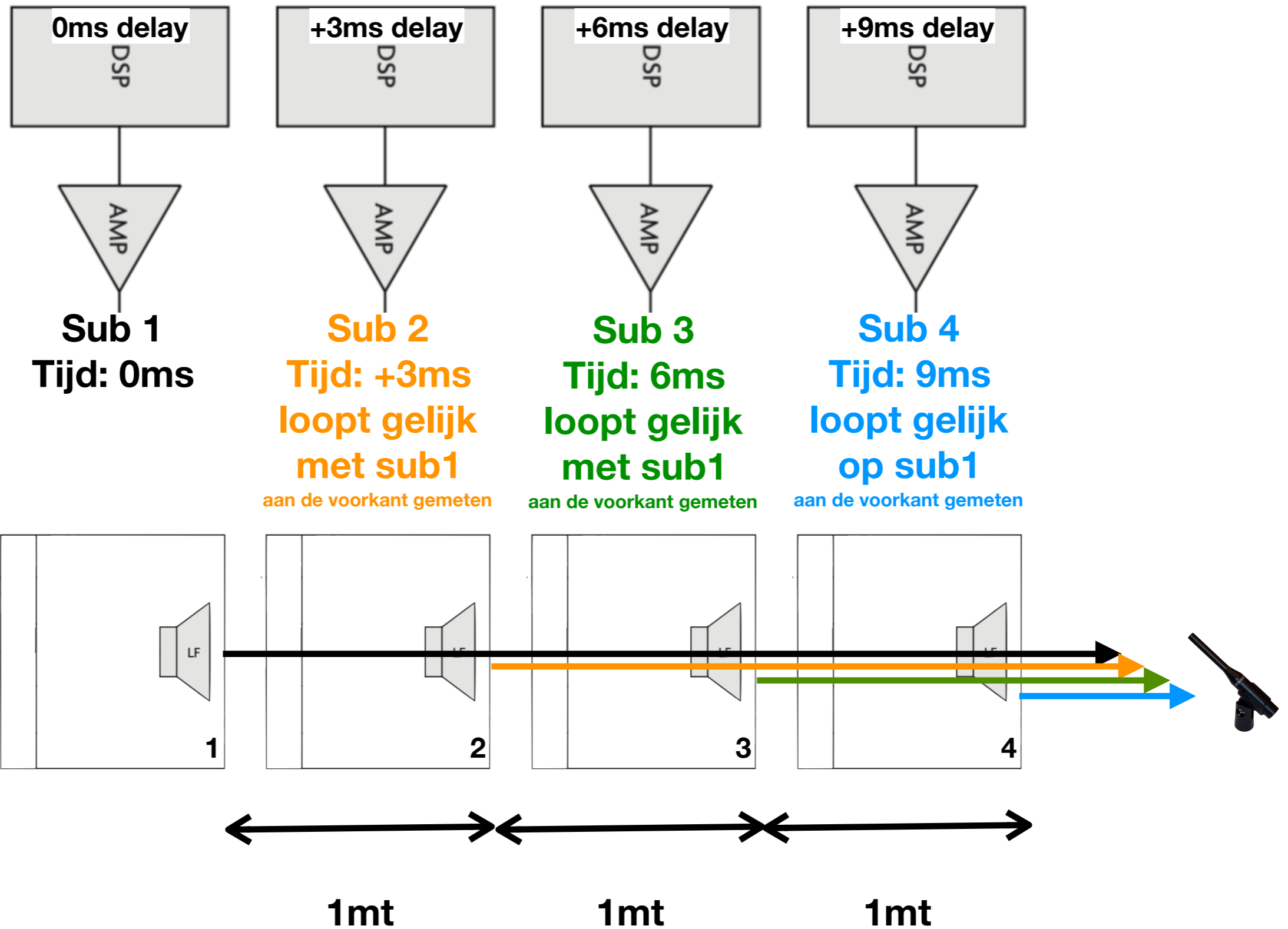


End Fired Sub Array

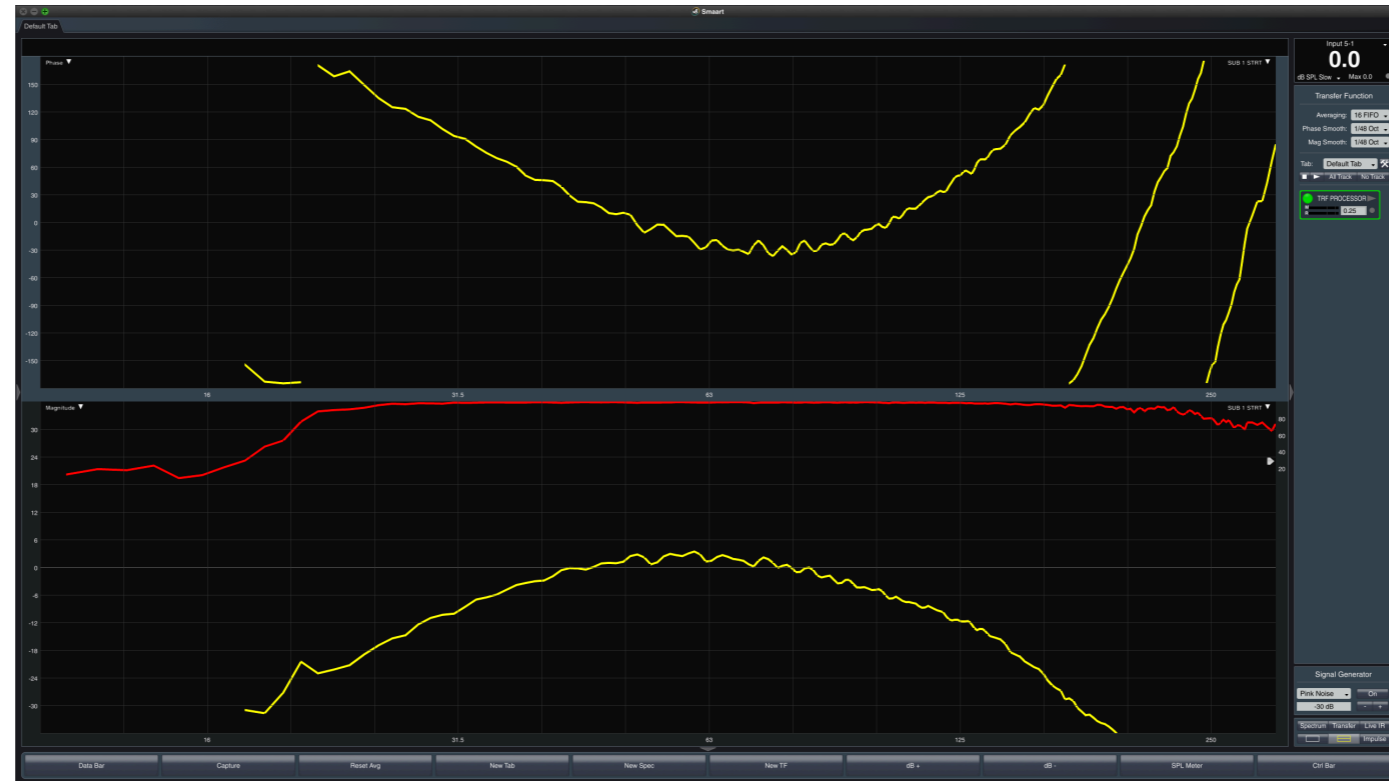


End Fired Sub Array

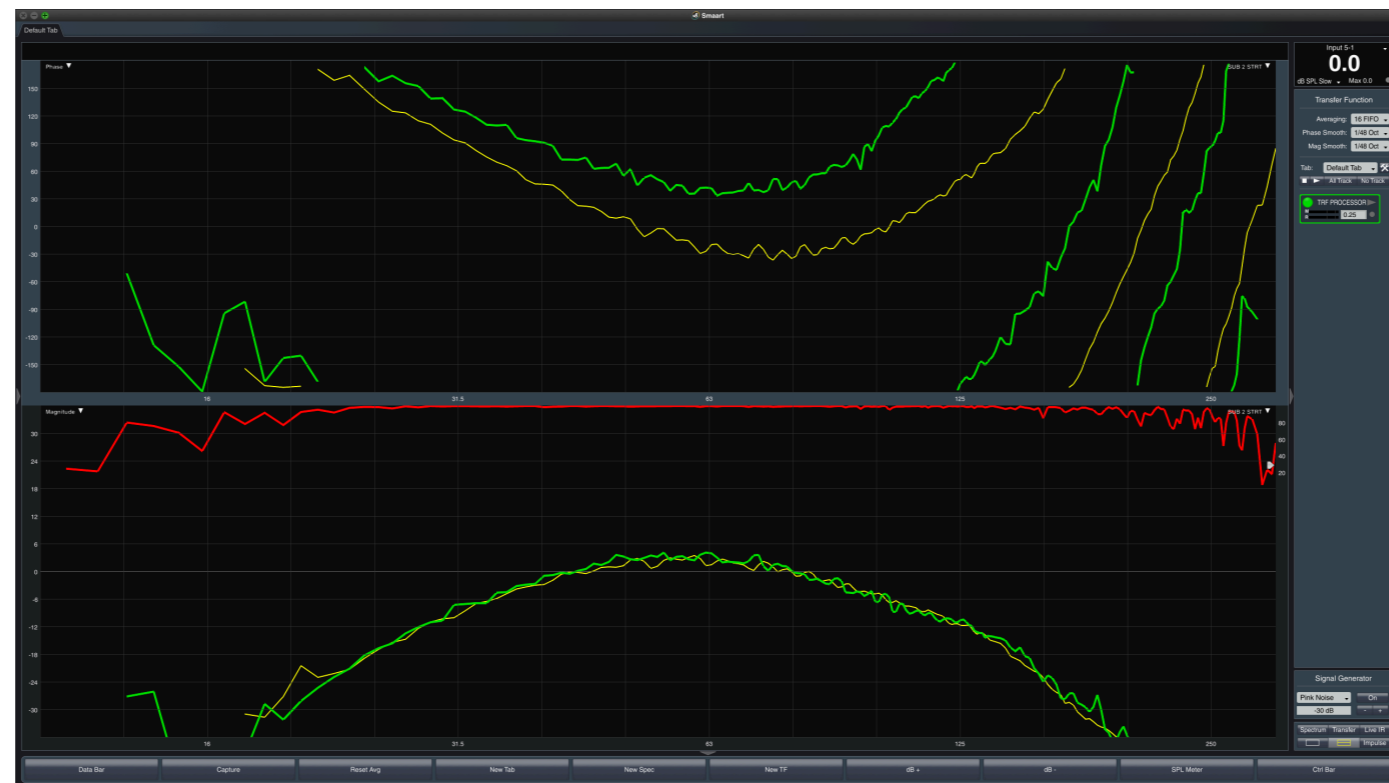




Hoe ziet e.e.a. er uit in Smaart?

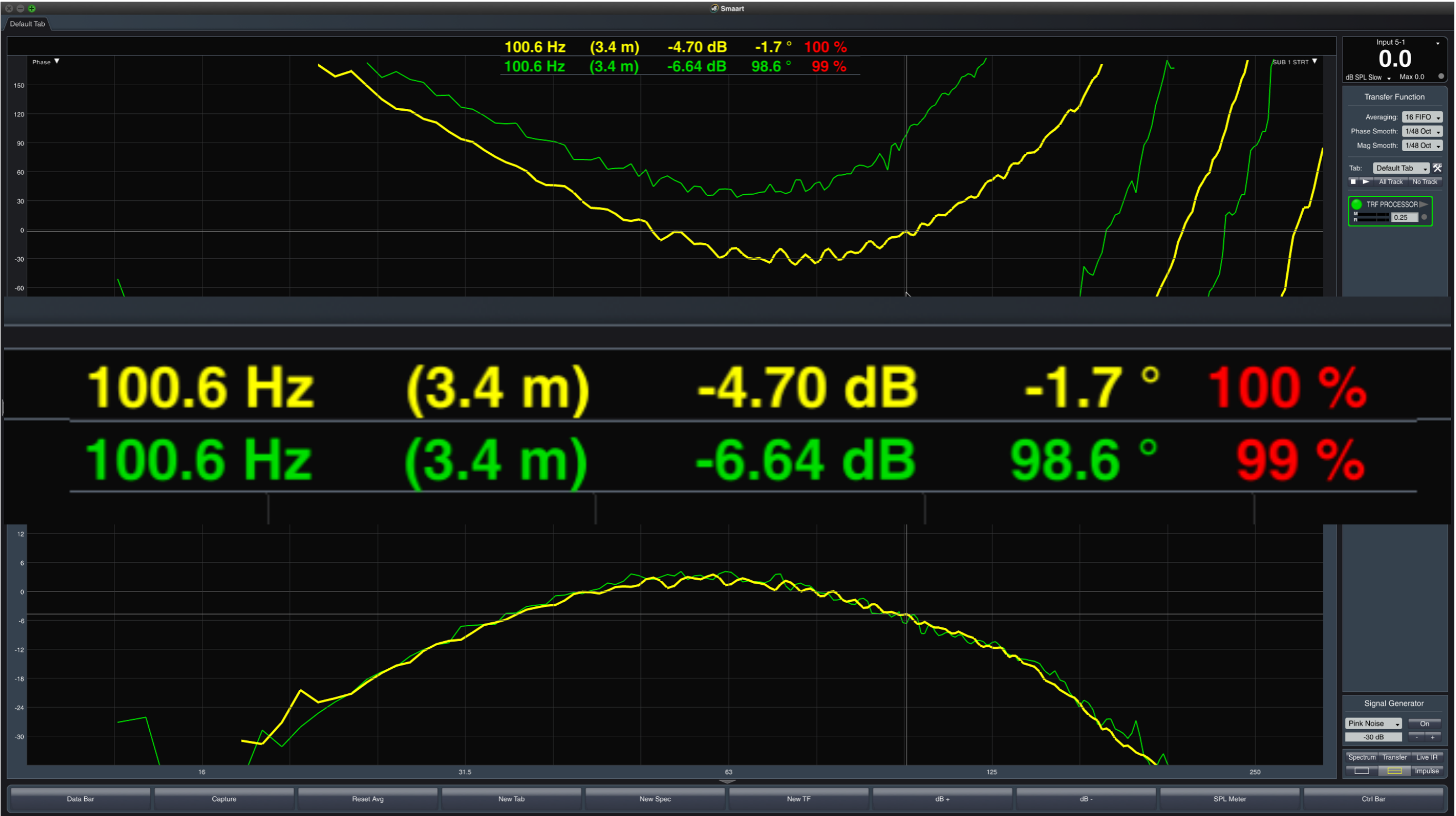


Sub 1 solo : 0ms



Sub 1 vs Sub 2 solo : 0ms

Reken Ellende ;-)

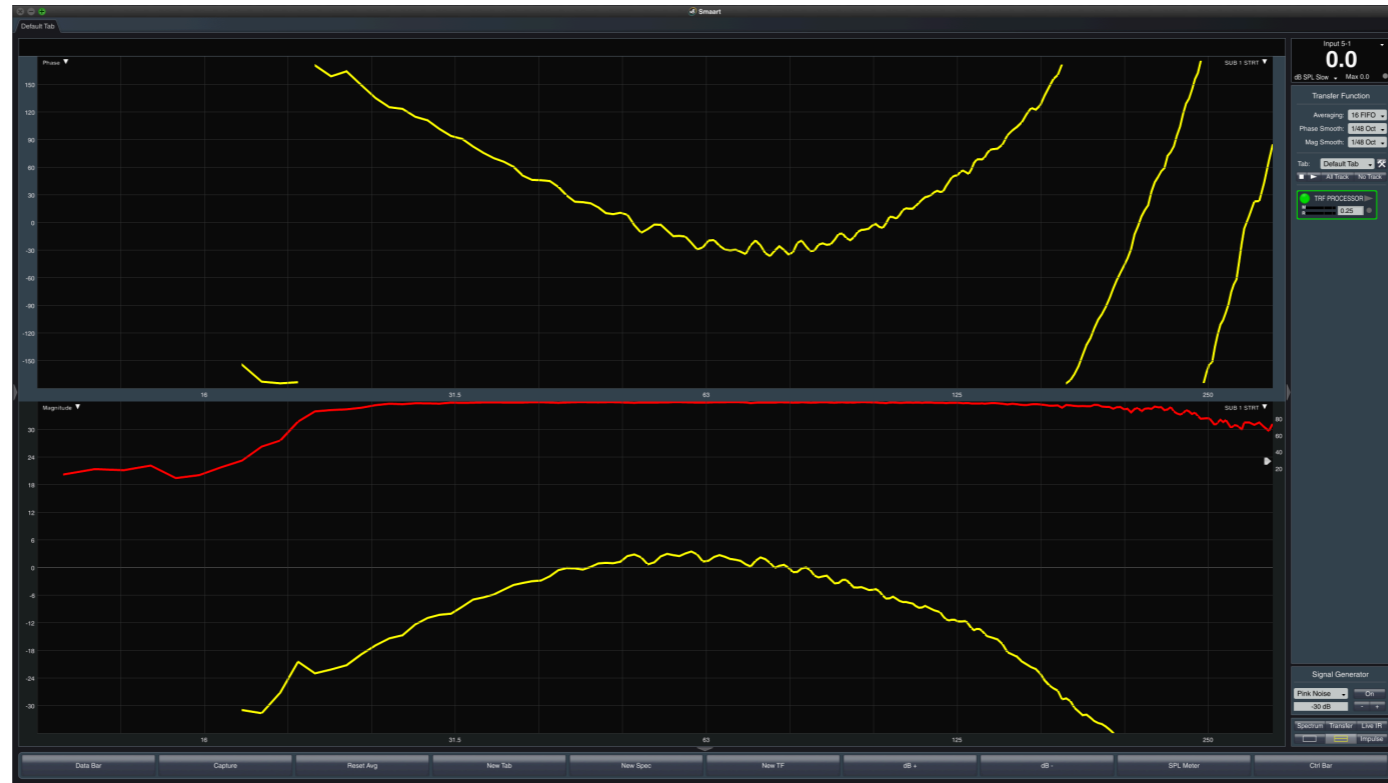


$$\begin{aligned}
 &(\Delta\text{phase}/360^\circ) \times T(100.6\text{Hz}) = \\
 &(100.3^\circ/360^\circ) \times (1000\text{ms}/100.6\text{Hz}) \\
 &0.279 \times 9.94\text{ms} = 2.77\text{ms}
 \end{aligned}$$

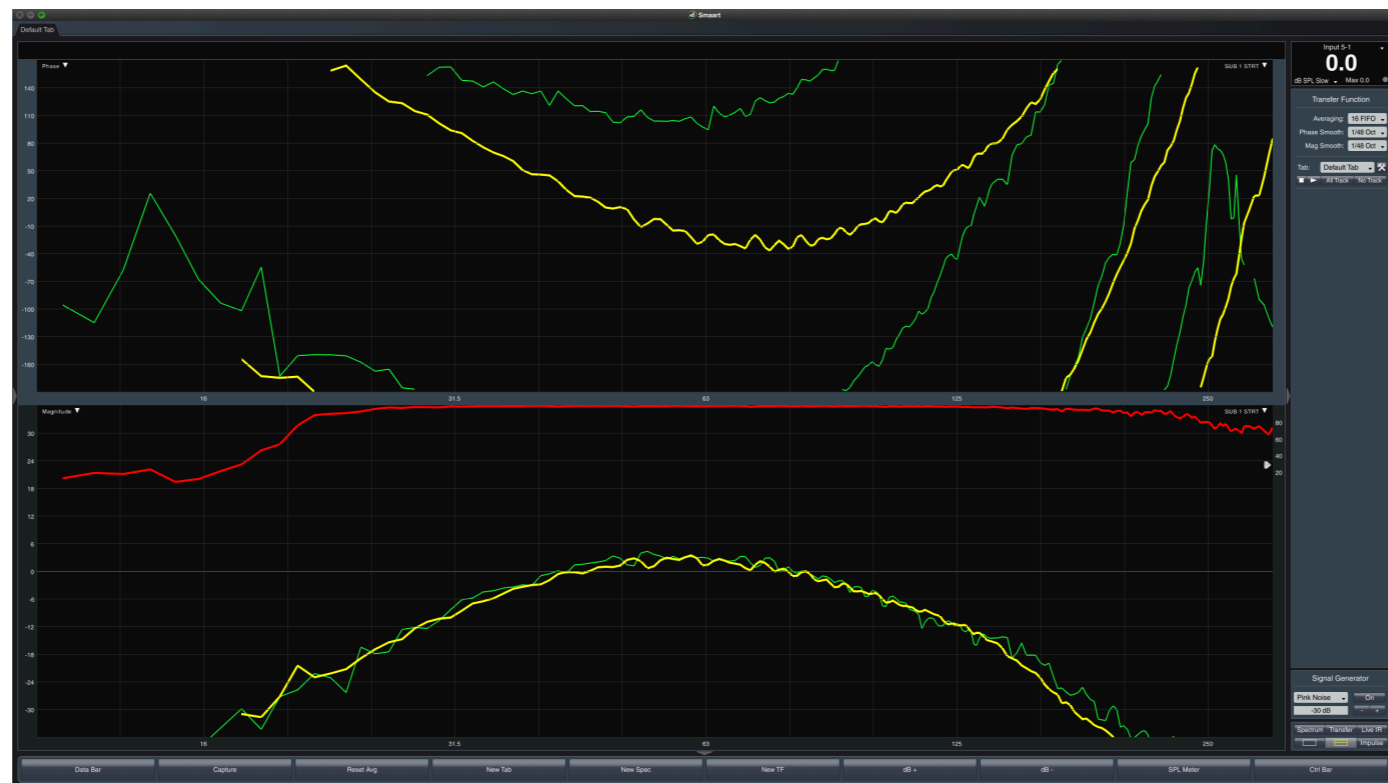
WTTRW: 2.8ms delay op Sub 2 zorgt voor een match met Sub 1



Som Sub 1 + 2 Front Mic +6dB minimaal

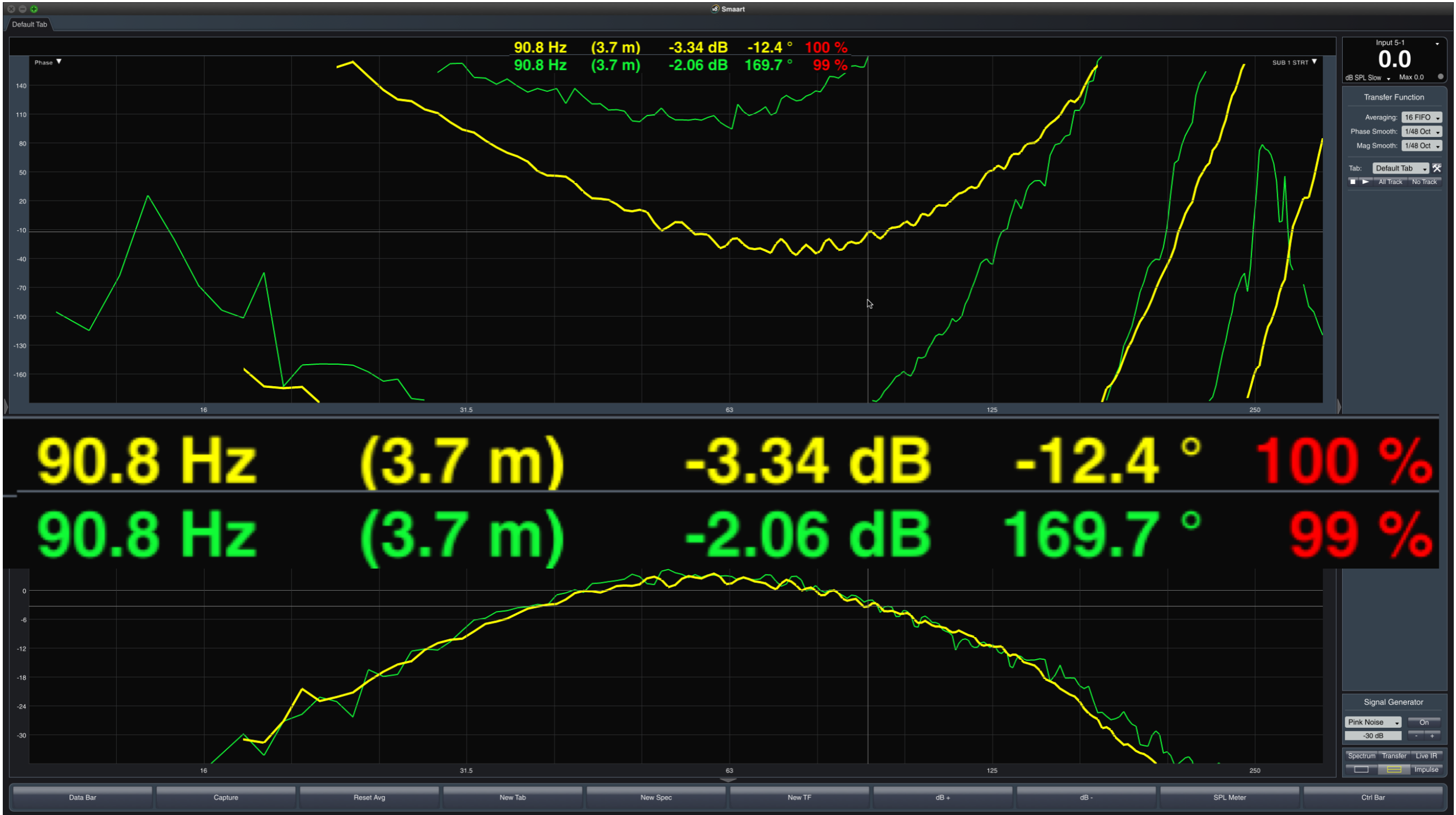


Sub 1 solo : 0ms



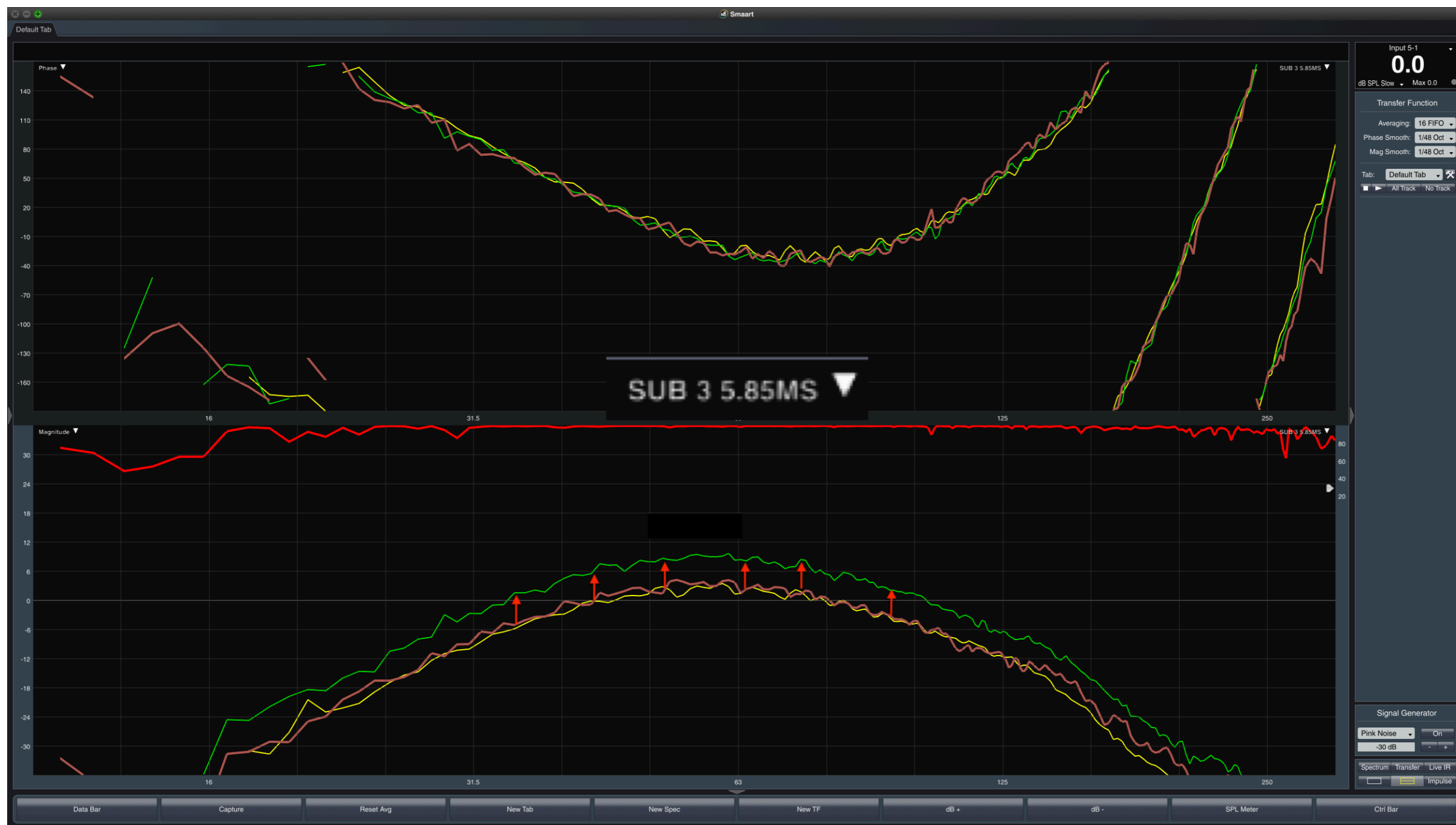
Sub 1 vs Sub 3 solo : 0ms

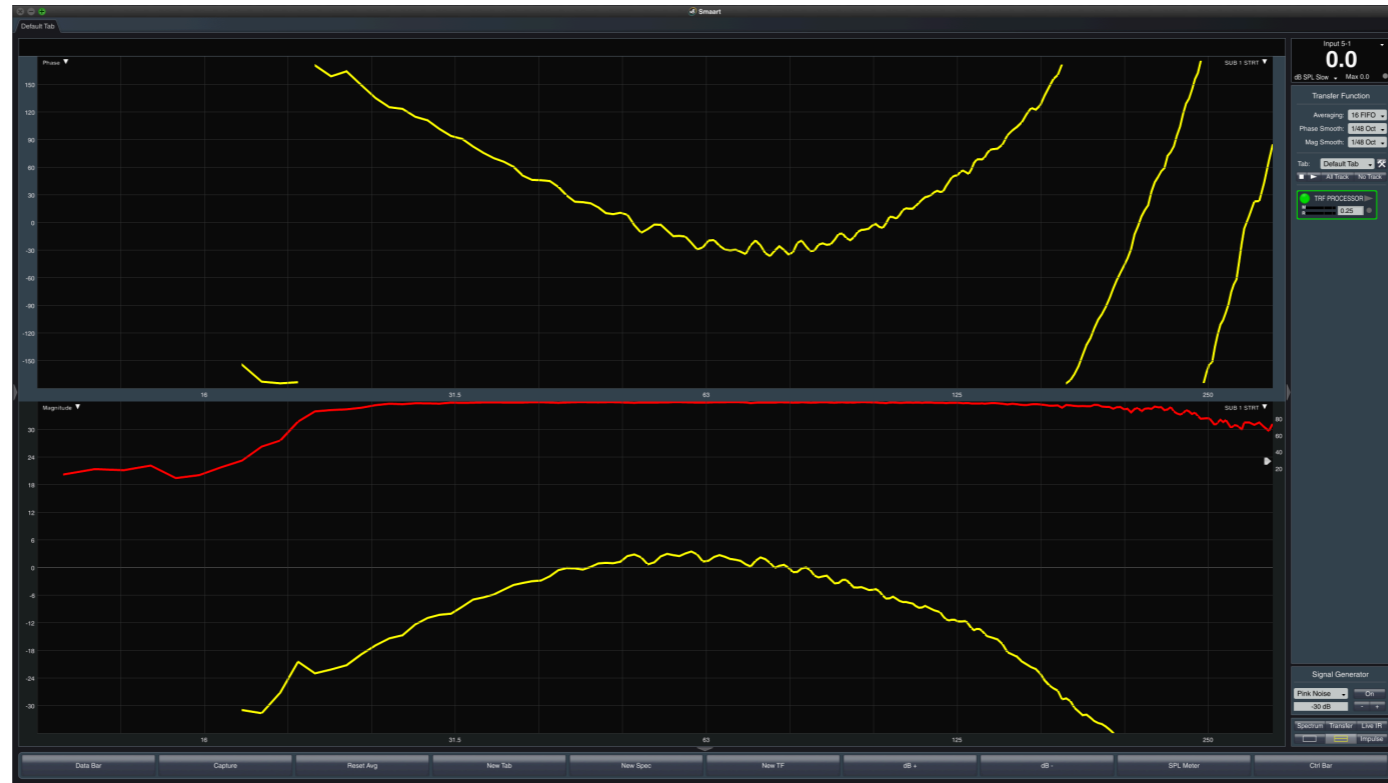
Reken Ellende ;-)



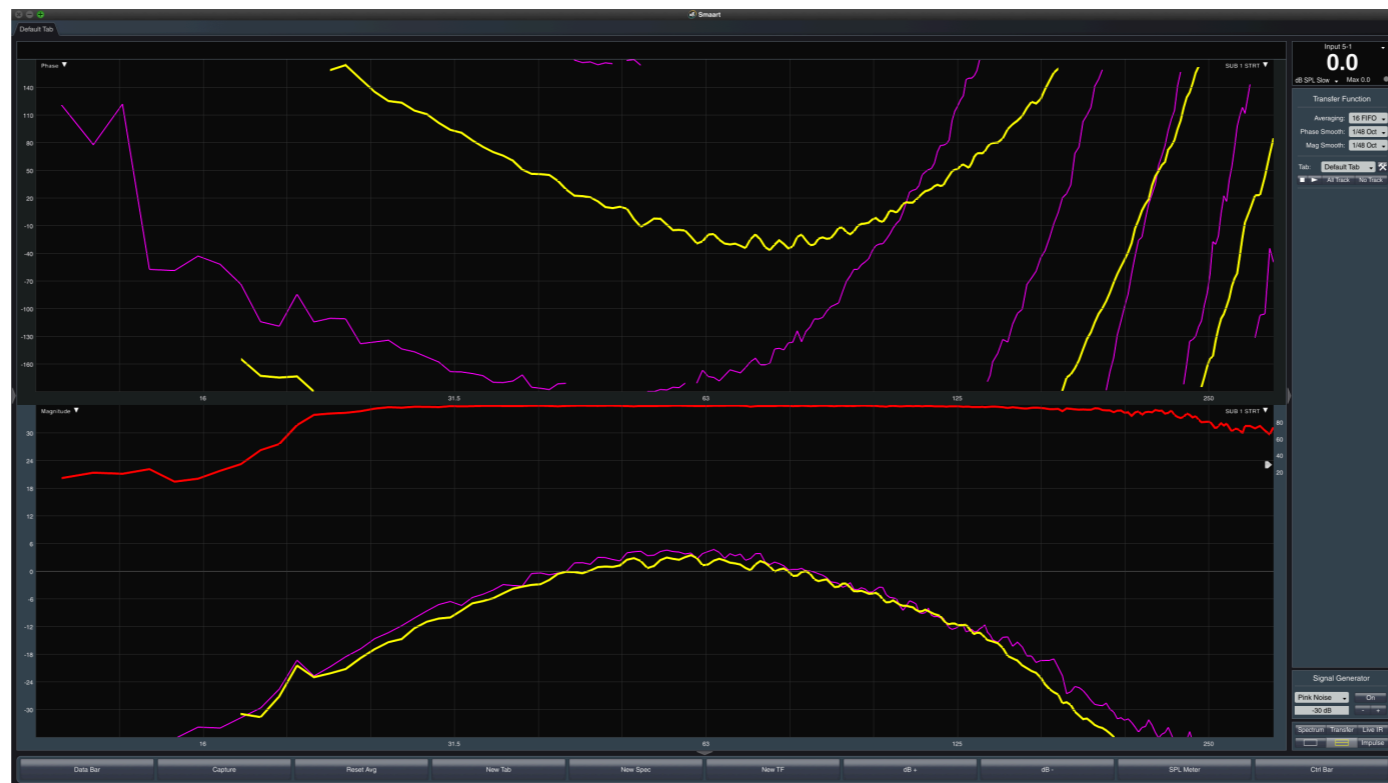
$$\begin{aligned} &(\Delta\text{phase}/360^\circ)\times T(90.8\text{Hz})= \\ &(182.1^\circ/360^\circ)\times(1000\text{ms}/90.8\text{Hz}) \\ &0.506\times 11.01\text{ms}= 5.57\text{ms} \end{aligned}$$

WTTRW: 5.85ms delay op Sub 3 zorgt voor een match met Sub 1



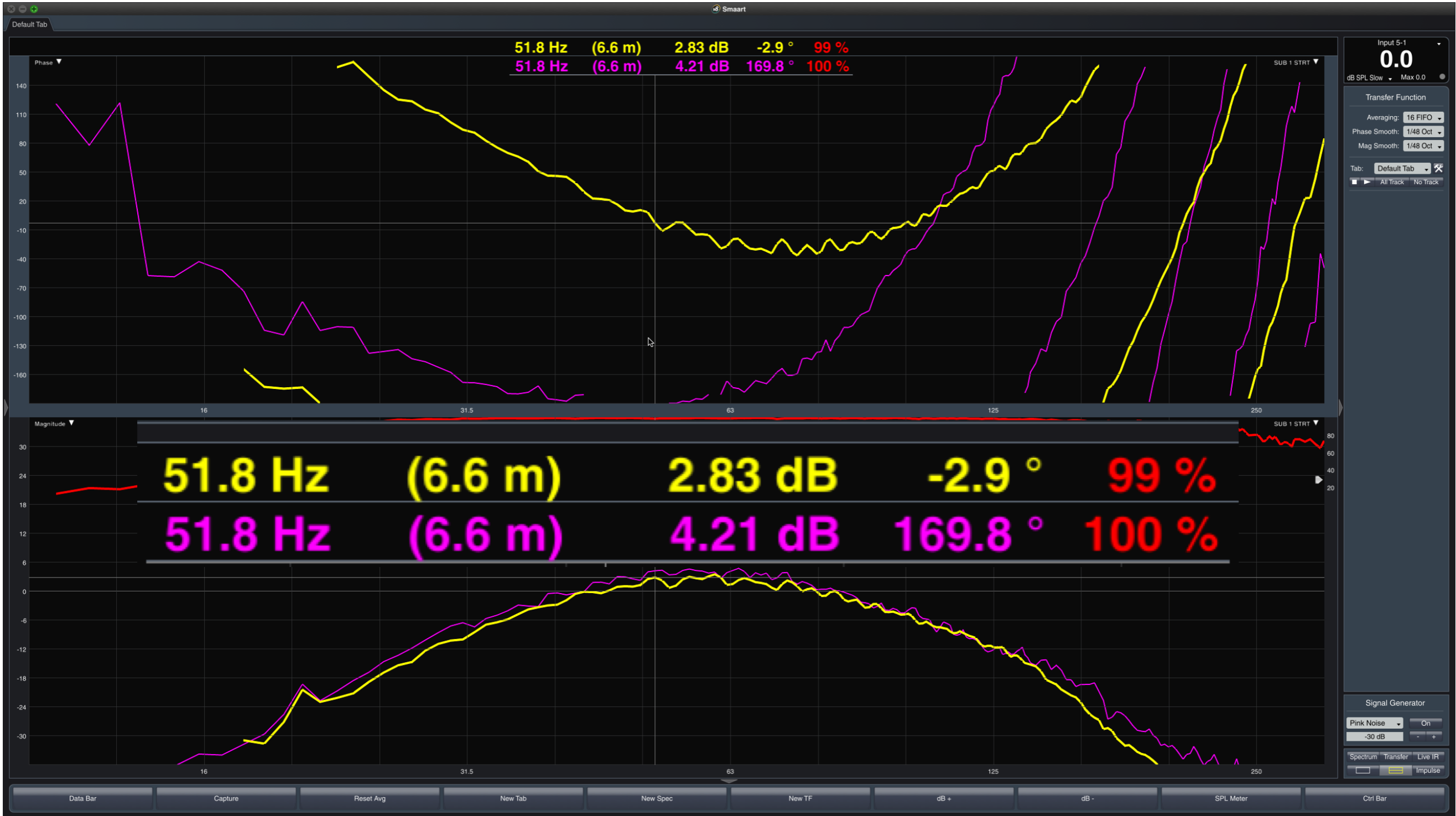


Sub 1 solo : 0ms



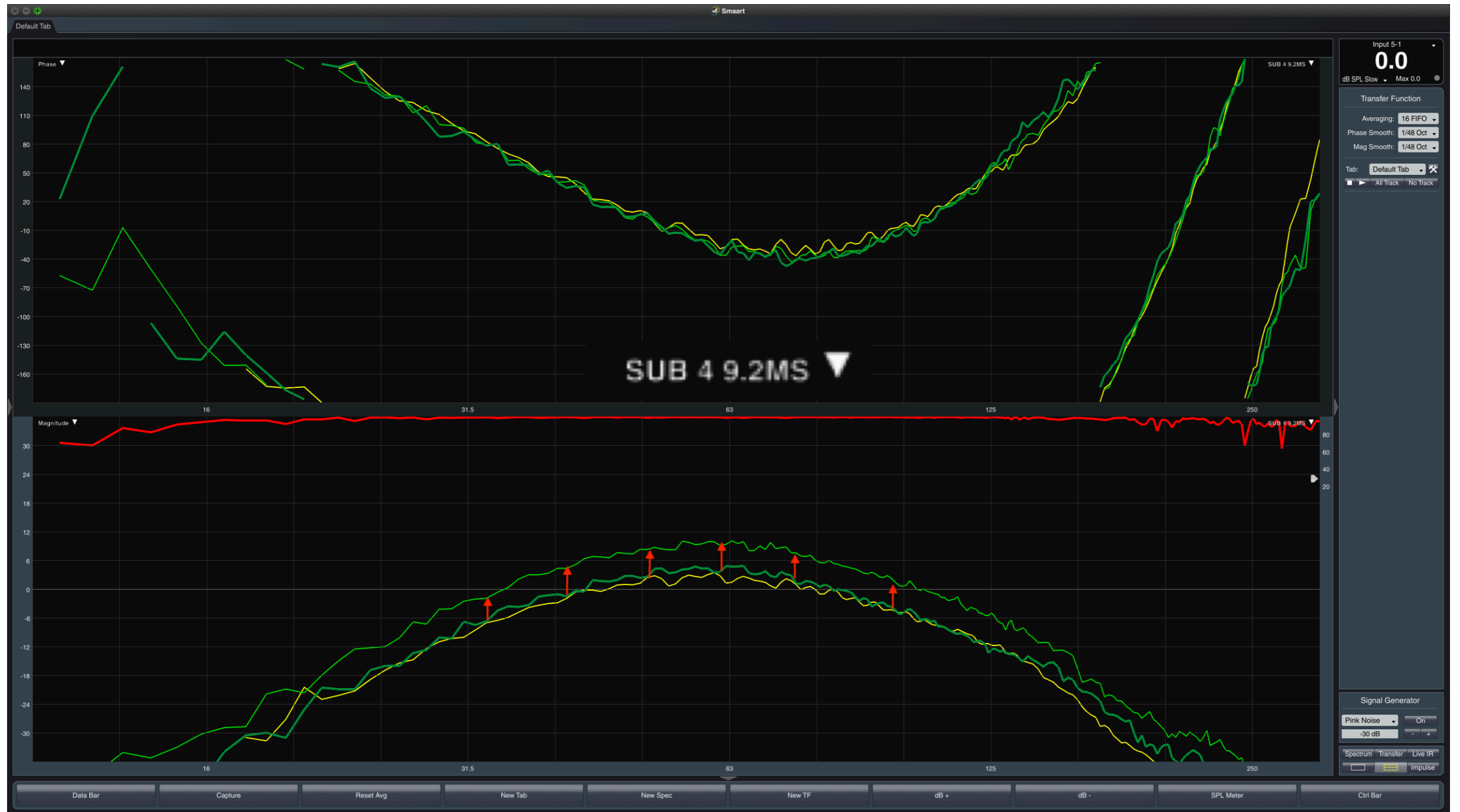
Sub 1 vs Sub 4 solo : 0ms

Reken Ellende ;-)



$$\begin{aligned} &(\Delta\text{phase}/360^\circ)\times T(51.8\text{Hz})= \\ &(172.7^\circ/360^\circ)\times(1000\text{ms}/51.8\text{Hz}) \\ &0.48\times 19.31\text{ms}= 9.27\text{ms} \end{aligned}$$

WTTRW: 9.2ms delay op Sub 3 zorgt voor een match met Sub 1



INVERSE SQUARE LAW

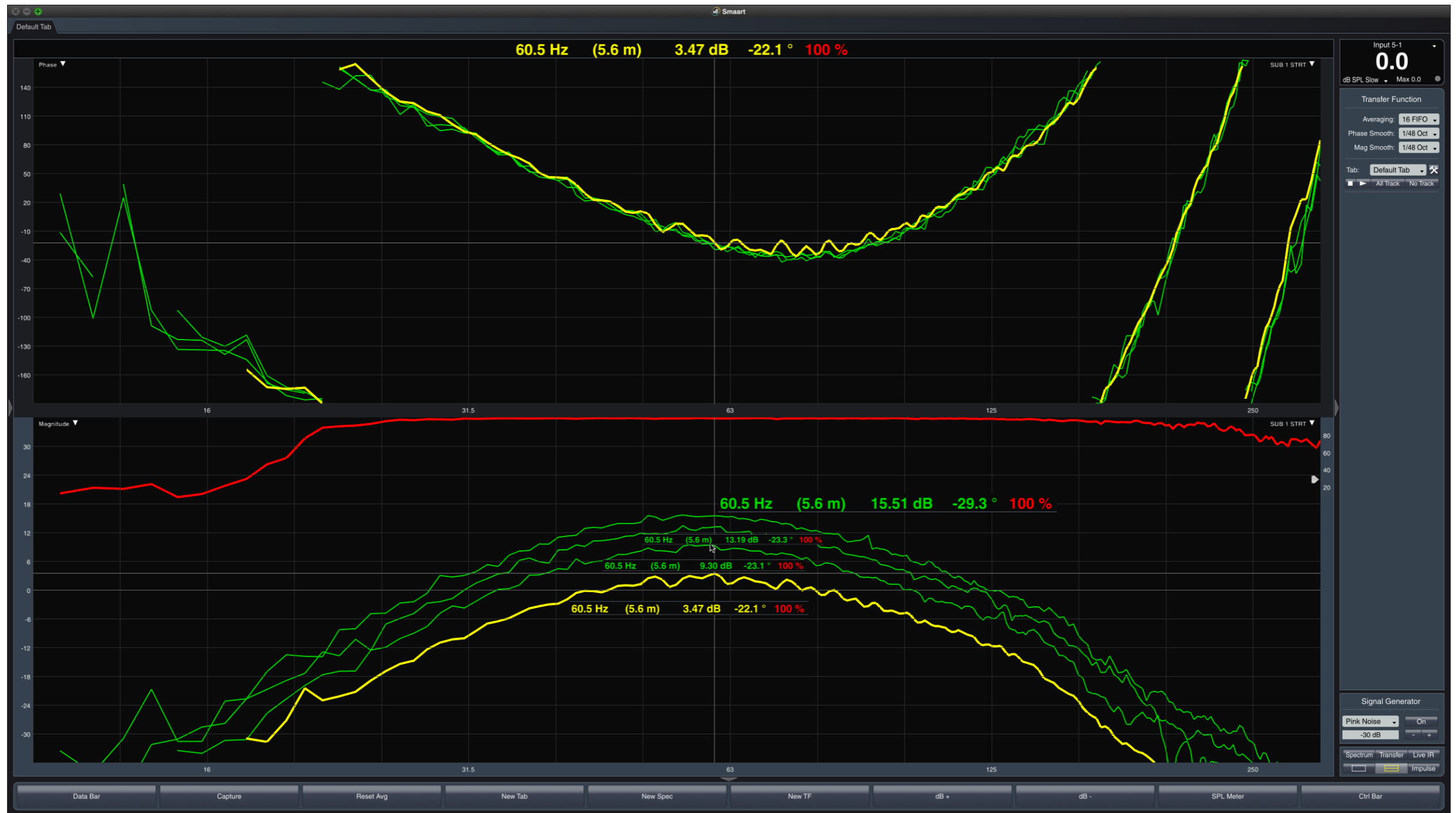
Sub 1: 19mt afstand van front mic vs Sub 2: 18mt afstand van front mic
 $19/18= 1.06$

Sub 1: 19mt afstand van front mic vs Sub 3: 17mt afstand van front mic
 $19/17= 1.12$

Sub 1: 19mt afstand van front mic vs Sub 4: 16mt afstand van front mic
 $19/16= 1.19$

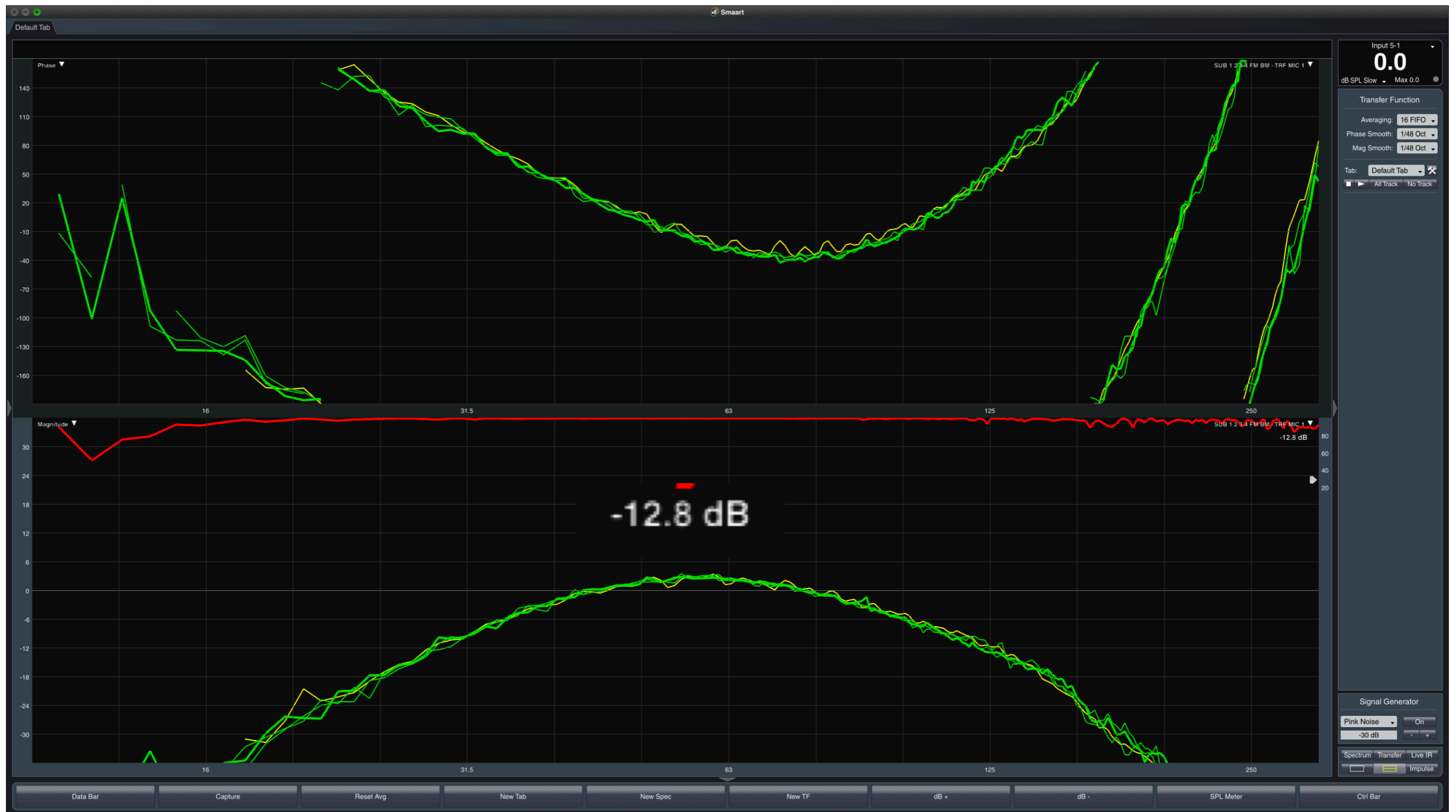
$20\log ((1+1.06+1.12+1.19)/1$
 $20\log(4.37)=12.81\text{dB}$ optelling aan de voorkant
(let op dit is een gecalculeerde waarde)

$20\log((1+1.06+1.12+1.19)/1)$
 $20\log(4.37)=12.81\text{dB}$ optelling aan de voorkant
(let op dit is een gecalculeerde waarde)



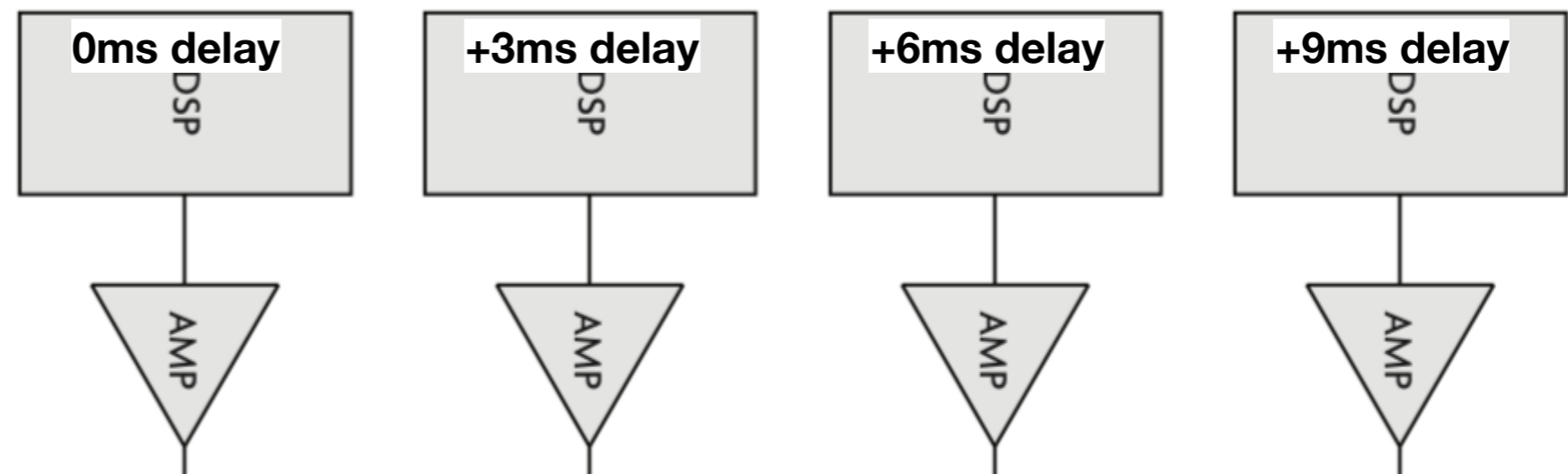
optelling Front Mic Sum All Subs vs Sub1: $15.51\text{dB} - 3.47\text{dB} =$
12.04dB

$20\log((1+1.06+1.12+1.19)/1)$
 $20\log(4.37)=12.81\text{dB}$ optelling aan de voorkant
(let op dit is een gecalculeerde waarde)



(normalise hotkey: shift+mouse click ;-)

**Maar wat gebeurt er aan de achterkant van een
End Fired Array**

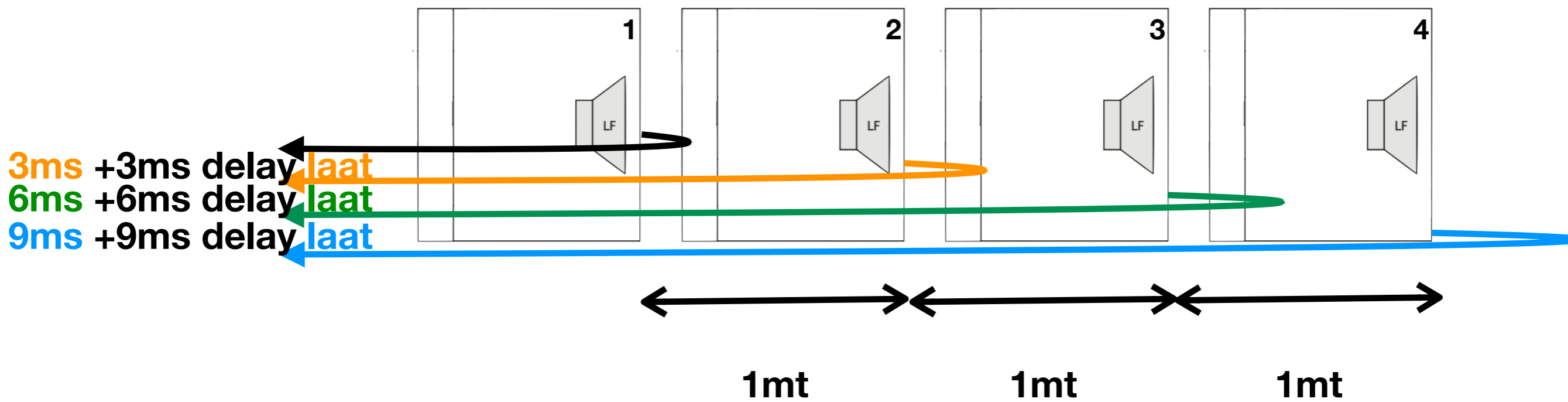


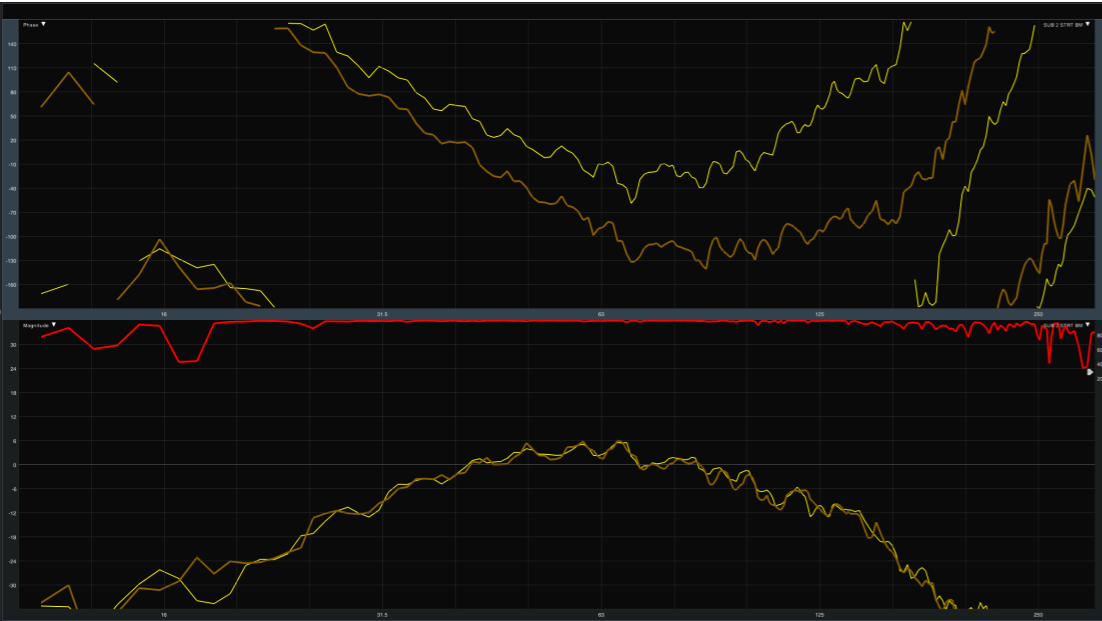
Sub 1
Tijd: 0ms

Sub 2
Tijd: +3ms
loopt gelijk
met sub1
aan de voorkant gemeten

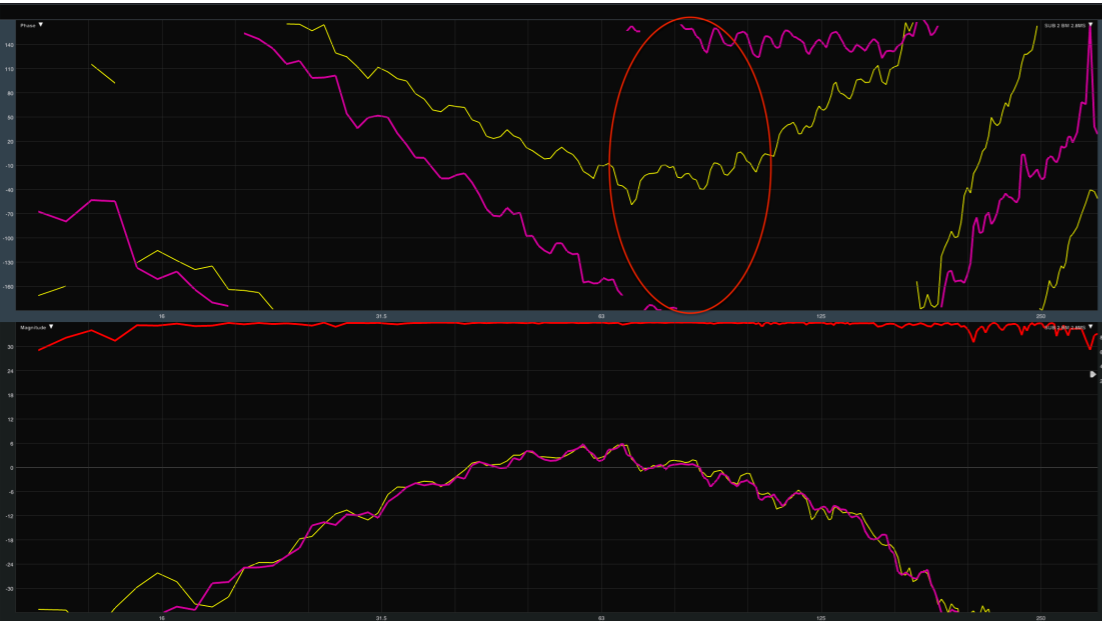
Sub 3
Tijd: 6ms
loopt gelijk
met sub1
aan de voorkant gemeten

Sub 4
Tijd: 9ms
loopt gelijk
op sub1
aan de voorkant gemeten

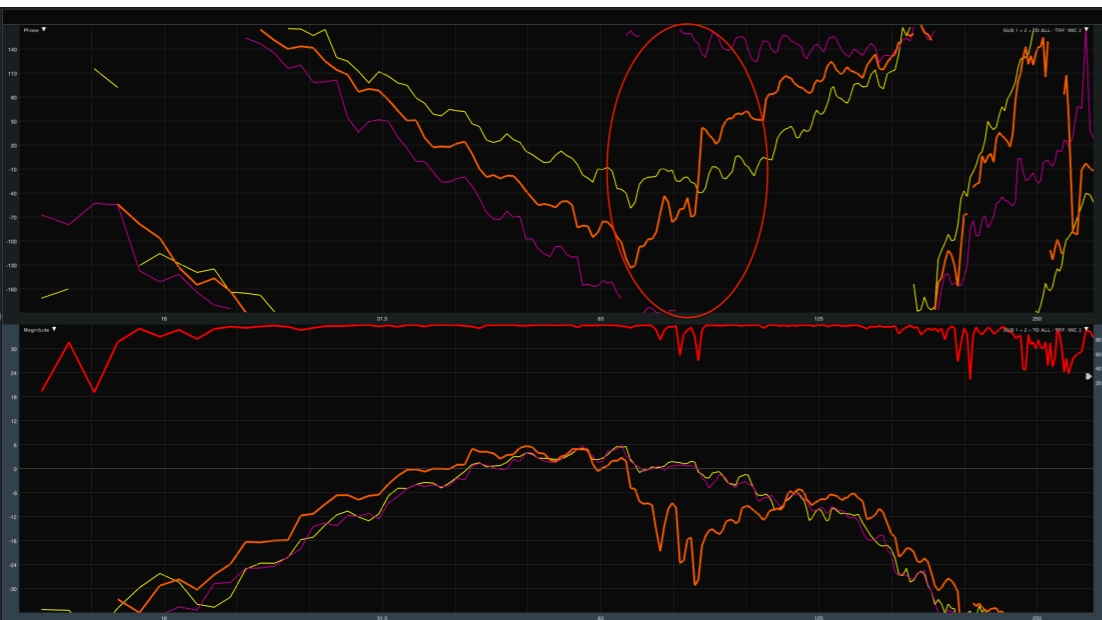




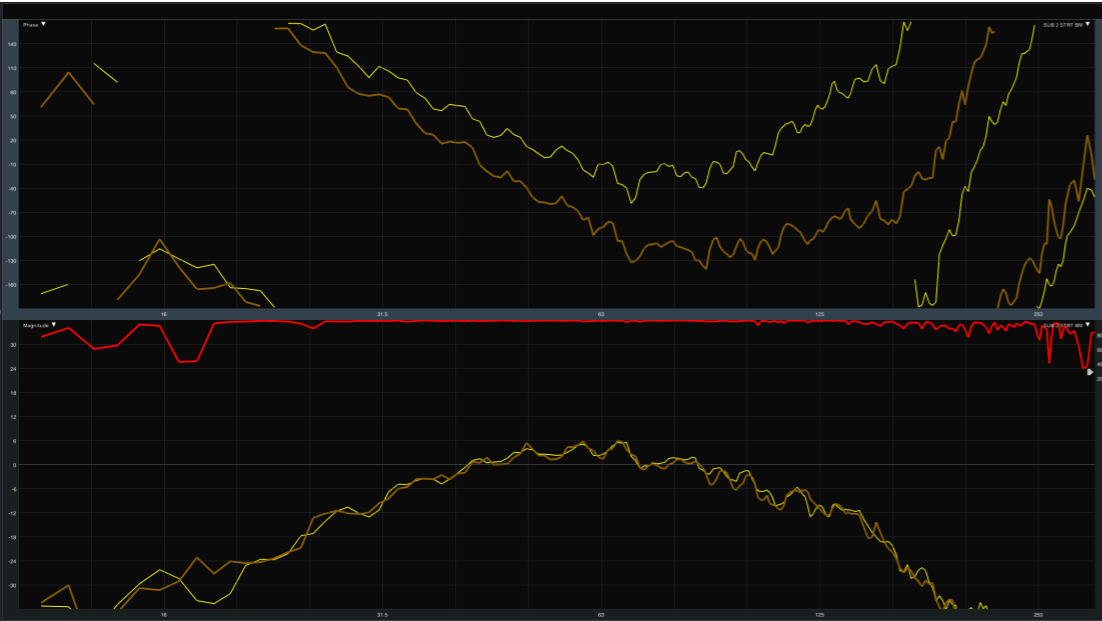
Sub 1 ref (geel) vs Sub 2 0ms



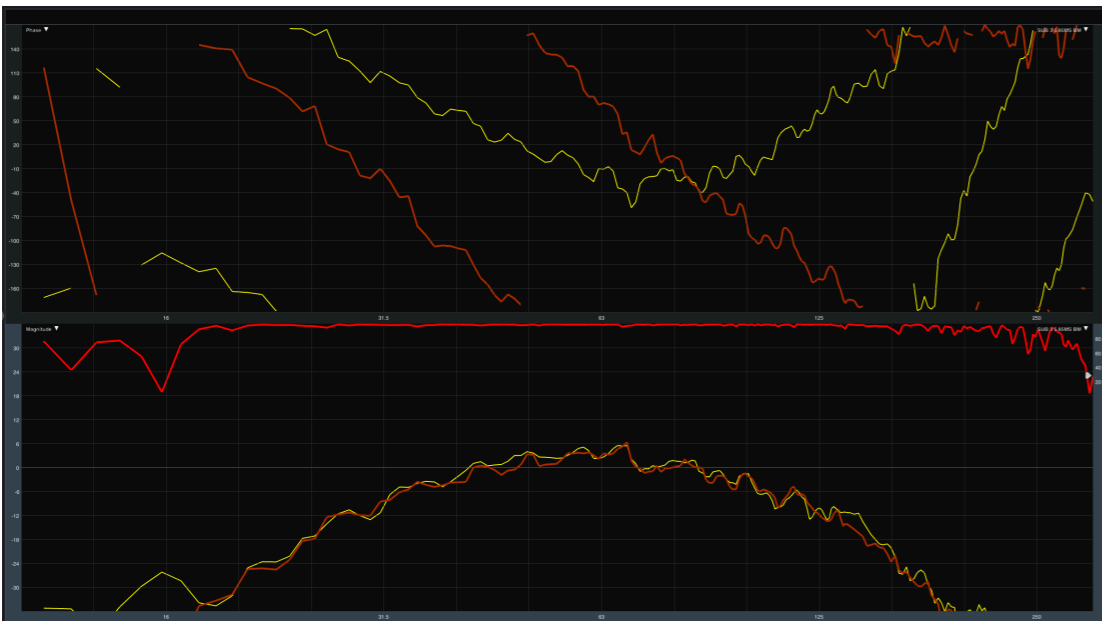
Sub 1 ref (geel) vs Sub 2 > 2.8ms delay



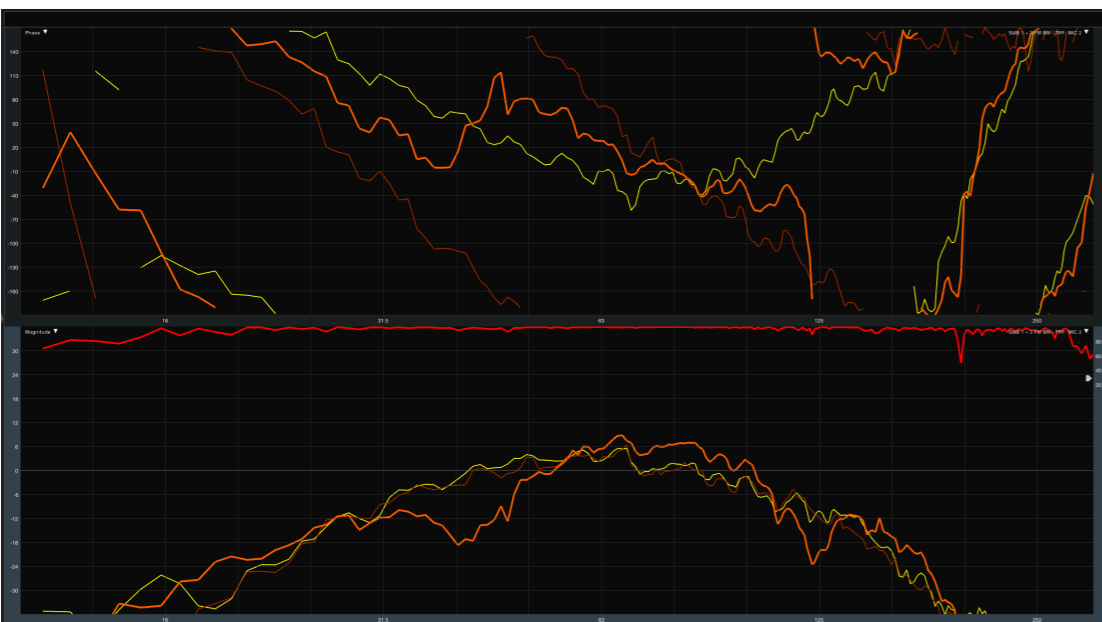
**Sub 1 ref (geel) vs Sub 2 > 2.8ms delay
Som Sub 1 + Sub 2 (2.8ms) Oranje**



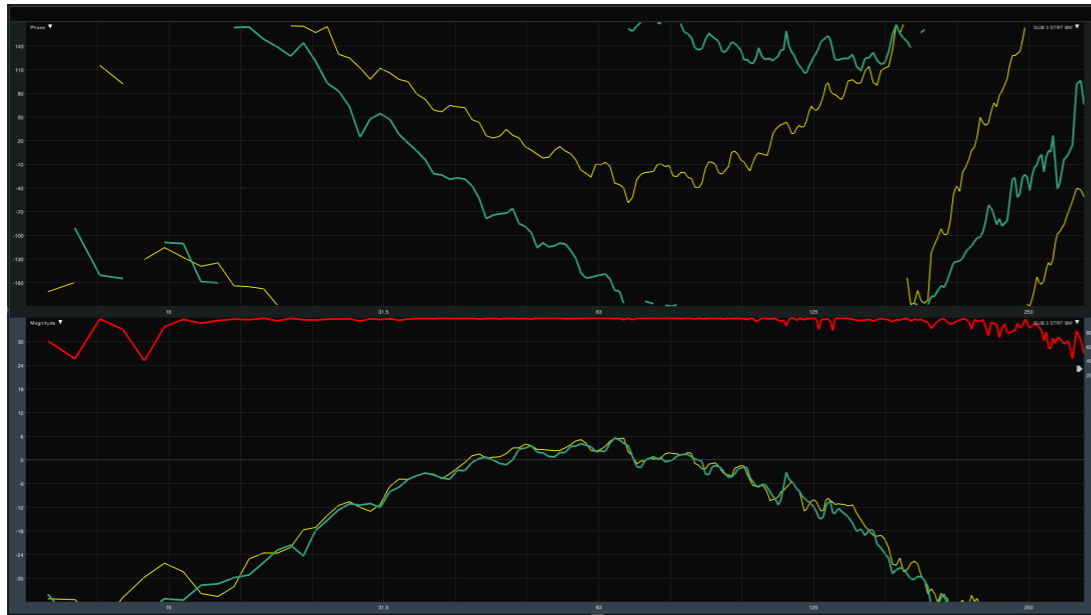
Sub 1 ref (geel) vs Sub 3 0ms



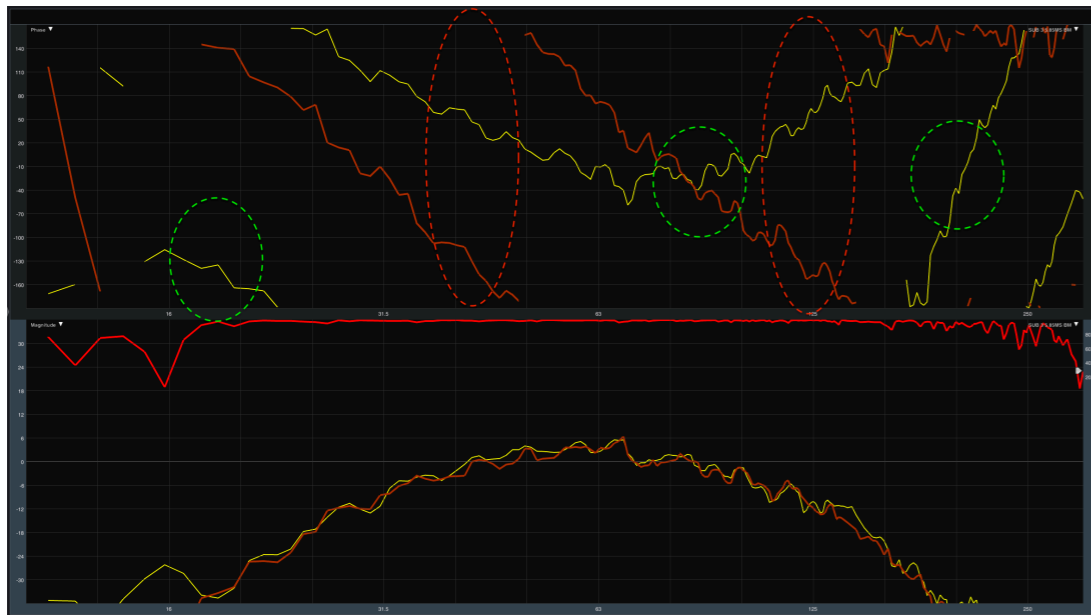
Sub 1 ref (geel) vs Sub 3 > 5.85ms delay



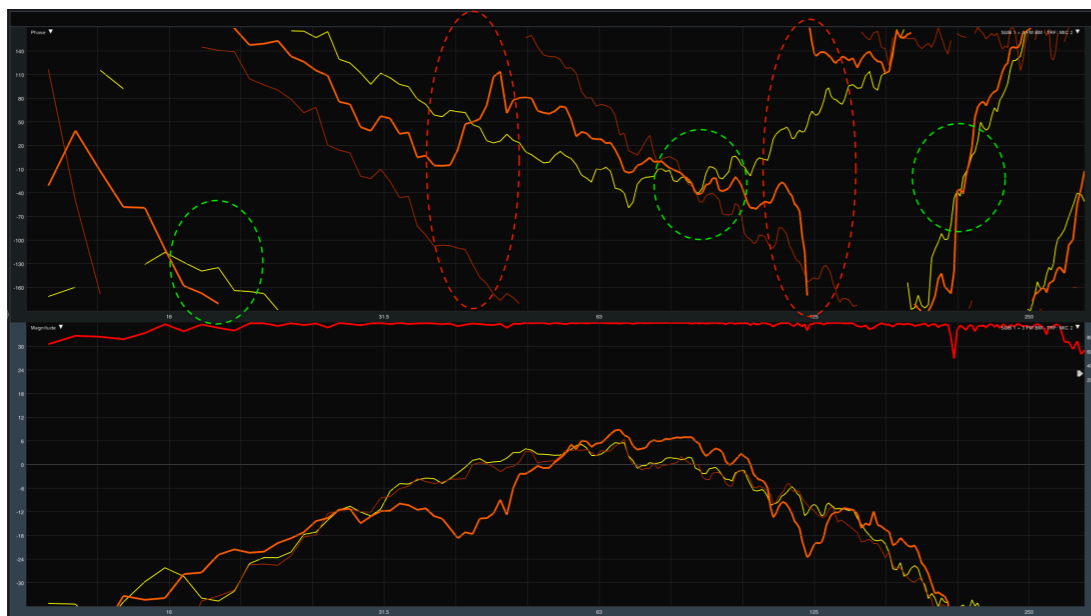
**Sub 1 ref (geel) vs Sub 3 > 5.85ms delay
Som Sub 1 + Sub 3 (2.8ms) Oranje**



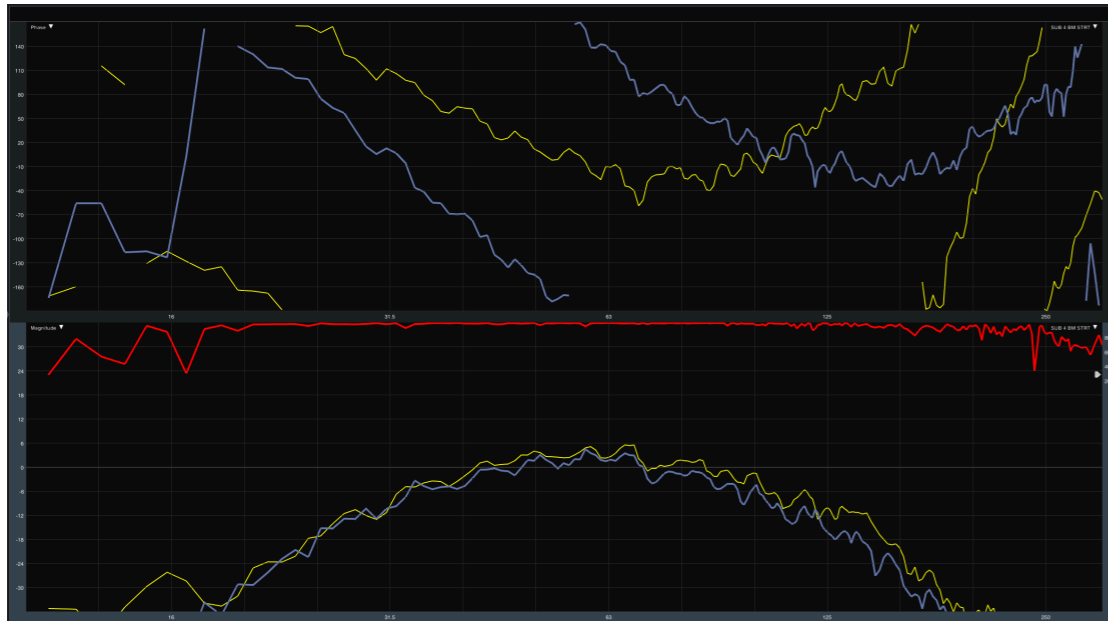
Sub 1 ref (geel) vs Sub 3 0ms



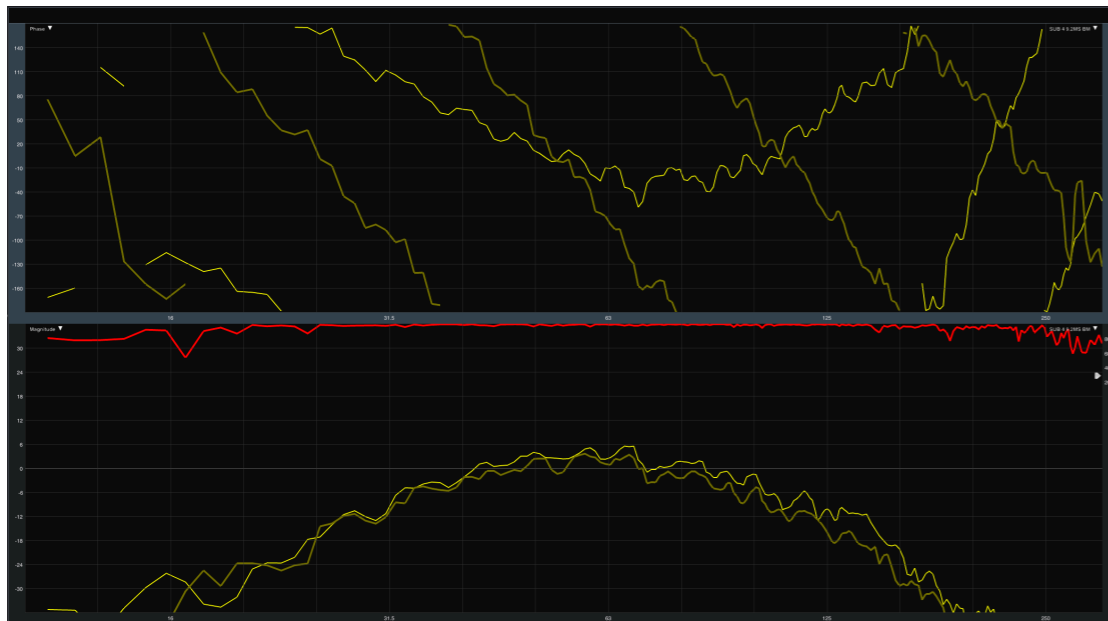
Sub 1 ref (geel) vs Sub 3 > 5.85ms delay



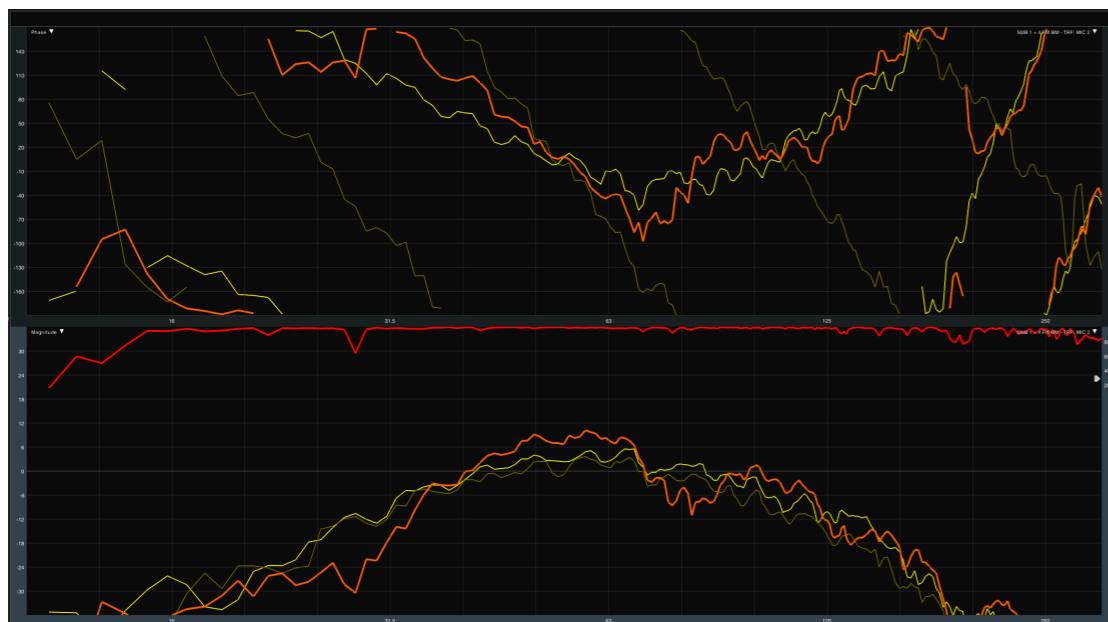
**Sub 1 ref (geel) vs Sub 3 > 5.85ms delay
Som Sub 1 + Sub 3 (2.8ms) Oranje**



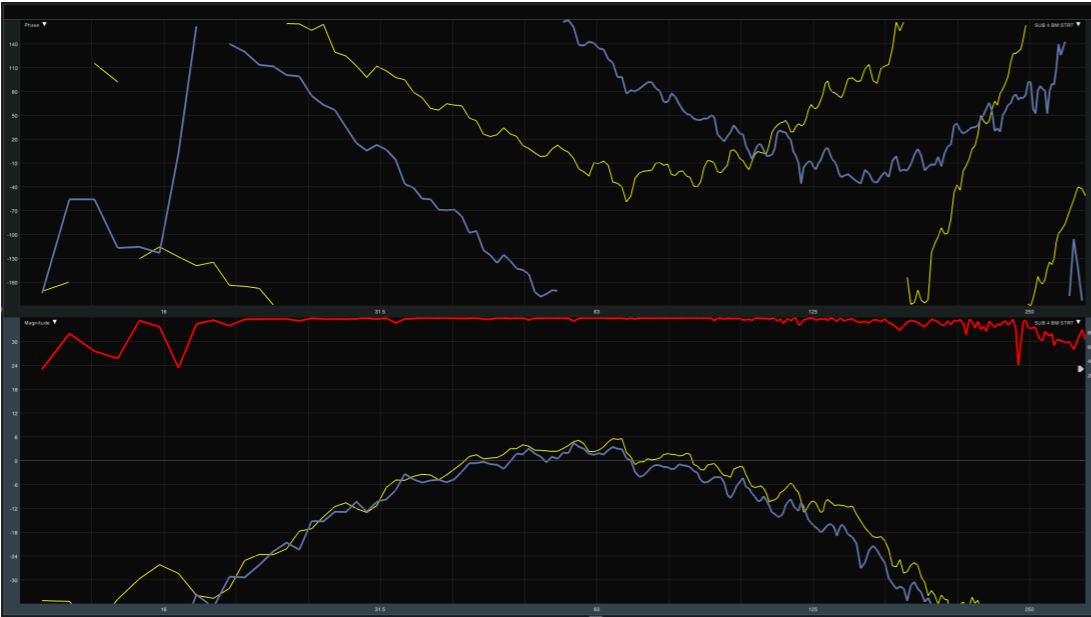
Sub 1 ref (geel) vs Sub 4 0ms



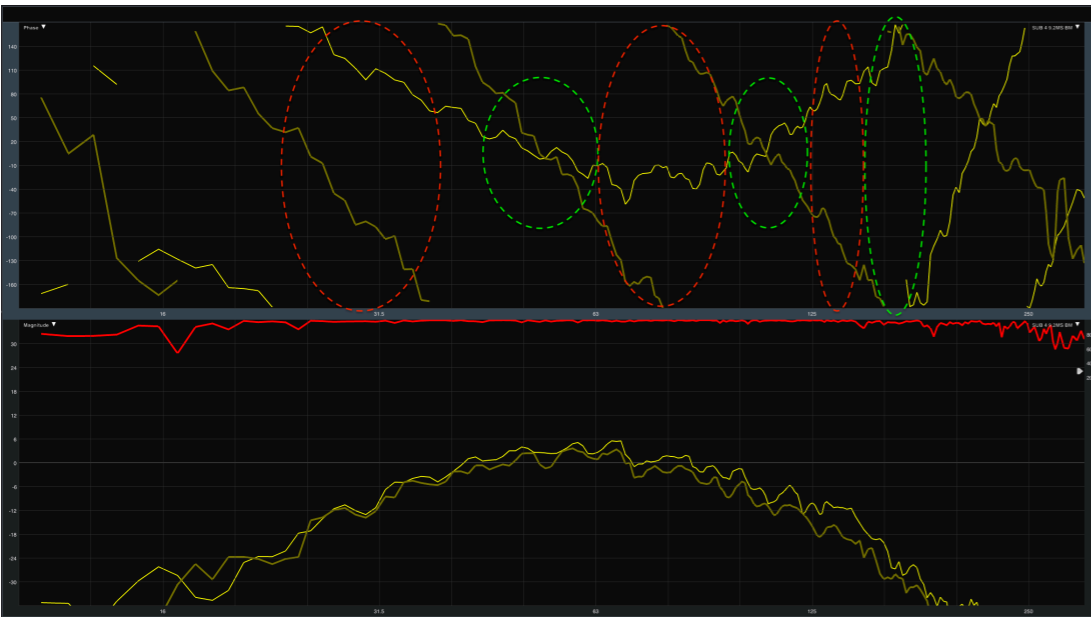
Sub 1 ref (geel) vs Sub 4 > 9.2ms delay



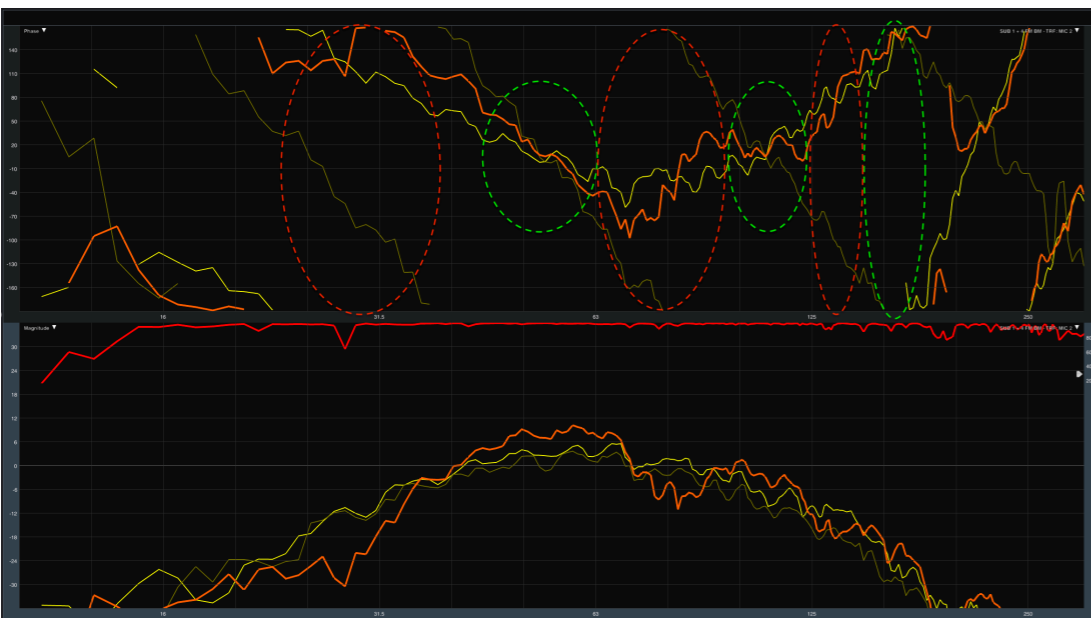
**Sub 1 ref (geel) vs Sub 4 > 9.2ms delay
Som Sub 1 + Sub 4 (2.8ms) Oranje**



Sub 1 ref (geel) vs Sub 4 0ms



Sub 1 ref (geel) vs Sub 4 > 9.2ms delay



**Sub 1 ref (geel) vs Sub 4 > 9.2ms delay
Som Sub 1 + Sub 4 (9.2ms) Oranje**

Sub 1 solo Front mic groen Back mic oranje



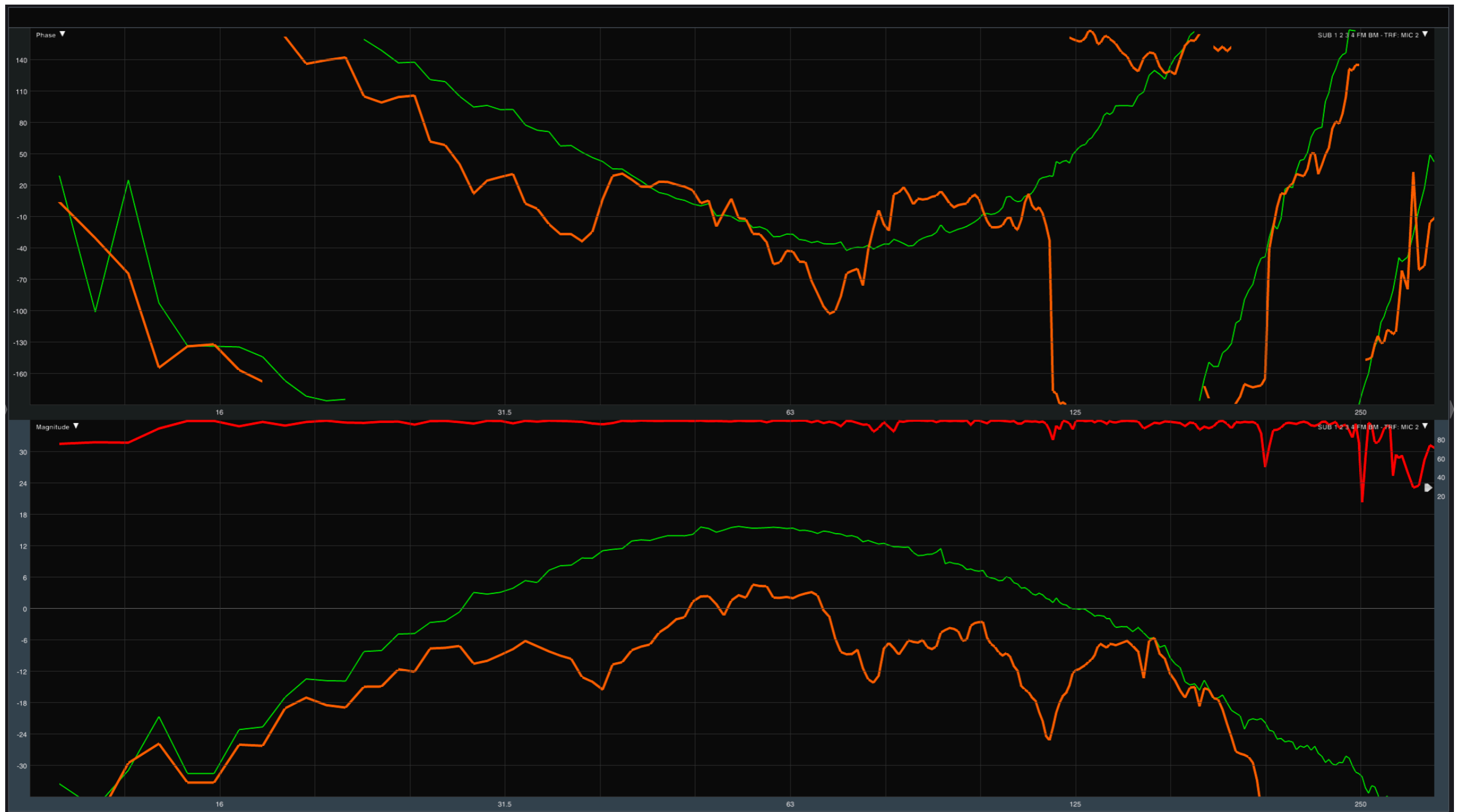
SOM Sub 1 + 2 Front mic groen Back mic oranje



SOM Sub 1 + 2 + 3 Front mic groen Back mic oranje



SOM Sub 1 + 2 + 3 + 4 Front mic groen Back mic oranje

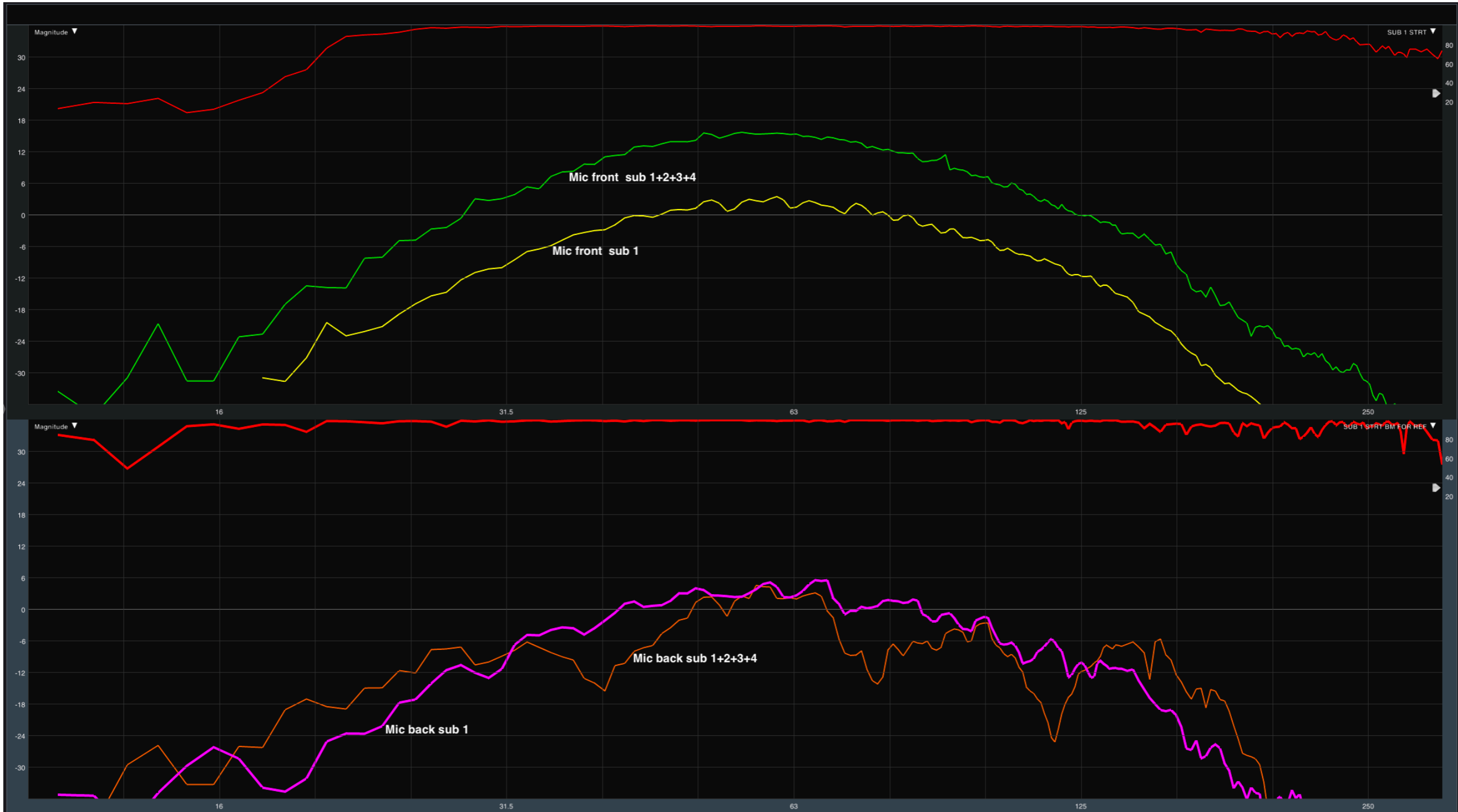


Geel Sub 1 solo front mic @16mt van Sub 4

Groen Som Sun 1 2 3 4 front mic @16mt van Sub 4

Roze Sub 1 solo back mic @16mt van back Sub 1

Oranje Som Sun 1 2 3 4 back mic @16mt van back Sub 1



Groen Som Sun 1 2 3 4 front mic @16mt van front Sub 4

Oranje Som Sun 1 2 3 4 back mic @16mt van back Sub 1

