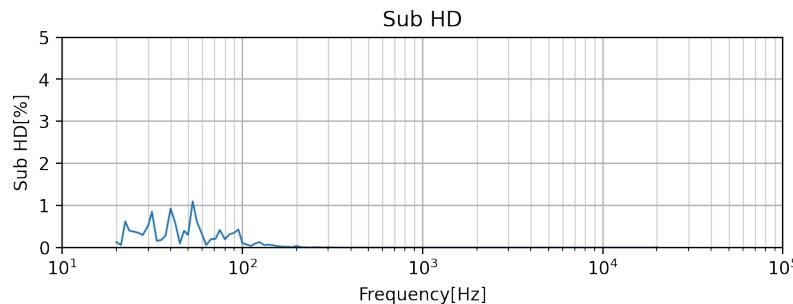
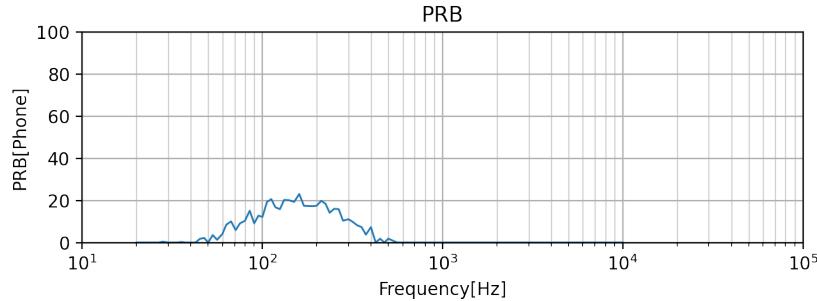
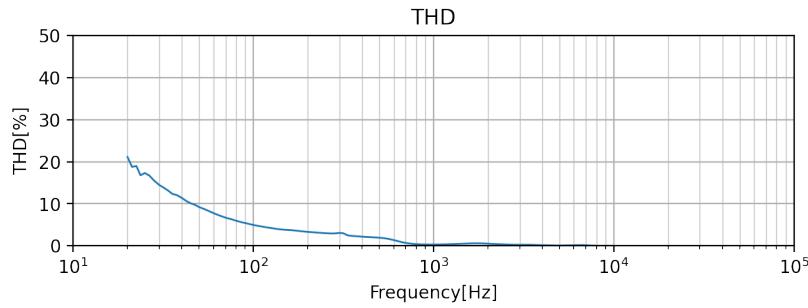
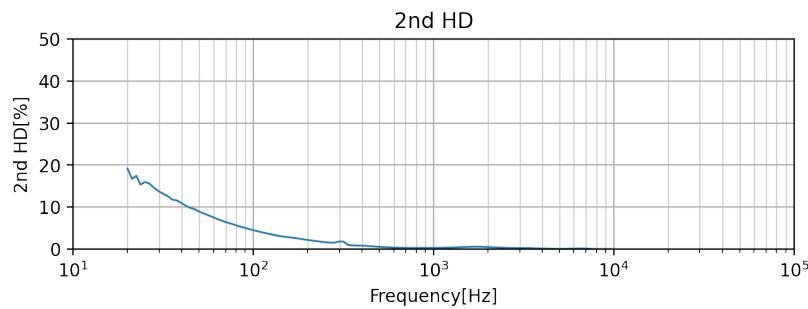
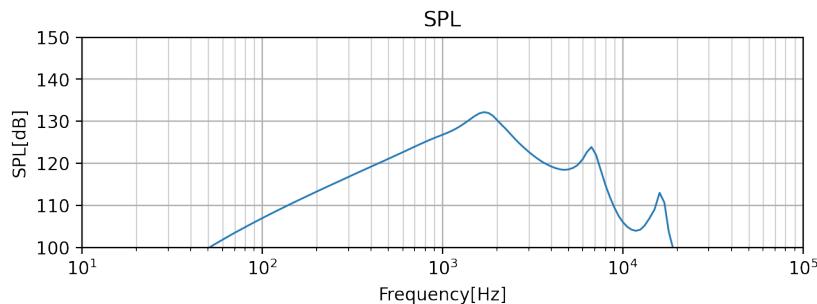
Sub Harmonic Study

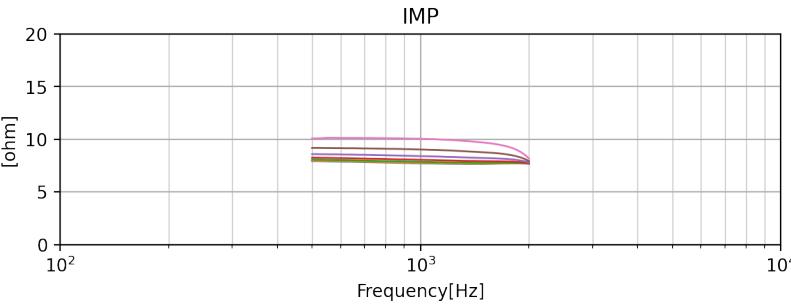
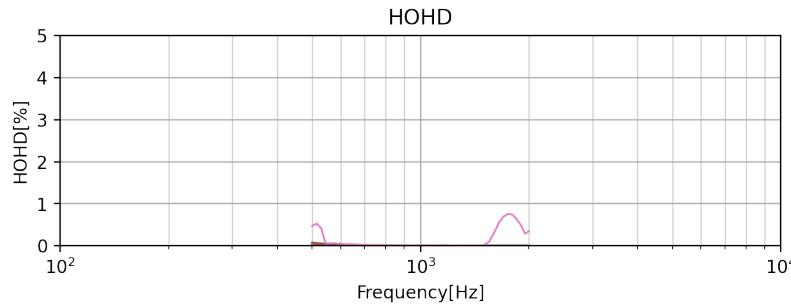
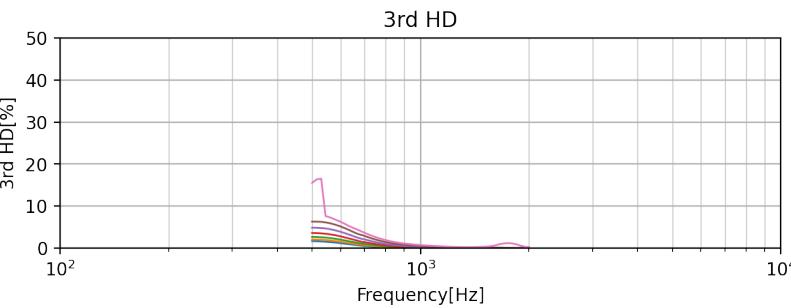
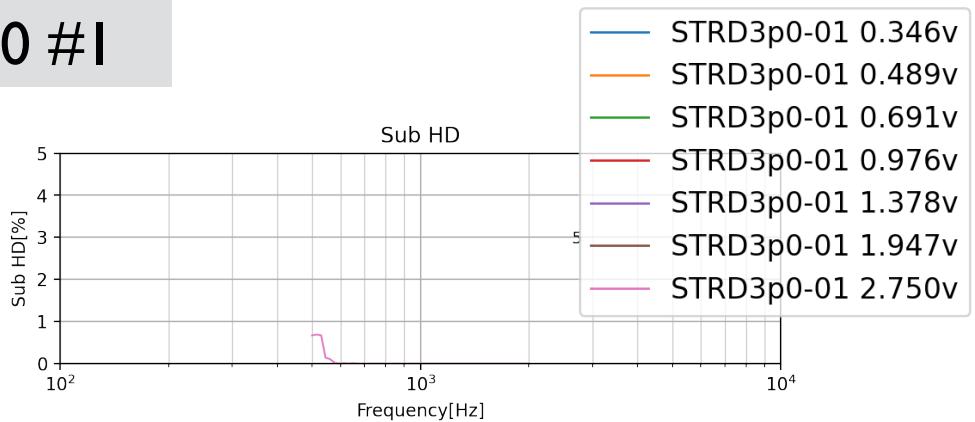
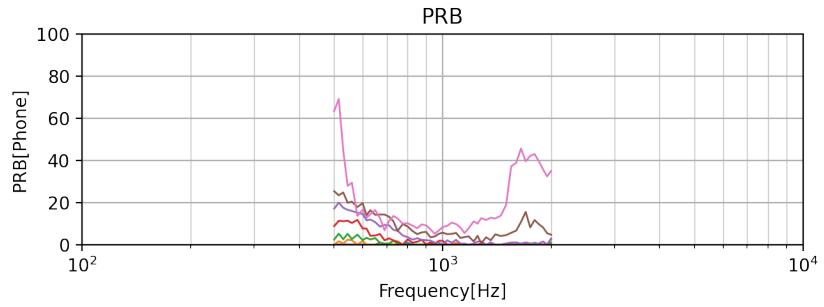
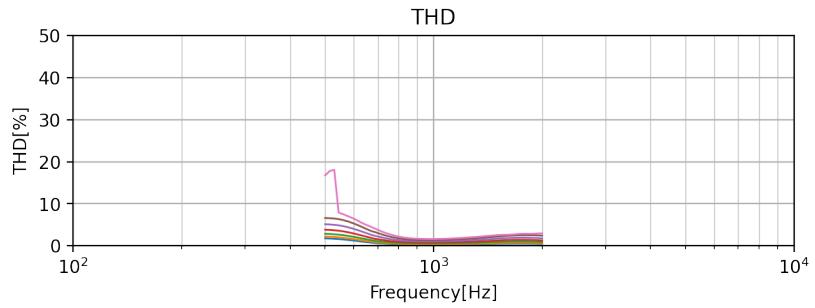
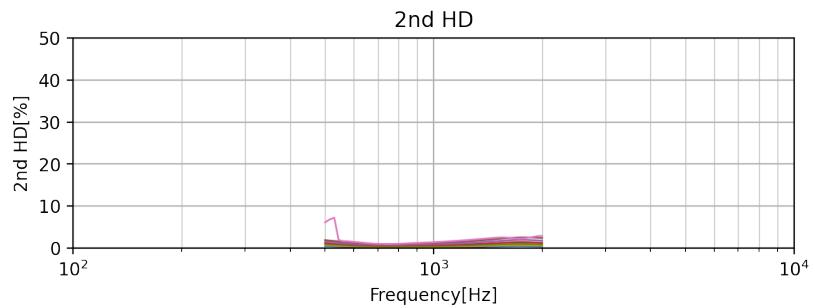
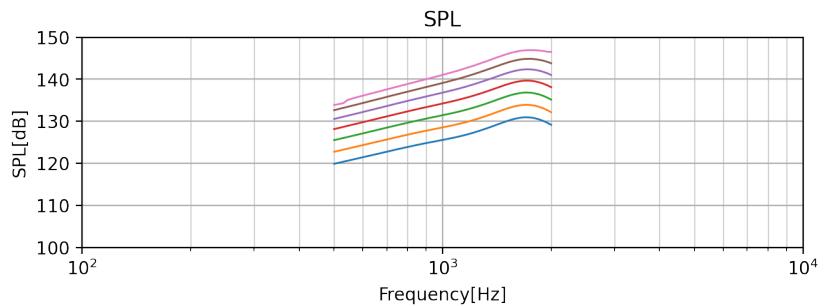
STRD3.0 #1



Sub Harmonic Study

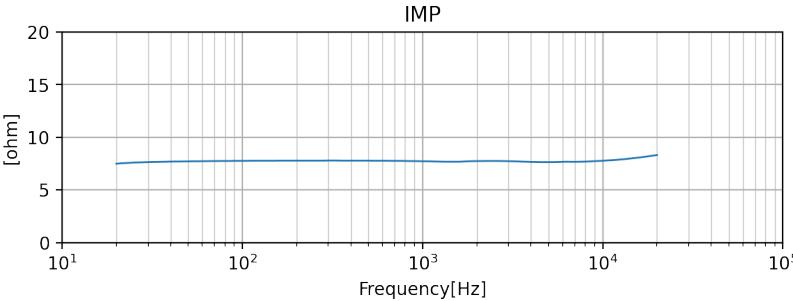
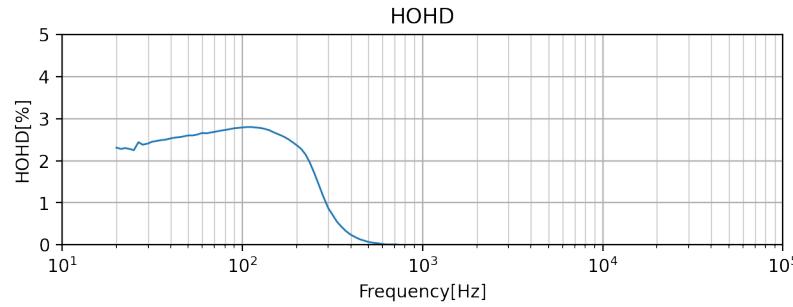
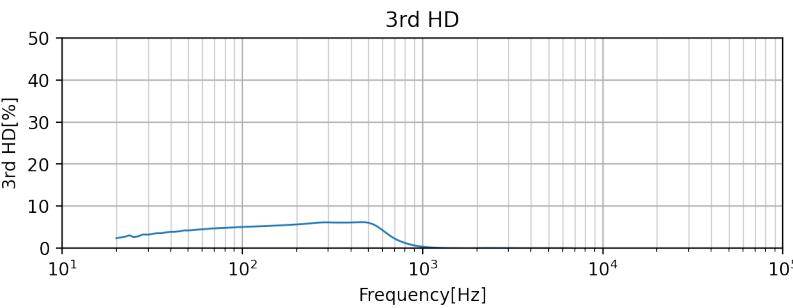
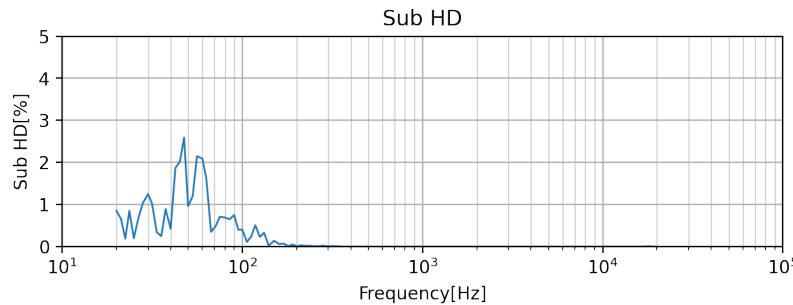
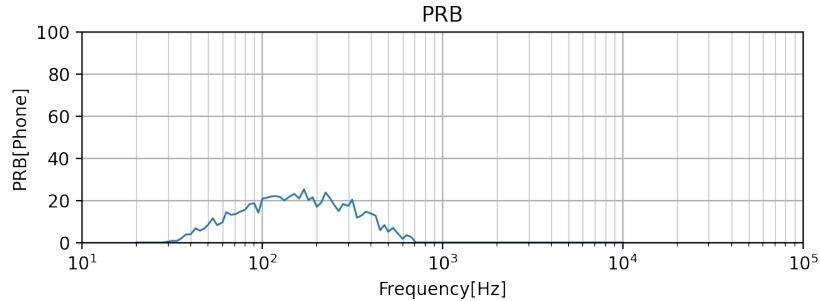
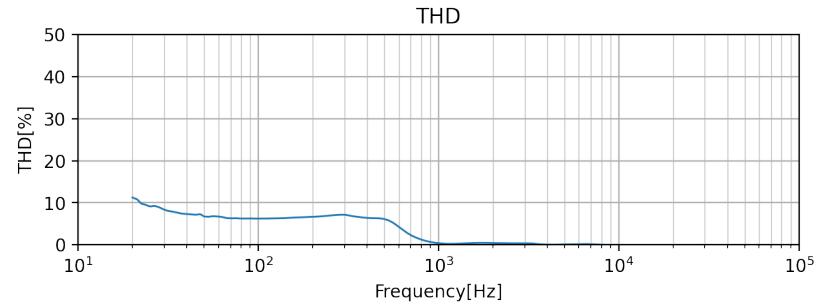
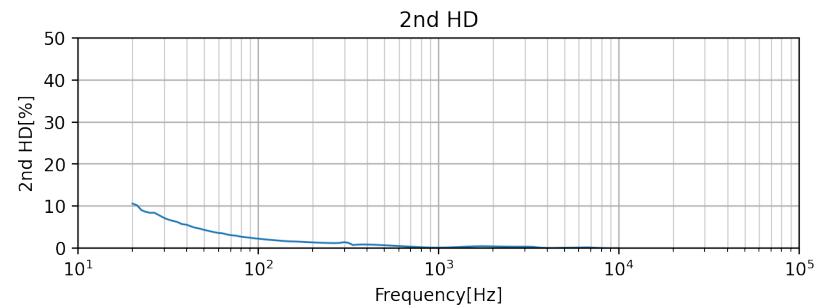
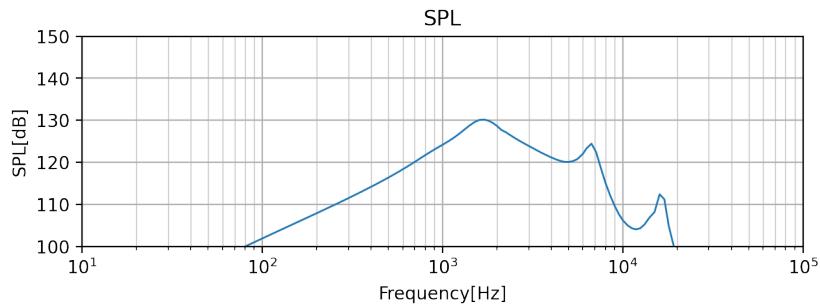
STRD3.0 #1

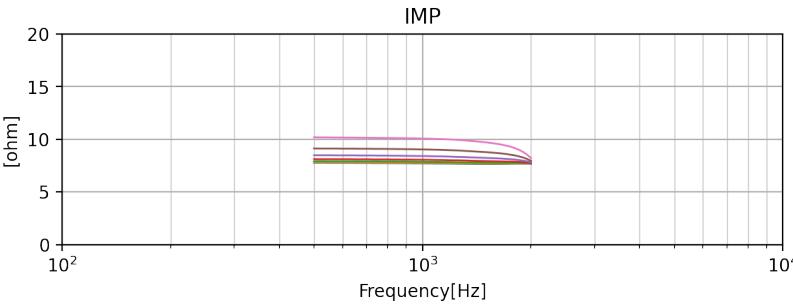
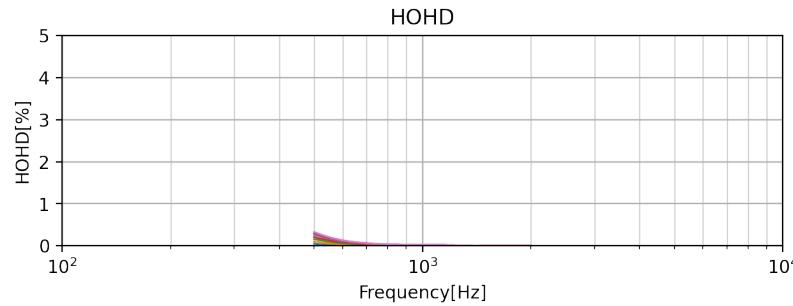
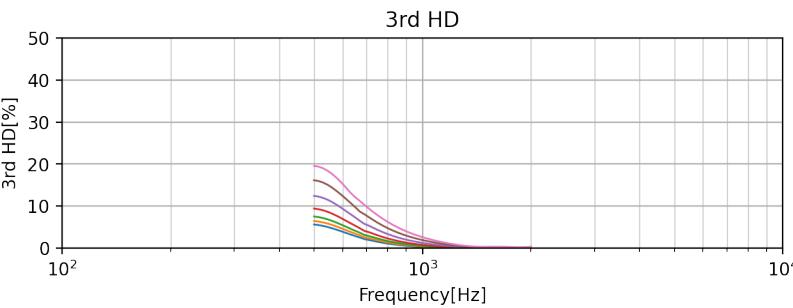
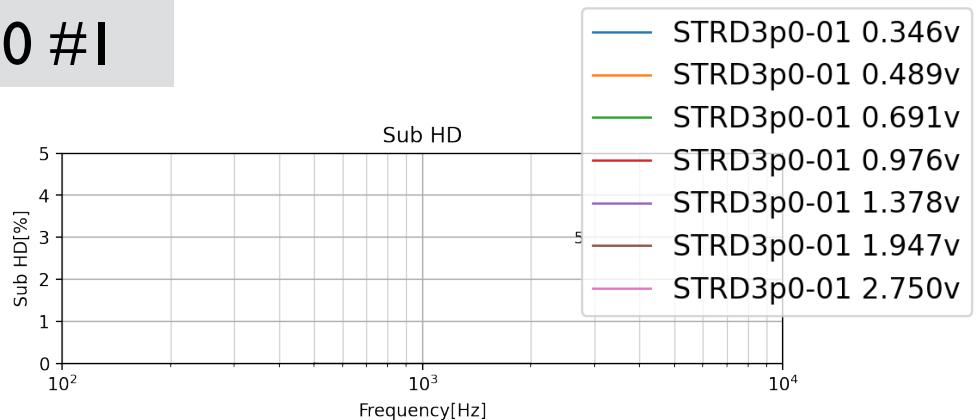
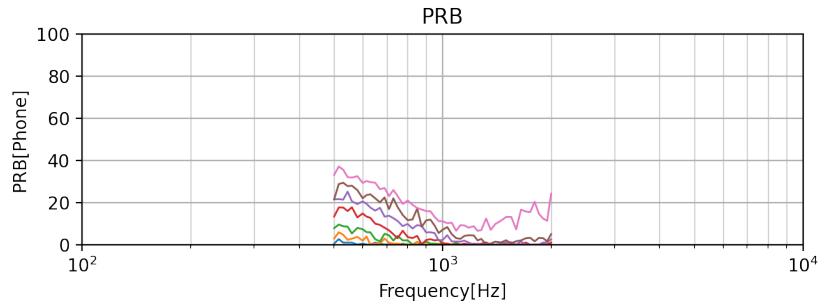
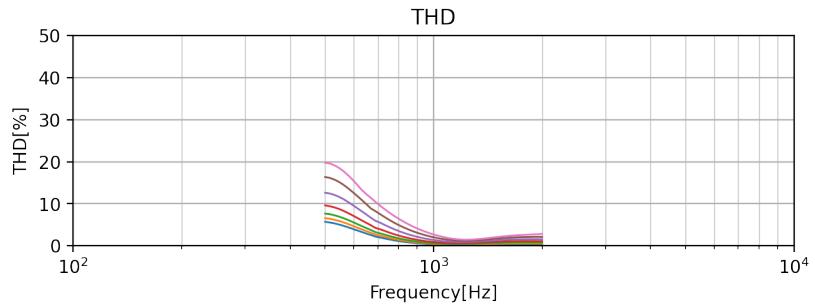
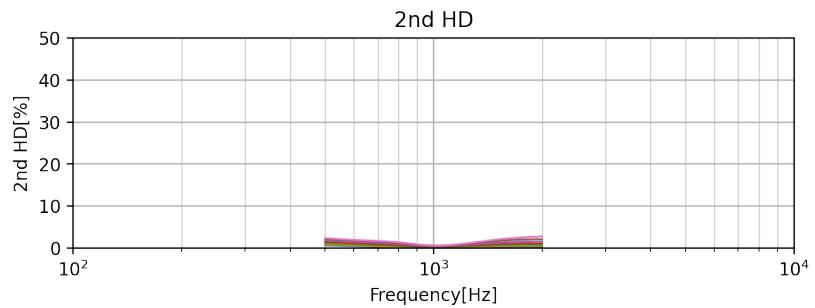
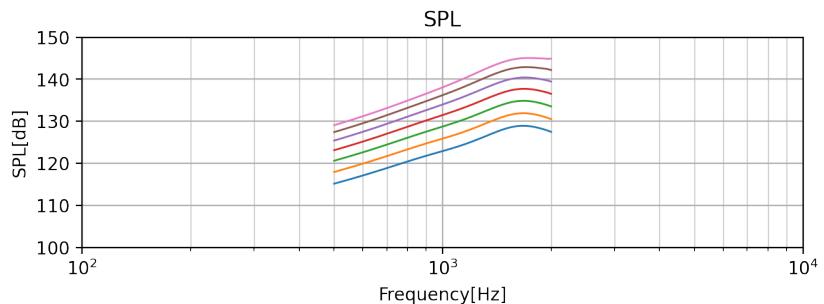
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD3.0 #I**

Sub Harmonic Study

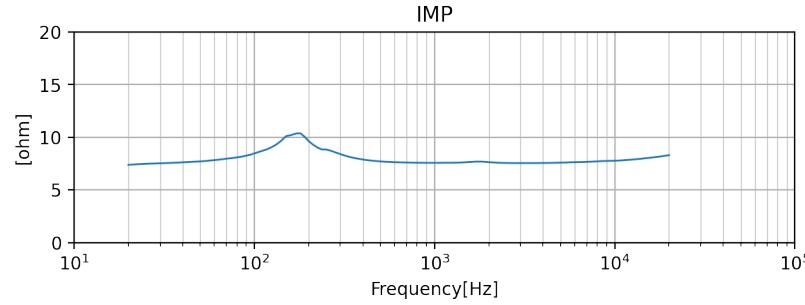
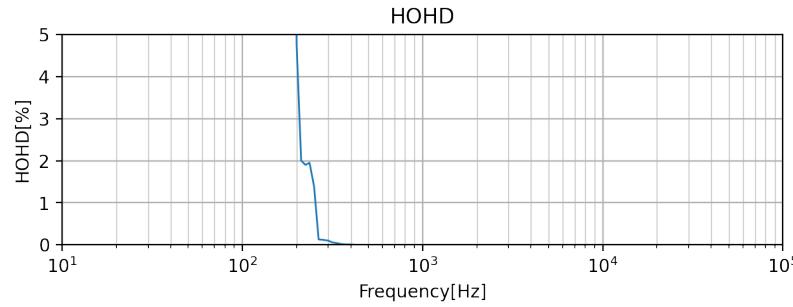
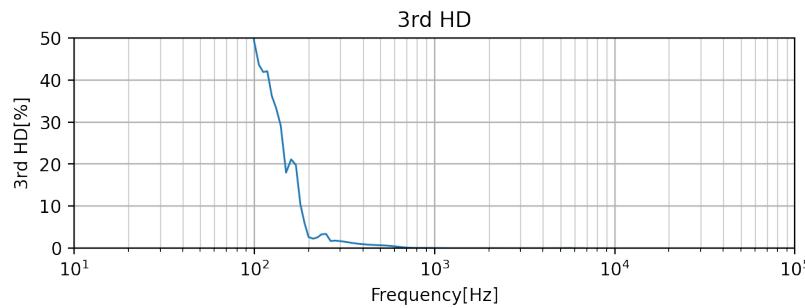
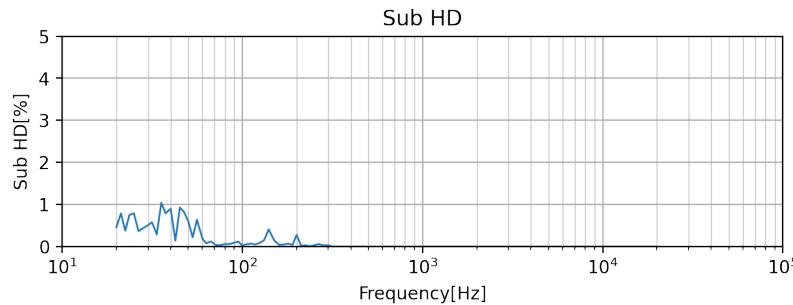
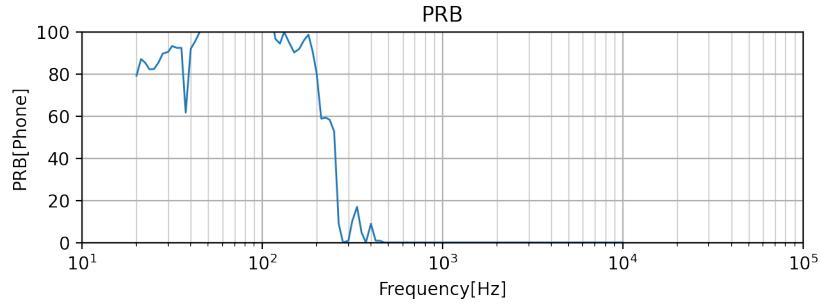
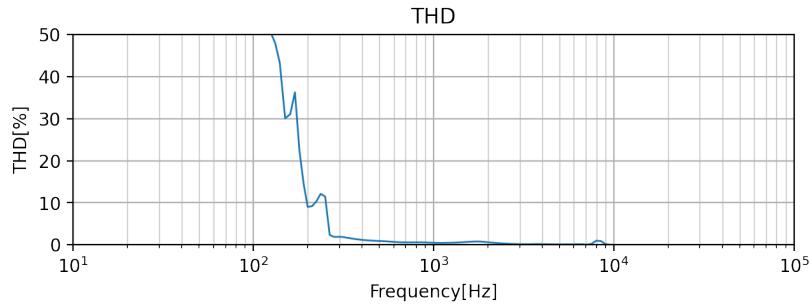
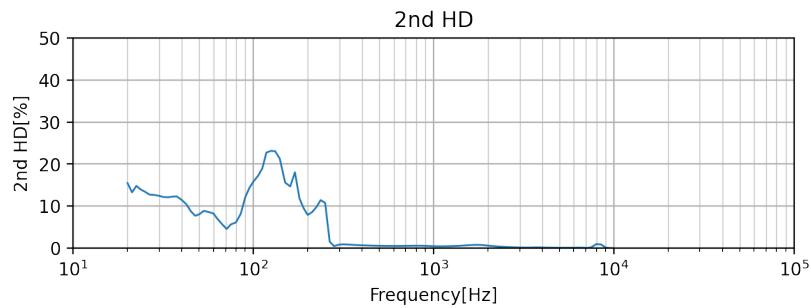
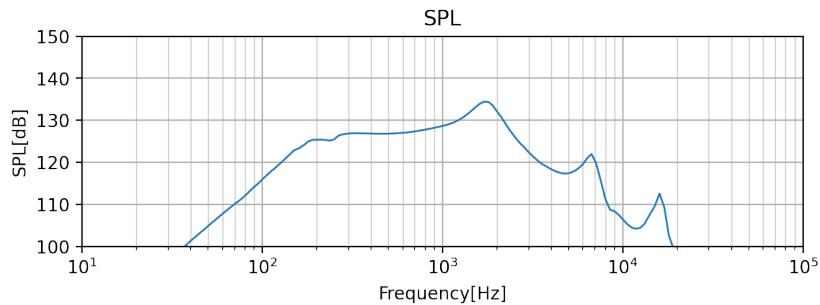
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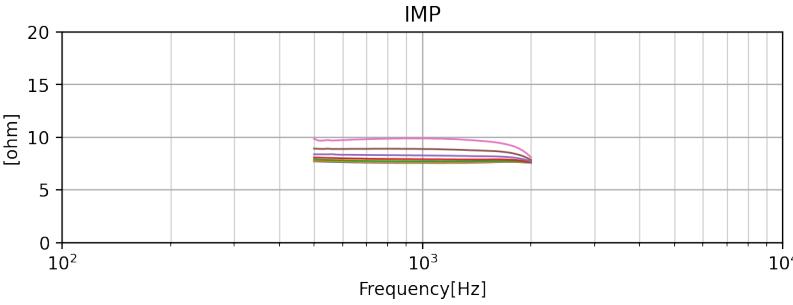
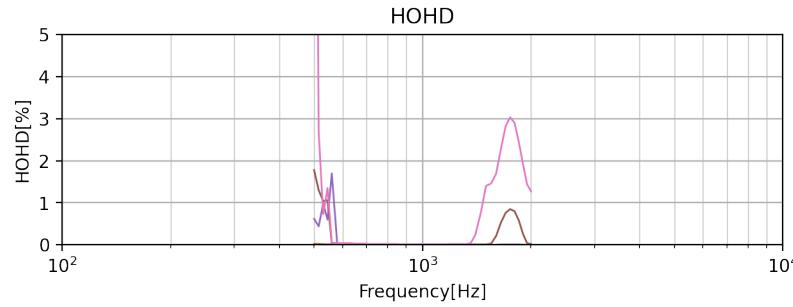
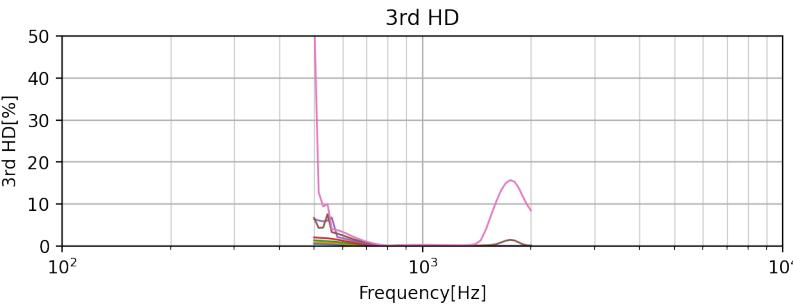
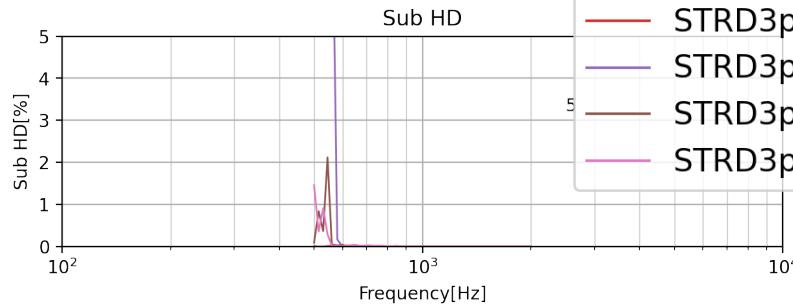
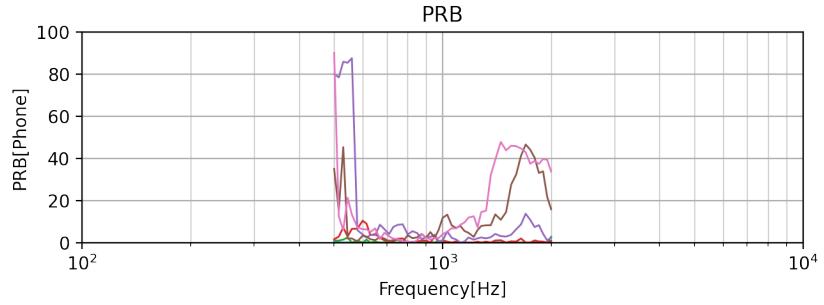
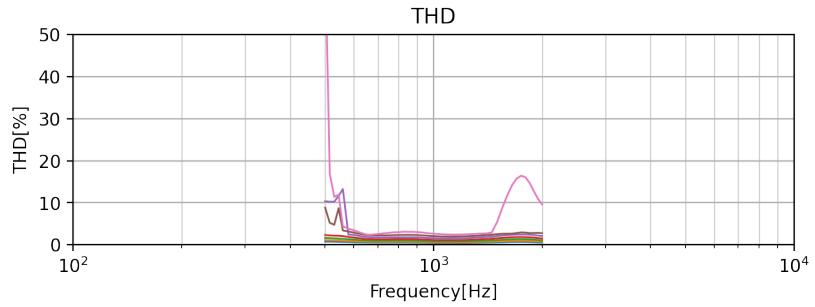
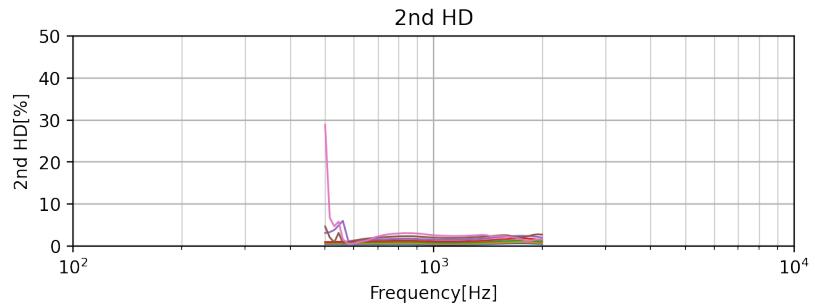
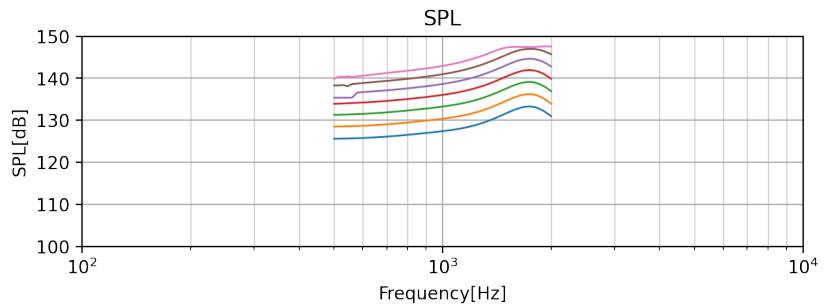
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD3.0 #I**

Sub Harmonic Study

STRD3.0 #2

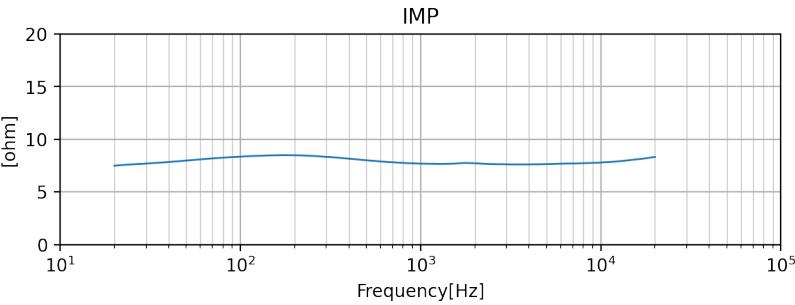
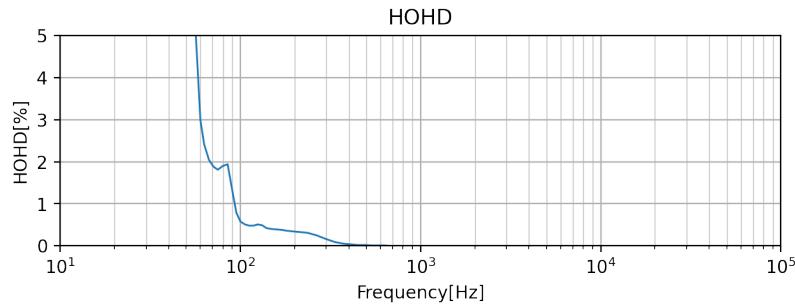
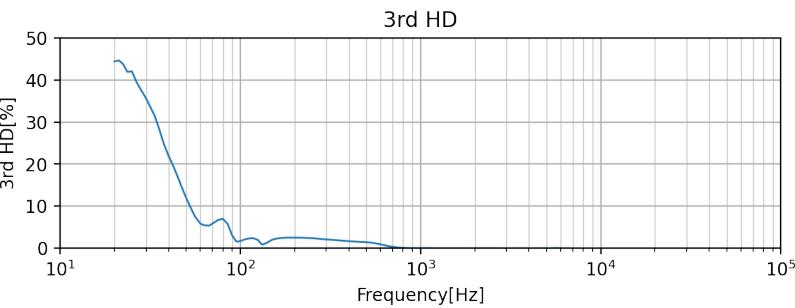
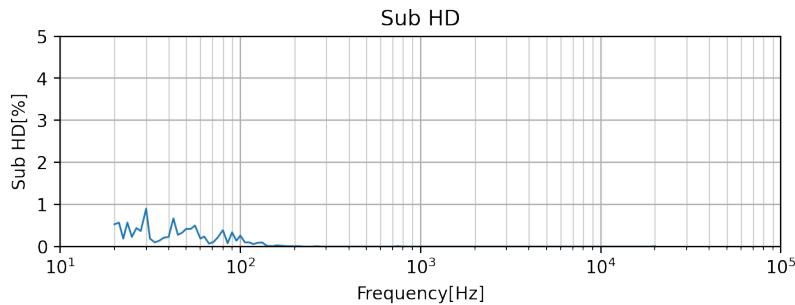
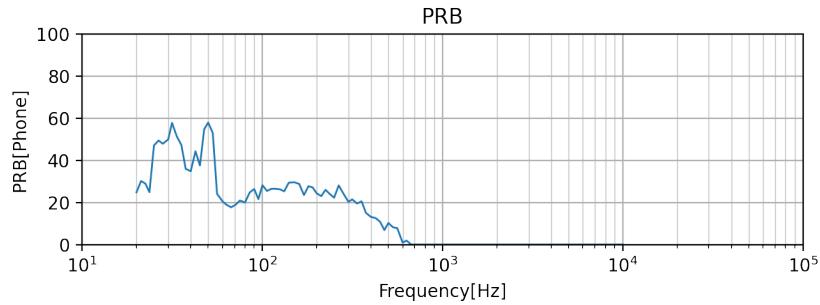
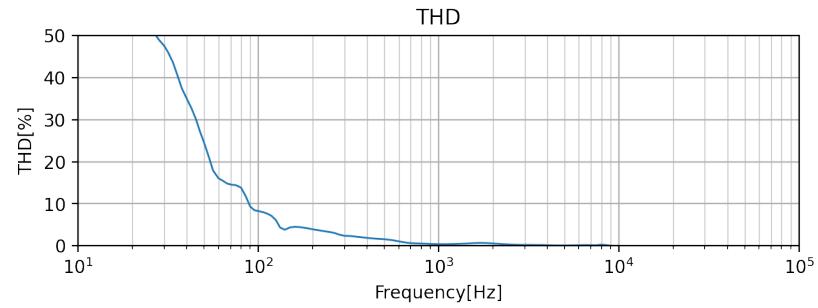
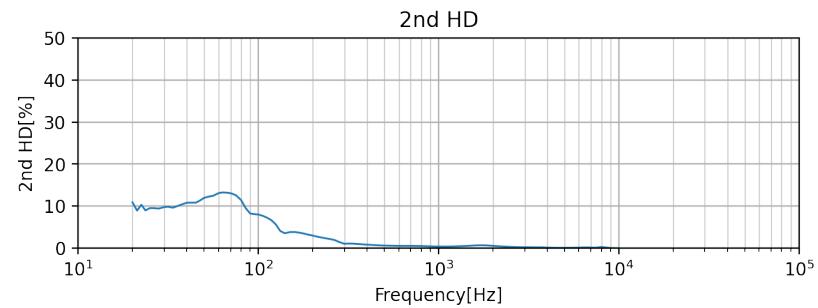
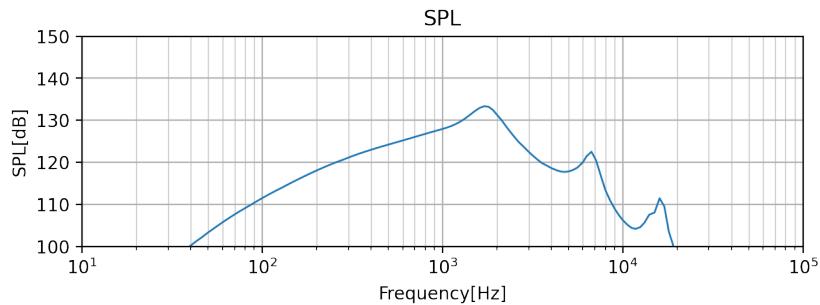
0.4Vrms input, 20-20kHz

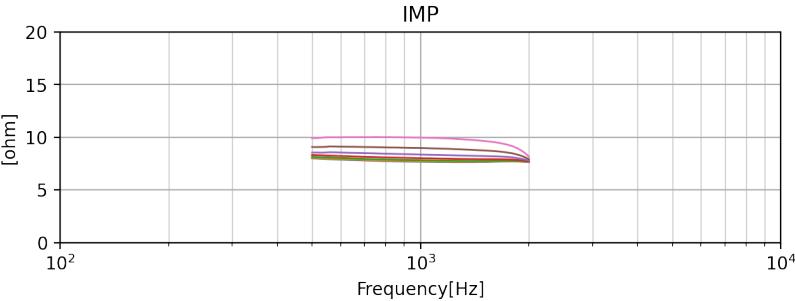
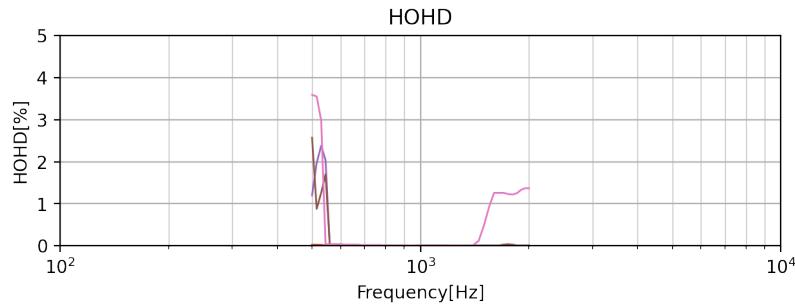
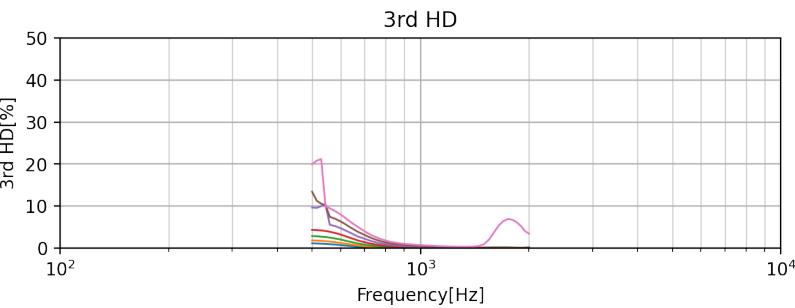
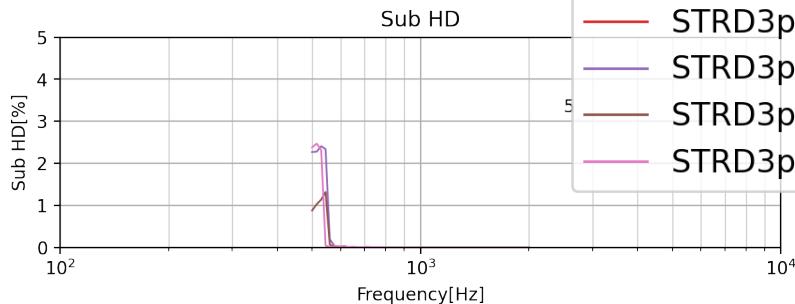
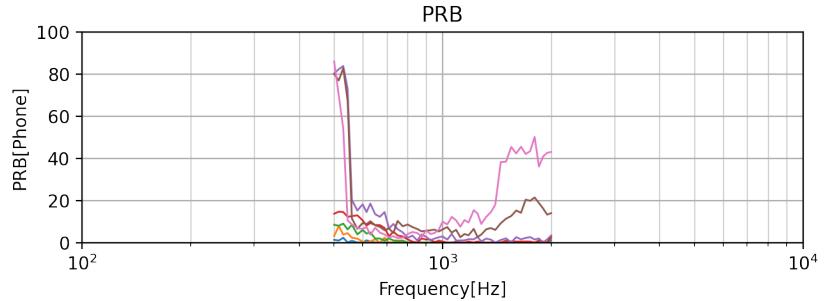
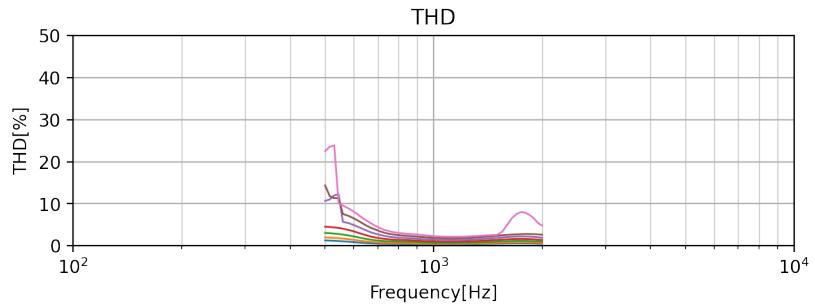
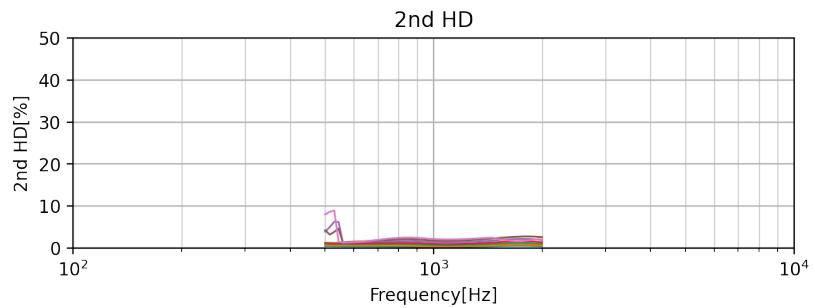
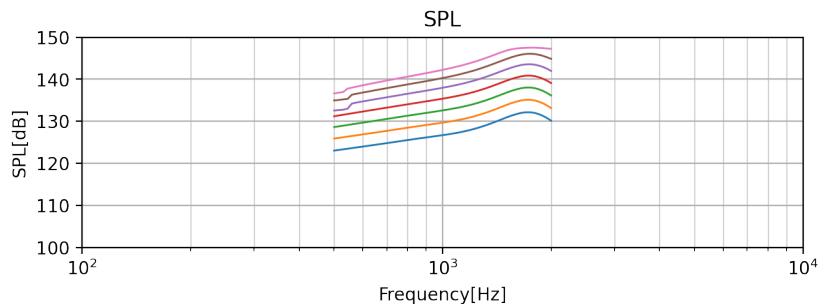
Sub Harmonic Study**STRD3.0 #2**

| |
|-------------------|
| STRD3p0-02 0.346v |
| STRD3p0-02 0.489v |
| STRD3p0-02 0.691v |
| STRD3p0-02 0.976v |
| STRD3p0-02 1.378v |
| STRD3p0-02 1.947v |
| STRD3p0-02 2.750v |

Sub Harmonic Study

STRD3.0 #2

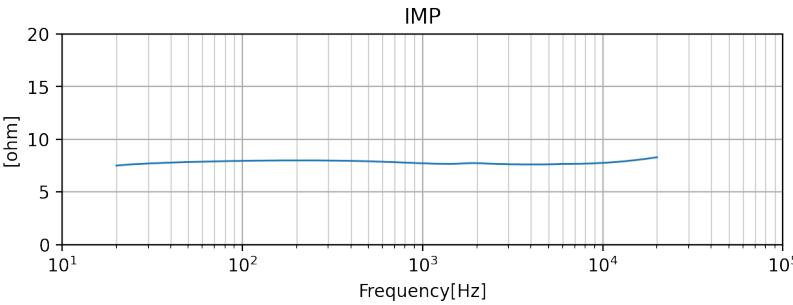
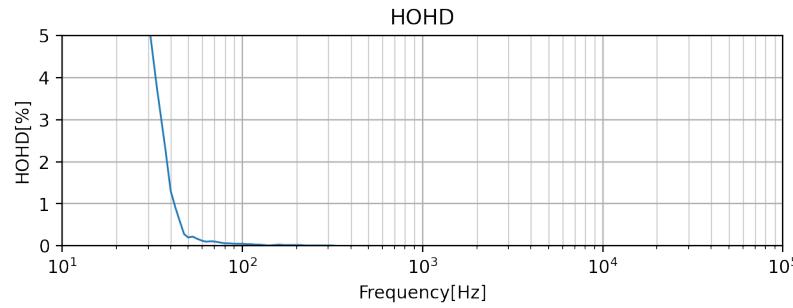
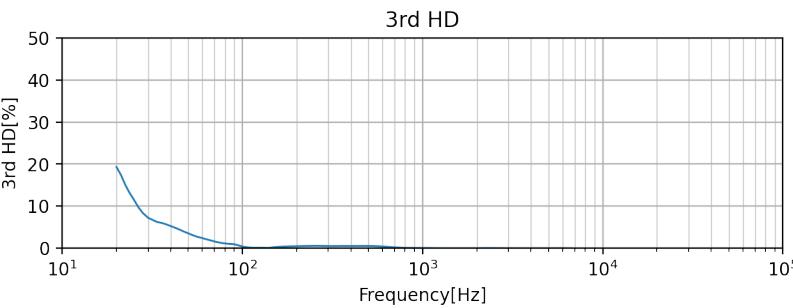
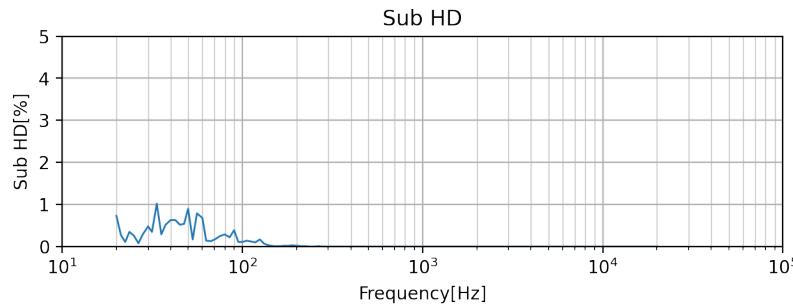
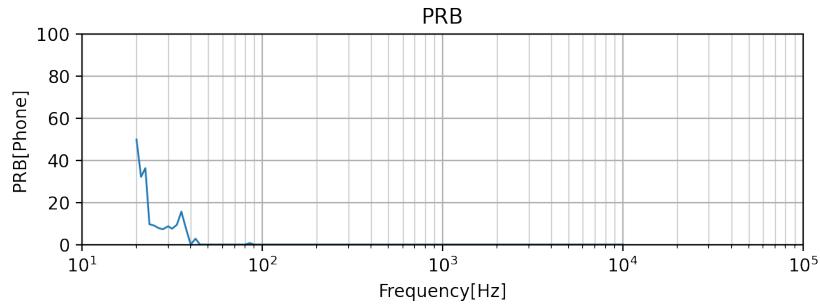
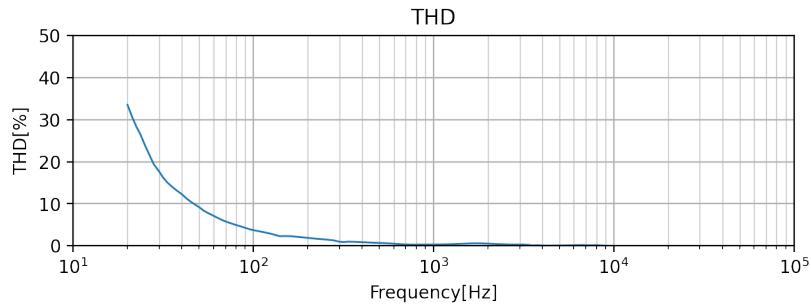
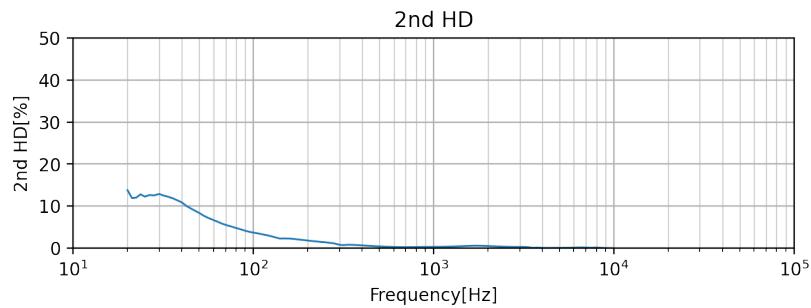
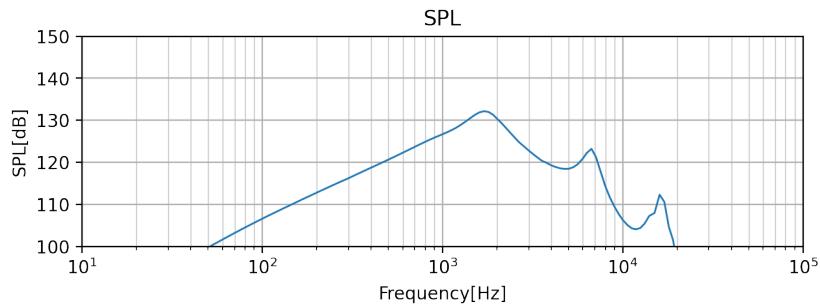
0.4Vrms input, 20-20kHz

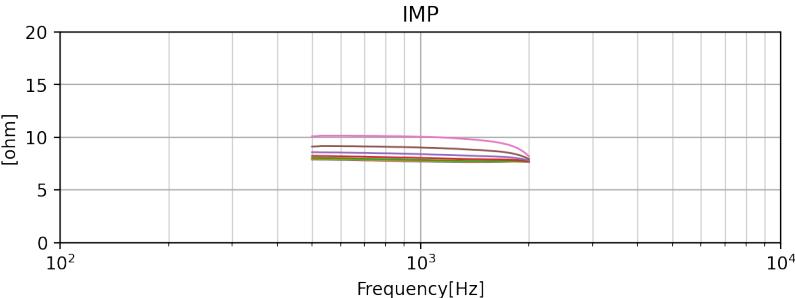
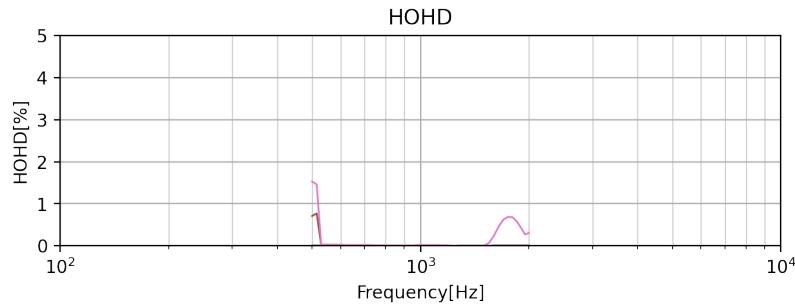
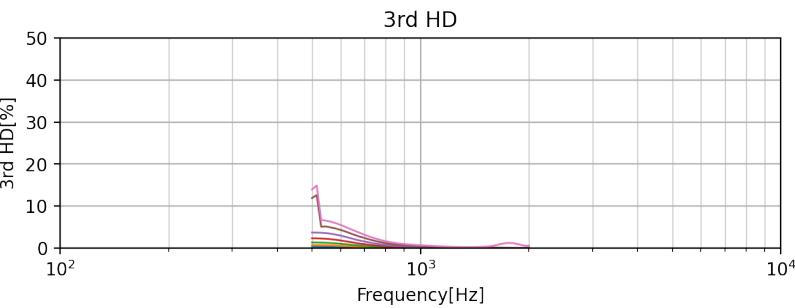
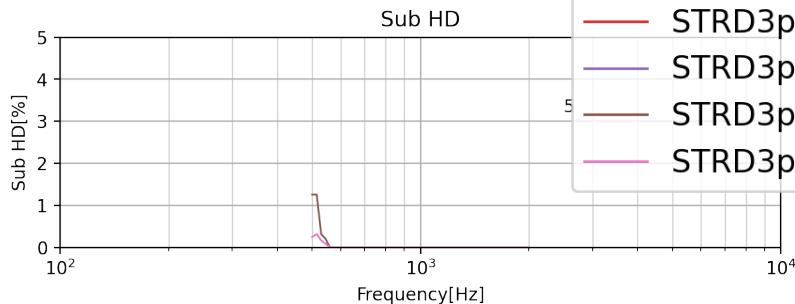
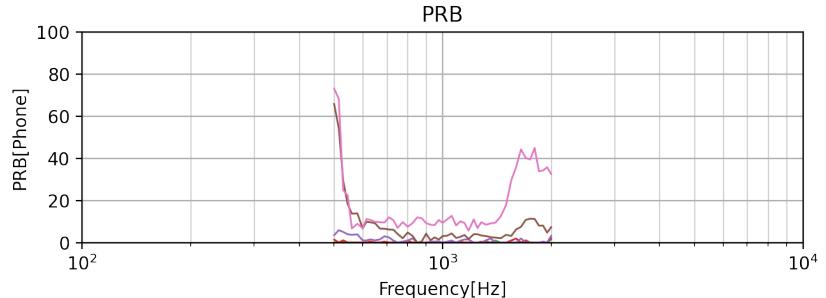
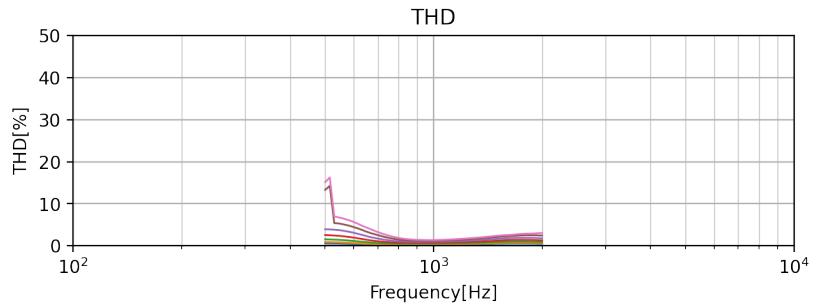
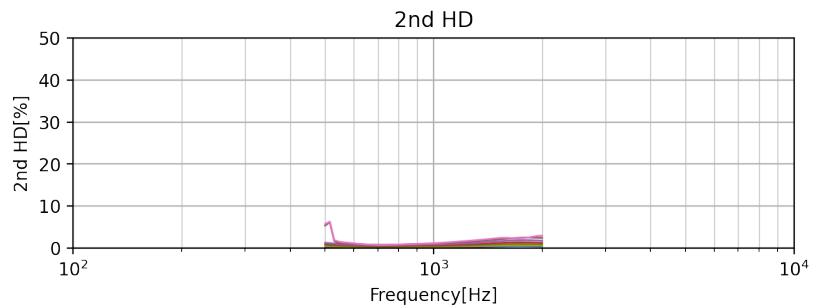
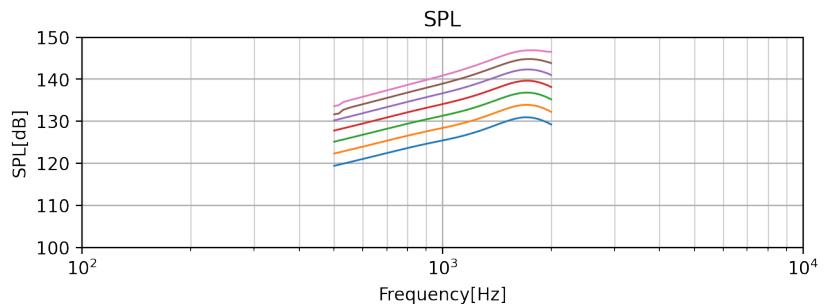
Sub Harmonic Study**STRD3.0 #2**

| |
|-------------------|
| STRD3p0-02 0.346v |
| STRD3p0-02 0.489v |
| STRD3p0-02 0.691v |
| STRD3p0-02 0.976v |
| STRD3p0-02 1.378v |
| STRD3p0-02 1.947v |
| STRD3p0-02 2.750v |

Sub Harmonic Study

STRD3.0 #2

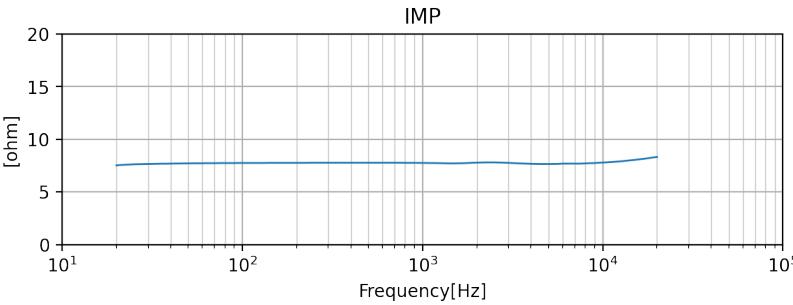
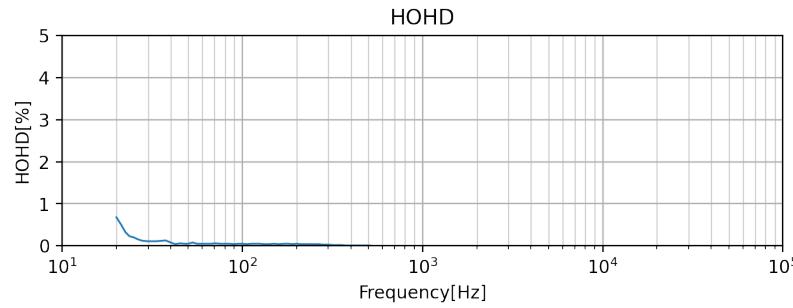
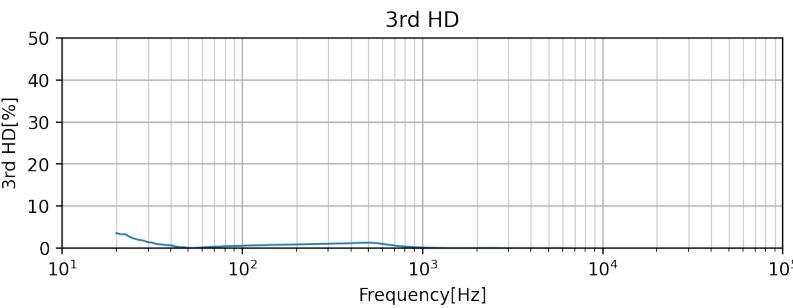
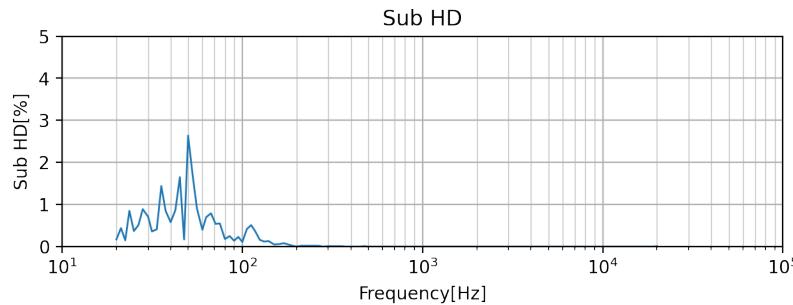
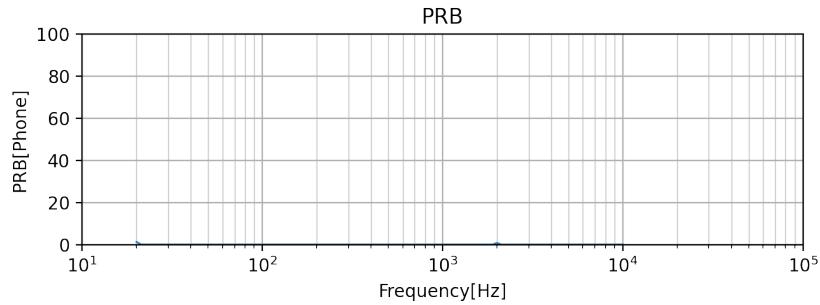
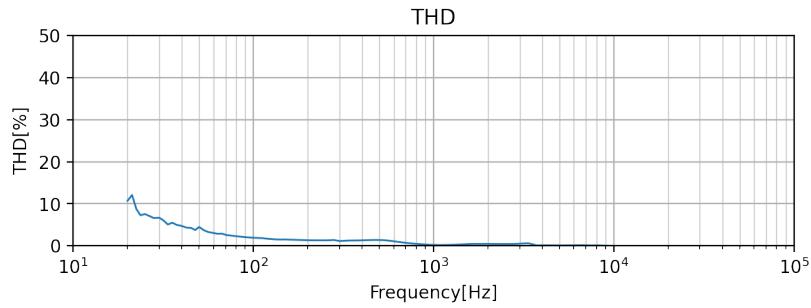
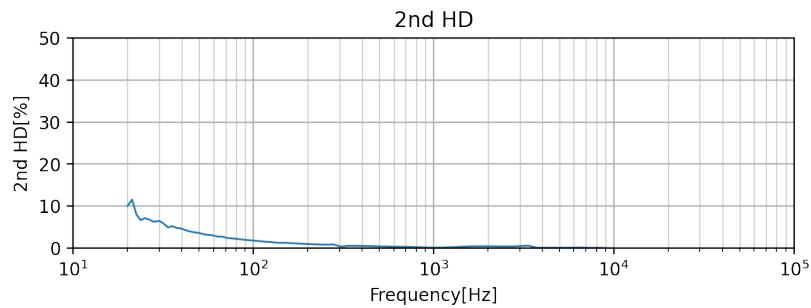
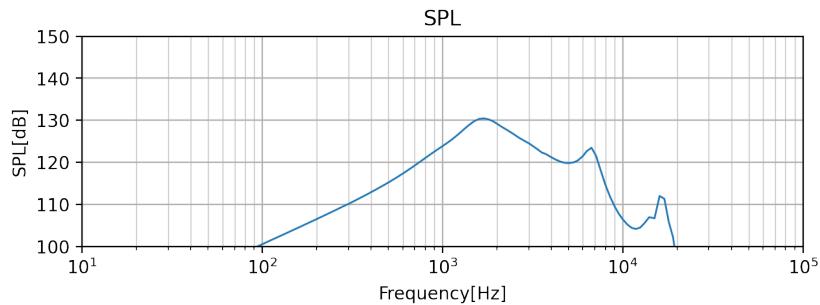
0.4Vrms input, 20-20kHz

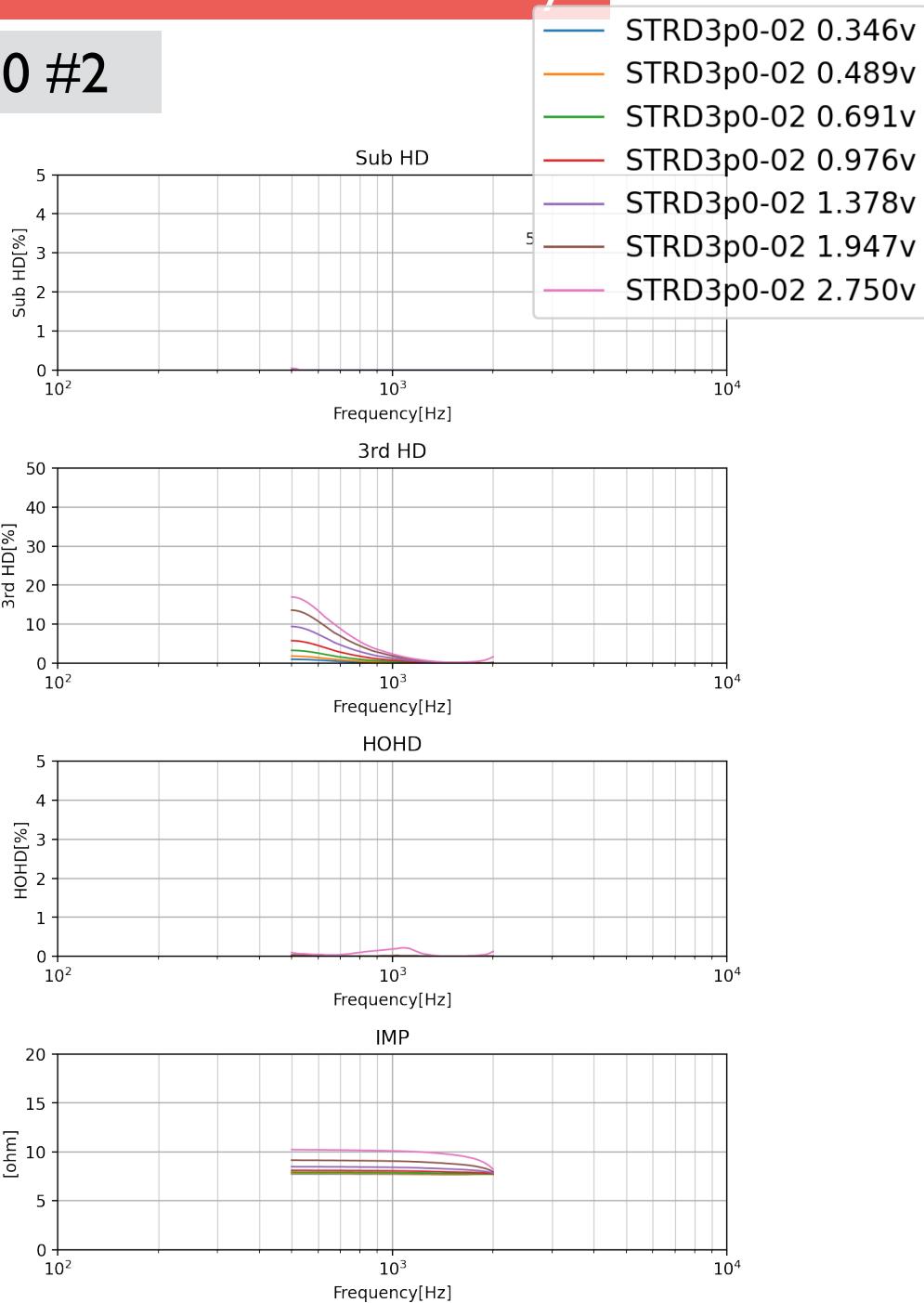
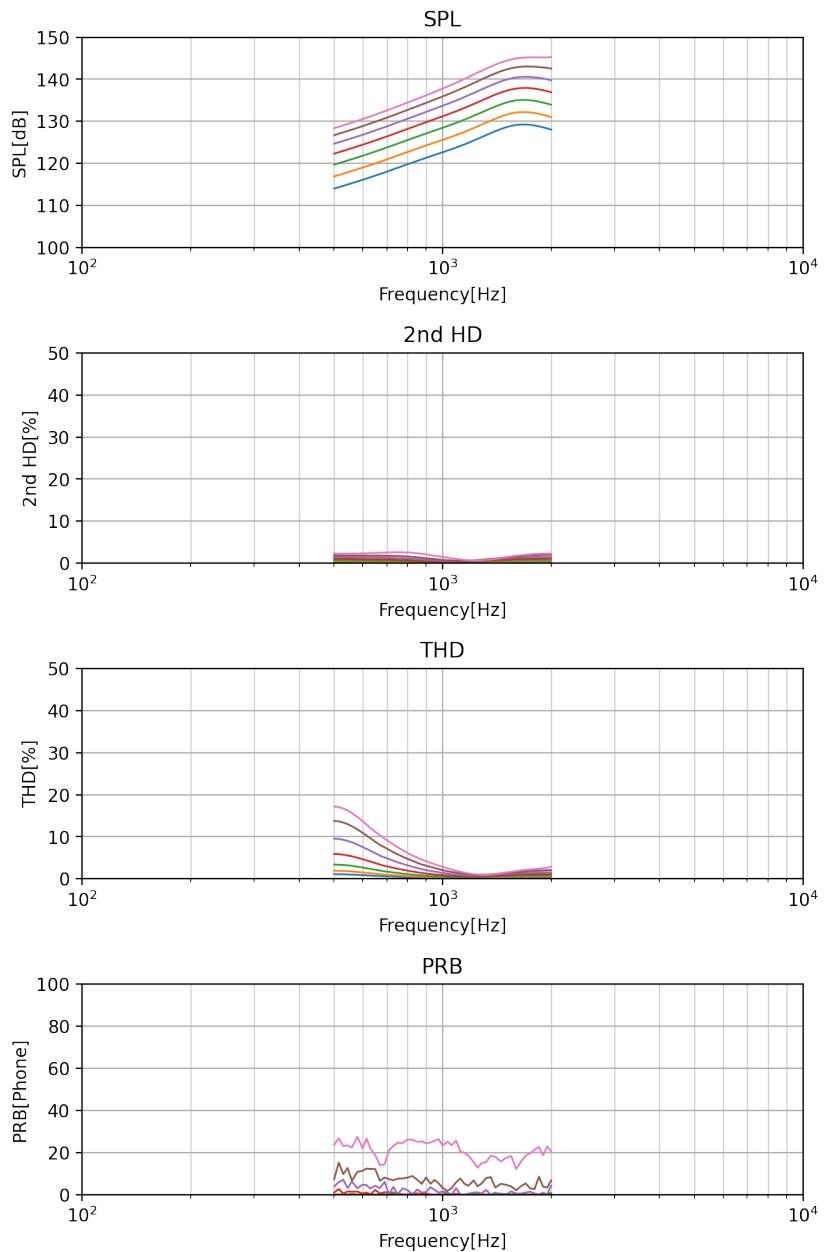
Sub Harmonic Study**STRD3.0 #2**

| |
|-------------------|
| STRD3p0-02 0.346v |
| STRD3p0-02 0.489v |
| STRD3p0-02 0.691v |
| STRD3p0-02 0.976v |
| STRD3p0-02 1.378v |
| STRD3p0-02 1.947v |
| STRD3p0-02 2.750v |

Sub Harmonic Study

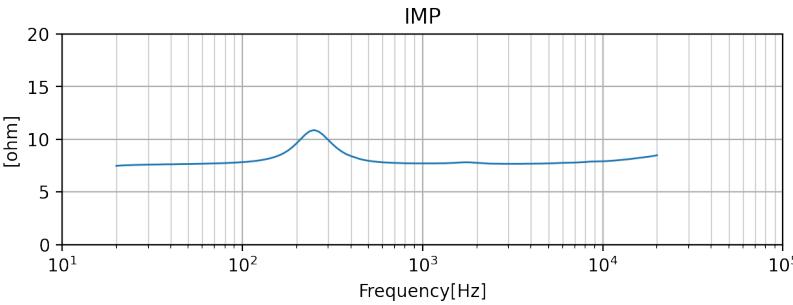
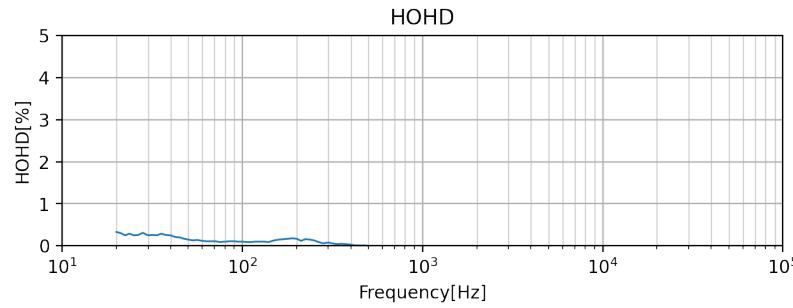
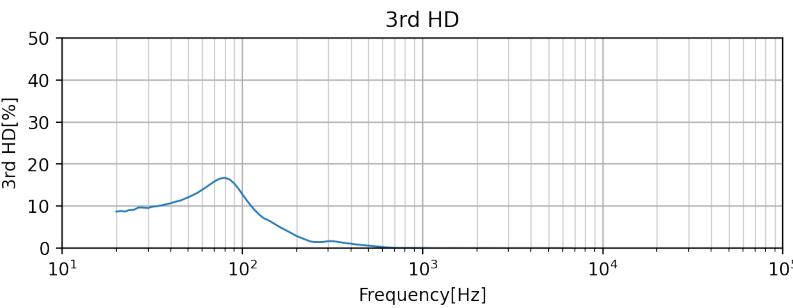
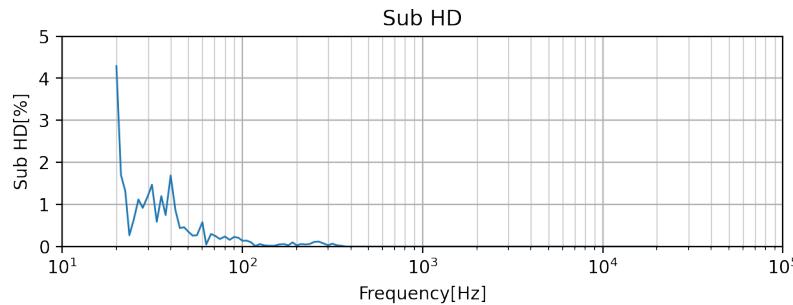
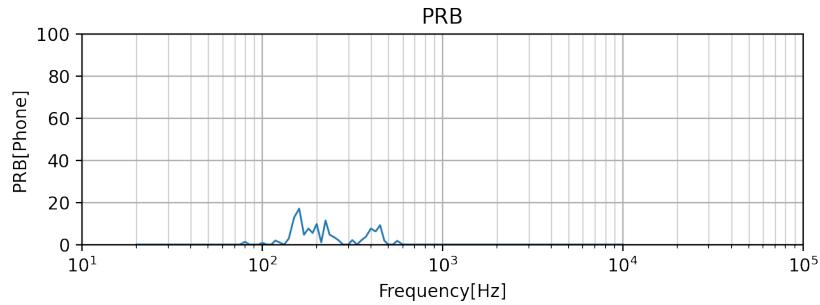
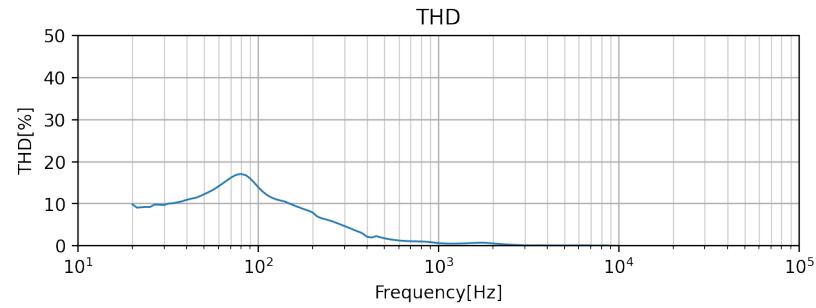
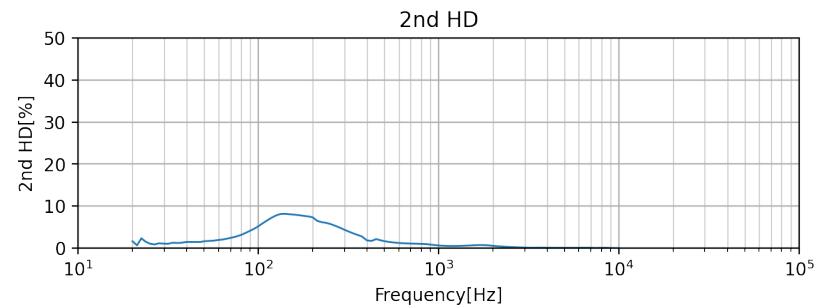
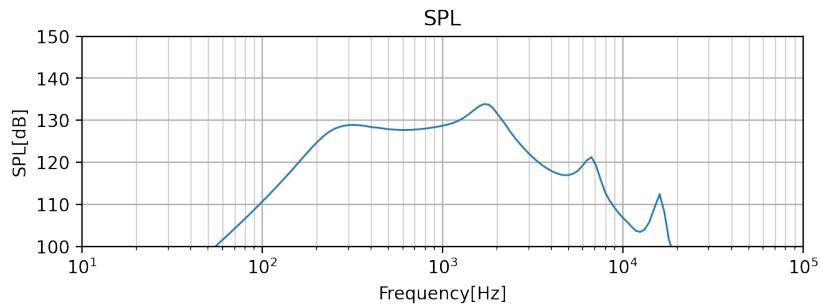
STRD3.0 #2

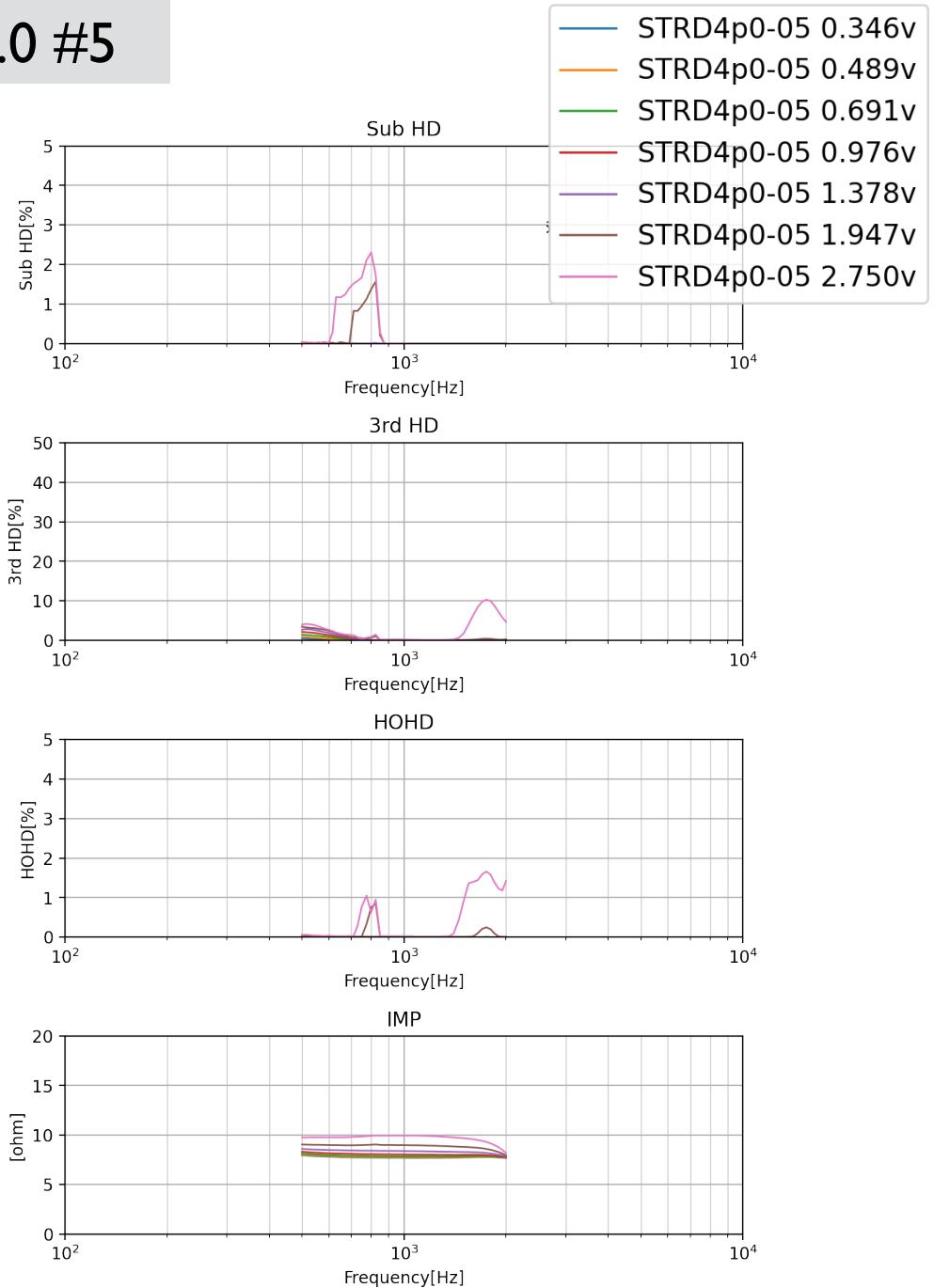
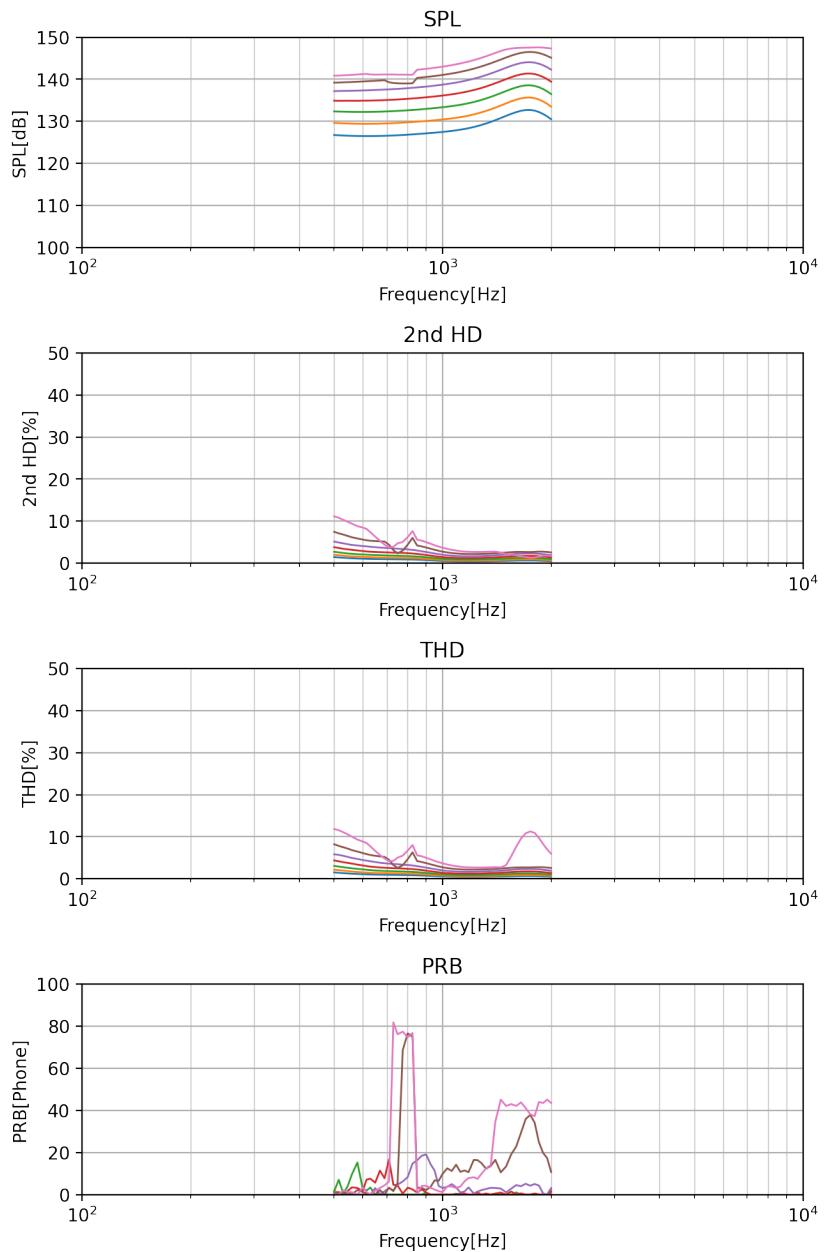
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD3.0 #2**

Sub Harmonic Study

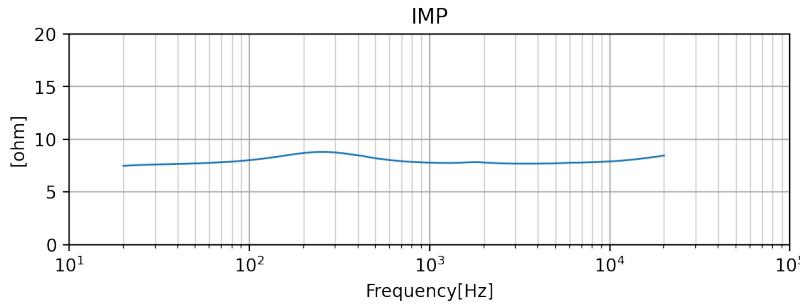
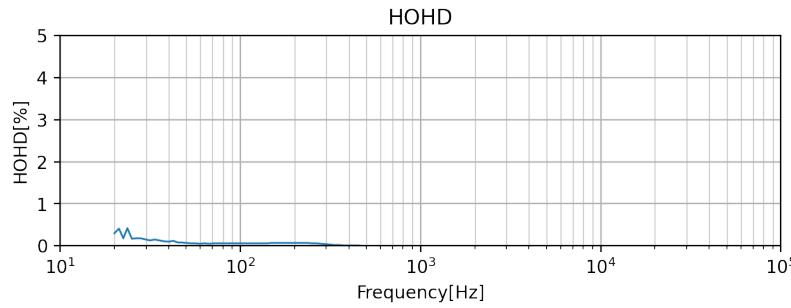
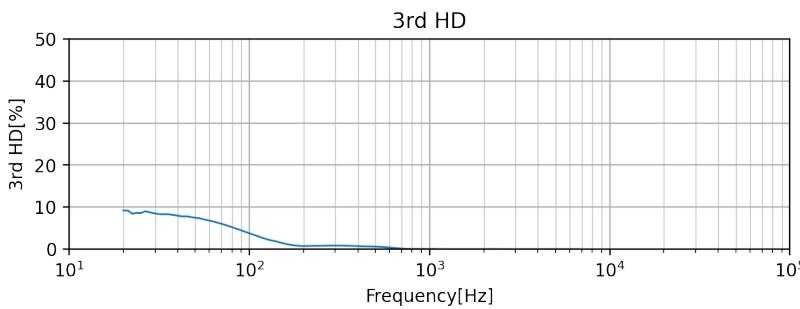
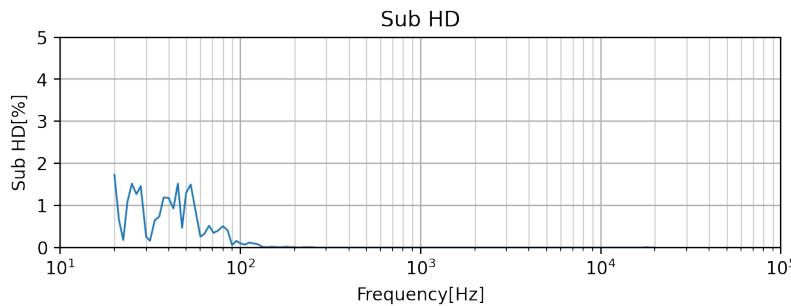
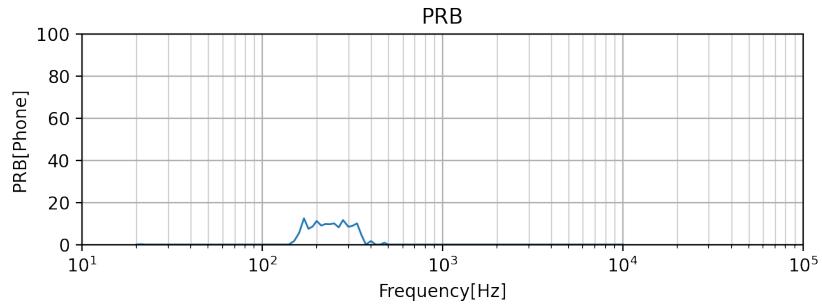
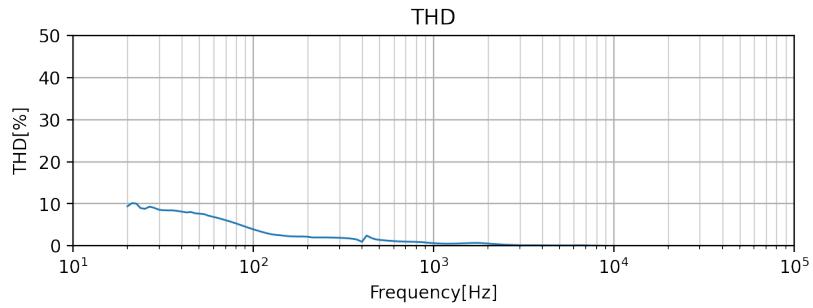
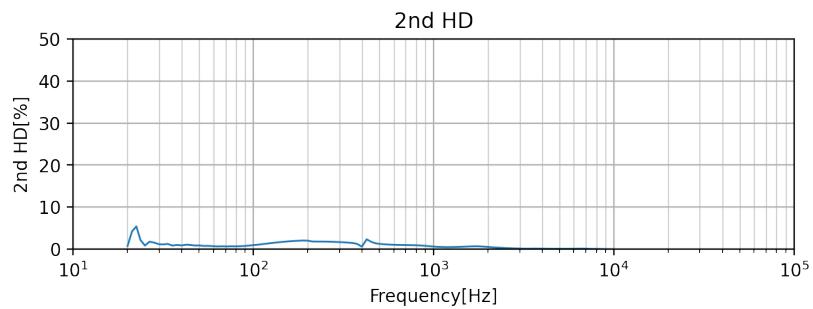
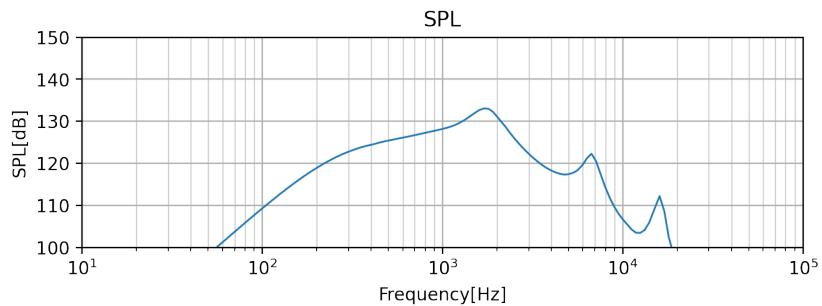
STRD4.0 #5

0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD4.0 #5**

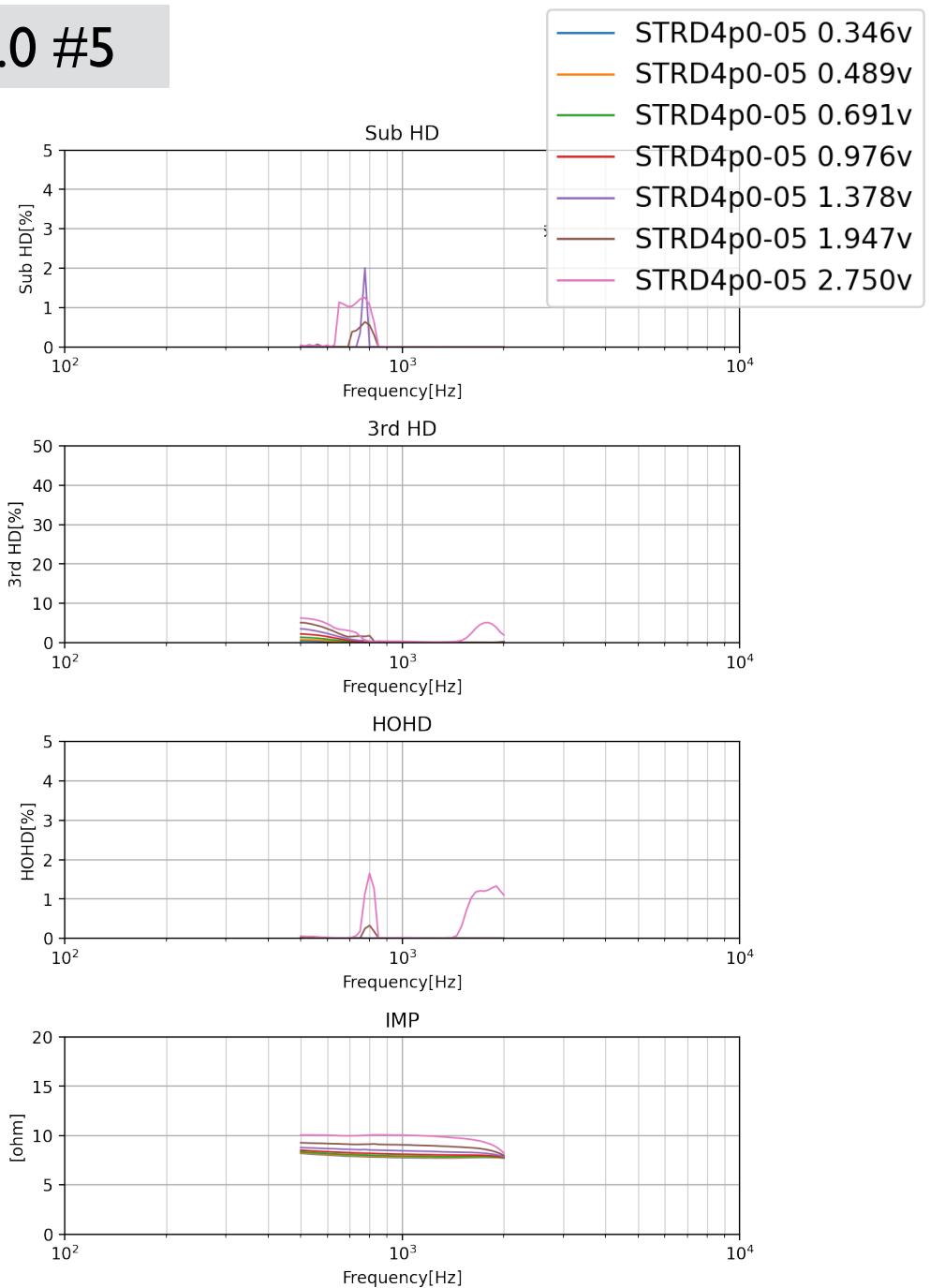
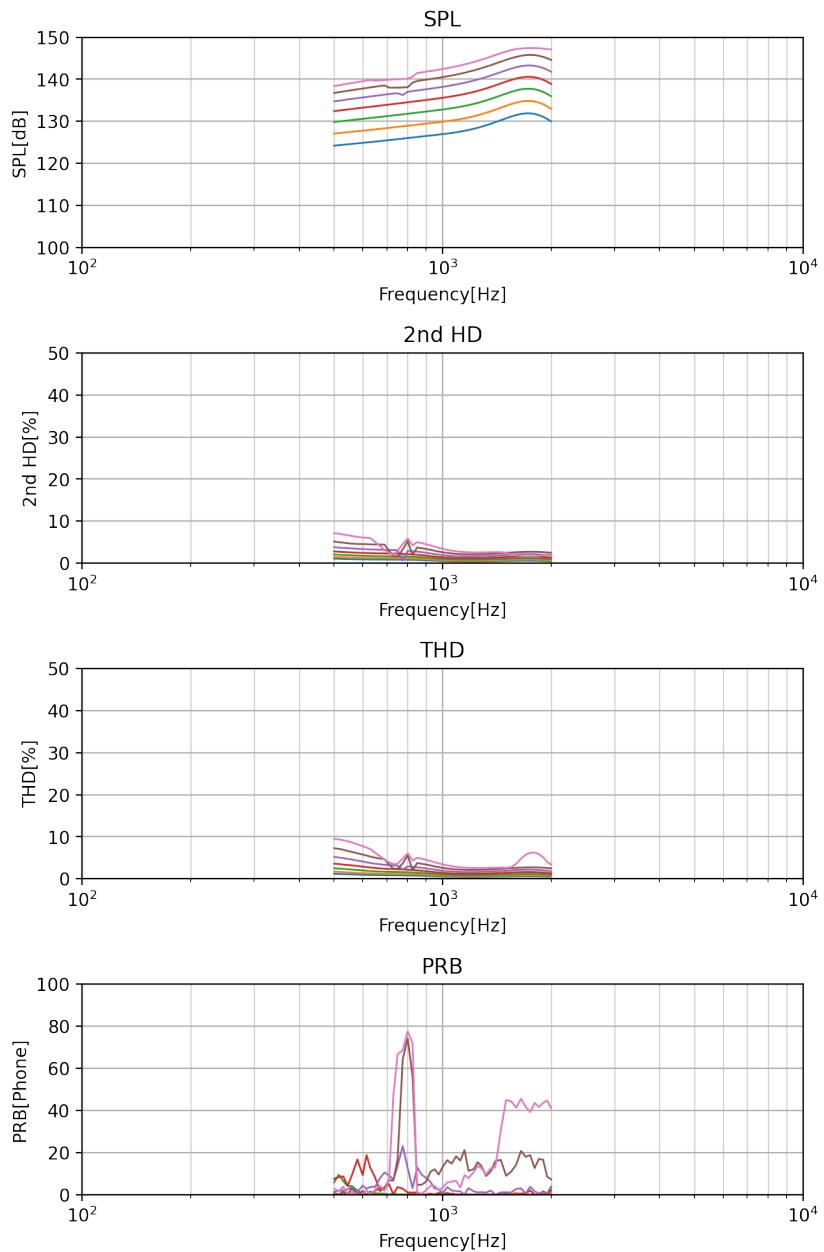
Sub Harmonic Study

STRD4.0 #5

0.4Vrms input, 20-20kHz

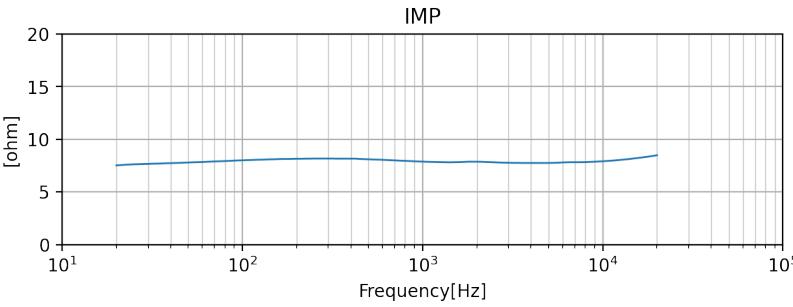
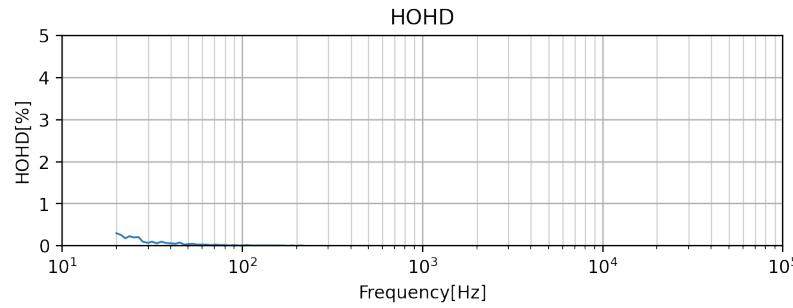
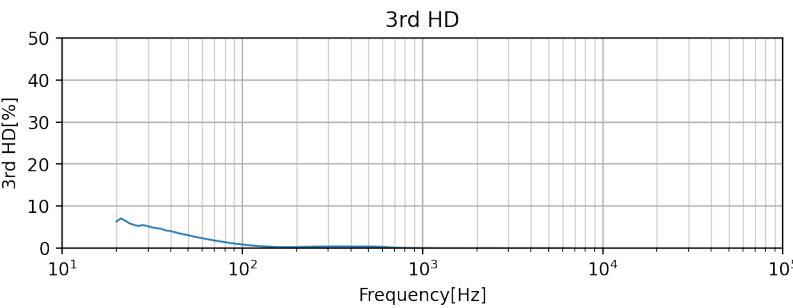
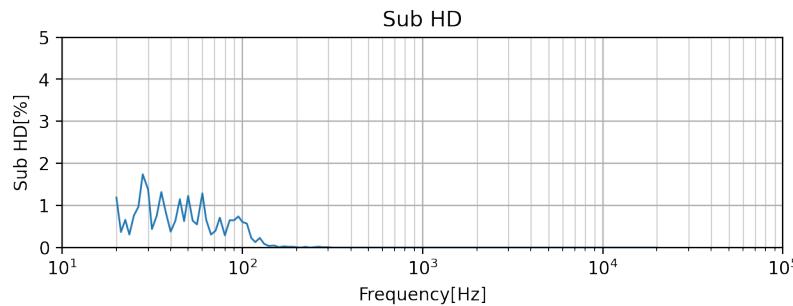
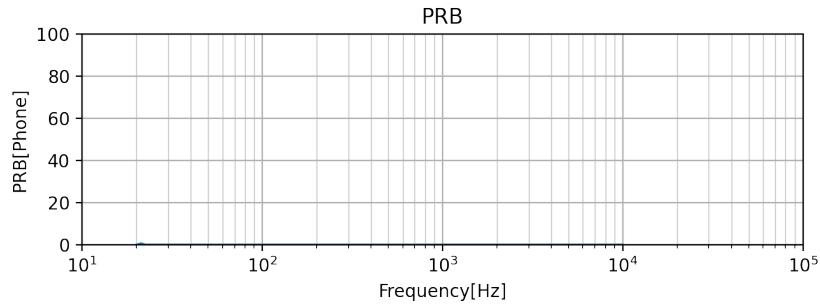
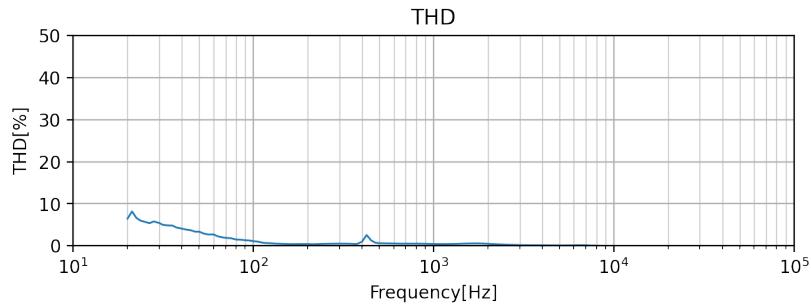
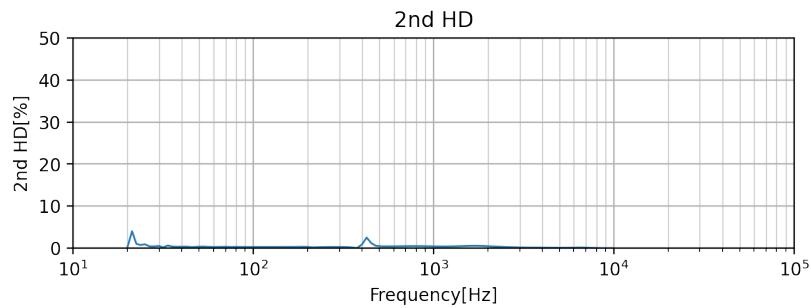
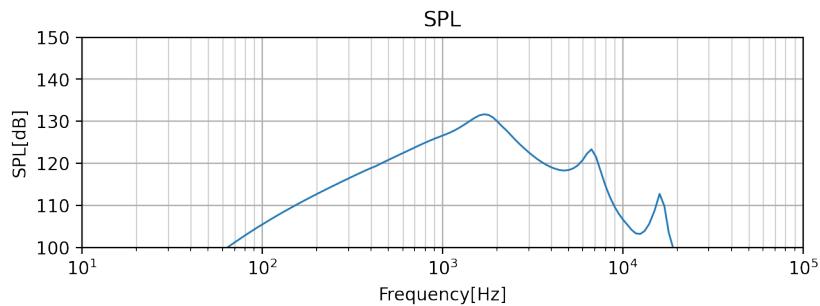
Sub Harmonic Study

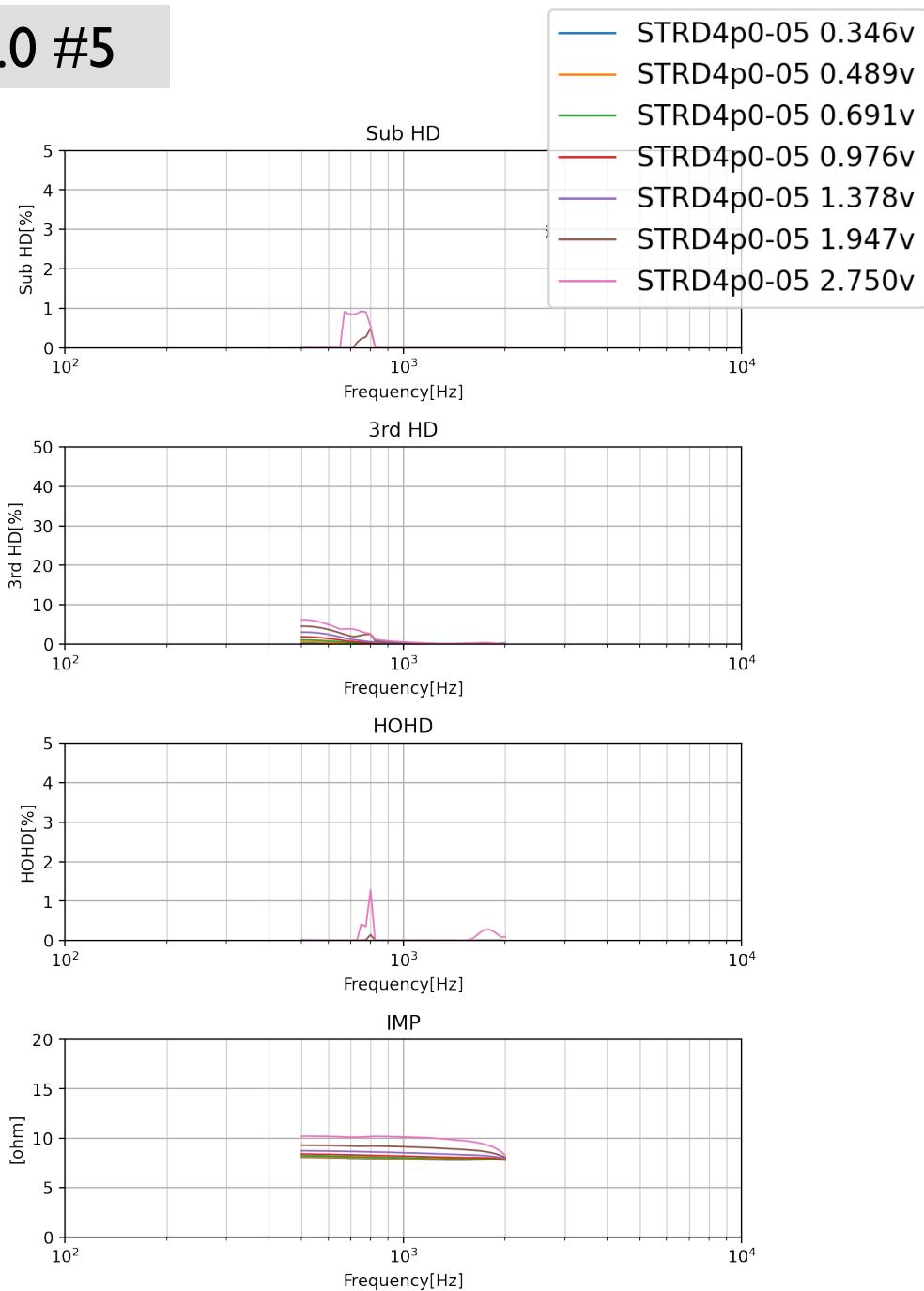
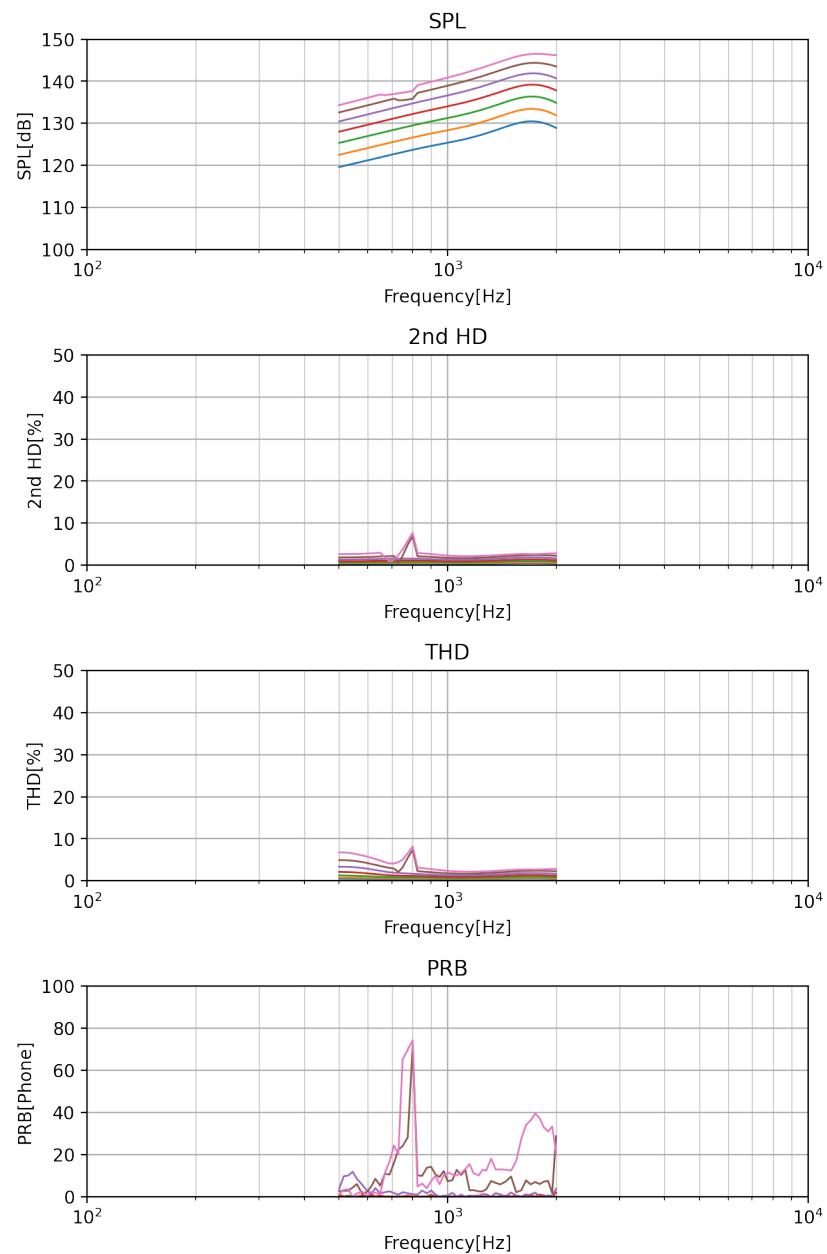
STRD4.0 #5



Sub Harmonic Study

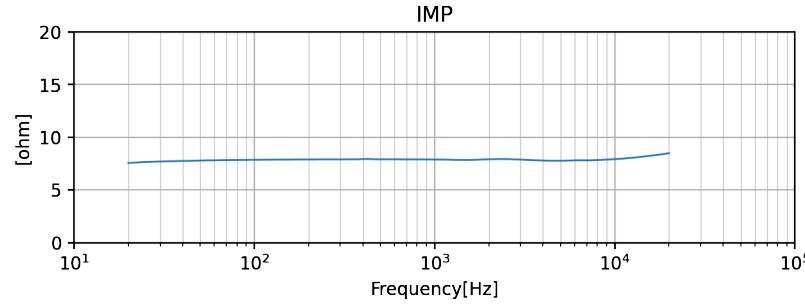
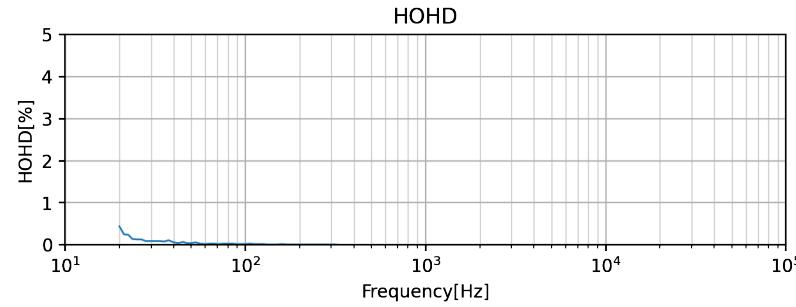
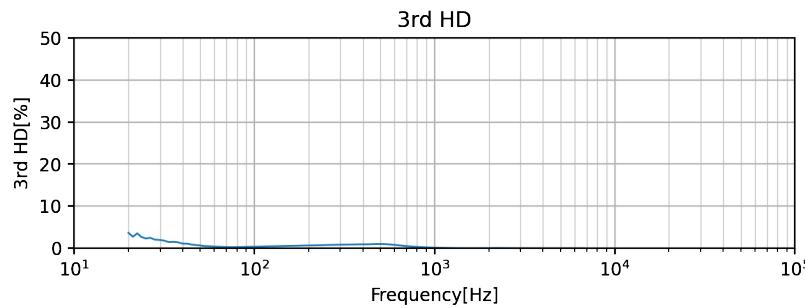
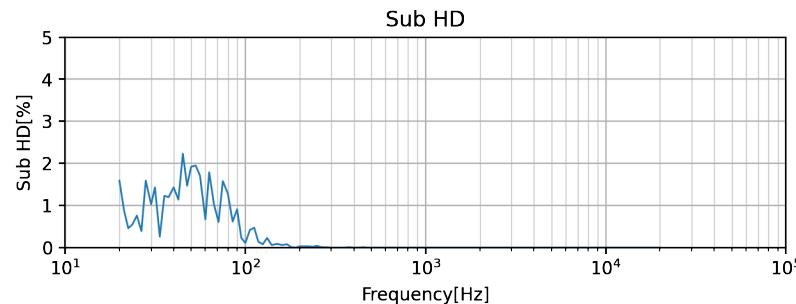
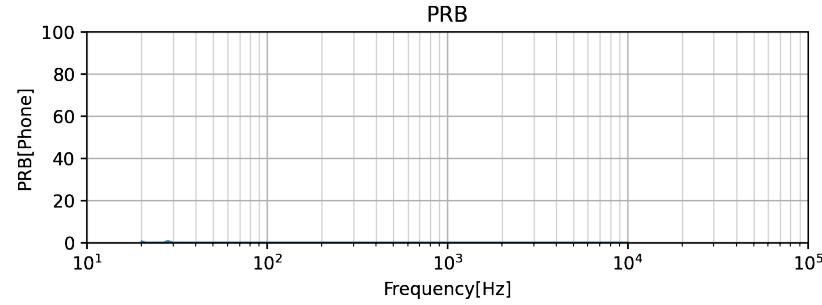
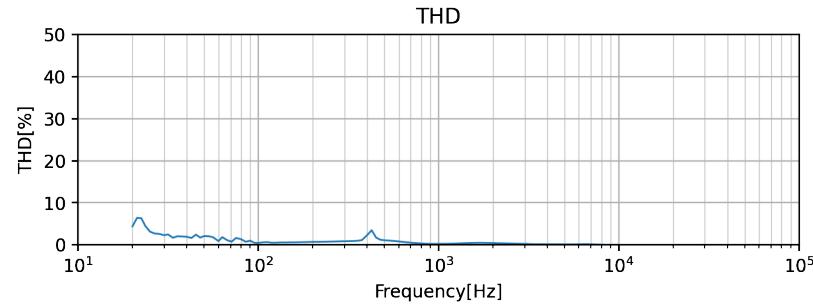
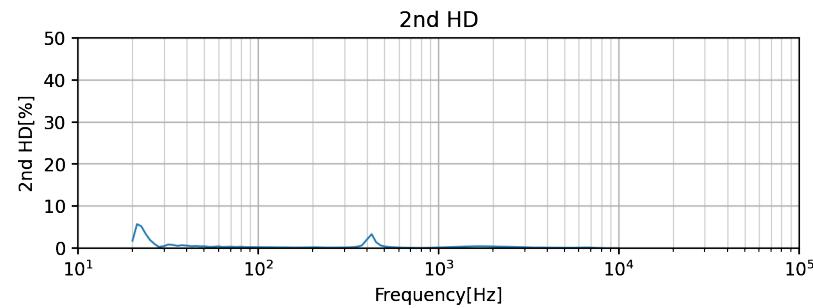
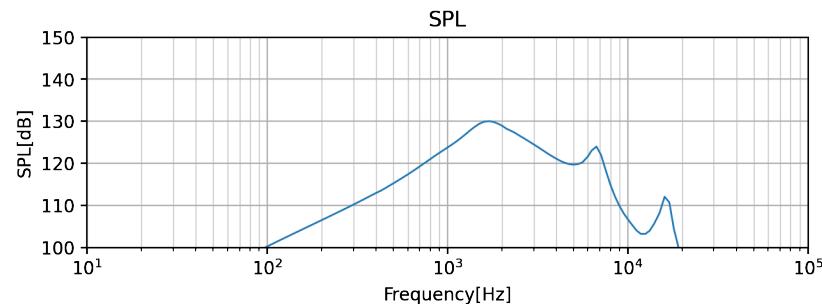
STRD4.0 #5

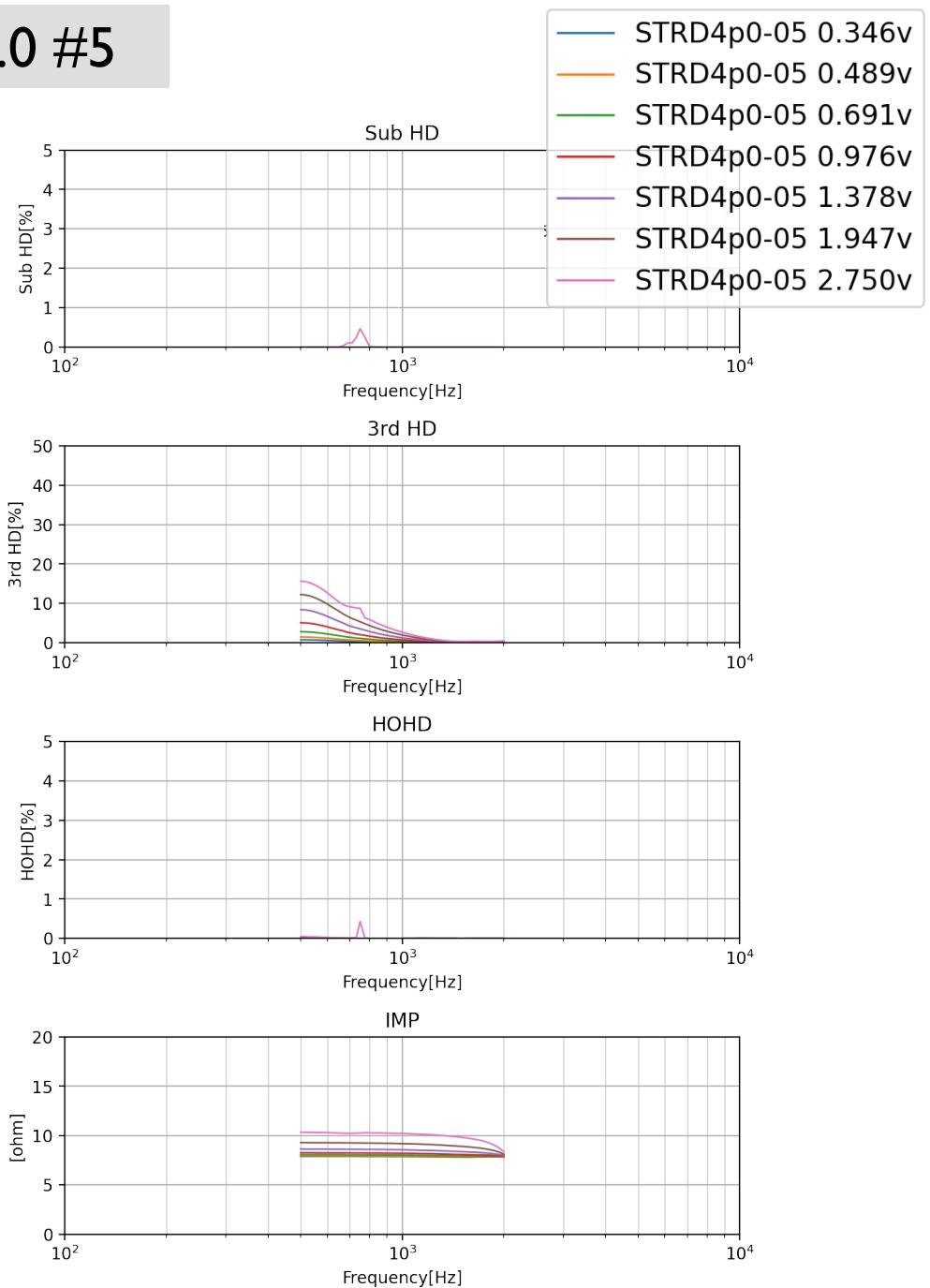
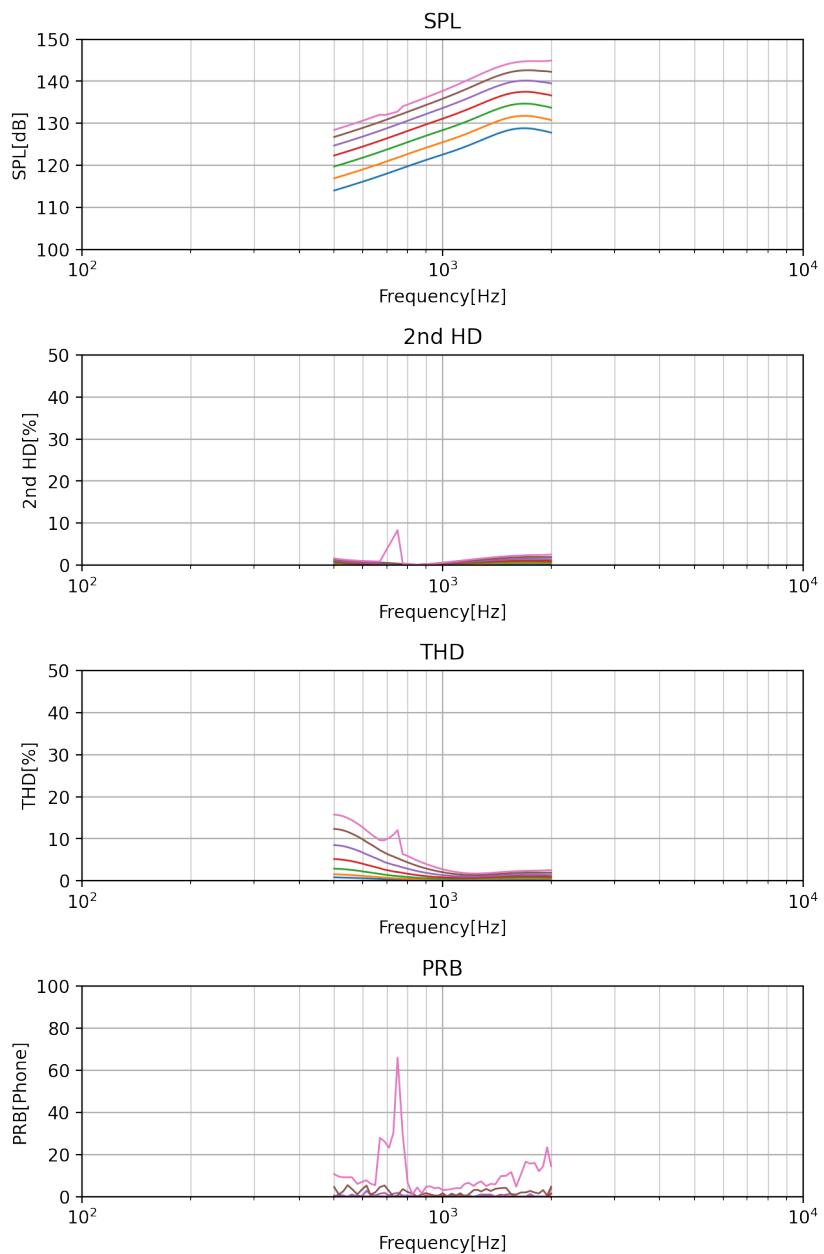
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD4.0 #5**

Sub Harmonic Study

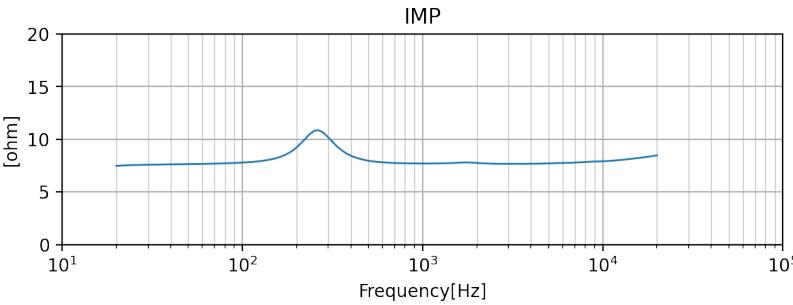
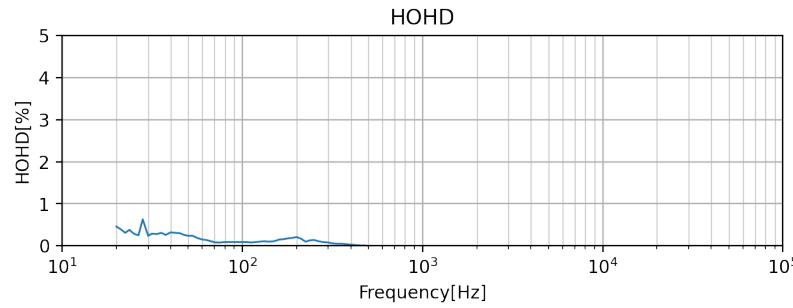
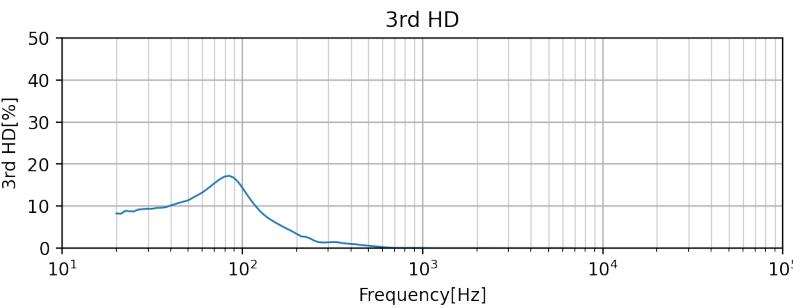
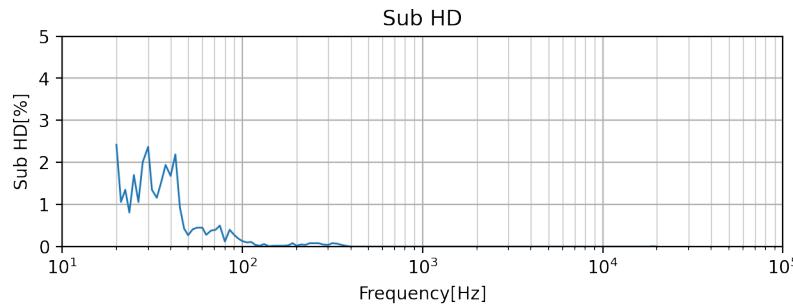
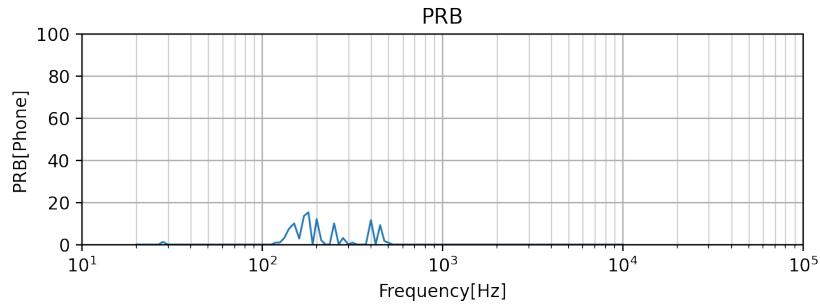
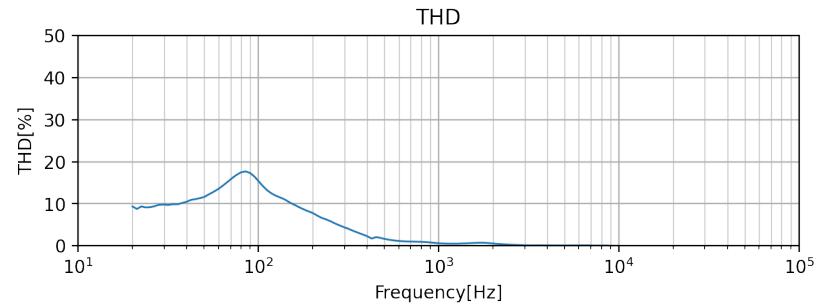
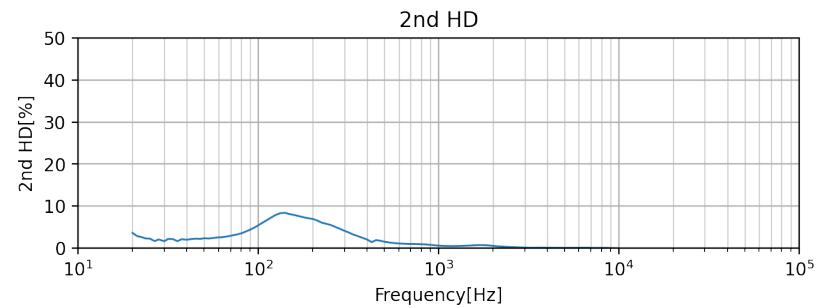
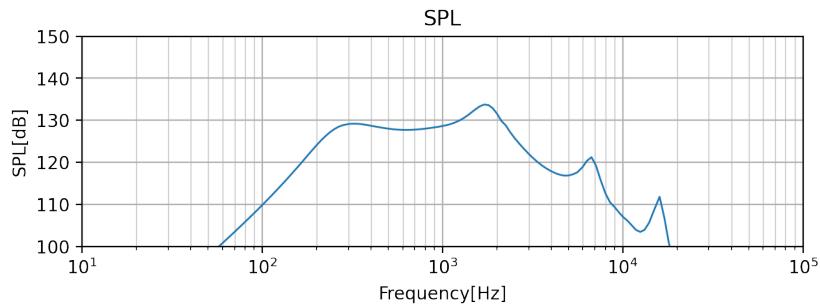
STRD4.0 #5

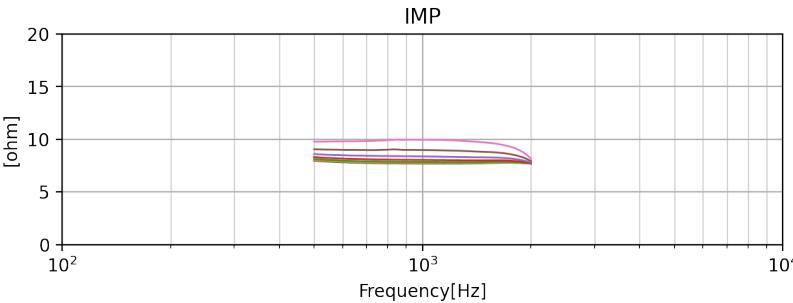
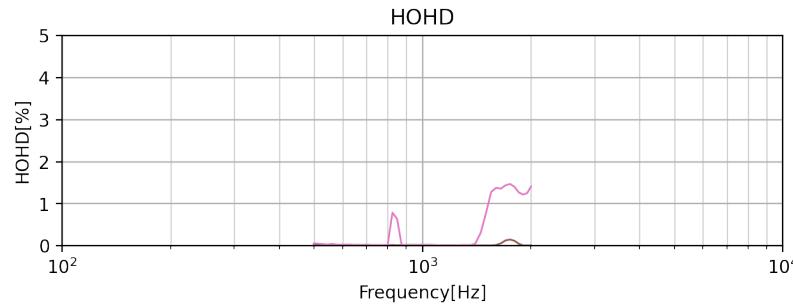
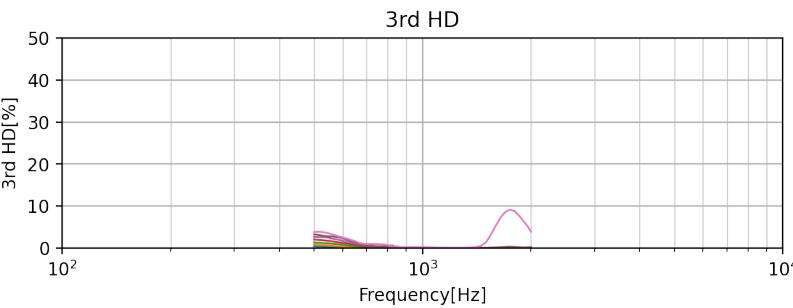
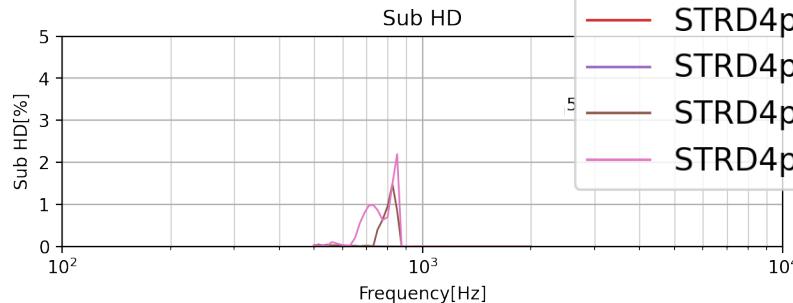
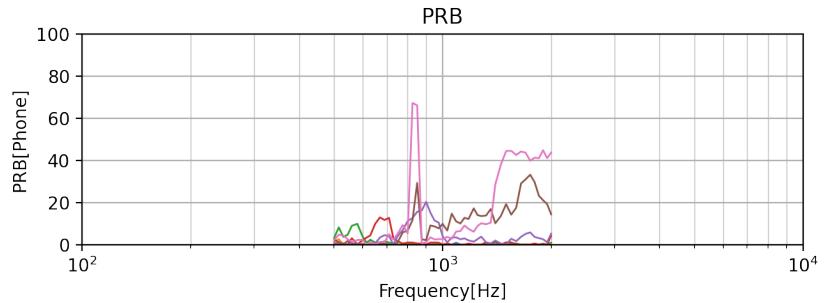
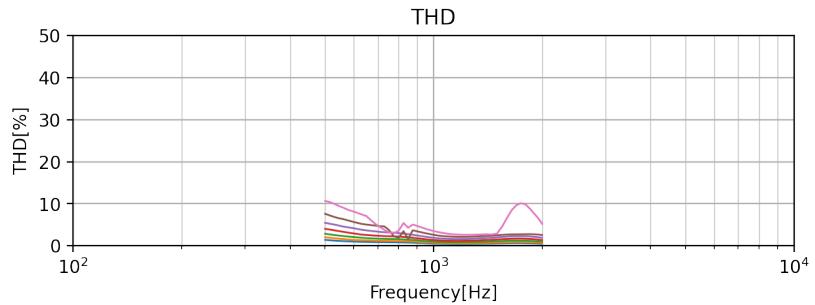
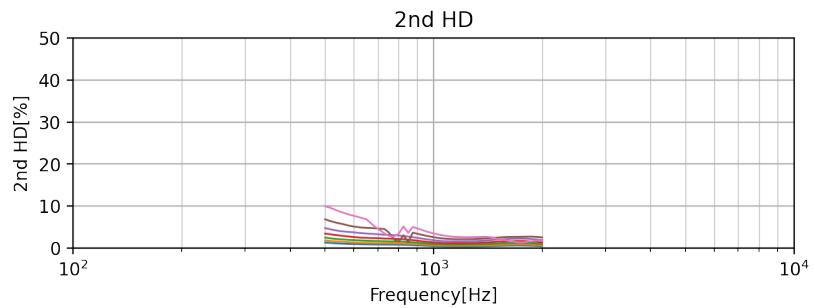
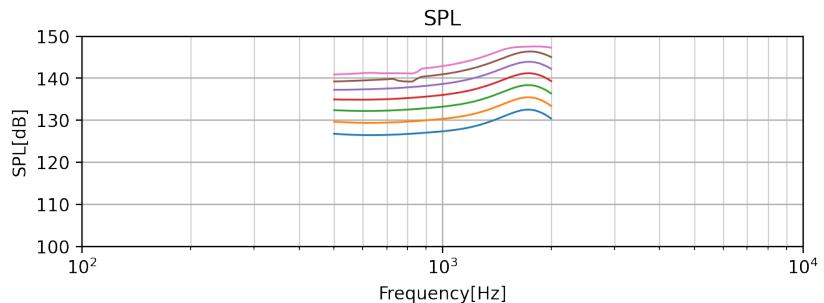
0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD4.0 #5**

Sub Harmonic Study

STRD4.0 #6

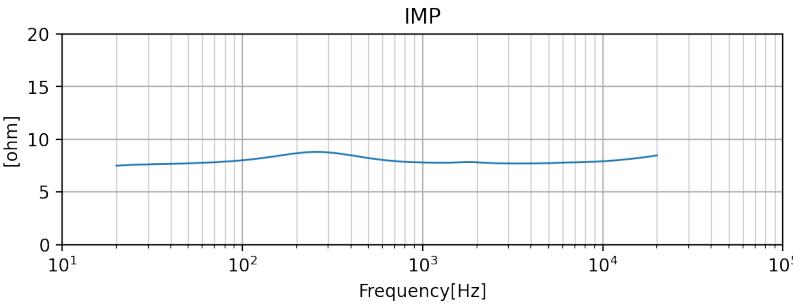
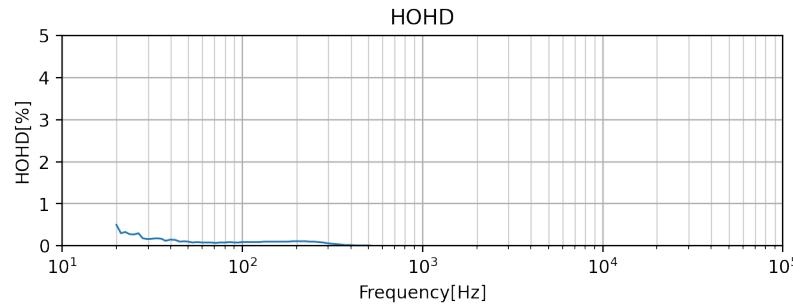
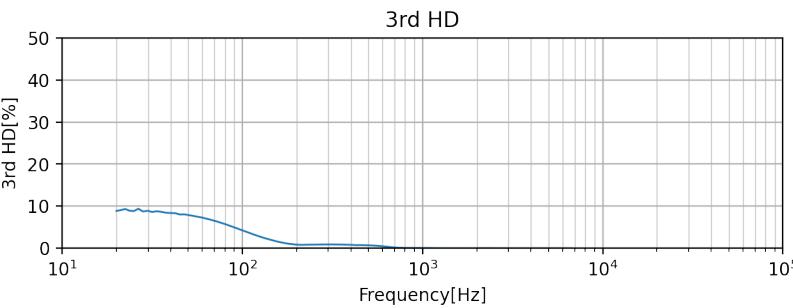
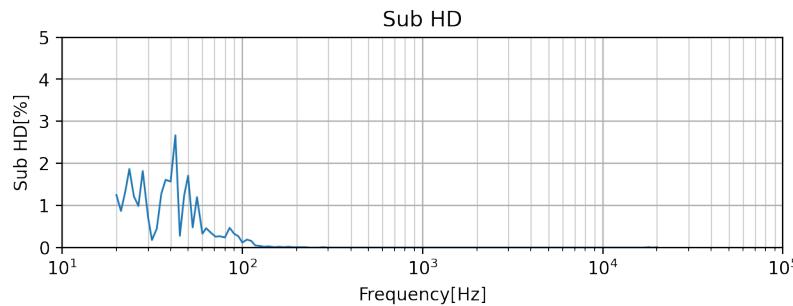
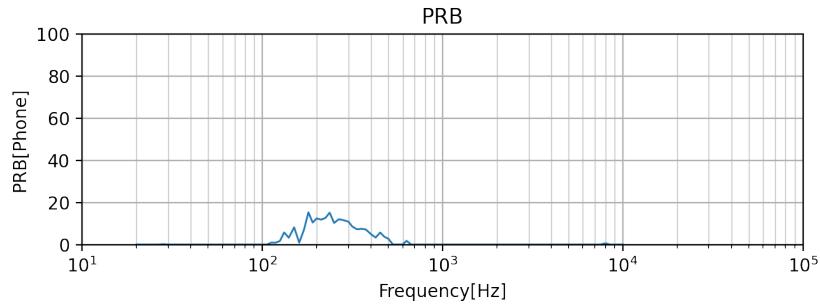
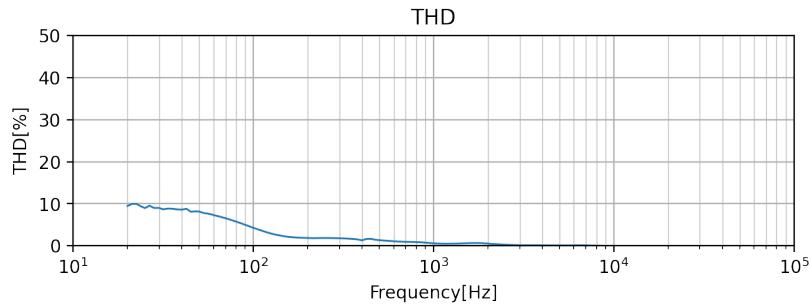
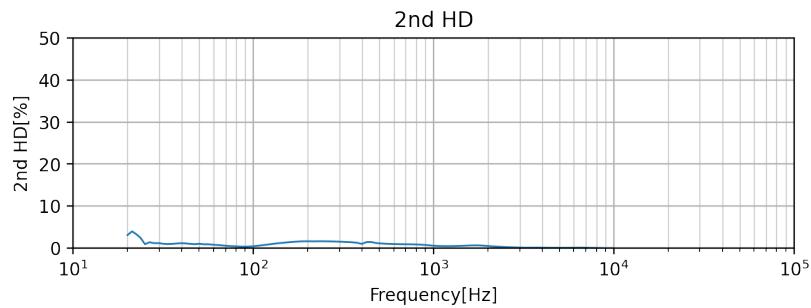
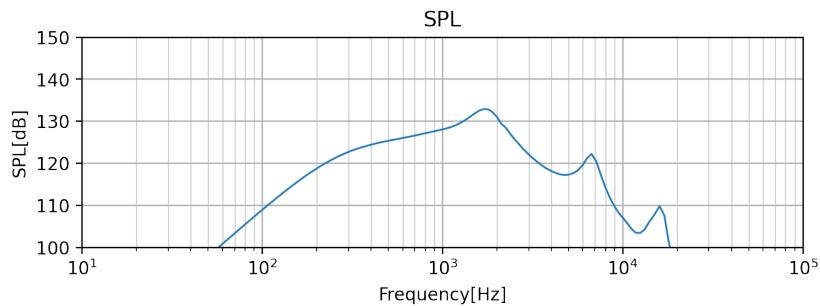
0.4Vrms input, 20-20kHz

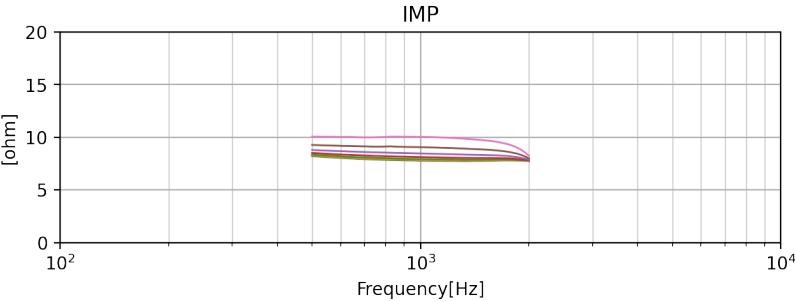
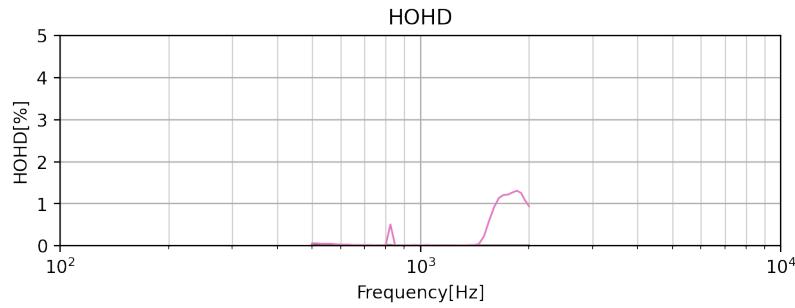
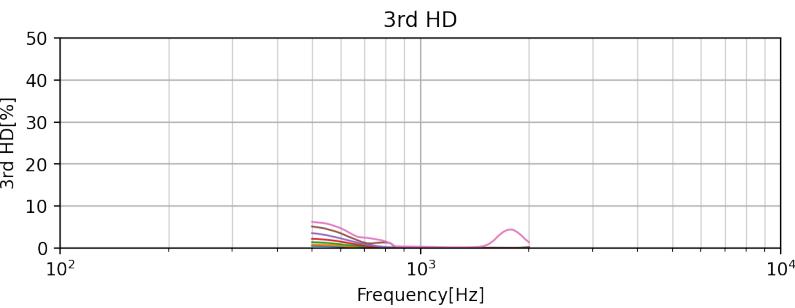
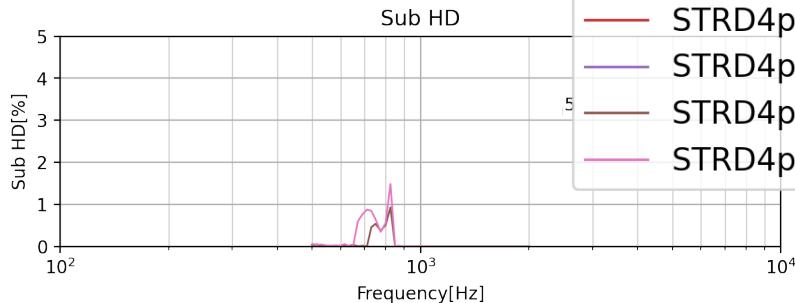
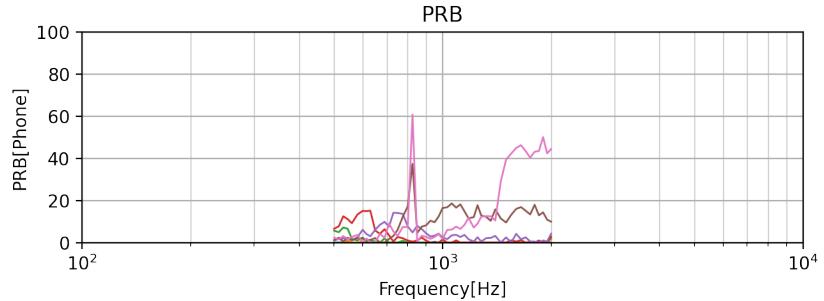
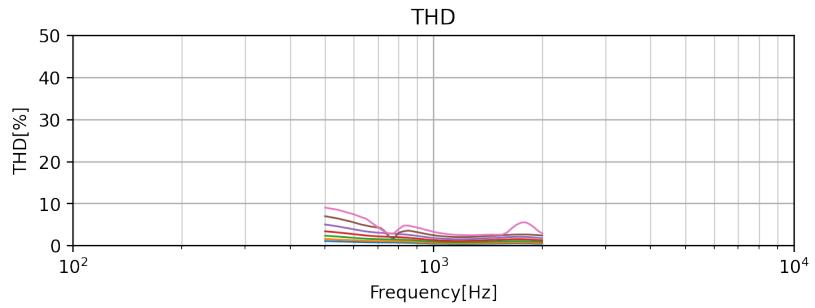
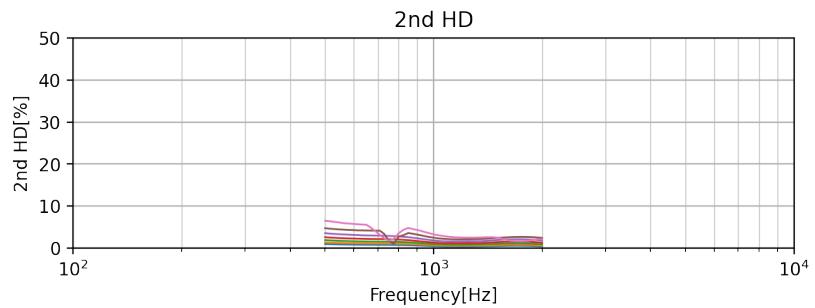
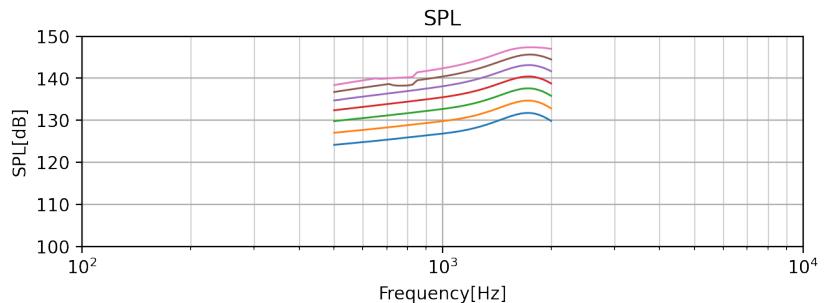
Sub Harmonic Study**STRD4.0 #6**

- STRD4p0-06 0.346v
- STRD4p0-06 0.489v
- STRD4p0-06 0.691v
- STRD4p0-06 0.976v
- STRD4p0-06 1.378v
- STRD4p0-06 1.947v
- STRD4p0-06 2.750v

Sub Harmonic Study

STRD4.0 #6

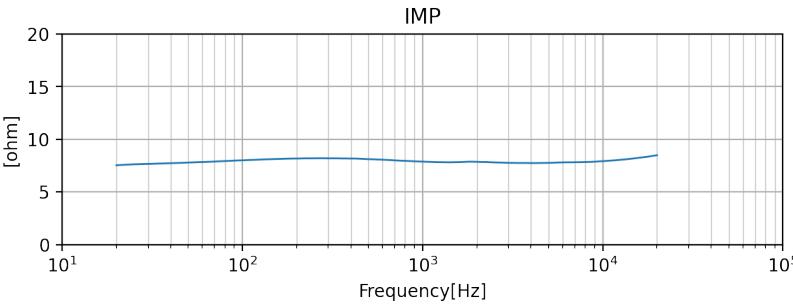
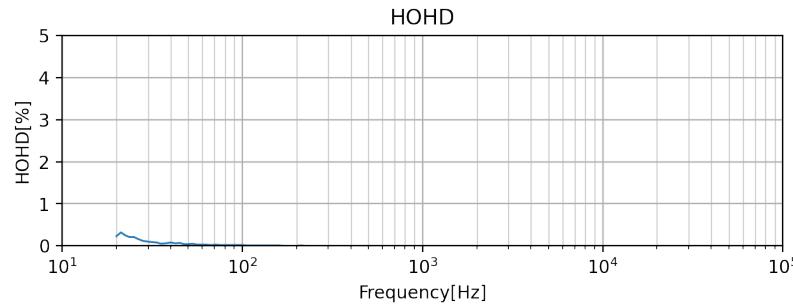
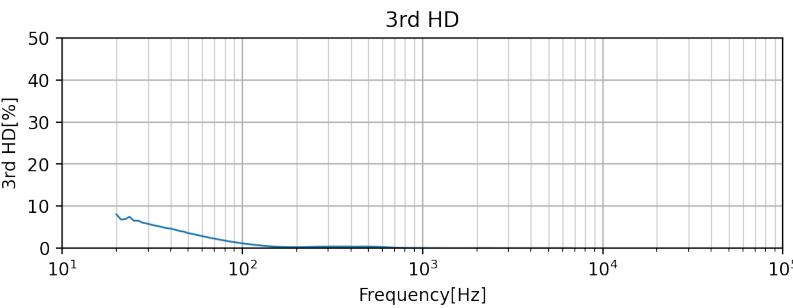
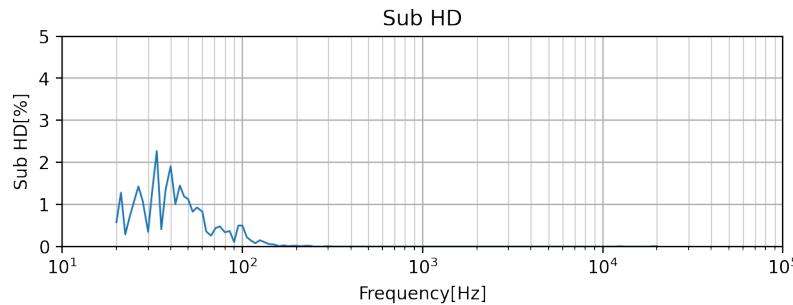
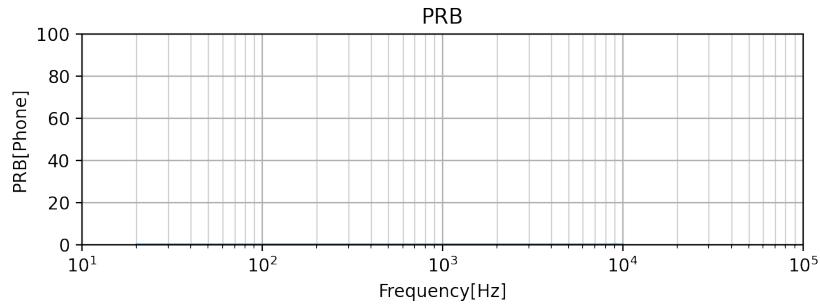
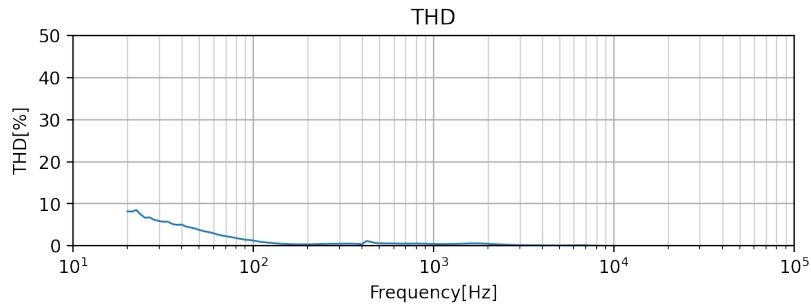
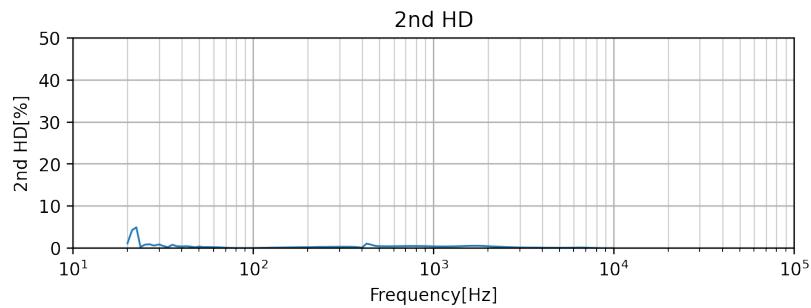
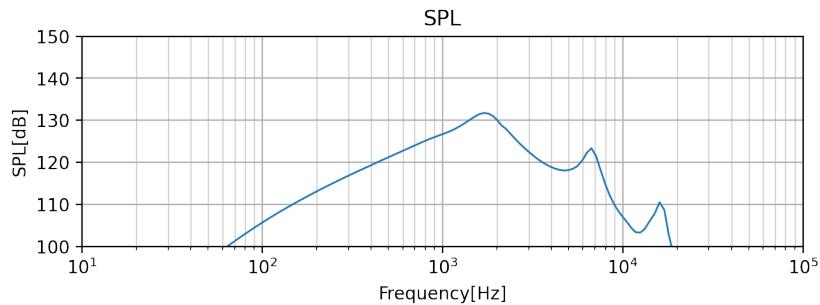
0.4Vrms input, 20-20kHz

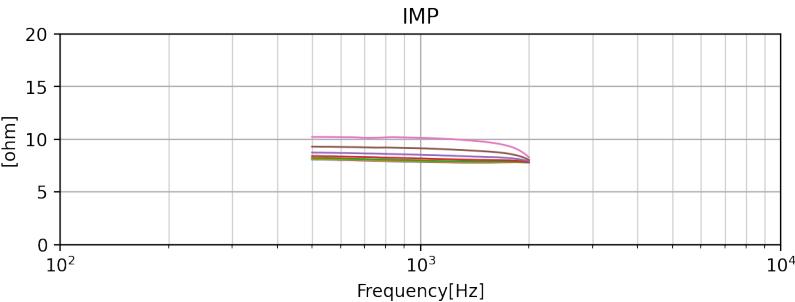
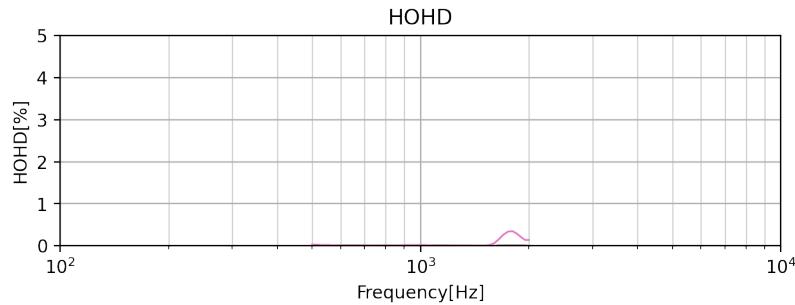
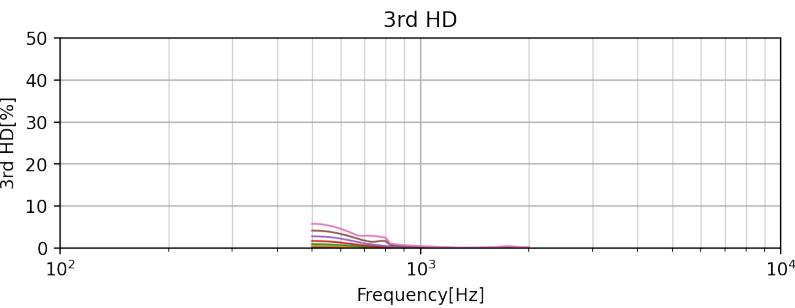
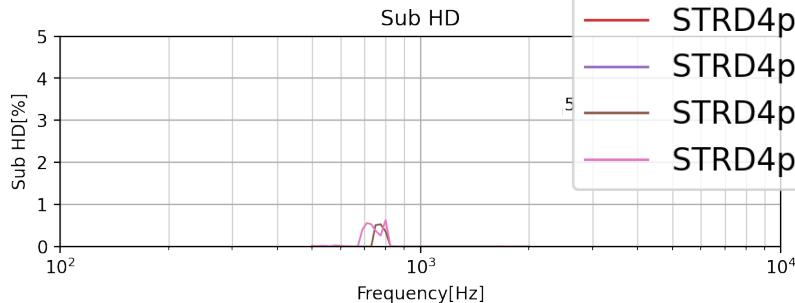
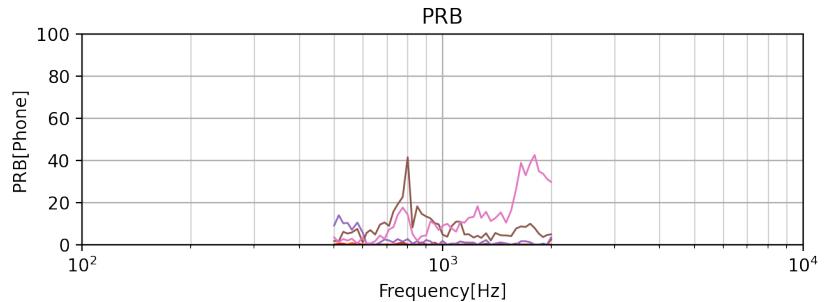
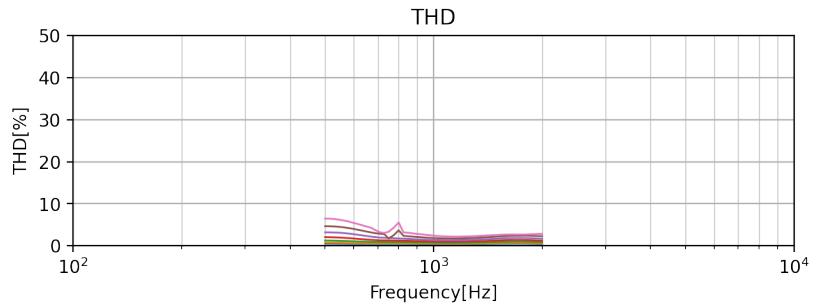
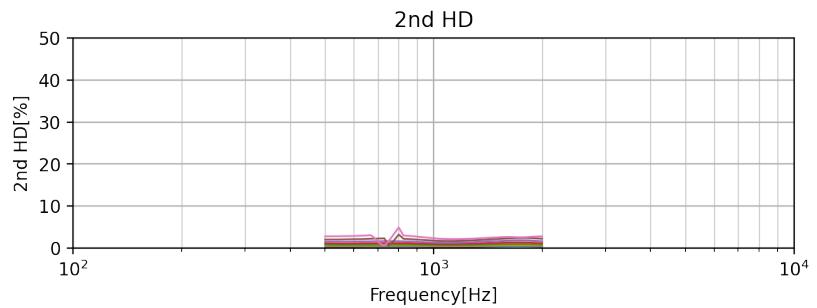
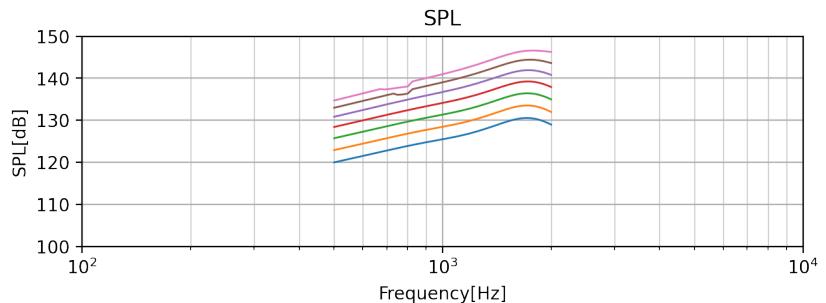
Sub Harmonic Study**STRD4.0 #6**

- STRD4p0-06 0.346v
- STRD4p0-06 0.489v
- STRD4p0-06 0.691v
- STRD4p0-06 0.976v
- STRD4p0-06 1.378v
- STRD4p0-06 1.947v
- STRD4p0-06 2.750v

Sub Harmonic Study

STRD4.0 #6

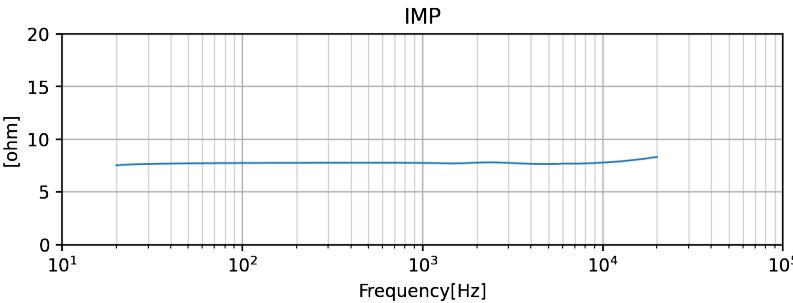
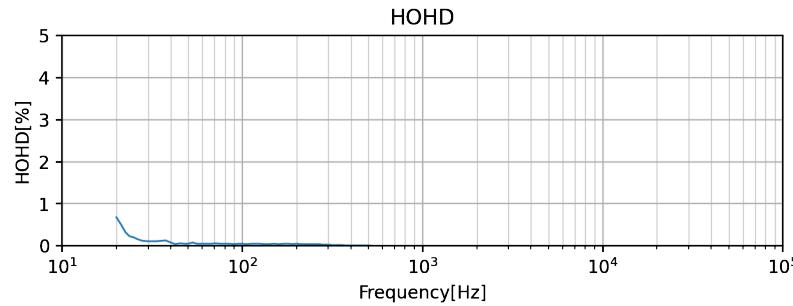
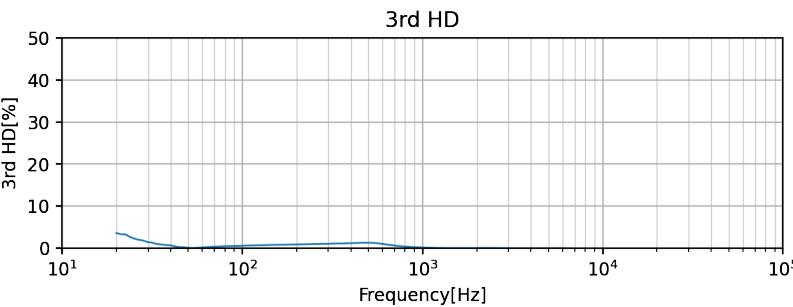
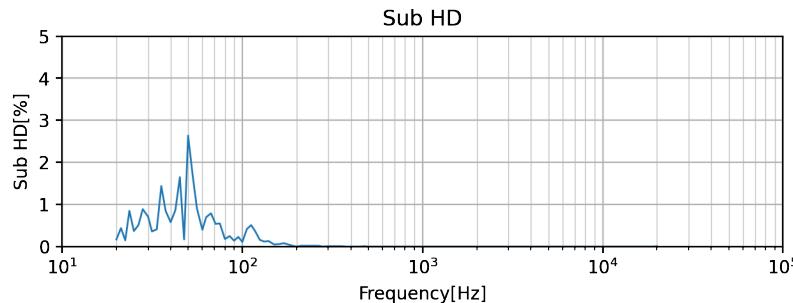
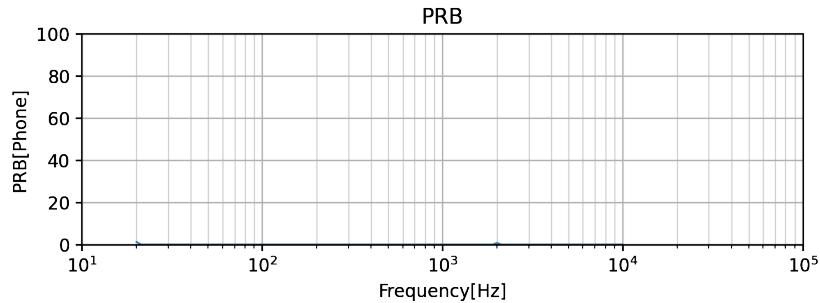
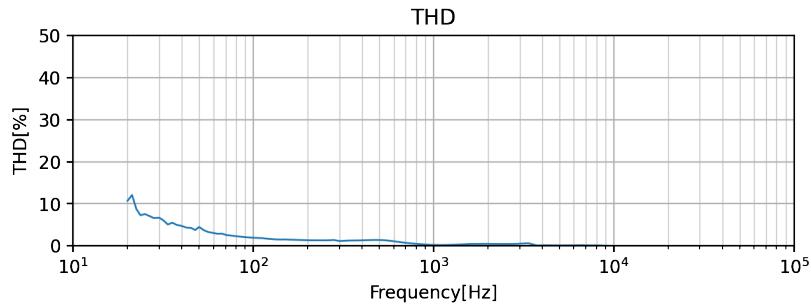
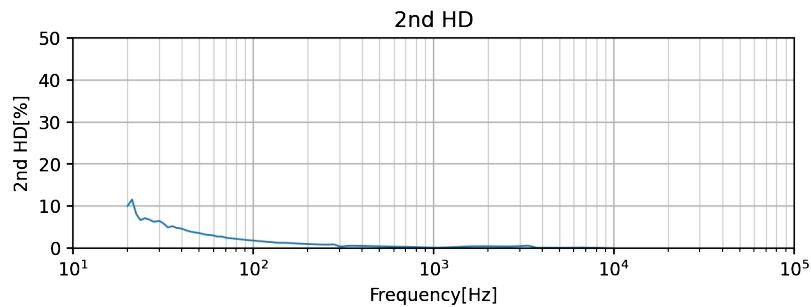
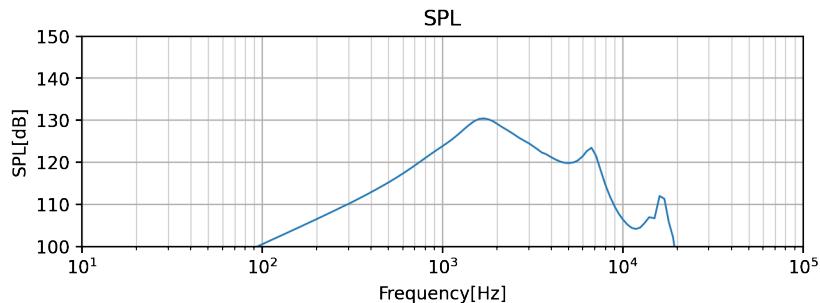
0.4Vrms input, 20-20kHz

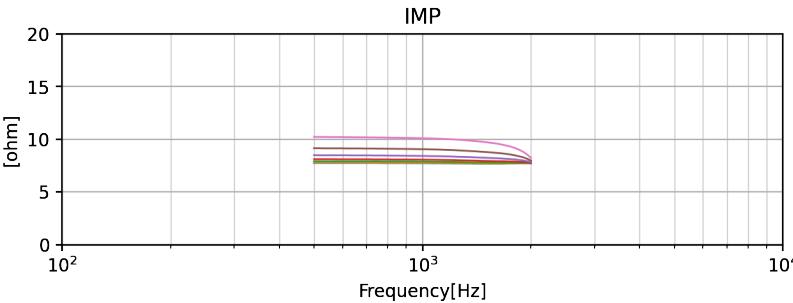
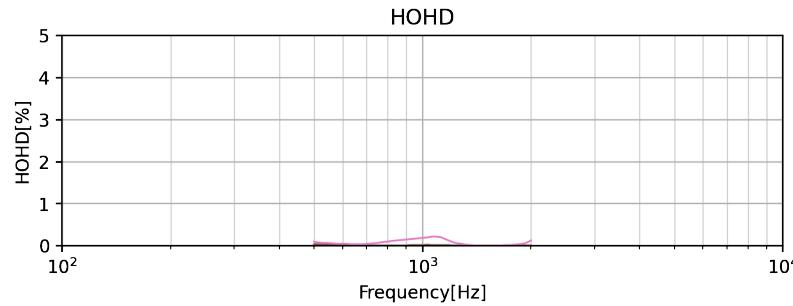
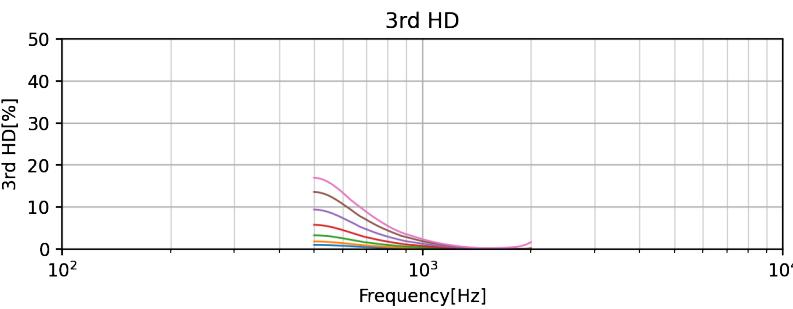
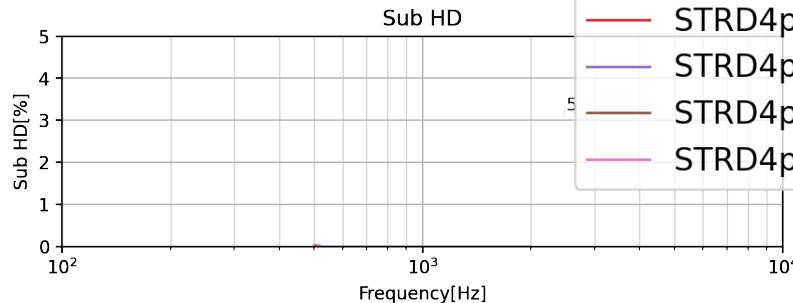
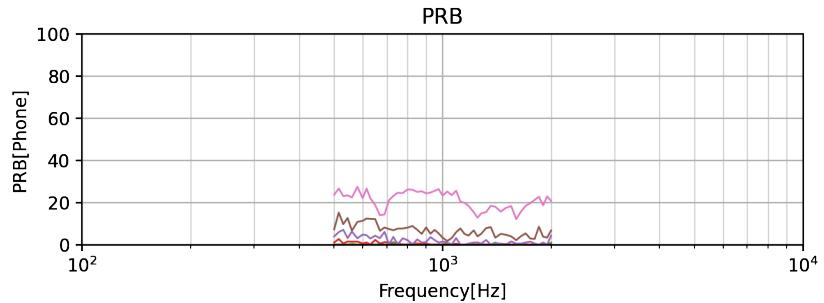
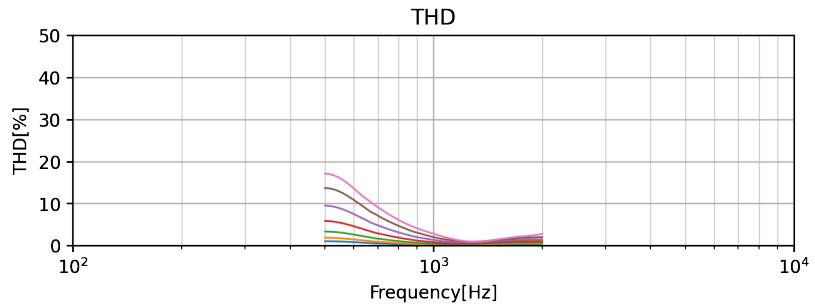
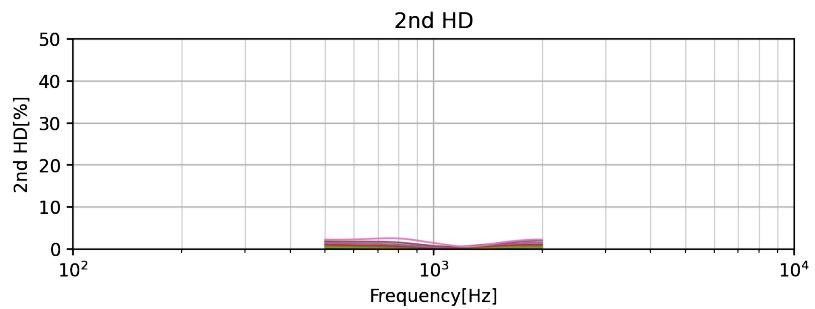
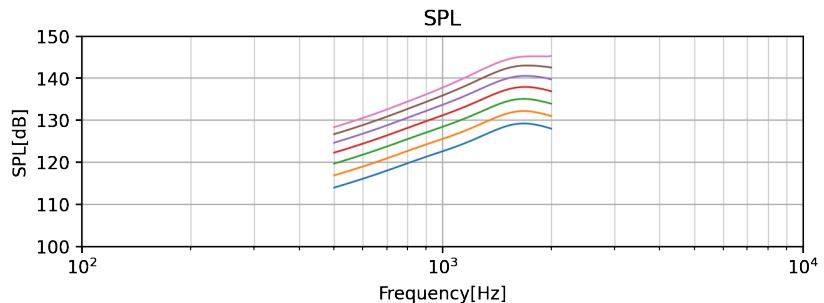
Sub Harmonic Study**STRD4.0 #6**

| |
|-------------------|
| STRD4p0-06 0.346v |
| STRD4p0-06 0.489v |
| STRD4p0-06 0.691v |
| STRD4p0-06 0.976v |
| STRD4p0-06 1.378v |
| STRD4p0-06 1.947v |
| STRD4p0-06 2.750v |

Sub Harmonic Study

STRD4.0 #6

0.4Vrms input, 20-20kHz

Sub Harmonic Study**STRD4.0 #6**

- STRD4p0-06 0.346v
- STRD4p0-06 0.489v
- STRD4p0-06 0.691v
- STRD4p0-06 0.976v
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- STRD4p0-06 2.750v