



**Proposal on  
DC-charging current Setup  
in whole vehicle EMC test**

**China Automotive Technology and Research Center Co., Ltd.  
BYD Auto Industry Co., Ltd.  
2019.7.16**



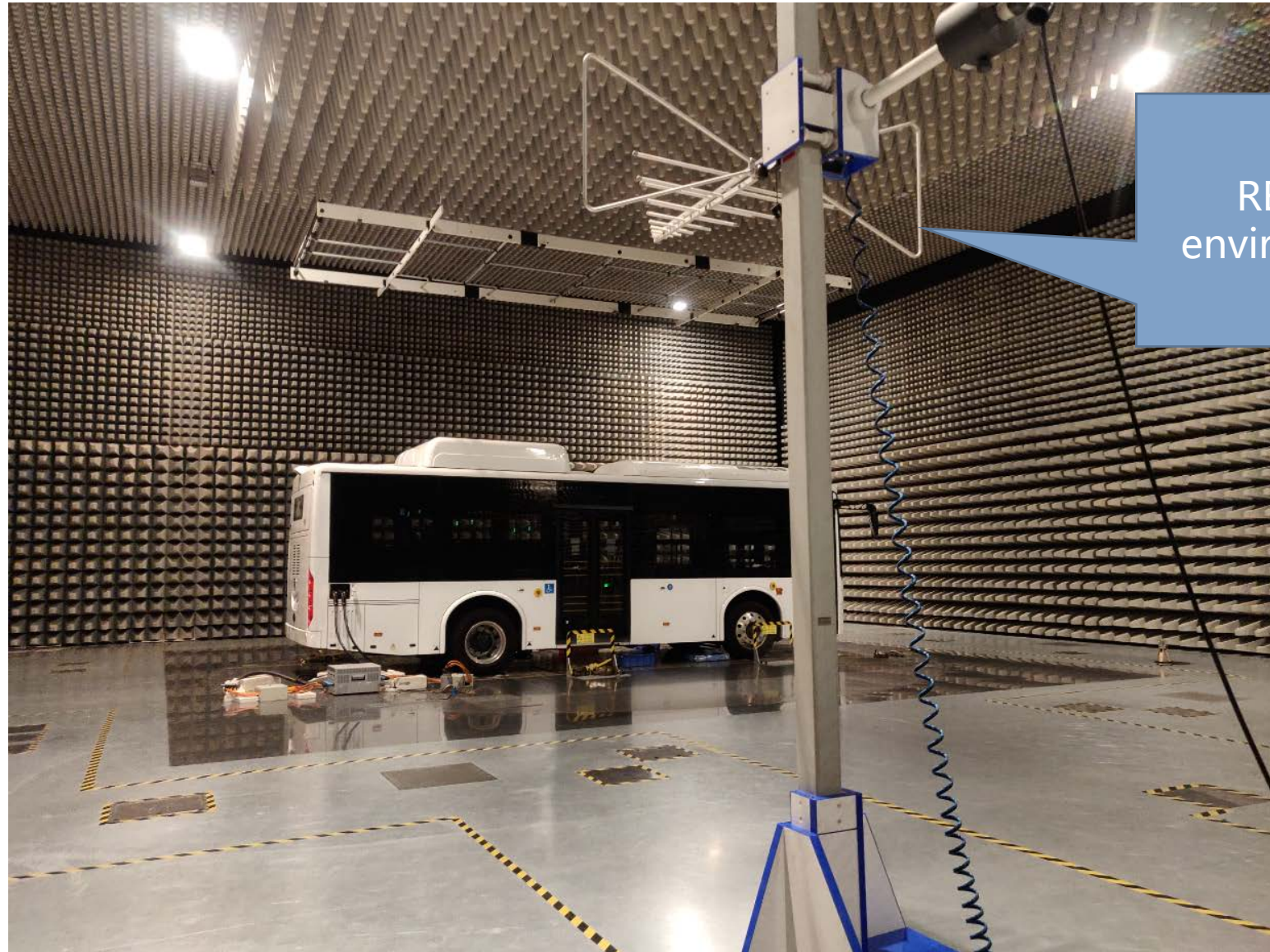
**中国汽车技术研究中心有限公司**  
China Automotive Technology and Research Center Co., Ltd.

DC-Charging Station with current setting function



MAX DC-charging current: 125A  
SOC: 20%-80%

# 1 Overview



RE test environment



Date: 20.FEB.2019 16:05:49

Vertical polarization: Not direct relevant to current setting

## 2 Comparison for different charging current—Horizontal



Date: 20.FEB.2019 16:10:56

Horizontal polarization: Not direct relevant to current setting

# 3 Need to wait charging current get stabilized



blue : 85% stable current  
purple : during current ramping up to 85%

Date: 21.FEB.2019 15:16:19

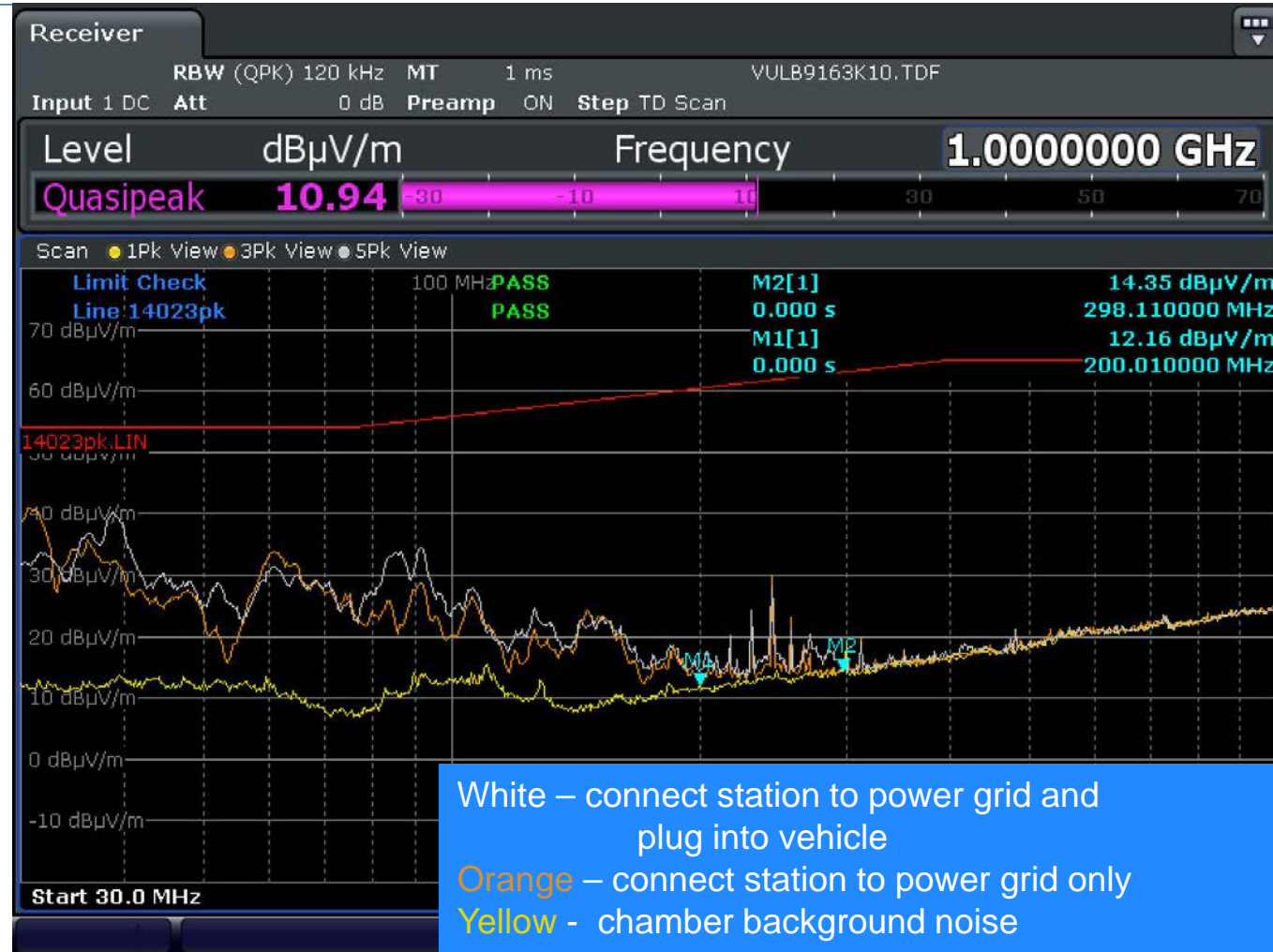
ANT pointing to vehicle center

Date: 19.FEB.2019 08:27:28

ANT pointing to DC charging port

Need to wait charging current get stabilized to make the result repetitive

# 4 Charging station impact on RE(Peak)



Date: 22.FEB.2019 12:51:51

Beware of the impact of the charging station itself, shielding/filtering are needed to assure at least 6dB below limit

# 4 Charging station impact on RE(QP)

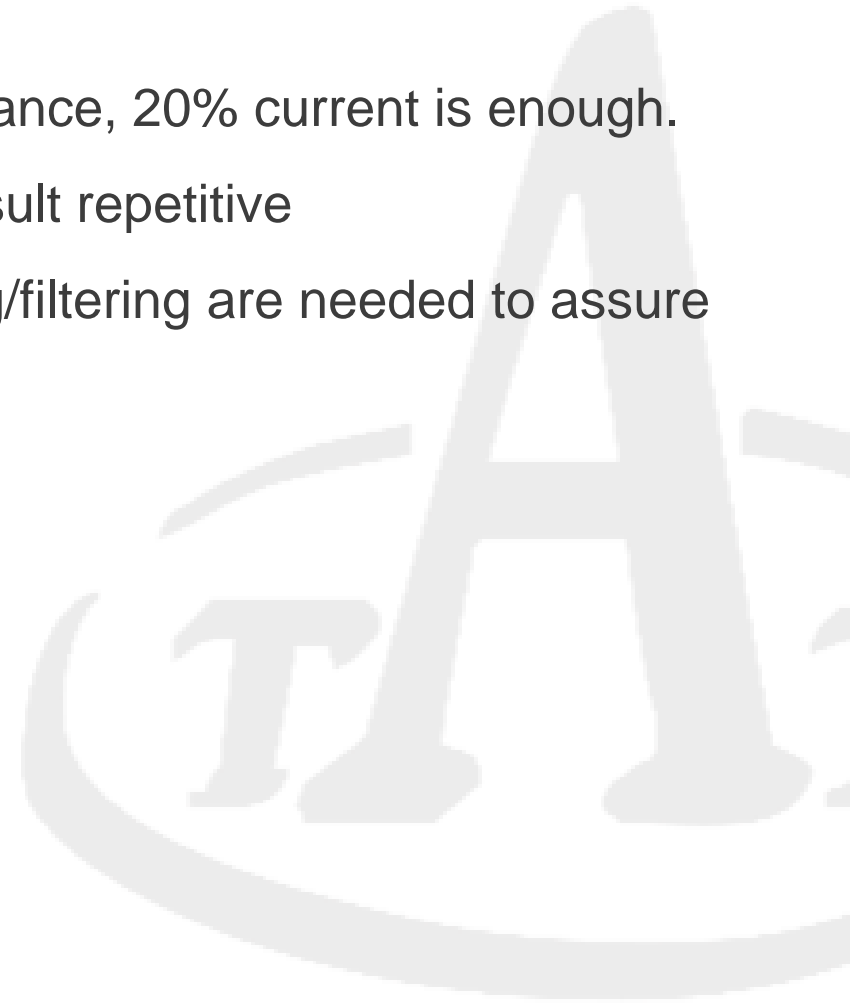


Date: 22.FEB.2019 12:54:48

Beware of the impact of the charging station itself, shielding/filtering are needed to assure at least 6dB below limit



- DC-Charging current is not directly related to EMC performance, 20% current is enough.
- Need to wait charging current get stabilized to make the result repetitive
- Beware of the impact of the charging station itself, shielding/filtering are needed to assure at least 6dB below limit





谢谢 THANKS



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