



# Asus ZD553KL Service Manual



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## Summary of Contents for Asus ZD553KL

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### [Page 3: Specifications](#)

Fingerprint recognition: Support, front 6) Microphone: Microphone\*2 (one for de-noise) 7)  
Storage: eMMC 32G, Micro SD Card Support (Up to 2TB) (SD Card slot \* 1), 2G/16G,3G/32G 8)  
Charger: Charging LED must be included, JEITA, USB-ACA standard supported 2017-06-08  
ZD553KL...

### [Page 4: Mobile Phone Structure Diagram](#)

ASUS L3 Service Manual Mobile phone structure diagram 1. ZD553KL Motherboard PCBA  
diagram 2017-06-08 ZD553KL...

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### [Page 7: Main Chip Work Principle](#)

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### [Page 12: Common Fault Analysis](#)

ASUS L3 Service Manual Common Fault Analysis 1. Boot class fault 2017-06-08 ZD553KL -12-  
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[Page 13](#) ASUS L3 Service Manual 2017-06-08 ZD553KL -13-...

[Page 14](#) Check the power output to the ground whether there is a short circuit phenomenon,  
if there is a short circuit, followed by the power of the device. 2017-06-08 ZD553KL - 14 -...

[Page 15](#) ASUS L3 Service Manual check if the 19.2M crystal is work change the 19.2M crystal  
or solder it again 2017-06-08 ZD553KL - 15 -...

### [Page 16: Display Class Fault](#)

3. Check the LCD control signals' LCM\_FMARK ', 'LCM\_RSTN' pathways and circuit device is  
normal, including LCD\_ID is less effective. 4. Check the LCD MIPI signal lines' TCN&P, TDPO &  
N0, TDP1 & N1 "EMI Filter device for welding or performance issues. 2017-06-08 ZD553KL - 16 -  
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[Page 17](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 17 -...

[Page 18](#) 3.LCD backlight "LEDA" abnormal voltage, first check U0401 welding problems and  
peripherals, check the enable signal "LCM\_BL\_PWM" is normal. 4. Start signal "LCM\_BL\_PWM" is  
not normal, check whether the output of the CPU is welded or replaced. 2017-06-08 ZD553KL -  
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### [Page 19: Sound Class Fault](#)

ASUS L3 Service Manual 3. Sound class fault MIC fault analysis 2017-06-08 ZD553KL - 19 -...

[Page 20](#) MIC1600 for the auxiliary microphone, to provide noise reduction function, the normal work, The microphone provides a bias voltage, the microphone starts to pick up, and the signal passes through a coupling capacitor into the power supply chip. 2017-06-08 ZD553KL - 20 -...

[Page 21](#) ASUS L3 Service Manual Headphone failure analysis 2017-06-08 ZD553KL - 21 -...

[Page 22](#) EAR\_DET is normal, can identify the headset but the transmission is faulty, then check the microphone under the microphone, check HP\_MIC, EAR\_DET and U1602 between the normal, Headphone MIC circuit related devices are damaged Weld. 2017-06-08 ZD553KL - 22 -...

[Page 23](#) ASUS L3 Service Manual Receiver Failure Analysis 2017-06-08 ZD553KL - 23 -...

[Page 24](#) First confirm the receiver itself is good, replace the test, the receiver using shrapnel crimping, confirm and PCBA crimping good, contact points should be clean, no dirt, etc.; Finally check the voice signal AU\_HSP, AU\_HSN and power chip access, Welding or replacing the power supply chip. 2017-06-08 ZD553KL - 24-...

[Page 25](#) ASUS L3 Service Manual SPK Failure Analysis 2017-06-08 ZD553KL - 25 -...

[Page 26](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 26 -...

[Page 27](#) 3. Check that the FPC path is connected 4. Check that the FPC and the motherboard connectors are crimping properly 5. Check R1607 and 1608 resistance is normal 6. Check whether the U1500 chip Weld, and finally replace the U1500 chip 2017-06-08 ZD553KL - 27 -...

## [Page 28: Touch Screen Fault](#)

ASUS L3 Service Manual 4. Touch screen failure 2017-06-08 ZD553KL - 28 -...

[Page 29](#) TP signal on the parallel TVS tube to prevent static electricity. Power supply from the power supply chip U1902, the remaining signal through the 0 ohm resistor directly connected to the main chip U1500 cleaning and finishing the TP Shrapnels 2017-06-08 ZD553KL - 29 -...

## [Page 30: Charging Fault](#)

ASUS L3 Service Manual 5. Charging Fault Analysis 2017-06-08 ZD553KL - 30 -...

[Page 31](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 31 -...

[Page 32](#) For non-charging fault machine, please check the I / O interface to see if there is obvious damage. Charger connected to the phone, the phone has a charge indication, but can not charge the battery 2017-06-08 ZD553KL - 32 -...

## [Page 33: Motor Fault](#)

ASUS L3 Service Manual 6. Motor Fault Analysis 2017-06-08 ZD553KL - 33 -...

[Page 34](#) ASUS L3 Service Manual The machine uses flat motor, the use of FPC connector connection, operating voltage of about 2.8V, current 60mA or so, directly from the power chip motor control 2017-06-08 ZD553KL - 34 -...

## [Page 35: Sim/Uim/T Card Identification Fault](#)

ASUS L3 Service Manual 7. SIM/UIM/T Card Fault Analysis 2017-06-08 ZD553KL - 35 -...

[Page 36](#) 2. Review the working voltage of SIM card 'VDDSIM' is normal. 3. Check the SIM card control signals' SIM\_SCLK ', 'SIM\_DA', lines is normal. 4. No problem with the above checks, the CPU is replaced. 2017-06-08 ZD553KL - 36 -...

[Page 37](#) PMU 2. Review the T card control signals' SDC2\_SDCARD\_DAT2-3 ', 'SDC2\_SDCARD\_CMD' and 'SDC2\_SDCARD\_CLK' on a line welding device is normal. 3. No

problem with the above checks, the CPU is replaced. 2017-06-08 ZD553KL - 37 -...

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### [Page 39: Failure](#)

ASUS L3 Service Manual 8. Camera type failure 2017-06-08 ZD553KL - 39 -...

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[Page 42](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 42 -...

[Page 43](#) ASUS L3 Service Manual ZD553KL Support Front dual Camera: F2.0 20M FF OV20880-4C + 8M F2.2 Wide angle 120 ° optical, Compatible with previous single Camera: 13.0M FF; Main Camera: F2.2 16M AF OV & SAMSUNG; Compatible with 13.0 M AF; are through the MIPI interface through the EMI filter and BB chip connection, using 1.2V\_LDO, 1.8V\_LDO, 2.8V\_LDO, 3V\_LDO four power supply.

### [Page 44: Gps/Wifi/Bt Failure](#)

ASUS L3 Service Manual 9. WIFI / BT / GPS fault analysis 2017-06-08 ZD553KL - 44 -...

[Page 45](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 45 -...

[Page 46](#) 4. Check the CPU and circuit between the WIFI TX RF signal, RX, CTRL, you can change the continuous U2900 and U1500, to confirm whether the welding is good. 5. Check GPS RF signals between the CPU and RX, CTRL, can change of successive U2900 and CPU confirm welding and device performance. 2017-06-08 ZD553KL - 46 -...

### [Page 47: Fm Demodulation Circuit](#)

ASUS L3 Service Manual 10.FM demodulation circuit failure 2017-06-08 ZD553KL - 47 -...

[Page 48](#) ASUS L3 Service Manual 2017-06-08 ZD553KL - 48 -...

[Page 49](#) 2. Check the FM module operating voltage is normal, such as abnormal replacement PMU. 3. Check whether XO\_IN is normal, 3. Check that the U2900 output is normal with the CPU FM signal demodulation circuit "FM\_DATA" and "FM\_SSBI". 2017-06-08 ZD553KL - 49 -...

### [Page 50: Front And Rear Flash Bad](#)

Front flash for LED1902. After the flash is U1901, you can enter the strong flash mode by pulling the TORCH and VFLASH high at the same time. Power supply for the VPH\_PWR, the output voltage to drive LED1901, LED1902 light. ZD553KL - 50 - 2017-06-08...

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### [Page 52: Light Distance Sensor Failure](#)

ASUS L3 Service Manual 12. Light distance sensor failure 2017-06-08 ZD553KL - 52 -...

[Page 53](#) ASUS L3 Service Manual Light sensor on the motherboard U1901, the signal includes VREG\_L10\_2P8 power Supply, I2C1 clock, I2C1 data, INT and GND. 2017-06-08 ZD553KL - 53 -...

### [Page 54: Gyrosensorfault](#)

ASUS L3 Service Manual 13. Gyro sensor failure 2017-06-08 ZD553KL - 54 -...

[Page 55](#) Use it to keep the direction. And then read the direction indicated by the axis in a variety of ways and automatically pass the data signal to the control system. 2017-06-08 ZD553KL - 55 -...



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