

**HUAWEI ALE-L21&L02&L23 Smart Phone  
V100R001**

## **Product Description**

**Issue**        04  
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## **Change History**

| <b>Version</b> | <b>SE</b> | <b>Change Description</b>  | <b>Date</b> |
|----------------|-----------|--|-------------|
| 01             | LiuZhijie | Released the first issue.  | 2015-2-15   |
| 02             | LiuZhijie | Add the standby time in dual cards and dual standby mode, and change the model of the processor. | 2015-3-3    |
| 03             | LiuZhijie | Change "EMUI 3.0.5" into "EMUI 3.1".   | 2015-3-4    |
| 04             | LiuZhijie | Change the dimensions of the phone.  | 2015-3-19   |

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# 1 Product Overview

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## 1.1 Introduction

HUAWEI ALE-L21& L02& L23 are smart phones developed by HUAWEI. They are based on Google Android™ 5.0 Operating System, which gives you an excellent browsing experience with the Operating System from Google™, all in a thin touch phone.

- 5.0-inch touch screen supporting auto rotation
- 1.2 GHz octa-core processor
- Android™5.0 Operating System
- EMUI 3.1
- Bluetooth 4.0
- Wi-Fi 802.11 b/g/n
- 13 MP main camera with auto focus + 5 MP secondary camera
- LTE Cat 4 technology
- GPS/AGPS
- 1080P HD video capture and playback
- 2200 mAh battery with smart power-saving technology

# 2 Technical Specifications


## 2.1 Hardware

Table 2-1 Hardware Specifications



| Item                   | Specifications   |
|------------------------|--|
| Shape                  | Bar-type   |
| LCD                    | <ul style="list-style-type: none"><li>• Size: 5.0 inches</li><li>• Type: IPS display</li><li>• Color: 16 colors</li><li>• Resolution: 1280x720 (720P)</li></ul>  |
| Touch-sensitive screen | Multiple touch-sensitive screen  |
| Color                  | Black/White  |
| Dimensions             | 143.0 mm (L) x70.6 mm (W) x7.7 mm (T)  |
| Weight                 | About 131 g (including the battery)  |
| Frequency band         | <b>ALE-L21:</b> <ul style="list-style-type: none"><li>• GSM (GSM 850): 824–849 MHz (UL), 869–894 MHz (DL)</li><li>• EGSM (GSM 900): 880–915 MHz (UL), 925–960 MHz (DL)</li><li>• DCS (GSM 1800): 1710–1785 MHz (UL), 1805–1880 MHz (DL)</li><li>• PCS (GSM 1900): 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li><li>• WCDMA Band 1: 1920–1980 MHz (UL), 2110–2170 MHz (DL)</li><li>• WCDMA Band 2: 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li><li>• WCDMA Band 8: 880–915 MHz (UL), 925–960 MHz (DL)</li><li>• LTE FDD Band 3: 1710–1785 MHz (UL), 1805–1880 MHz (DL)</li><li>• LTE FDD Band 7: 2500–2570 MHz (UL), 2620–2690 MHz (DL)</li><li>• LTE FDD Band 8: 880–915 MHz (UL), 925–960 MHz (DL)</li><li>• LTE FDD Band 20: 832–862 MHz (UL), 791–821 MHz (DL)</li></ul> |

| Item                   | Specifications   |
|------------------------|--|
|                        | <p><b>ALE-L02:</b></p> <ul style="list-style-type: none"> <li>• GSM (GSM 850): 824–849 MHz (UL), 869–894 MHz (DL)</li> <li>• EGSM (GSM 900): 880–915 MHz (UL), 925–960 MHz (DL)</li> <li>• DCS (GSM 1800): 1710–1785 MHz (UL), 1805–1880 MHz (DL)</li> <li>• PCS (GSM 1900): 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li> <li>• WCDMA Band 1: 1920–1980 MHz (UL), 2110–2170 MHz (DL)</li> <li>• WCDMA Band 5: 824–849 MHz (UL), 869–894 MHz (DL)</li> <li>• WCDMA Band 6: 830–840 MHz (UL), 875–885 MHz (DL)</li> <li>• WCDMA Band 8: 880–915 MHz (UL), 925–960 MHz (DL)</li> <li>• WCDMA Band 19: 830–845 MHz (UL), 875–890 MHz (DL)</li> <li>• LTE FDD Band 1: 1920–1980 MHz (UL), 2110–2170 MHz (DL)</li> <li>• LTE FDD Band 3: 1710–1785 MHz (UL), 1805–1880 MHz (DL)</li> <li>• LTE FDD Band 5: 824–849 MHz (UL), 869–894MHz (DL)</li> <li>• LTE FDD Band 7: 2500–2570 MHz (UL), 2620–2690 MHz (DL)</li> <li>• LTE FDD Band 8: 880–915 MHz (UL), 925–960 MHz (DL)</li> <li>• LTE FDD Band 19: 830–845 MHz (UL), 875–890 MHz (DL)</li> <li>• LTE FDD Band 28: 703–748 MHz (UL), 758–803 MHz (DL)</li> <li>• TD-LTE Band 40: 2300–2400 MHz</li> </ul> <p><b>ALE-L23:</b></p> <ul style="list-style-type: none"> <li>• GSM (GSM 850): 824–849 MHz (UL), 869–894 MHz (DL)</li> <li>• EGSM (GSM 900): 880–915 MHz (UL), 925–960 MHz (DL)</li> <li>• DCS (GSM 1800): 1710–1785 MHz (UL), 1805–1880 MHz (DL)</li> <li>• PCS (GSM 1900): 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li> <li>• WCDMA Band 1: 1920–1980 MHz (UL), 2110–2170 MHz (DL)</li> <li>• WCDMA Band 2: 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li> <li>• WCDMA Band 5: 824–849 MHz (UL), 869–894 MHz (DL)</li> <li>• WCDMA Band 4: 1710–1755 MHz (UL), 2110–2155MHz (DL)</li> <li>• LTE FDD Band 2: 1850–1910 MHz (UL), 1930–1990 MHz (DL)</li> <li>• LTE FDD Band 4: 1710–1755 MHz (UL), 2110–2155 MHz (DL)</li> <li>• LTE FDD Band 7: 2500–2570 MHz (UL), 2620–2690 MHz (DL)</li> <li>• LTE FDD Band 28: 703–748 MHz (UL), 758–803 MHz (DL)</li> </ul> |
| Maximum transmit power | <p><b>ALE-L21:</b></p> <ul style="list-style-type: none"> <li>• WCDMA: +24 dBm (Power Class 3)</li> <li>• GSM/EGSM (GSM/GPRS 850/900): +33 dBm (Power Class 4)</li> <li>• DCS/PCS (GSM/GPRS 1800/1900): +30 dBm (Power Class 1)</li> <li>• LTE FDD Band 3/Band 7/Band 8/Band 20: 21–25 dBm (Power Class 3)</li> </ul> <p><b>ALE-L02:</b></p> <ul style="list-style-type: none"> <li>• WCDMA: +24 dBm (Power Class 3)</li> <li>• GSM/EGSM (GSM/GPRS 850/900): +33 dBm (Power Class 4)</li> </ul>  |

| Item                | Specifications  |
|---------------------|---|
|                     | <ul style="list-style-type: none"> <li>• DCS/PCS (GSM/GPRS 1800/1900): +30 dBm (Power Class 1)</li> <li>• LTE FDD Band 1/ Band 5: 21–25 dBm (Power Class 3)</li> <li>• LTE FDD Band 3/Band 7/Band 8/Band19: 21–25 dBm (Power Class 3)</li> <li>• LTE FDD Band 28: 21–25 dBm (Power Class 3)</li> <li>• TD-LTE Band 40: 21–25 dBm (Power Class 3)</li> </ul> <p><b>ALE-L23:</b></p> <ul style="list-style-type: none"> <li>• WCDMA: +24 dBm (Power Class 3)</li> <li>• GSM/EGSM (GSM/GPRS 850/900): +33 dBm (Power Class 4)</li> <li>• DCS/PCS (GSM/GPRS 1800/1900): +30 dBm (Power Class 1)</li> <li>• LTE FDD Band 4: 21–25 dBm (Power Class 3)</li> <li>• LTE FDD Band 2/Band 7: 21–25 dBm (Power Class 3)</li> <li>• LTE FDD Band 28: 21–25 dBm (Power Class 3)</li> </ul>   |
| Static sensitivity: | <p><b>ALE-L21:</b></p> <ul style="list-style-type: none"> <li>• GSM /EGSM/DCS/PCS (GSM 850/900/1800/1900): better than –102 dBm/200 kHz</li> <li>• WCDMA Band 1: better than –106.7 dBm/3.84 MHz</li> <li>• WCDMA Band 2: better than –104.7 dBm/3.84 MHz</li> <li>• WCDMA Band 8: better than –103.7 dBm/3.84 MHz</li> <li>• LTE FDD Band 3: better than –101.7 dBm/1.4 MHz</li> <li>• LTE FDD Band 7: better than –98 dBm/5 MHz</li> <li>• LTE FDD Band 8: better than –102.2 dBm/1.4 MHz</li> <li>• LTE FDD Band 20: better than –97 dBm/5 MHz</li> </ul> <p><b>ALE-L02:</b></p> <ul style="list-style-type: none"> <li>• GSM /EGSM/DCS/PCS (GSM 850/900/1800/1900): better than –102 dBm/200 kHz</li> <li>• WCDMA Band 1: better than –106.7 dBm/3.84 MHz</li> <li>• WCDMA Band 5: better than –104.7 dBm/3.84 MHz</li> <li>• WCDMA Band 6: better than –106.7 dBm/3.84 MHz</li> <li>• WCDMA Band 8: better than –103.7 dBm/3.84 MHz</li> <li>• WCDMA Band 19: better than –106.7 dBm/3.84 MHz</li> <li>• LTE FDD Band 1: better than –100 dBm/5 MHz</li> <li>• LTE FDD Band 3: better than –101.7 dBm/1.4 MHz</li> <li>• LTE FDD Band 5: better than –103.2 dBm/1.4 MHz</li> <li>• LTE FDD Band 7: better than –98 dBm/5 MHz</li> <li>• LTE FDD Band 8: better than –102.2 dBm/1.4 MHz</li> <li>• LTE FDD Band 19: better than –103.2 dBm/1.4 MHz</li> <li>• LTE FDD Band 28: better than –98 dBm/1.4 MHz</li> <li>• TD-LTE Band 40: better than –100 dBm/5 MHz</li> </ul> |

| Item                    | Specifications  |
|-------------------------|---|
|                         | <p><b>ALE-L23:</b></p> <ul style="list-style-type: none"> <li>• GSM /EGSM/DCS/PCS (GSM 850/900/1800/1900): better than -102 dBm/200 kHz</li> <li>• WCDMA Band 1: better than -106.7 dBm/3.84 MHz</li> <li>• WCDMA Band 2: better than -104.7 dBm/3.84 MHz</li> <li>• WCDMA Band 5: better than -104.7 dBm/3.84 MHz</li> <li>• WCDMA Band 4: better than -106.7 dBm/3.84 MHz</li> <li>• LTE FDD Band 2: better than -102.7 dBm/1.4 MHz</li> <li>• LTE FDD Band 4: better than -104.7 dBm/1.4 MHz</li> <li>• LTE FDD Band 7: better than -98 dBm/5 MHz</li> <li>• LTE FDD Band 28: better than -98 dBm/1.4 MHz</li> </ul> |
| Network rate            | <ul style="list-style-type: none"> <li>• WCDMA: 384 Kbit/s (UL), 384 Kbit/s (DL)</li> <li>• HSPA Cat 6: 5.76 Mbit/s (UL), 3.65 Mbit/s (DL)</li> <li>• HSPA Cat 24: 5.76 Mbit/s (UL), 42 Mbit/s (DL)</li> <li>• EDGE Class 12: 236.8 Kbit/s (UL), 236.8 Kbit/s (DL)</li> <li>• GPRS: 40 Kbit/s (UL), 60 Kbit/s (DL)</li> <li>• LTE Cat4: 50.0 Mbit/s (UL), 150 Mbit/s (DL)</li> </ul>  |
| SIM card interface      | <ul style="list-style-type: none"> <li>• Micro SIM card</li> <li>• Nano SIM card</li> </ul>   |
| External interface      | Standard micro USB, 3.5 mm headset  |
| Processor               | Kirin 620, 1.2 G 8-core   |
| Memory                  | <ul style="list-style-type: none"> <li>• ROM: 16 GB</li> <li>• RAM: 2 GB</li> <li>• ROM User Available: about 10 GB</li> </ul>  |
| External memory support | microSD card (up to 32GB)   |
| Device control          | <ul style="list-style-type: none"> <li>• Illuminated capacitive soft keys with haptic feedback</li> <li>• Physical Power key</li> <li>• Physical volume key</li> </ul>  |
| GPS                     | GPS/AGPS/Glonass  |
| Temperature             | <ul style="list-style-type: none"> <li>• Operating temperature: 0°C-35°C</li> <li>• Warehouse temperature: -20°C-+70 °C</li> </ul>  |
| Battery                 | <p><b>ALE-L21:</b></p> <ul style="list-style-type: none"> <li>• Capability: 2200 mAh</li> </ul> <p> <b>NOTE</b> Standby time and talking time depend on the user operation and network condition.</p> <ul style="list-style-type: none"> <li>• Standby time in dual cards and dual standby mode: up to 290 hours</li> </ul>  |



| Item              | Specifications   |
|-------------------|--|
|                   | <ul style="list-style-type: none"> <li>• WCDMA network: up to 500 hours standby time; up to 780 mins talking time</li> <li>• GSM network: up to 600 hours standby time; up to 1200 mins talking time</li> <li>• FDD LTE network: up to 450 hours standby time</li> <li>• Charging Time: 3 hours from supplied charger</li> </ul>   |
|                   | <p><b>ALE-L02:</b></p> <ul style="list-style-type: none"> <li>• Capability: 2200 mAh</li> </ul> <p> <b>NOTE Standby time and talking time depend on the user operation and network condition.</b></p> <ul style="list-style-type: none"> <li>• WCDMA network: up to 500 hours standby time; up to 780 mins talking time</li> <li>• GSM network: up to 600 hours standby time; up to 1200 mins talking time</li> <li>• FDD LTE network: up to 450 hours standby time</li> <li>• TD-LTE network: up to 430 hours standby time</li> <li>• Charging Time: 3 hours from supplied charger</li> </ul>                      |
|                   | <p><b>ALE-L23:</b></p> <ul style="list-style-type: none"> <li>• Capability: 2200 mAh</li> </ul> <p> <b>NOTE Standby time and talking time depend on the user operation and network condition.</b></p> <ul style="list-style-type: none"> <li>• Standby time in dual cards and dual standby mode: up to 290 hours</li> <li>• WCDMA network: up to 500 hours standby time; up to 780 mins talking time</li> <li>• GSM network: up to 600 hours standby time; up to 1200 mins talking time</li> <li>• FDD LTE network: up to 450 hours standby time</li> <li>• Charging Time: 3 hours from supplied charger</li> </ul> |
| Relative humidity | Working: 5%–95%  |
| Camera            | <ul style="list-style-type: none"> <li>• Main camera: 13 MP AF camera</li> <li>• Secondary camera: 5 MP FF camera</li> </ul>   |
| Bluetooth         | <ul style="list-style-type: none"> <li>• Bluetooth 4.0 + EDR</li> <li>• A2DP stereo bluetooth</li> <li>• BLE(Bluetooth Low Energy)</li> </ul>  |
| Wi-Fi             | 802.11 b/g/n, 2.4G   |
| USB               | USB2.0 high speed  |
| Power supply      | <ul style="list-style-type: none"> <li>• Input: 100–240V, 50/60Hz, 0.2A</li> <li>• Output: 5V, 1A</li> </ul>   |
| Certification     | <p><b>ALE-L21:</b><br/>                 CE, FCC, GCF, BQB, Wi-Fi, RoHS, REACH, NFC</p>   |
|                   | <p><b>ALE-L02:</b><br/>                 CE, BQB, Wi-Fi, RCM, RoHS</p>  |

| Item             | Specifications   |
|------------------|--|
|                  | <b>ALE-L23:</b><br>FCC, BQB, Wi-Fi, RoHS   |
| Sensor           | <ul style="list-style-type: none"> <li>• Accelerometer</li> <li>• Proximity sensor</li> <li>• Ambient light sensor</li> <li>• Compass</li> </ul> |
| Status indicator | Support  |
| Flash            | Support  |

## 2.2 Software

**Table 2-2** Software Specifications

| Item             | Specifications  |
|------------------|---|
| Operating system | Android™ 5.0 (Lollipop)   |
| Input method     | HUAWEI IME, Swype   |
| Home screen      | HUAWEI EMUI 3.1   |
| Browser          | Android native browser  |
| Voice codec      | <ul style="list-style-type: none"> <li>• WCDMA: AMR-NB/AMR-WB</li> <li>• GSM/GPRS: FR/EFR/HR/AMR-NB/AMR-WB</li> </ul>   |
| Messaging        | <ul style="list-style-type: none"> <li>• SMS</li> <li>• MMS</li> </ul>  |
| Email            | POP3/IMAP/Exchange/SMTP   |
| Multi-media      | Codec format: <ul style="list-style-type: none"> <li>• Audio codec: MP3, MIDI, AMR-NB, AAC, AAC+, eAAC+, PCM,</li> <li>• Video codec: H.263, H.264, MPEG-4</li> <li>• Image codec: PNG, GIF (Static only), JPEG, BMP, WEBP, WBMP</li> </ul>   |
|                  | File format: <ul style="list-style-type: none"> <li>• Audio file format: *.mp3, *.mid, *.amr, *.3gp, *.mp4, *.m4a, *.aac, *.wav, *.ogg, *.flac, *.mkv</li> <li>• Video file format: *.3gp, *.mp4, *.webm, *.mkv</li> <li>• Image file format: *.png, *.gif (Static only), *.jpg, *.bmp, *.webp, *.wbmp</li> </ul> |

| Item                      | Specifications  |
|---------------------------|---|
| Streaming media           | Codec format: <ul style="list-style-type: none"> <li>• Audio codec: AMR-NB, AAC, AAC+, eAAC+</li> <li>• Video codec: H.263, H.264, MPEG-4</li> </ul>  |
|                           | File format: *.mp4, *.3gp   |
| Software update           | <ul style="list-style-type: none"> <li>• HOTA online update</li> <li>• Update using a microSD card</li> </ul>   |
| USB function              | <ul style="list-style-type: none"> <li>• Mass storage</li> <li>• USB tethering</li> <li>• Charging</li> </ul>   |
| Camera & Video resolution | 13 MP main camera: <ul style="list-style-type: none"> <li>• Photo: up to 4208x3120</li> <li>• Video: up to 1920x1080</li> </ul> 5 MP secondary camera: <ul style="list-style-type: none"> <li>• Photo: up to 2592x1944</li> <li>• Video: up to 1280x720</li> </ul>  |
|                           | <ul style="list-style-type: none"> <li>• Support 720P/1080P video playback</li> <li>• Main camera: Support 1080P video recording</li> <li>• Secondary camera: Support 720P video recording</li> </ul>   |
| Photo and video           | <ul style="list-style-type: none"> <li>• Capture file format: *.jpg</li> <li>• Recording file format: *.mp4</li> </ul>  |
| Shooting function         | Quick shooting, Panoramic shooting  |
| Google mobile suite       | Availability of Google applications, services, and features may vary according to your country or carrier. <ul style="list-style-type: none"> <li>• Google Mail</li> <li>• Google Search &amp; Search by voice</li> <li>• Hangouts</li> <li>• Google Maps</li> <li>• Google Calendar</li> <li>• Google News &amp; Weather</li> <li>• YouTube</li> <li>• Play Store</li> </ul> |
| Feature applications      | Backup, Phone Manager, File manager, Weather, Huawei music, Quick shooting  |

# 3 Packing List

**Table 3-1** Packing List

| Number | Item                            | Quantity | Remark   |
|--------|---------------------------------|----------|----------|
| 1      | Handset (including the battery) | 1        | Standard |
| 2      | Charger                         | 1        | Standard |
| 3      | USB cable                       | 1        | Standard |
| 4      | 3.5mm headset                   | 1        | Standard |
| 5      | Quick Start Guide               | 1        | Standard |