MRR_header_V2.pdf 2021.12.17

(1) Frame Header

```
typedef struct MmwDemo_output_message_header_t
{
    /*! @brief   Output buffer magic word (sync word). It is initialized to  {0x0102,0x0304,0x0506,0x0708} */
    uint16_t    magicWord[4];

    /*! brief   Version: : MajorNum * 2^24 + MinorNum * 2^16 + BugfixNum * 2^8 + BuildNum   */
    uint32_t     version;

    /*! @brief   Total packet length including header in Bytes */
    uint32_t    totalPacketLen;

    /*! @brief   platform type */
    uint32_t    platform;

    /*! @brief   Frame number */
    uint32_t    frameNumber;

    /*! @brief   Time in CPU cycles when the message was created. For XWR16xx/XWR18xx: DSP CPU cycles, for XWR14xx: R4F CPU cycles */
    uint32_t    timeCpuCycles;

    /*! @brief   Number of detected objects */
    uint32_t    numDetectedObj;

    /*! @brief   Number of TLVs */
    uint32_t    numTLVs;

#if (defined(SOC_XWR16XX)||defined(SOC_XWR18XX) || defined(ENABLE_ADVANCED_FRAME))
    /* SOC_XWR18XX has 2 demo modes. In mmw demo mode which is similar to xwr16xx
     * ENABLE_ADVANCED_FRAME is enabled while in mmwhwa mode which is similar to xwr14xx
     * it is disabled. Due to these 2 demo modes the SOC_XWR18XX is not used directly
     * in the above #if.*/
    /*! @brief   For Advanced Frame config, this is the sub-frame number in the range
     * 0 to (number of subframes - 1). For frame config (not advanced), this is always
     * set to 0. */
    uint32_t    subFrameNumber;
#endif
} MmwDemo_output_message_header;
```

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(2) TLV header

```
typedef struct MmwDemo_output_message_tl_t
{
    /*! @brief   TLV type */
    uint32_t    type;

    /*! @brief   Length in bytes */
    uint32_t    length;

} MmwDemo_output_message_tl;
```

(3) QFormat

```
typedef struct MmwDemo_output_message_dataObjDescr_t
{
    /*! @brief   Number of detected objects */
    uint16_t     numDetetedObj;

    /*! @brief   Q format of detected objects x/y/z coordinates */
    uint16_t     xyzQFormat;

} MmwDemo_output_message_dataObjDescr;
```