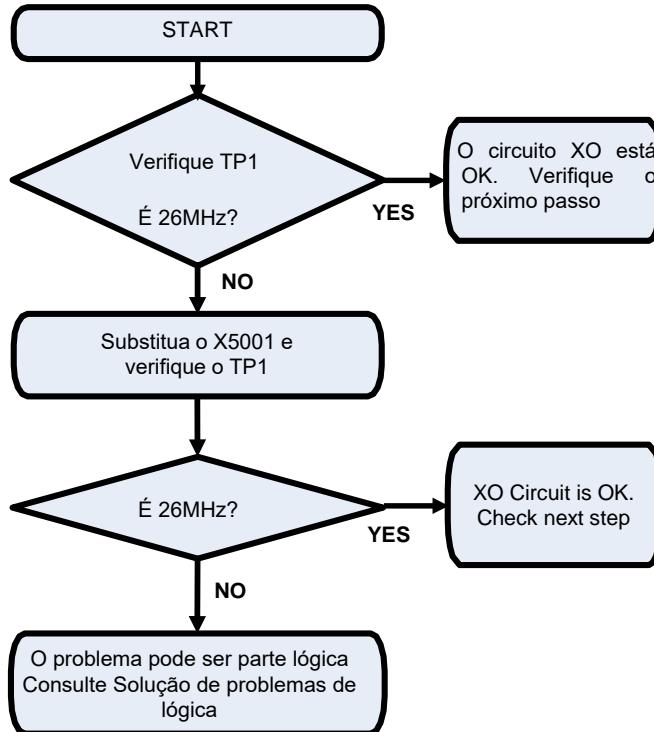


3.1 Checking XO Block / cristal oscilador

A frequência de saída (26 MHz) do VTCXO (X5001) é usada como referência do MT6169

Verificando o fluxo



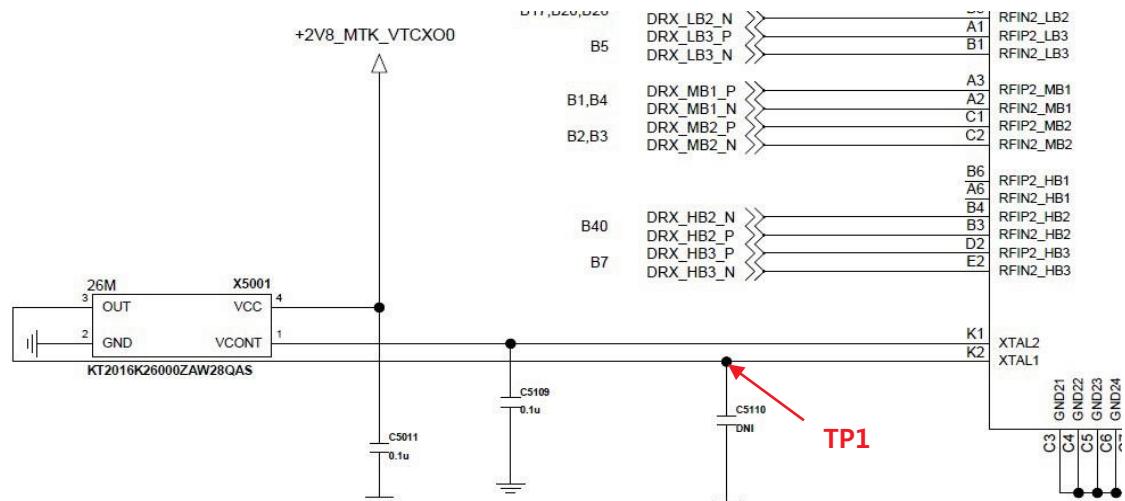
Image

Main
Top



TP1

Diagrama de circuito



3. TROUBLE SHOOTING

3.2 Verificando o Bloco de Circuito da Fonte de Alimentação DC do Transceptor

As tensões de operação do MT6169 usaram duas fontes de tensão 1,8V e 2,8V

Verificando o fluxo

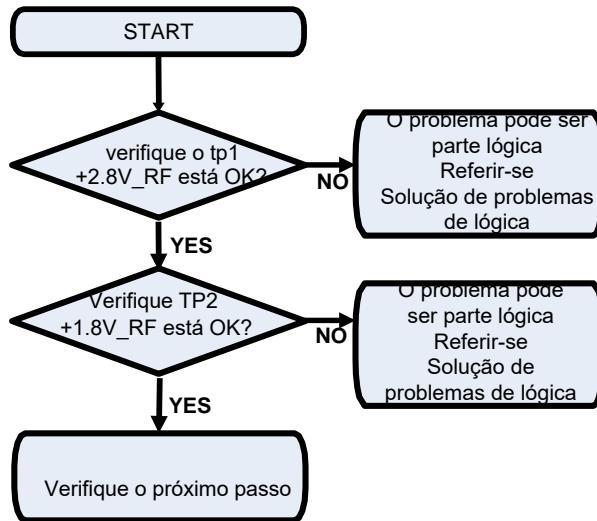
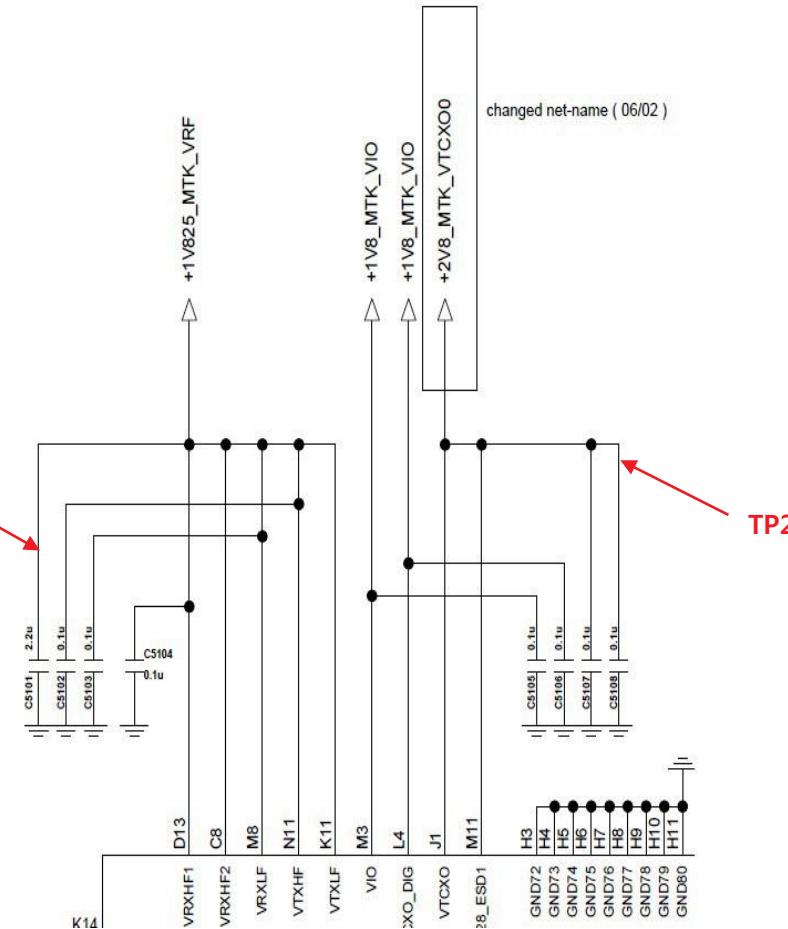
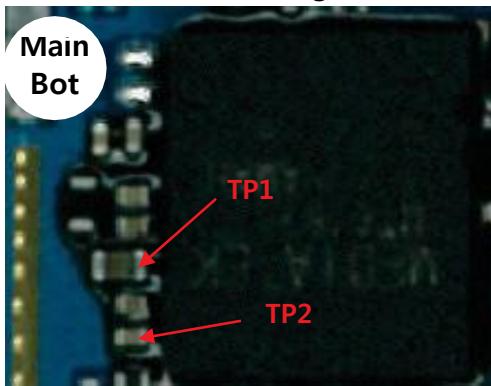


Diagrama de circuito



Imagen



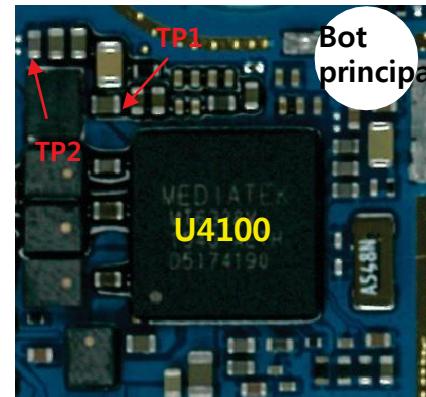
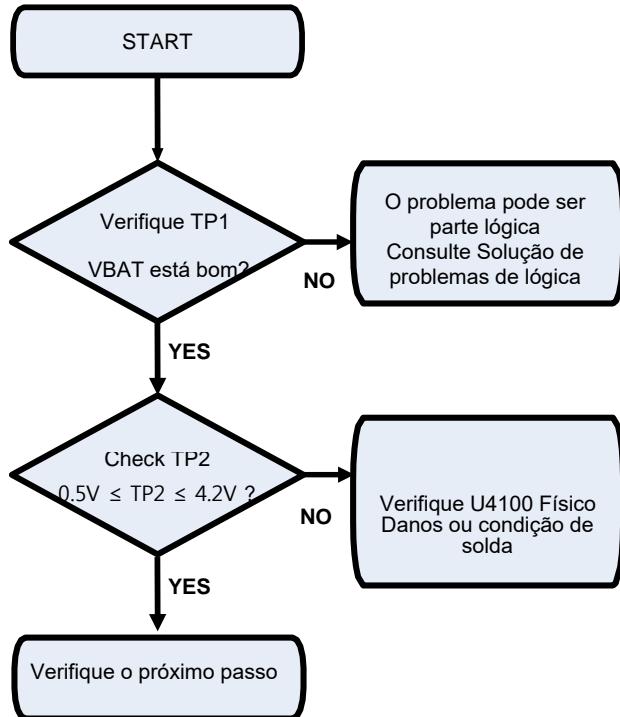
digital board

3. TROUBLE SHOOTING

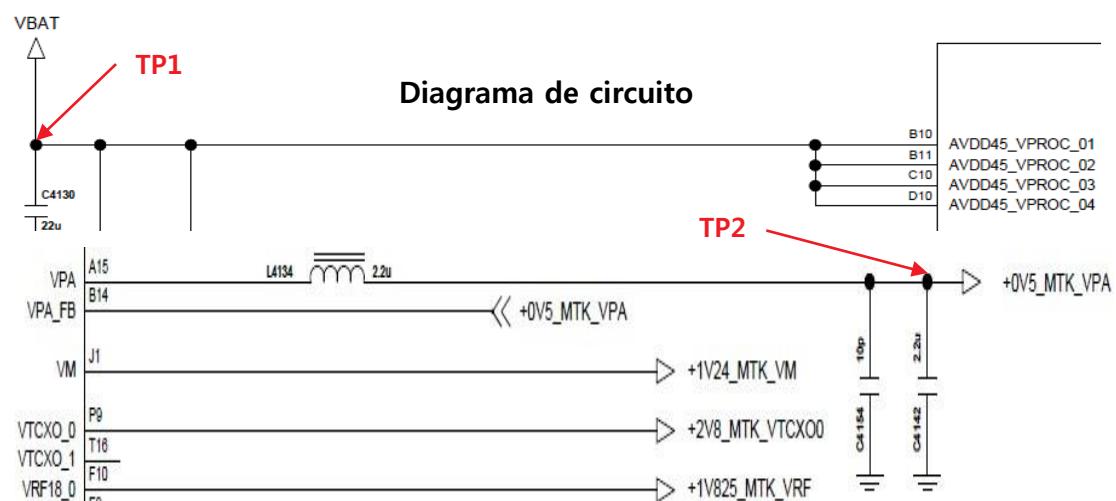
Verificando o Bloco DC-DC

As tensões de saída DC-DC (MT6328, U4100) são usadas como referência de SKY77643-31

Verificando o fluxo



Image

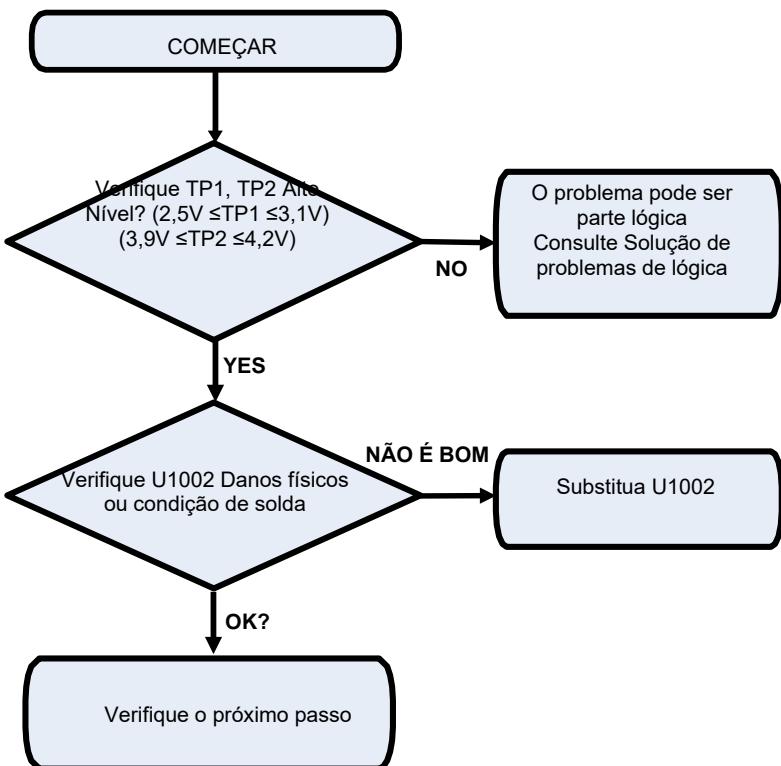


3. TROUBLE SHOOTING

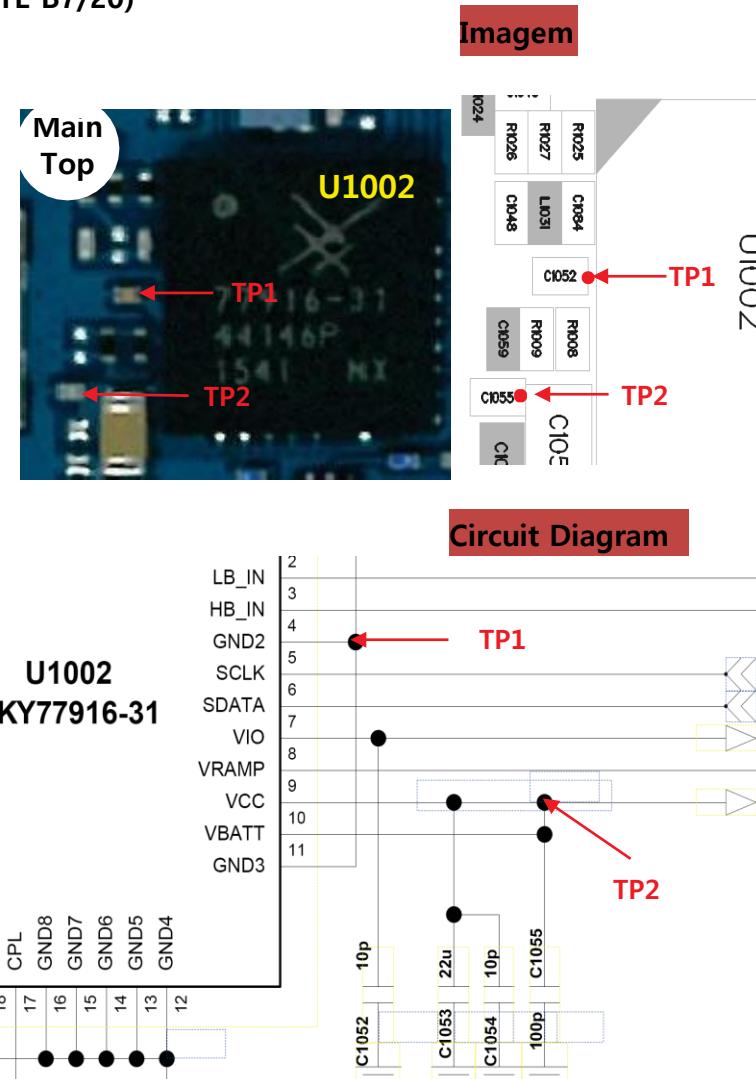
3.4 Bloco ASM (módulo de comutação de antena)

3.4.1 Verificando ANT #1 ASM (GSM 850/900, W B5/8, LTE B7/20)

Verificando o fluxo



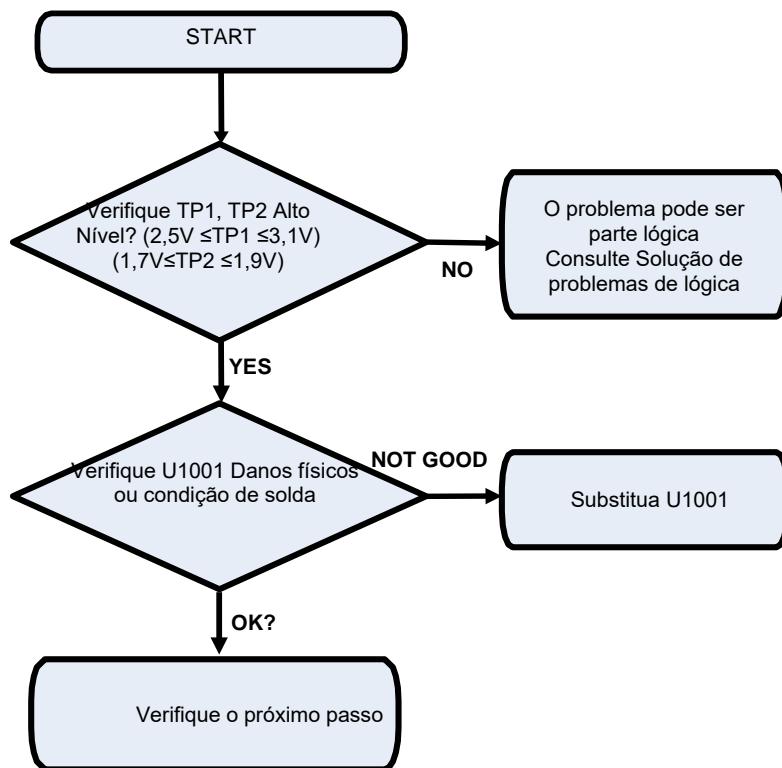
digital board



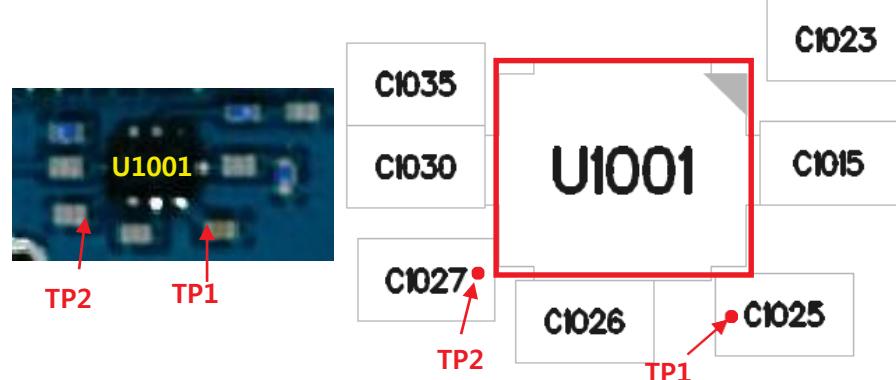
3.4 Bloco ASM (módulo de comutação de antena)

3.4.2 Verificando ANT #2 ASM (GSM 1800/1900, W B1 B2, LTE B3)

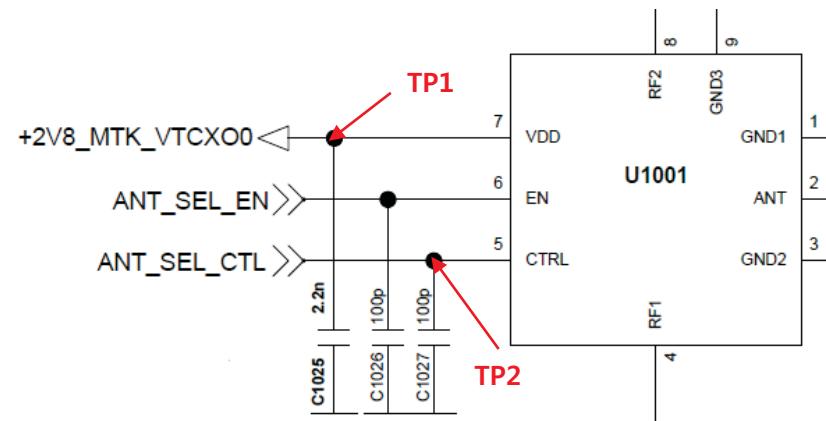
Verificando o fluxo



Imagen



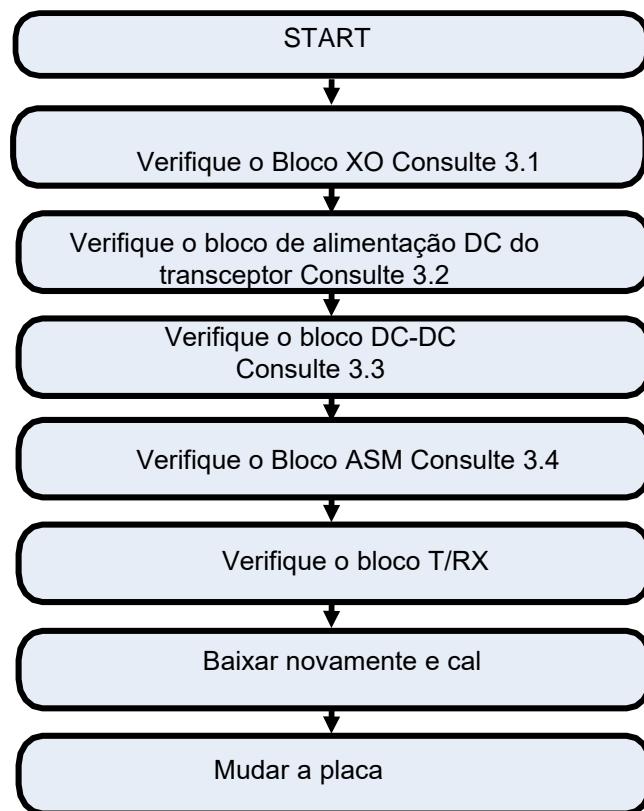
Circuit Diagram



3.5 GSM RF PART

GSM RF Part suporta GSM850/900/1800/1900 com ASM, PAM, componente transceptor

Verificando o fluxo



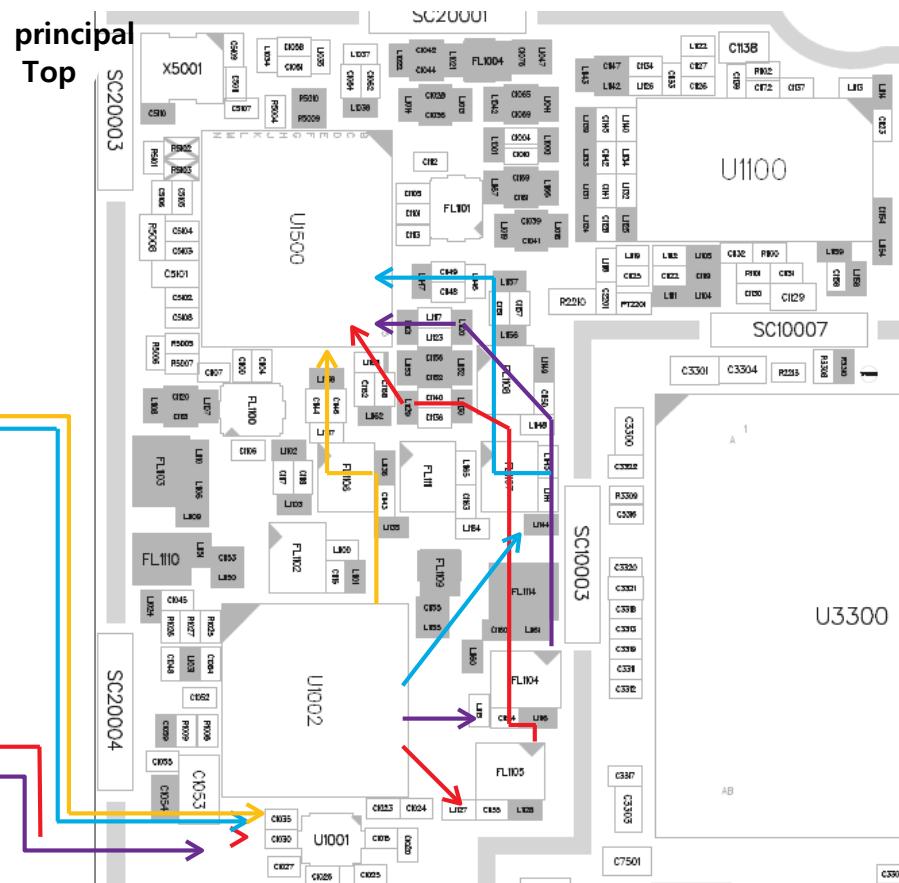
3. TROUBLE SHOOTING

3.5 PARTE DE RF GSM

3.5.1 GSM RF Parte RX RF PATH

1. **GSM850 RX PATH**
 2. **GSM900 RX PATH**
 3. **GSM1800 RX PATH**
 4. **GSM1900 RX PATH**

imagem



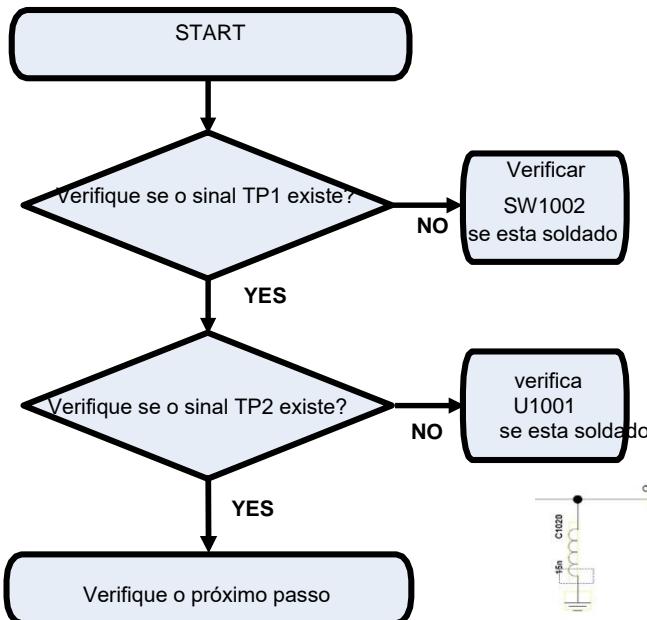
digital board

3. TROUBLE SHOOTING

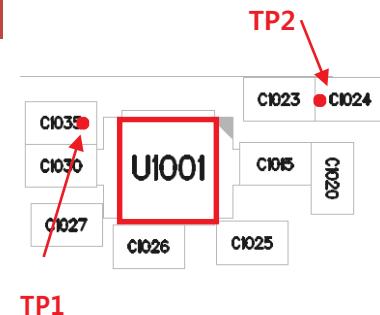
3.5 PARTE DE RF GSM

3.5.2 Verificando o caminho RX do sinal de RF (SW, GSM850/900)

Verificando o fluxo

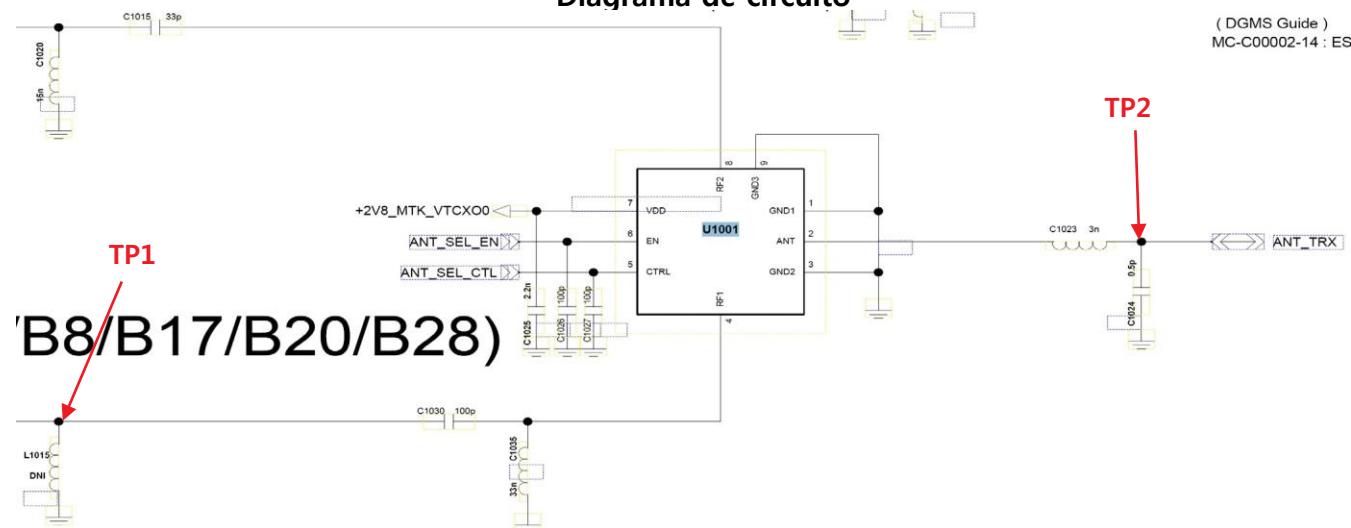


Image



TP1

Diagrama de circuito



TP1

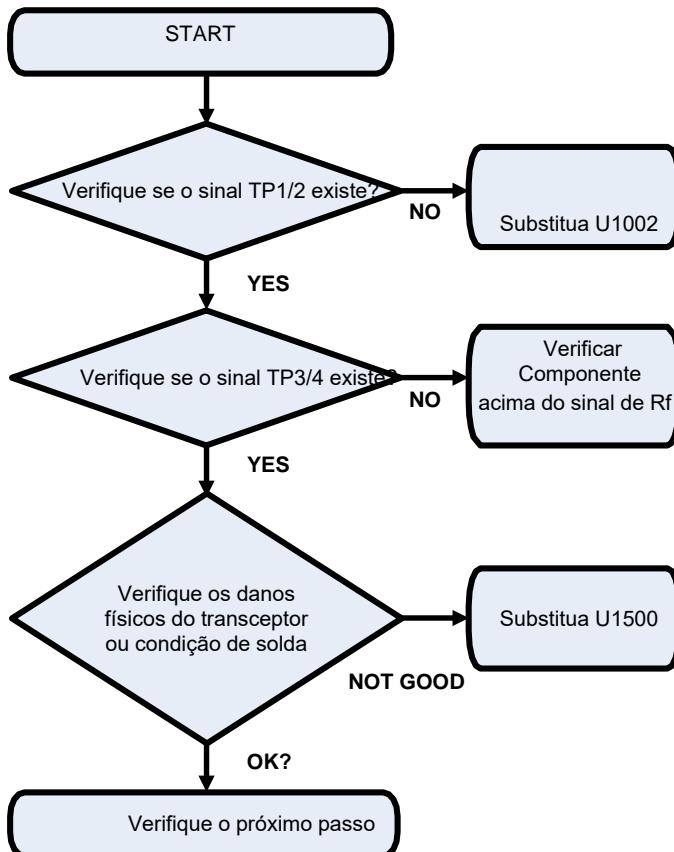
'B8/B17/B20/B28)

3. TROUBLE SHOOTING

3.5 PARTE DE RF GSM

3.5.3 Verificando o caminho RX do Sinal RF (GSM850/900)

Verificando o fluxo



digital board

Image

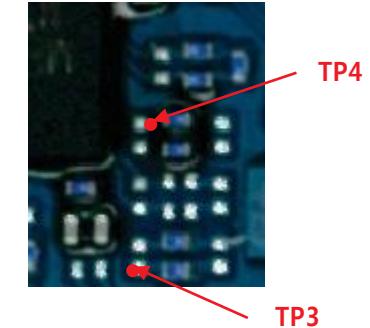
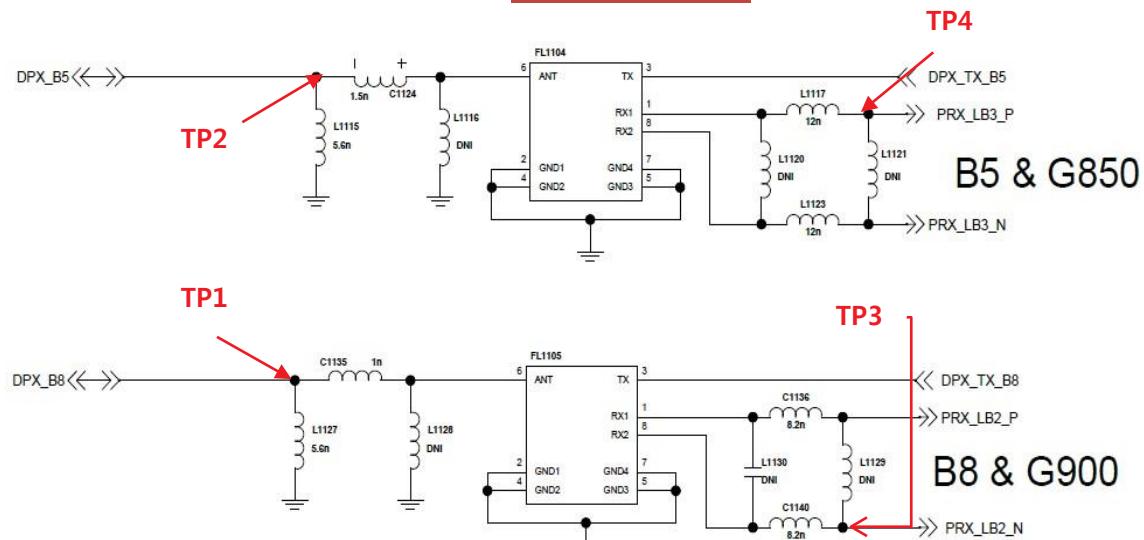


Diagrama de circuito

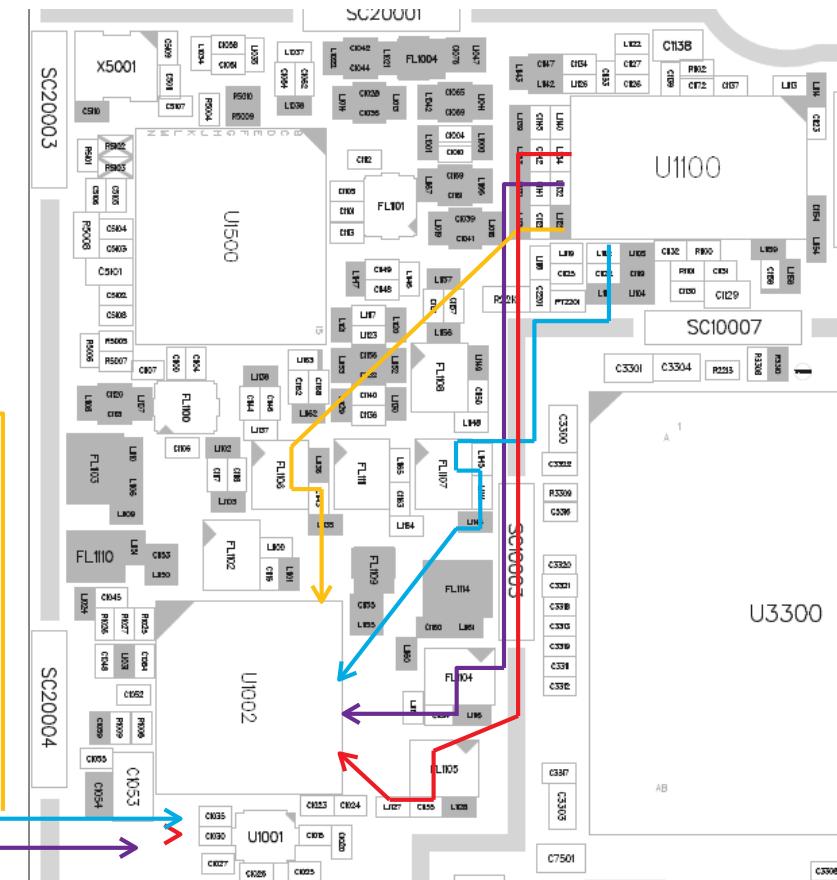


3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.6 GSM RF Part TX RF PATH

1. **GSM850 TX PATH**
2. **GSM900 TX PATH**
3. **GSM1800 TX PATH**
4. **GSM1900 TX PATH**



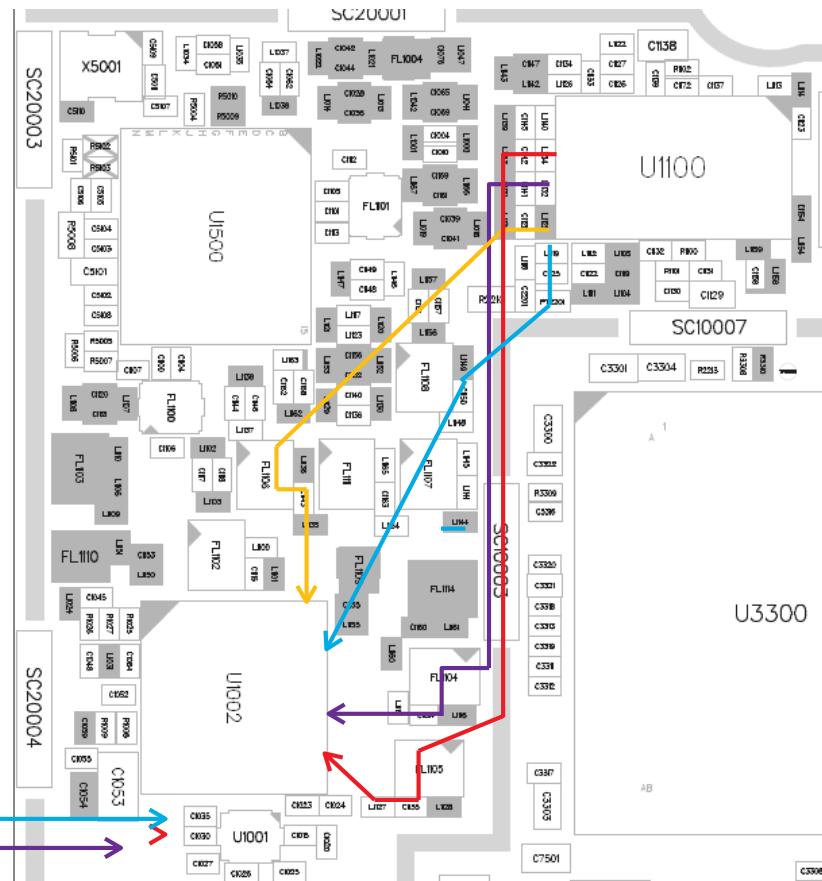
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.5 WCDMA RF Part TX RF PATH

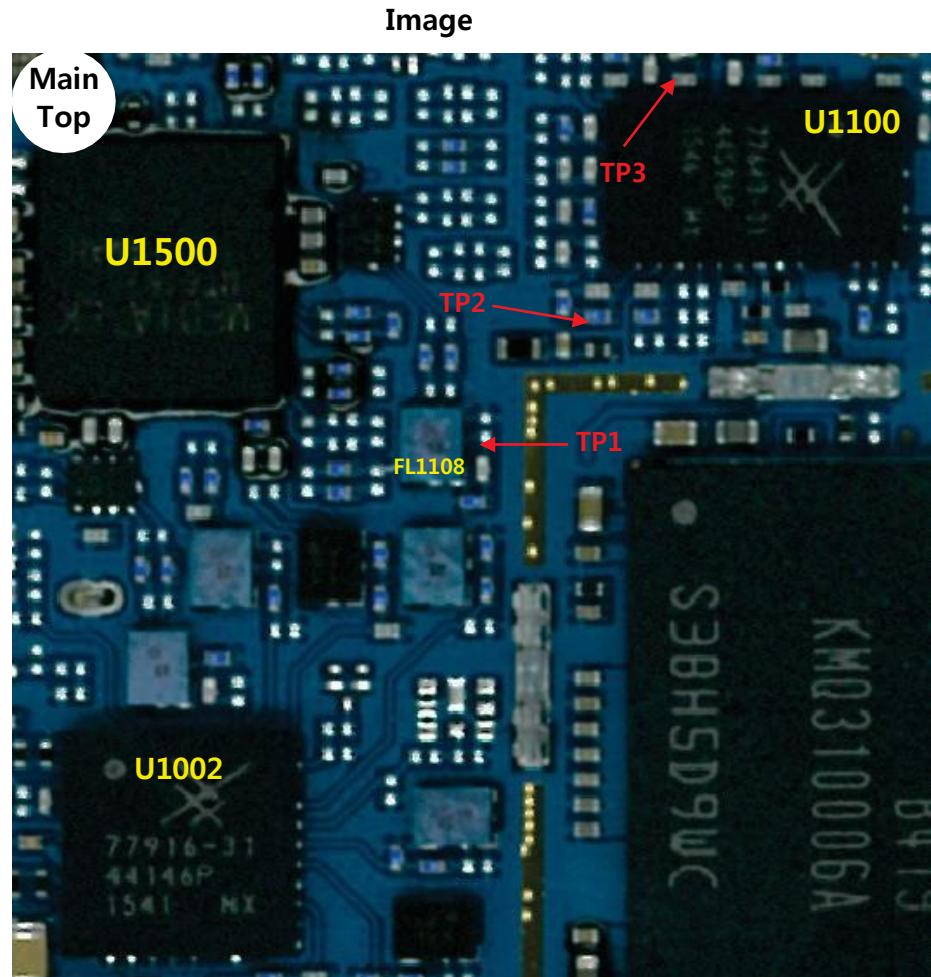
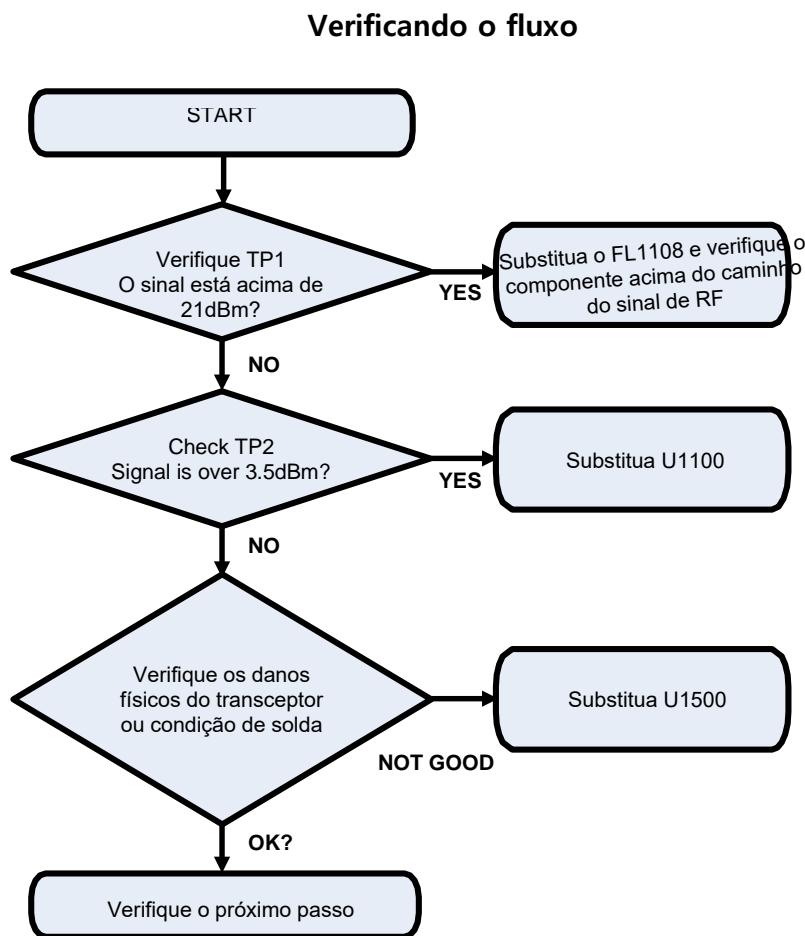
Image

- 1. WCDMA B5 TX PATH
- 2. WCDMA B8 TX PATH
- 3. WCDMA B1 TX PATH
- 4. WCDMA B2 TX PATH



3.6 PARTE RF WCDMA

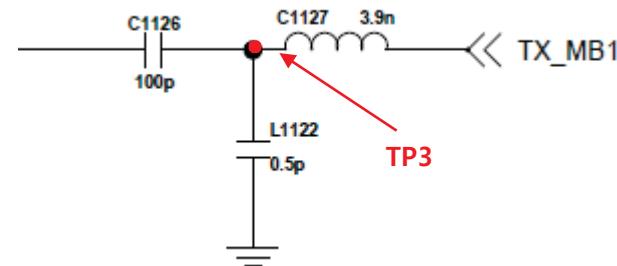
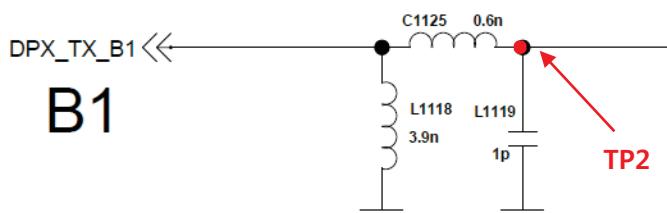
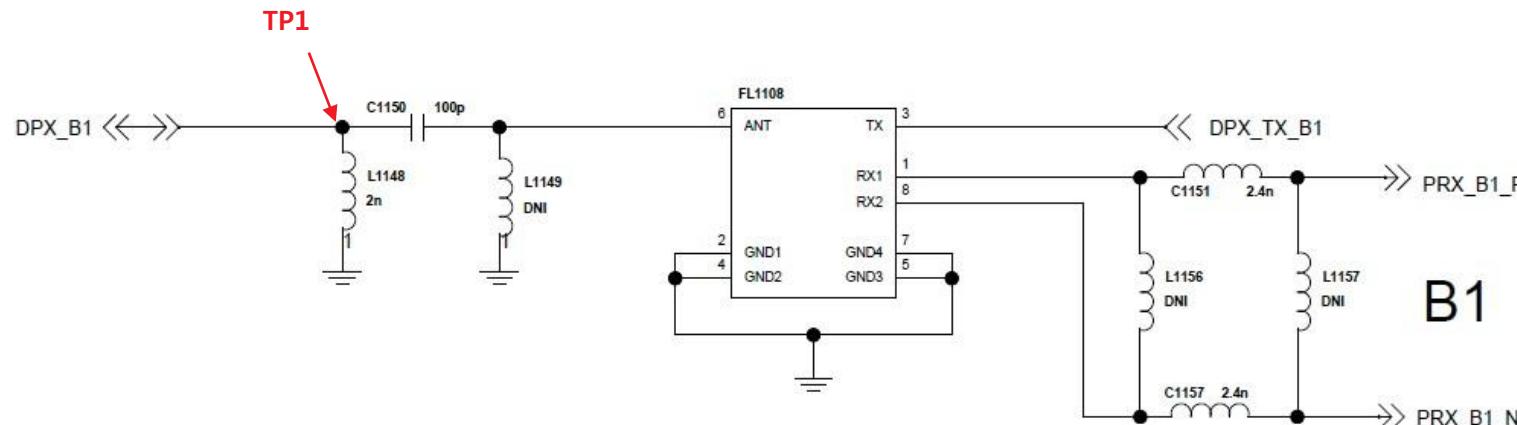
3.6.7 Verificando o caminho TX do sinal de RF (WCDMA B1)



3.6 PARTE RF WCDMA

3.6.8 Verificando o caminho TX do sinal de RF (WCDMA B1)

Diagrama de circuito



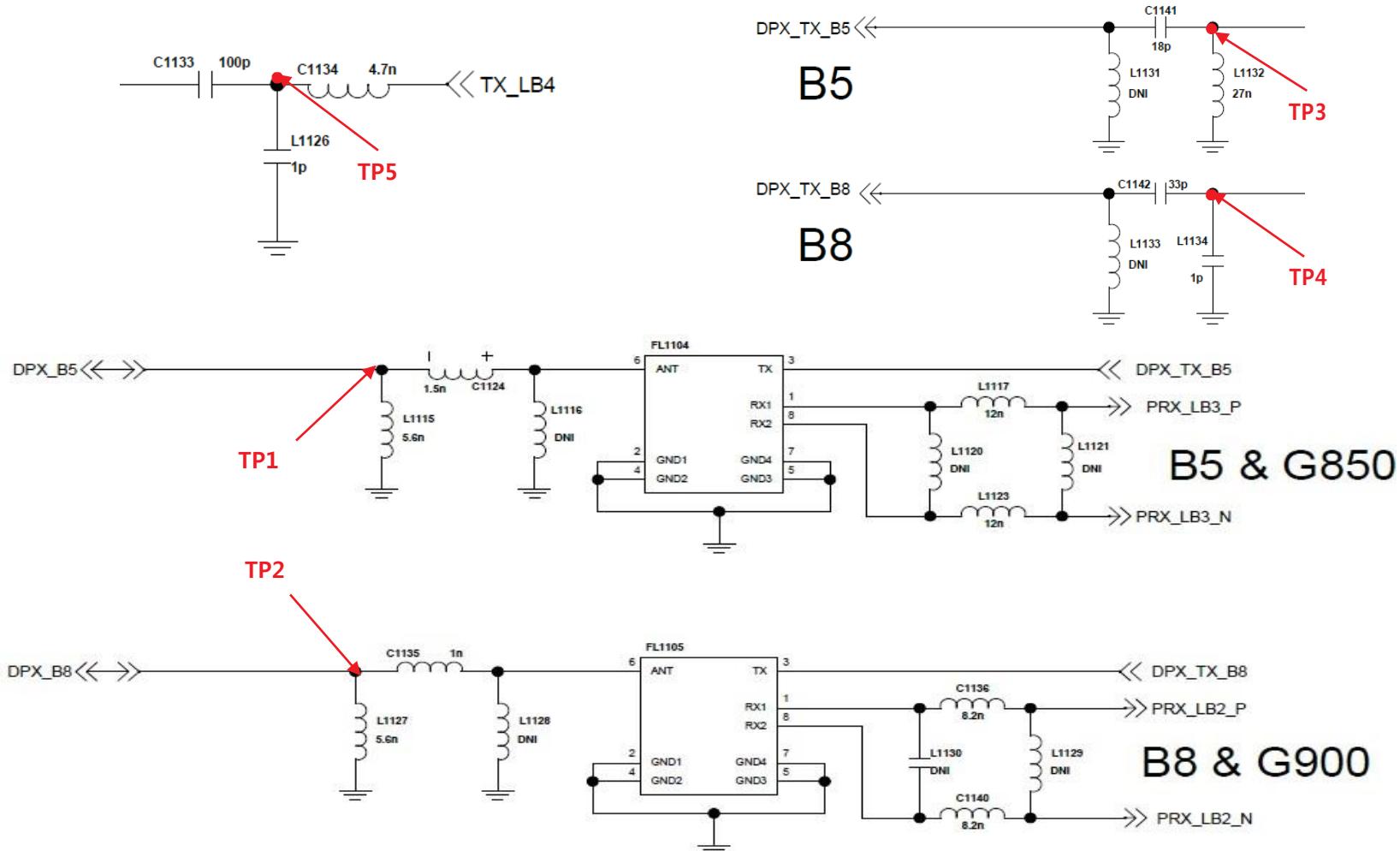
3. TROUBLE SHOOTING

3.6 PARTE RF WCDMA

3.6.11 Verificando o caminho TX do sinal de RF (WCDMA)

B5/8)

Diagrama de circuito



3. TROUBLE SHOOTING

3.7 LTE RF PART

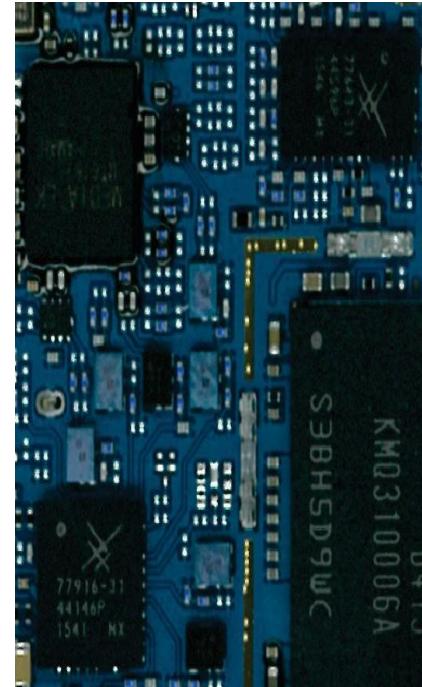
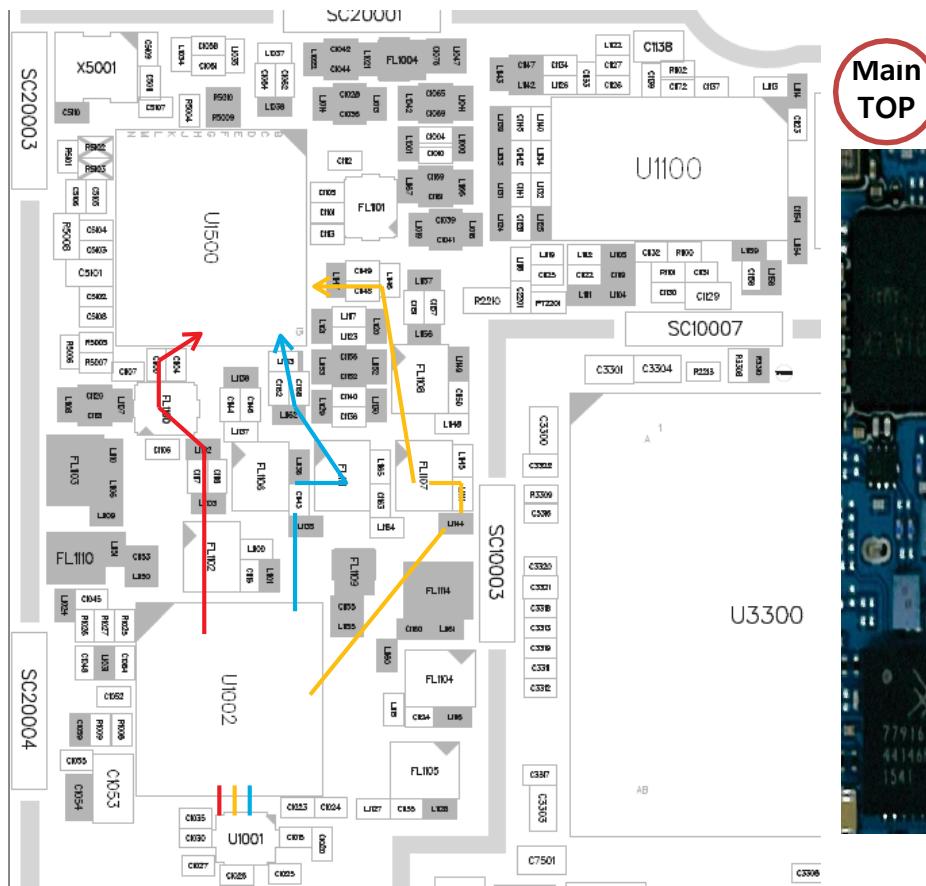
3.7.1 LTE RF Parte RX RF PATH

1. LTE B3 RX PATH
 2. LTE B7 RX PATH
 3. LTE B20 RX PATH



DIGITAL BOARD

Image



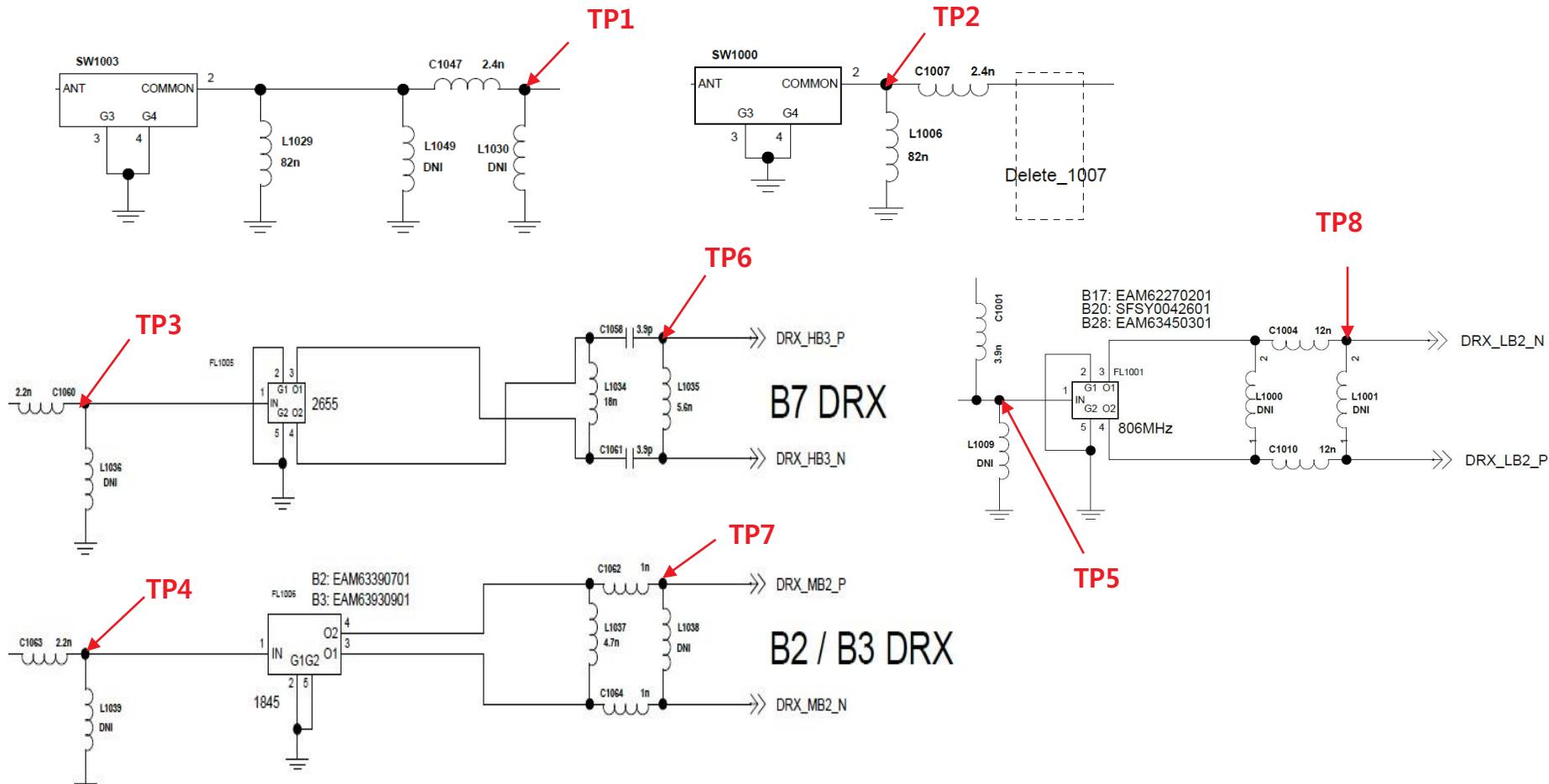
42

3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.8 Verificando o caminho DRX do Sinal RF (LTEB3/B7/B20)

Diagrama de circuito

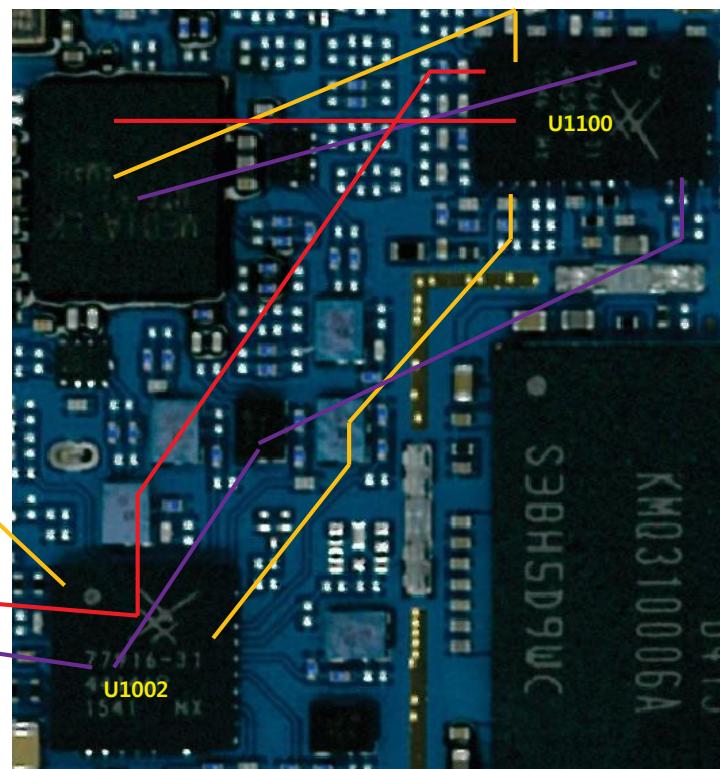
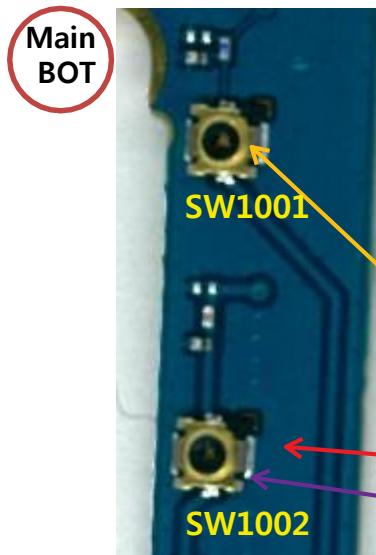


3.7 PEÇA LTE RF

3.7.9 LTE RF Parte TX RF PATH

Image

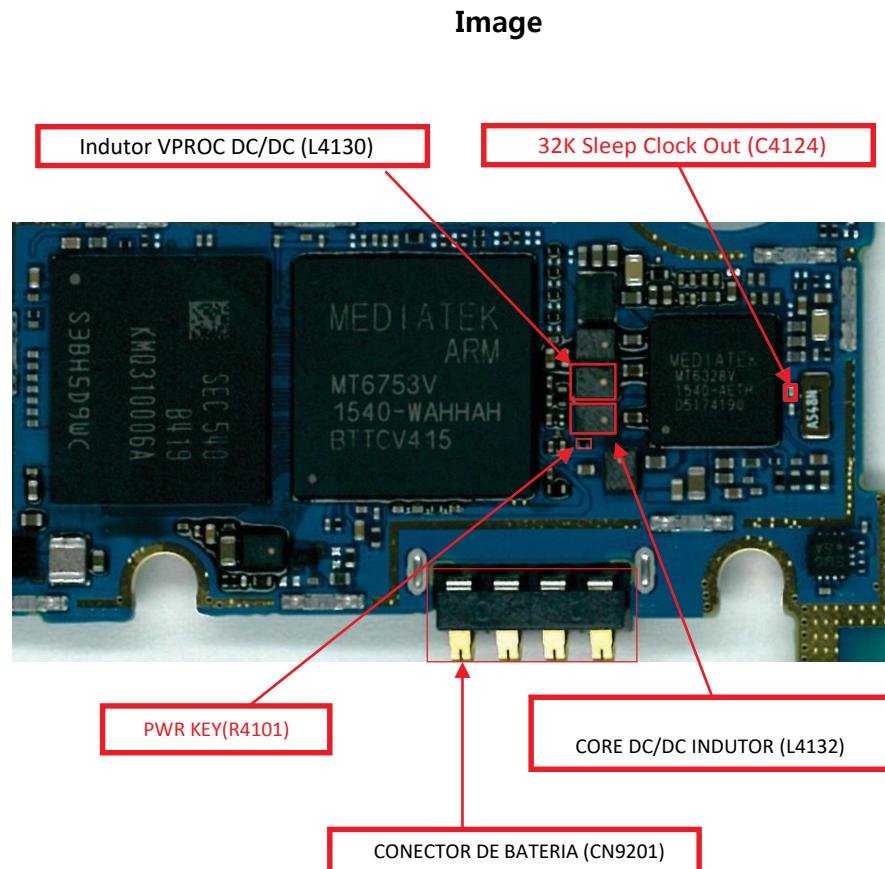
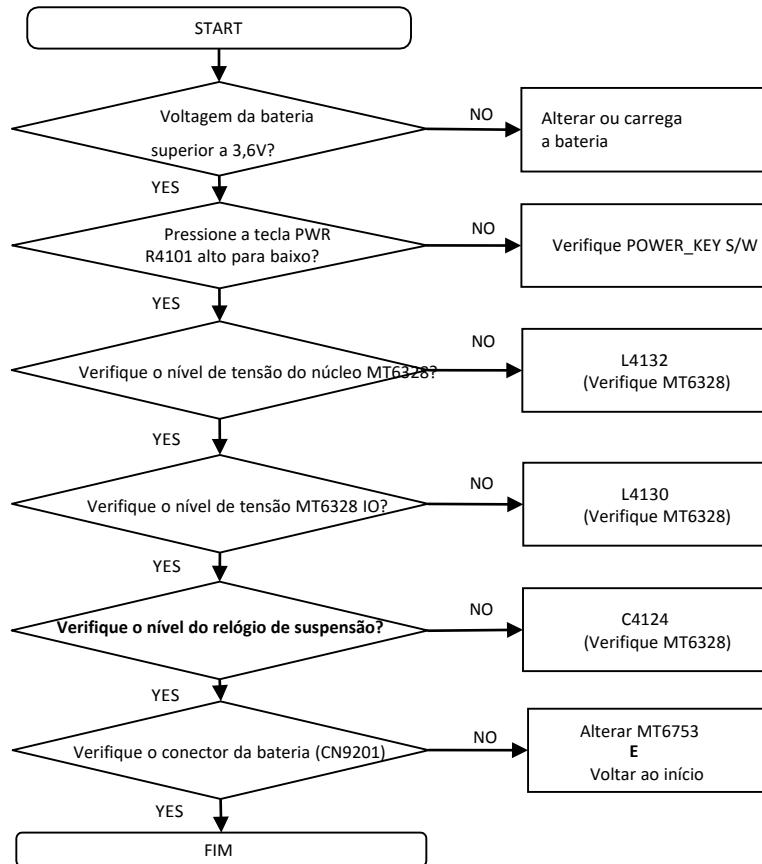
1. **LTE B3 TX PATH**
2. **LTE B7 TX PATH**
3. **LTE B28 TX PATH**



3.8 Power

Verificação do sinal de alimentação (conector de bateria, chave de alimentação, regulador PMIC)

Verificando o fluxo

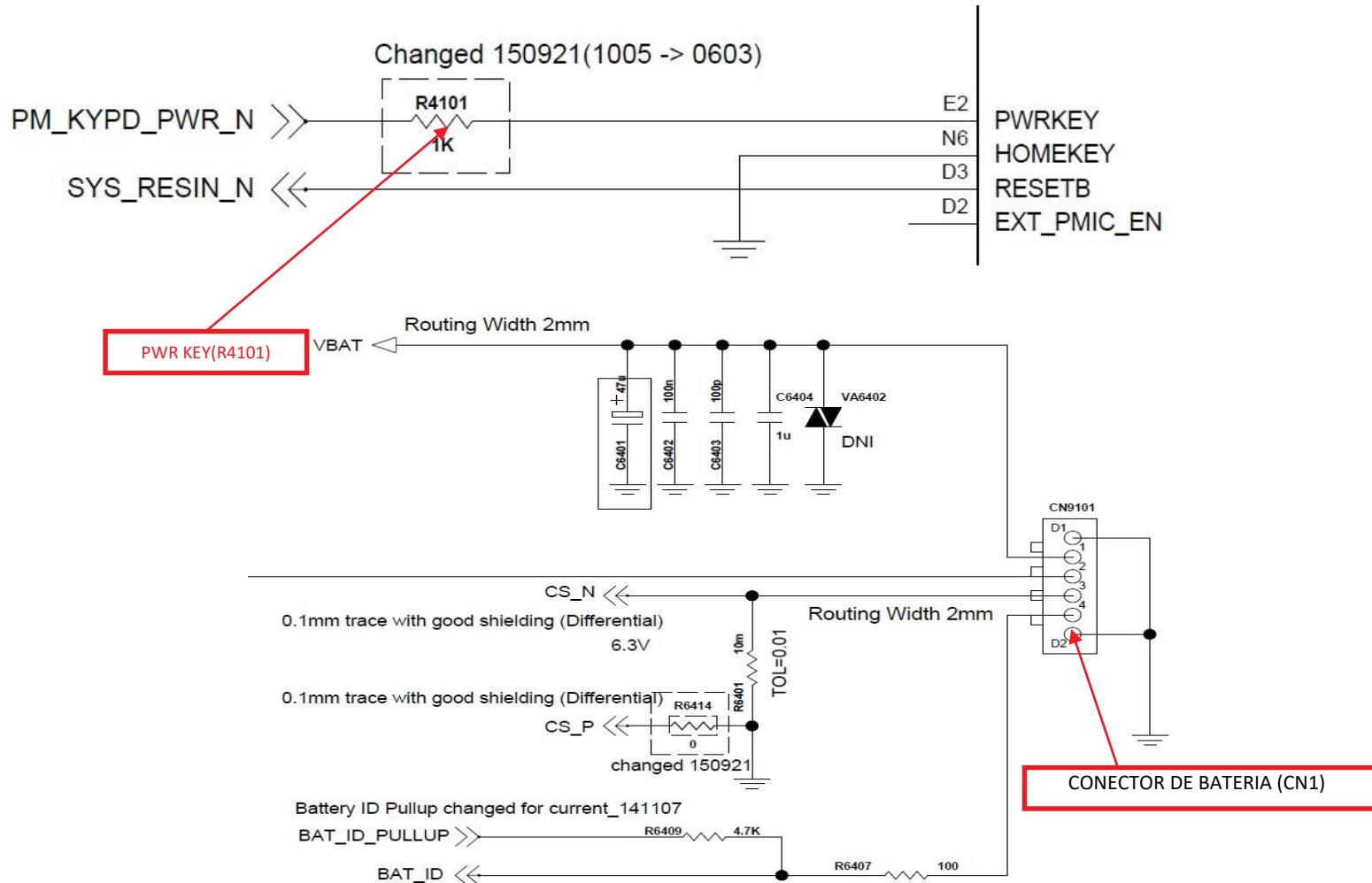


3. TROUBLE SHOOTING

3.8 Potência

Verificação do sinal de alimentação (conector de bateria, chave de alimentação, regulador PMIC)

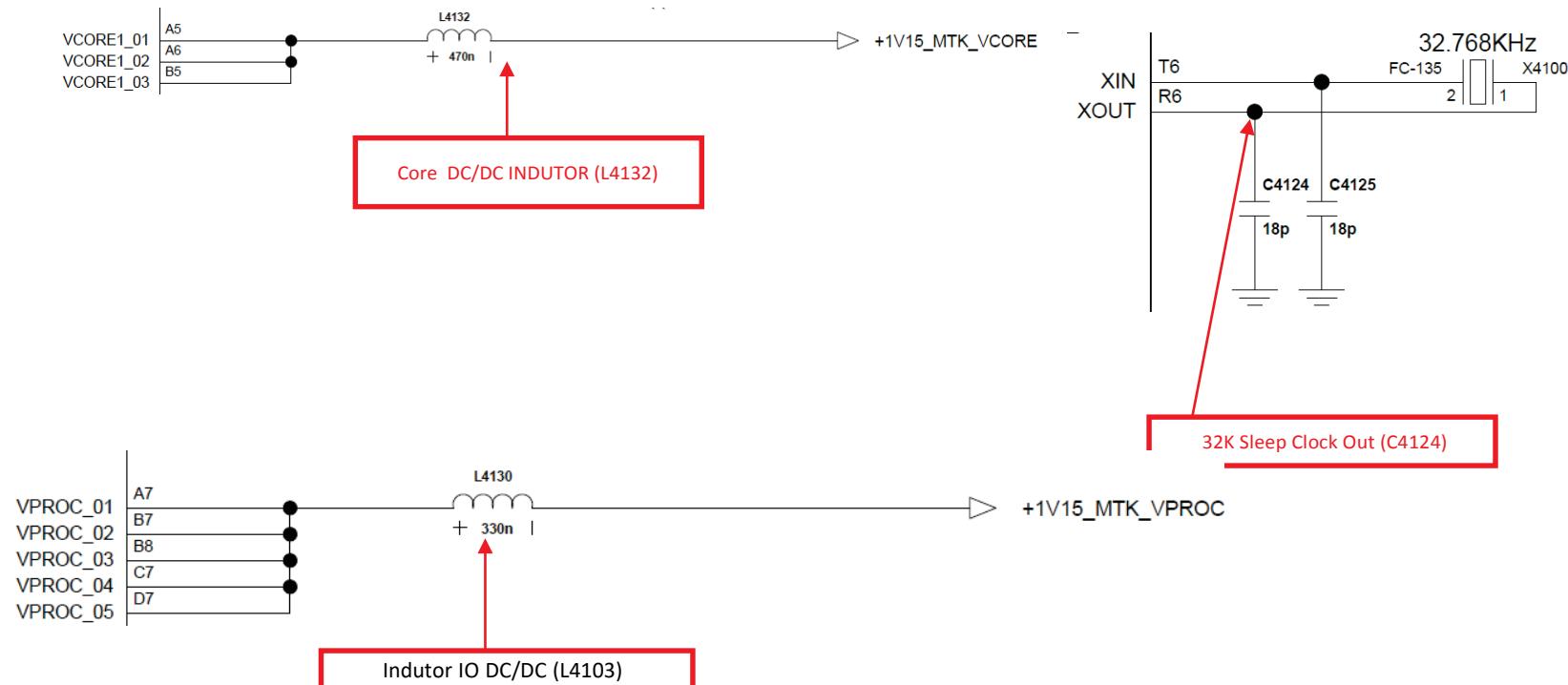
Diagrama de circuito



3.8 Power

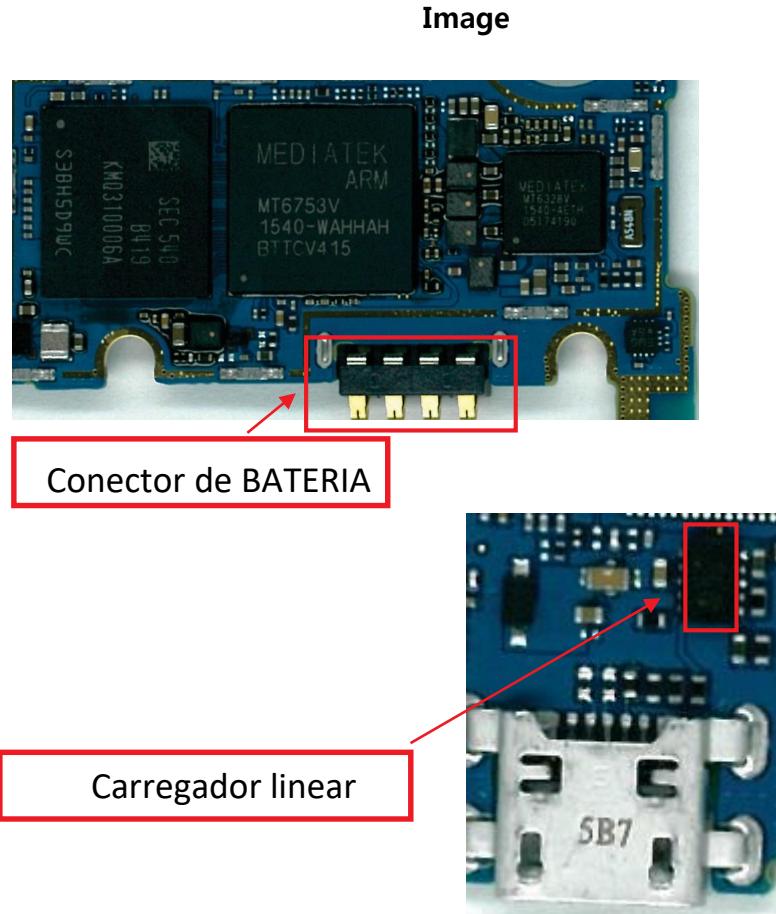
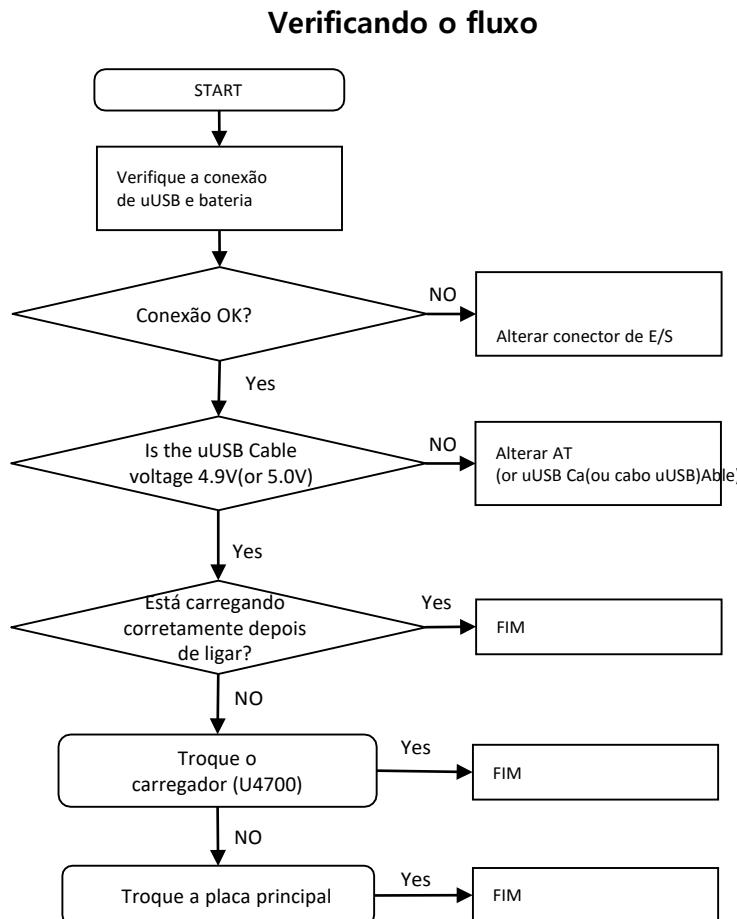
Verificação do sinal de alimentação (conector de bateria, chave de alimentação, regulador PMIC)

Diagrama de circuito



3.9 Charger

O conector de E/S e a tensão do cabo uUSB (5,0V) são usados como referência do PMIC para carregamento.

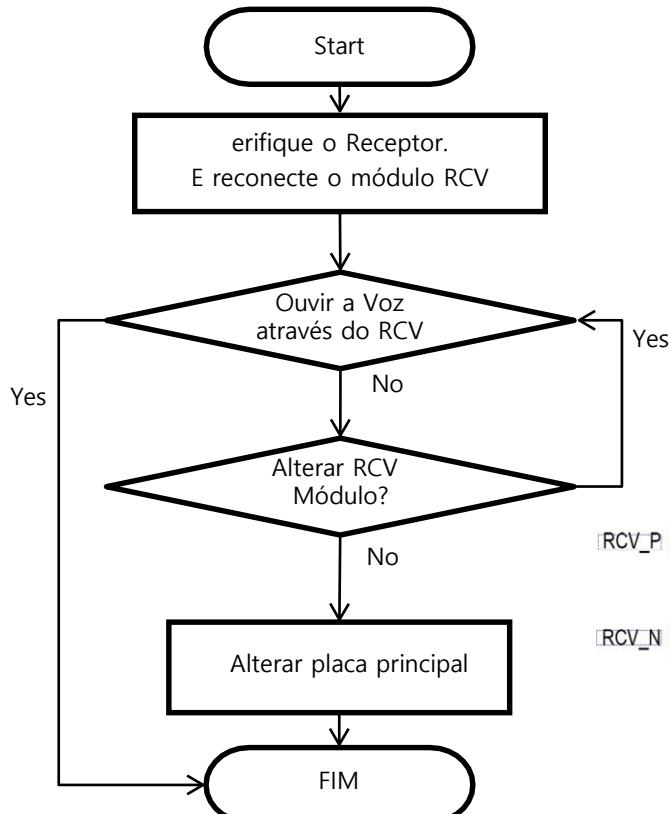


3. TROUBLE SHOOTING

3.10 Bloco de Áudio (3.10.1 Receptor de Áudio)

Os sinais de controle do receptor são gerados pelo MT6328(U4100), o chip MT6328 e o receptor devem ser verificados.

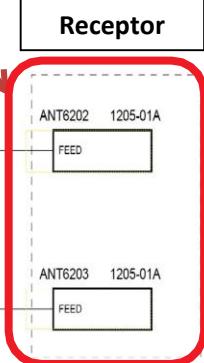
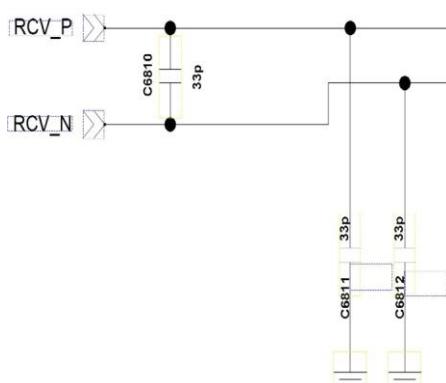
Verificando o fluxo



Image



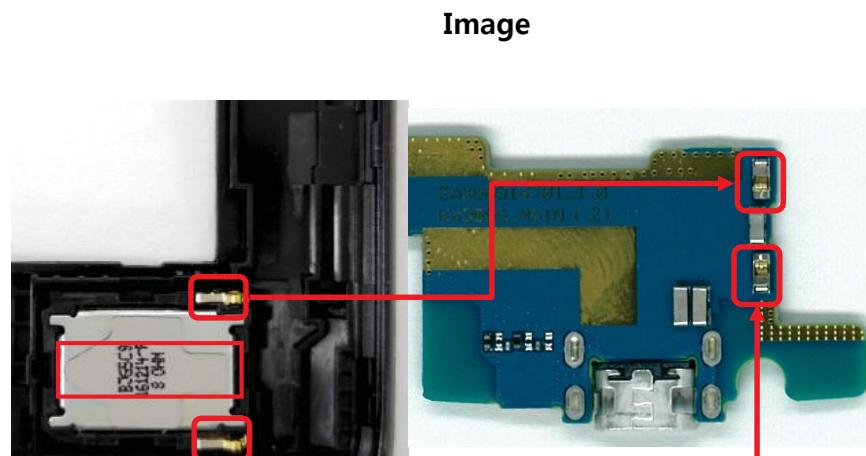
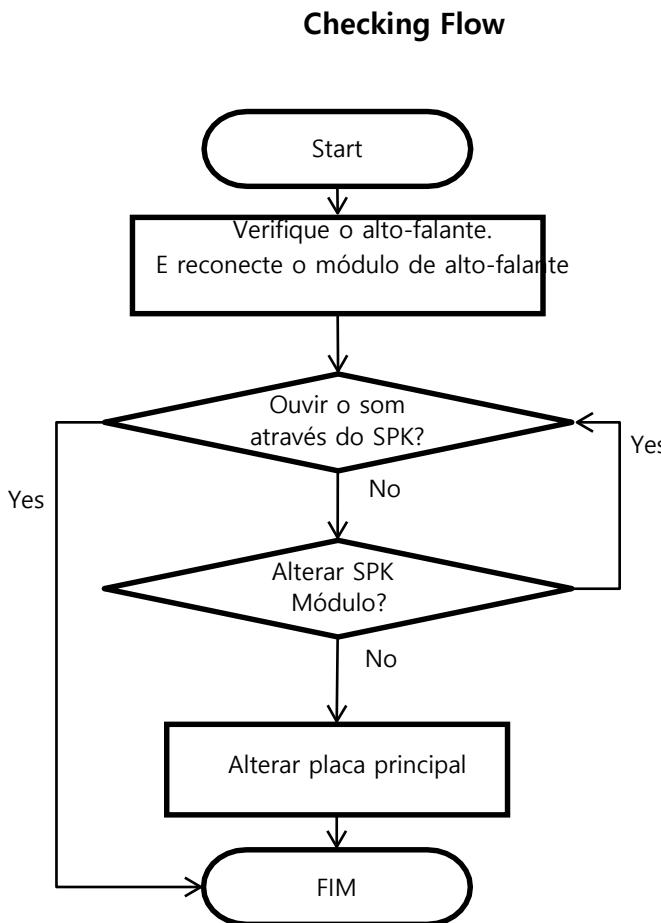
Diagrama de circuito



(DGMS Guide)
MC-C04773-8 : For ESD Protection / Tuning points

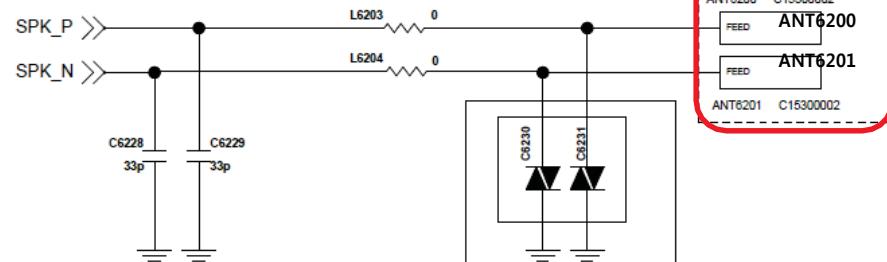
3.10.1 Alto-falante_audio

Os sinais de controle do alto-falante são gerados pelo MT6328(U4100), o chip MT6328 e o alto-falante devem ser verificados.



AUTO FALANTE

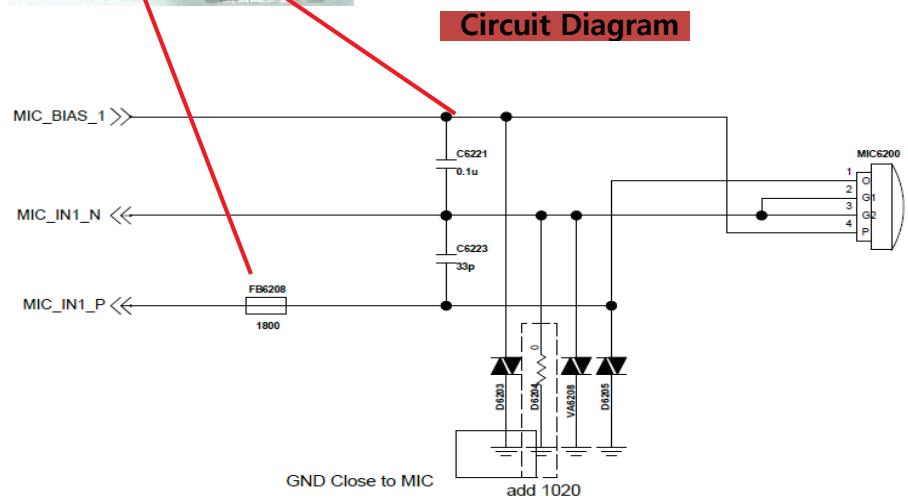
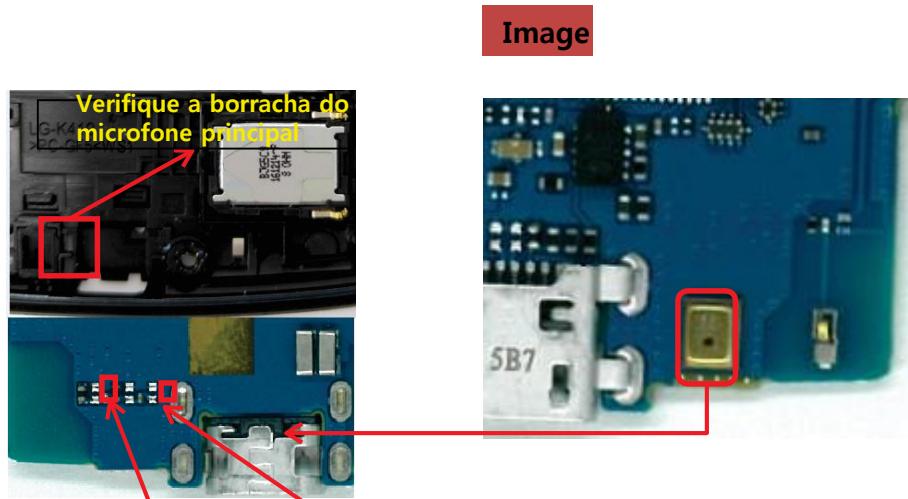
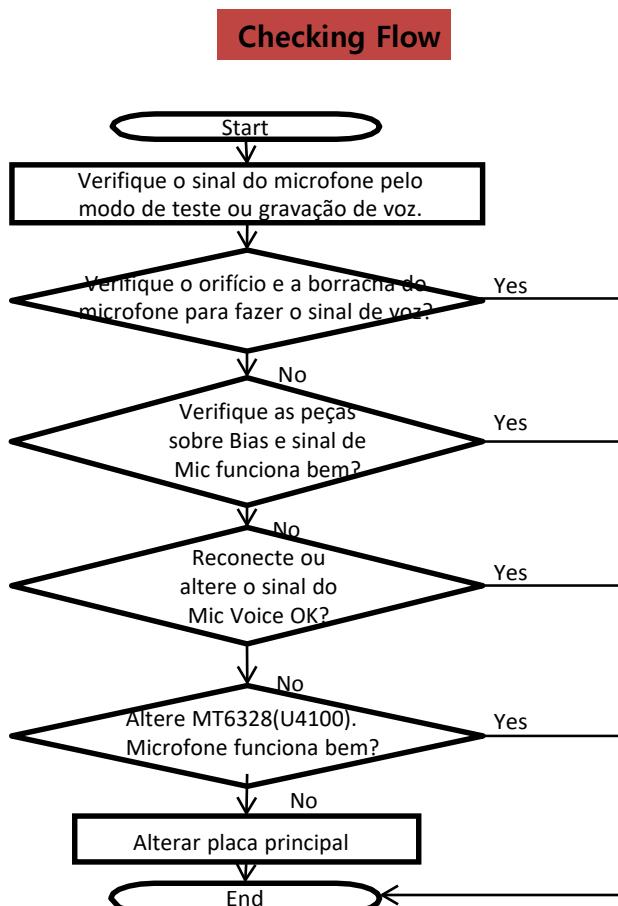
Diagrama de circuito



3. TROUBLE SHOOTING

3.10.2 Audio_Main MIC

Está operando chamada de voz (exceto viva-voz), gravação de voz, gravação de filmadora.

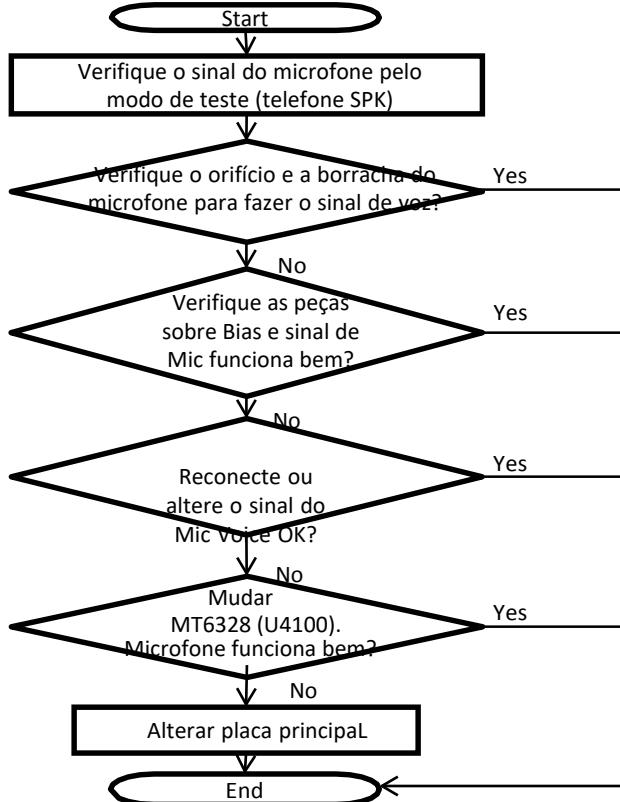


Verifique FB6208, nível de tensão VMIC (C6221)

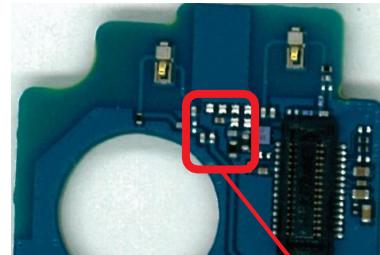
3.10.3 Áudio_sub MIC

Está operando a chamada do viva-voz.

Verificando o fluxo

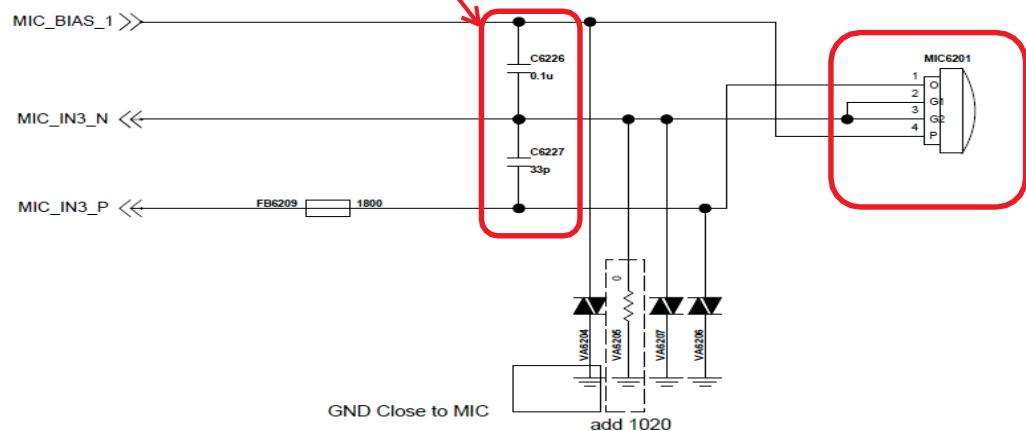


Image



Verifique a borracha do microfone SUB

Circuit Diagram



Verifique o nível de tensão do FB6209, , VMIC (C6226)

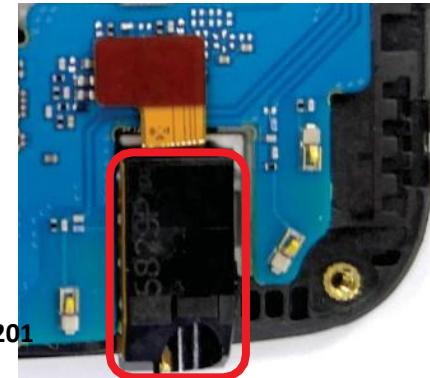
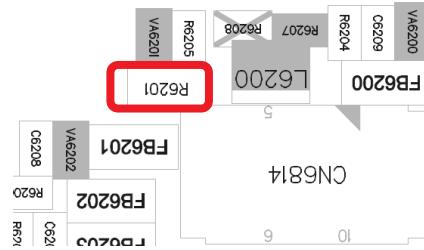
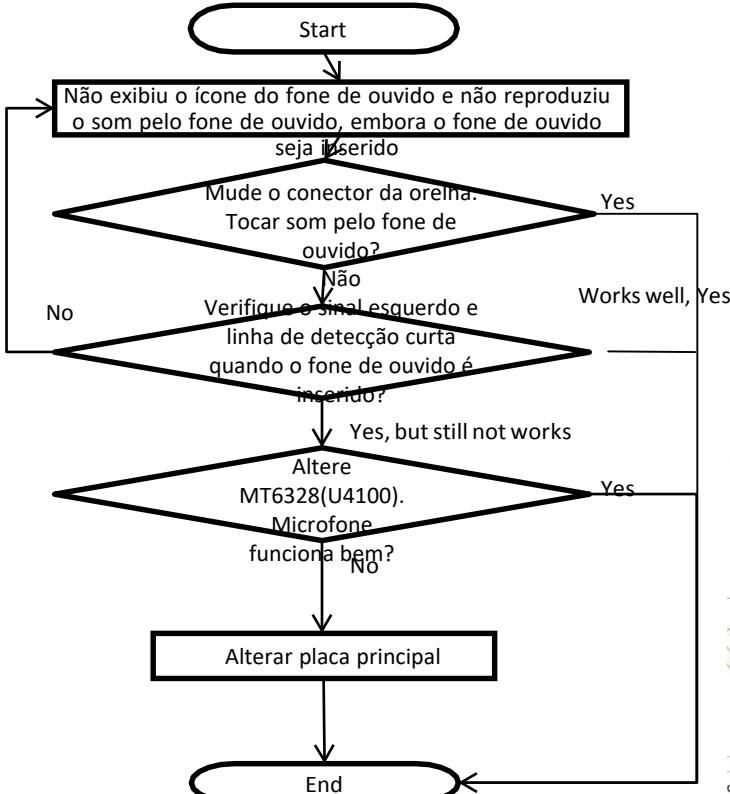
3. TROUBLE SHOOTING

3.10.4 Conector MIC Audio_Ear

Desative a detecção de inserção de fone de ouvido ou nenhum som do fone de ouvido, verifique o microfone de ouvido e o MT6328

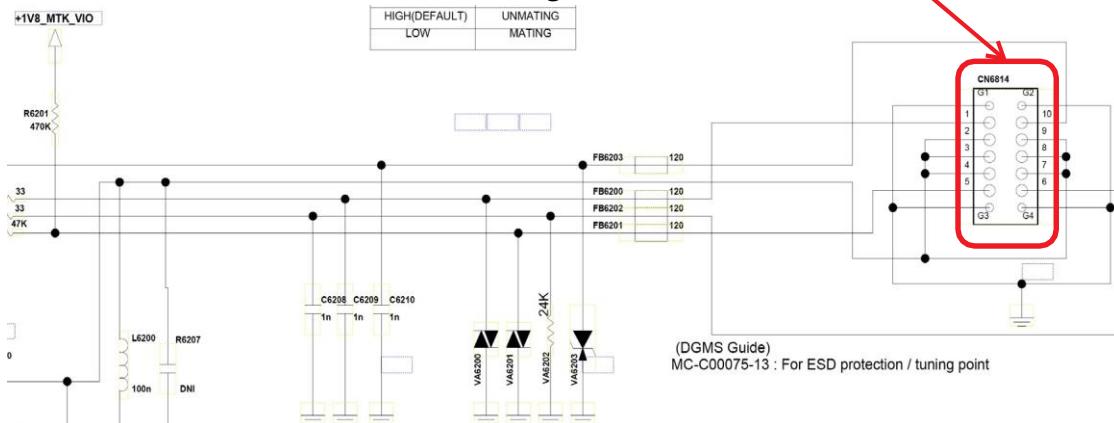
Image

Verificando o fluxo



Jack detectar
Verificação do nível de tensão em R6201
- 1,8 V (antes do Jack)
- baixo (depois de Jack)

Diagrama de circuito



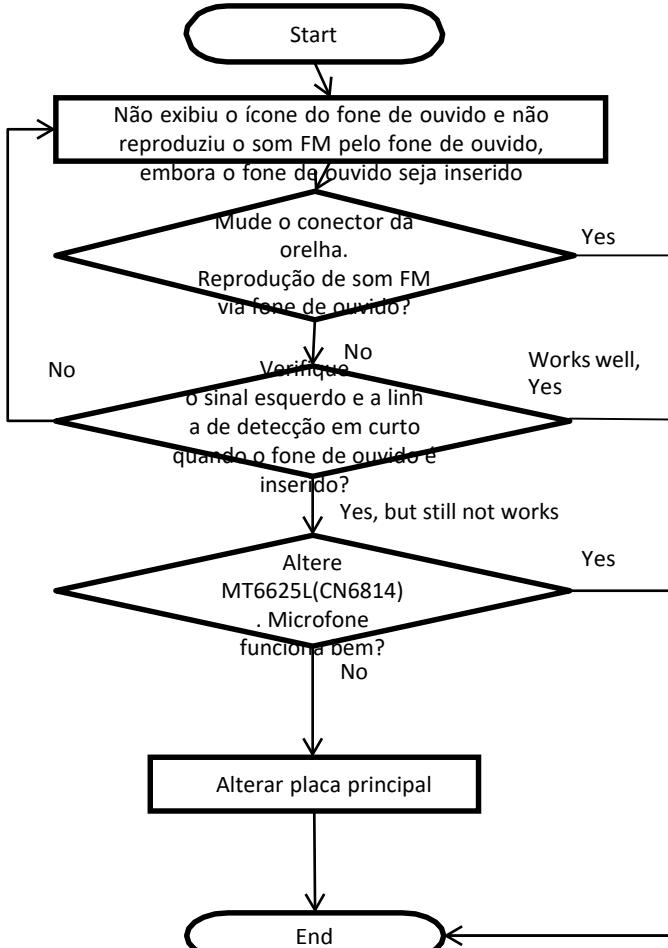
3. TROUBLE SHOOTING

3.10.5 FM_Rádio

Desative a detecção de inserção de fone de ouvido ou nenhum som FM do fone de ouvido, verifique o microfone de ouvido e

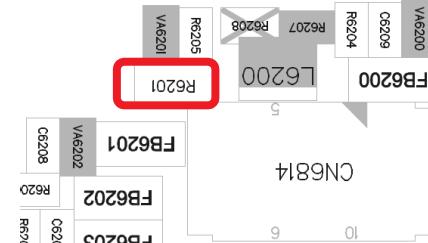
o MT6625L

Verificando o fluxo



DIGITAL BOARD

IMAGEM

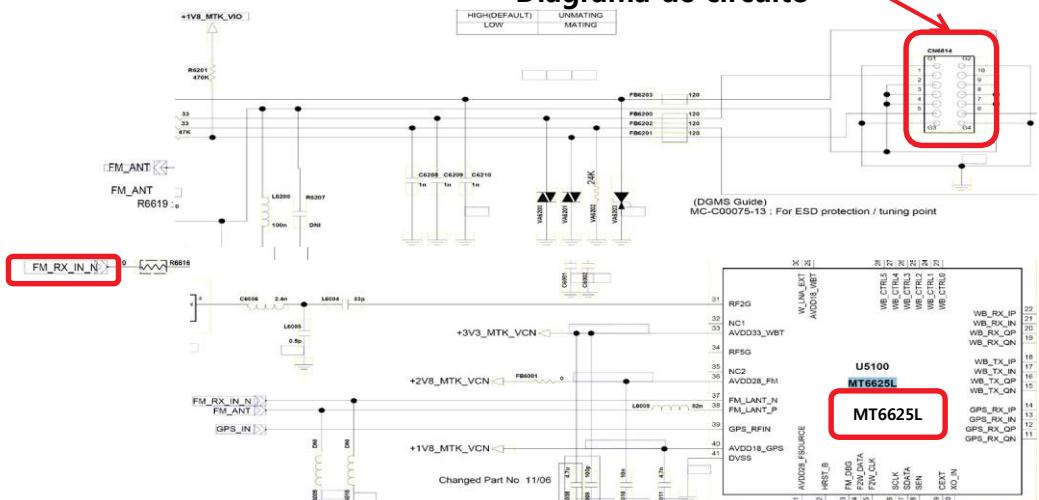


Jack detectar

Verificação do nível de tensão em R6201

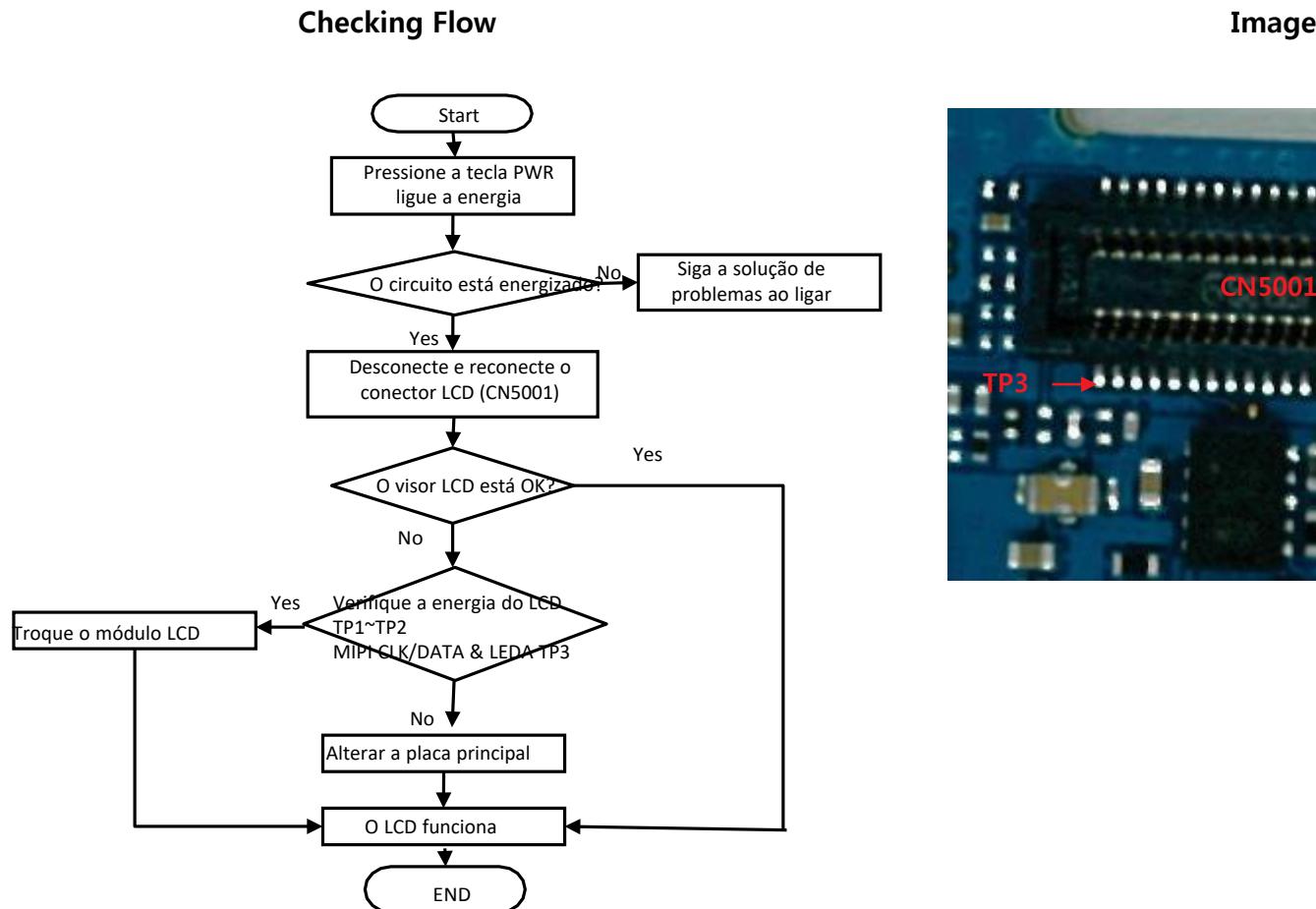
- 1,8 V (antes de inserir)
- baixo (após a inserção)

Diagrama de circuito



3.11 Checking LCD Block

Os sinais de controle LCD são gerados pelo MT6753. Sua interface é MIPI com quatro pistas de dados e uma pista de clock.

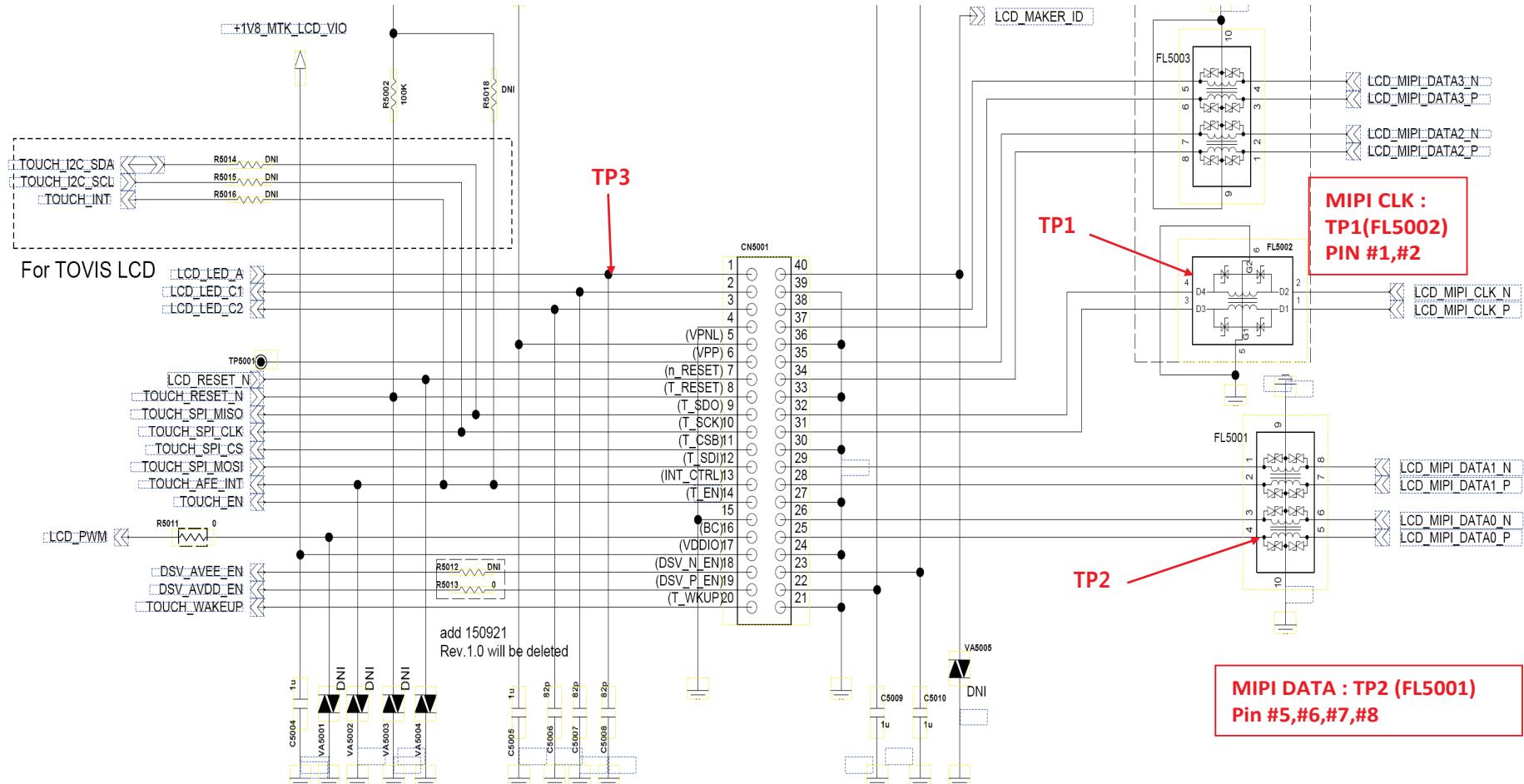


3. TROUBLE SHOOTING

3.11 Verificando o Bloco LCD

Os sinais de controle LCD são gerados pelo MT6753. Sua interface é MIPI com quatro pistas de dados e uma pista de clock.

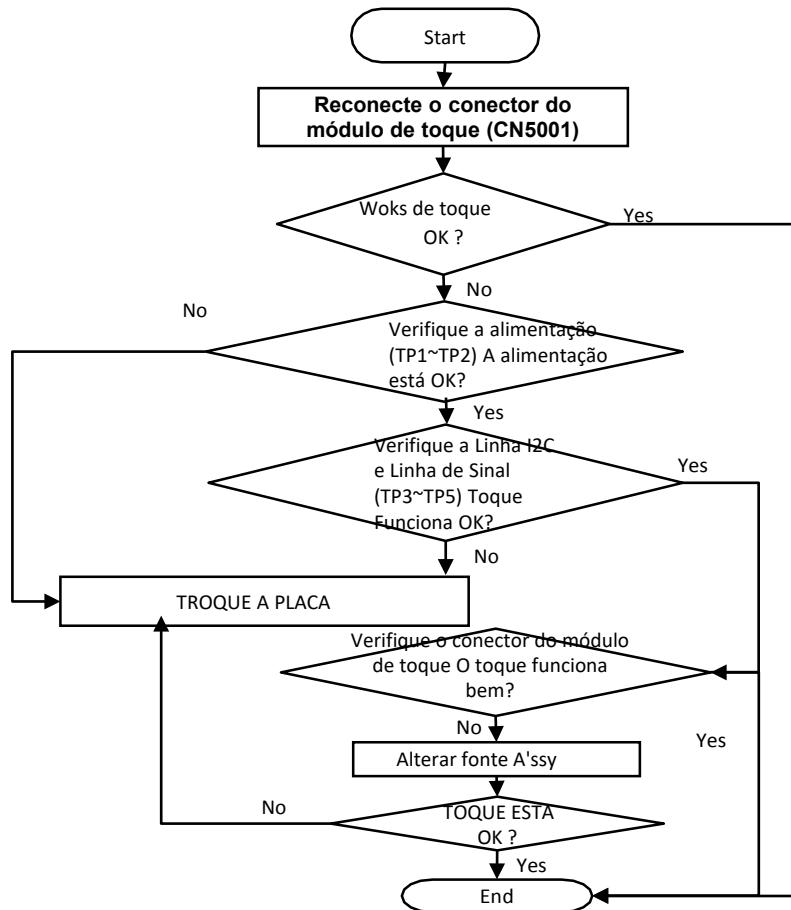
Circuit Diagram



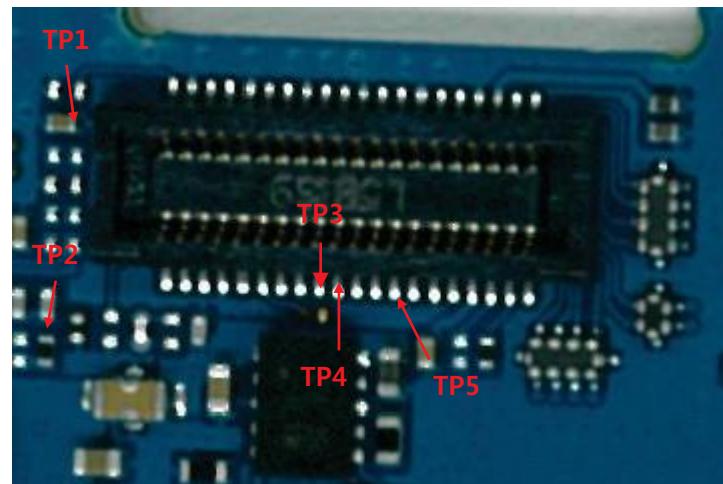
3.12 Verificando o Bloco de Toque

Os sinais de controle de toque são gerados pelo MT6753. É montado com LCD.

Checking Flow



Image

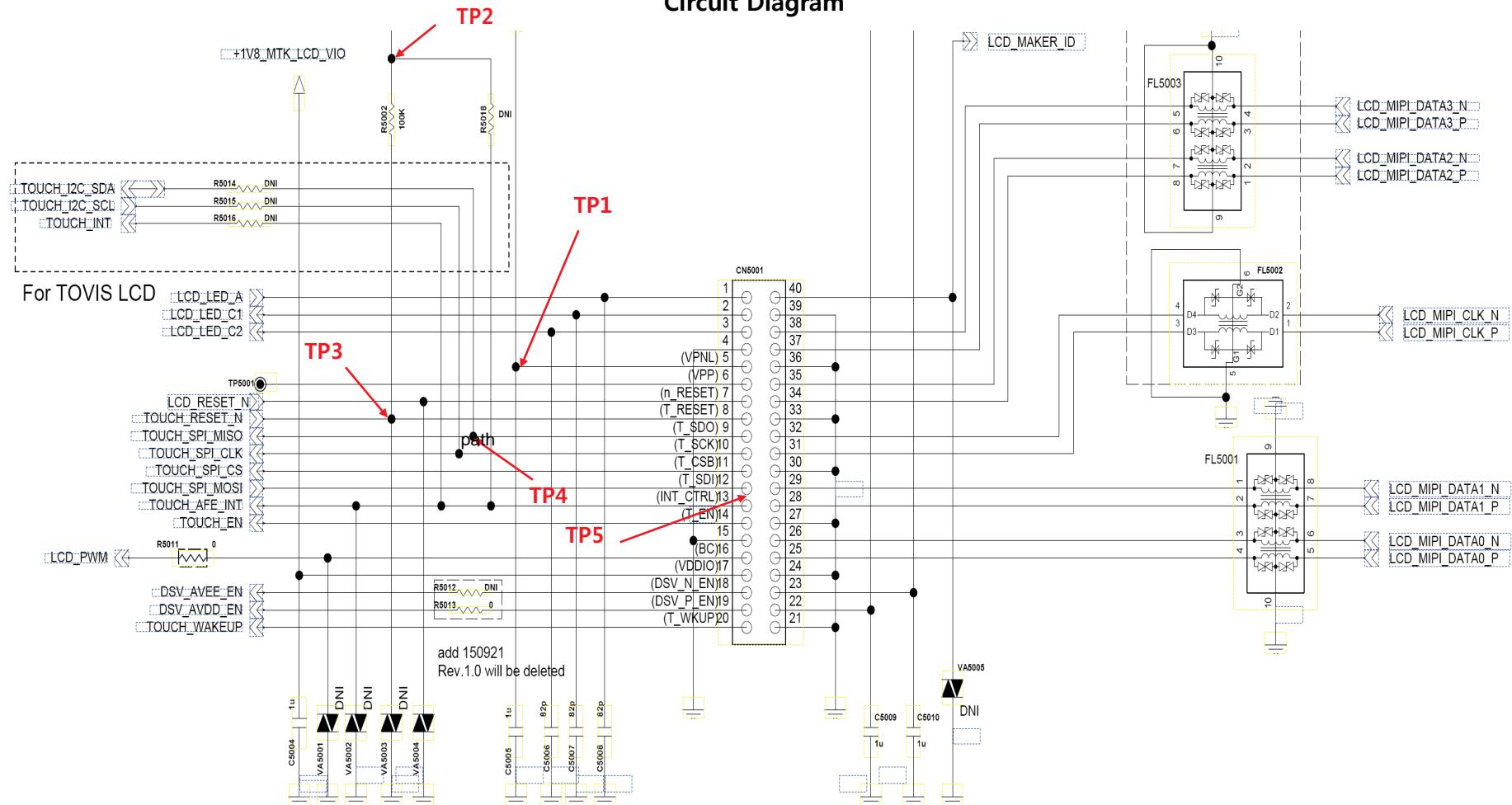


3. TROUBLE SHOOTING

3.12 Verificando o Bloco de Toque

Os sinais de controle de toque são gerados pelo MT6753. É montado com LCD.

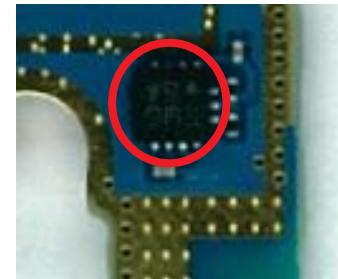
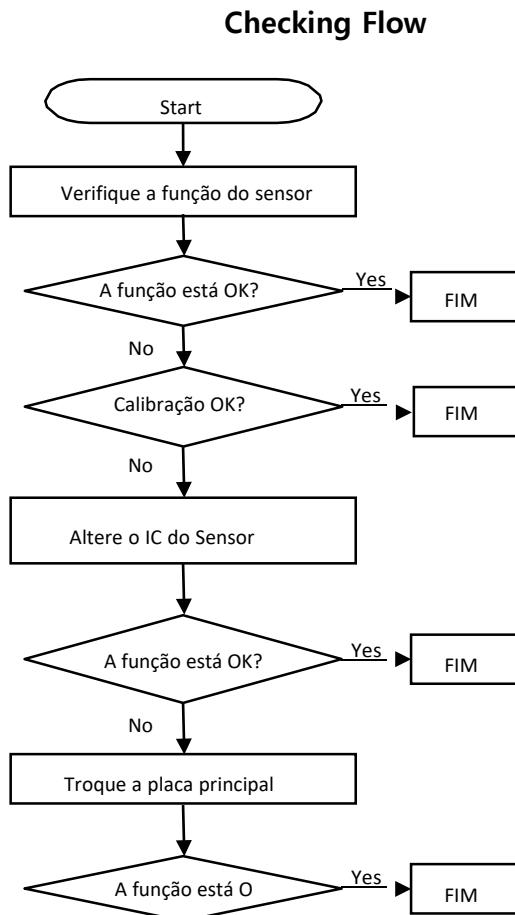
Circuit Diagram



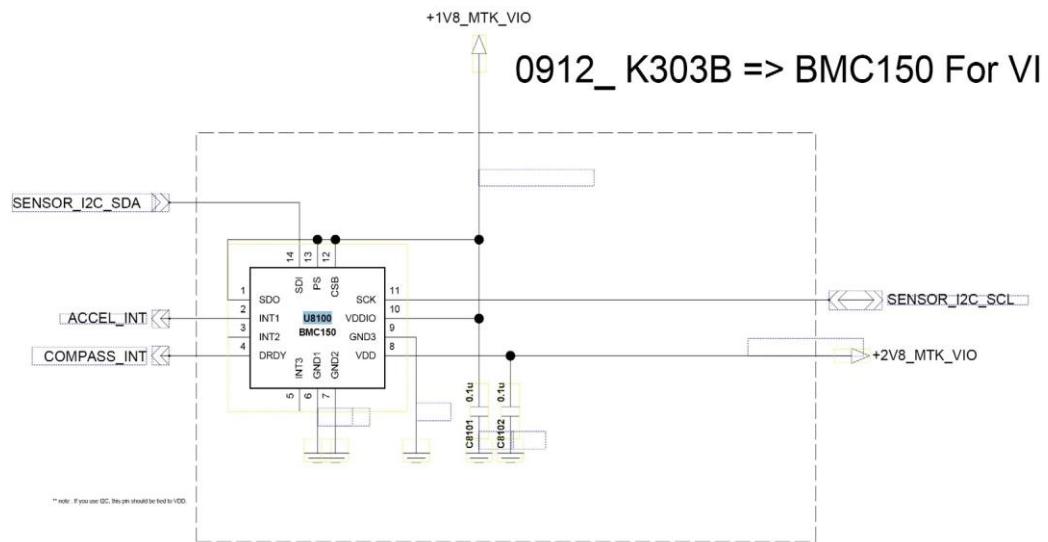
3.13 Verificando acelerômetro + bloco do sensor da bússola

O Ac. Os sensores da bússola são calibrados usando o algoritmo SW.

Image



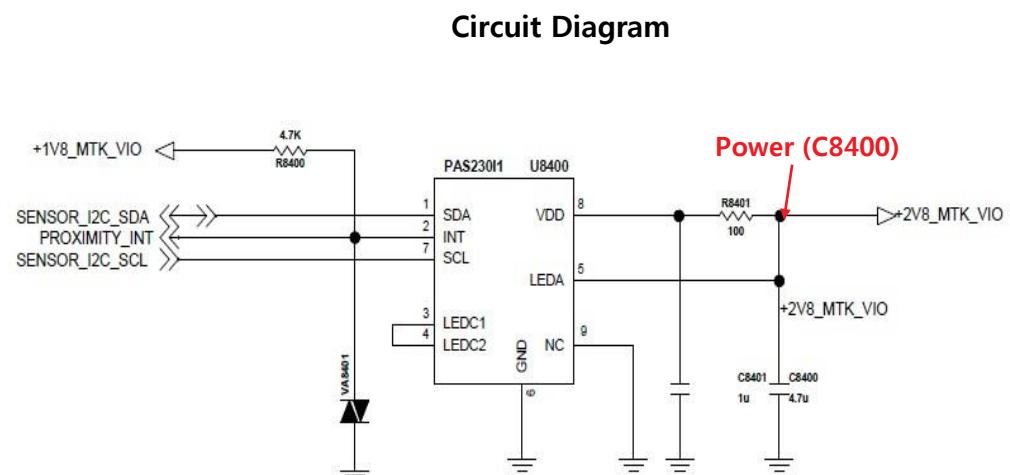
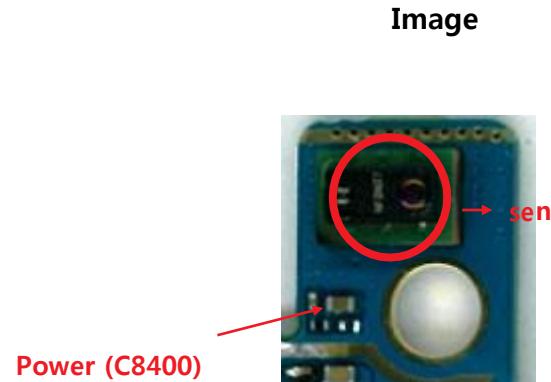
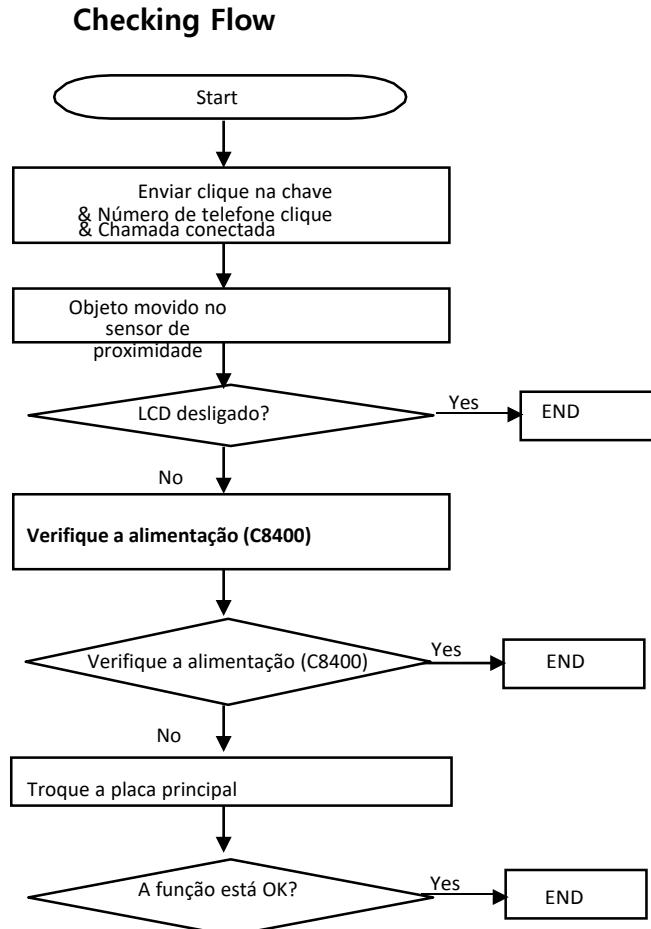
Circuit Diagram



3. TROUBLE SHOOTING

3.13 Verificando o bloco do sensor de proximidade

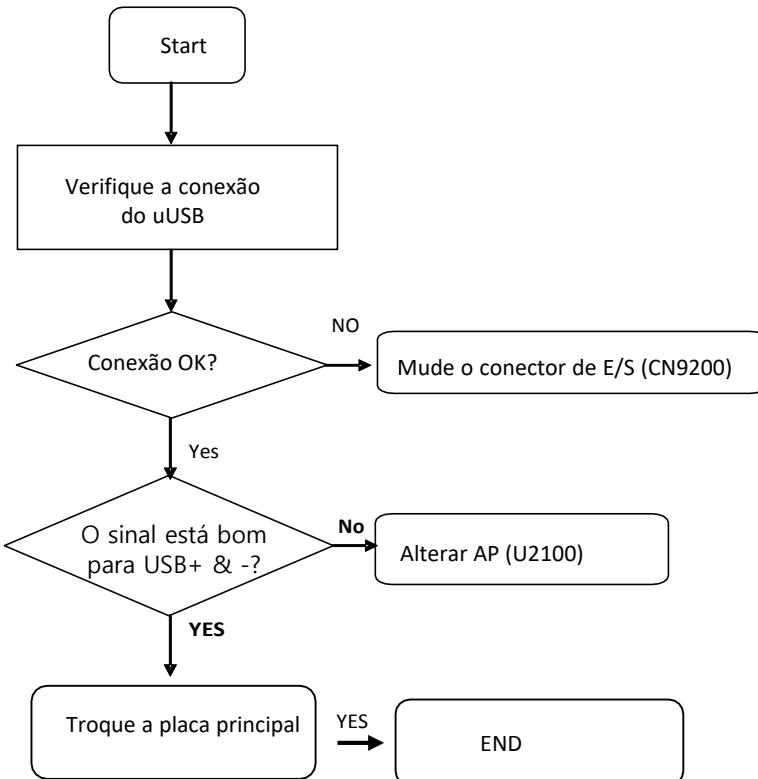
O Sensor de Proximidade funciona da seguinte forma: Enviar Tecla clique → Número de telefone clique → Chamada conectada
→ Naieto mouico no sensor → Controlar a operação ce ligar/cesligar ca tela automaticamente



3.14 Verificando o Bloco USB

O conector de E/S é usado como porta USB.

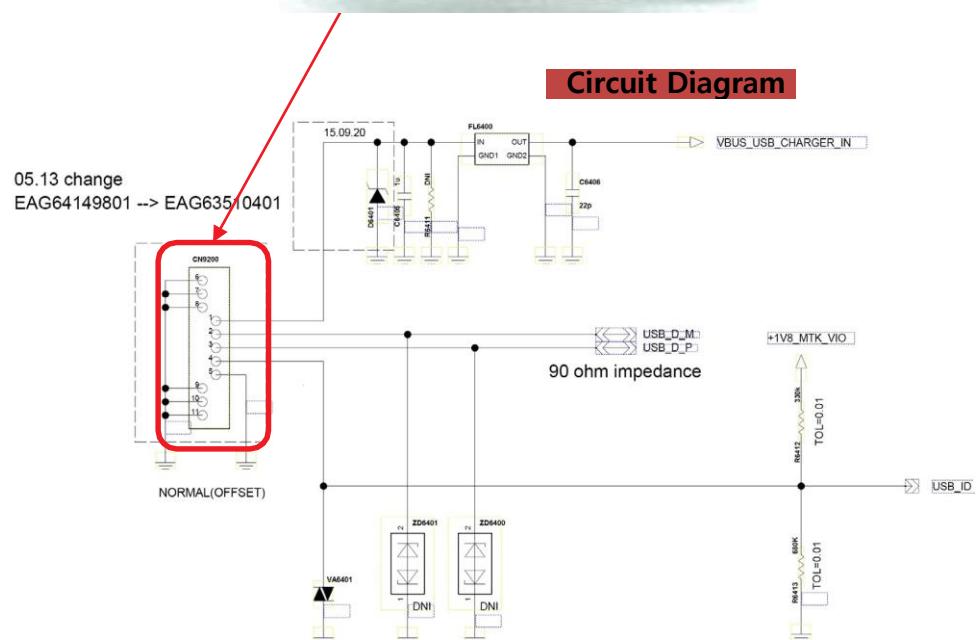
Checking Flow



Image



Circuit Diagram



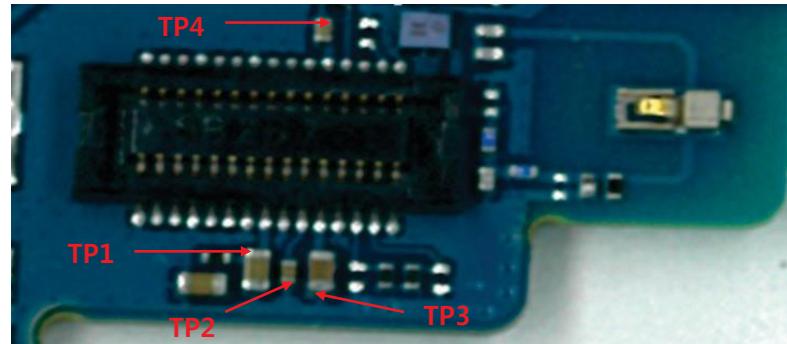
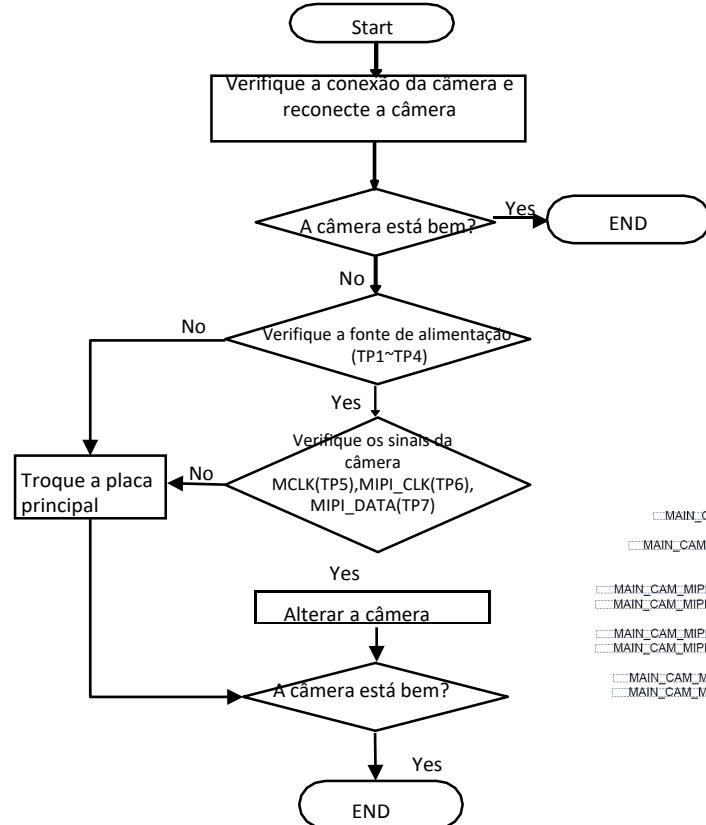
3. TROUBLE SHOOTING

3.15 Verificando o bloco da câmera principal

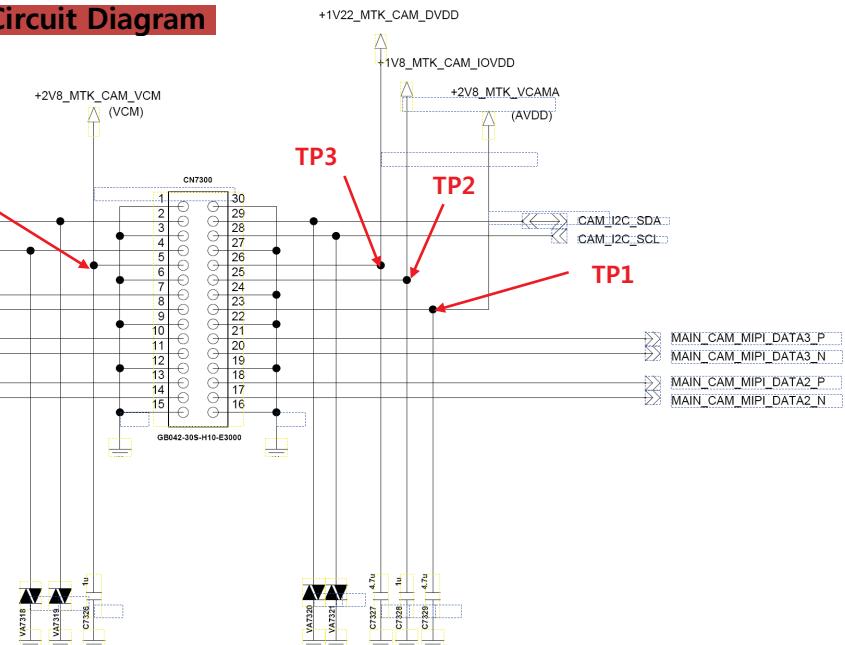
Os sinais de controle da câmera de 8M são gerados pelo MT6753 (U2100: Chipset principal). E alimentado por MT6328 (U4100: PMIC).

Image

Checking Flow



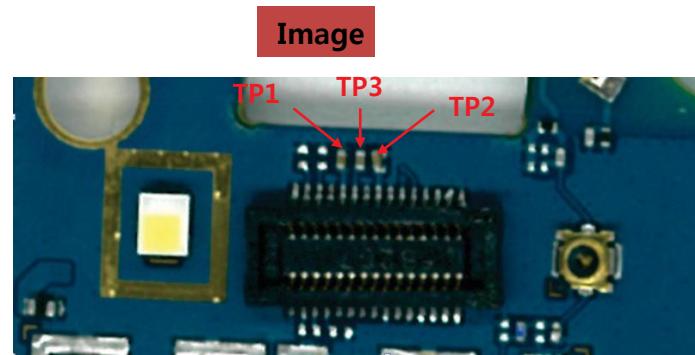
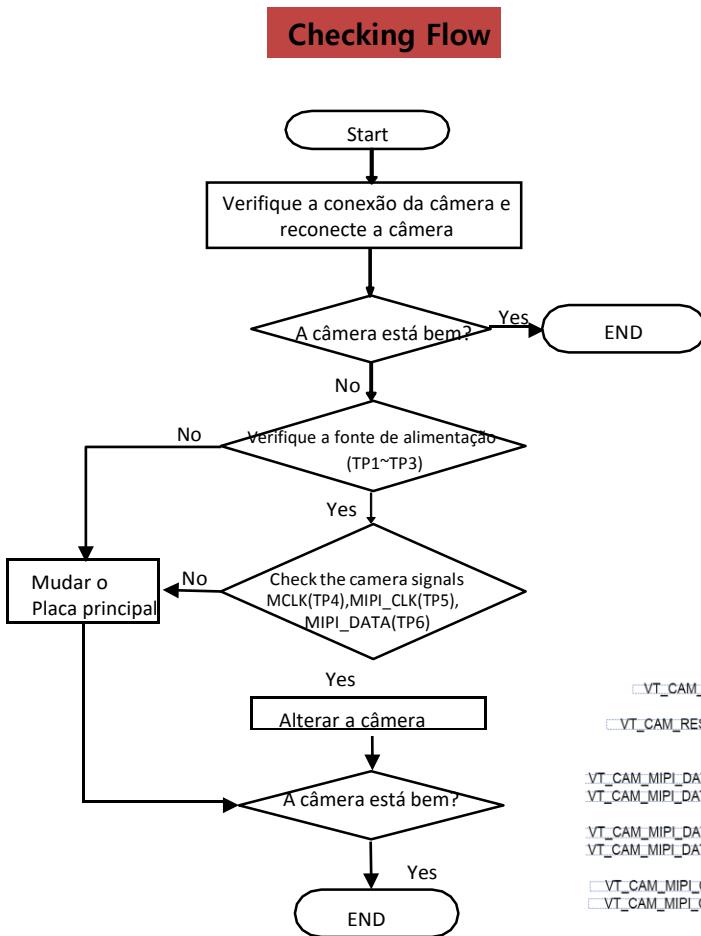
Circuit Diagram



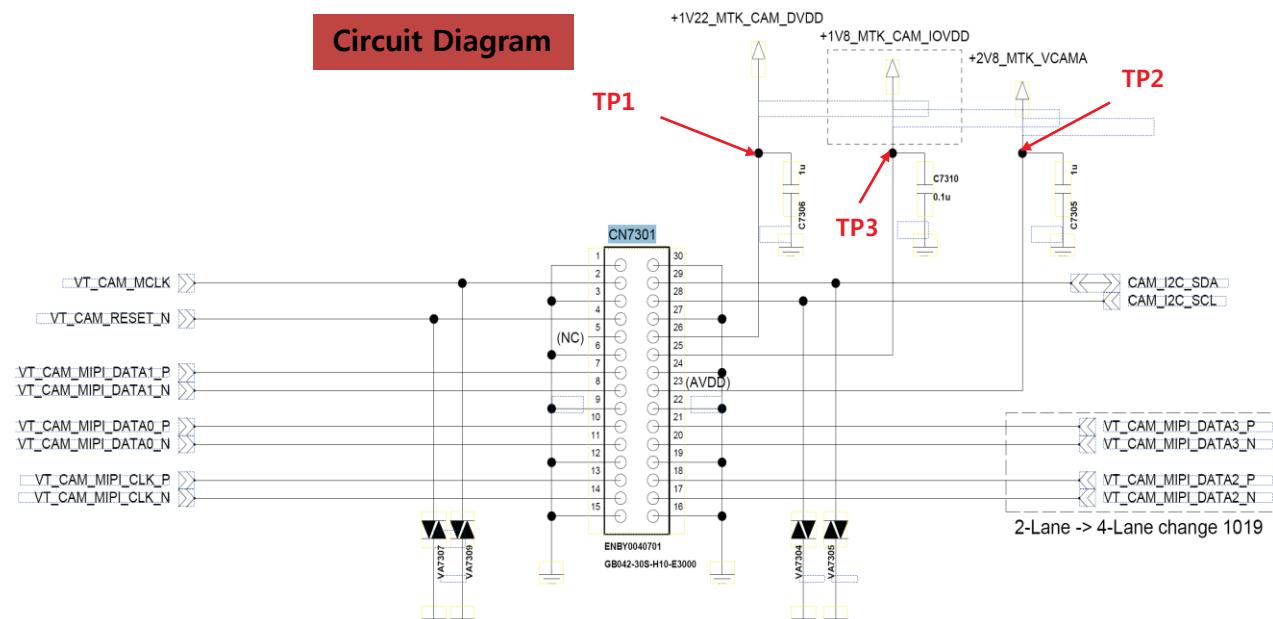
3. TROUBLE SHOOTING

3.15 Verificando o bloco da câmera VT

Os sinais de controle da câmera de 5M são gerados pelo MT6753 (U2100: Chipset principal). E alimentado por MT6328 (U4100: PMIC).



Circuit Diagram

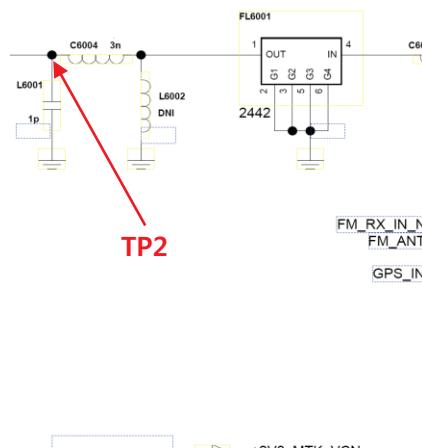
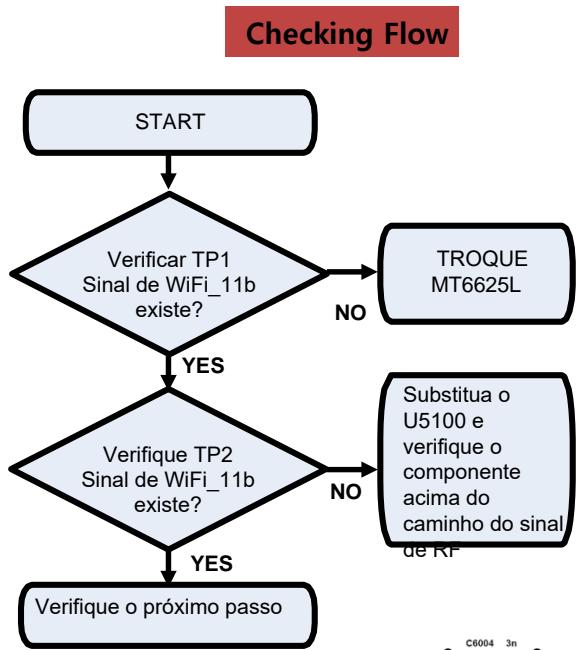


3. TROUBLE SHOOTING

3.16 PARTE RF de Conectividade

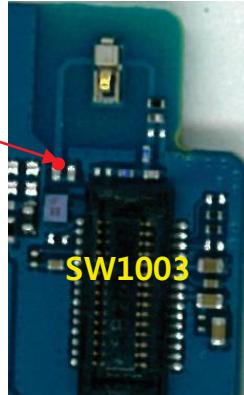
3.16.1 Verificando o caminho TRX do sinal de RF (WiFi, BT)

Image



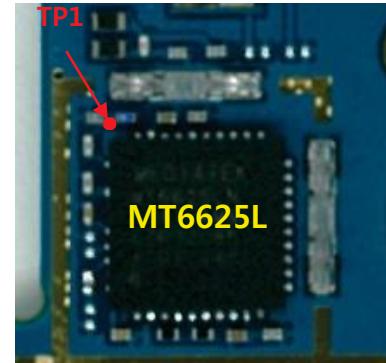
Main
BOT

TP2

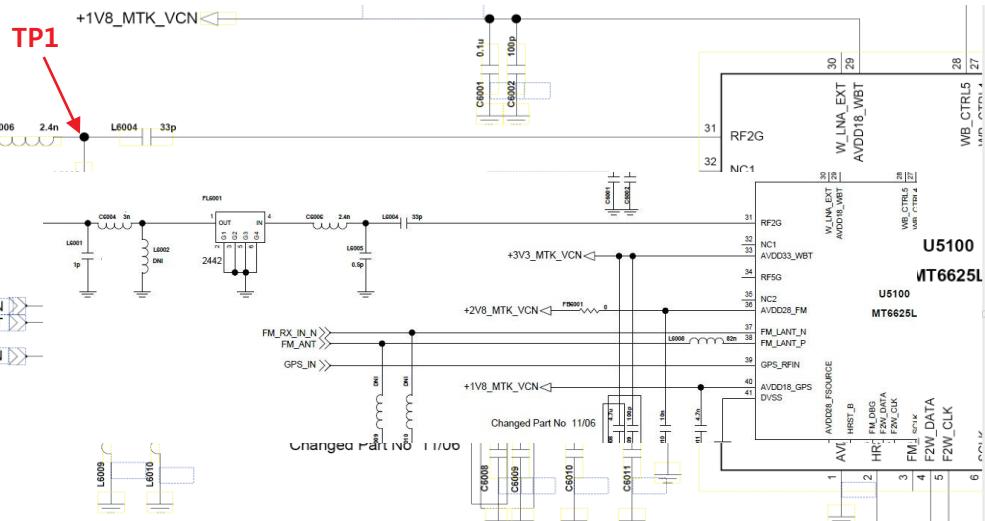


Main
TOP

TP1



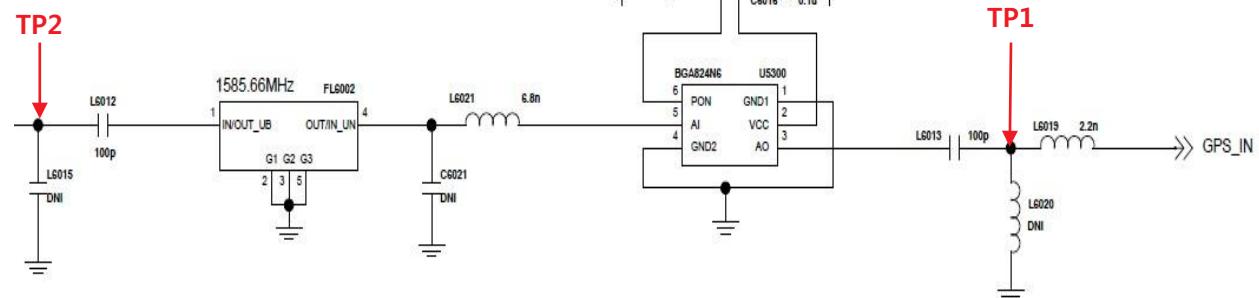
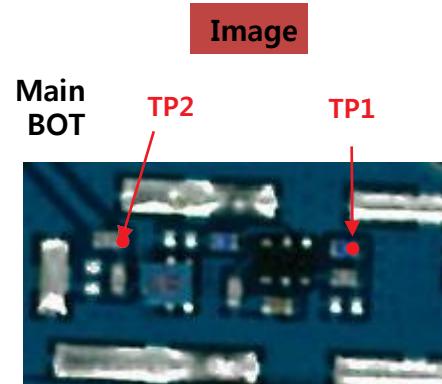
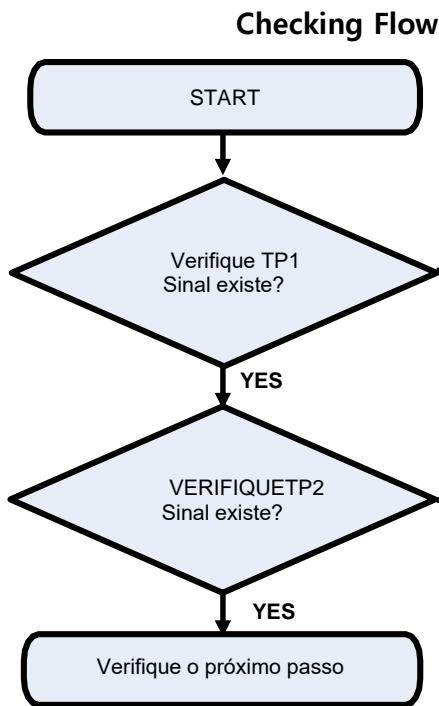
Circuit Diagram



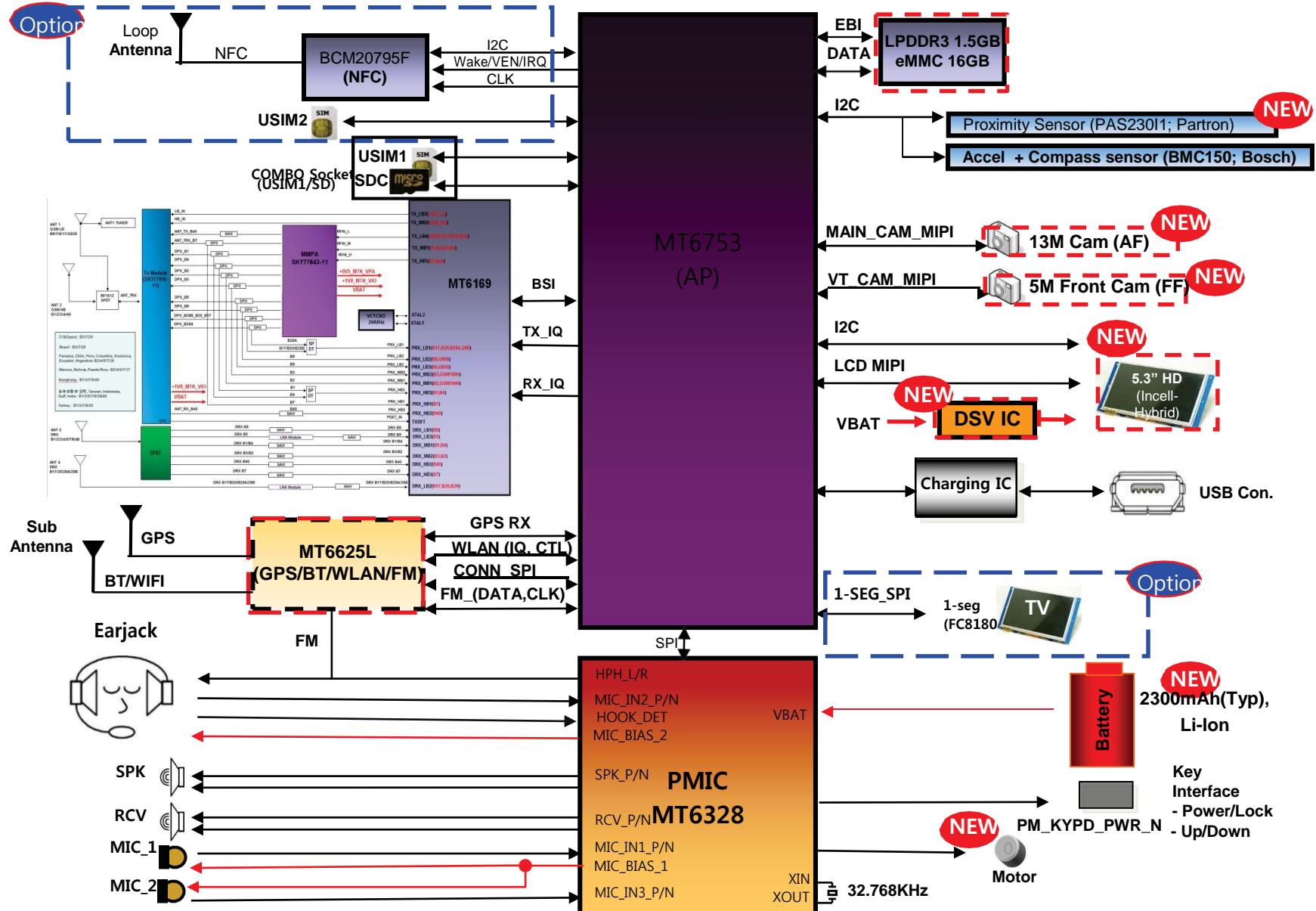
3. TROUBLE SHOOTING

3.16 PARTE RF de Conectividade

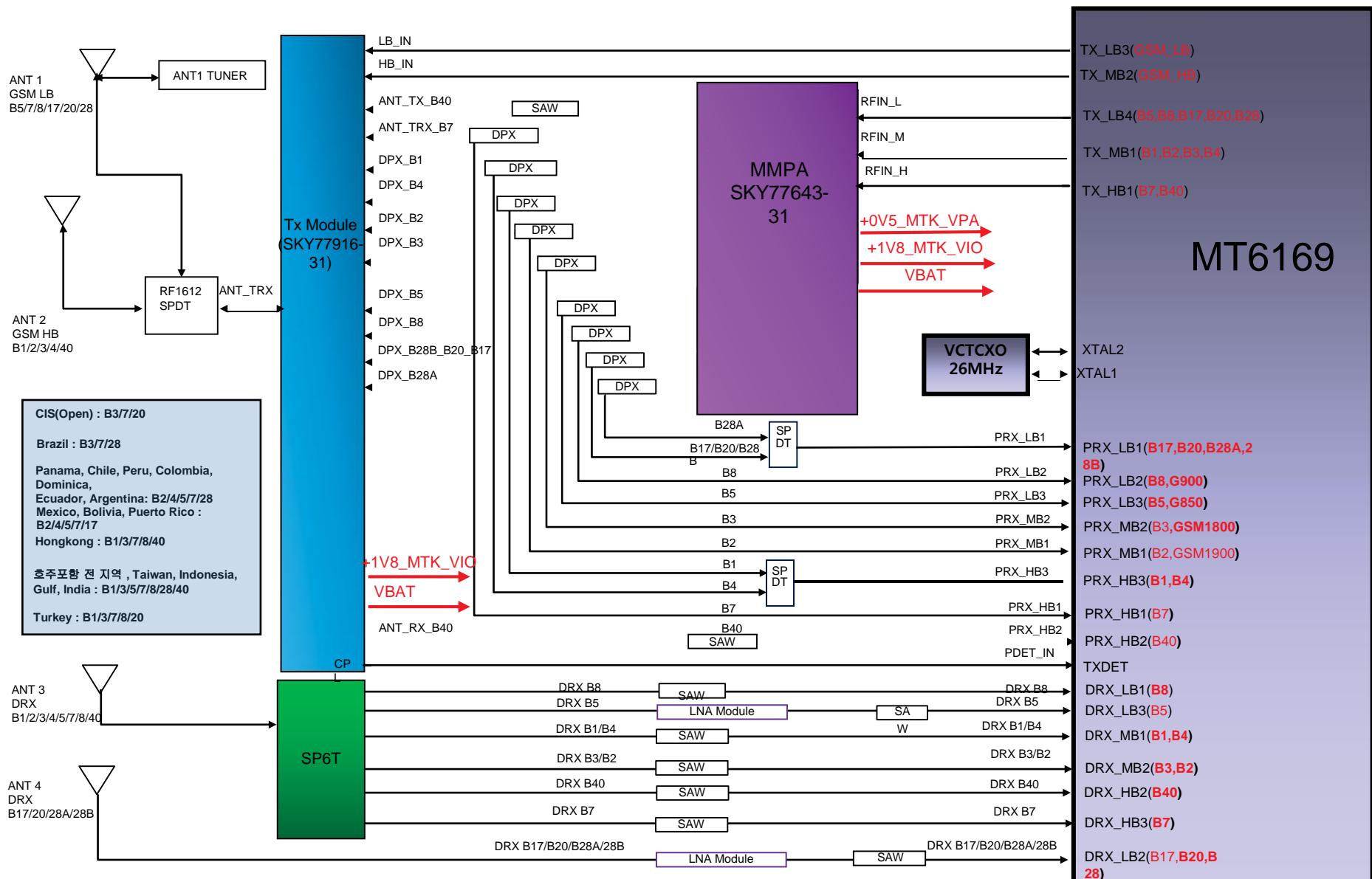
3.16.2 Verificando o caminho TRX do sinal de RF (GPS)



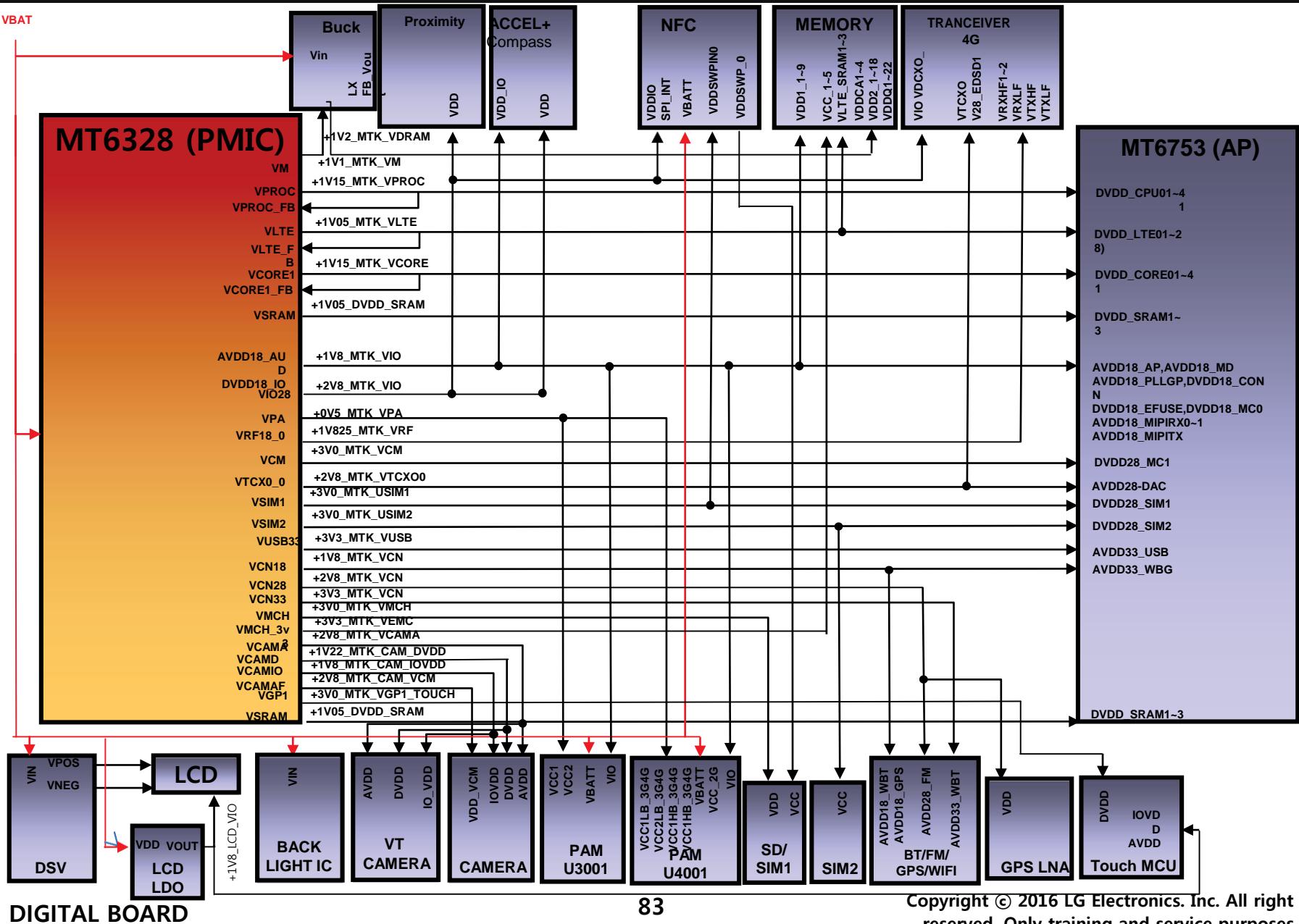
4. BLOCK DIAGRAM



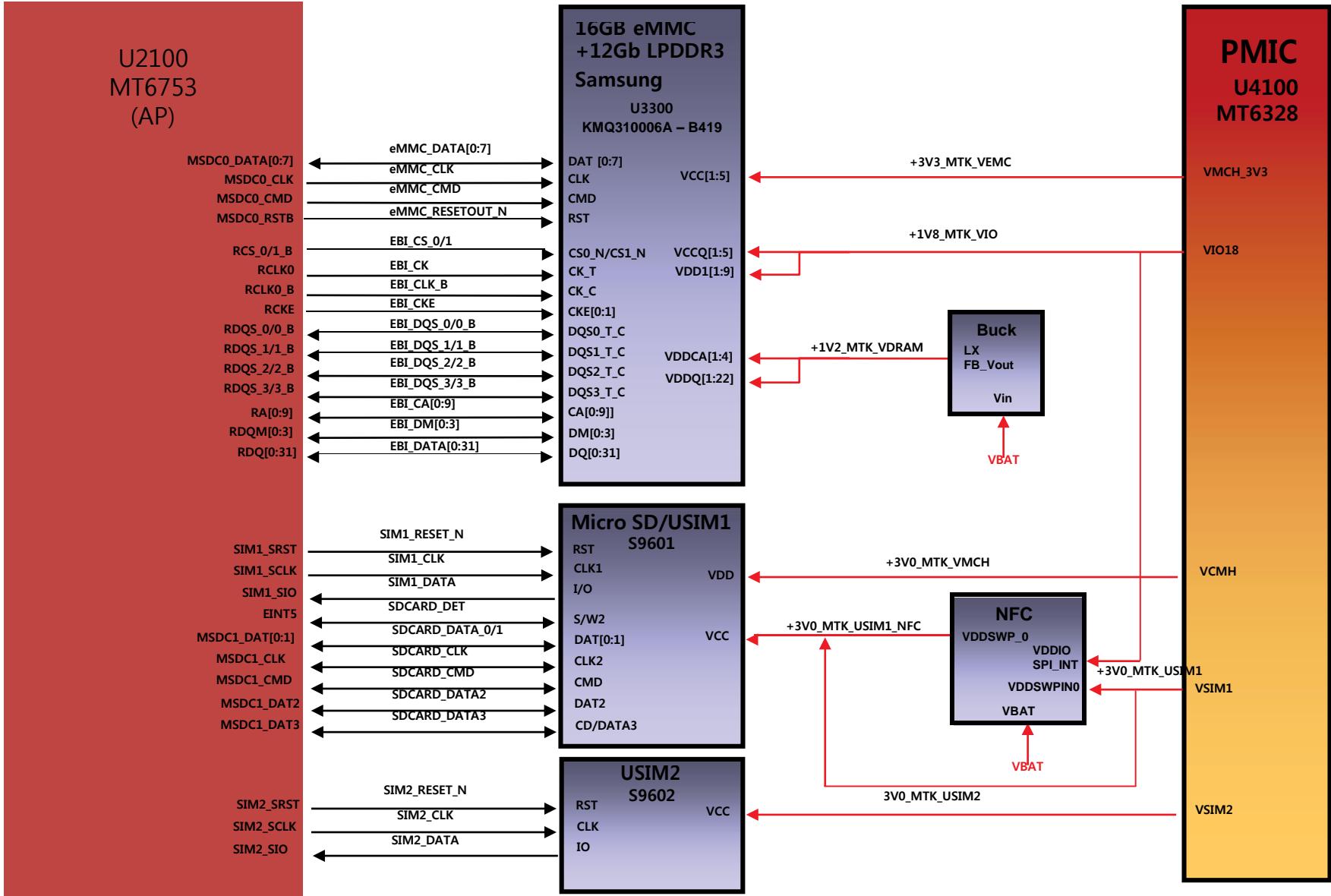
4. BLOCK DIAGRAM



4. BLOCK DIAGRAM

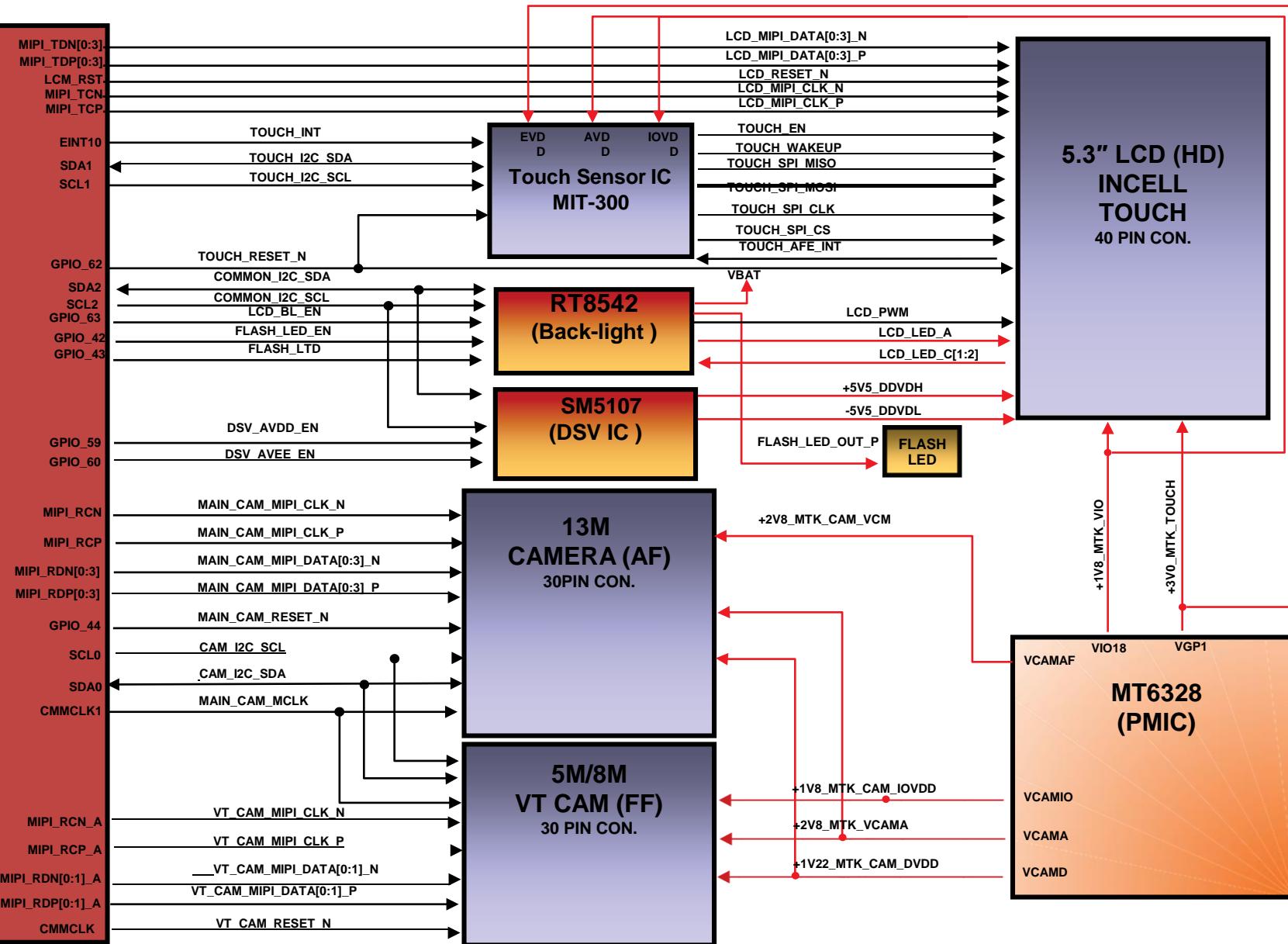


4. BLOCK DIAGRAM



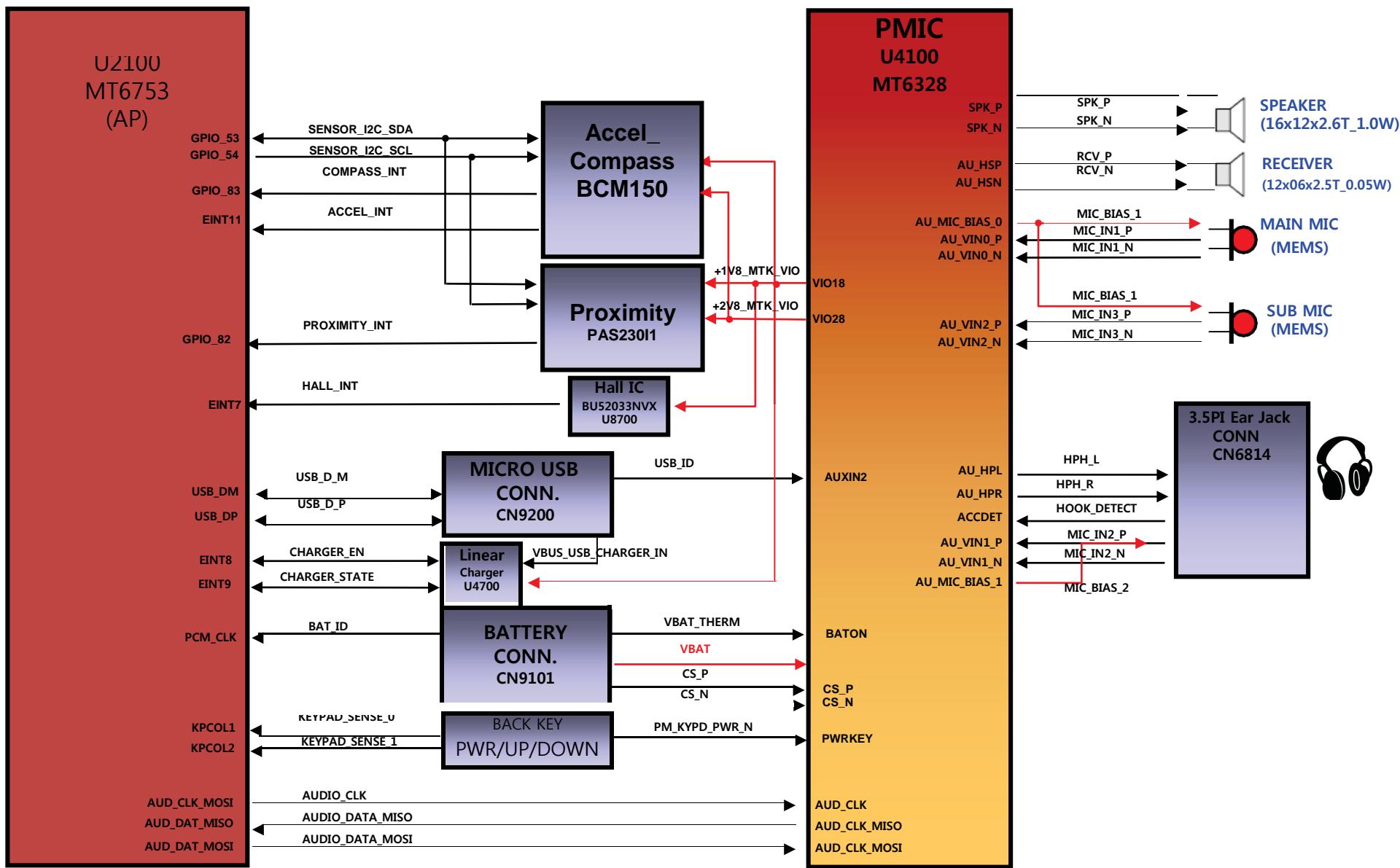
4. BLOCK DIAGRAM

**MT6753
(AP)**

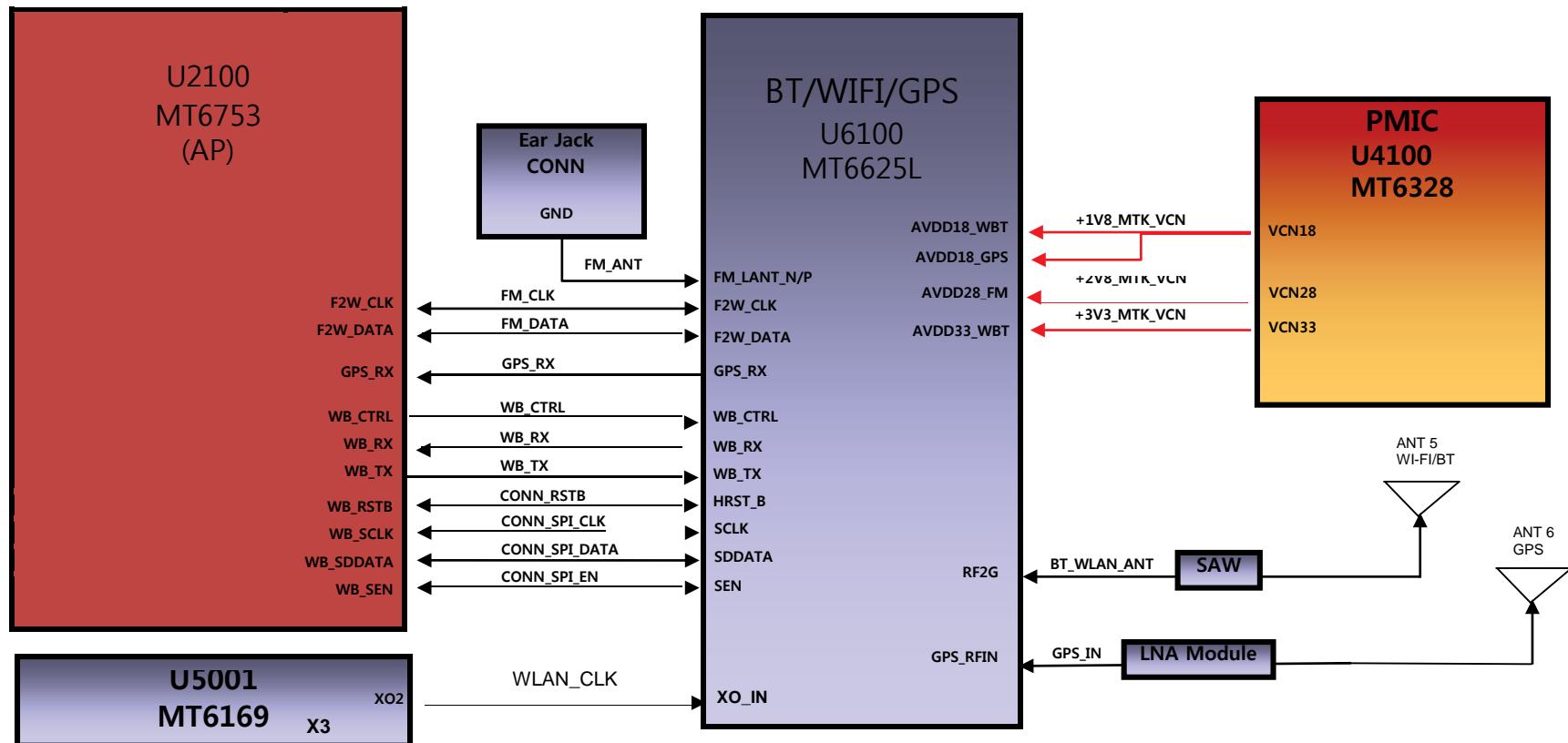


DIGITAL BOARD

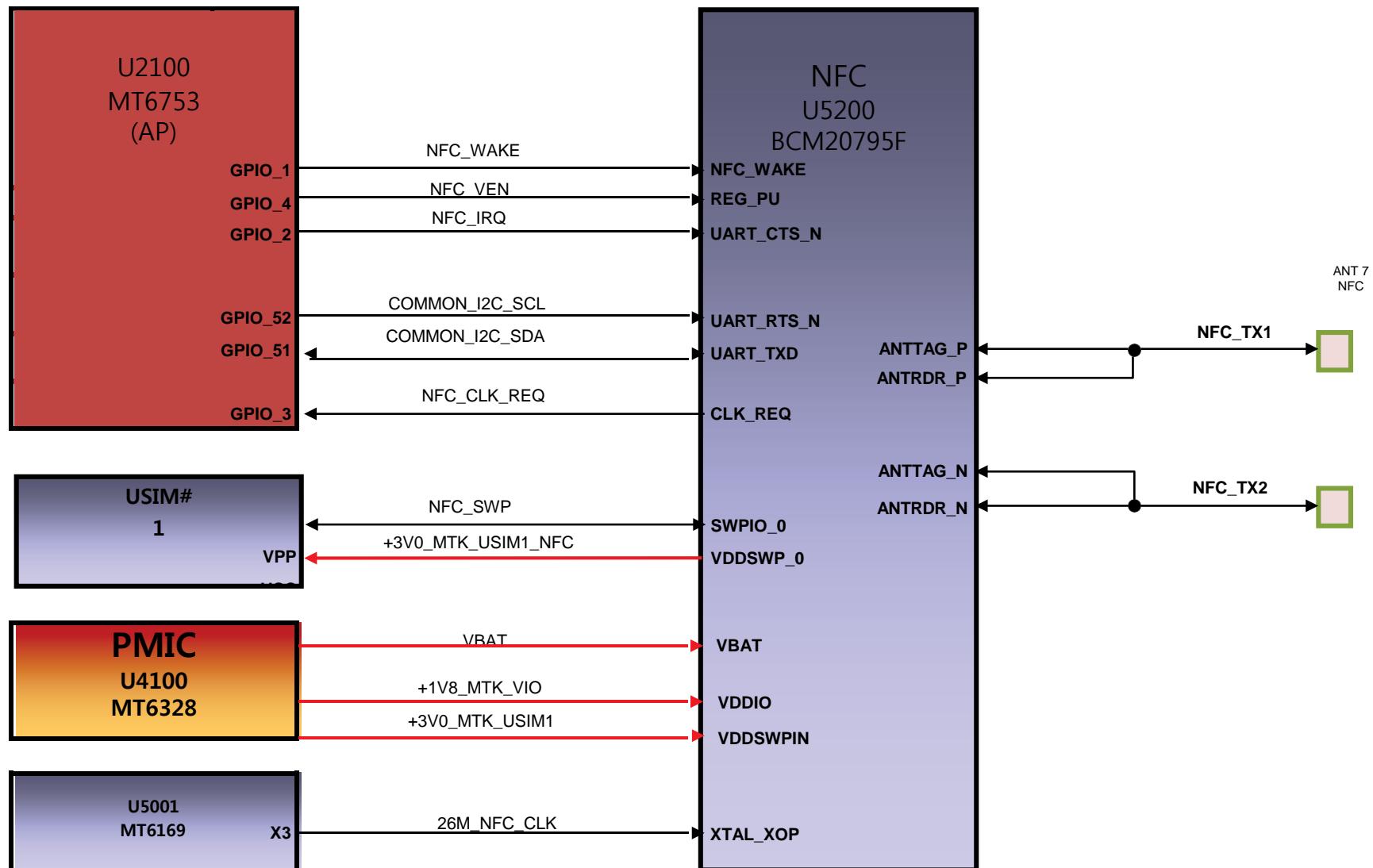
4. BLOCK DIAGRAM



4. BLOCK DIAGRAM



4. BLOCK DIAGRAM



DIGITAL BOARD

