



Troubleshooting Guide

- electrical -



MT11i, MT11a



CONTENTS

1	Troubleshooting Flow	3
1.1	Display.....	3
1.2	Illumination	4
1.3	Keys & Sensors	5
1.4	Alert	6
1.5	Audio	7
1.6	On/Off	8
1.7	Charging & Capacity	9
1.8	SIM.....	10
1.9	Camera	11
1.10	Data Communication.....	12
1.11	Memory Stick / Card	13
1.12	Network & Signal	14
2	Revision History	15



1 Troubleshooting Flow

1.1 Display

Symptom:	Display problem
Replace:	X7002 , if damaged vision check all pins



Troubleshooting Flow

1.2 Illumination

Symptom:	No Display illumination
Replace:	X7002 , if damaged vision check pin A1 , A2 and B6 L7600 or L7610 , if more than 1 Ω C7603 or C7605 ,if short circuit V7601 N7600

Symptom:	No Key Back Light
Replace:	X5200 , if damaged vision check pin B7 , B8 and B9 N7600

Symptom:	R G B MMI LED s
Replace:	V5107 N7600

Symptom:	No Flash LED
Replace:	L7801 ,if more than 1 Ω



Troubleshooting Flow

1.3 Keys & Sensors

Symptom: On / Off key problems

Replace: S5207

Symptom: Back Key problems

Replace: X5200, if damaged vision check pin B3 and B5

Symptom: Home Key problems

Replace: X5200, if damaged vision check pin B3 and B6

Symptom: Menu Key problems

Replace: X5200, if damaged vision check pin B3 and B4

Symptom: Camera shutter key problems

Replace: X5200, if damaged vision check pin A6 , A7 and A8

Symptom: Display Touch Sensor problems

Replace: X5303, if damaged vision check pin A1- A10

Symptom: Volume Up key problems

Replace: X5200, if damaged vision check pin A3 and A4

Symptom: Volume Down key problems

Replace: X5200, if damaged vision check pin A3 and A5

Symptom: Proximity sensor problems

Replace: X5303, if damaged vision check pin B6 - B9

Symptom: Ambient Light Sensor problems

Replace: X5303, if damaged vision check pin B3 and B4
N7600

Symptom: Compass problems

Replace: N5400



Troubleshooting Flow

1.4 Alert

Symptom:	Vibrator problems
Replace:	B5100

**Troubleshooting Flow****1.5 Audio**

Symptom:	No audio
Replace:	L1001 ,if more than 1 Ω
Symptom:	No Primary Microphone
Replace:	X5200 , if damaged vision check pin B1 and B2 N2800
Symptom:	No Secondary Microphone
Replace:	B3503 N2800
Symptom:	No or bad Earphone / Ear speaker
Replace:	L3500 or L3501 , if more than 2 Ω V3502 , if pin1 or pin 2 is short circuit to GND N2800
Symptom:	No or bad Loudspeaker
Replace:	X5200 , if damaged vision check pin A9 - A10 N3501 N2800
Symptom:	No or bad Hands-free (PHF) Microphone
Replace:	L3100 or L3604 , if more than 2 Ω R3611 , if more than 20 K Ω N3600 N2800
Symptom:	No or bad Hands-free (PHF) Aux Earphone / Ear speaker
Replace:	L3100 , L3600 , L3601 , L3602 or L3603 if more than 2 Ω N3600 N2800
Symptom:	No Hands-free (PHF) Microphone – Phone not recognizes PHF set
Replace:	L3100 , if more than 2 Ω R3616 , if more than 40 K Ω N3600
Symptom:	No or bad FM Radio
Replace:	V3100 N8102



Troubleshooting Flow

1.6 On/Off

Symptom:	Current draw greater than 300 mA
Replace:	N2801 , if getting hot N2903 ,N2900 or N2902 , if getting hot

Symptom:	Current draw when powered off
Replace:	N2801 , if getting hot N2903 ,N2900 or N2902 , if getting hot C1312 , if short circuit

Symptom:	Using no current when On/Off key is pressed and will not start.
Replace:	S5207

Symptom:	Draws current when On/Off key is pressed, returns to zero
Replace:	L1000, L1003 , L1004 or L2400 , if more than 1 Ω N2401 N2800

Symptom:	Other
Replace:	X1300 , if damaged vision check all pins



Troubleshooting Flow

1.7 Charging & Capacity

Symptom:	No or bad Charging from USB
Replace:	X2200 , if damaged vision check pin 1 and 5 C1317 or C1324 , if X2200 pin 1 is short circuit to GND X1300 , if damaged vision check all pins L1300 , if more than 1 Ω N1303 or N1304

Symptom:	Wrong Battery indicator
Replace:	N1302

Troubleshooting Flow**1.8 SIM**

Symptom:	SIM not detected	
Replace:	X4000 , if damaged	vision check all pins

Troubleshooting Flow

1.9 Camera

Symptom: Main and sub Camera problems

Replace: **L1002**, if more than 1 Ω

Symptom: Main Camera problems

Replace: **X7301**, if damaged vision check all pins



Troubleshooting Flow

1.10 Data Communication

Symptom:	No communication via the USB Connector, charging via USB connector is working
Replace:	X2200 , if damaged vision check pin 2 and 3 N2200 , if X2200 pin 2, 3, or 4 is short circuit to GND Z2200 , if more than 3 Ω between pin 1 - 2 and 3 - 4

Symptom:	Bad Bluetooth and WLAN connection
Replace:	X8000 , if damaged X8001 , if more than 1 Ω between term A and C Z8001

Symptom:	No Bluetooth and / or WLAN connection
Replace	N8102 N8101

Symptom:	No GPS connection
Replace:	X8422 or X8423 if damaged Z8401 or Z8403 N8401 N2800

Symptom:	No or bad HDMI
Replace:	X6501 , if damaged vision check all pins N6501 or N6504 N6505 , N6506 or N6507 N6500

Troubleshooting Flow**1.11 Memory Stick / Card**

Symptom:	Memory stick / Card (micro SD) not detected
Replace:	X4100 , if damaged vision check pin all pins V4100



Troubleshooting Flow

1.12 Network & Signal

Symptom:	Phone fails to lock on to network during radiated (wireless) Go/ No Go test
Action:	Use RF probe to perform conducted Go / No Go test
Symptom:	Phone passes conducted (RF cable) Go / No Go test but fails radiated (wireless) Go / No Go test
Check:	X2800 and X1000 for damage and replace, if necessary X2801 for damage and replace, if more than 1 Ω between A and C term
Replace:	Inner Frame Assembly, Key Flex Assembly or Cable coax
Action:	Rerun the phone through radiated (wireless) Go / No Go testing
Symptom:	Phone fails conducted (RF probe) Go / No Go test
Action:	Run the calibration routine
Symptom:	Fails conducted (RF probe) Go/No Go test, but passes calibration
Action:	Rerun the phone through Go/No Go testing
Symptom:	Fails any part of the calibration routine
Check:	X2801 for damage and replace, if more than 1 Ω between RF probe and C term or A and C term is short circuit then the probe is inserted.
Replace:	Z2800 , N2803 or N2800 , if GSM Rx fault N2803 or N2800 , if WCDMA Rx fault V1305 , N2801 , N2803 , N2800 or V1304 , if GSM Tx fault N2900 , N2803 or N2800 ,if WCDMA Tx band 5 or 8 N2903 , N2803 or N2800 ,if WCDMA Tx band 1 fault N2902 , N2803 or N2800 ,if WCDMA Tx band 2 fault



2 Revision History

Rev.	Date	Changes / Comments
1	2011-Oct-03	Initial release