

10SPE

automotive PHY

multidrop channel model

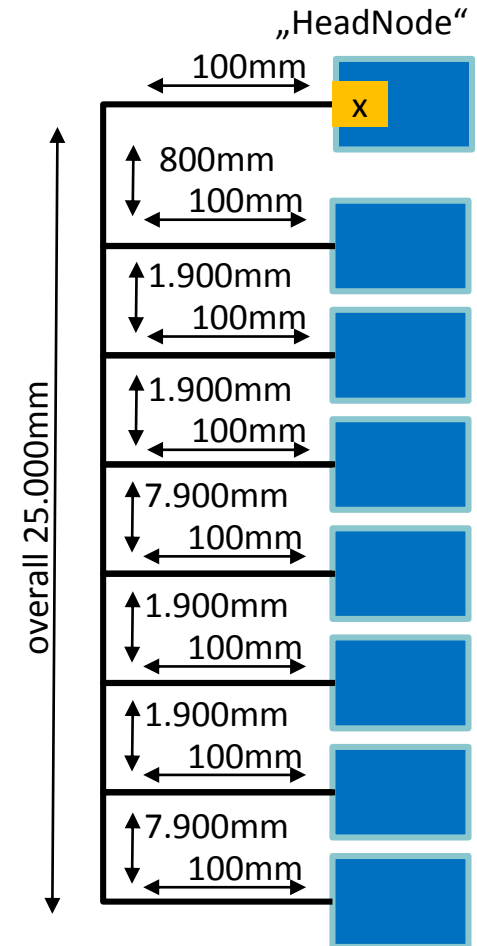
Stefan Buntz - Daimler AG

# motivation

- Provide an example for a multidrop channel touchstone file

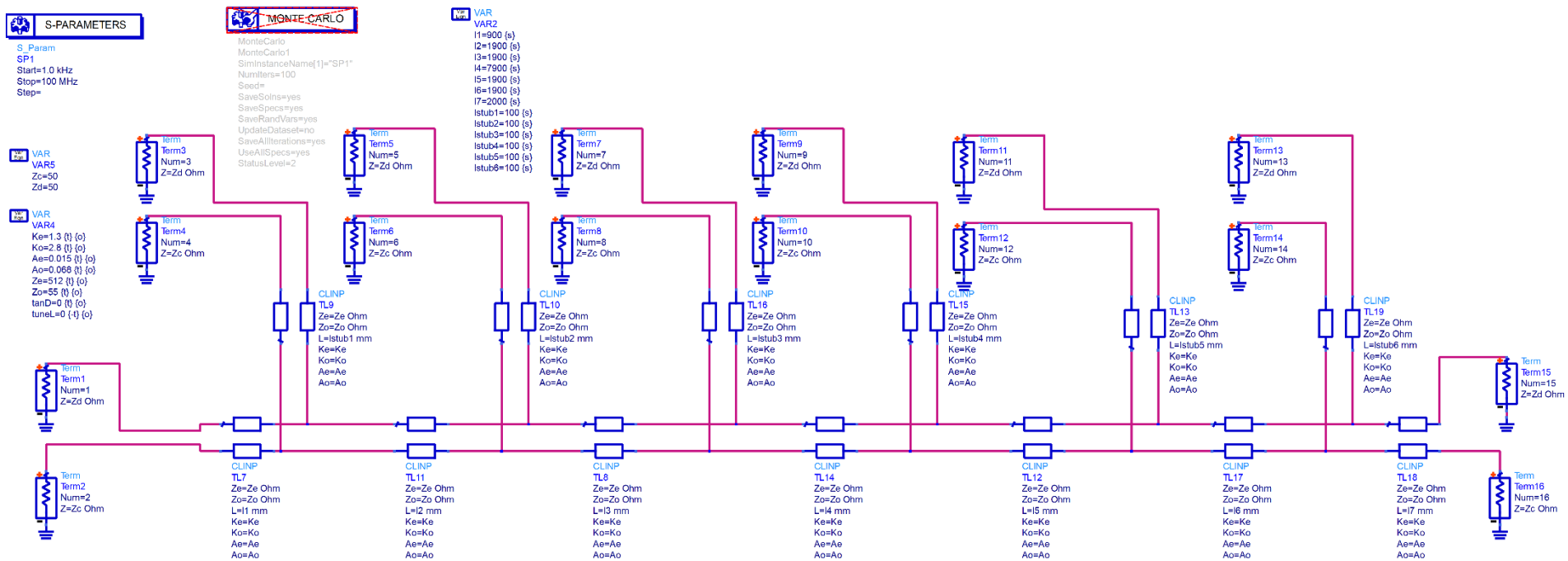
# Topology example

- Passive linear example was chosen to create simulation model and s-parameter export



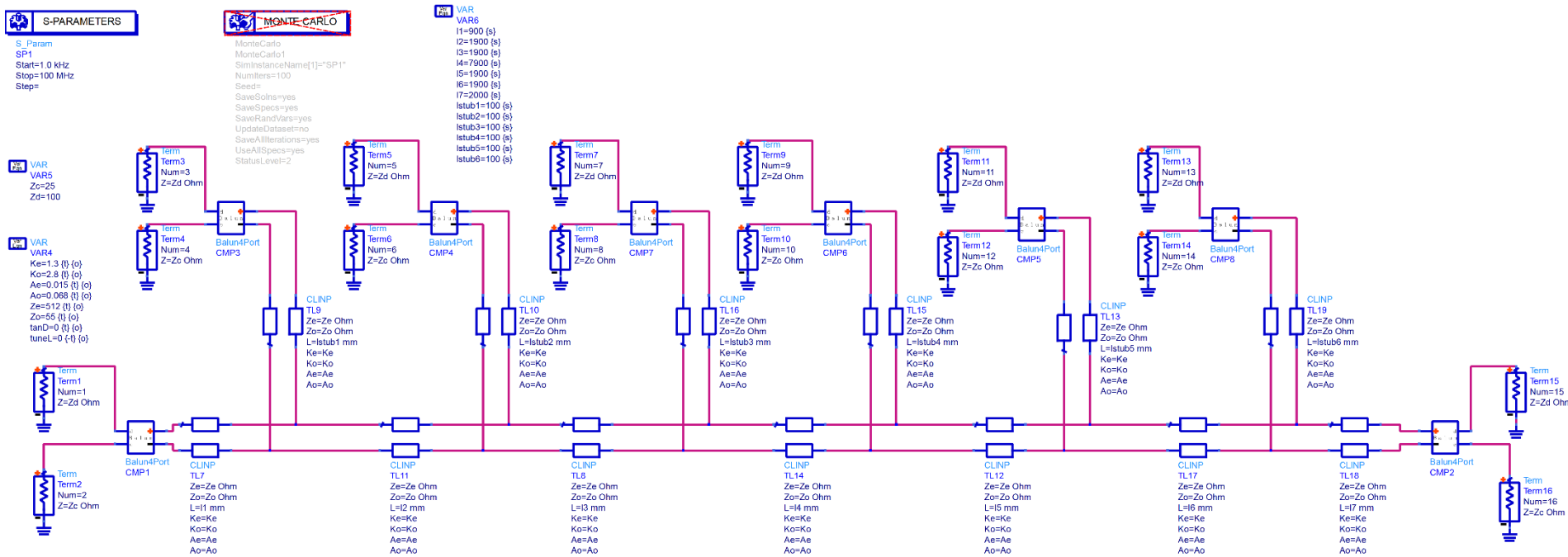
# ADS simulation used for Single-ended s-Parameter export

From this file Touchstone export was generated: 10SPE\_linear\_max.s16p  
([http://www.ieee802.org/3/cg/public/adhoc/10SPE\\_linear\\_max.s16p](http://www.ieee802.org/3/cg/public/adhoc/10SPE_linear_max.s16p))



# ADS simulation used for differential s-Parameter graph

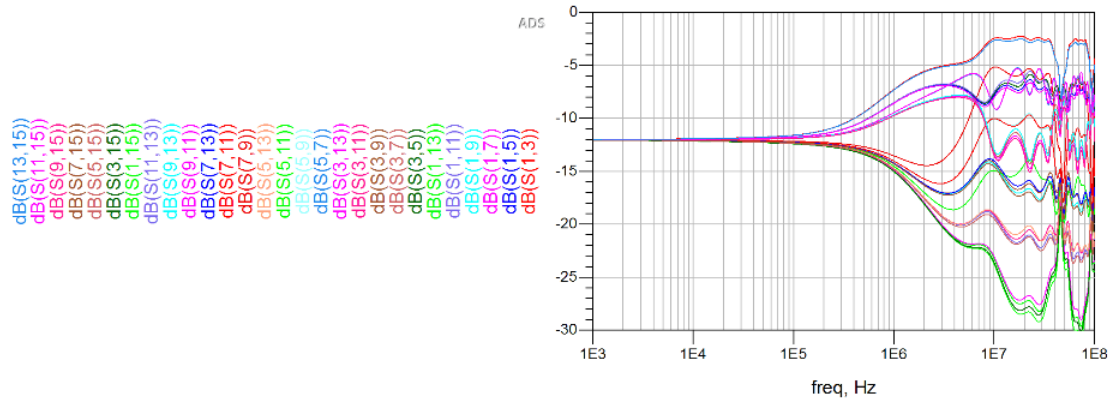
From this file the following graph was generated, to allow comparison of differential parameters (Sdd21, etc). Please note, that odd numbers represent differential modes, while even numbers represent common modes



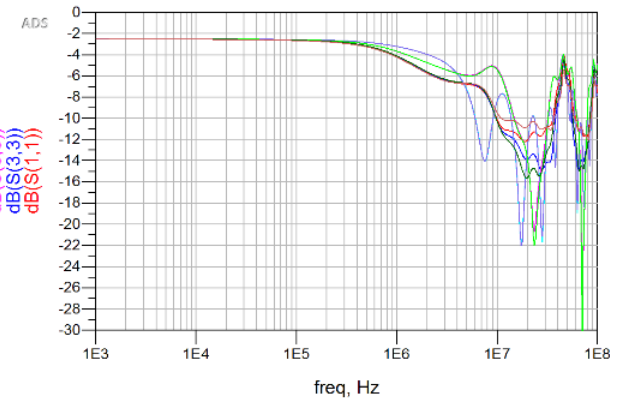
# Graphs max\_linear topology

amplitude

### Differential mode IL



### Differential mode RL



phase

