

# KOTEL WG7 ILC23-24

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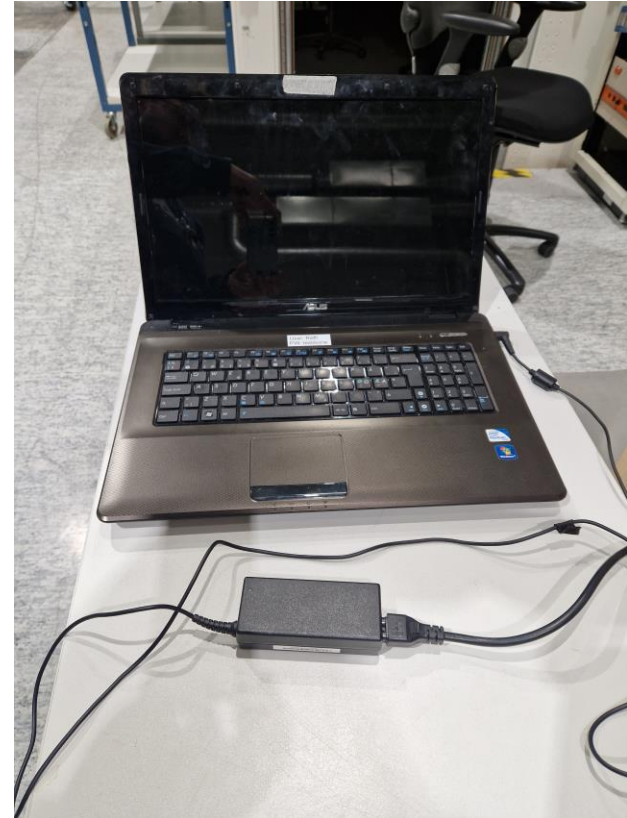


## WHY InterLaboratory Comparisons

- Part of laboratory quality control for method validation
- Mandatory for ISO/EN 17025 Accredited or Certified laboratory
- Good to know info for non-certified laboratories

## Sample laptop

- Battery removed
- 100% CPU Load for both CPUs
- Predefined Virtual memory load



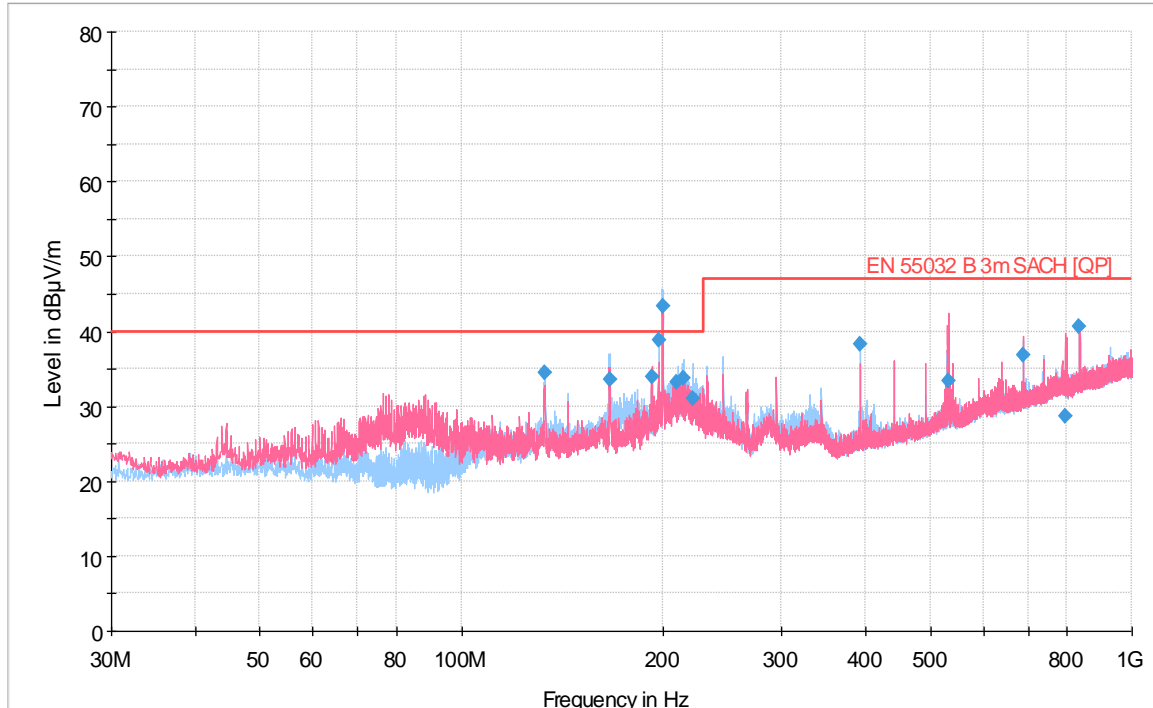


## Original test plan according EN 55032

- EN 55032 Radiated emissions 30 MHz- 1GHz (Main interest)
- EN 55032 Radiated emission 1 GHz – 6 GHz
- EN 55032 Conducted AC-port emissions
- No Data communication port emissions

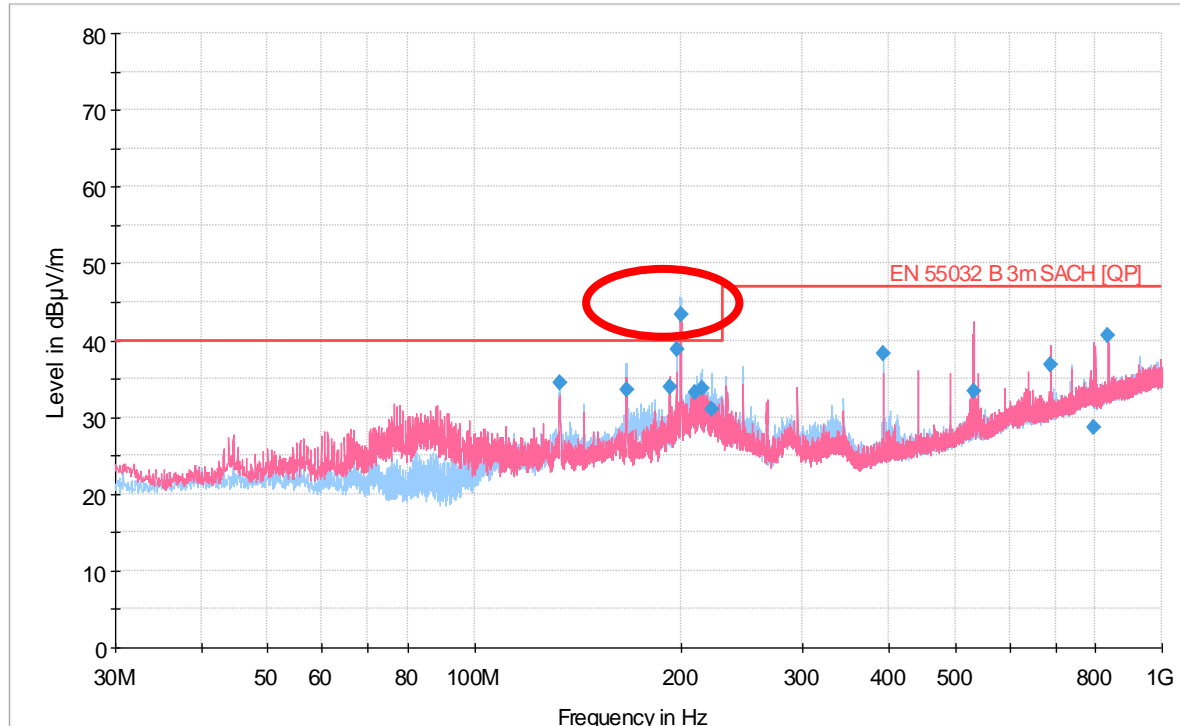


## Example test results from frequency range 30MHz – 1 GHz





## Example test results from frequency range 30MHz – 1 GHz



Comparison made from the results of the frequency near 200 MHz (199.8 MHz in example results)



## Results for Fully Anechoic Rooms (3 Labs)@199.8 MHz

- Median 45,81 dBuV/m
- Standard deviation 2.3 dB
- Max-Min 5.4 dB

## Results for Fully Anechoic Rooms @Other frequencies

- Standard deviation 0.9 dB up to 7.55 dB
- Max-Min 1.8 dB up to 15.1 dB



## Results for Semi Anechoic Rooms (9 Labs) @199.8 MHz

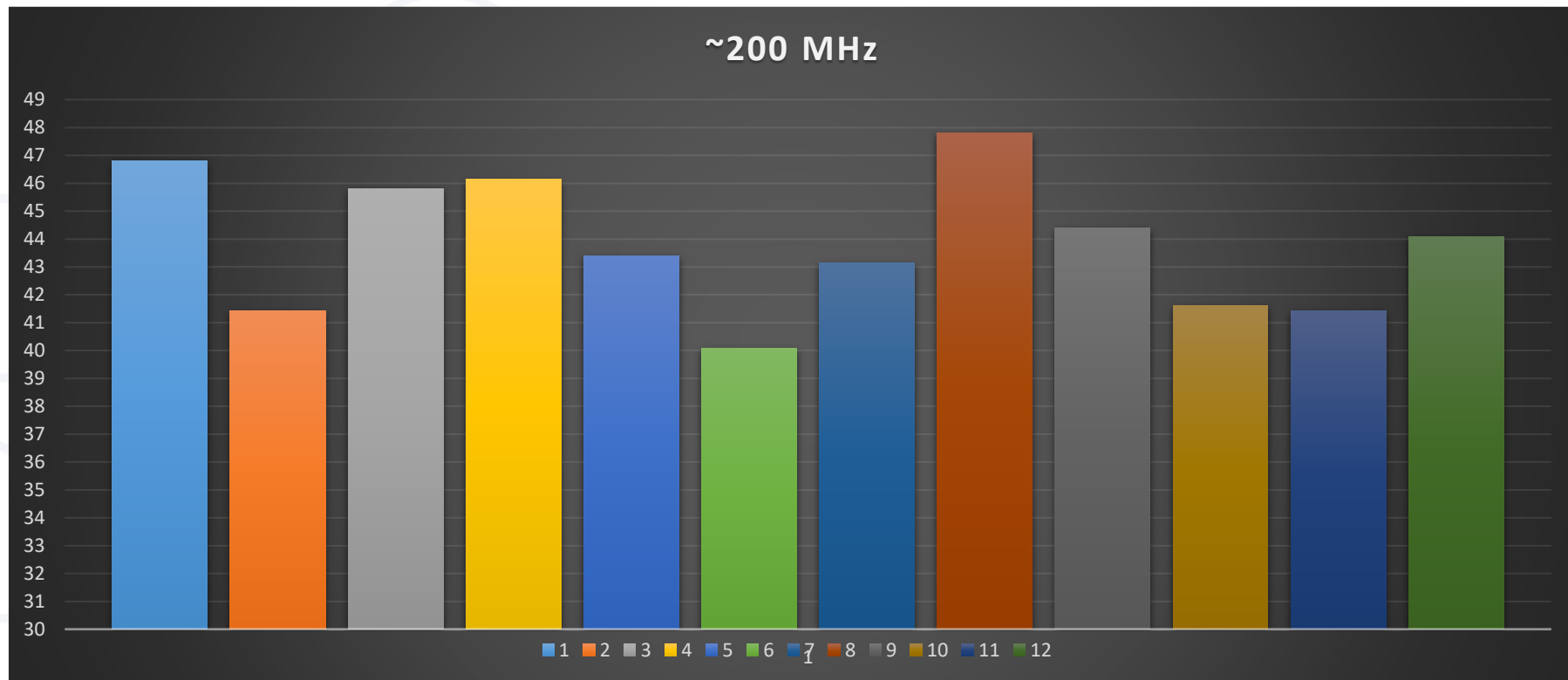
- Median 43.4 dBuV/m
- Standard deviation 2.3 dB
- Max-Min 7.7 dB

## Results for Fully Anechoic Rooms @Other frequencies

- Standard deviation 0.5 dB up to 1.9 dB
- Max-Min 1.8 dB up to 6.2 dB



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## Future plans

- Next time main focus in conducted AC-port and Ethernet port emissions
- And also radiated emissions 30 MHz – 6 GHz
- Possible harmonic current emissions
- RF Immunity tests at some point
- Probably starting Q4/2025 or 2026.....

**QUESTIONS?**

# THANKS

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