

4.2.10 GNSS Attitude Blocks

| AttEuler | Number: | 5938 |
|----------|------------|---|
| | "OnChange" | interval: default PVT output rate (see 4.1.8) |

The AttEuler block contains the Euler angles (pitch, roll and heading) at the time specified in the TOW and WNC fields (in the receiver time frame).

| Parameter | Туре | Units | Do-Not-Use | Description |
|------------|------|--------------|---------------------|---|
| Sync1 | c1 | | | |
| Sync2 | c1 | | | |
| CRC | u2 | | | Block Header, see 4.1.1 |
| ID | u2 | | | |
| Length | u2 | 1 byte | | |
| TOW | u4 | 0.001 s | 4294967295 | Receiver time stamp, see 4.1.3 |
| WNc | u2 | 1 week | 65535 | |
| NrSV | u1 | | 255 | The average over all antennas of the number of satellites currently included in the attitude calculations. |
| Error | u1 | | | Bit field providing error information. For each antenna baseline, two bits are used to provide error information: |
| | | | | Bits 0-1: Error code for Main-Aux1 baseline: 0: No error |
| | | | | 1: Not enough measurements |
| | | | | 2: Reserved |
| | | | | 3: Reserved |
| | | | | Bits 2-3: Error code for Main-Aux2 baseline, same definition as bit 0-1. |
| | | | | Bits 4-6: Reserved |
| | | | | Bit 7: Set when GNSS-based attitude not requested by user. In that case, the other bits are all zero. |
| Mode | u2 | | | Attitude mode code: 0: No attitude |
| | | | | 1: Heading, pitch (roll = 0), aux antenna positions obtained with float ambiguities |
| | | | | 2: Heading, pitch (roll = 0), aux antenna positions obtained with fixed ambiguities |
| | | | | 3: Heading, pitch, roll, aux antenna positions obtained with float ambiguities |
| | | | | 4: Heading, pitch, roll, aux antenna positions obtained with fixed ambiguities |
| Reserved | u2 | | | Reserved for future use, to be ignored by decoding software |
| Heading | f4 | 1 degree | -2·10 ¹⁰ | Heading |
| Pitch | f4 | 1 degree | -2·10 ¹⁰ | Pitch |
| Roll | f4 | 1 degree | -2·10 ¹⁰ | Roll |
| PitchDot | f4 | 1 degree / s | -2·10 ¹⁰ | Rate of change of the pitch angle |
| RollDot | f4 | 1 degree / s | -2·10 ¹⁰ | Rate of change of the roll angle |
| HeadingDot | f4 | 1 degree / s | -2·10 ¹⁰ | Rate of change of the heading angle |
| Padding | u1[] | | | Padding bytes, see 4.1.5 |