

User Manual

1. Features

T1000 is a highly integrated module with low power dual band (2.4GHz and 5GHz) Wireless LAN (WLAN) and Bluetooth Low Energy communication.

BLE:	
Operation Frequency:	2402MHz~2480MHz
Modulation Type:	GFSK
Transfer Rate:	1Mbps, 2Mbps
Antenna Type:	PIFA Antenna
Antenna Gain:	1.47 dBi
Power Supply:	DC 3.3V
Test Voltage:	DC 3.3V
BT:	
Operation Frequency:	2402-2480MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Product Type:	Fix Location
Antenna Type:	PIFA Antenna
Power Supply:	1.47dBi
Test Voltage:	DC 3.3V
2.4G:	
Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	IEEE for 802.11b:DSSS(CCK,DQPSK,DBPSK)
Number of Channel:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
Channel Separation:	5MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	1.47dBi
Power Supply:	DC 3.3V
Test Voltage:	DC 3.3V
5G:	
Operating Frequency	U-NII-1 & U-NII-2A: 5180-5320MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	3.96dBi
Power Supply:	DC 3.3V
Test voltage:	DC 3.3V

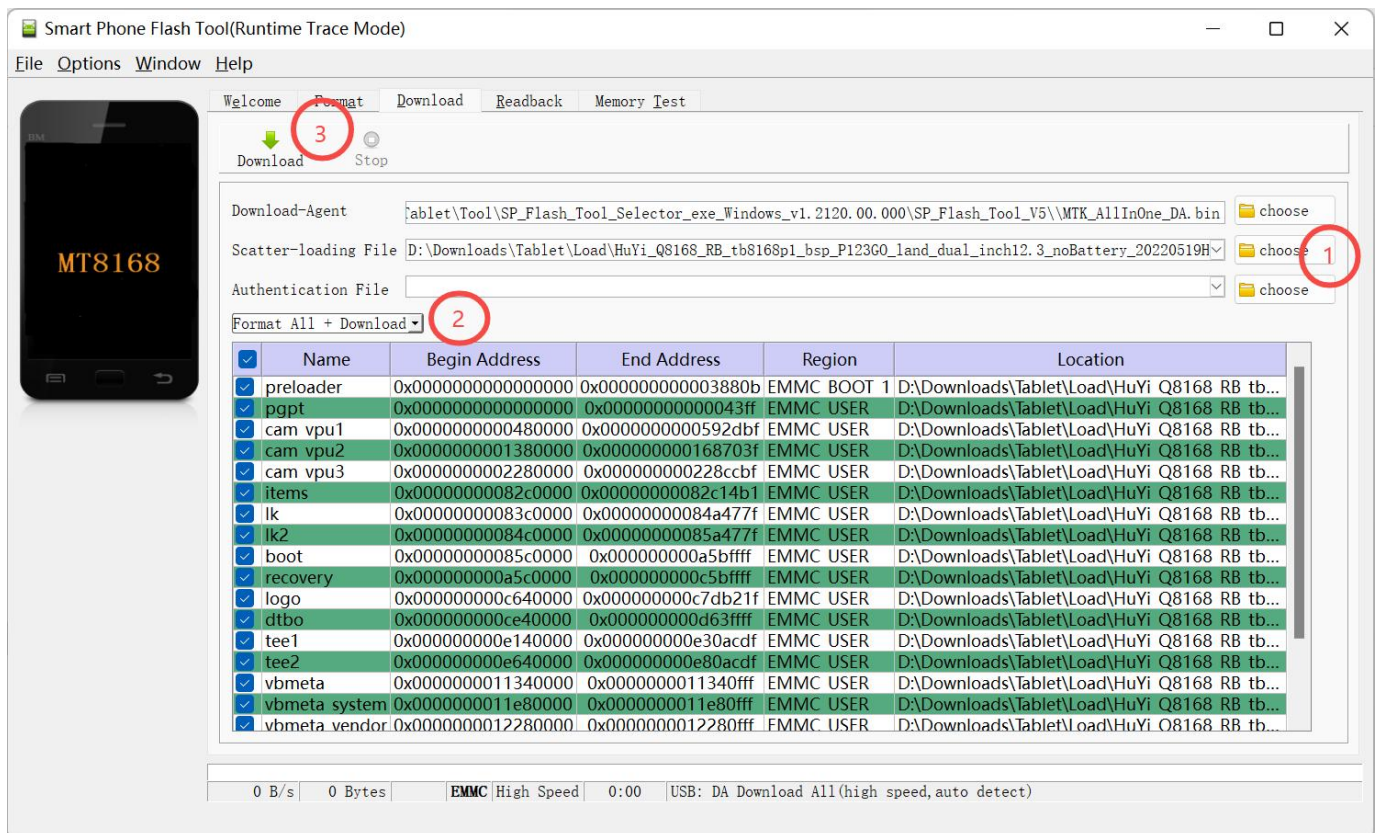
2. Temperature Limit Ratings

Parameter	Minimum	Maximum	Unit
Storage Temperature	-40	+85	°C
Ambient Operating Temperature	-20	+85	°C

3. Application/ Tools

A. Image tool

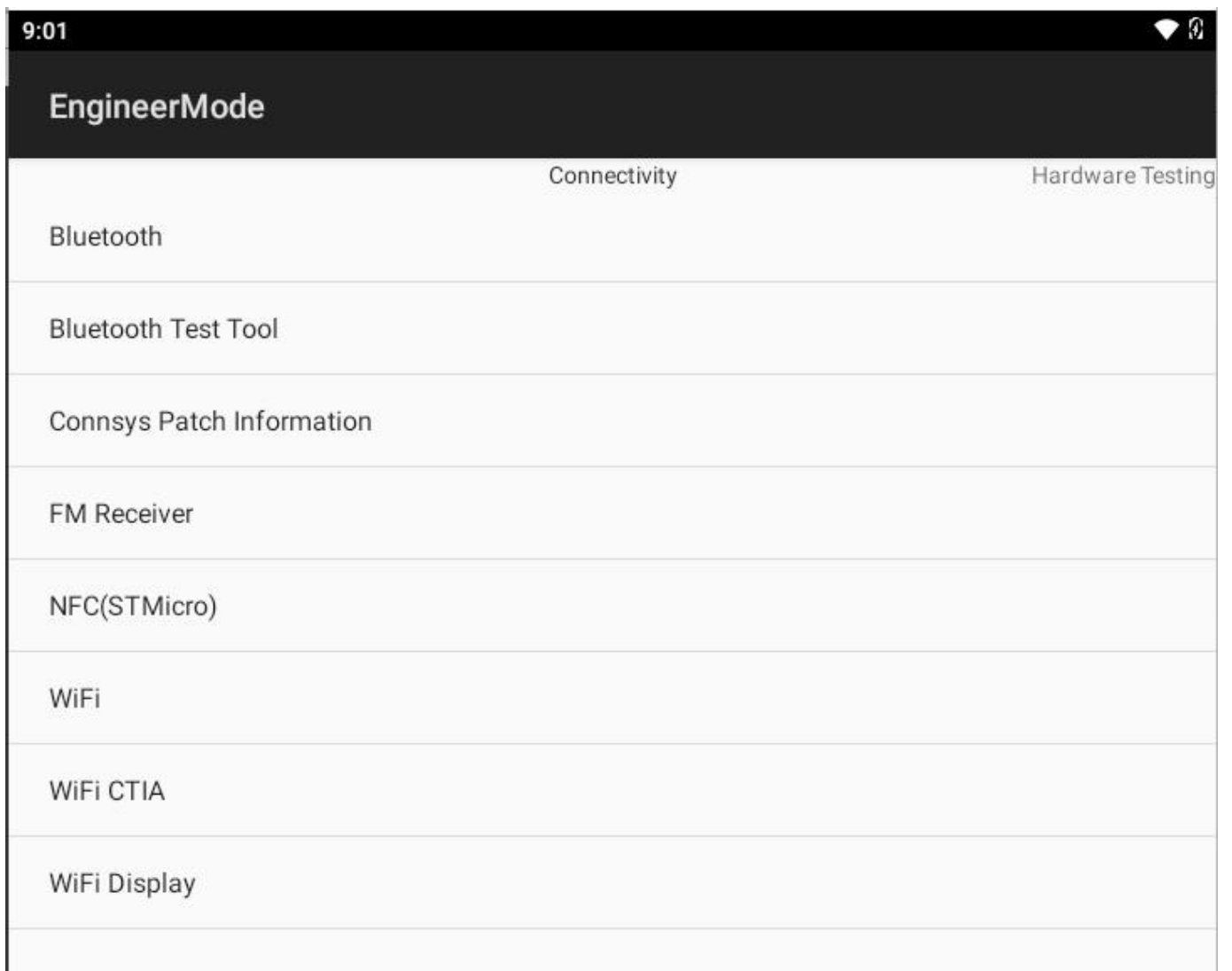
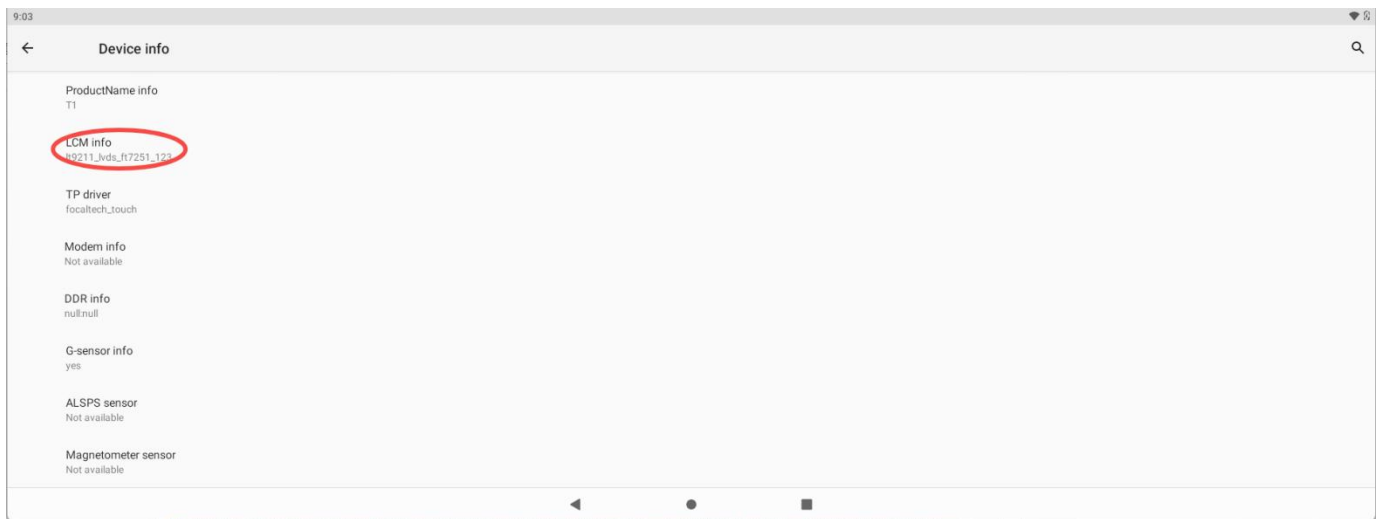
- Download the latest image
- Download MTK SP_Flash_Tool to install o PC, and put the module fixture and connect USB(Type C) to PC to power on the PUT
- Launch “SP_Flash_Tool_Selector_exe_Windows_v1.2120.00.000”
 - Select scatter file
 - Select “Format ALL + Download”
 - Press “Download” to start image programming
 - It will show green check in the progress while programming done
- Reboot device



B. Engineering mode

- Enter Settings -> About tablet -> Device info
- Press “LCM info” 8 times

- It will enter Engineer Mode



Regulatory Notices

1. Federal Communications Commission (FCC) Compliance Statement

FCC Part 15.19 Statements:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Part 15.21 statement

WARNING: Any changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

FCC Part 15.105 statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Our module is limited to OEM installation in mobile or fixed applications only. And the OEM integrator will be responsible for ensuring that the end-user has no manual instructions to remove or install the module. All other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations need the separate approval. We will provide antenna installation requirements if applicable.

2. Industry Canada (IC) Compliance Statement

CAN ICES-3 (B)/NMB-3(B)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out

in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par l'Industrie.

ISED Canada: This device contains license-exempt transmitter (s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference. 2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : 1. L'appareil ne doit pas produire de brouillage; 2.

L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

End Product Labeling

The module is labeled with its own FCC ID and IC Certification Number. If the FCC ID and IC Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

Contains FCC ID: 2A6RN-T1000

Contains IC: 28517-T1000