**ITS-G5 Communication Parameters**

- Communication Standards: IEEE 802.11p & ETSI ITS
- Frequency: 5.9 GHz
- Transmit Power: ~20 dBm
- Channel Bandwidth: 10 MHz
- Data Rate: 6 Mbit/s

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**Communication Distance at Ko-PER Test Intersection**

Communication range between ITS roadside station (ITS equipped intersection in Aschaffenburg) and ITS vehicle stations (Ko-PER vehicles).

Packet Error Ratio (PER)
- green: PER < 10%
- orange: 10% < PER < 50%
- red: 50% < PER

- Reliable communication distance of over 400m enables various infrastructure-to-vehicle safety applications.
- Results have been averaged over various vehicles and test runs.
- Tests were based on Cooperative Localisation Message (CLM)

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**Vehicle Communication Pattern**

Sample communication pattern between two ITS vehicle stations (Ko-PER cars).
- blue: successful transmission
- red: lost packet

- Omni-directional radiation pattern
- Reliable communication distance of over 400m enables various vehicle-to-vehicle applications.
- Test Message: Cooperative Perception Message