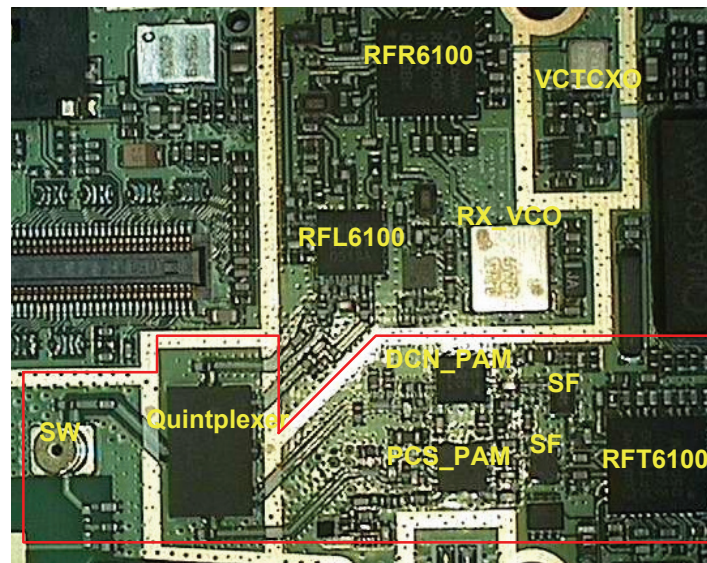
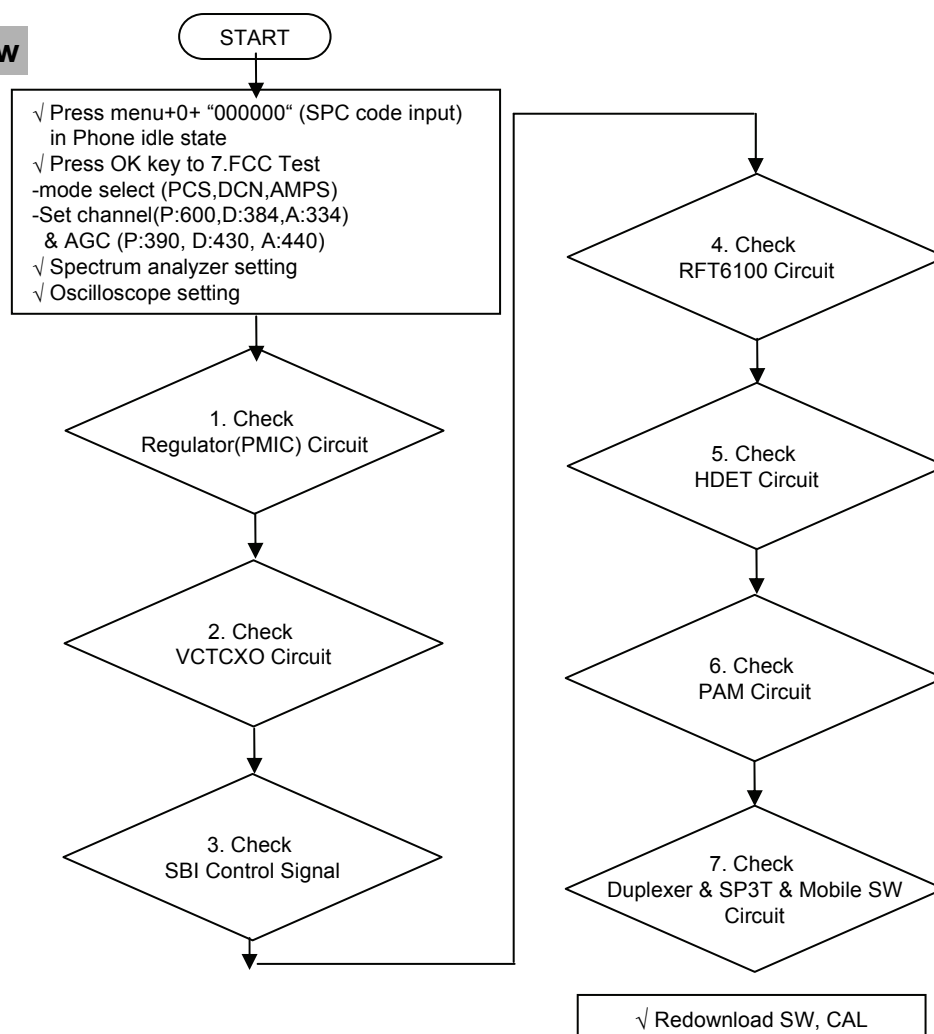


4.2 Tx Trouble

Test Point

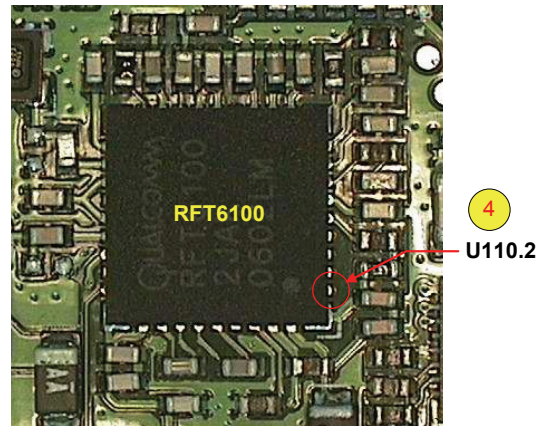
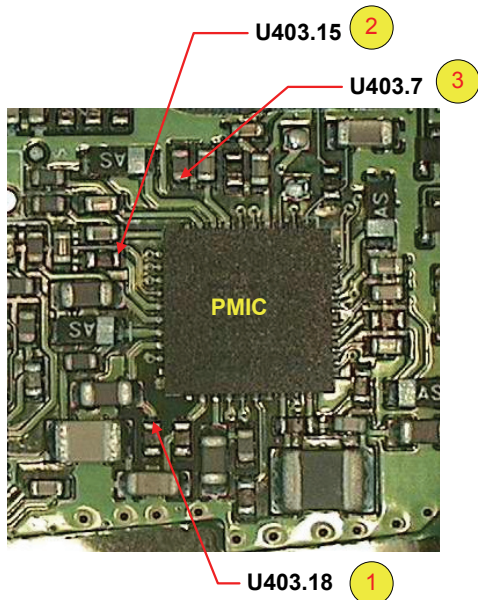


Checking Flow

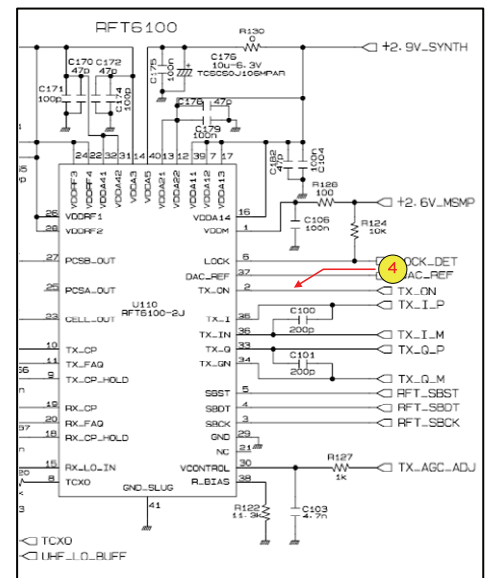
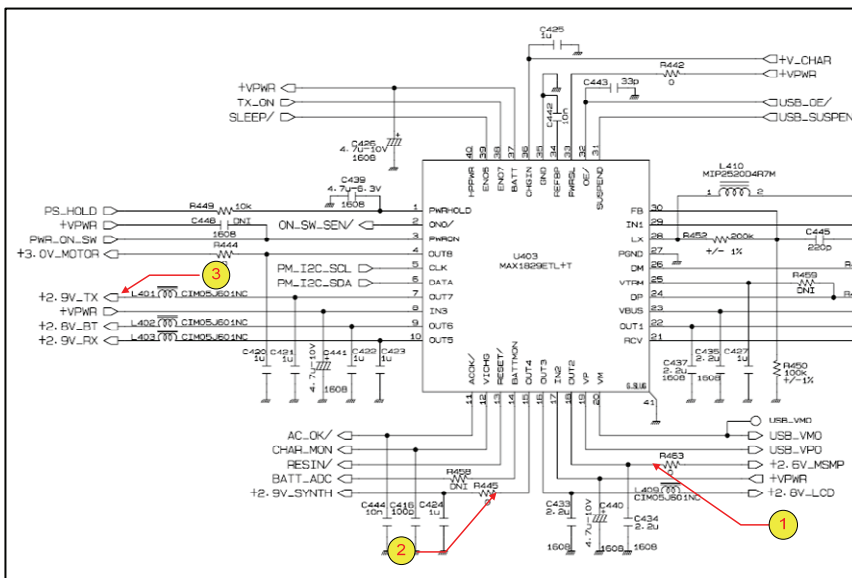


4.2.1 Check Regulator(PMIC) Circuit

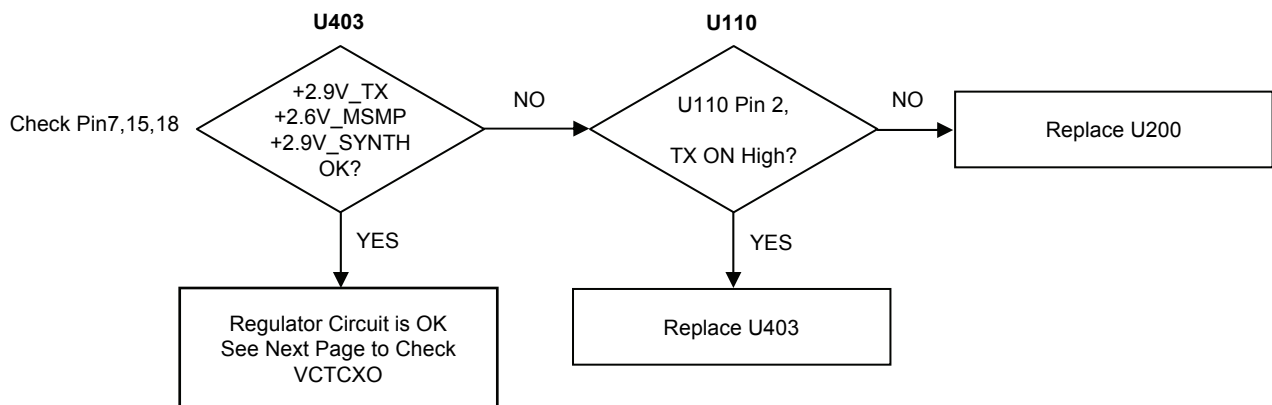
TEST POINT



Circuit Diagram

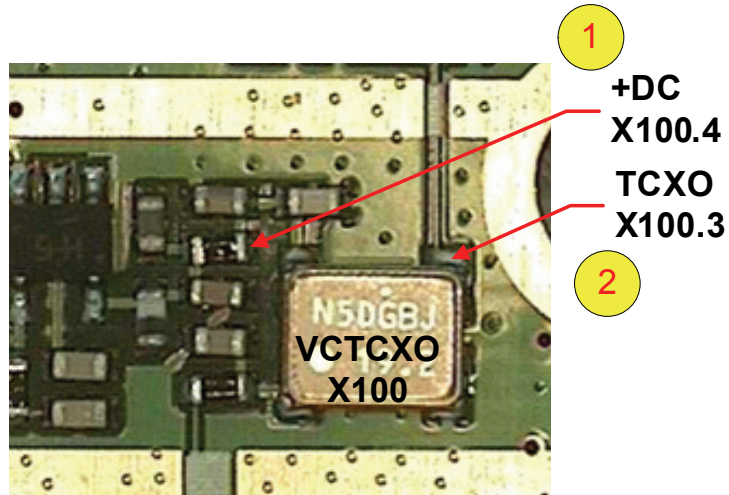


Checking Flow

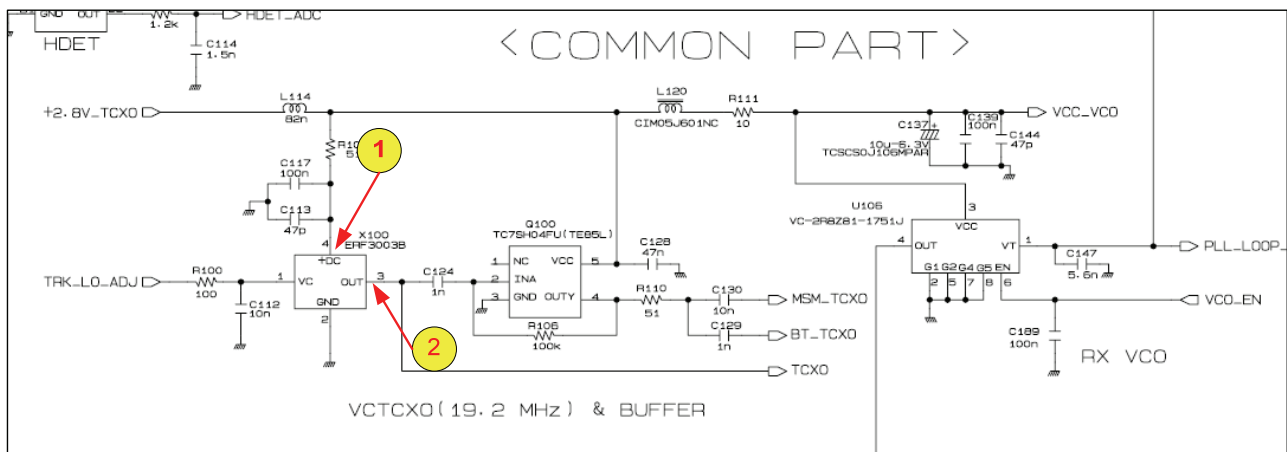


4.2.2 Check VCTCXO Circuit

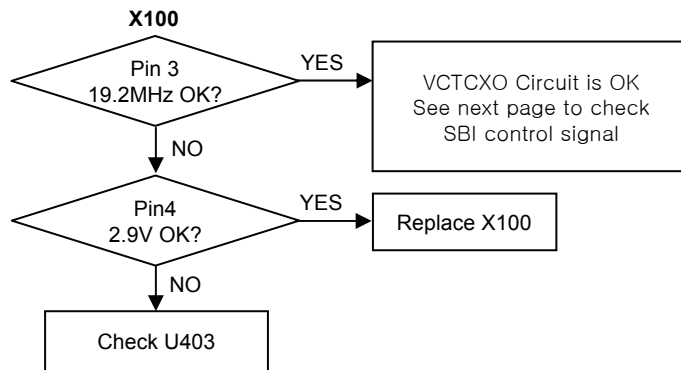
TEST POINT



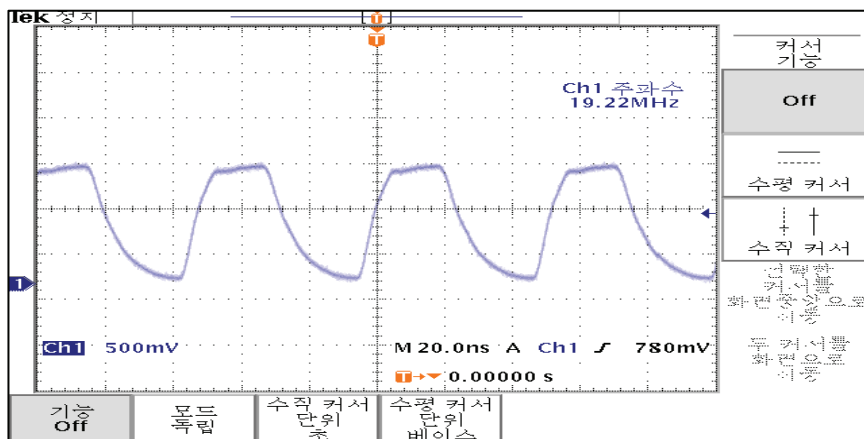
Circuit Diagram



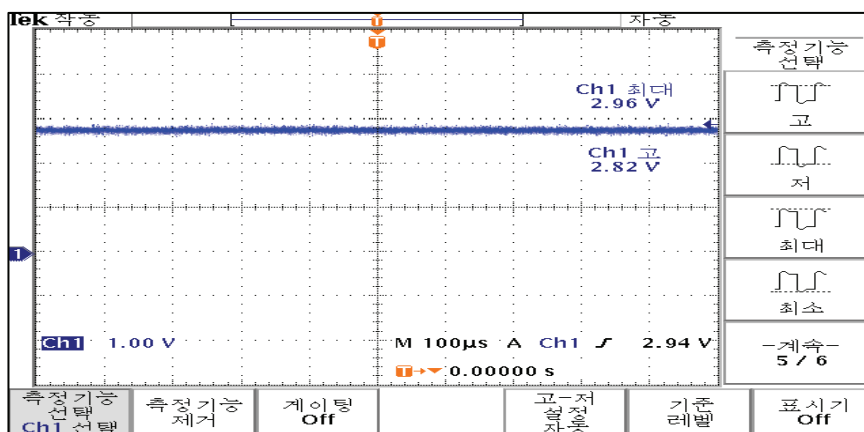
Checking Flow



Waveform



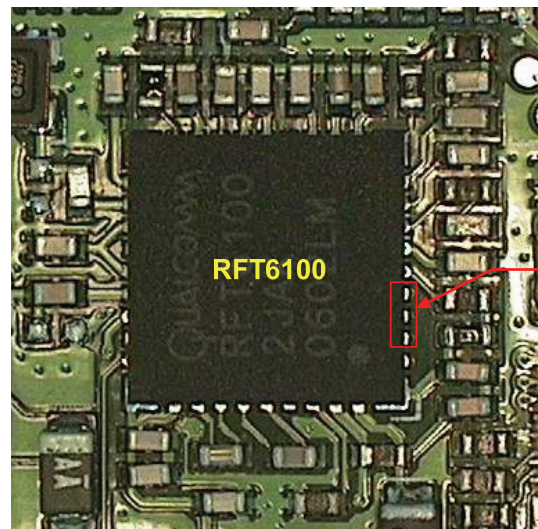
X100 Pin3 VCTCXO_OUT



X100 Pin4 +2.85V_TCXO

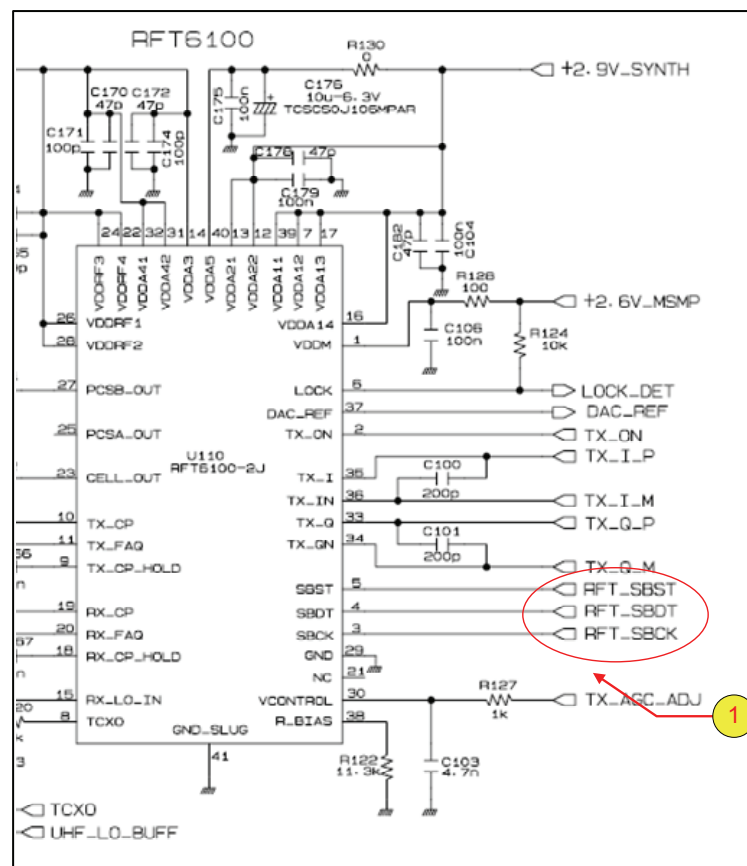
4.2.3 Check SBI Control Signal

Test Point

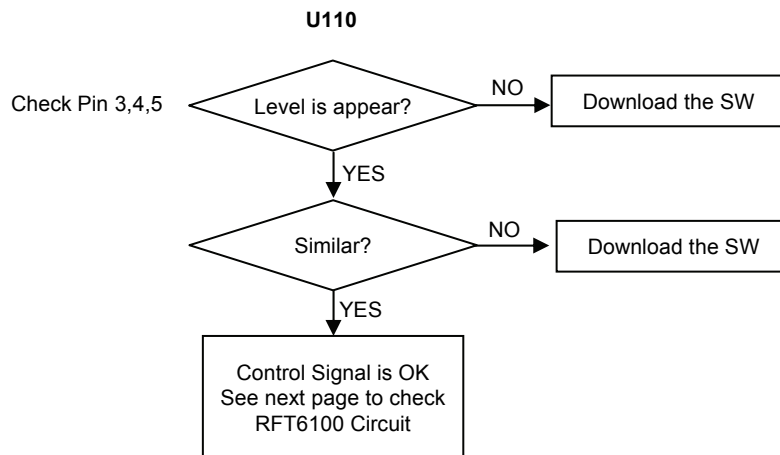


1
U110. 3,4,5
RFT_SBST,SBDT,SBCK

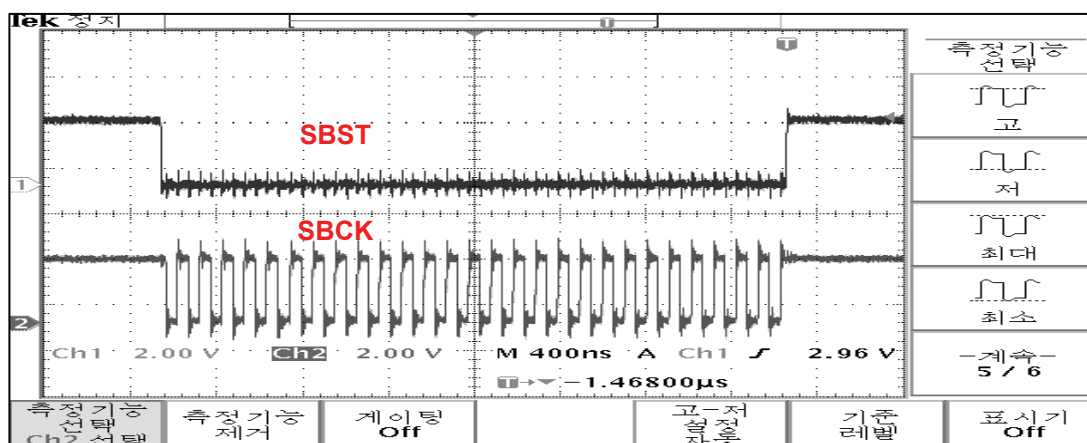
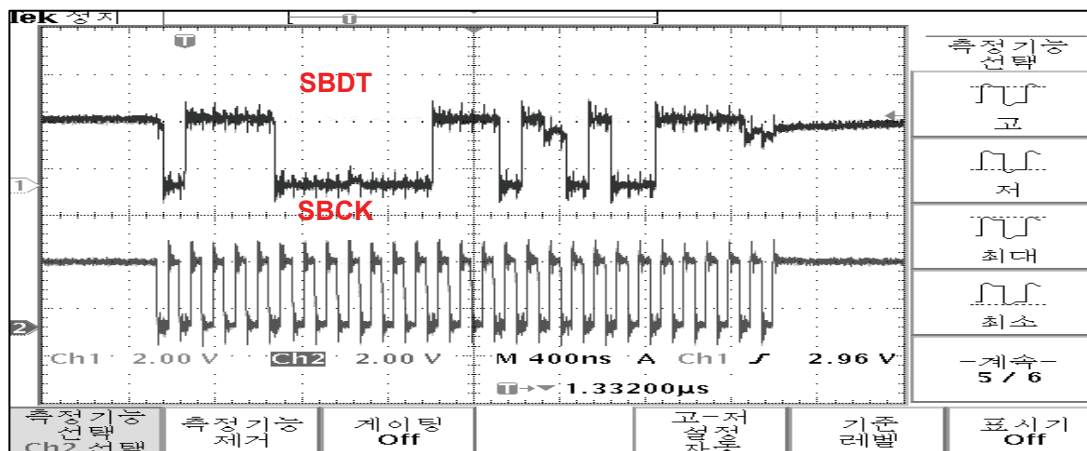
Circuit Diagram



Circuit Flow

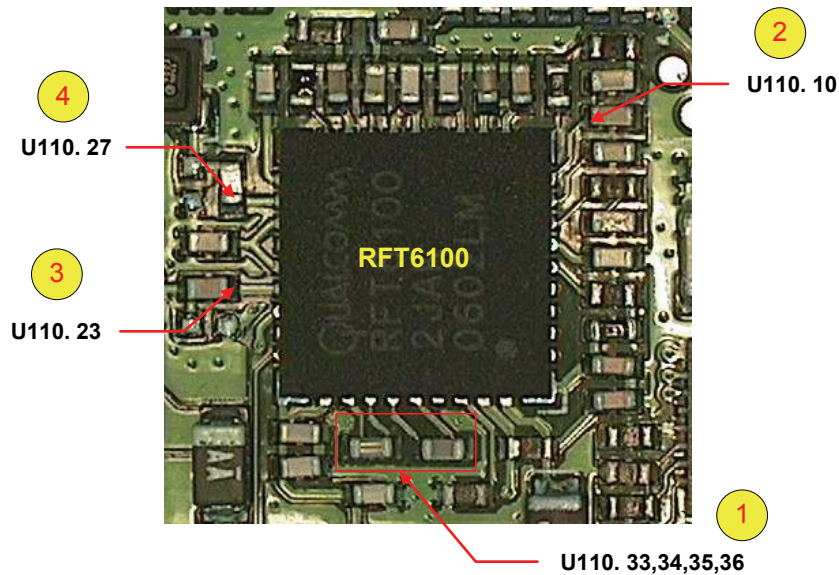


Waveform

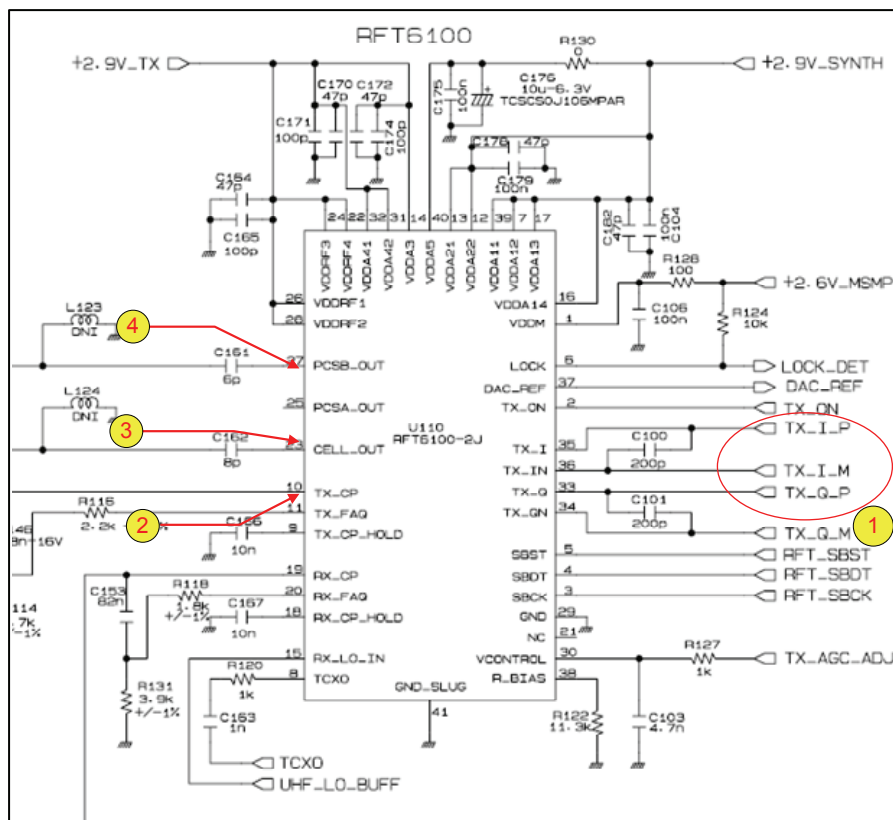


4.2.4 Check RFT6100 Circuit

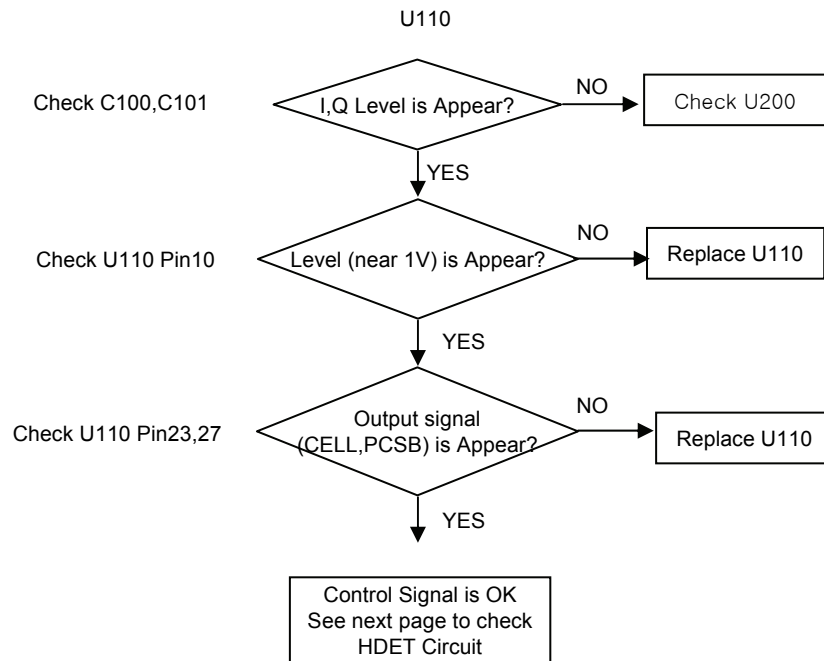
Test Point



Circuit Diagram



Circuit Flow



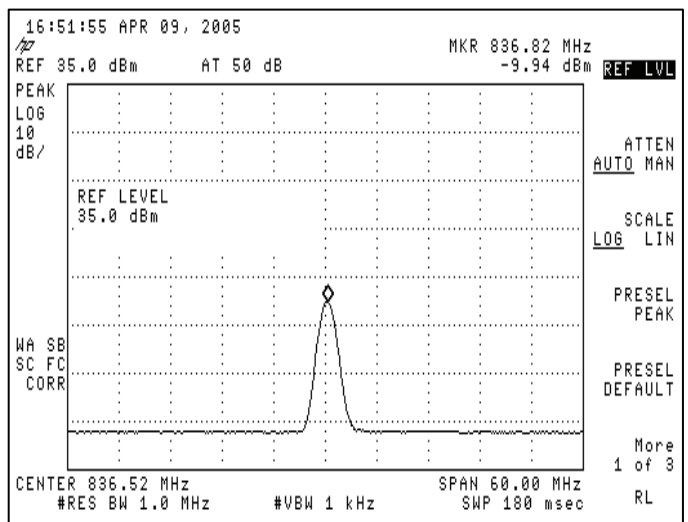
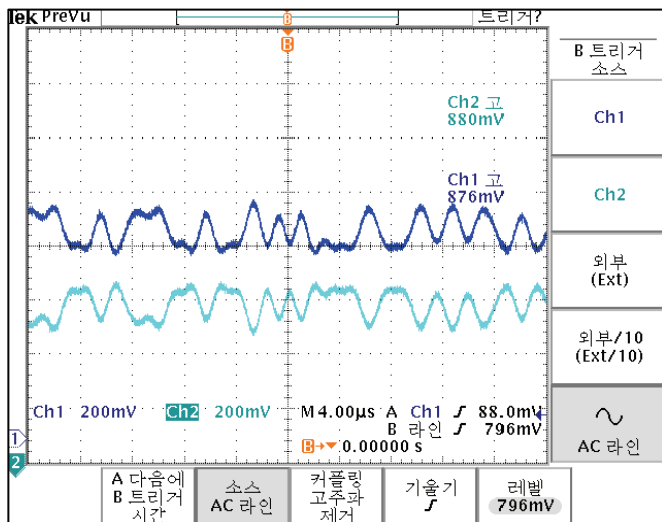
Waveform

SPECTRUM ANALYZER CONDITION

-RBW : 1MHz,VBW: 1KHz

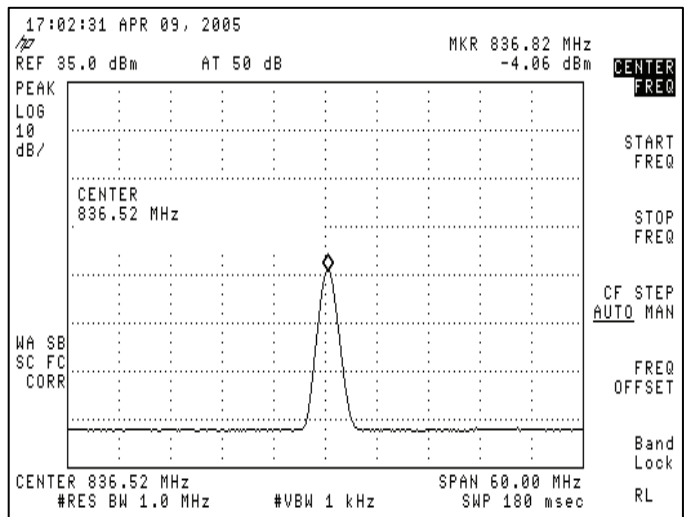
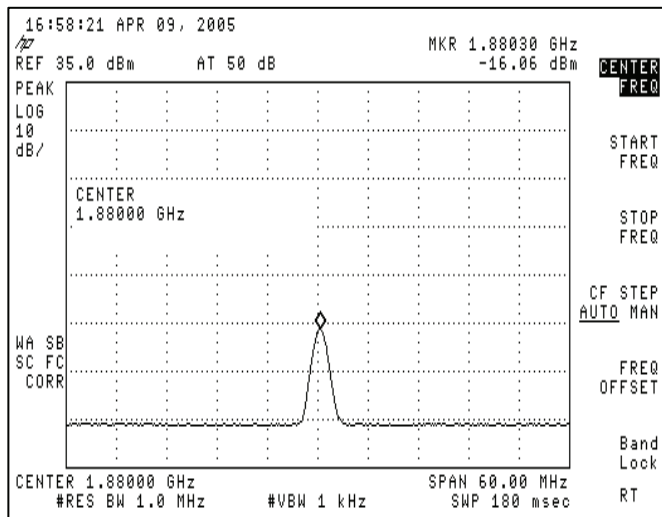
-Span : 60MHz

-Frequency : DCN(836.52MHz),PCS(1880MHz),AMPS(836.52MHz)



C100,C101 TX_I,Q DATA

U110 Pin23 DCN_OUT

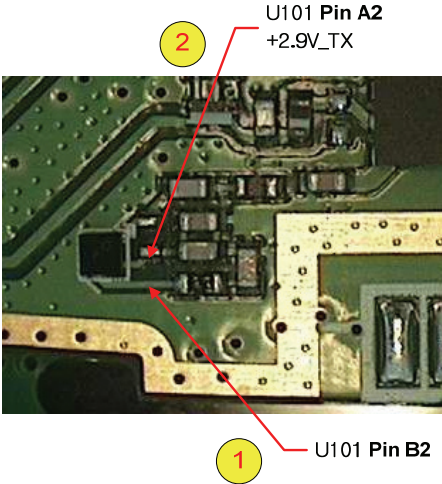


U110 Pin23 PCS_OUT

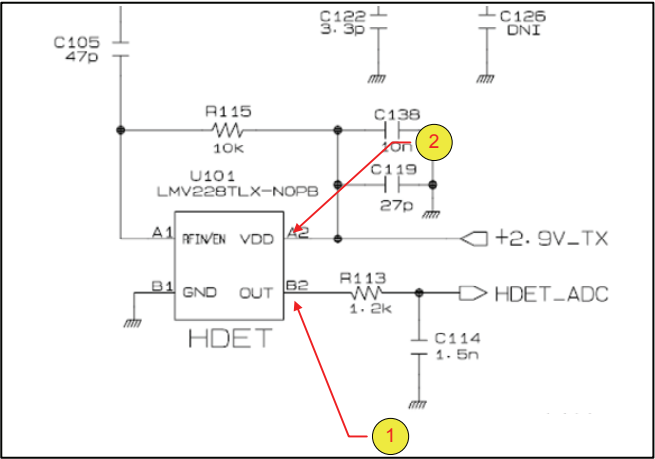
U110 Pin23 AMPS_OUT

4.2.5 Check HDET Circuit

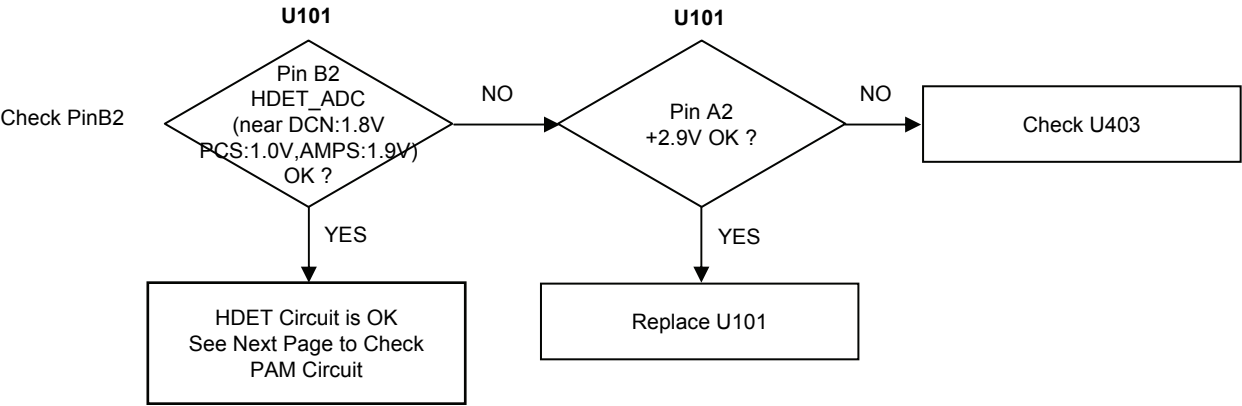
TEST POINT



Circuit Diagram

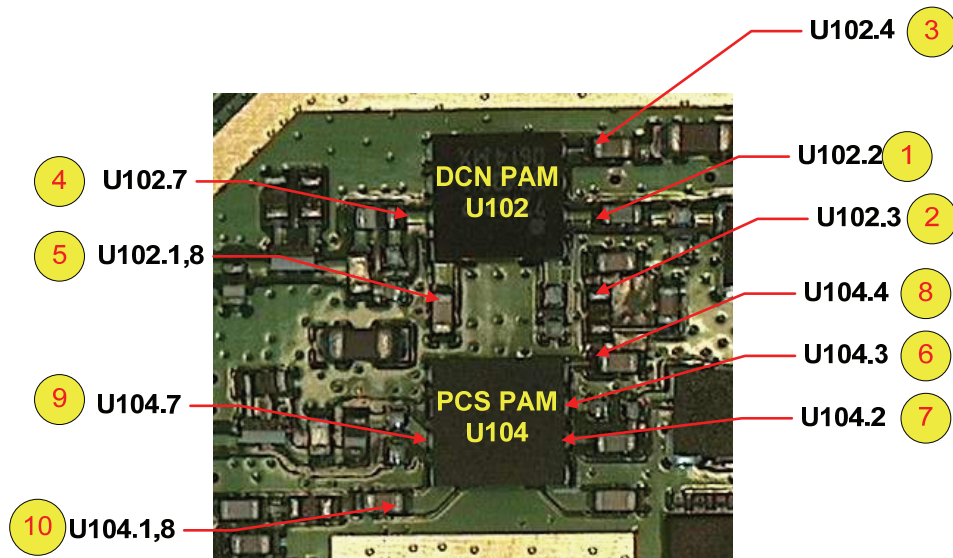


Checking Flow

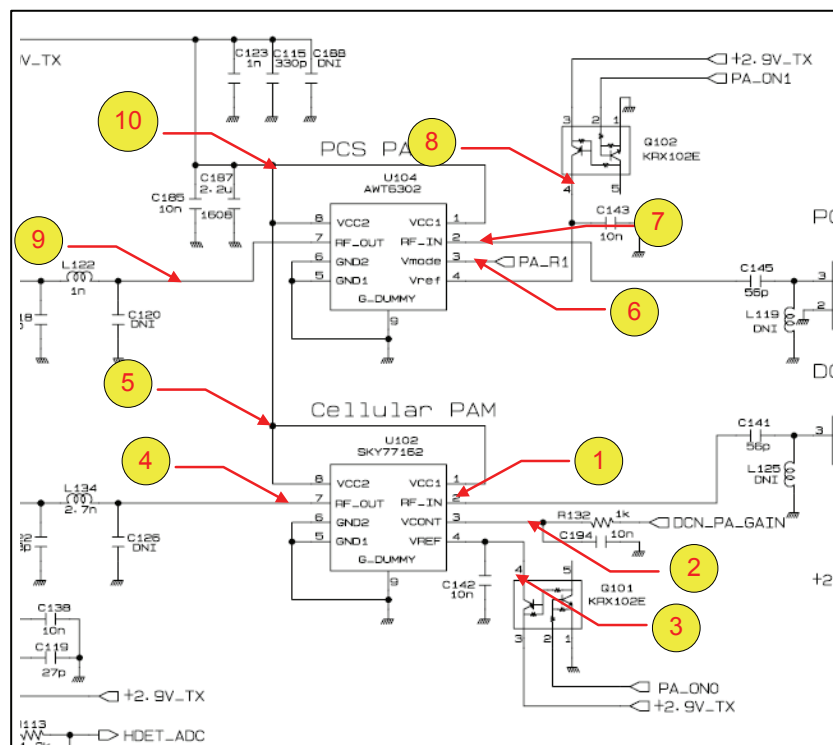


4.2.6 Check PAM Circuit

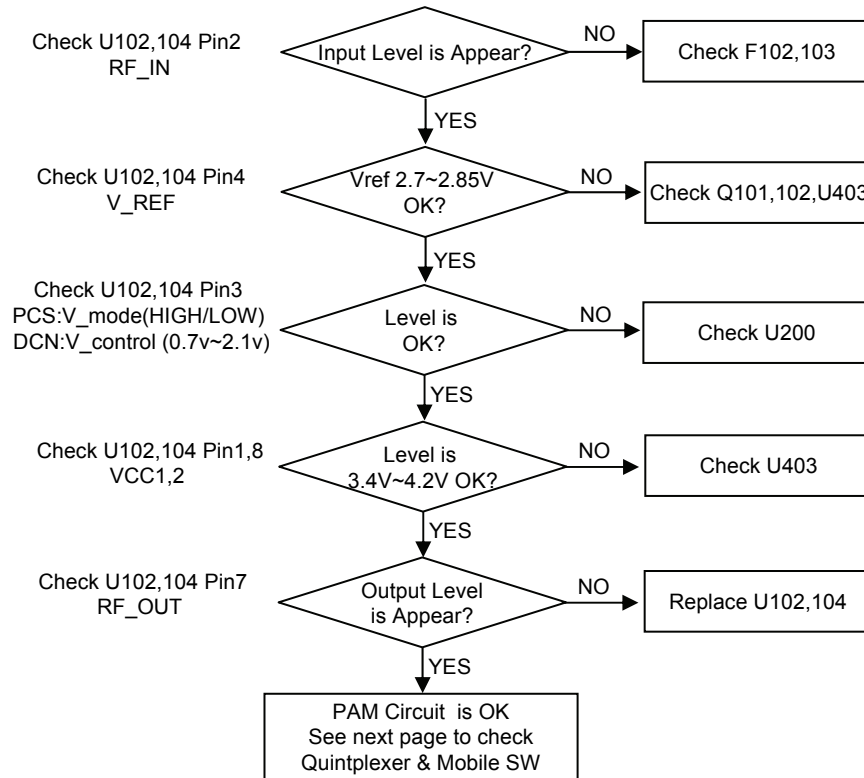
Test Point



Circuit Diagram



Circuit Flow



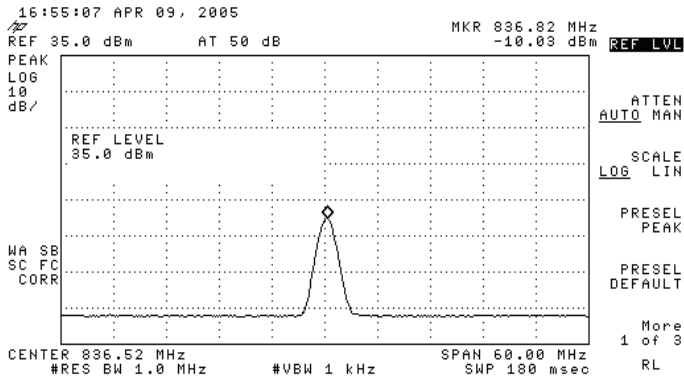
Waveform

SPECTRUM ANALYZER CONDITION

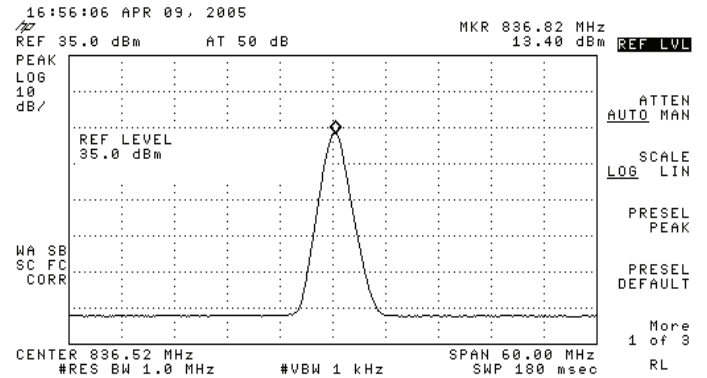
-RBW : 1MHz,VBW: 1KHz

-Span : 60MHz

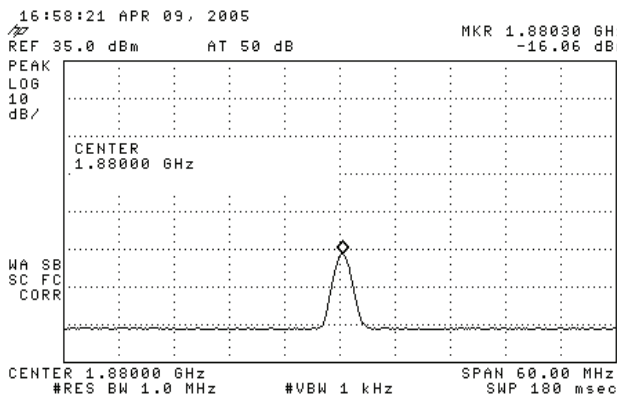
-Frequency : DCN(836.52MHz),PCS(1880MHz),AMPS(836.52MHz)



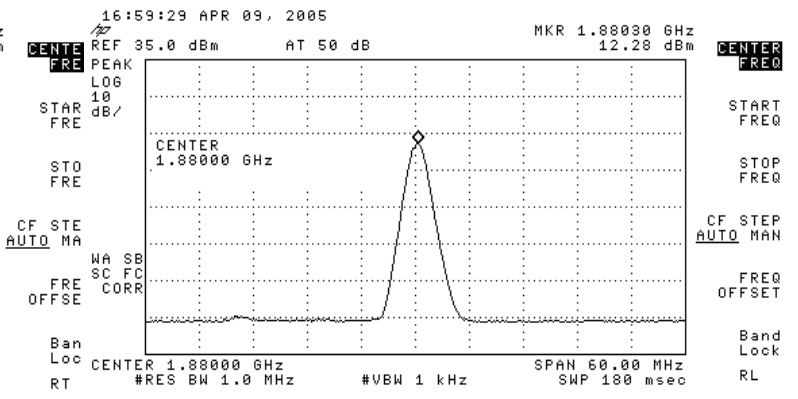
U102 Pin2 DCN PAM_IN



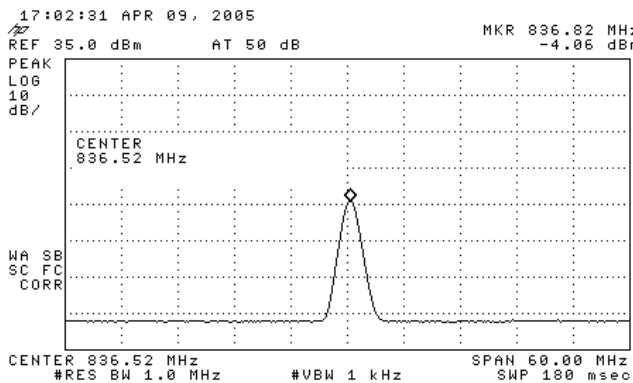
U102 Pin7 DCN PAM_OUT



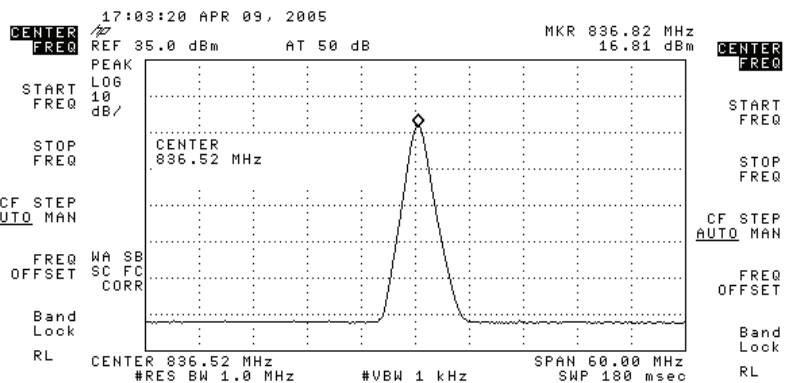
U104 Pin2 PCS PAM_IN



U104 Pin7 PCS PAM_OUT



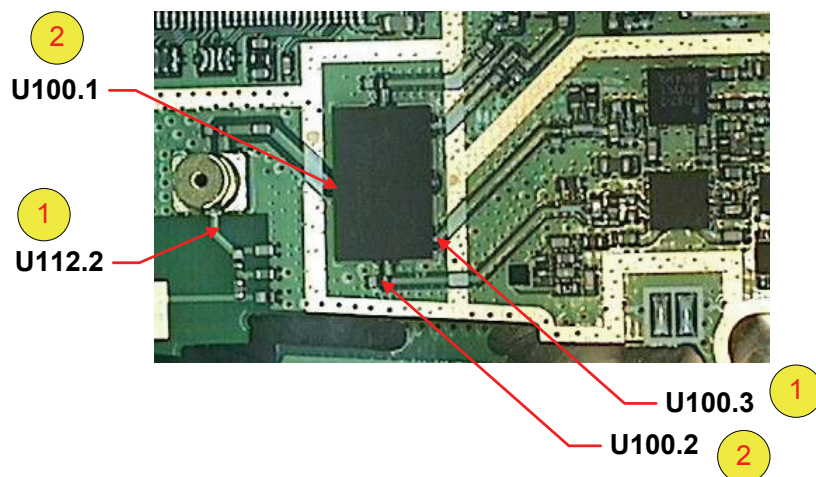
U102 Pin2 AMPS PAM_IN



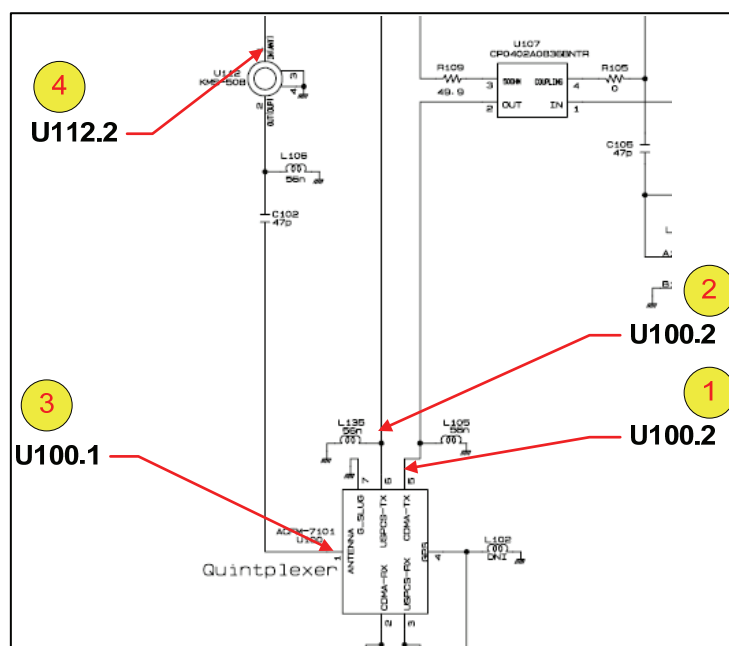
U102 Pin7 AMPS PAM_OUT

4.2.7 Check Duplexer & Mobile SW

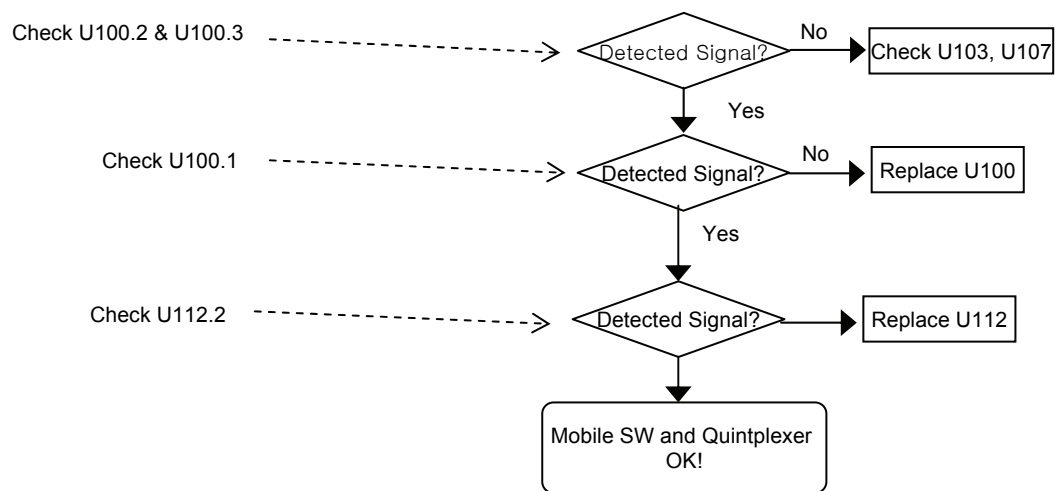
TEST POINT



Circuit Diagram



Circuit Flow



4.3 Logic Part Trouble

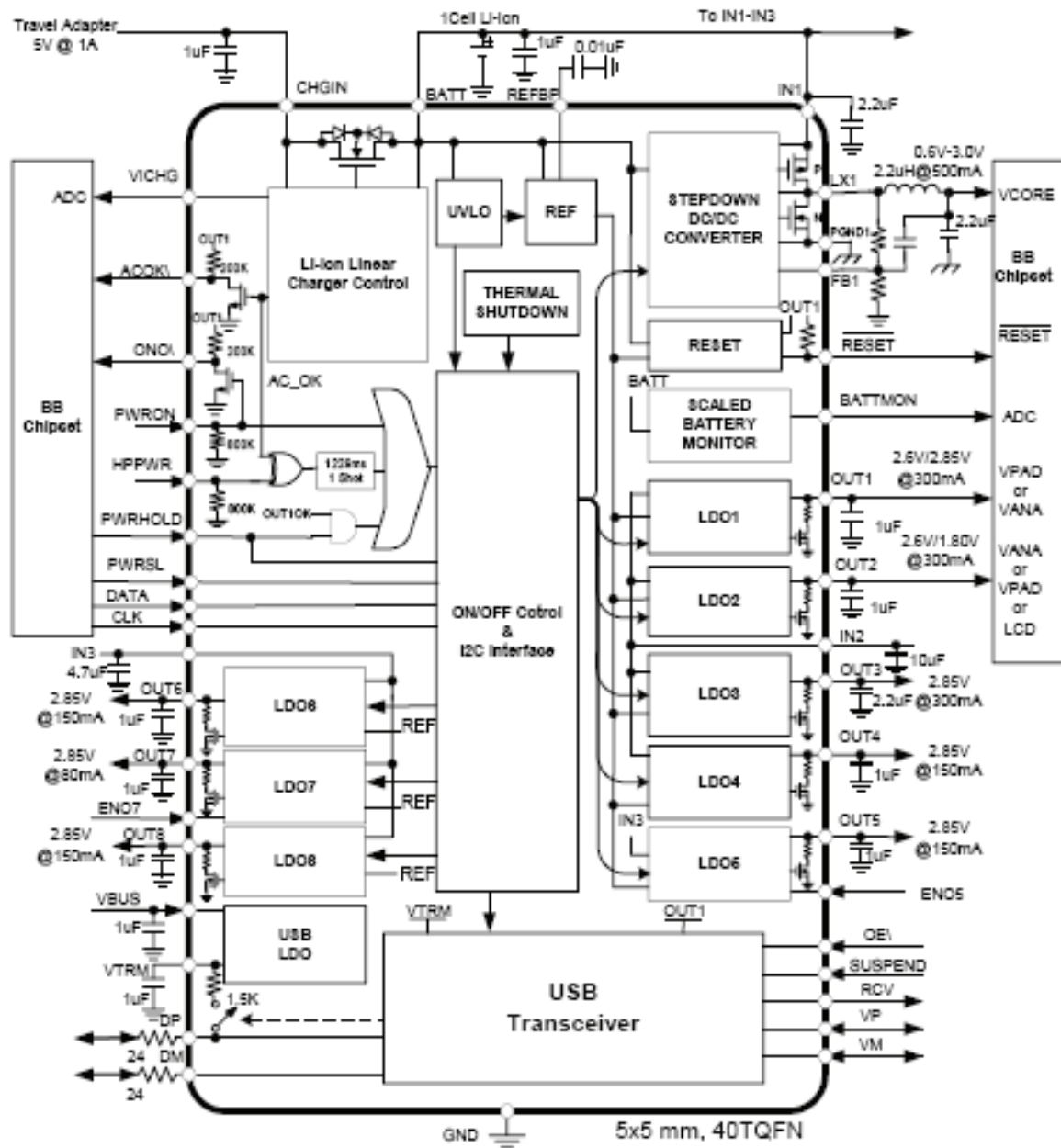


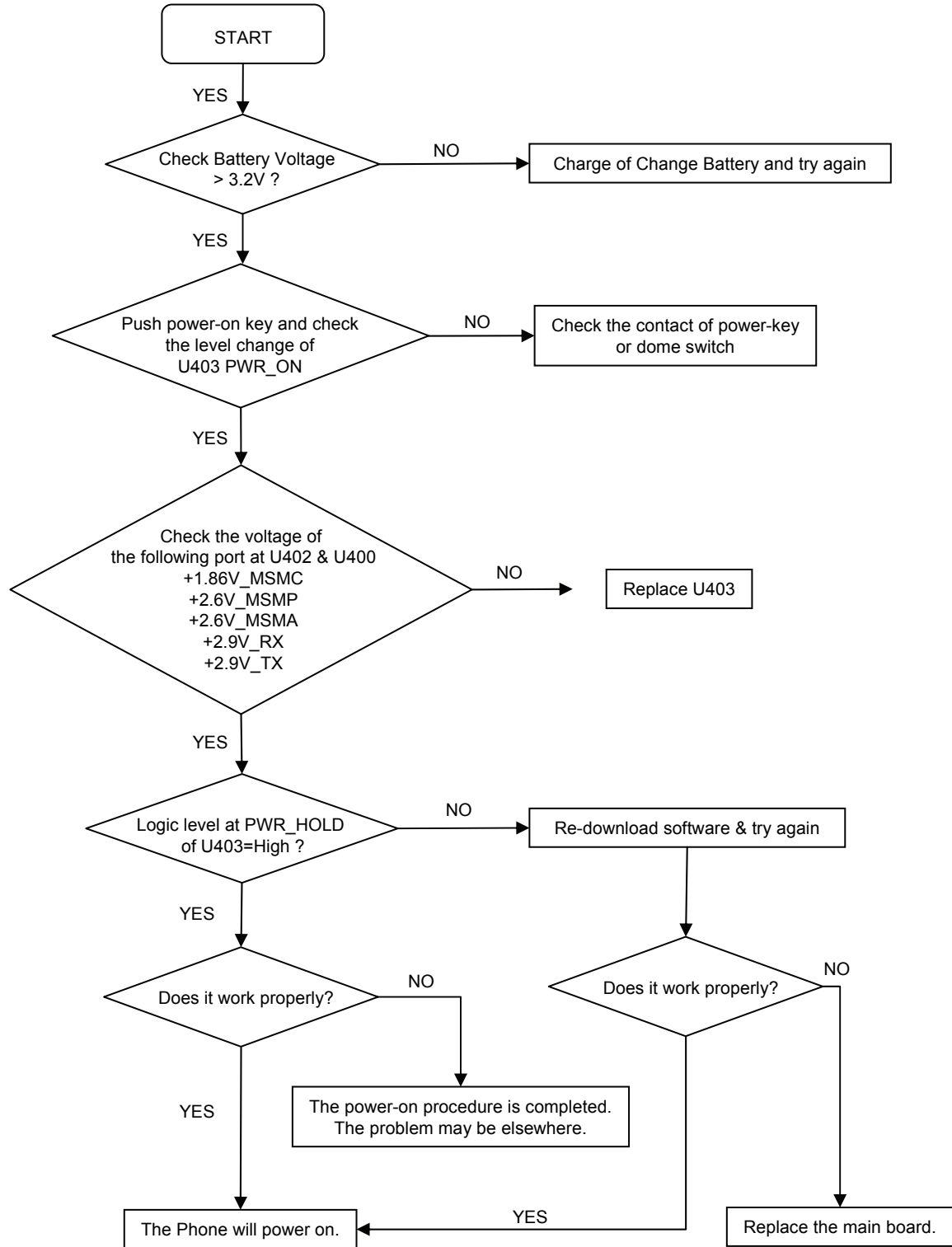
Figure 4- PMIC(MAX1829) FUNCTIONAL BLOCK DIAGRAM

Circuit Diagram



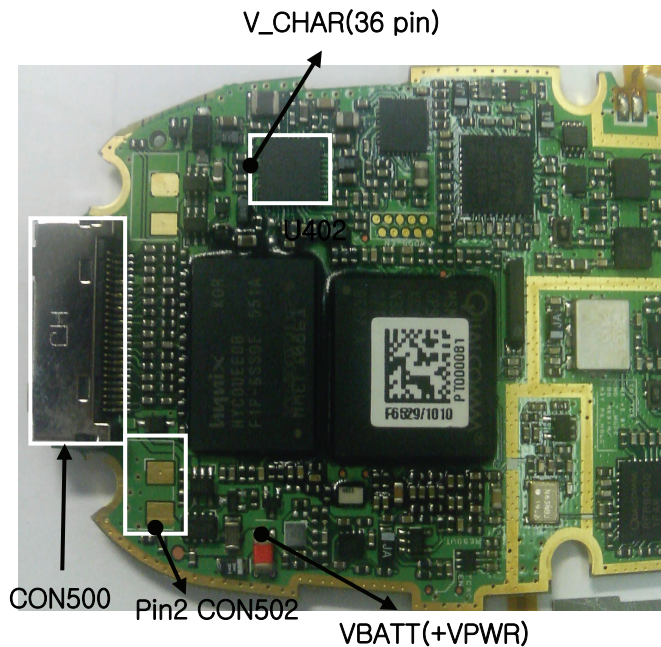
Figure 4- MAX1827 POWER MANAGEMENT SECTION

Checking Flow



4.3.2 Charging Trouble

Test Points



Block Diagram

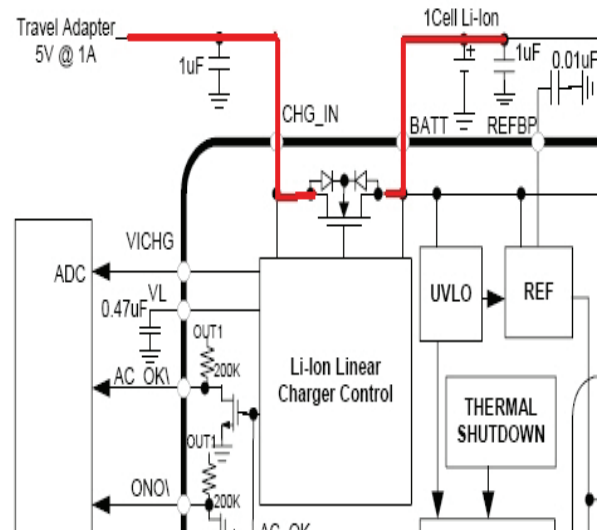


Figure 4- CHARGER CIRCUIT PART

Circuit Diagram

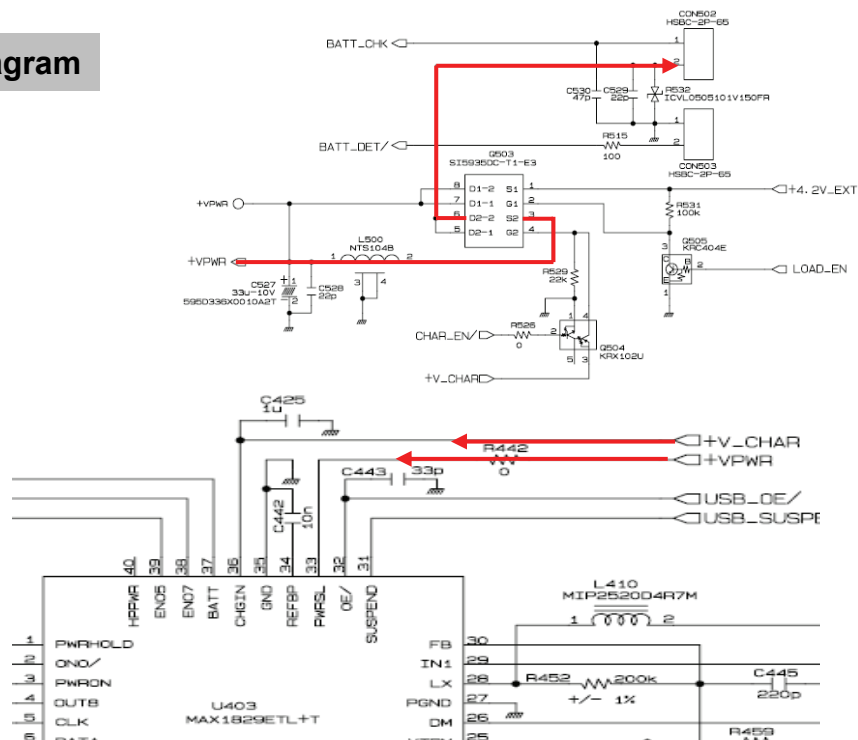
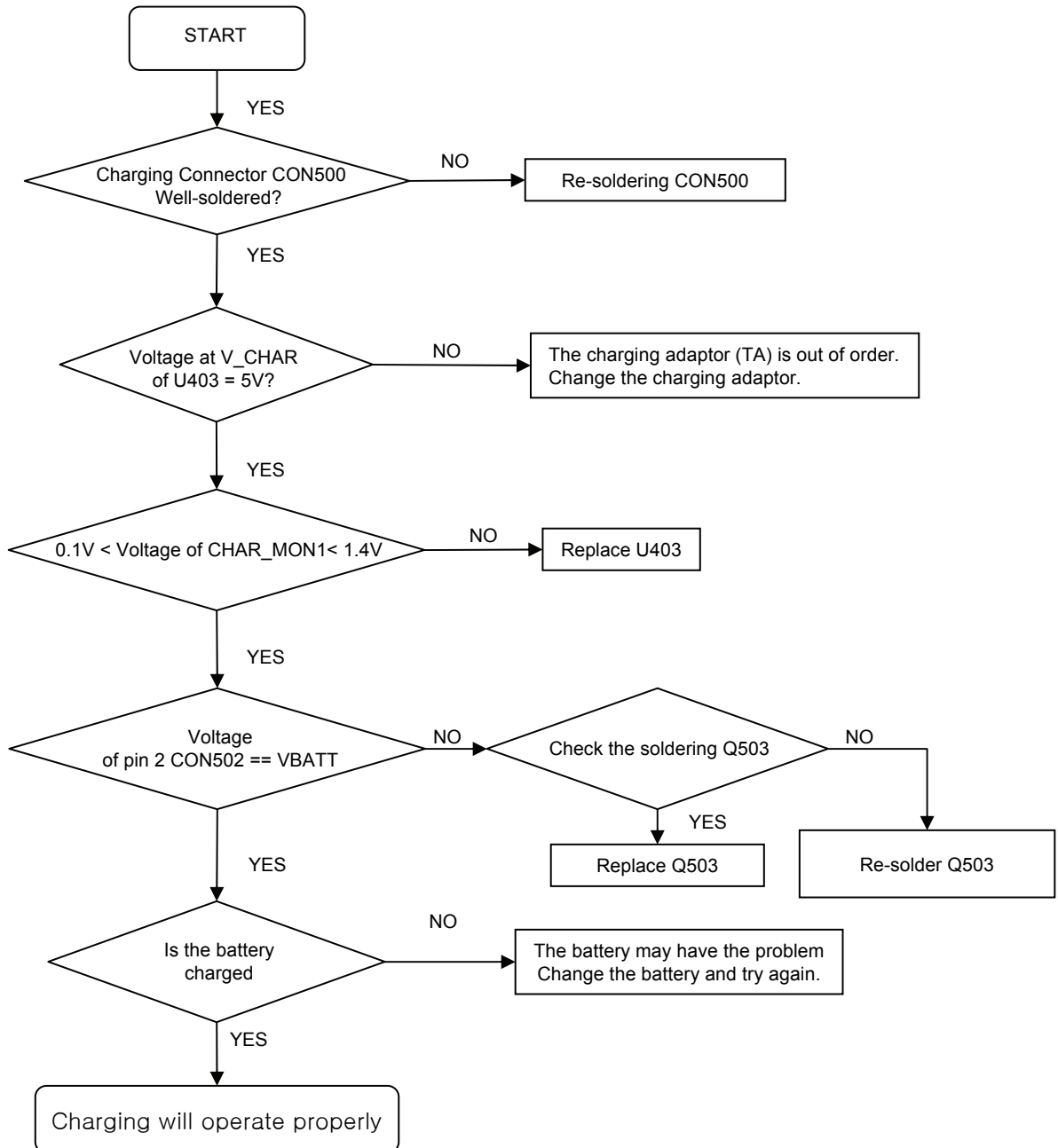


Figure 4- MAX1827 CHARGING CONTROL BLOCK

Checking Flow

SETTING : Connect the battery and the charging adaptor (TA) to the phone



4.3.3 Receiver Trouble

Test Points

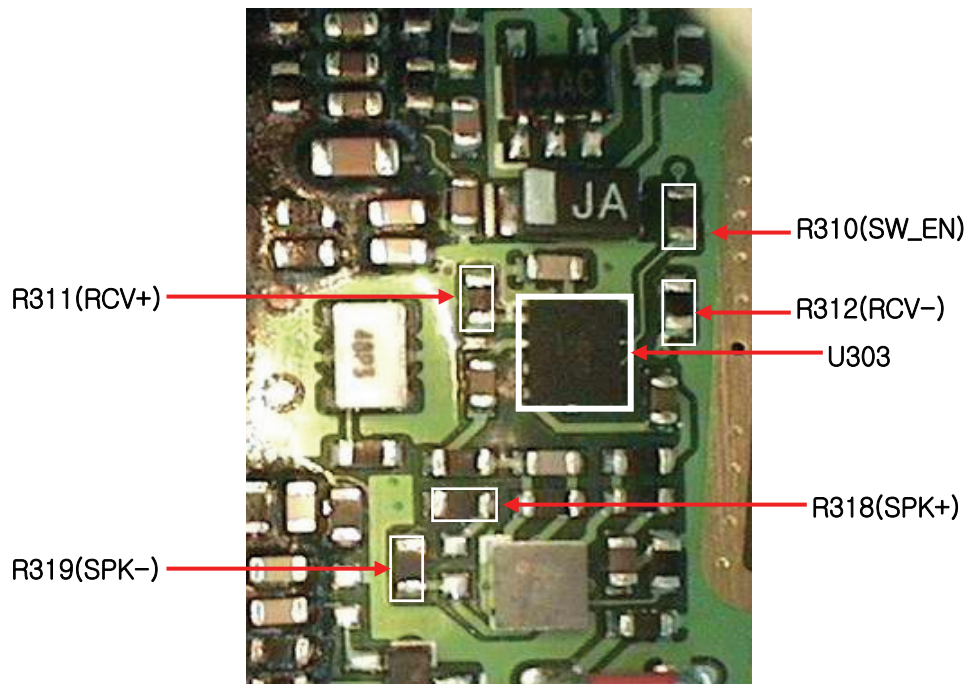


Figure 4- RECEIVER PART

Circuit Diagram

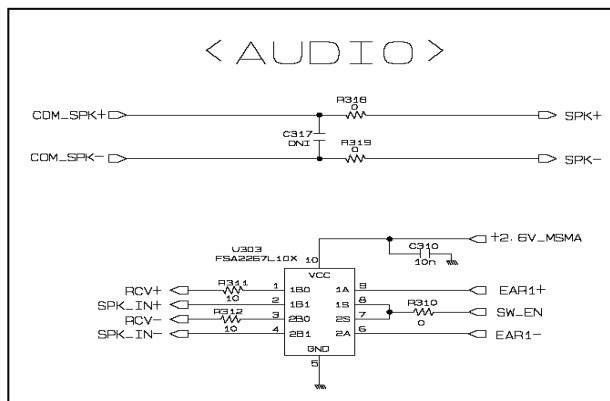


Figure 4- RECEIVER PART

Block Diagram

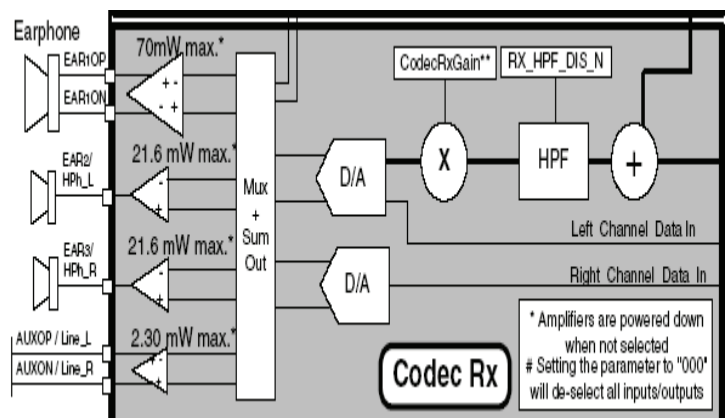
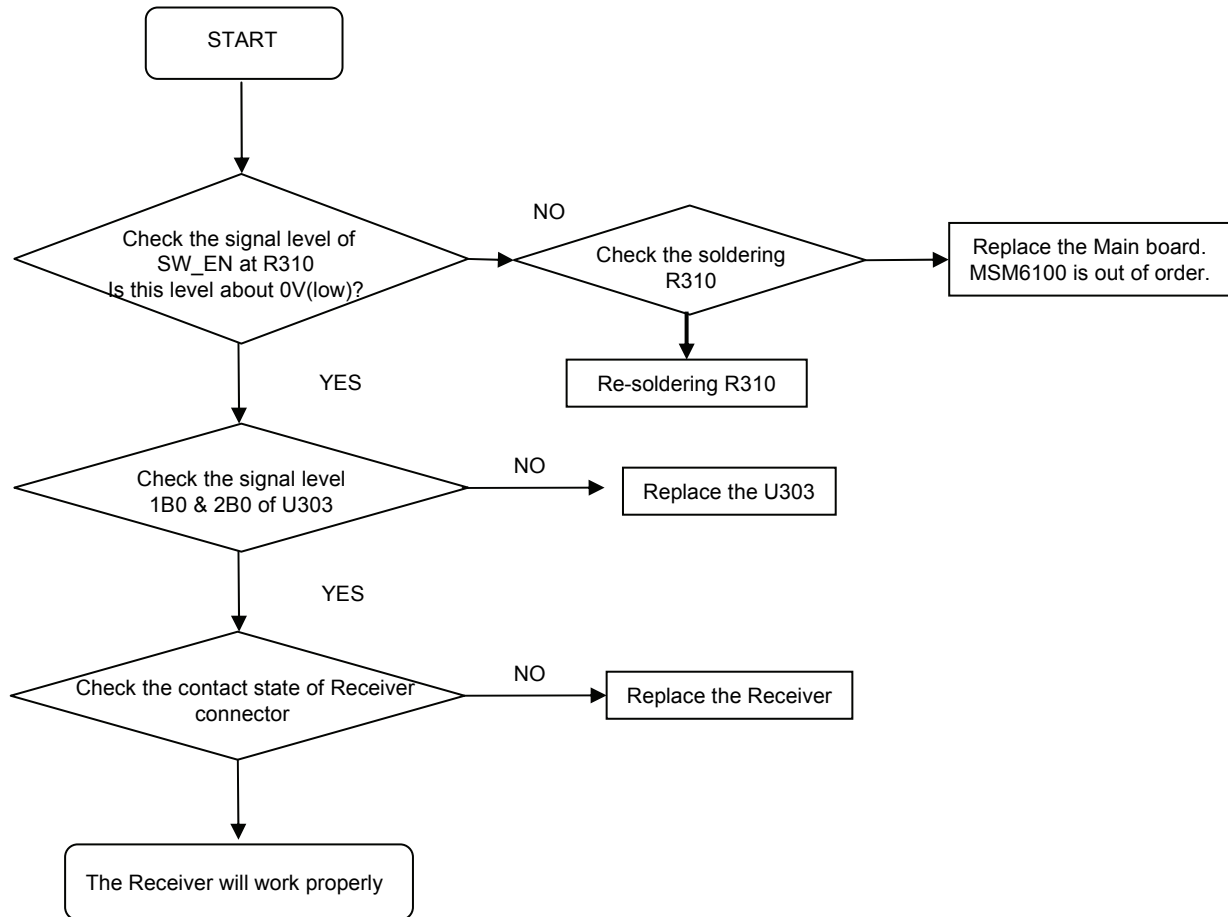


Figure 4- RECEIVER CODEC BLOCK

Checking Flow



AC voltage of the signals

Waveform

R310
(SW_EN)

R311
(RCV+)

R312
(RCV-)

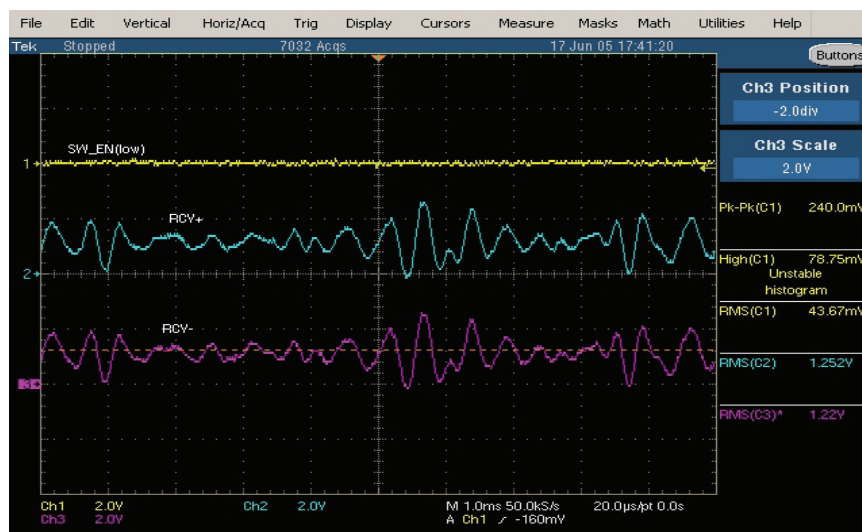


Figure 4- AC VOLTAGE OF THE SIGNALS WAVEFORM

4.3.4 USB Interface Trouble

Test Points

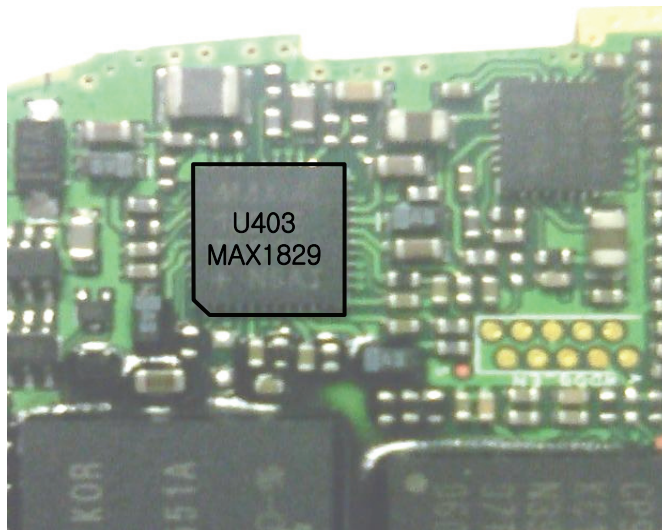


Figure 4- USB TRANCEIVER PART

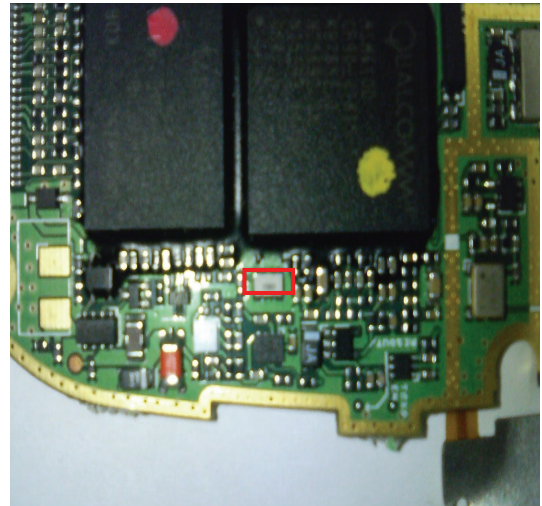


Figure 4- USB RESONATOR

Block Diagram

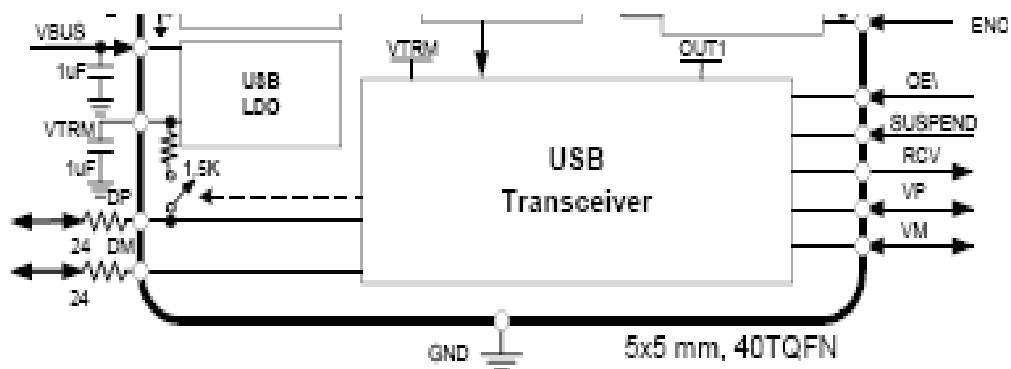


Figure 4- USB Transceiver Block (MAX1829)

Circuit Diagram

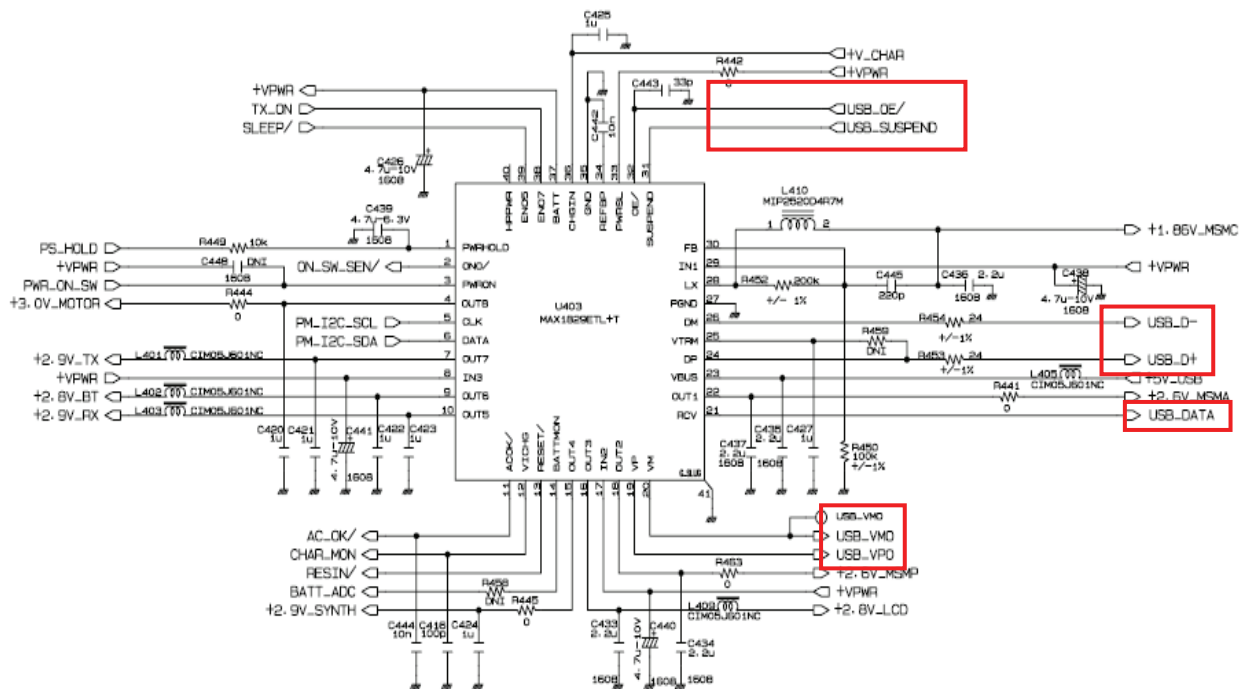


Figure 4- USB TRANCEIVER

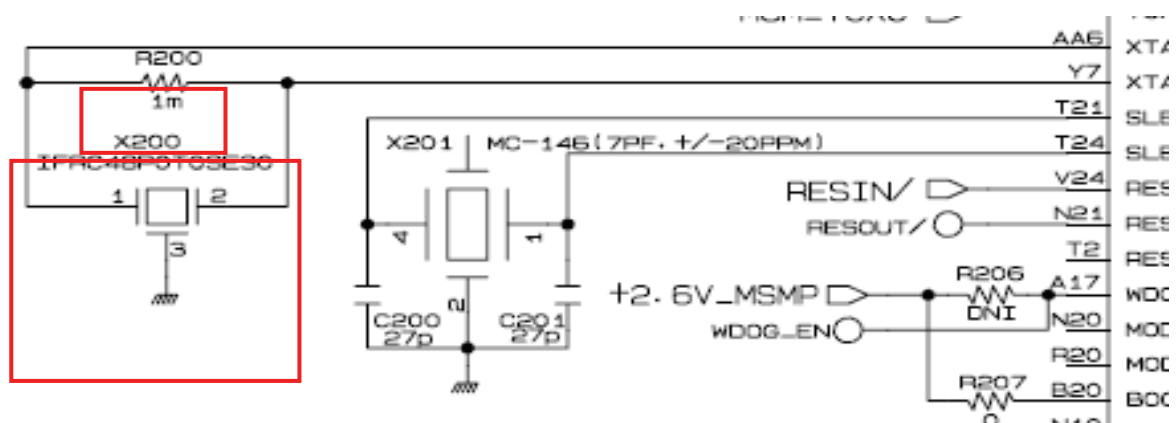


Figure 4- USB RESONATOR

Waveform

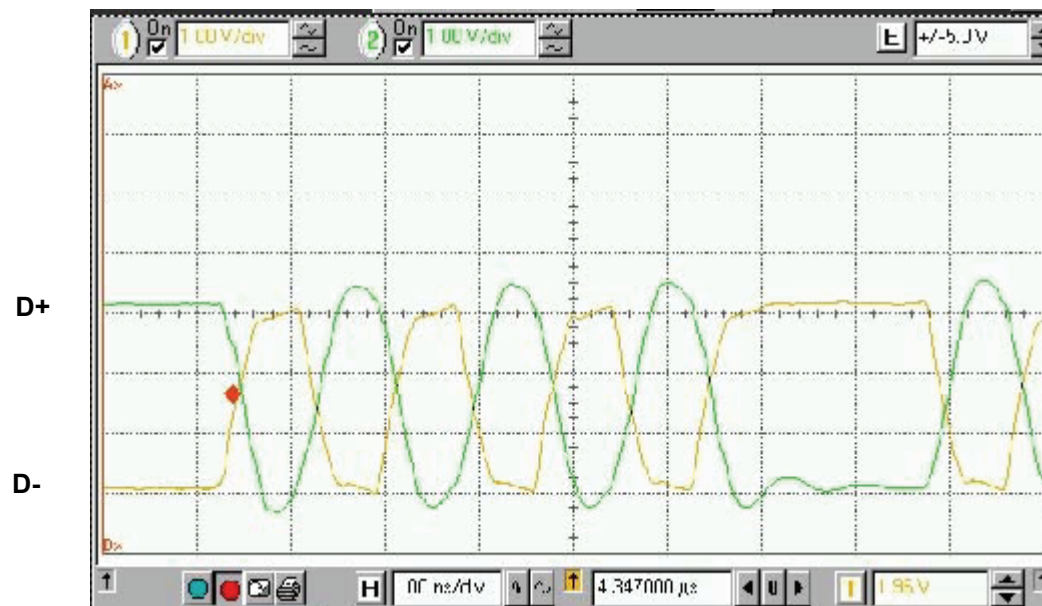
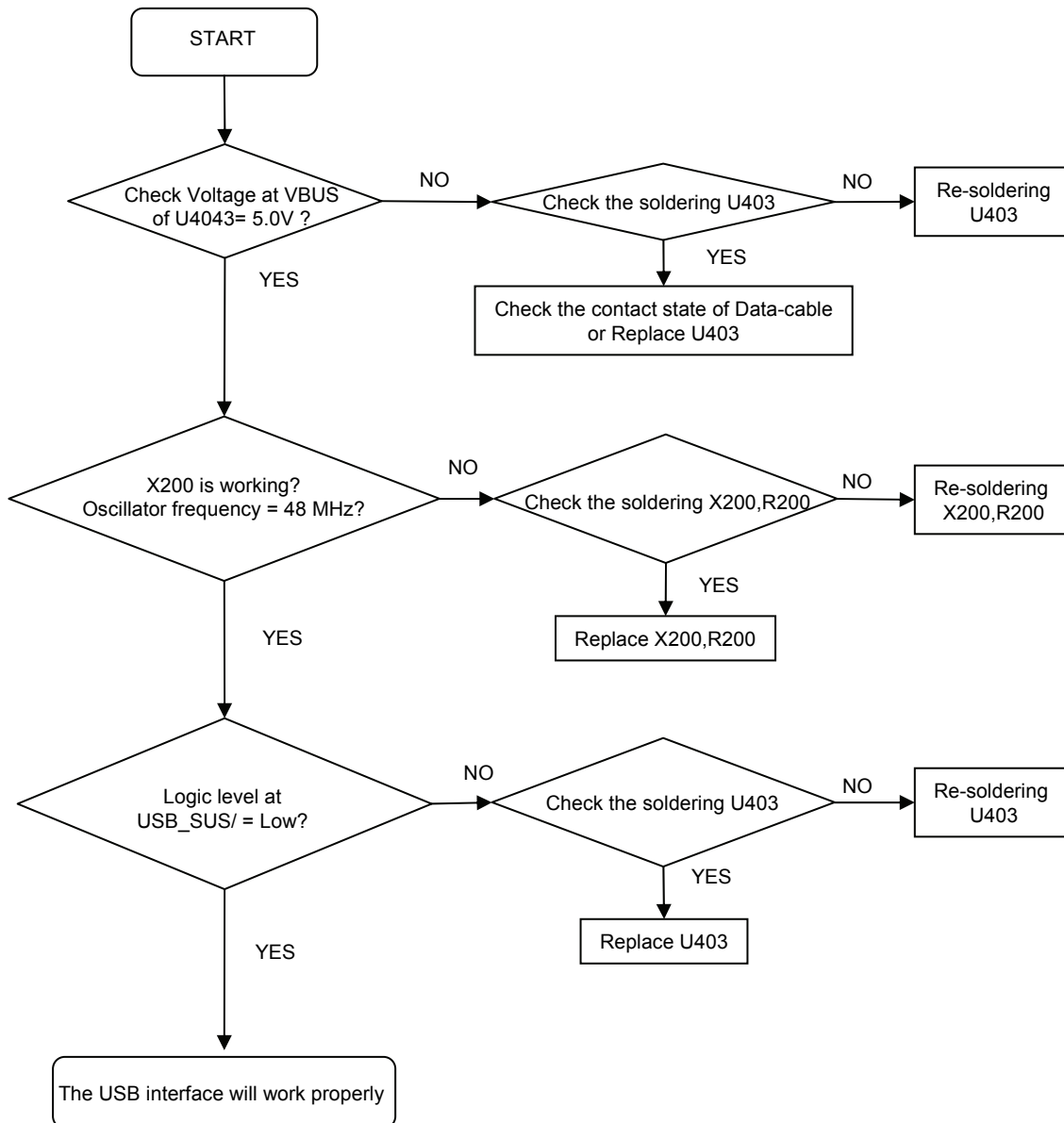


Figure 4- USB Interface waveform

Checking Flow



4.3.5 Speaker Trouble

Test points

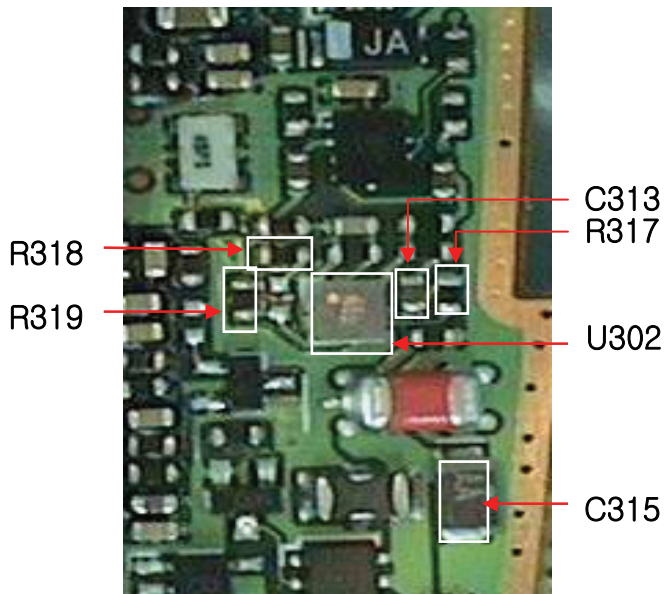


Figure 4 - SPK PHONE AUDIO AMP PART

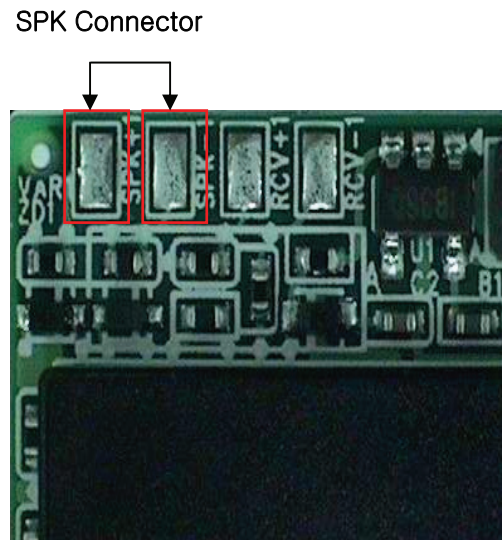


Figure 4 - SPK CONNECTOR PART

Circuit Diagram

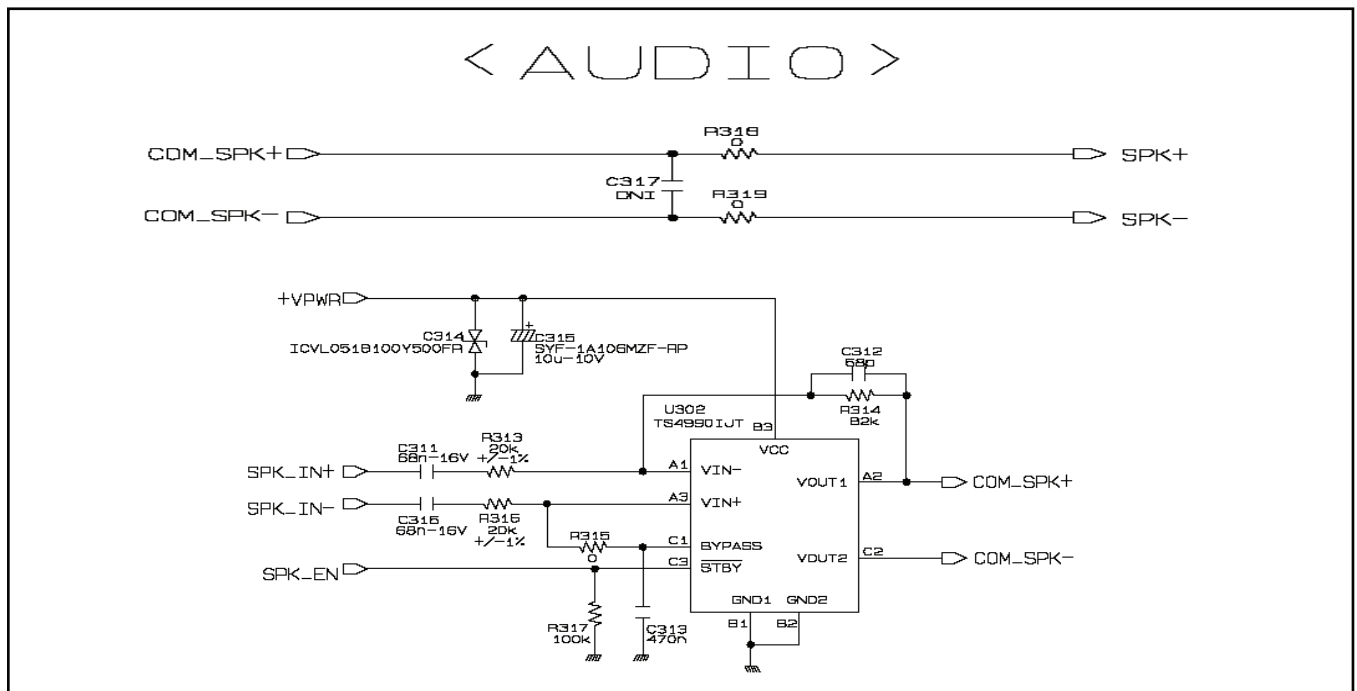
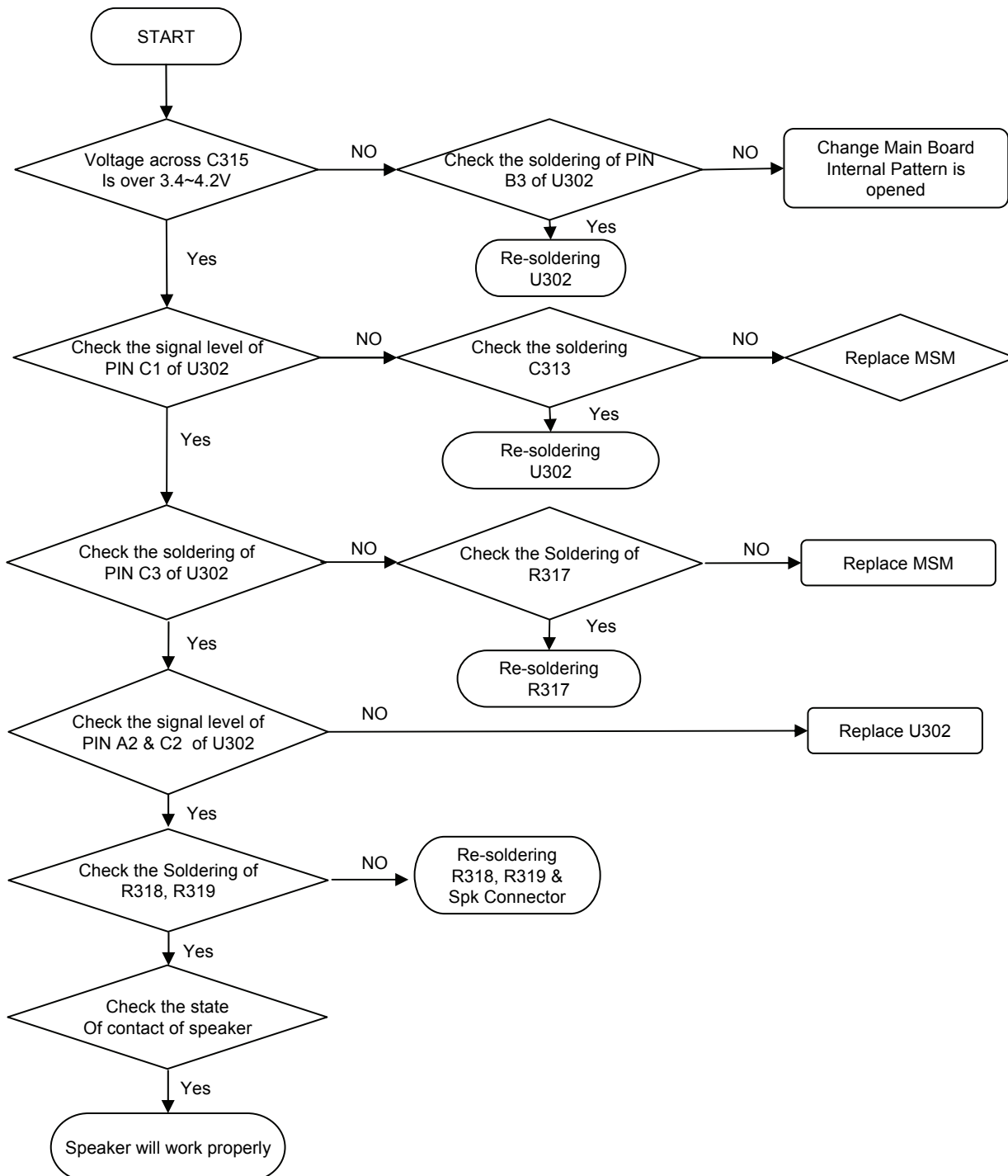


Figure 4 - SPK PHONE AUDIO AMP

Checking Flow

SETTING : “Melody on” at sounds of test menu.



4.3.6 MIC Trouble

Test points

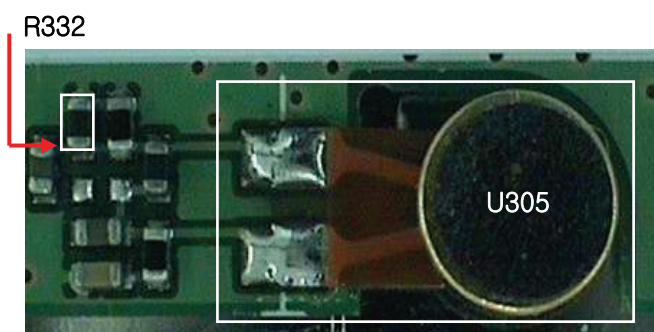


Figure 4 - MIC PART

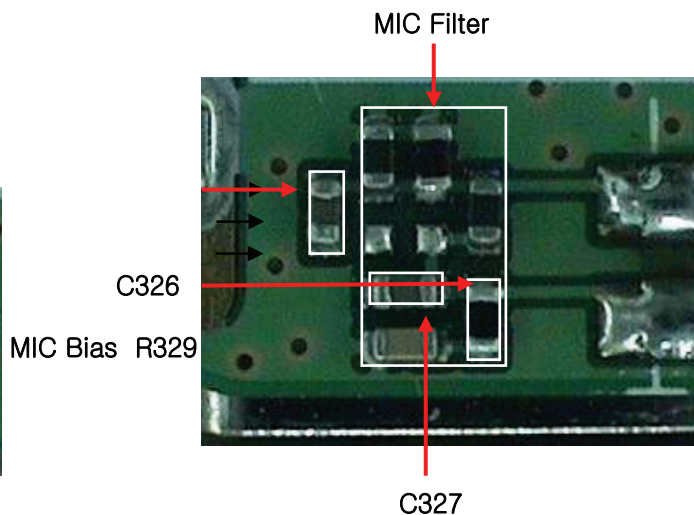


Figure 4 - MIC FILTER & BIAS PART

Circuit Diagram

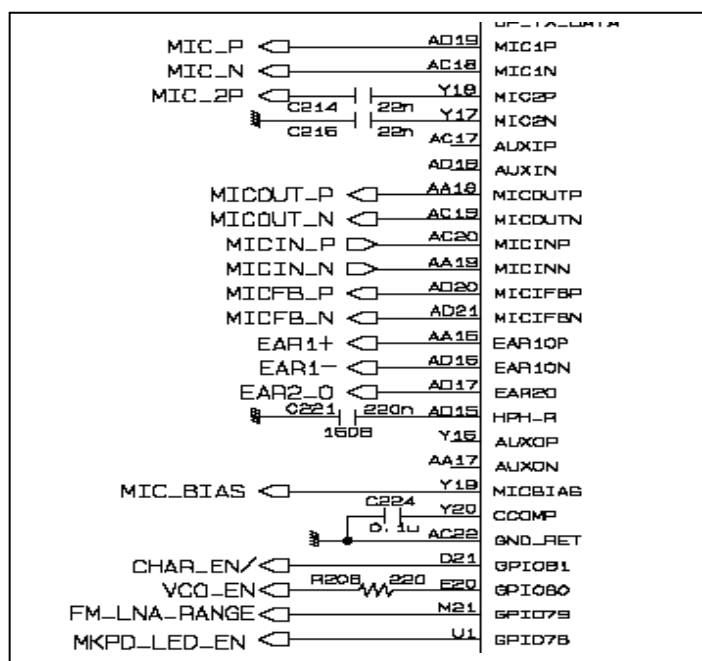
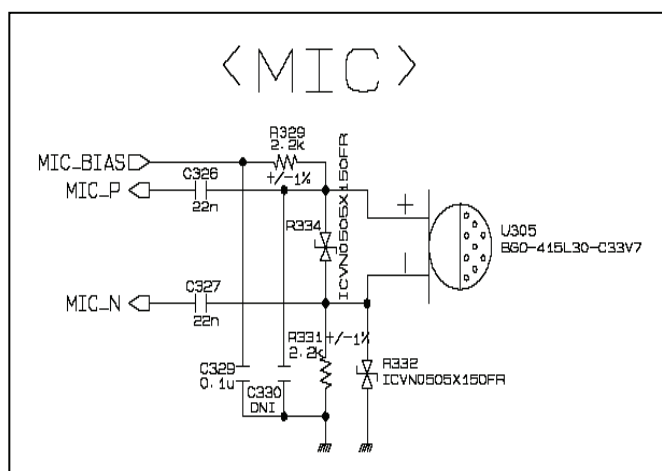
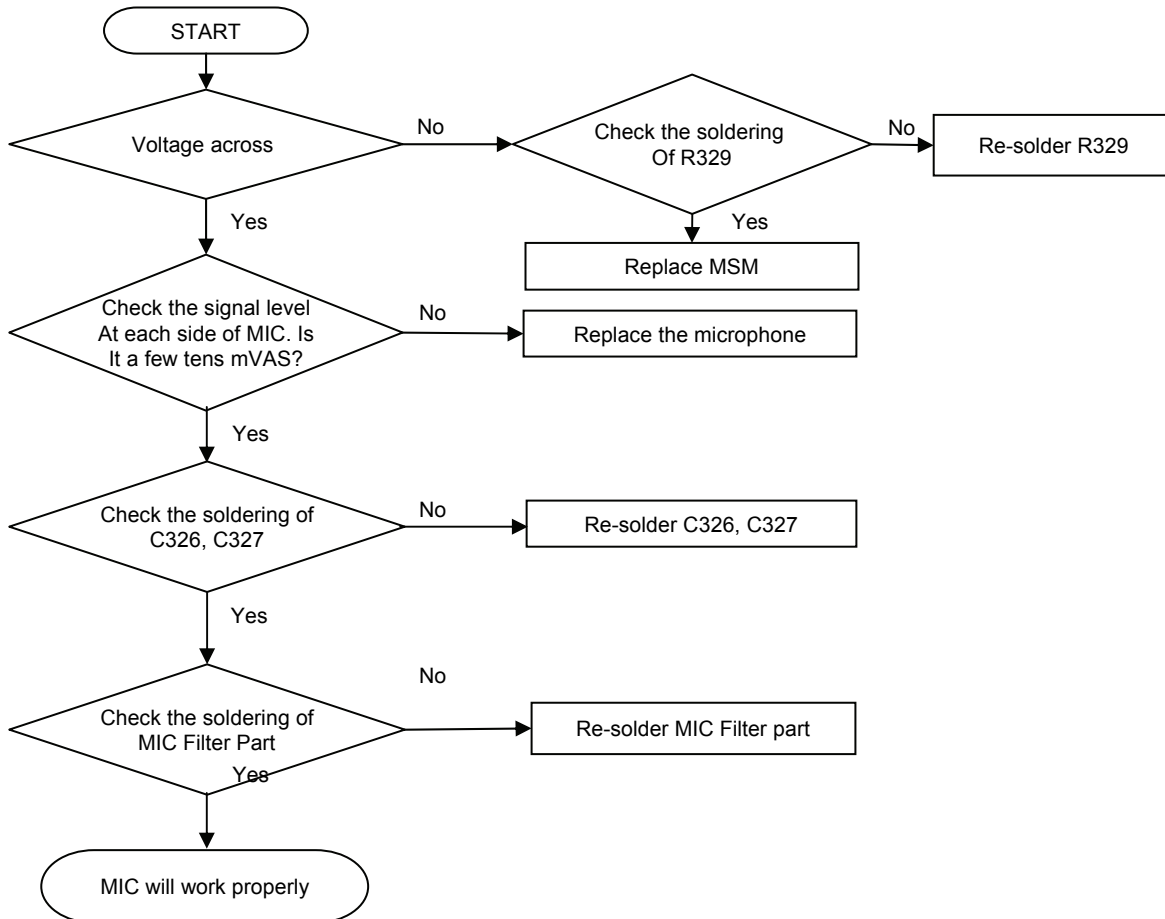


Figure 4 - MIC & MIC FILTER

Checking Flow

SETTING : After initialize 5515C, Test Cellular or US PCS



Waveform

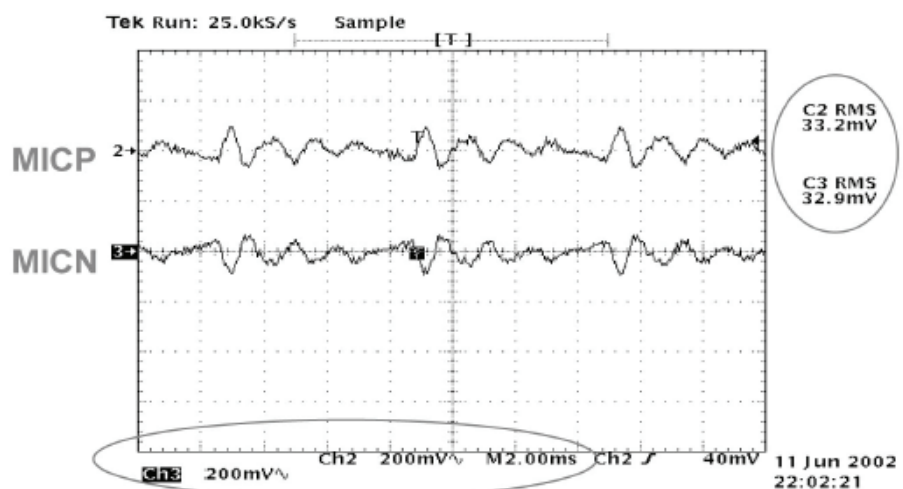


Figure 4 - Graph

4.3.7 Vibrator Troble

Checking Flow

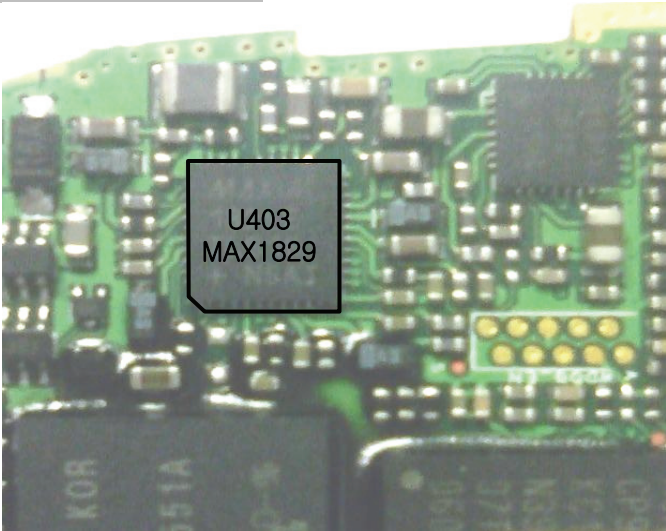


Figure 4 - PMIC PART

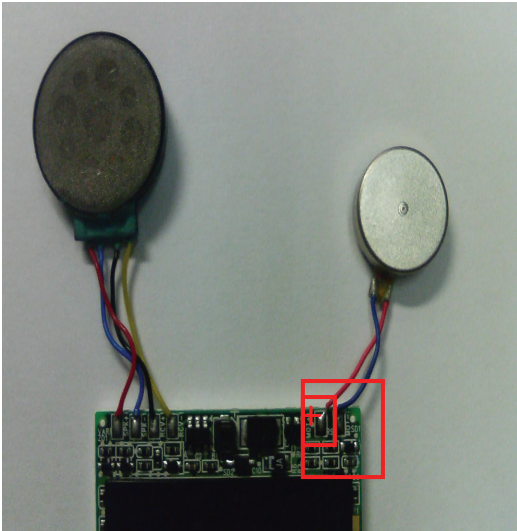


Figure 4 - MOTOR CONTACT PART

Circuit Diagram

U403
(MAX1829)

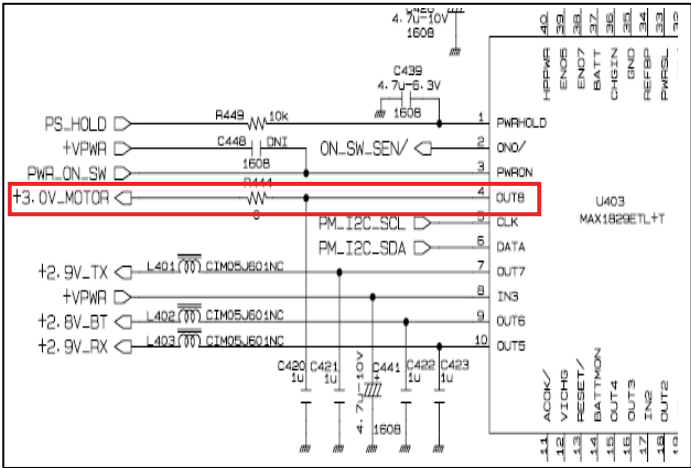


Figure 4- U403(MAX1829) VIBRATION CONTROL BLOCK

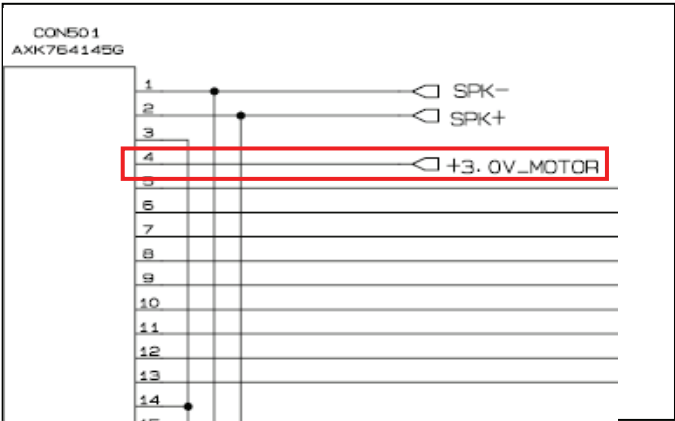
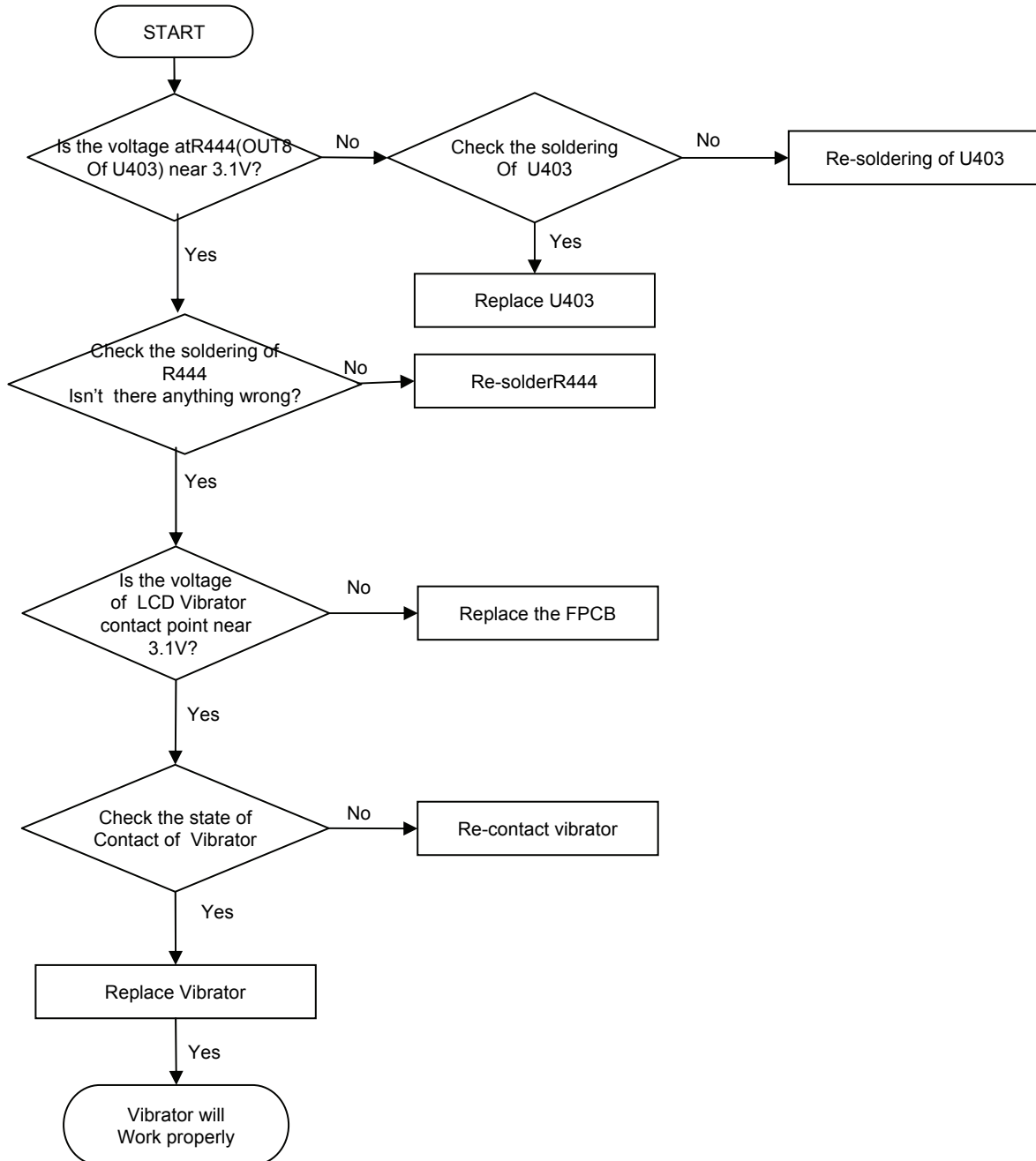


Figure 4 - CON501(64PIN CONNECTOR)
VIBRATOR LINE

Checking Flow

SETTING : “Vibrator on” at Sounds of test menu



4.3.8 Key Backlight LED Trouble

Test Points

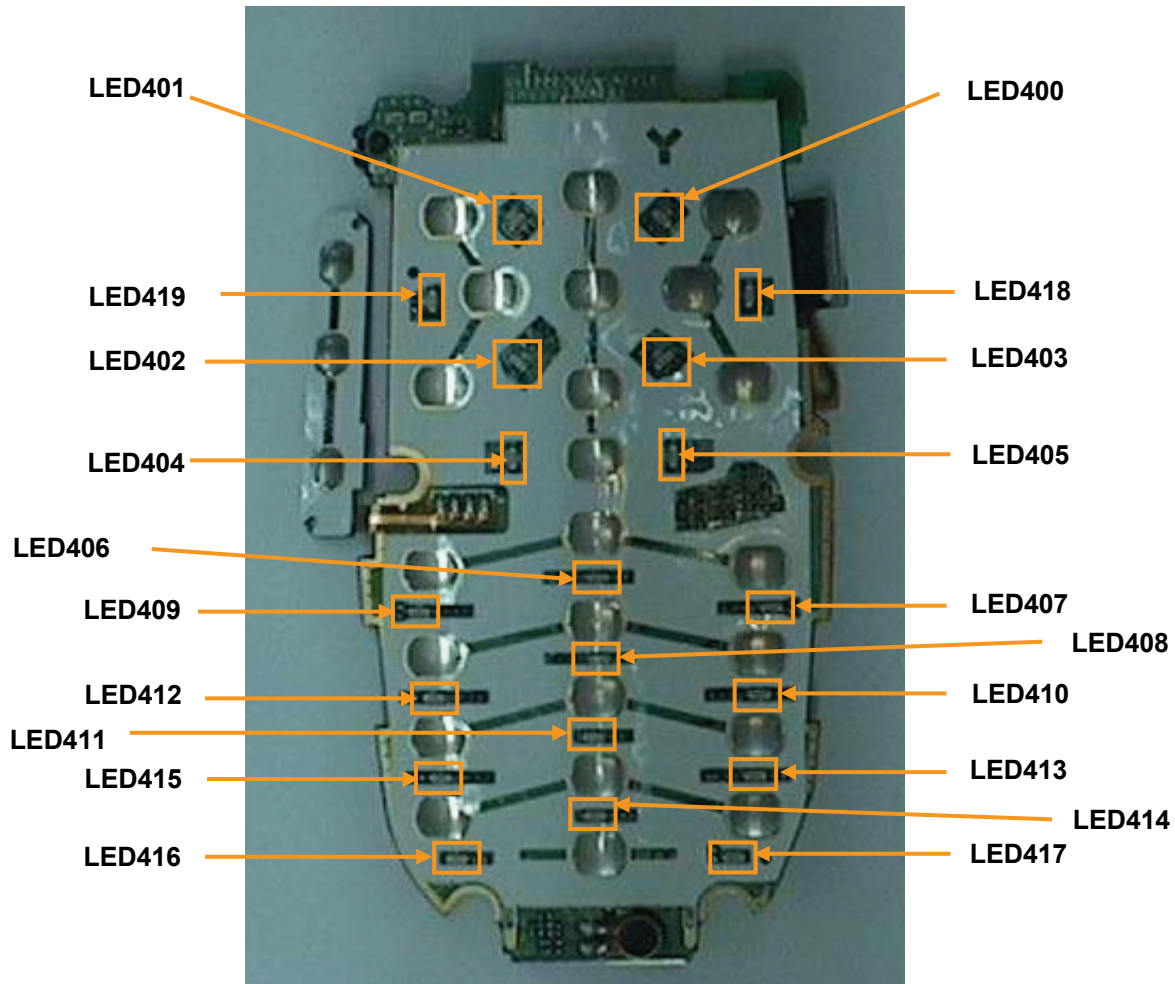


Figure 4 - KEYPAD BACK LIGHT PART

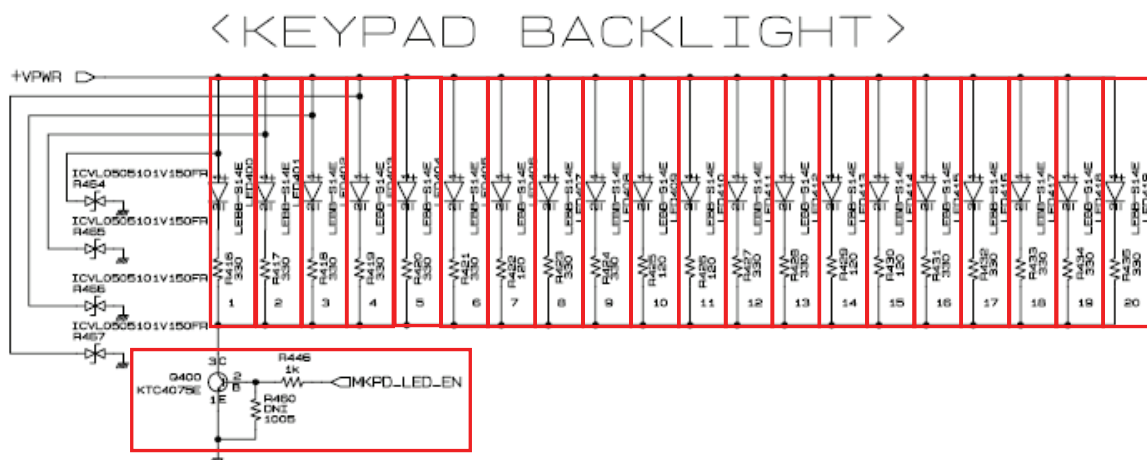
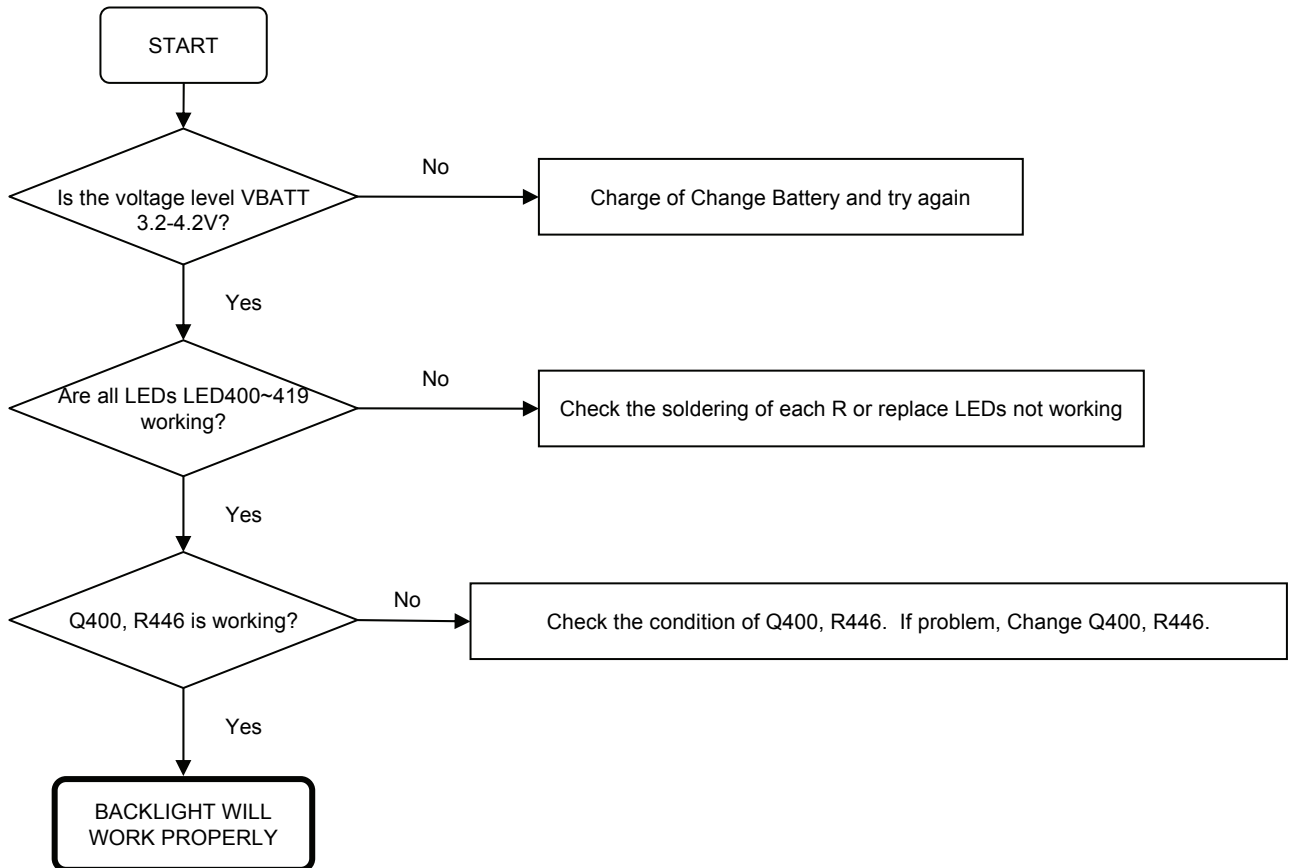


Figure 4 - KEYPAD Back Light Circuit

Checking Flow



4.3.9 Earphone Trouble

Test Points

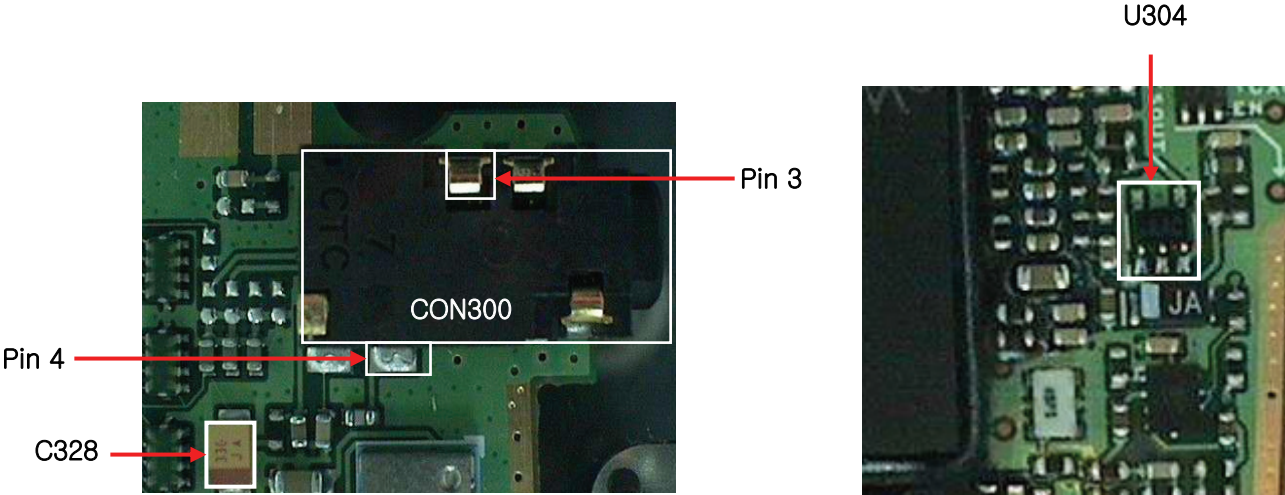


Figure 4 – EAR MIC JACK PART

Circuit Diagram

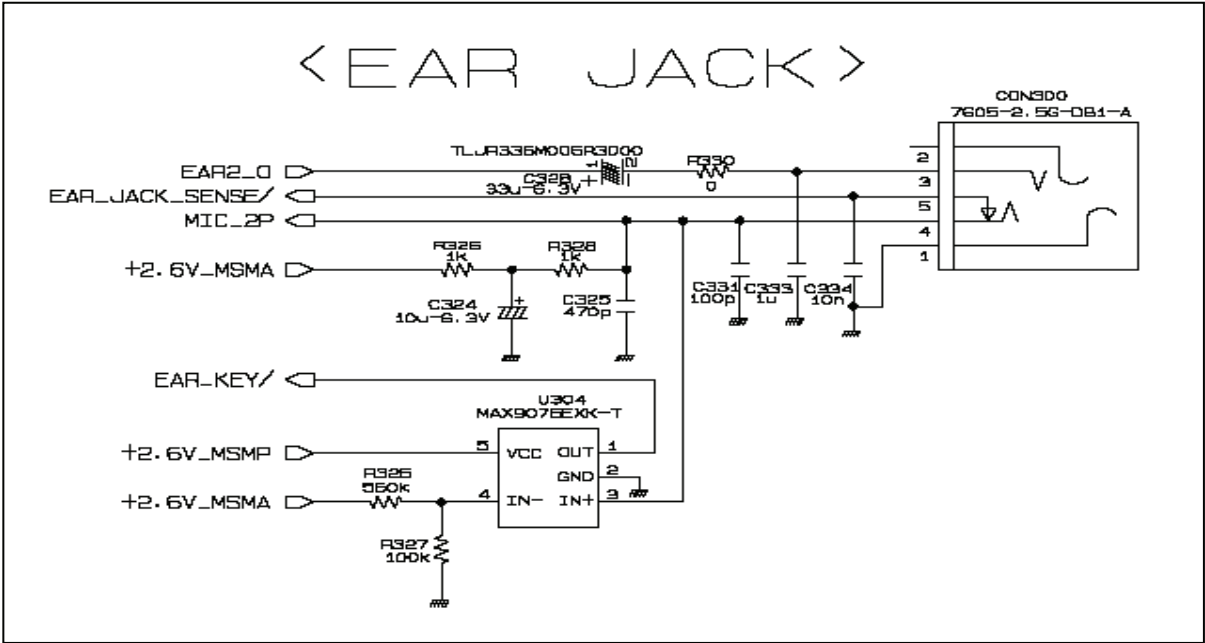
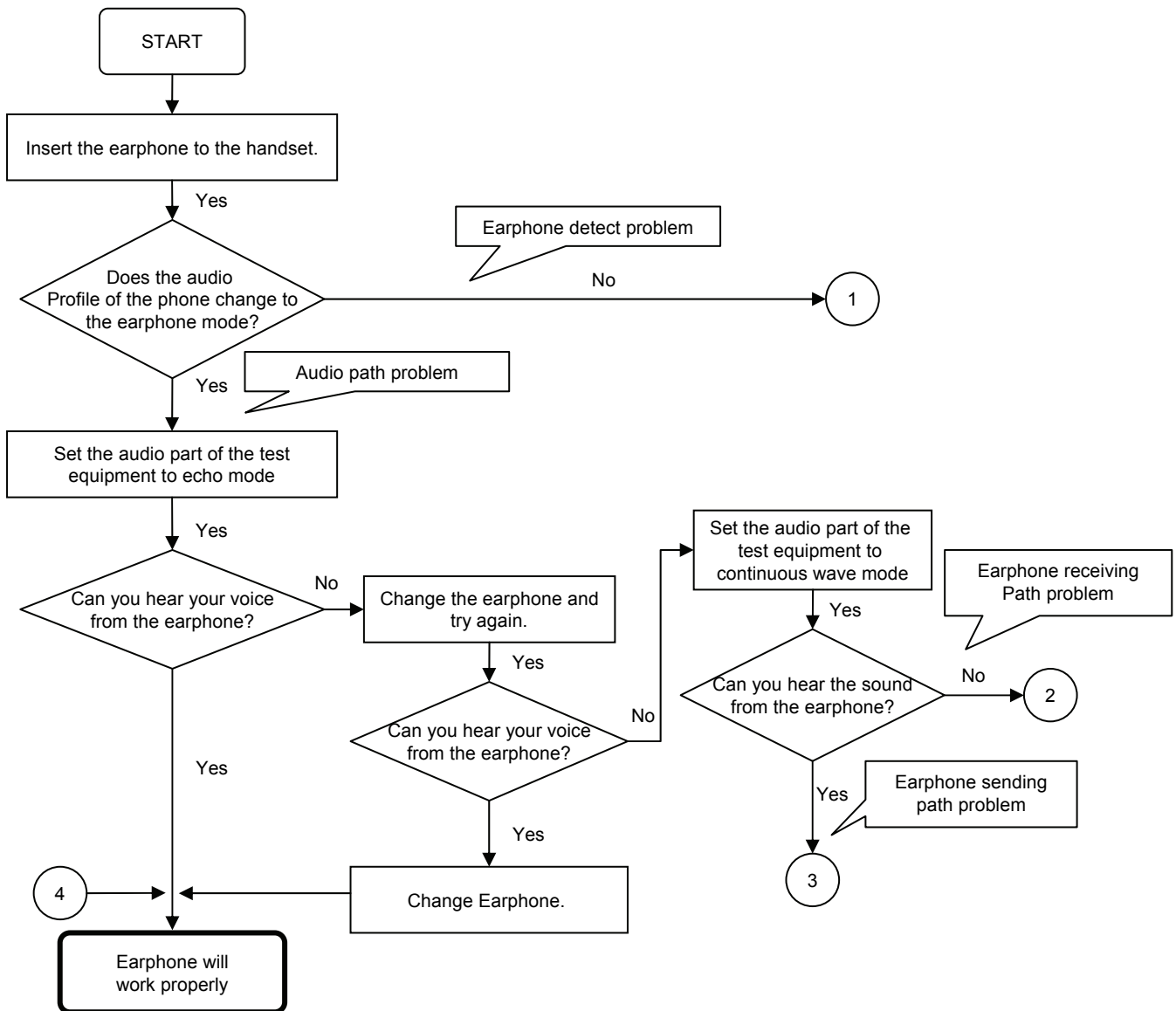
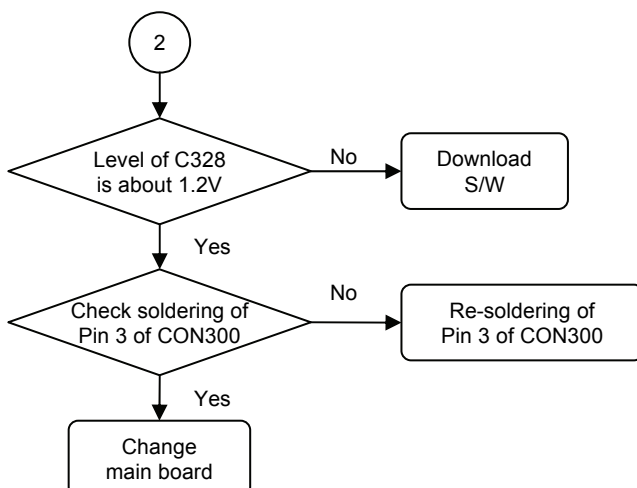


Figure 4- EAR MIC JACK PART

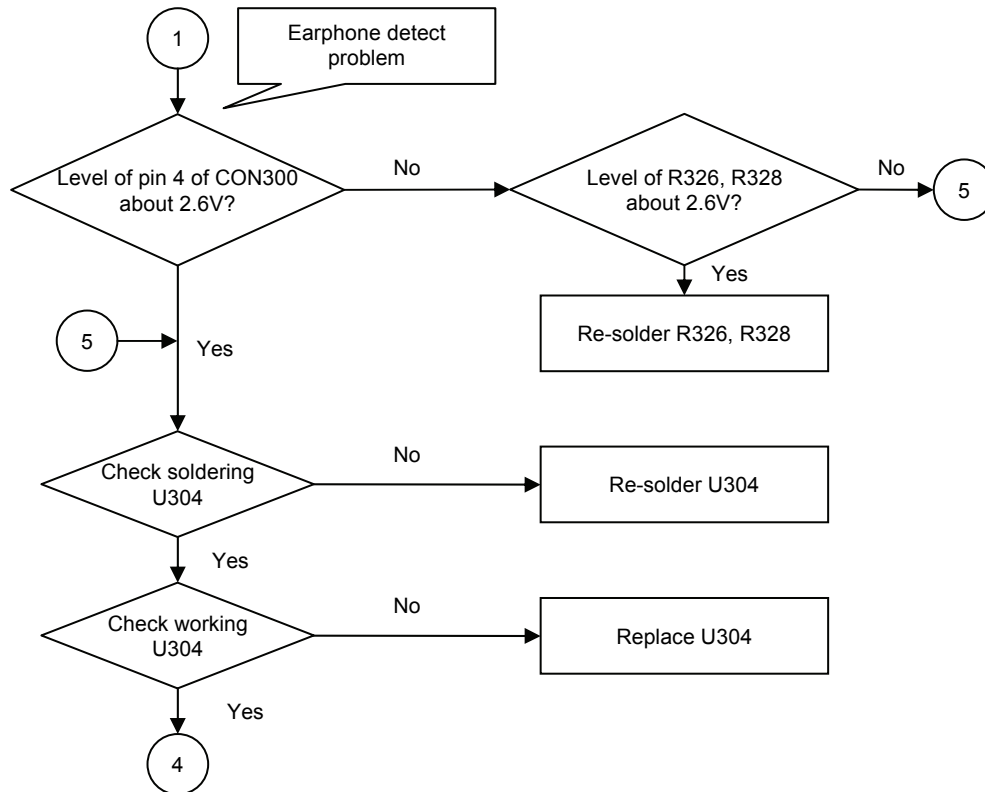
Checking Flow



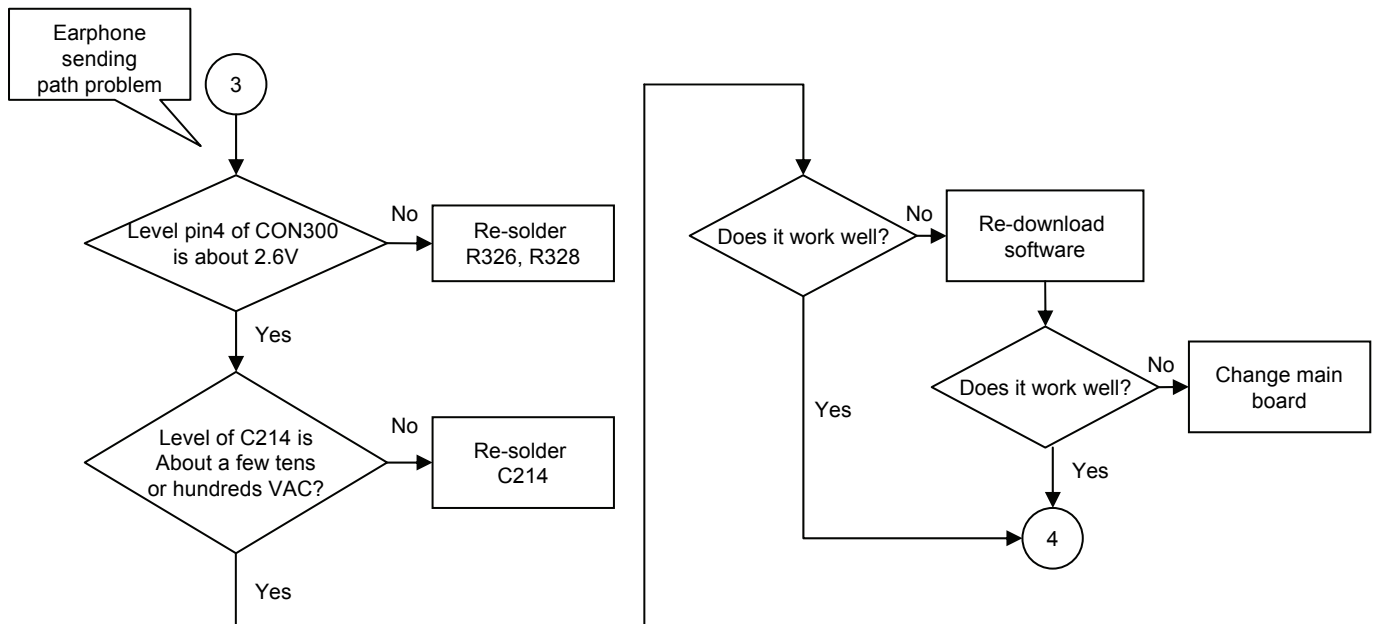
Earphone receiving path problem



Earphone detect problem



Earphone sending path problem



4.3.10 LCD Trouble

- **LCD Control signals**

From MSM : D(0:15), LCD_RESET1/, A[1], LCD_CS/, LWR/

- **Check point**

- The assembly status of the LCD Module
- The Soldering of connector
- The Soldering of EMI Filters
- FPCB

Test Points

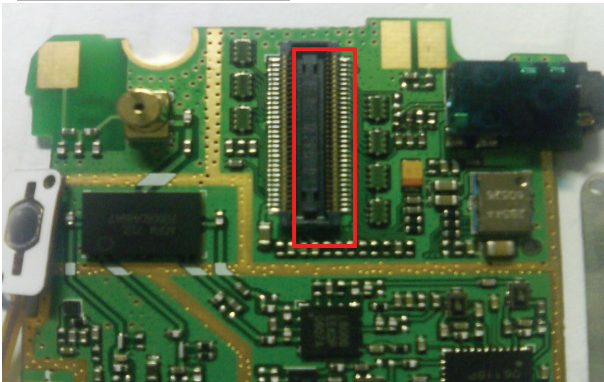


Figure 4 – LCD CONNECTOR PART

Circuit Diagram

<BOARD TO BOARD CONNECTOR 64 PIN SOCKET>

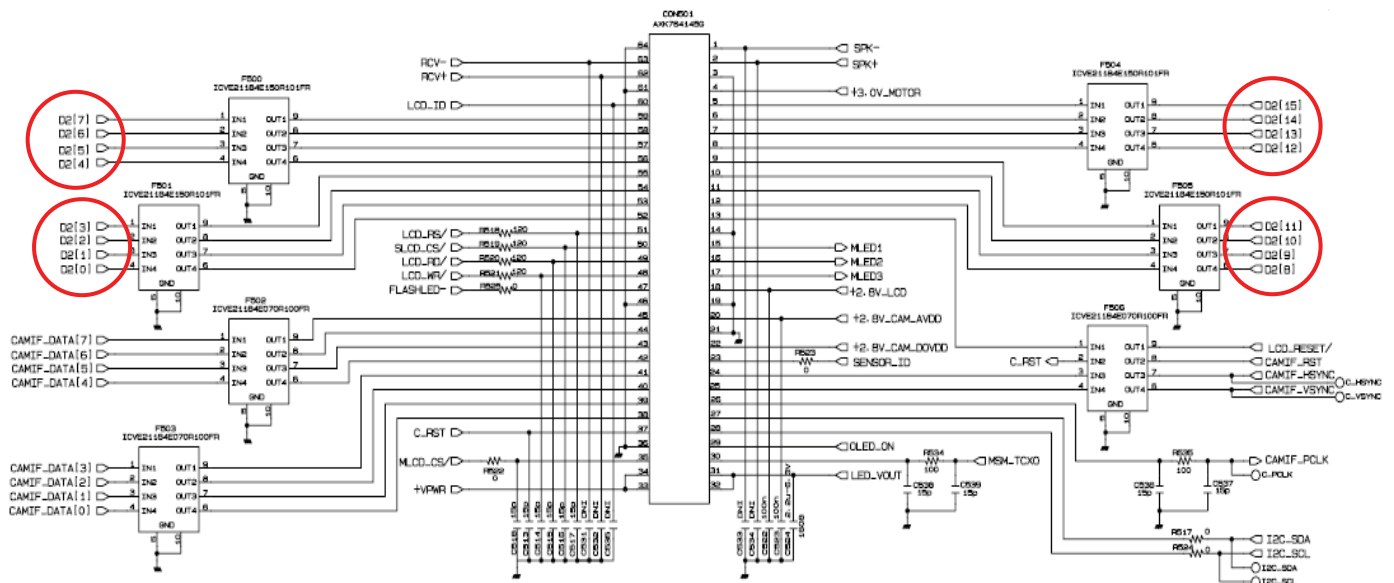
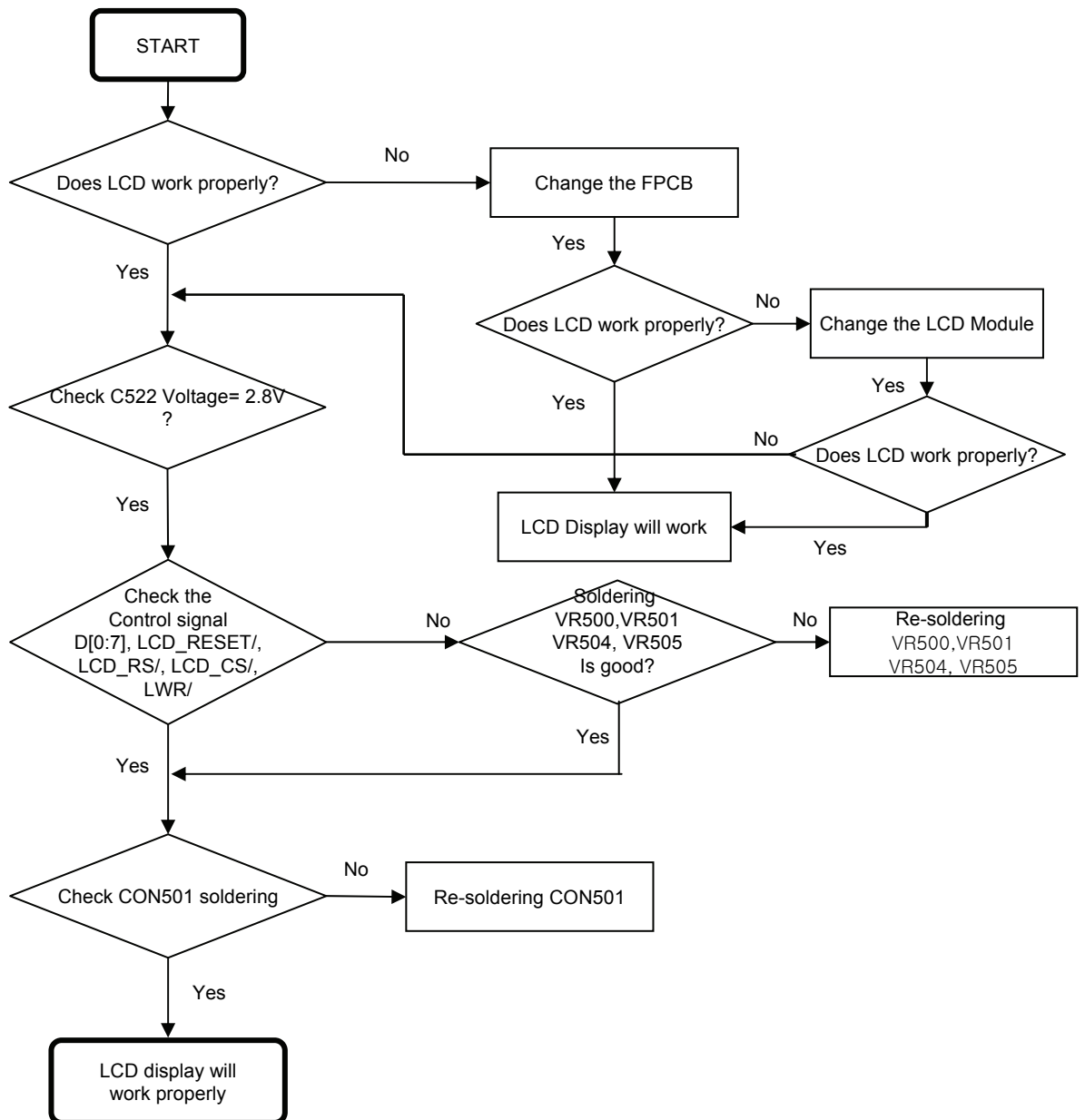


Figure 4 – LCD CONNECTOR

Checking Flow



4.3.11 Camera Trouble

• Camera Control signals

From QCAM :CAMIF-DATA(0:7), +2.8V_CAM_-AVDD, +2.8V_CAM_DVDD, LCD_RS/,
Sub/Main CS/, LCD_RD/, LCD_WR/, CAMIF_VSYNC, CAMIF_HSYNC,
CAMIF_CLK

• Check point

- The Soldering of connector
- The Soldering of EMI Filters
- FPCB

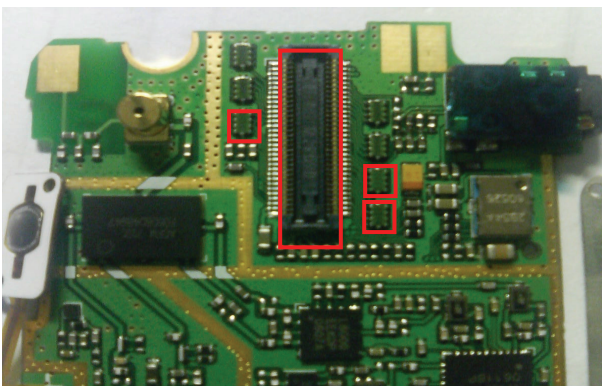
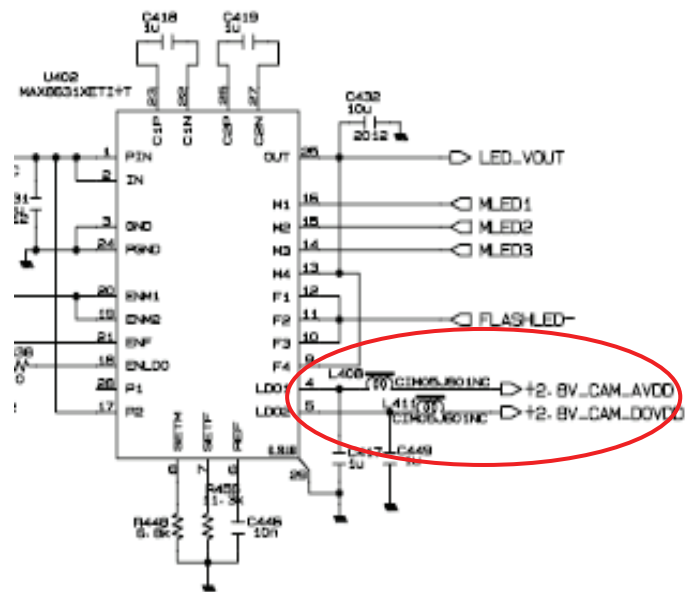


Figure 4 – CAMERA CONNECTOR PART



Circuit Diagram

<BOARD TO BOARD CONNECTOR 64 PIN SOCKET>

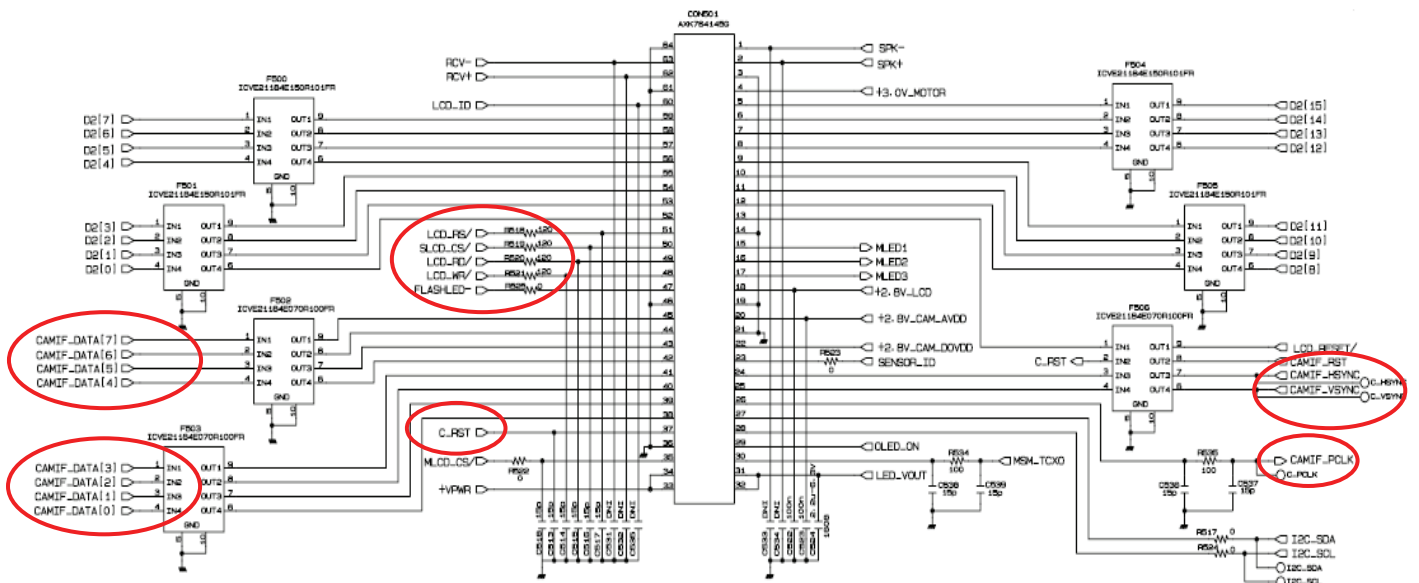
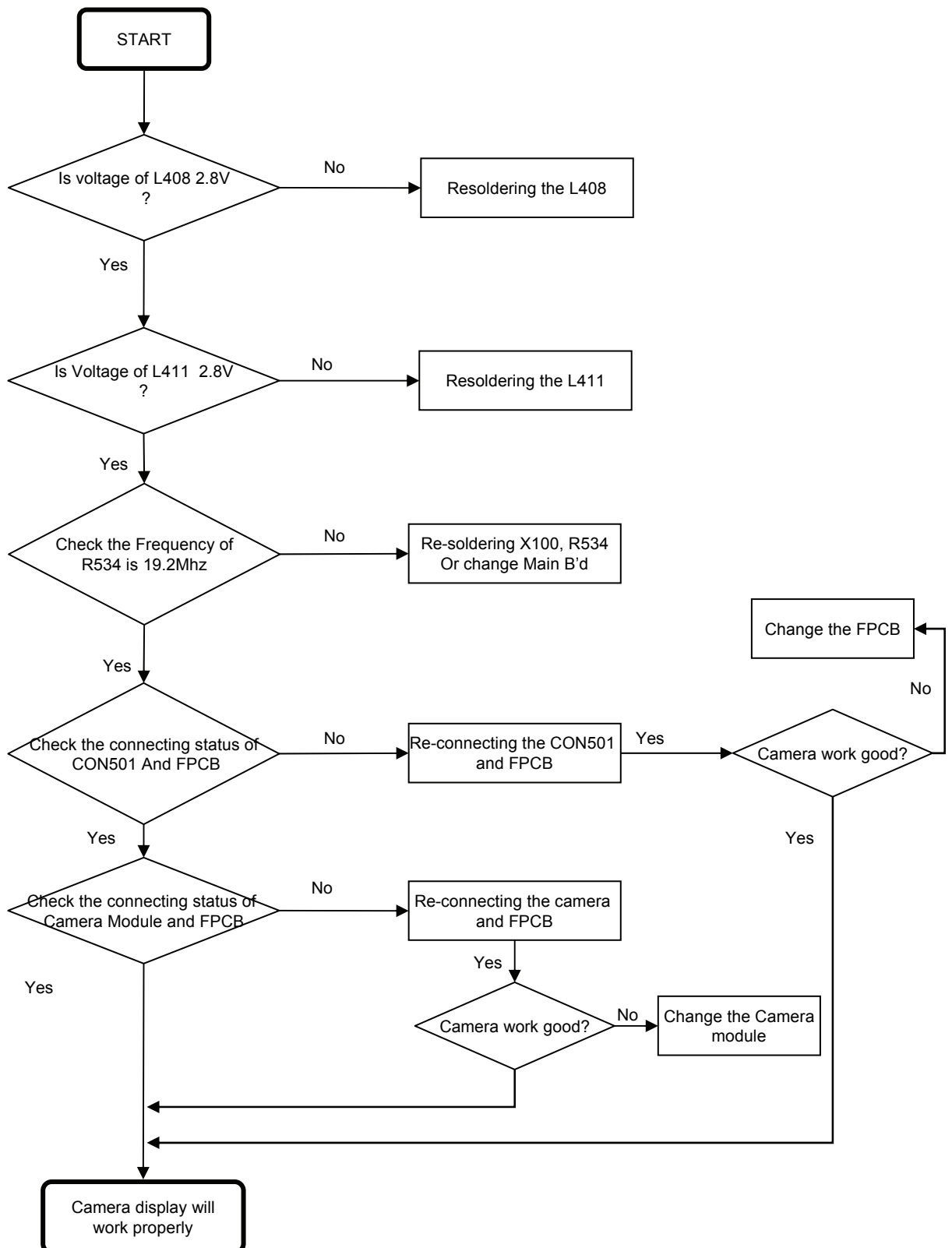


Figure 4 – CAMERA CONNECTOR

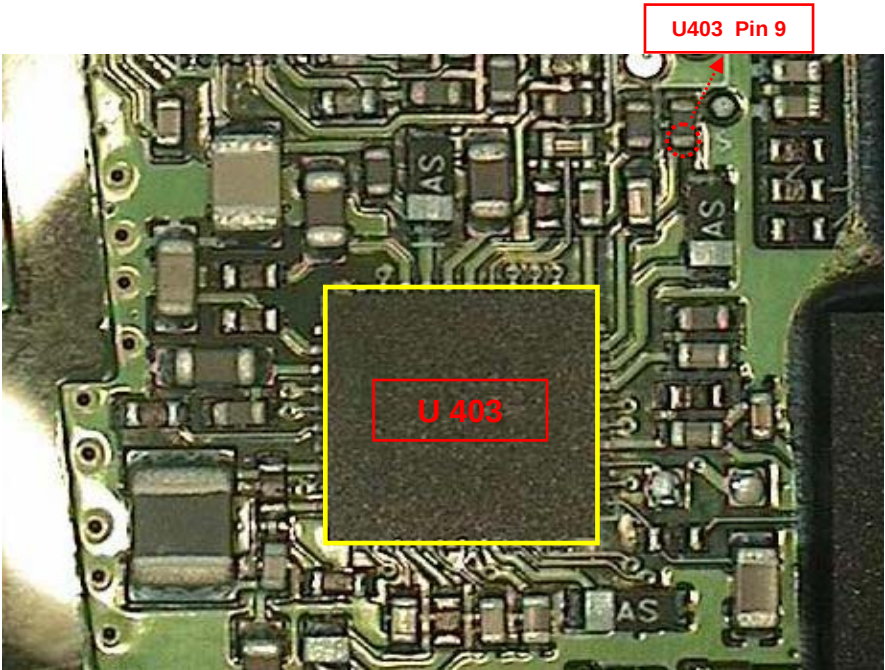
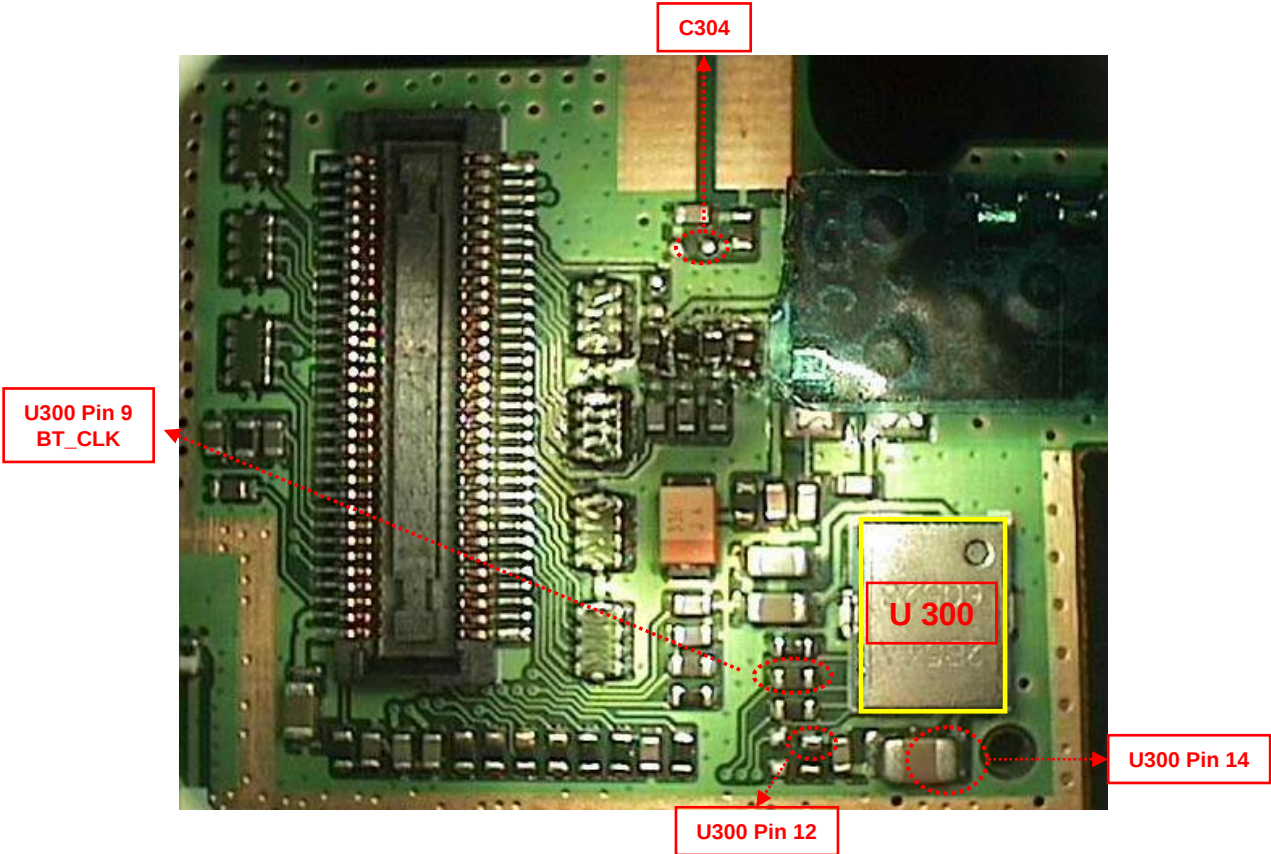
Checking Flow



4.4 Bluetooth Part Trouble

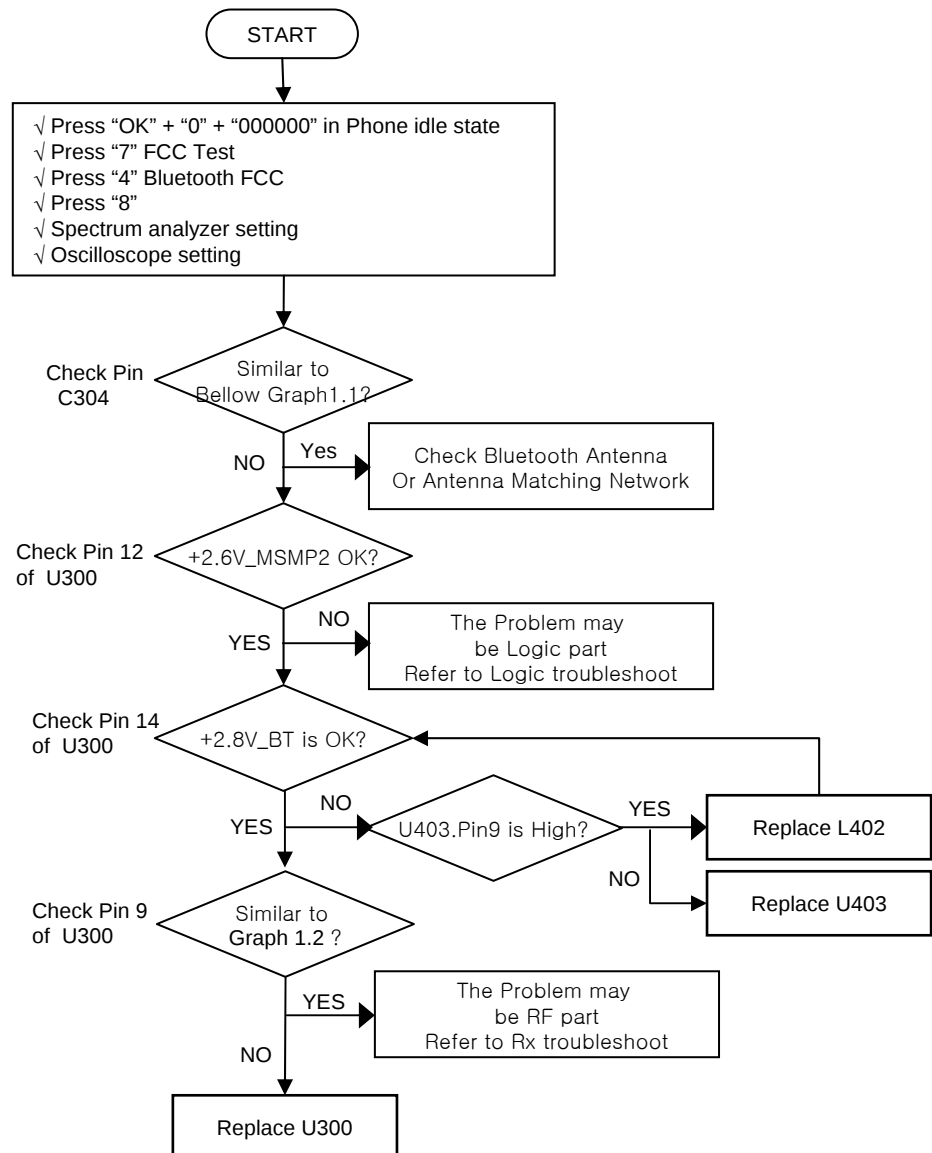
4.4.2 Bluetooth Block

Test Point



4.4.3 Checking Bluetooth In/Out and Power supply Circuit

Checking Flow



Graph 1.1



Graph 1.2

