

Detail description of changes

FT2260VW is a CDMA Fixed Wireless Terminal. It's operated in Band Class 0 and Band Class 1. The Wireless Terminal implements such functions as RF signal receiving / Transmitting, CDMA protocol processing, voice, data etc. The TX is 824MHz-849MHz, the RX is 869MHz-894MHz for Band Class 0; The TX is 1850MHz-1910MHz, the RX is 1930MHz-1990MHz for Band Class 1.

The original one and the modified one support the same function.

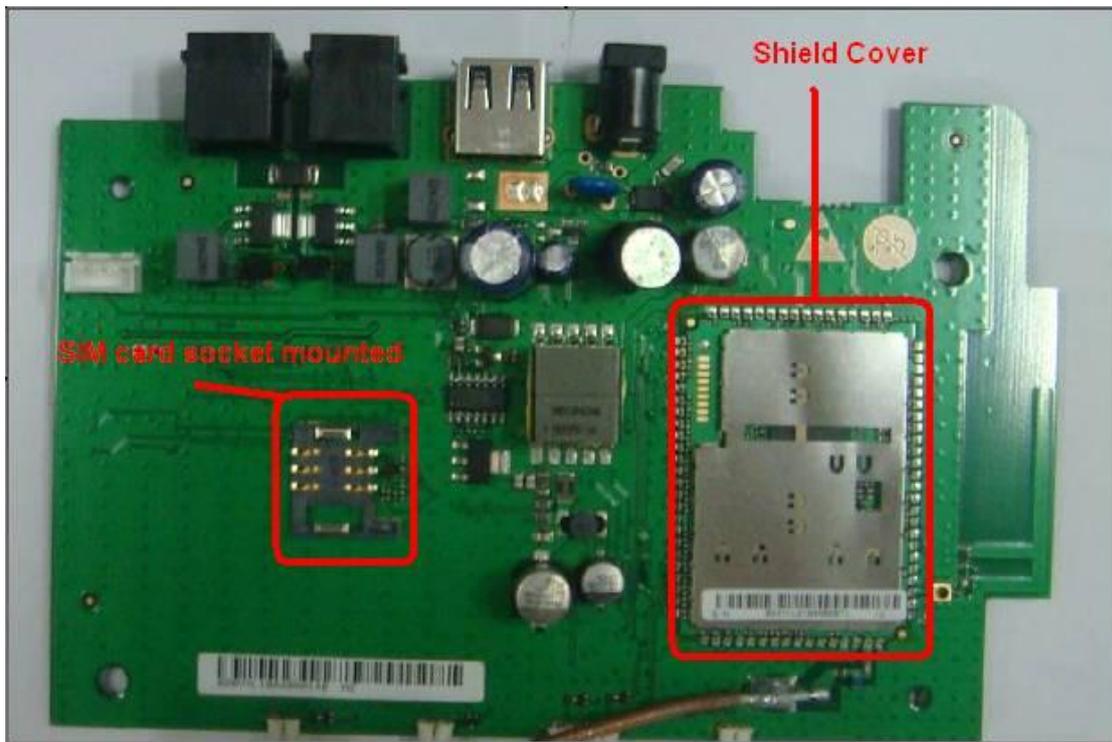
The PCBA is different. The differences between the original and the modified are: the modified one removed the SIM card socket on the PCB, and the Shield Cover is different from the original of the appearance, the layout is the same. The modified added a adapter of new model.

The followed table is show the difference between the two.

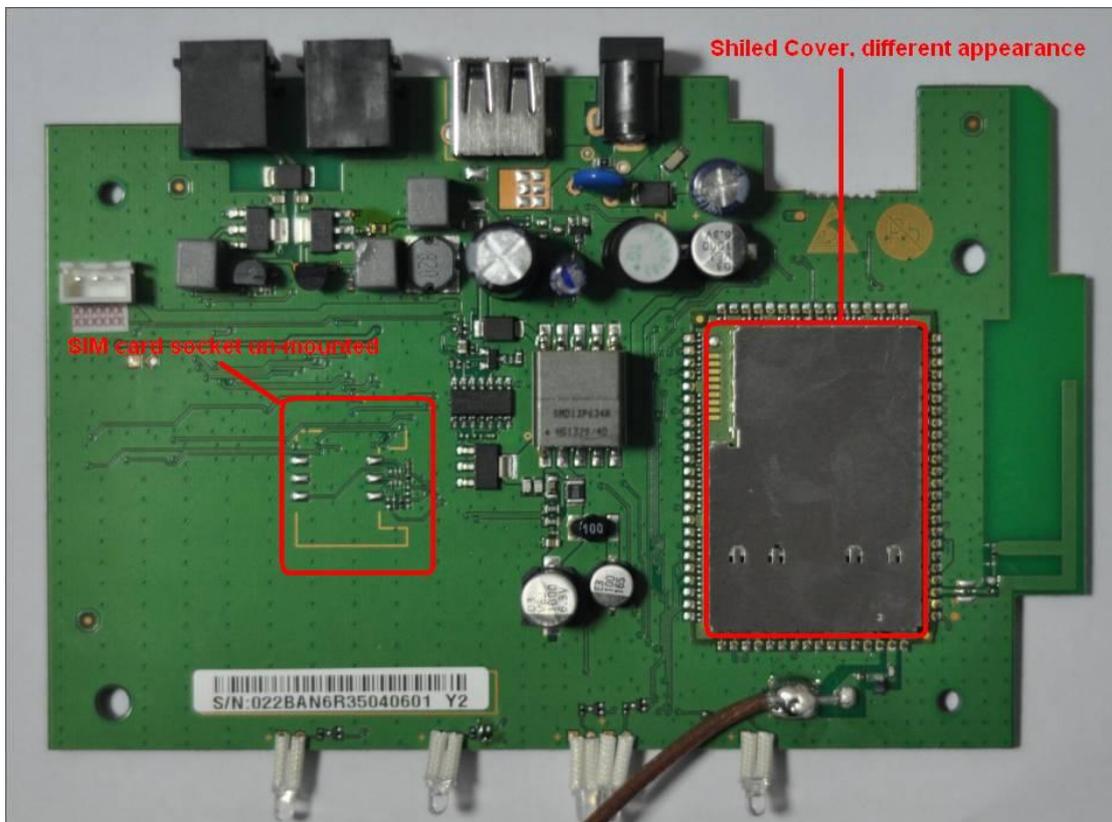
	FT2260VW(the original)	FT2260VW(the modified)
SIM card socket	Mounted on board	Un-mounted
Shield Cover	Covered	Covered, different appearance
Adapter	Adapter Model: HW-120050U5W CNR2260	Adapter Model: HW-120050U1W HW-120050U5W CNR2260

The photos of the two FT2260VW:

FT2260VW (the original):



FT2260VW (the modified):



Explanation:

a) Adapter change:

The plastic shell and the materials of the two are the same.

b) PCBA change:

As the above pictures, the modified one removed the SIM card socket on the PCBA, and the Shield Cover is different from the original of the appearance. The modified added a adapter of new model. The chipset and the platform are the same.

**Introduction**

HUAWEI FT2260VW developed by Huawei is a fixed wireless terminal for household users. With FT2260VW, It is developed on the basis of CDMA2000 1X RTT .

Intended use statements

FT2260VW is a CDMA fixed wireless terminal. It can only be work in the networks which it supports the CDMA2000 1X RTT technique. If there are no corresponding networks, the RF module of FT2260VW will not work and no any unwanted emission will be produced.

Types of Emissions

For this handset, the emission designator is **1M28F9W**

Frequency Range

CDMA band cass0 : 824~849MHz/869~894 MHz(uplink/downlink)

CDMA band cass1 : 1850~1910MHz/1930~1990 MHz(uplink/downlink)

Range of Operating Power

Maximum transmit power	CDMA	≥ 23 dBm
------------------------	------	----------

Maximum Power Limits

The peak output power of FT2260VW may not exceed 2 Watts

Antenna description

Technical parameters of the FT2260VW antennas

Item	CDMA800M/1900M
Frequency	824~894MHz/1850~1990 MHz
Input impedance	50 Ω
VSWR	≤3.0
Peak gain	1.0dBi
Rated power	10W
Polarization	Vertical

Applied voltages:

AC: 100V-240V DC: 12V,0.5A

Complete bill of material

Attachment

Complete Circuit Diagrams

Attachment

Instruction/Installation Manual

Attachment

Equipment label with CE identification



Attachment

Means for Frequency Stabilization

The Voltage Controlled Temperature Compensated Crystal Oscillator (VCTCXO) provides the reference frequency for all RFIC synthesizers as well as clock generation functions within the MSM6800 IC. The oscillator frequency is controlled by the QSC6055's TRK_LO_ADJ pulse density modulated signal

Means for Limiting Modulation

In a CDMA system, the input signal (voice for example) is sampled and coded in a vocoder. This signal is then spread to 1.23 MHz by a pseudo-random spreading code. This spreading code sets the bandwidth of the spread-spectrum signal. If more than one signal is in operation (i.e. more than one voice channel), then the two signals are simply layered one atop the other within the 1.23 MHz band. The bandwidth of the transmitted signal is limited by the chip rate of the PN spreading code.

Description of Digital Modulation Techniques

The Code Division Multiple Access (CDMA) system uses only a digital transmission mode for both the voice and data transmission. The voice vocoder rate is variable and ranges from 0.8 to 8.6 KBPS in a Rate Set 1 system, and from 1.05 to 13.35 KBPS in a Rate Set 2 system. The exact data rate chosen is based on the voice activity factor. Regardless of vocoder rate and system type, Rate Set 1 or 2, the modulation symbol rate is always 19.2 KBPS into the block interleaver and Walsh function modulator on all paging and traffic channels. Encoding at 9600 bps results in a set forward traffic channel power, and at a sub-rate of 4800 bps approximately half of the forward power is effectively reduced. The CDMA waveform is a combination of frequency division, code division, and orthogonal signal multiple access techniques. Frequency division is employed by dividing the available spectrum into nominal 1.25 MHz bandwidth channels. Code division is employed by "mixing" the data with a pseudorandom noise binary code at a rate of 1.2288 MHz. This spreads the signal over a 1.23MHz bandwidth. The spread signal is then encoded into two parallel bit streams referred to as I(t) and Q(t). At any time t, the vector form of I(t) and Q(t) forms a vector which can be plotted as a constellation on a graph whose abscissa and ordinate axes are scaled in terms of the magnitude of I(t) and Q(t) respectively. Only four differential changes between any two sequential vectors are permitted. The digitally encoded I and Q waveforms from the pilot, paging, synchronizing, and traffic signals are then digitally combined and digitally filtered. These signals are then passed through a Digital to Analog converter and filtered using a 7 -pole Elliptic filter with a 3dB cutoff frequency of 630 kHz. This encoding scheme is referred to as Binary Phase Shift Keying (BPSK). These I(t) and Q(t) signals are then applied to the modulator.