

Operation Description

P80 is a type of smart phone developed by HXY. Based on MT8788 hardware platform, the mobile phone adopts Google's Android operating system and band supported FDD LTE.

The mobile phone's hardware is composed of the main board and other components.

As the main part of the overall hardware system, the main board is interfaced with MT8788, MT6177, MT6358, MT6371, MT6631. The system's main functions of baseband and RF are realized through the function combinations.

The MT8788 device, is a highly integrated baseband platform incorporating both modem and application processing subsystems to enable LTE/LTE-A smart phone applications. The chip integrates 12nm 4*A73 2.0GHz+4*A53 2.0GHz. In addition, an extensive set of interfaces and connectivity peripherals are included to interface to cameras, touch-screen displays and UFS/MMC/SD cards.

MT8788 communicates with the RF processing chip MT6177 through an exclusive SSBI interface, and it is composed of RF system with the external PA, SAW filter, antenna switch, test socket, the matching network between antenna and module. And accordingly it realizes the receiving and transmitting of users' communication signals.

MT8788 connects with MCP through EMI (External Memory Interface) to realize the storage of applications & data and the running of applications.

MT6631 are chips with the FM, GPS, Bluetooth and WIFI function. Bluetooth: MT8788 connect with MT8788 through IQ interface to realize the audio & file transmission function.

MT8788 controls the LCD display through an exclusive LCD interface; the LCD backlight power is realized through MT6371. The Tri Acceleration Sensor, Magnetic Induction Sensor and Distance Sensor control chip multiplex I2C and connect with MT8788 to realize the command and data transmission.

MT8788 communicates with the power management chip MT6358 through an exclusive SPI interface, and performs the power management for each component on the main board. The keypad backlight is powered by MT6258, which provides one LED driver with current adjustment to realize the backlight function. The powers required by each function module are mostly supplied by MT6358.

The audio input/output system is composed of the codec IC which is inside MT6358, speaker, receiver, earphone and microphone. The speaker is driven by MT6358 to realize the sound output; the receiver and earphone are directly driven by MT6358 output; there are two MIC inputs, one on the earphone wire, the other directly welded on the main board. The offset voltage required by the MIC is directly

provided by [MT6358](#).

The antenna feed point adopts ANT REED to connect the antenna and the RF board.

The Keyboard is composed of two keys exclusively used for VOLUME.

The 26MHZ main oscillator XO is connected to the [MT6358](#) and used as the clock source to generate RF signal; and the 26MHZ oscillator is also used as the main clock source of the Baseband .

The 26MHZ sub oscillator Integrated in [MT6358](#) and used as the clock source of RTC and the sleep clock of the Baseband.

The [MT6631](#) integrates a GPS WIFI and BT RF transceiver and protocol processing. The WiFi support 11b/11g/11n and BT support BT4.2+EDR. The work is done by it.

Frequency Bands:	<ul style="list-style-type: none"><input checked="" type="checkbox"/>BT: 2402~2480 MHz<input checked="" type="checkbox"/>2.4G WIFI: 802.11b/g/n(20MHz): 2412~2472MHz 802.11n(40MHz):2422~2462MHz<input checked="" type="checkbox"/>5G WIFI:802.11a/ n(20/40)/ ac(20/40/80) 5180MHz~5240MHz;(20MHz) 5190MHz~5230MHz;(40MHz) 5210MHz;(80MHz) 5745-5825 MHz for 802.11a/n20/ac20; 5755-5795 MHz for 802.11n40/ac40; 5775MHz for 802.11 ac80;<input checked="" type="checkbox"/>GSM850: TX824.2MHz~848.8MHz /RX869.2MHz~893.8MHz;<input checked="" type="checkbox"/>UMTS FDD Band V: TX826.4MHz~846.6MHz /RX871.4MHz~891.6MHz;<input checked="" type="checkbox"/>PCS1900: TX1850.2MHz~1909.8MHz /RX1930.2MHz~1989.8MHz;<input checked="" type="checkbox"/>UMTS FDD Band II: TX1852.4MHz~1907.6MHz /RX1932.4MHz~1987.6MHz;<input checked="" type="checkbox"/>UMTS-FDD Band IV:TX1710MHz~1755MHz /RX2110MHz~2155MHzLTE FDD Band 2 Uplink: 1850MHz-1910MHz, Downlink: 1930MHz-1990MHz;LTE FDD Band 4 Uplink: 1710MHz-1755MHz, Downlink: 2110MHz-2155MHz;LTE FDD Band 5 Uplink: 824MHz-849MHz, Downlink: 869MHz-894MHz;LTE-FDD Band 7 Uplink: 2500MHz-2570MHz, Downlink: 2620MHz-2690MHz;LTE FDD Band 12 Uplink: 699MHz-716MHz, Downlink: 729MHz-746MHz;LTE FDD Band 17 Uplink: 704MHz-716MHz, Downlink: 734MHz-746MHz;LTE FDD Band 66 Uplink: 1710MHz-1780MHz, Downlink: 2110MHz-2200MHz;<input checked="" type="checkbox"/>NFC: 13.56 MHz;
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<p>Modulation Mode:</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> BT(1Mbps)/BLE: GFSK <input checked="" type="checkbox"/> BT EDR(2Mbps): $\pi/4$-DQPSK <input checked="" type="checkbox"/> BT EDR(3Mbps): 8-DPSK <input checked="" type="checkbox"/> IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) <input checked="" type="checkbox"/> IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK) <input checked="" type="checkbox"/> 802.11a:OFDM (BPSK / QPSK / 16QAM) <input checked="" type="checkbox"/> 802.11n:OFDM (QPSK/BPSK/16QAM/64QAM) <input checked="" type="checkbox"/> 802.11ac:OFDM (QPSK/BPSK/16QAM/64QAM/256QAM) <input checked="" type="checkbox"/> GSM/GPRS: GMSK, 8PSK <input checked="" type="checkbox"/> WCDMA(Voice /HSDPA/HSUPA): QPSK <input checked="" type="checkbox"/> LTE: QPSK, 16QAM <input checked="" type="checkbox"/> NFC: ASK
<p>Antenna:</p>	<p>BT/WIFI: PIFA Antenna; GSM/WCDMA/LTE: PIFA Antenna; NFC: Induction coil</p>