**TPMS (생산 툴–> Main)**

**Command**

Version 1.0.1

1.0.2

1.0.4 FTM MODE 추가

1.0.4.1 optimize

1.0.5.0 FOTA APN 추가

1.0.5.1 모뎀 checking optimize

1.0.5.2 1920 \* 1080 해상도 최적화(최대화면)

1.0.6.0 RF\_Ti\_Rx/Tx 추가, 해상도 최적화 기능 삭제

**Protocol by chanhihi**

**UART 통신 방식 사용.**

**2) Command : Tool -> main**

**3) Response : main -> Tool**

1. **FTM MODE**
2. Protocol: Tool -> main
3. Command : !ftm mode\_on
4. Response: $FTM,ON / $FTM,OFF
5. **Serial Number Write**
6. 프로토콜 : Tool -> main
7. Command : !cfg write 0001-2008-0000-0001(일련번호 16자리)

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| --- | --- | --- | --- | --- | --- |
| 크기 | 형태 | 내용 | 코드 |  | 비고 |
| 4byte | 0001 | Device Model 번호 4자리 | ASCII |  |  |
| 4byte | 2008 | 생산년월 4자리 | ASCII |  |  |
| 8byte | 0000 - 0001 | 일련번호 8자리 | ASCII |  |  |
|  |  |  |  |  |  |

3) Response : $SN,0001200800000001(일련번호 16자리),OK

1. **sFlash 초기화**
2. Protocol: Tool -> main
3. Command : !ftm sflash
4. Response: $SFLASH,OK / $SFLASH,NOK
5. **RS 485port(1)**

1) Protocol: Tool -> main

2) Command : !ftm rfm\_ex\_1

3) Response: $RFM\_EX\_1,OK / $RFM\_EX1,NOK

1. **RS 485port(5)**

1) Protocol: Tool -> main

2) Command : !ftm rfm\_ex\_5

3) Response: $RFM\_EX\_5,OK / $RFM\_EX5,NOK

1. **RF 내부**

1) Protocol: Tool -> main

2) Command : !ftm rfm\_in

3) Response: $RFM\_IN,OK / $RFM\_IN,OK

1. **GPS 환경**

1) Protocol: Tool -> main

2) Command : !ftm gps

3) Response: $GPS,OK / $GPS,NOK

1. **LED 정상 작동**

1) Protocol: Tool -> main

2) Command : !ftm led

3) Response: $LED,OK / $LED,NOK

1. **Modem TEST IMEI**

1) Protocol: Tool -> main

2) Command : !ftm modem\_imei

3) Response: $MODEM,IMEI,358777070003277

4) 표시: 358777070003277

1. **Modem ICCID 체크**

1) Protocol: Tool -> main

2) Command : !ftm modem\_iccid

3) Response: $MODEM,ICCID,5Byte(87A90EDD11003669795F)

4) 표시: 예) 87A9 0EDD 1100 3669 795F / 87A9 3439 1234 5678 9012

1. **Modem IMSI 체크**

1) Protocol: Tool -> main

2) Command : !ftm modem\_imsi

3) Response: $MODEM,IMSI,11Bits(999999999)

4) 표시: 예) 최대 5F5E0FF(99999999D) 최소 1(00000001D)

1. **Modem REG 체크**

1) Protocol: Tool -> main

2) Command : !ftm modem\_reg

3) Response: $$MODEM,REG,1

4) 표시: 예) 1: regi OK, 그외 NOK

1. **검사 완료 및 초기화**

1) Protocol: Tool -> Tool

2) Command : !cfg init

3) Response: $CFG\_INIT,OK

1. **Debug Message mode**

1) Protocol: Tool -> main

2) Command : !ftm debug\_on / !ftm debug\_off

3) Response: $FTM,DEBUG,ON / $FTM,DEBUG,OFF

1. **FOTA APN**

1) Protocol: Tool -> main

2) Command : !ftm fota\_apn

3) Response: $FOTA,APN,OK / $FOTA,APN,NOK