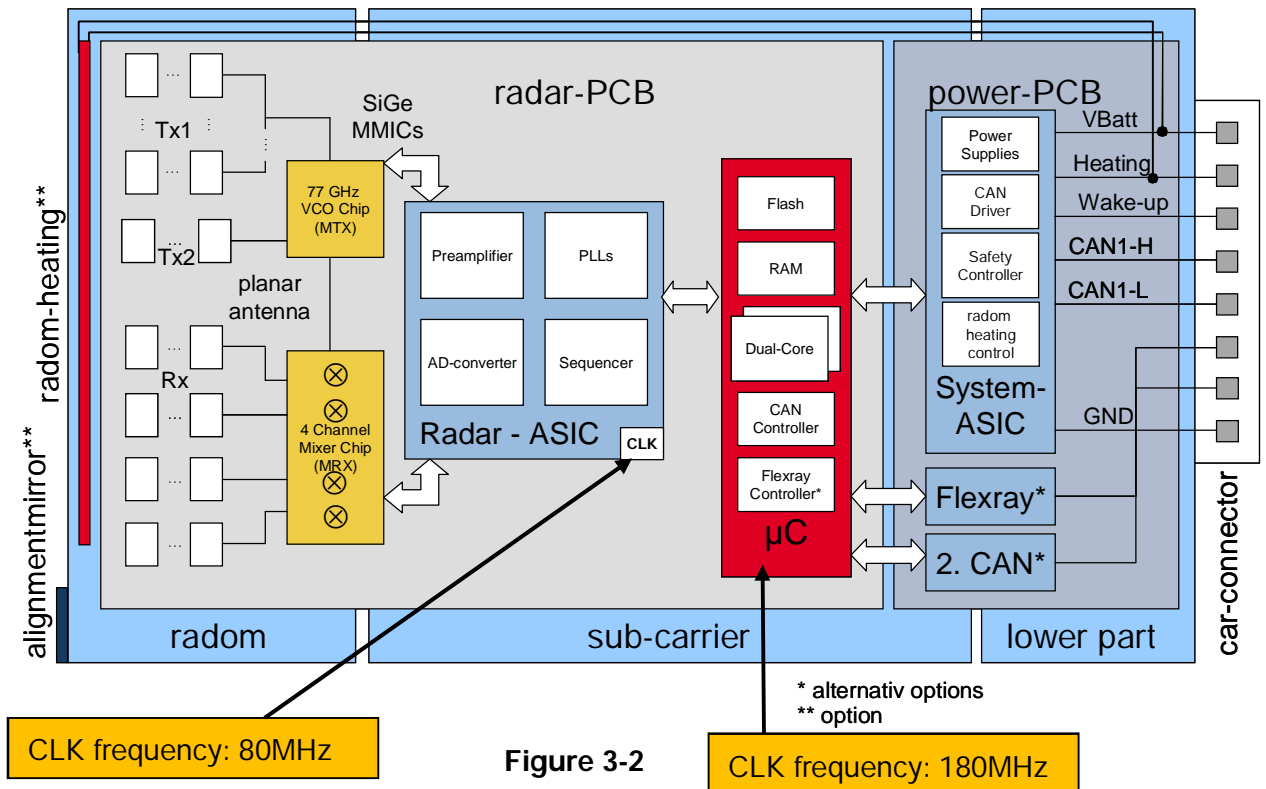


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Report  
Issue Version 4  
Topic BOSCH: MRR1Crn and MRR1CrnCR technical description

### 3.2 MRR1Crn and MRR1CrnCR Block diagram



CLK frequency: 80MHz

Figure 3-2

CLK frequency: 180MHz

The MRR1Crn and MRR1CrnCR Sensor is a highly integrated ECU consisting of 2 printed circuit boards with a small set of electronic parts.

Power - PCB:

- A System-ASIC with power supplies for all internal used voltages, a safety controller (SCON) with watchdog functionality and electrical vehicle interface (CAN - transceiver).

Radar - PCB:

- Floating-Point Microcontroller with double-core
- Radar-ASIC with separate preamplifiers for each channel, a control and self-diagnosis unit and a PLL-unit for generating highly linear frequency ramps with the SiGe MMIC's
- SiGe ASIC (MTX) for frequency generation (77GHz (Category I, see Appendix A)) via integrated VCO
- SiGe ASIC (MRX) with four mixers for receiving signals