

The NFCM is used to activate an external near-field pick-up device (a near-field card) and demodulates, decrypts and decodes the signal super-imposed on the field generated by the NFCM. Up to 8 unique pick-up devices can be authorized by the NFCM.

The NFCM generates a  $20\mu\text{s}$ , 13.56MHz field to rapidly detect the presence of an NFC pick-up device. If a device is detected, the NFCM generates a 13.56MHz field of a longer duration ( $\sim 20\text{ms}$ ). The field is radiate via an antenna connected to the NFCM via a 2-pin connector. This allows for application-specific mounting of the antenna, should the antenna need to be placed where the NFCM can not fit. This field inductively charges the pick-up device, where it changes the impedance in the field generated by the NFCM, putting a super-imposed ASK signal on the field which is demodulated by the NFCM. The communication distance is  $\sim 5\text{cm}$ .

The NFCM communicates with the vehicle via a 2Mbit HS-CANFD bus.

The NFCM communicates with another NFC devices mounted in the vehicle door via a private 2Mbit HS-CANFD bus.