



Introduction

HUAWEI MediaPad 10 Link (MediaPad 10 Link for short) is a 10.1-inch tablet computer that simultaneously supports 3G ,LTE,Wi-Fi and BT data services, and has an ultra high definition IPS screen with a resolution of up to 1280 × 800 pixels. MediaPad 10 Link incorporates Huawei's own Hislicon processor and is based on the Android operating system, enjoying both Google Android Play Store and Huawei's unique Cloud+ solutions.

Intended use statements

With an aluminum-alloy housing and ultra-thin 9.9 mm design, MediaPad 10 Link is stylish,slim,and easy to carry.

MediaPad 10 Link has a IPS screen with a resolution of up to 1280 × 800 pixels. It comes with a front camera,and a rear camera.The front camera can be used in video calls,while the rear camera can record video.This video capability,combined with MediaPad 10 Link's Dolby surround sound technology,delivers superb audiovisual quality,when users are taking photos,playing game,watching HD movies,or listening to music.

Frequency Range

GSM/GPRS/EDGE 850MHz: 824~849 MHz

GSM/GPRS/EDGE 1900MHz : 1850~1910 MHz

WCDMA 1900MHz: 1850~1910 MHz

WCDMA 850MHz: 824~849 MHz

FDD-LTE Band 2: 1850~1910 MHz

FDD-LTE Band 5: 824~849 MHz

FDD-LTE Band 7: 2500~2570 MHz

WIFI: 2400MHz: 2412~2462 MHz;

WIFI: 5.000MHz: 5180~5825 MHz

Bluetooth: 2402~2480 MHz

Range of Operating Power

GSM850: 0dBm—33.5dBm

PCS1900: 0dBm—30.5dBm

WCDMA1900/850: 0dBm—23.5dBm



Bluetooth: <10dBm

WLAN : <25dBm

Maximum Power Limits

850MHz

GSM/GPRS: 32.5 dBm [±1dB]

EDGE: 26.5 dBm [±1dB]

1900MHz

GSM/GPRS: 29.5 dBm [±1dB]

EDGE: 25.5 dBm [±1dB]

WCDMA 1900MHz/850MHz: 22.0 dBm [±1.5/-1.5dB]

WIFI:

802.11n: 13 dBm max: <20dBm

802.11 a/g: 13 dBm max: <20dBm

802.11b: 14 dBm max: <20dBm

Bluetooth: 10 dBm max

Antenna description

Specifications of the MediaPad 10 Link_ internal antenna

Main antenna

Item	Description
Frequency range	824~960MHz & 1710~2170 & 2300~2620MHz & 1850~1990 MHz & 2500~2690MHz
Input impedance	50 Ohm
VSWR	≥ 3
Gain	850M/900M/1800M/1900M/2100M/: ≤ 3.3 dBi (horizontal level peak value)
Max. power	4W(AVG)
Polarization Type	Monopole

WIFI antenna



Item	Description
Frequency range	2400~2483.5MHz; 5150~5725MHz;5725~5825MHz
Input impedance	50 Ohm
VSWR	<2
Gain	<3dBi for 2.4GHz ; <5dBi for 5GHz
Max. power	4W(AVG)
Polarization Type	Monopole

GPS antenna

Item	Description
Frequency range	1575.42MHz
Input impedance	50 Ohm
VSWR	<2
Gain	2.6dBi (peak value)
Max. power	4W(AVG)
Polarization Type	Monopole

Applied voltages:

Normal Voltage: 3.7V

Low Voltage: 3.3V

High Voltage: 4.2V

Complete bill of material

Attachment

Complete Circuit Diagrams

Attachment

Instruction/Installation Manual

Attachment

Means for Frequency Stabilization

The HI6360 is mainly responsible for the frequency stabilization. The HI6360 receives the BS signal and demodulates it and then generates the local clock to provide the system with various clock signals.

Means for Limiting Modulation

The modulation standard selected for GSM is Gaussian-filtered Minimum Shift Keying (GMSK). The modulation scheme is gaussian MSK (GMSK) with $BT=0.3$. The modulation rate is 1625/6 kbit/s (270,83kbit/s). The modulation standard selected for EDGE is 8-phase shift keying (8PSK).

The modulation standard selected for WCDMA is QPSK. The modulation standard selected for HSDPA (42M) is 64QAM. HSDPA is just the technology for the downlink. The downlink channel HS-DSCH is modulated by the 64QAM. The uplink modulation is the same with the WCDMA. So for the MediaPad 10 Link, the transmit modulation is QPSK. The modulation standard selected for HSUPA is QPSK.

Description of Digital Modulation Techniques

8PSK modulation has the same qualities in terms of generating interference on adjacent channels as GMSK. This makes it possible to integrate EDGE channels into an existing frequency plan and to assign new EDGE channels in the same way as standard GSM channels.

The 8PSK modulation method is a linear method in which three consecutive bits are mapped onto one symbol in the I/Q plane. The symbol rate, or the number of symbols sent within a certain period of time, remains the same as for GMSK, but each symbol now represents three bits instead of one. The total data rate is therefore increased by a factor of three.

WCDMA or UMTS – as it is called throughout Europe – is a standard which has been developed to accommodate higher data rates to allow features like internet surfing, video telephony or video download.

For WCDMA different base stations are distinguished by a different scrambling code, which makes cell planning a lot easier, since neighboring cells can re-use the same frequency! (However, the occupied "SNR" – or Signal to Noise Ratio is the limiting factor and characteristic for CDMA)

The data rate used by a terminal depends on spreading factor assigned to this particular terminal. If several terminals use the same spreading factor, the signals are distinguished through different code channels. At present the maximum data rate is 384 kbps. In the future it will be possible to combine several code channels to a multi-code link, allowing data rates up to 2 Mbps. However, when this is used



the capacity of this frequency channel is used up, i.e. no other terminal can operate on this frequency channel. The reason for this is that there is no more "SNR" left for additional connections. This is the capacity issue indicated above.

In order to address higher data rates high speed downlink packet access (HSDPA) has been introduced into Release 5 of the WCDMA (3GPP) standard. HSDPA allows data rates of up to 10 Mbps (and 20 Mbps for Multiple Input Multiple Output (MIMO) systems) and is based on 16-QAM modulation. As the name suggests HSDPA is only available in the downlink direction, i.e. ideal for loading large Emails, surf the web or download videos. MediaPad 10 Link supports a high speed wireless connection of up to 42 Mbit/s (DC-HSDPA cat24 release 8) and cat6 for HSUPA(release 6).