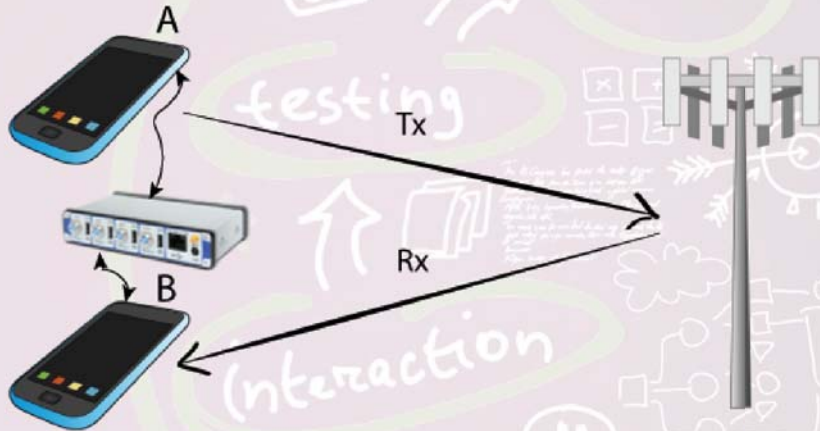


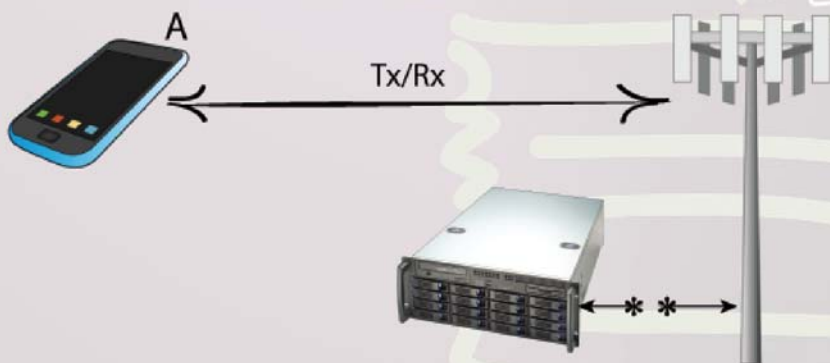
## ACU Box Measurement M2M



## On-Device Measurement M2M



## On-Device w/ Call Generator M2L



POLQA field testing for wireless networks may be conducted through essentially three methods:

1. Mobile to Mobile (M2M) with an ACU
2. M2M with on-device POLQA settings
3. Mobile to Fixed Line with Call Generator

Each method provides various levels of convenience and potential for testing.

The initial method available for any device is the ACU (Audio Control Unit) method which allows for a large variety of devices to be utilized. The ACU controls the voice patterns between each handset utilizing the phones audio/headset port to inject and receive the voice patterns required. Issues from this type of setup may include that the path measured is the transmit path of one handset (UL) and the receive path of the other handset (DL) combined in the measurement. The headset ports also may introduce degradation into the MOS scoring. The final issue is that this setup requires both devices to be in the same location for testing.

Similar to the ACU method, on-device measurements for M2M may be utilized. The patterns are placed on the devices and utilize the DSP level audio implementation. This has similar limitations to the ACU box, however it allows for the two devices to be in the same or varying locations for testing.

The final method utilizes a fixed system call generator. This mobile to fixed line (M2L) allows for measurements to be recorded on the UL and DL as well as utilize a single device for testing. There is a possibility of MOS degradation introduced over the core and long distance networks connected to the call generator.