1. 每一次上报总共包含32条message。

message ID为0x500 ~ 0x51F。

对应32个目标（实际目标数目会动态变化）

1. 每条message包含4个signal，即

MRR\_Locationxx\_Range：Location径向距离；

MRR\_Locationxx\_Angle：Location方位角，逆时针为正；

MRR\_Locationxx\_RangeRate：Location径向相对速度；

MRR\_Locationxx\_RCS：Location RCS值。

1. 每个signal详细定义如下：

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Signal Name** | **Length (Bit)** | **Byte Order** | **Value Type** | **Unit** | **Factor** | **Offset** | **Minimum** | **Maximum** |
| MRR\_Locationxx \_Range | 11 | Motorala | Unsigned | m | 0.1 | 0 | 0 | 204.7 |
| MRR\_Locationxx\_Angle | 10 | Motorala | Signed | deg | 0.1 | 0 | -51.2 | 51.1 |
| MRR\_Locationxx \_RangeRate | 14 | Motorala | Signed | m/s | 0.01 | 0 | -81.92 | 81.91 |
| MRR\_Locationxx \_RCS | 16 | Motorala | Signed | dB | 0.005 | 0 | -163 | 163 |

1. 每条message中4个signal的layout如下图：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Range\_Msb | R | R | R | R | R | R | R |
| R | R | Range\_Lsb | Angle\_Msb | A | A | A | A |
| A | A | A | A | Angle\_Lsb |  |  |  |
|  |  |  |  |  |  |  |  |
| RangeRate\_Msb | RR | RR | RR | RR | RR | RR | RR |
| RR | RR | RR | RR | RR | RangeRate\_Lsb |  |  |
| RCS\_Msb | RC | RC | RC | RC | RC | RC | RC |
| RC | RC | RC | RC | RC | RC | RC | RCS\_Lsb |

CAN总线波特率为500K

帧解析举例

数据帧 标准帧 0C BF A0 00 FF CC 00 63 十六进制

0000 1100 1011 1111 1010 0000 0000 0000 1111 1111 1100 1100 0000 0000 0110 0011

Range: 0000 1100 101

101 \* factor(0.1) = 10.1m

Angle: 1 1111 1010 0

~（1 1111 1010 0 – 1 ）= 0 0000 1100 = 12

-12 \* factor(0.1) = -1.2度

Speed: 1111 1111 1100 11

~（1111 1111 1100 11 - 1）= 0000 0000 0011 01 = 13

-13\*factor(0.01) = -0.13m/s

Rcs: 0000 0000 0110 0011

99 \* factor(0.005) = 0.495db