SAMSUNG

GSM TELEPHONE

GT-C5130

SERVICE Manual

GSM TELEPHONE

CONTENTS

SAMSUNG ELECTRONICS

GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

1. Mesures de précaution

1-1. Mesures de précaution pour la réparation

- Procédez à la réparation et aux réglages fins dans une cabine isolée.
  Soyez prudent lors du réglage ou du test, car ce téléphone mobile est sensible aux interférences (bruit RF).

- Soyez vigilant lors de l'utilisation d'un objet ou d'un outil magnétique, car les pièces sont sensibles aux forces magnétiques.

- Démontez le téléphone à l'aide d'un tournevis standard pour ne pas abîmer les vis.

- Prenez la mesure du niveau à l'aide d'un fil torsadé épais.
  La faible résistance du fil torsadé épais permet de limiter les erreurs de mesure.

- Pour éviter tout danger de court-circuit (surtension, pièces qui s'enflamment, etc.) lors de la réparation de la carte, procédez à la réparation du téléphone après avoir utilisé le kit de test séparément.

- Soyez prudent lors de la soudure, car la carte est très petite et sensible à la chaleur.

- Veillez à effectuer le réglage de marche / arrêt lorsque vous utilisez le cordon d'alimentation CA, car il est dangereux de réparer le chargeur de batterie lors du réglage du connecteur et de la carte de marche / arrêt (lorsque le chargeur est démonté).

- Veillez à utiliser uniquement les pièces de rechange prévues dans le système SEC.
  Dans le cas contraire, le technicien sollicité ne sera pas tenu pour responsable.

1-2. Mesures de précaution contre les décharges électrostatiques

Les semi-conducteurs sont sensibles à l'électricité statique. Il s'agit notamment des circuits imprimés, de la puce BGA, etc. Veuillez lire les précautions ci-dessous.
Vous pouvez éviter les dégâts occasionnés par l'électricité statique.

- Veillez à vous décharger de l'électricité statique présente sur vous avant de toucher un semi-conducteur ou des pièces comportant un semi-conducteur. Pour cela, touchez un élément mis à la terre ou portez un bracelet antistatique.

- Pour connecter ou déconnecter un appareil sensible aux décharges électrostatiques, utilisez du métal de soudure mis à la terre.

- Utilisez un outil de suppression de soudure pour arrêter l'électricité statique, sans quoi les appareils qui y sont sensibles risquent d'être endommagés.

- Veillez à ne pas déballer l'appareil tant que vous n'avez pas pris de mesures de précaution contre les décharges électrostatiques. La plupart des appareils sensibles aux décharges électrostatiques sont emballés dans des boîtes en aluminium (conducteur) pour les protéger de l'électricité statique.

- Veillez à maintenir le contact électrique entre l'appareil sensible aux décharges électrostatiques et l'environnement de réglage jusqu'à ce que l'appareil soit entièrement connecté sur place ou à une carte de circuit imprimé.

2. Spécifications

2-1. Spécifications générales GSM

		EGSM850	EGSM900	DCS1800	PCS1900
Bande de fréquences [MHz] Liaison ascendante / descendante		880 - 915 925 - 960	880 - 915 925 - 960	1 710 - 1 785 1 805 - 1 880	1 850 - 1 910 1 930 - 1 990
Plage ARFCN		0 - 124 et 975 - 1 023	0 - 124 et 975 - 1 023	512 - 885	512 - 810
Espacement émetteur / récepteur		10 MHz	10 MHz	20 MHz	20 MHz
Débit binaire / période binaire de modulation		270,833 Kbits/s 3,692 µs	270,833 Kbits/s 3,692 µs	270,833 Kbits/s 3,692 µs	270,833 Kbits/s 3,692 µs
Intervalle de temps / période de trame		576,9 µs 4,615 ms	576,9 µs 4,615 ms	576,9 µs 4,615 ms	576,9 µs 4,615 ms
Modulation	GSM / GPRS	0,3 GMSK	0,3 GMSK	0,3 GMSK	0,3 GMSK
	EDGE	8PSK	8PSK	8PSK	8PSK
Puissance SM		33 à 5 dBm	33 à 5 dBm	30 à 0 dBm	30 à 0 dBm
Classe de puissance		4 (+33 dBm max.)	4 (+33 dBm max.)	1 (+30 dBm max.)	1 (+30 dBm max.)
Sensibilité		-102 dBm	-102 dBm	-100 dBm	-100 dBm
Multiplexage TDMA		8	8	8	8
Rayon de cellule		35 km	35 km	2 km	-

		WCDMA900	WCDMA2100
Bande de fréquences [MHz] Liaison ascendante / descendante		882.4 - 912.6 927.4 - 957.6	1 920 - 1 980 2 110 - 2 170
Plage ARFCN		LA : 2 712 - 2 863 LD : 2 937 - 3 088	LA : 9 612 - 9 888 LD : 10 562 - 10 838
Espacement émetteur / récepteur		45 MHz	190 MHz
Débit binaire / période binaire de modulation			3,84 Mbits/s (vitesse de transfert)
Intervalle de temps / période de trame			Longueur de trame : 10 ms Longueur de logement : 0,667 ms
Modulation	GSM / GPRS		QPSK
	EDGE		
Puissance SM			24 dBm à -50 dBm
Classe de puissance			3 (+24 dBm max.)
Sensibilité		-104,7 dBm	-106,7 dBm
Multiplexage TDMA			
Rayon de cellule			2 km

2-2. Classe de puissance de l'émetteur GSM

Niveau de commande de la puissance d'émission	GSM850	GSM900
5	33 ± 2 dBm	33 ± 2 dBm
6	31 ± 2 dBm	31 ± 2 dBm
7	29 ± 2 dBm	29 ± 2 dBm
8	27 ± 2 dBm	27 ± 2 dBm
9	25 ± 2 dBm	25 ± 2 dBm
10	23 ± 2 dBm	23 ± 2 dBm
11	21 ± 2 dBm	21 ± 2 dBm
12	19 ± 2 dBm	19 ± 2 dBm
13	17 ± 2 dBm	17 ± 2 dBm
14	15 ± 2 dBm	15 ± 2 dBm
15	13 ± 2 dBm	13 ± 2 dBm
16	11 ± 3 dBm	11 ± 3 dBm
17	9 ± 3 dBm	9 ± 3 dBm
18	7 ± 3 dBm	7 ± 3 dBm
19	5 ± 3 dBm	5 ± 3 dBm

Niveau de commande de la puissance d'émission	DCS1800	PCS1900
0	30 ± 2 dBm	30 ± 2 dBm
1	28 ± 3 dBm	28 ± 3 dBm
2	26 ± 3 dBm	26 ± 3 dBm
3	24 ± 3 dBm	24 ± 3 dBm
4	22 ± 3 dBm	22 ± 3 dBm
5	20 ± 3 dBm	20 ± 3 dBm
6	18 ± 3 dBm	18 ± 3 dBm
7	16 ± 3 dBm	16 ± 3 dBm
8	14 ± 3 dBm	14 ± 3 dBm
9	12 ± 4 dBm	12 ± 4 dBm
10	10 ± 4 dBm	10 ± 4 dBm
11	8 ± 4 dBm	8 ± 4 dBm
12	6 ± 4 dBm	6 ± 4 dBm
13	4 ± 4 dBm	4 ± 4 dBm
14	2 ± 5 dBm	2 ± 5 dBm
15	0 ± 5 dBm	0 ± 5 dBm

3. Product Function

Main Function

- 1.3 MEGA PIXEL
- MP3 / 64 Poly Ringtones
- BT 2.0
- Video Telephony
- USB 2.0 FULL SPEED
- WAP2.0
- MIDP 2.0 / CLDC 1.0
- SOS Message, Auto Time Setting,
- GPRS/EDGE : GPRS/EDGE: Class12, EDGE Downlink Only
- SMS / MMS
- BT : E-STLC2584TR (STE)
- Battery: 1000mA (AB553446BU)
- Weight: 99g
- Memory: User 20MB, memory card 16GB
- Camera: - 1.3M FF (HNT)
  - CIF (HNT)
- LCD : 2.01" QCIF 262K TFT (INOLUX)
- Size: 97x47.5x16.5mm
- Band: 2G 850/900/1800/1900
  3G 900/2100
- BB: NXP PNX6707
- PMIC: PCF50623
- TRANCIEVER: AERO4229

4. Téléchargement de logiciel

4-1. Réglages logiciels

Outil de réglage (GH99-36900A)

Câble test (GH39-01315A)

Câble de test RF (GH39-00985A)

Adaptateur (GH99-38251A)

4-2. Procédure de téléchargement

4-2-1. Conditions préalables au téléchargement

• Téléchargeur de logiciels

• Téléphone mobile GT-C5130

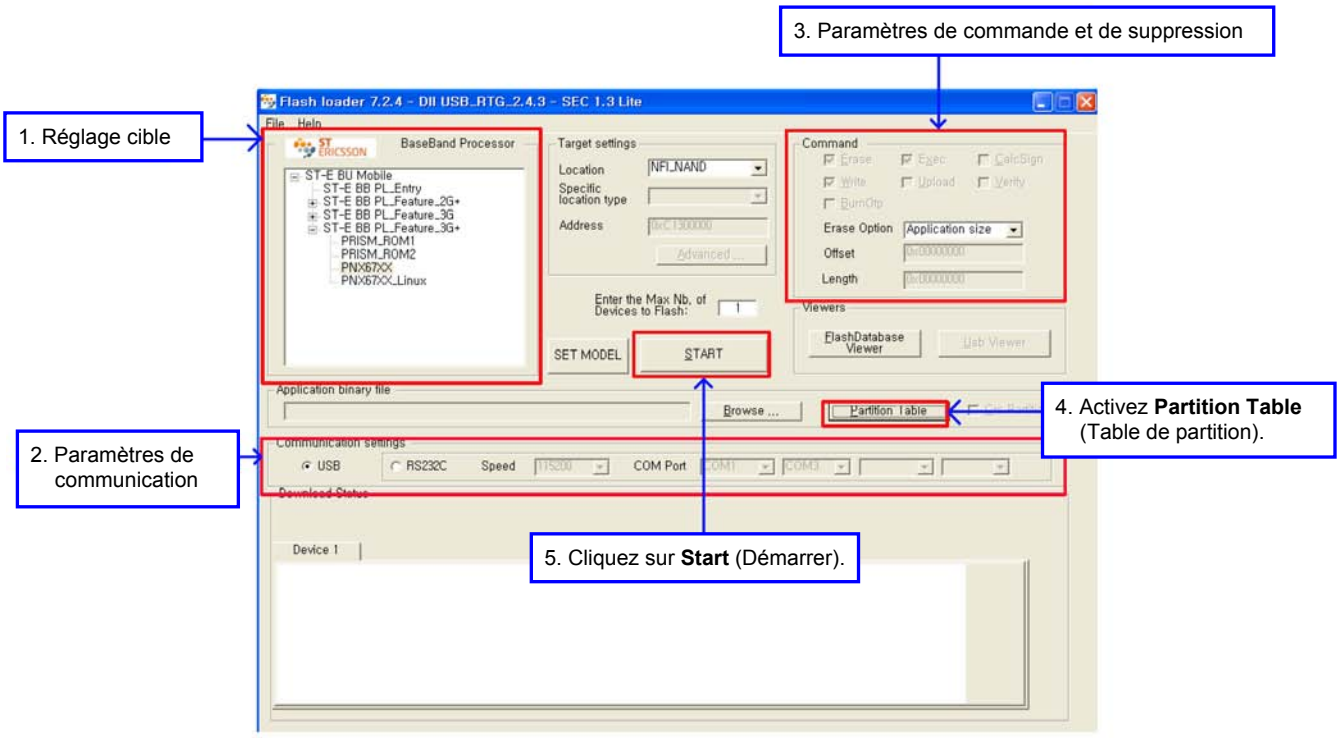
• Câble de transfert de données

• Fichier binaire

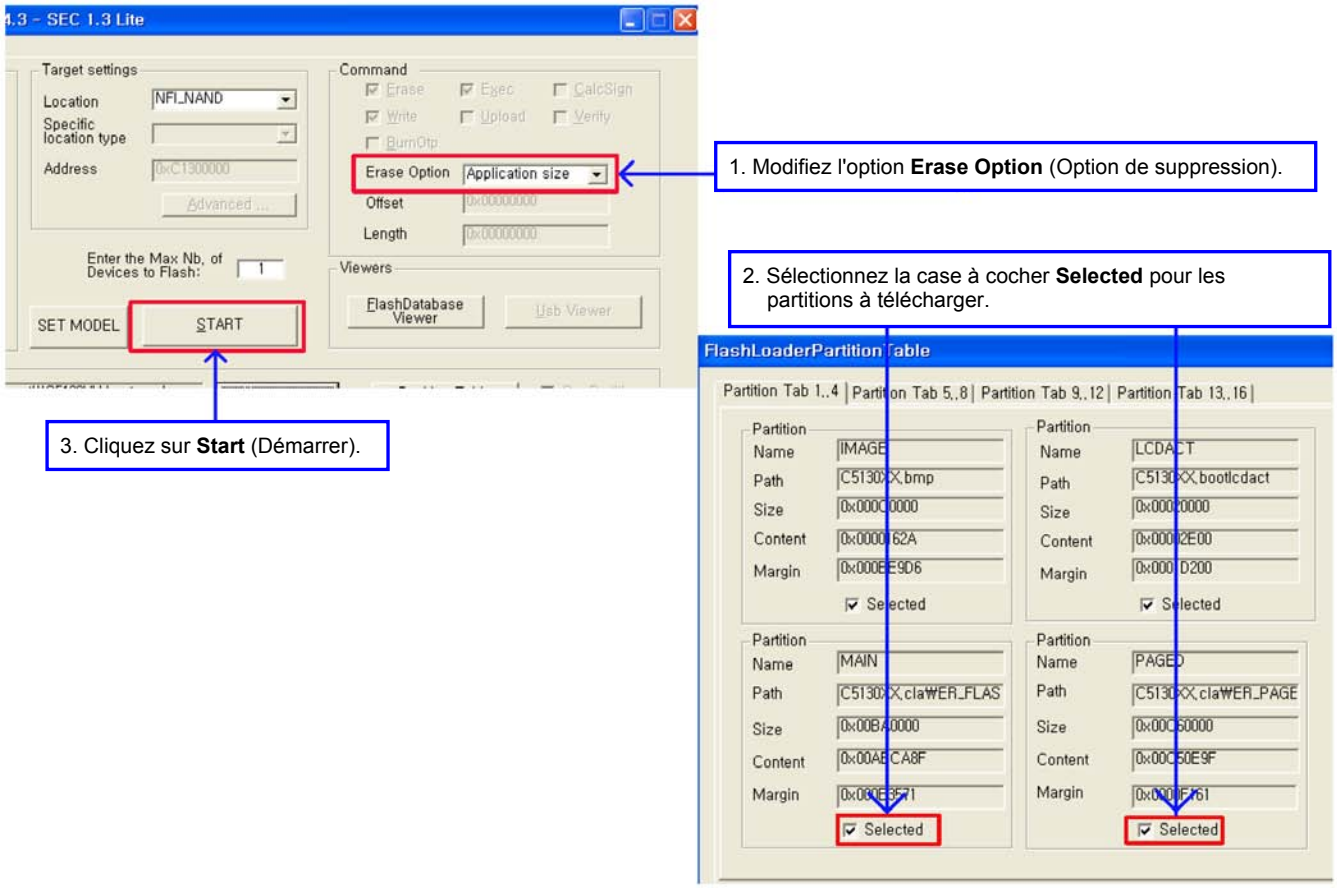
4-2-2. Téléchargement des logiciels

■ Exécutez **Flash loader 7.2.4 SEC 1.3 Lite** pour charger le programme de téléchargement.

Configuration de Flash Loader 7.2.4 SEC 1.3 Lite



Paramètres de téléchargement partiel (1/2)

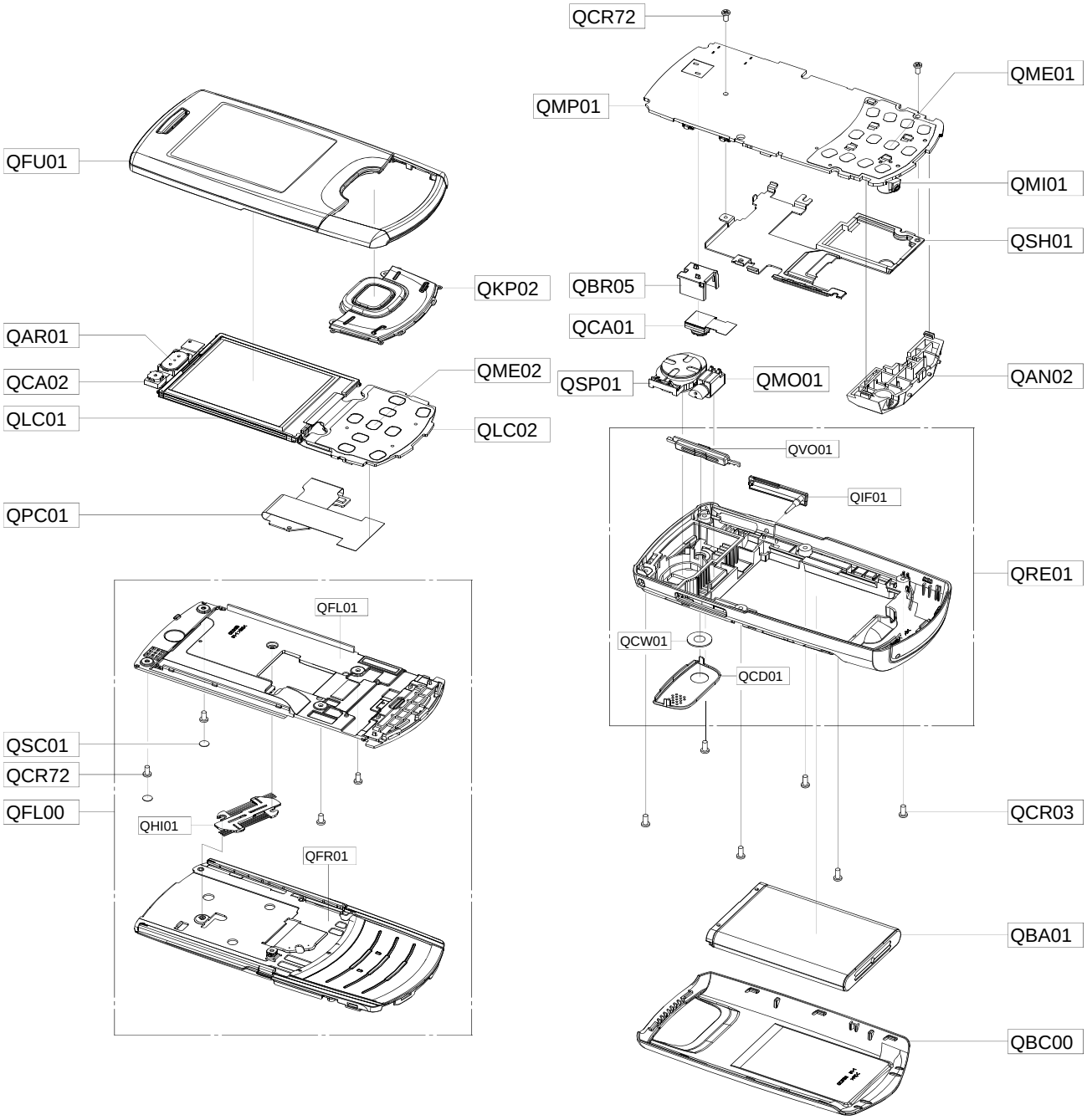


Paramètres de téléchargement partiel (2/2)

- **Attention**
  - **Si le fichier PTT a été modifié (valeur relative à l'adresse, à l'écart ou à la taille), vous devez télécharger la zone entière. Dans ce cas, vous ne pouvez pas télécharger de partition.**
  - **Pour télécharger une zone partielle, le fichier PTT doit être identique.**

5. Exploded View and Parts List

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts list

Design LOC		Discription	SEC CODE
QSP01		SPEAKER	3001-002529
QCR03		SCREW-MACHINE	6001-001811
QCR72		SCREW-MACHINE	6001-002051
QCR72		SCREW-MACHINE	6001-002051
QMI01		MICROPHONE-ASSY-GT_C5130	GH30-00619A
QMO01		MOTOR DC-SCH-S369	GH31-00392A
QAN02		INTENNA-GT_C5130	GH42-02230A
QBA01		INNER BATTERY PACK-1000MAH,BLK,ENG,EU	GH43-03184A
QPC01		ASSY ETC-GT_C5130 SLIDE FPCB	GH59-08155A
QME01		DOME SHEET-GT_C5130 MAIN	GH59-08260A
QME02		DOME SHEET-GT_C5130 SUB	GH59-08261A
QCA01		CAMERA MODULE-GTC5130 1.3M CAMERA	GH59-08340A
QLC02		ASSY ETC-GT_C5130S LCD SUB PBA	GH59-08723A
QSC01		TAPE-SCREW CAP	GH74-47048A
QMP01		A/S ASSY-GT_C5130S PBA MAIN	GH82-04220A
QLC01		ASSY LCD-2.0"QCIF GT-C5130 ASSY	GH96-04104A
QBC00		ASSY COVER-BATT	GH98-14135A
QBR05		ASSY BRACKET-CAM	GH98-14136A
QSH01		ASSY COVER-SHIELD CAN	GH98-14137A
QKP02		ASSY KEYPAD-SUB(DK/XEN)	GH98-14145A
QFU01		ASSY CASE-UPPER(S)	GH98-15207A
QRE01		ASSY CASE-REAR	GH98-14133A
	QCD01	NPR DECO-CAM	GH71-09067A
	QIF01	PMO COVER-IF	GH72-55457A
	QVO01	PMO KEY-VOL	GH72-55461A
	QCW01	PMO WINDOW-CAM	GH72-55472A
QFL00		ASSY CASE-FRONT LOWER	GH98-14138A
	QHI01	ASSY HINGE-ACTUATOR BODY	GH98-11248A
	QFL01	ASSY CASE-LOWER	GH98-14139A
	QFR01	ASSY CASE-FRONT	GH98-14140A

6. MAIN Electrical Parts List

SEC CODE	Design LOC	Discription
0403-001688	ZD300	DIODE-ZENER
0403-001749	ZD401	DIODE-ZENER
0406-001286	ZD400	DIODE-TVS
0406-001286	ZD500	DIODE-TVS
0406-001288	ZD201	DIODE-TVS
0406-001288	ZD402	DIODE-TVS
0406-001288	ZD403	DIODE-TVS
0406-001288	ZD404	DIODE-TVS
0406-001288	ZD405	DIODE-TVS
0406-001329	ZD501	DIODE-TVS
0406-001329	ZD502	DIODE-TVS
0406-001329	C513	DIODE-TVS
0406-001329	C514	DIODE-TVS
0407-001002	D300	DIODE-ARRAY
0601-002070	LED500	LED
0601-002070	LED501	LED
0601-002070	LED502	LED
0601-002070	LED503	LED
1009-001035	U500	IC
1108-000301	UME200	MEMORY
1201-002947	PAM100	IC
1201-002967	PAM102	IC
1201-002968	PAM101	IC
1203-005995	U300	IC
1204-003022	U402	IC
1205-003816	U401	IC
1205-003848	UCP200	IC
1205-003864	U100	IC
1404-001221	VR300	THERMISTOR
2007-000137	R400	R-CHIP
2007-000137	R404	R-CHIP
2007-000137	R410	R-CHIP
2007-000137	R413	R-CHIP
2007-000140	R112	R-CHIP
2007-000148	R401	R-CHIP
2007-000174	R502	R-CHIP
2007-000758	R300	R-CHIP

SEC CODE	Design LOC	Discription
2007-001319	R208	R-CHIP
2007-001319	R209	R-CHIP
2007-001333	R310	R-CHIP
2007-003006	R403	R-CHIP
2007-003006	R405	R-CHIP
2007-007001	R201	R-CHIP
2007-007015	R301	R-CHIP
2007-007573	R303	R-CHIP
2007-007589	R311	R-CHIP
2007-008052	R305	R-CHIP
2007-008354	R309	R-CHIP
2007-008354	R312	R-CHIP
2007-008419	R102	R-CHIP
2007-008419	R103	R-CHIP
2007-008419	R104	R-CHIP
2007-008465	R214	R-CHIP
2007-008516	R313	R-CHIP
2007-008548	R206	R-CHIP
2007-008548	R207	R-CHIP
2007-008587	R101	R-CHIP
2007-008766	R202	R-CHIP
2007-008800	R314	R-CHIP
2007-008806	R105	R-CHIP
2007-008806	R106	R-CHIP
2007-008806	R107	R-CHIP
2007-008806	R108	R-CHIP
2007-009112	R402	R-CHIP
2007-009112	R409	R-CHIP
2007-009168	R304	R-CHIP
2007-009168	R306	R-CHIP
2007-009168	R307	R-CHIP
2007-009168	R308	R-CHIP
2007-009409	R414	R-CHIP
2203-000233	C128	C-CERAMIC,CHIP
2203-000233	C156	C-CERAMIC,CHIP
2203-000233	C161	C-CERAMIC,CHIP
2203-000311	C518	C-CERAMIC,CHIP

SEC CODE	Design LOC	Discription
2203-000311	C519	C-CERAMIC,CHIP
2203-000386	C151	C-CERAMIC,CHIP
2203-000386	C500	C-CERAMIC,CHIP
2203-000386	C501	C-CERAMIC,CHIP
2203-000438	C150	C-CERAMIC,CHIP
2203-000438	C153	C-CERAMIC,CHIP
2203-000466	C107	C-CERAMIC,CHIP
2203-000466	C108	C-CERAMIC,CHIP
2203-000466	C147	C-CERAMIC,CHIP
2203-000627	C329	C-CERAMIC,CHIP
2203-000627	C330	C-CERAMIC,CHIP
2203-000627	C511	C-CERAMIC,CHIP
2203-000812	C106	C-CERAMIC,CHIP
2203-000812	C142	C-CERAMIC,CHIP
2203-000812	C145	C-CERAMIC,CHIP
2203-000812	C400	C-CERAMIC,CHIP
2203-000812	C415	C-CERAMIC,CHIP
2203-000940	C164	C-CERAMIC,CHIP
2203-000995	C109	C-CERAMIC,CHIP
2203-000995	C112	C-CERAMIC,CHIP
2203-000995	C333	C-CERAMIC,CHIP
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2203-000995	C418	C-CERAMIC,CHIP
2203-001072	C155	C-CERAMIC,CHIP
2203-001259	C403	C-CERAMIC,CHIP
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2203-002443	C433	C-CERAMIC,CHIP
2203-002668	C103	C-CERAMIC,CHIP
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2203-002709	C321	C-CERAMIC,CHIP
2203-002709	C324	C-CERAMIC,CHIP
2203-005050	C129	C-CERAMIC,CHIP
2203-005050	L114	C-CERAMIC,CHIP
2203-005281	C115	C-CERAMIC,CHIP

SEC CODE	Design LOC	Discription
2203-005281	C116	C-CERAMIC,CHIP
2203-005288	C113	C-CERAMIC,CHIP
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2203-005450	C127	C-CERAMIC,CHIP
2203-005482	C412	C-CERAMIC,CHIP
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2203-005734	C119	C-CERAMIC,CHIP
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2203-005736	L112	C-CERAMIC,CHIP
2203-006048	C202	C-CERAMIC,CHIP
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2203-006423	C133	C-CERAMIC,CHIP

SEC CODE	Design LOC	Discription
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2203-006844	C314	C-CERAMIC,CHIP
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2203-007165	C144	C-CERAMIC,CHIP
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2203-007279	C100	C-CERAMIC,CHIP
2203-007279	C200	C-CERAMIC,CHIP

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2203-007279	C413	C-CERAMIC,CHIP
2203-007317	C203	C-CERAMIC,CHIP
2203-007317	C215	C-CERAMIC,CHIP
2203-007317	C217	C-CERAMIC,CHIP
2203-007317	C225	C-CERAMIC,CHIP
2203-007317	C226	C-CERAMIC,CHIP
2203-007369	C139	C-CERAMIC,CHIP
2203-007369	C502	C-CERAMIC,CHIP
2203-007369	C503	C-CERAMIC,CHIP
2203-007369	C504	C-CERAMIC,CHIP
2203-007393	C140	C-CERAMIC,CHIP
2203-007393	C160	C-CERAMIC,CHIP
2203-007393	C306	C-CERAMIC,CHIP
2203-007393	C308	C-CERAMIC,CHIP
2203-007393	C508	C-CERAMIC,CHIP
2404-001377	C409	C-TA,CHIP
2404-001572	C126	C-TA,CHIP
2409-001172	BAT300	CAPACITOR
2703-001734	L108	INDUCTOR-SMD
2703-002170	L113	INDUCTOR-SMD
2703-002176	L101	INDUCTOR-SMD
2703-002204	L104	INDUCTOR-SMD
2703-002204	L105	INDUCTOR-SMD
2703-002204	L106	INDUCTOR-SMD
2703-002204	L107	INDUCTOR-SMD
2703-002205	C131	INDUCTOR-SMD
2703-002205	C132	INDUCTOR-SMD
2703-002267	L103	INDUCTOR-SMD
2703-002268	C149	INDUCTOR-SMD
2703-002313	L115	INDUCTOR-SMD
2703-002314	L100	INDUCTOR-SMD
2703-002365	C431	INDUCTOR-SMD

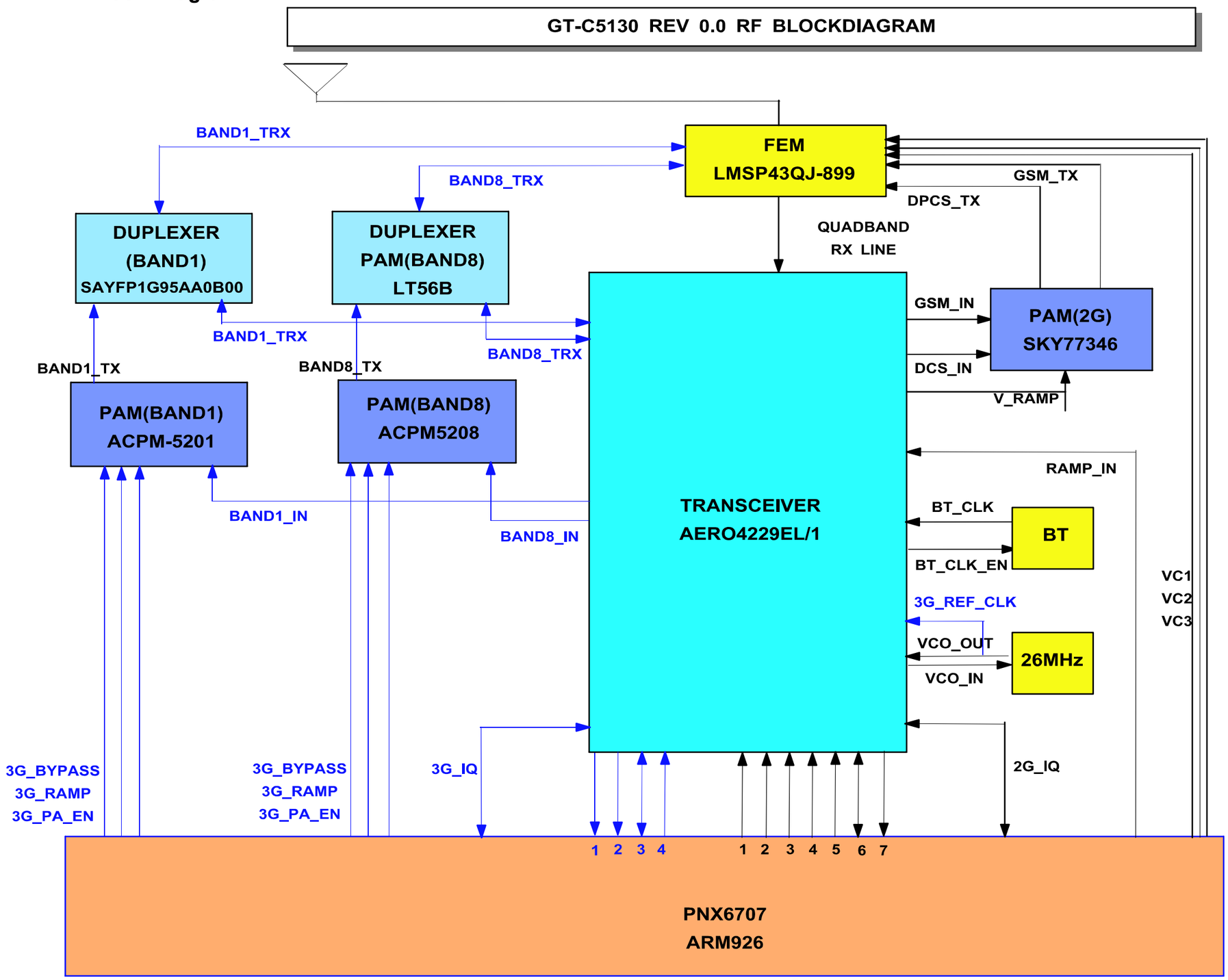
SEC CODE	Design LOC	Discription
2703-002365	R100	INDUCTOR-SMD
2703-002367	C146	INDUCTOR-SMD
2703-002368	C130	INDUCTOR-SMD
2703-002708	L116	INDUCTOR-SMD
2703-002840	L300	INDUCTOR-SMD
2703-002880	L110	INDUCTOR-SMD
2703-003121	L400	INDUCTOR-SMD
2703-003125	L118	INDUCTOR-SMD
2703-003145	L117	INDUCTOR-SMD
2703-003194	L301	INDUCTOR-SMD
2703-003196	L401	INDUCTOR-SMD
2703-003498	L302	INDUCTOR-SMD
2801-004373	OSC300	CRYSTAL-UNIT
2809-001281	VCTCXO100	OSCILLATOR-VCTCXO
2901-001435	F500	FILTER-EMI SMD
2901-001435	F501	FILTER-EMI SMD
2901-001435	F504	FILTER-EMI SMD
2901-001540	F502	FILTER-EMI SMD
2901-001540	F503	FILTER-EMI SMD
2910-000070	F100	FILTER
2910-000085	F101	FILTER
2911-000137	FEM100	FILTER
3301-001438	L402	CORE-FERRITE BEAD
3301-001438	L403	CORE-FERRITE BEAD
3301-001438	L406	CORE-FERRITE BEAD
3301-001438	L407	CORE-FERRITE BEAD
3301-001762	R501	CORE-FERRITE BEAD
3301-001762	R503	CORE-FERRITE BEAD
3301-001812	L500	CORE-FERRITE BEAD
3301-001885	L404	CORE-FERRITE BEAD
3301-001885	L405	CORE-FERRITE BEAD
3404-001303	TAC_DOWN	SWITCH-TACT
3404-001303	TAC_UP	SWITCH-TACT
3705-001503	RFS100	CONNECTOR-COAXIAL
3708-002222	HDC500	CONNECTOR-FPC/FFC/PIC
3709-001394	SD300	CONNECTOR-CARD EDGE
3709-001447	SIM300	CONNECTOR-CARD EDGE

SEC CODE	Design LOC	Discription
3710-002683	IFC400	CONNECTOR-SOCKET
3711-006228	BTC300	CONNECTOR-HEADER
3711-006917	HDC501	CONNECTOR-HEADER
4709-001803	F400	RF-MODULE

Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

7. Block Diagrams

7-1. RF Block Diagram



<FEM TRUTH TABLE>

MODE	BAND	VC1	VC2	VC3
TX	GSM850/ GSM900	H	H	H
	GSM1800/ GSM1900	H	L	L
RX	GSM850/ GSM900/	L	H	H
	GSM1800/ GSM1900	L	L	H
B1_TRX		H	H	L
B8_TRX		H	L	H

LOGIC : 'H' --> 1.4~2.7V
'L' --> 0~0.4V

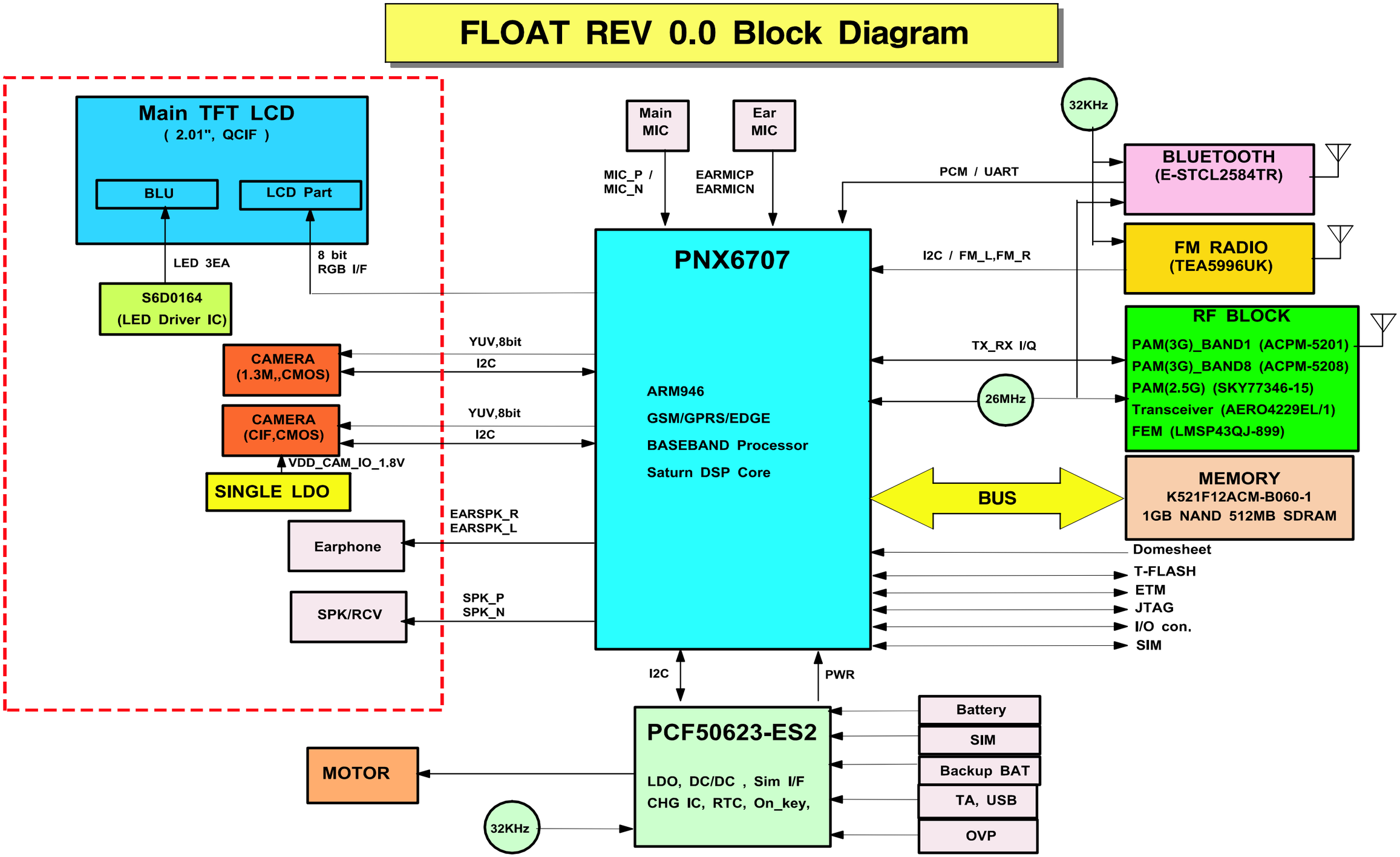
<DATA LINE DESCRIPTION>

BAND		DESCRIPTION
3G	1	3G_RF_SPI_CLK
	2	3G_RF_SPI_EN
	3	3G_RF_SPI_DATA
	4	3G_RST
2G	1	2G_RST
	2	2G_PWR_DN
	3	2G_REF_ON
	4	2G_RF_CLK
	5	2G_RF_EN
	6	2G_RF_DATA
	7	2G_REF_CLK

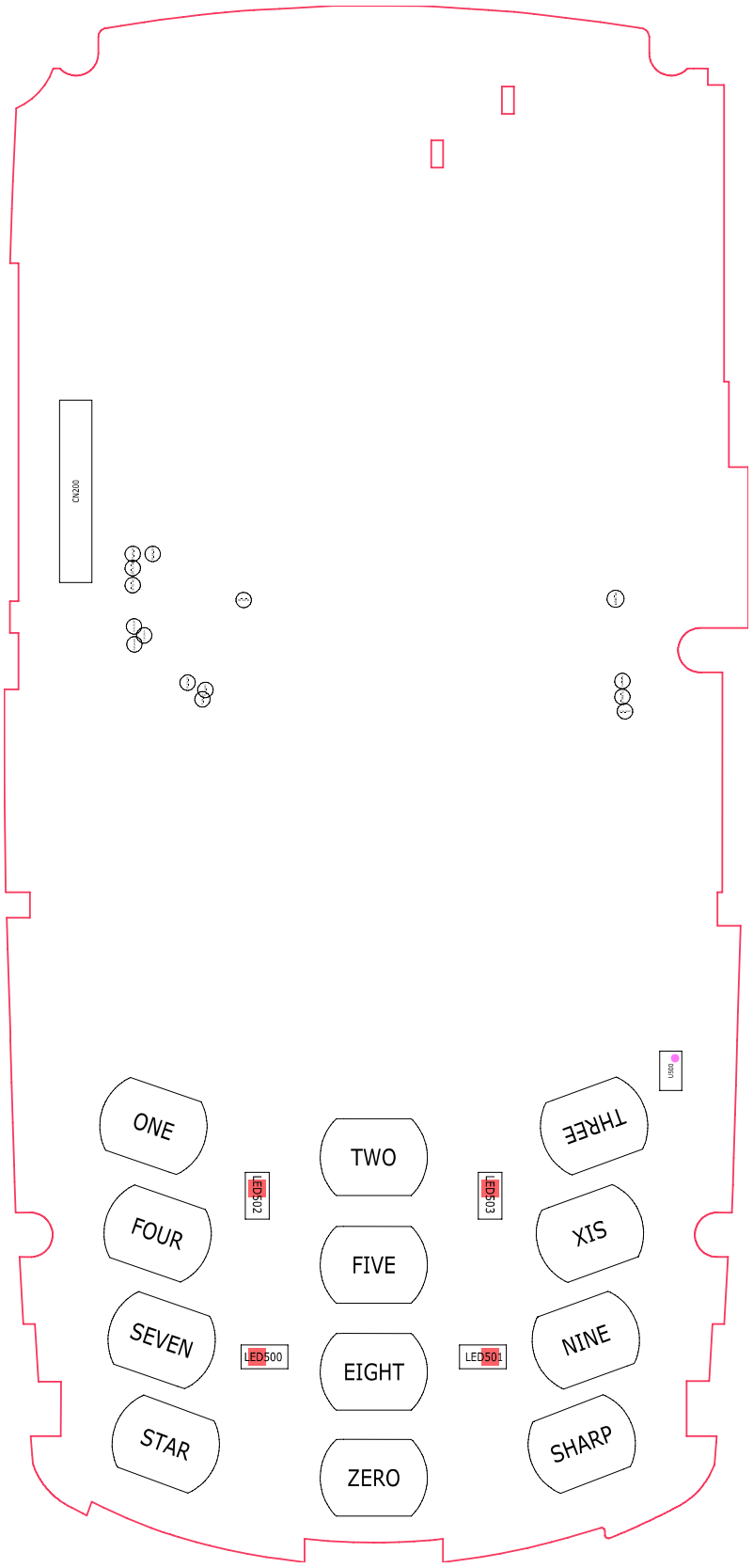
2G LINE

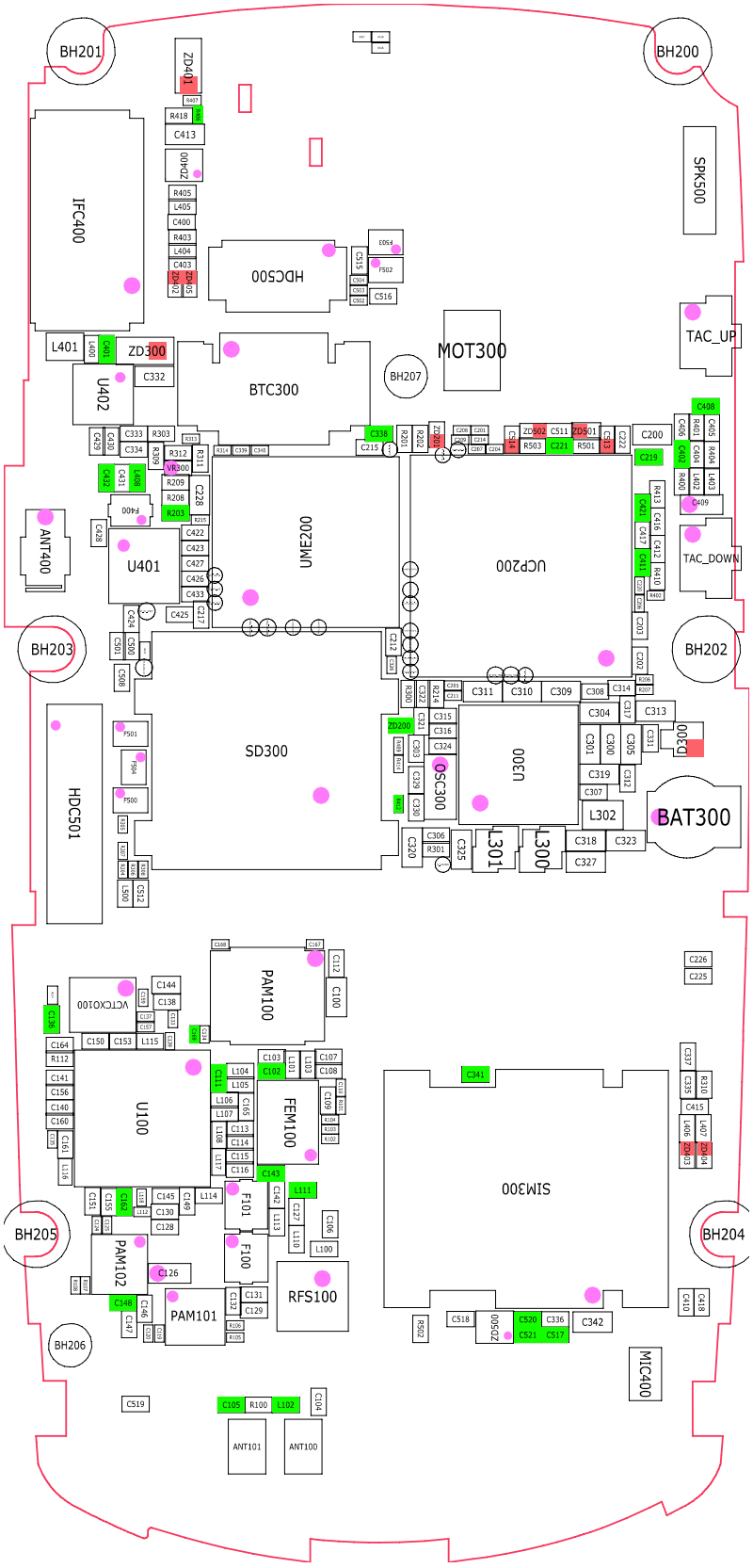
3G LINE

7-2. Base Band Solution Block Diagram



8. PCB Diagrams

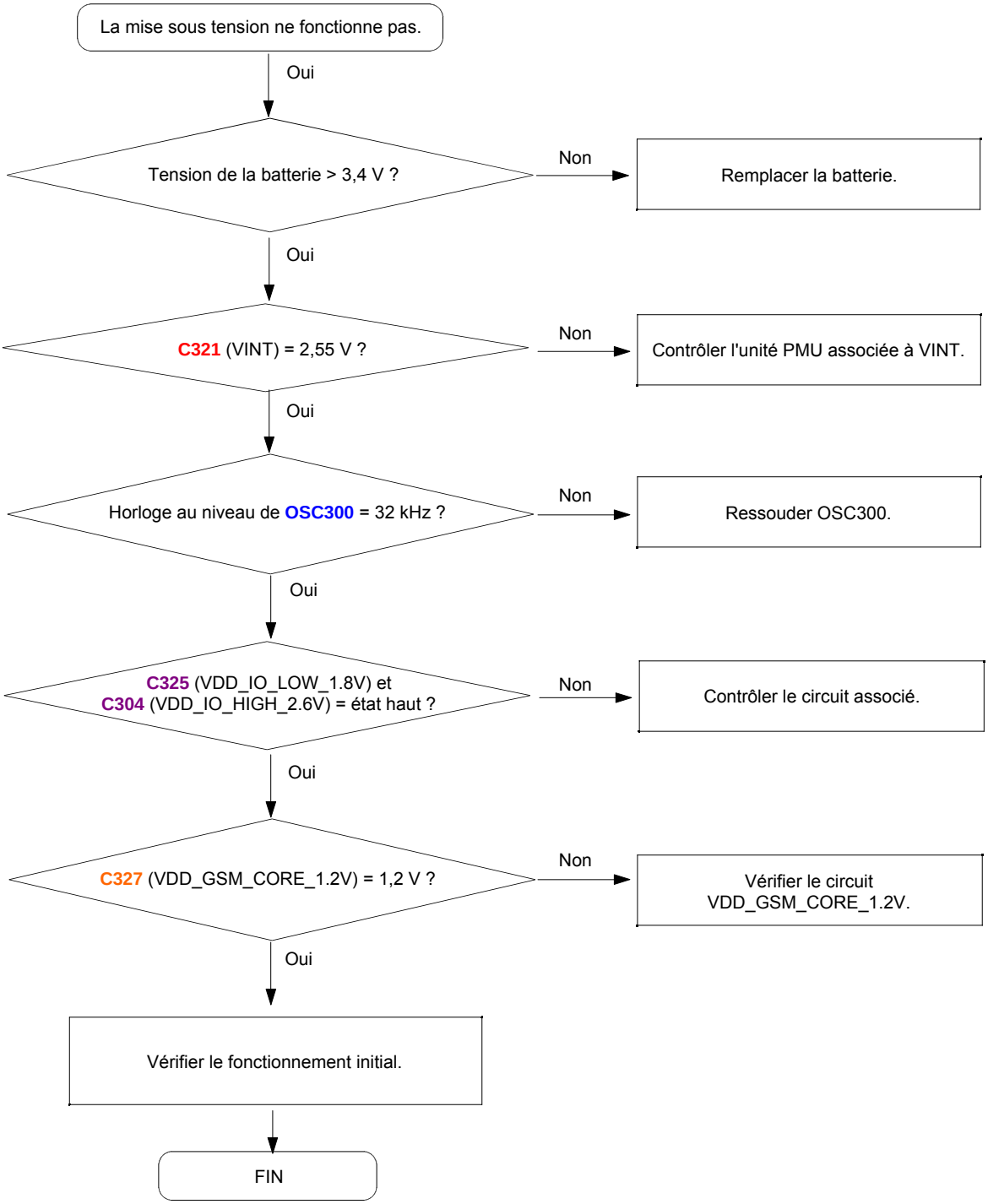


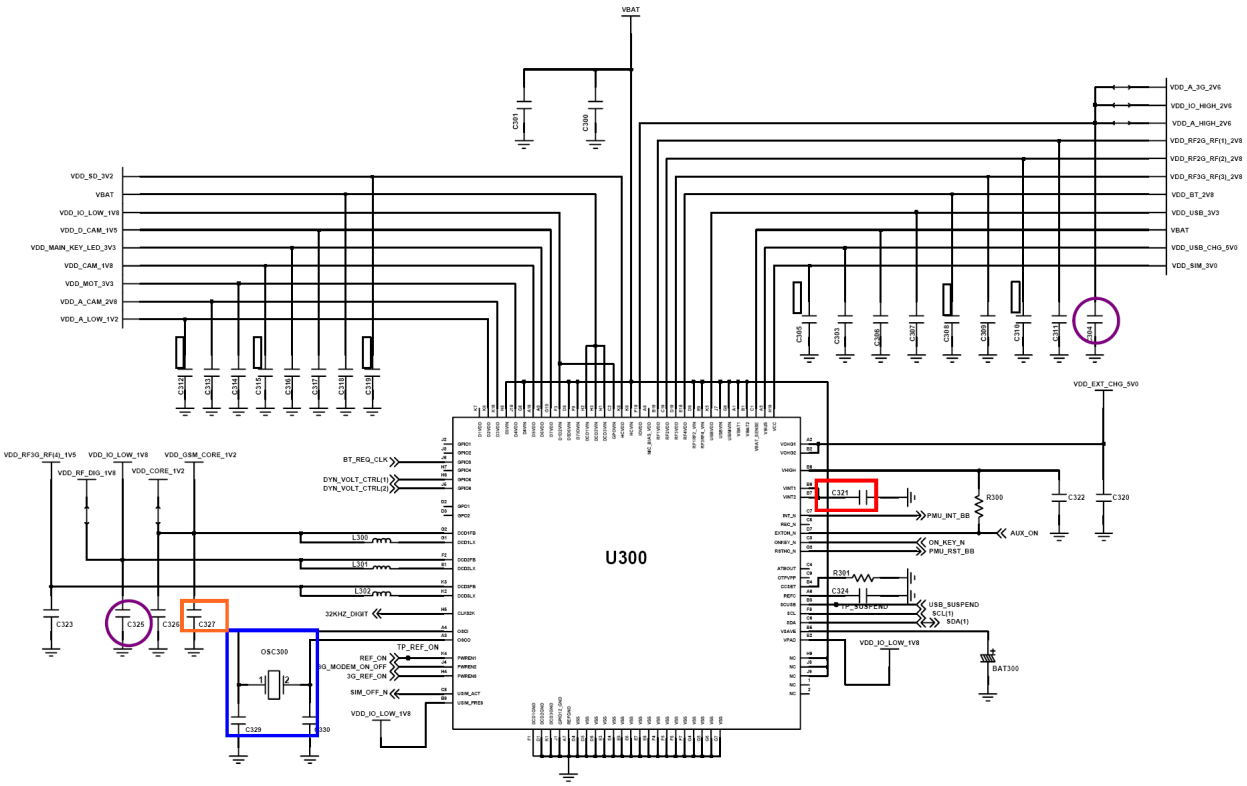


9. Recherche des pannes

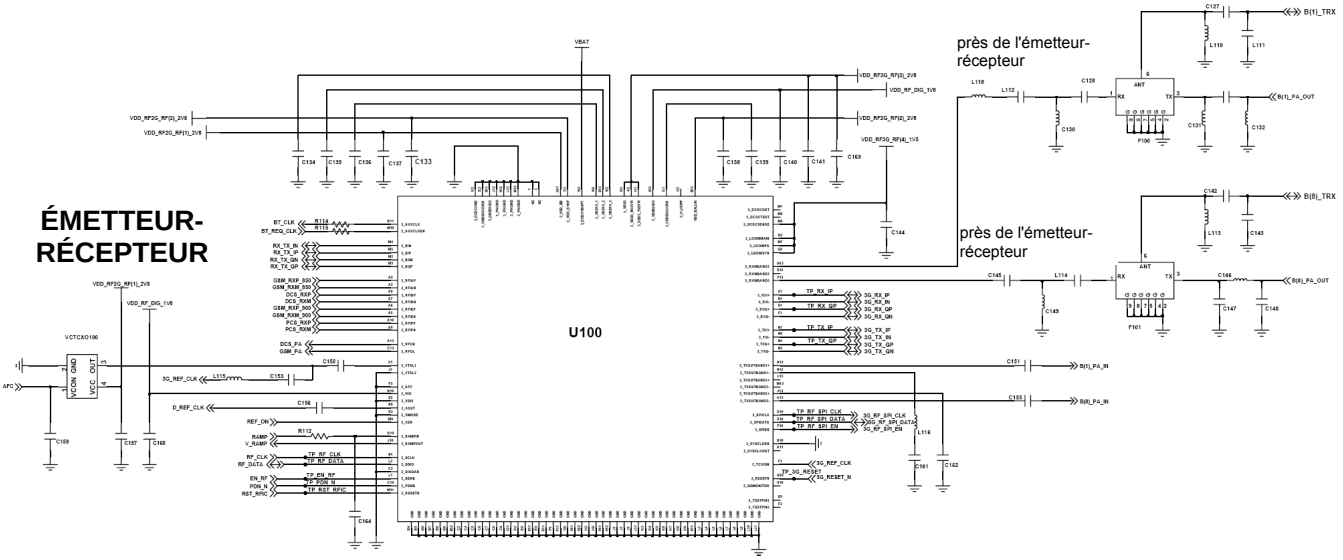
9-1. Bande de base

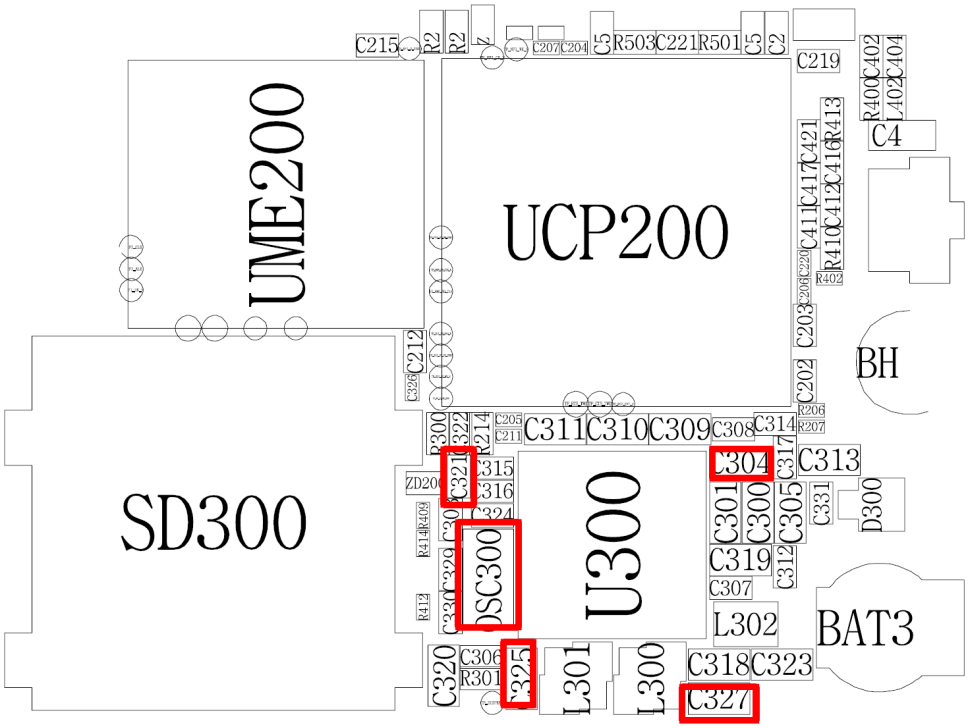
9-1-1. Mise sous tension



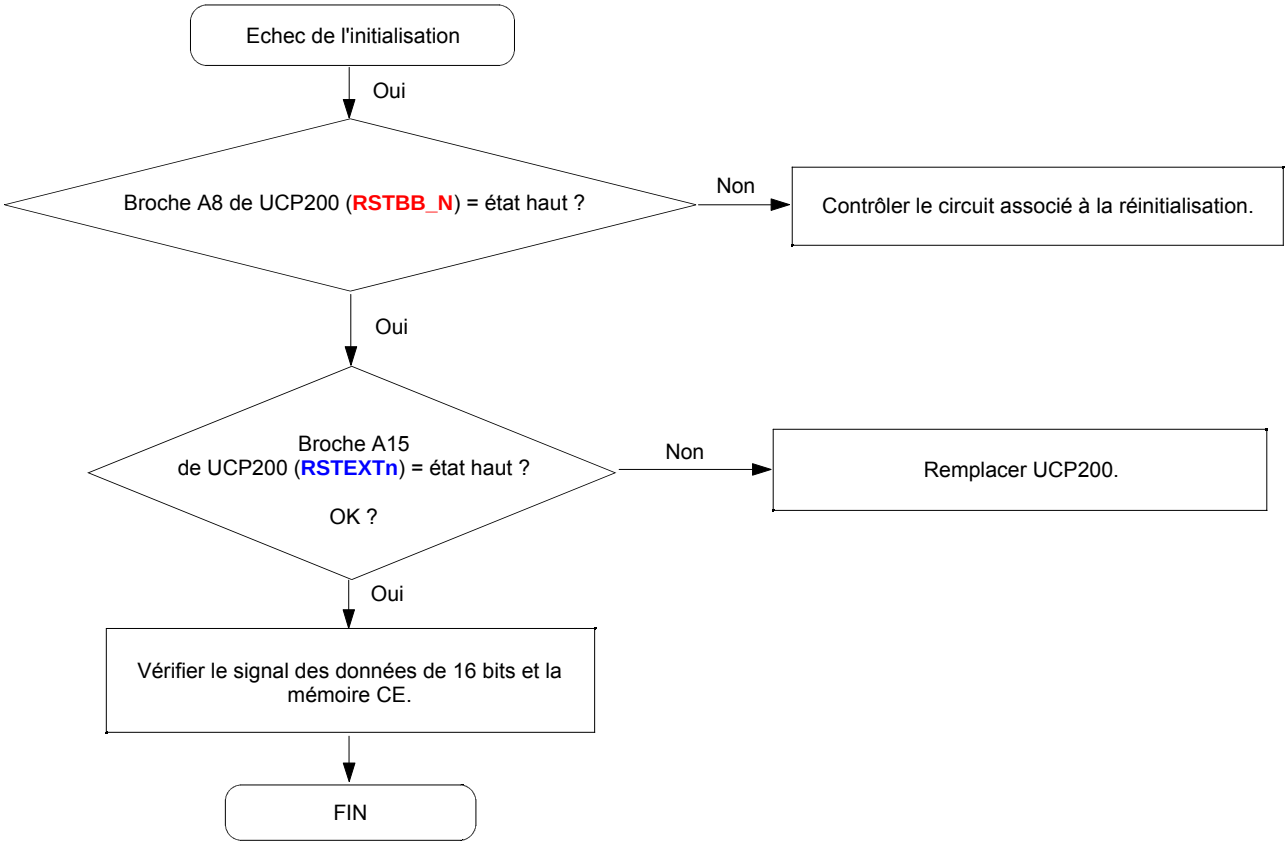


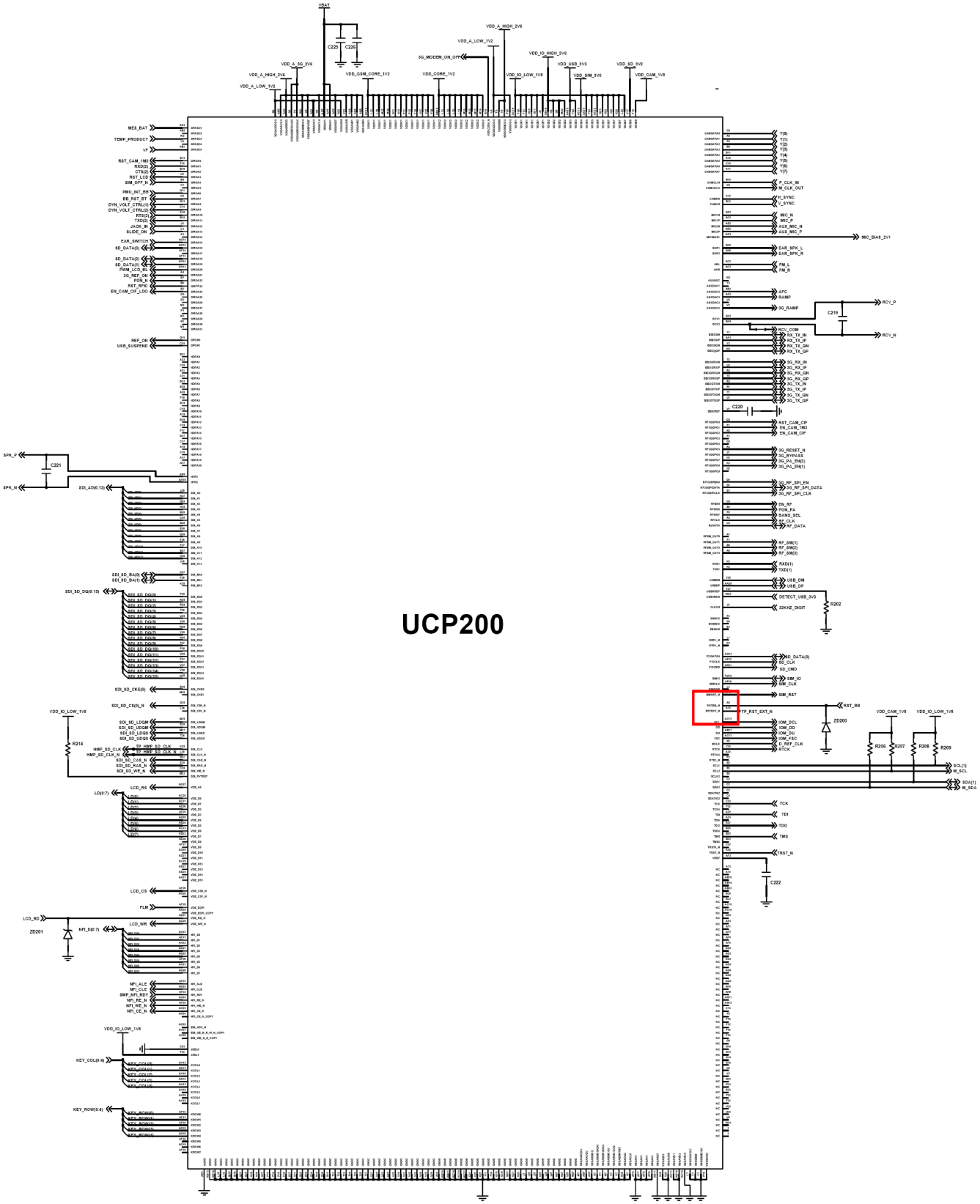
CI PM



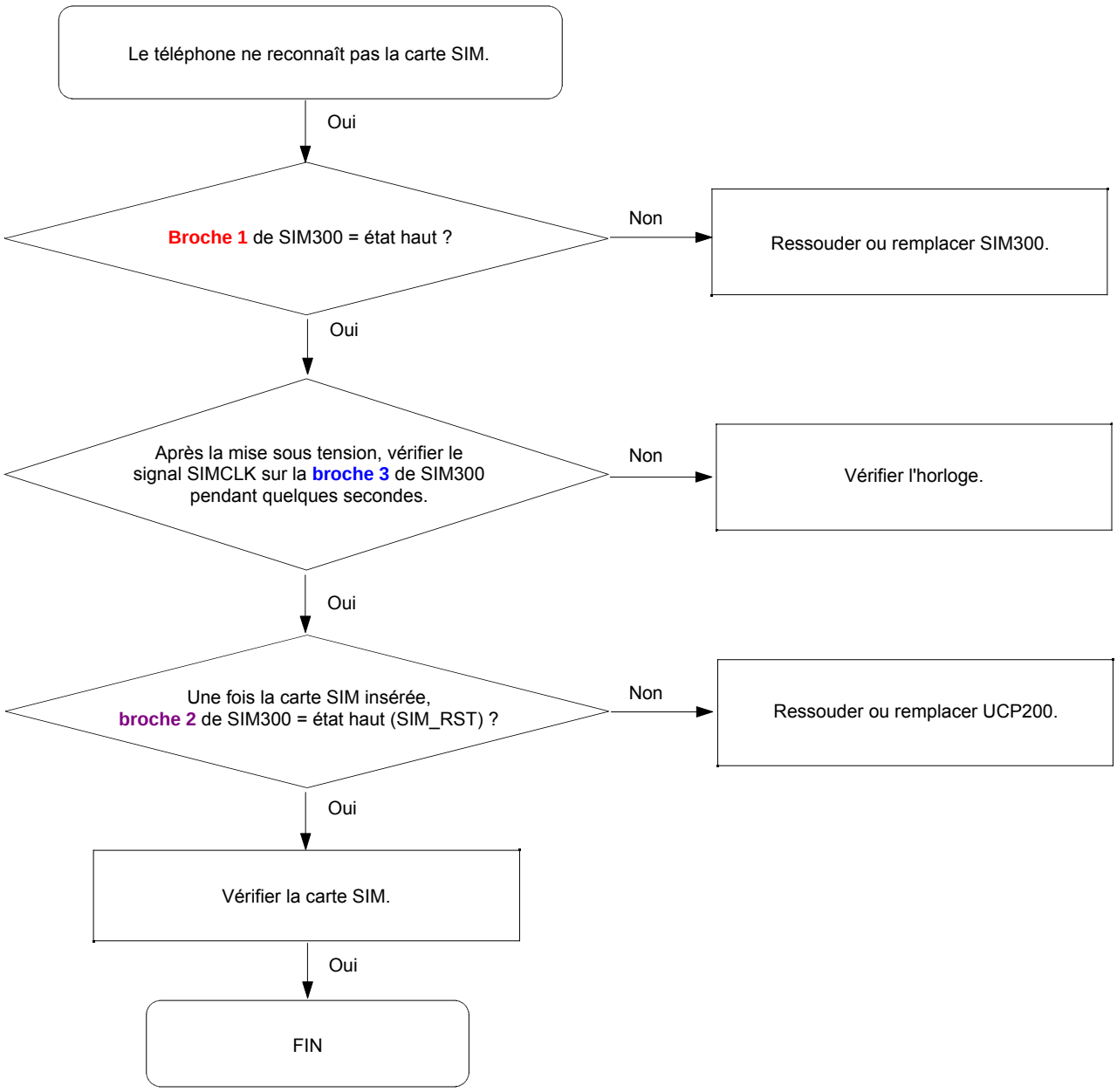


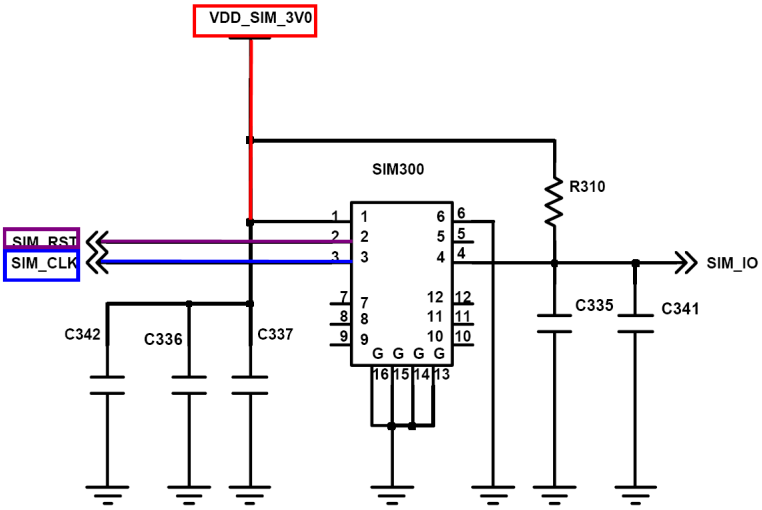
9-1-2. Initialisation



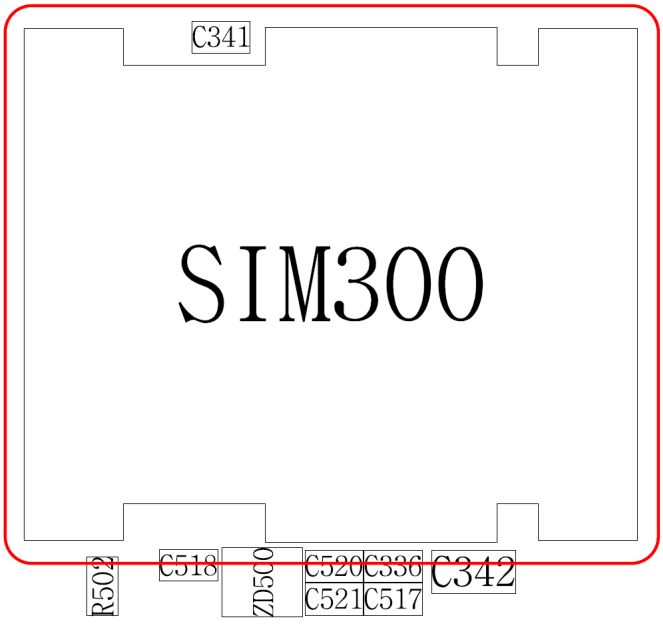


9-1-3. Section SIM

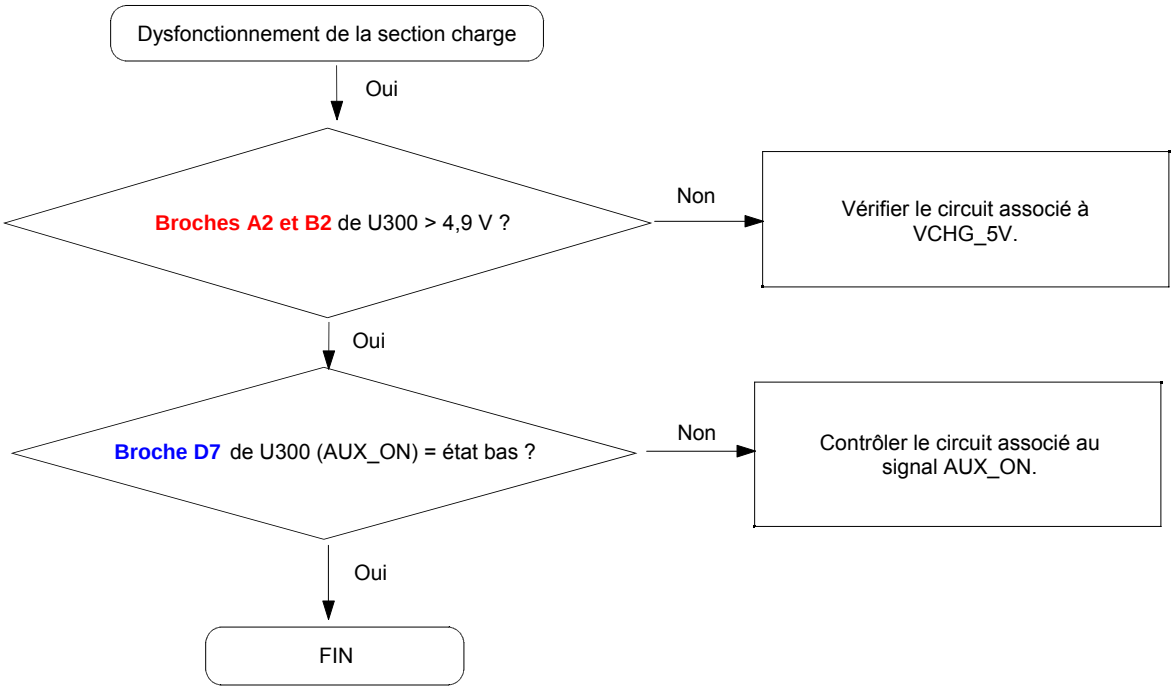


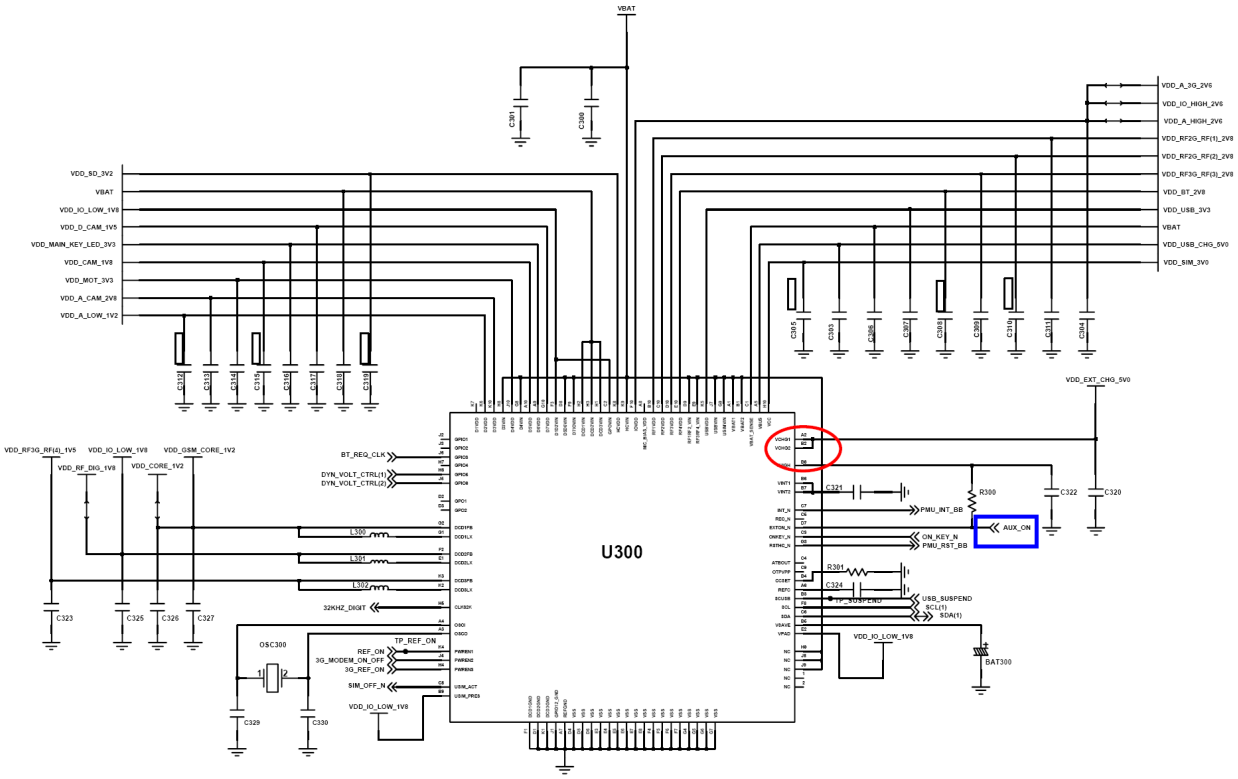


Connecteur SIM

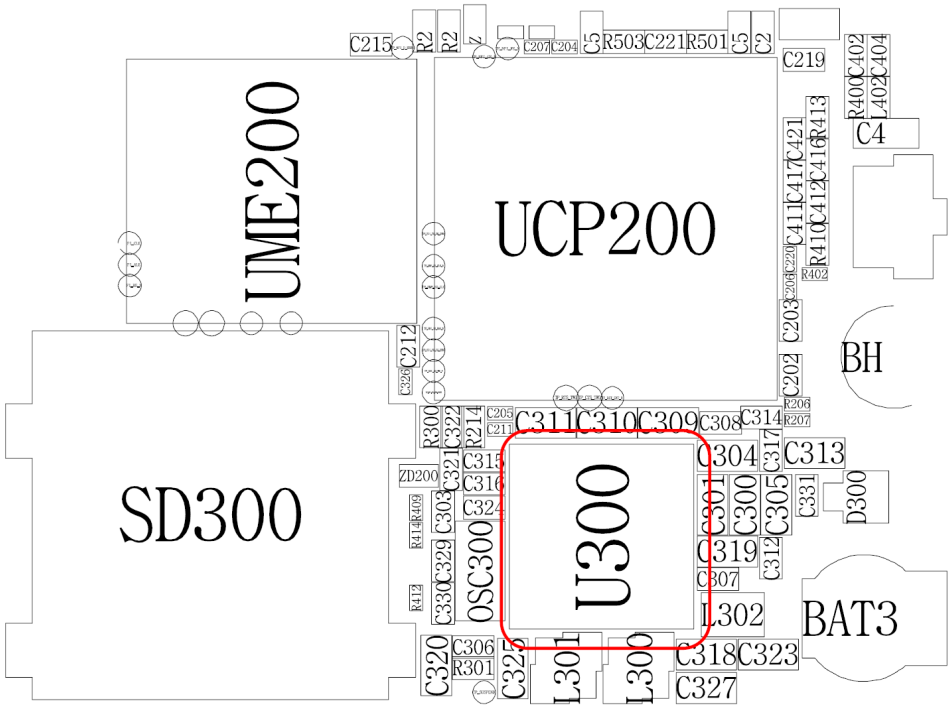


9-1-4. Section charge

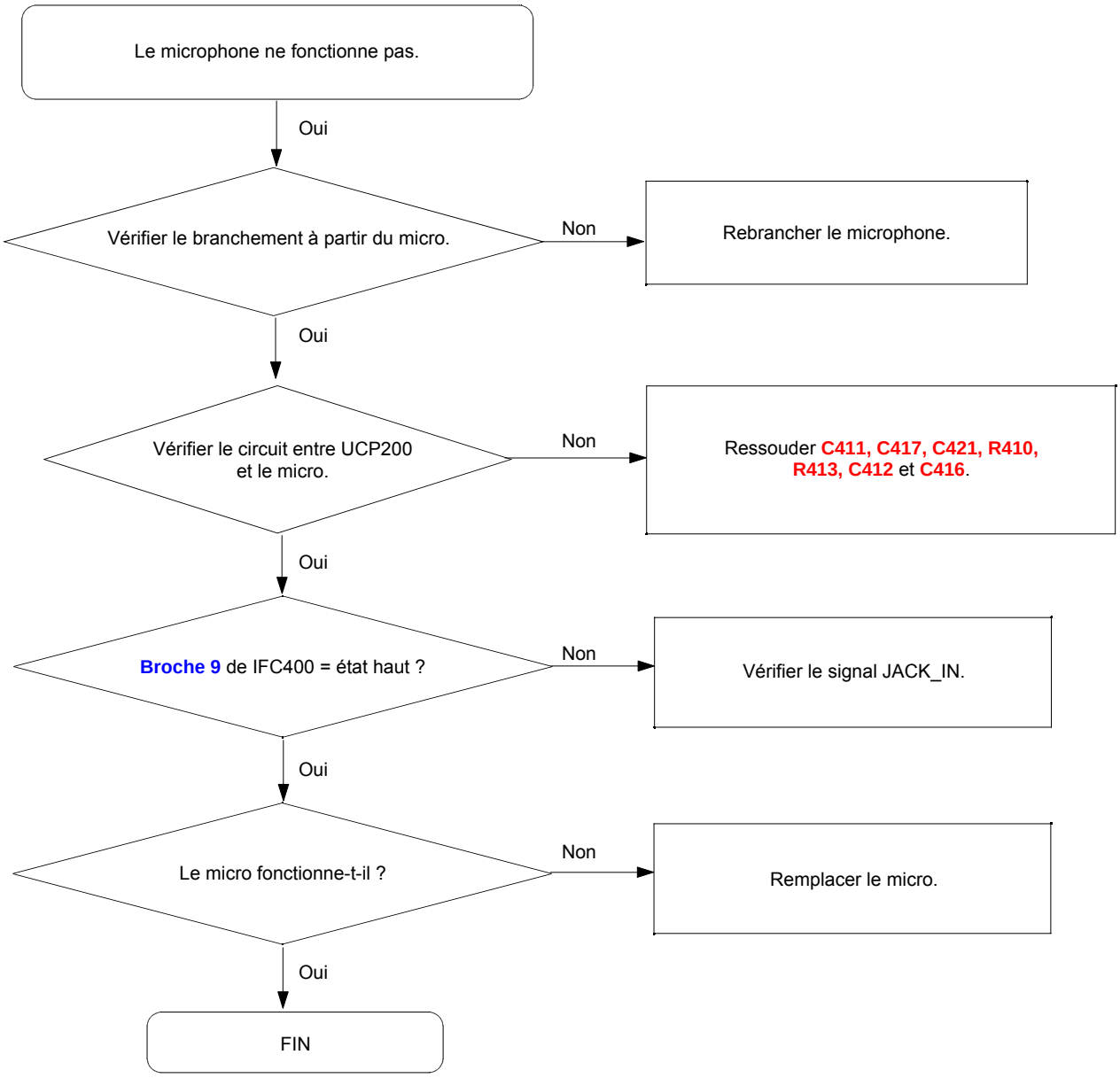


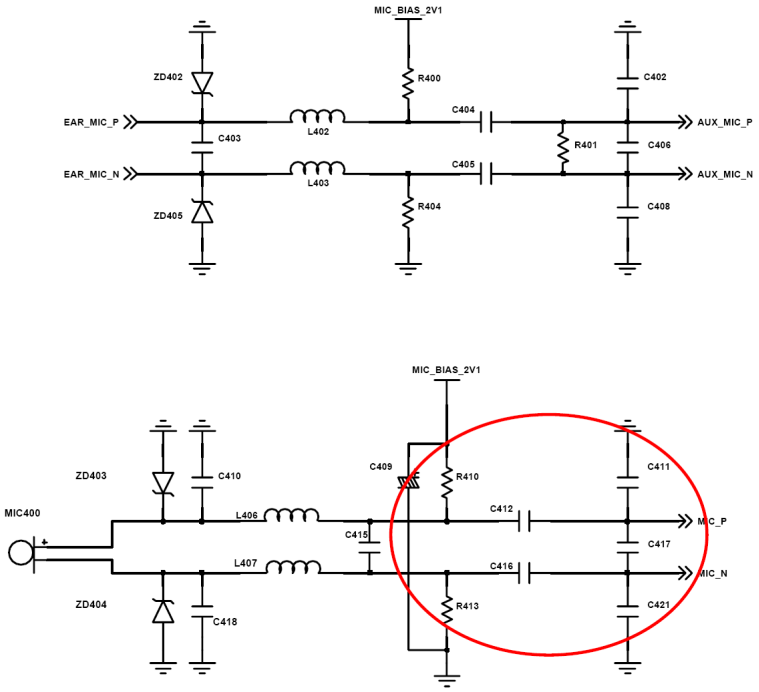


CI PM

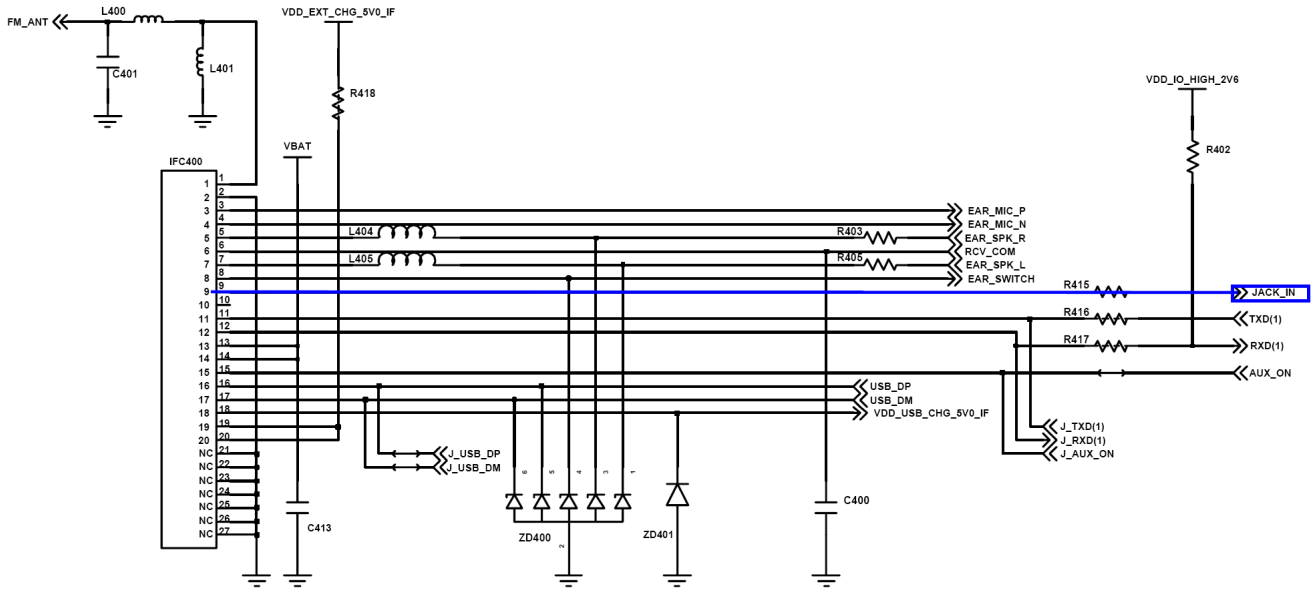


9-1-5. Section microphone

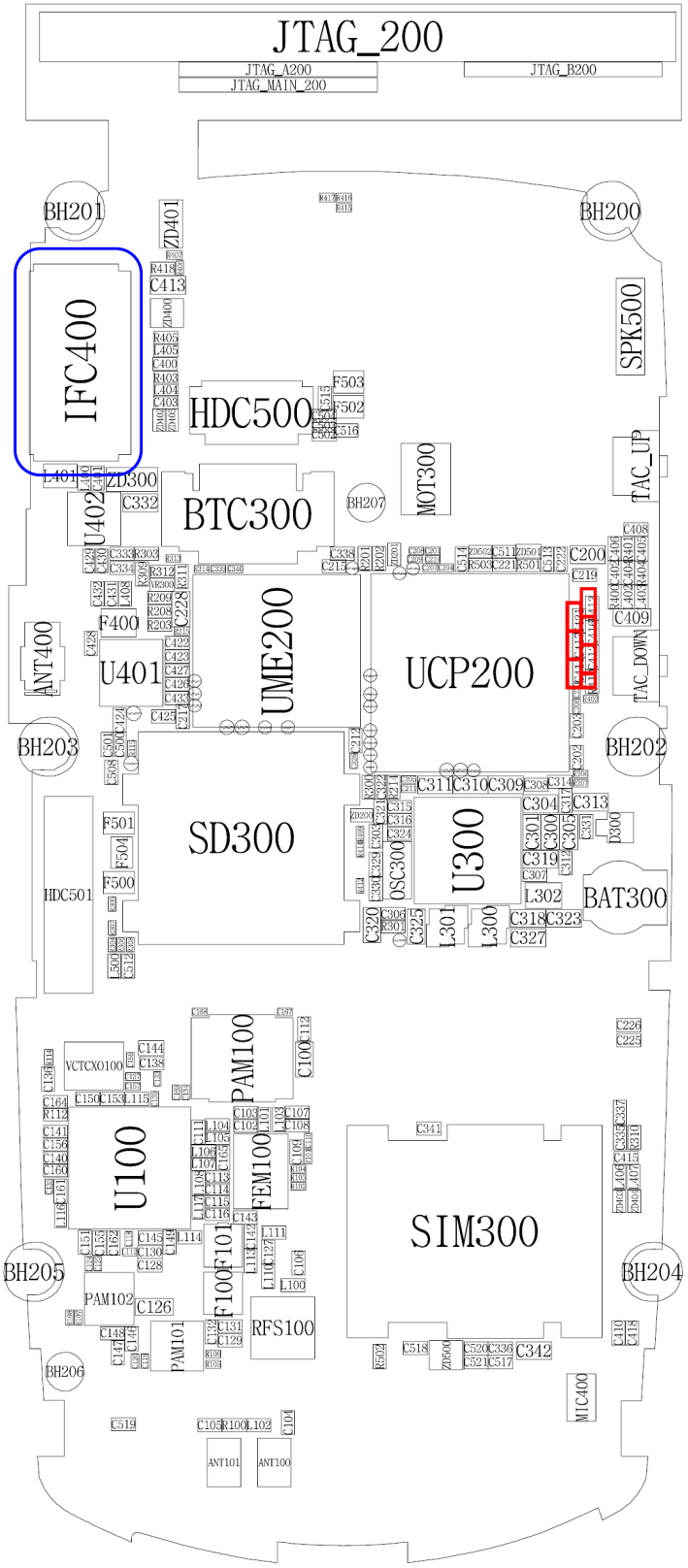




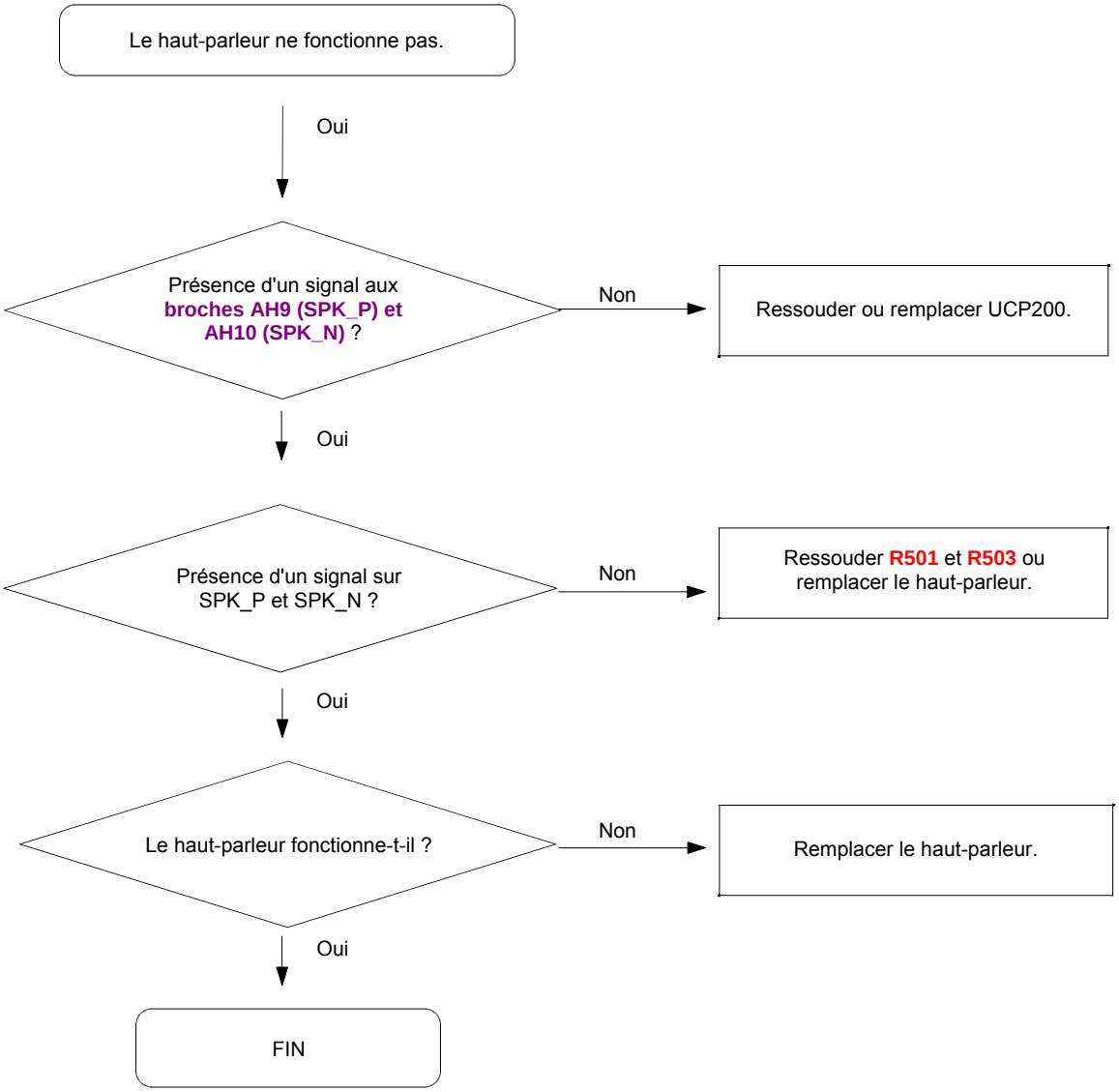
Trajet micro

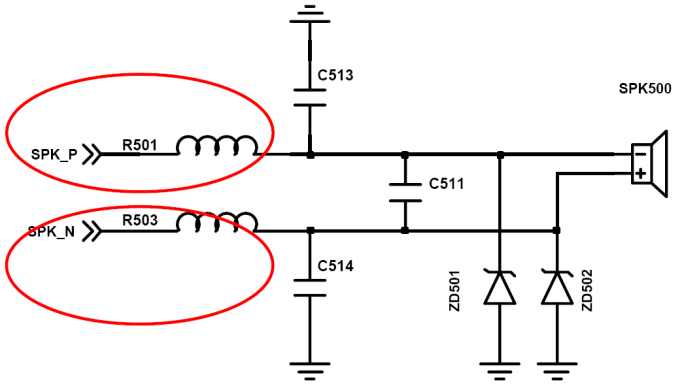


Connecteur IF

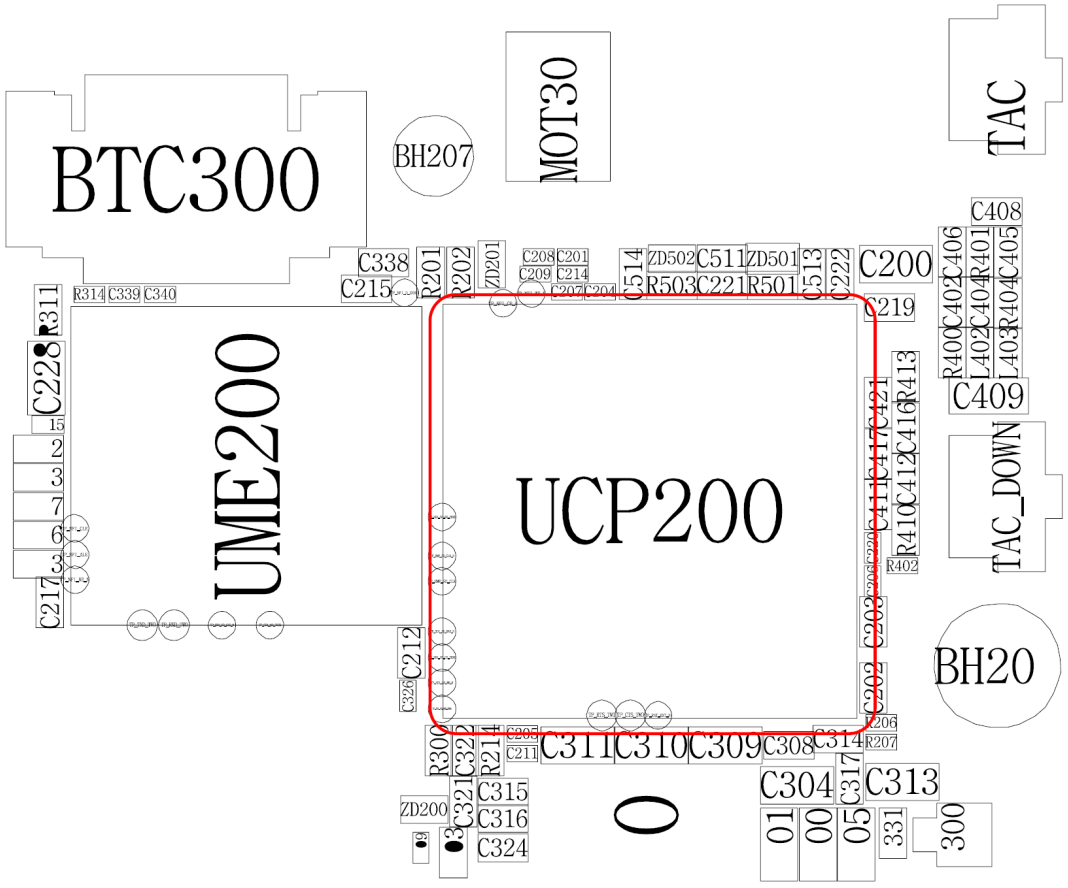


9-1-6. Section haut-parleur

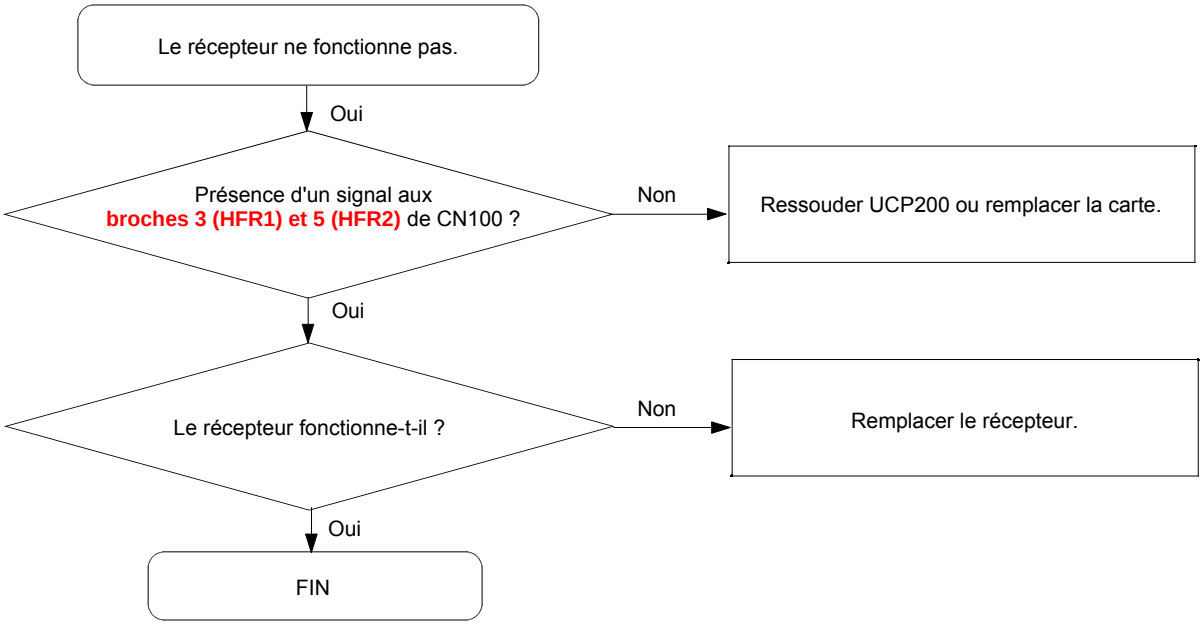


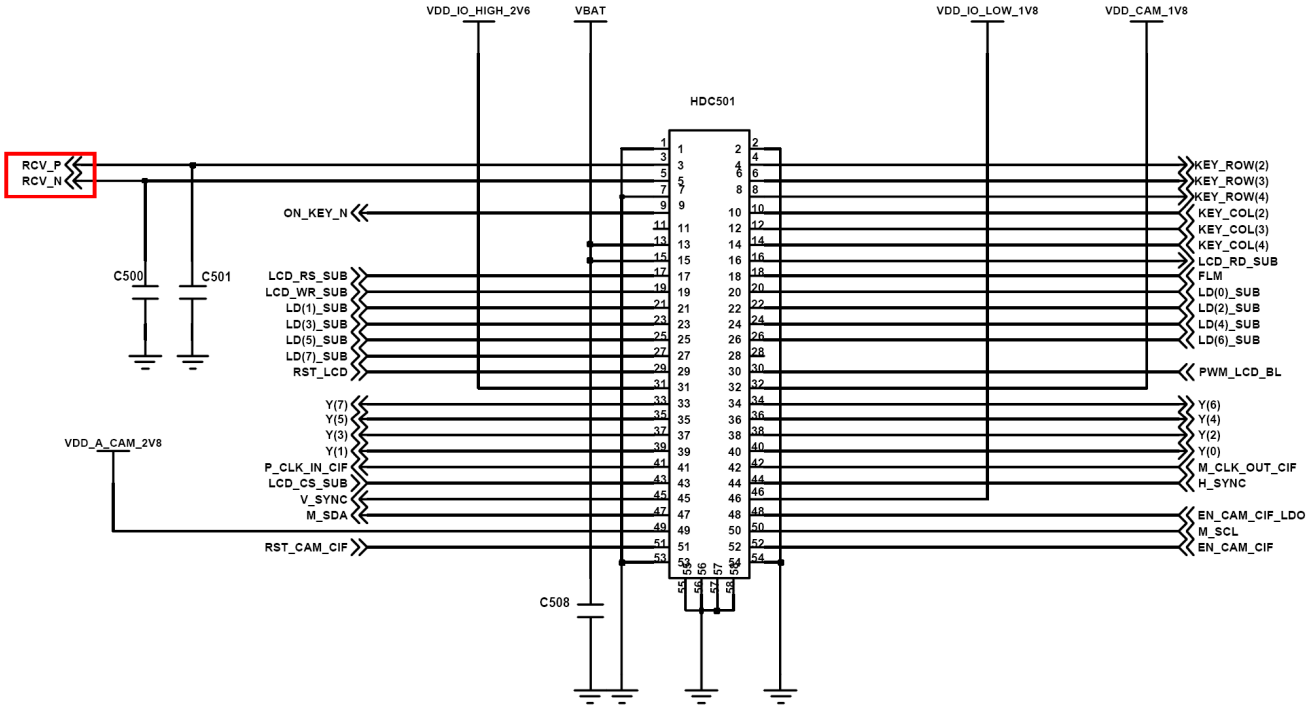


Haut-parleur

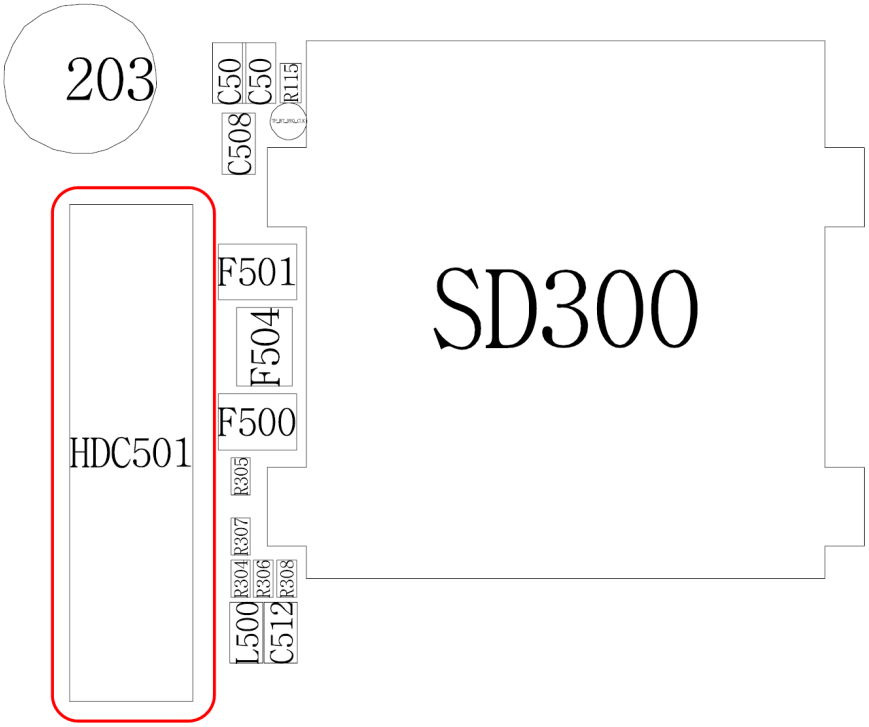


9-1-7. Section récepteur

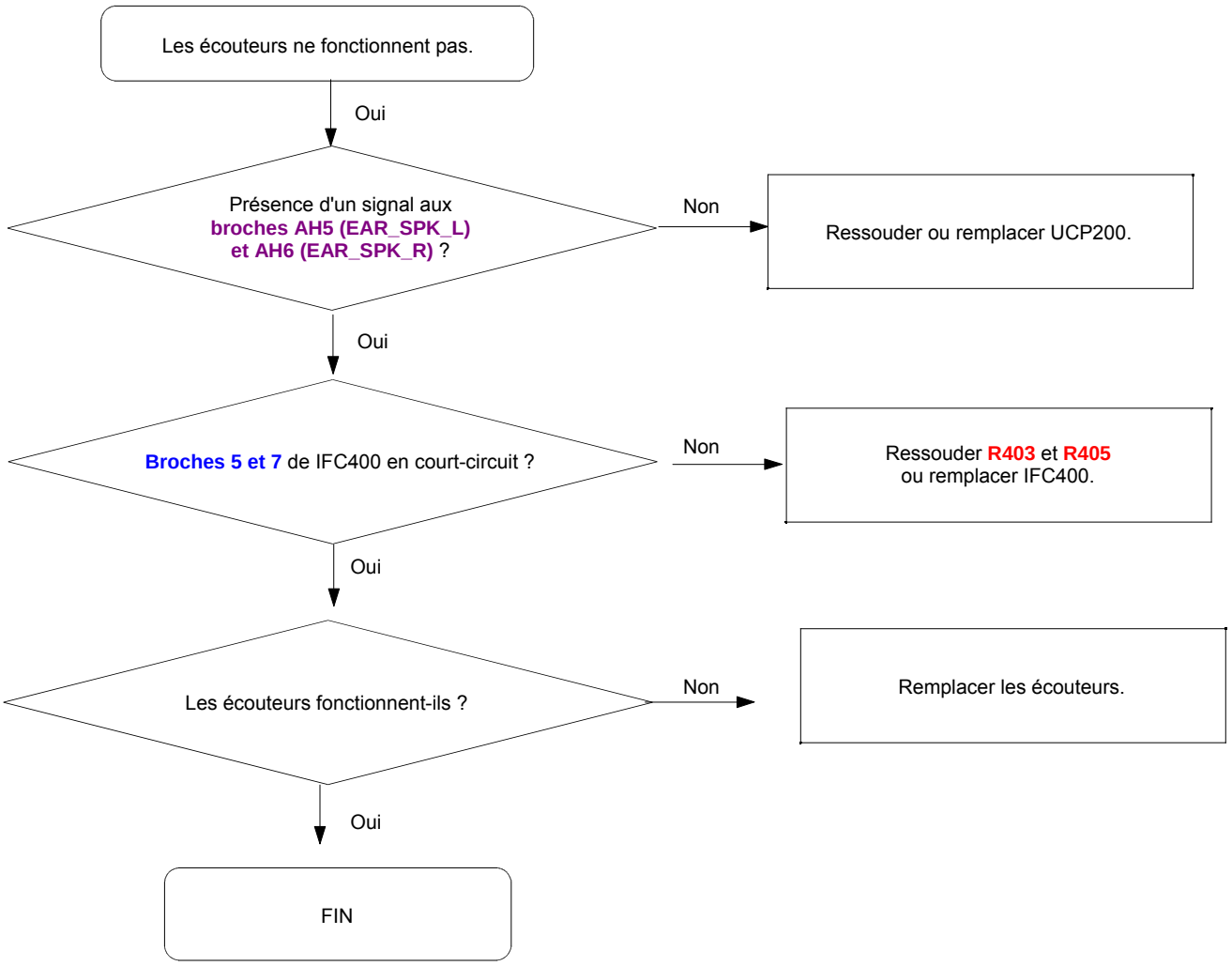


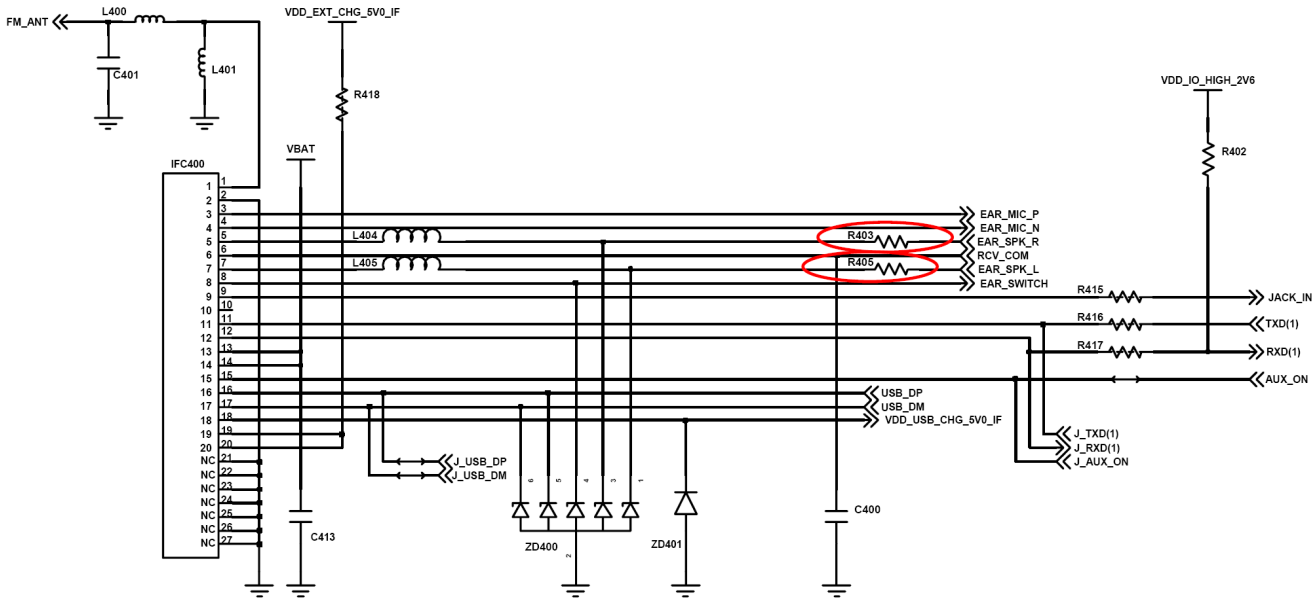


Con. carte principale

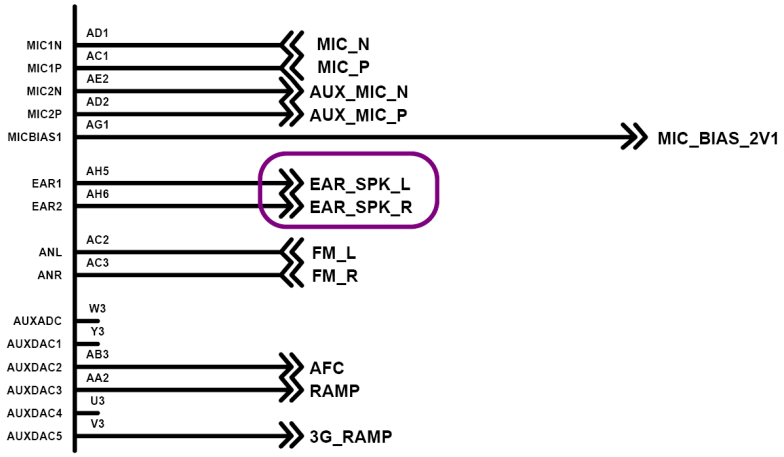


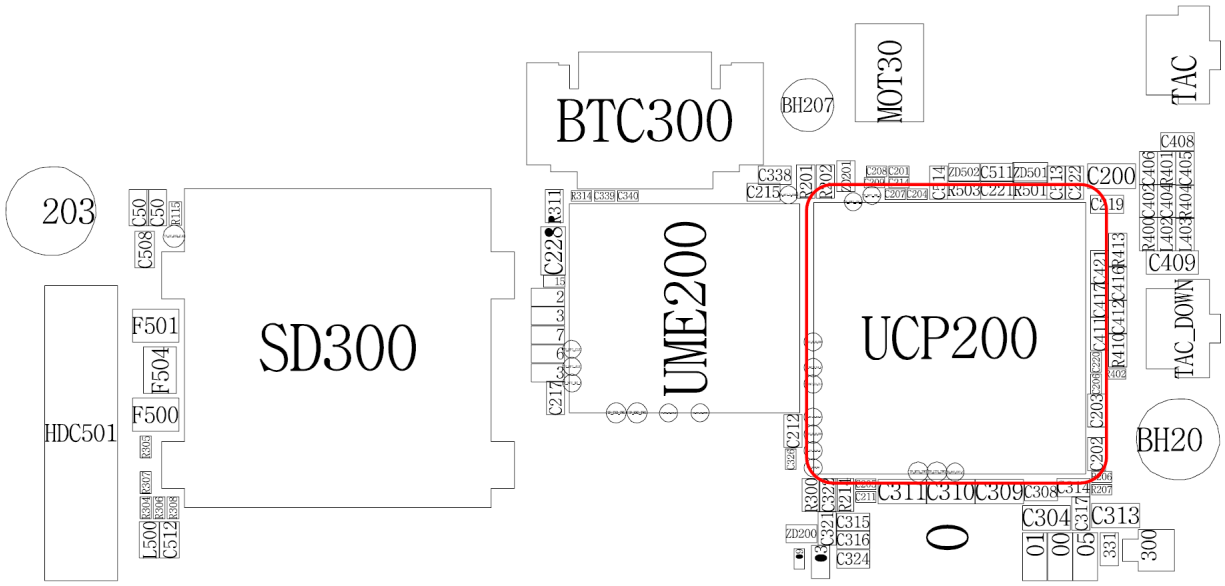
9-1-8. Section oreillettes



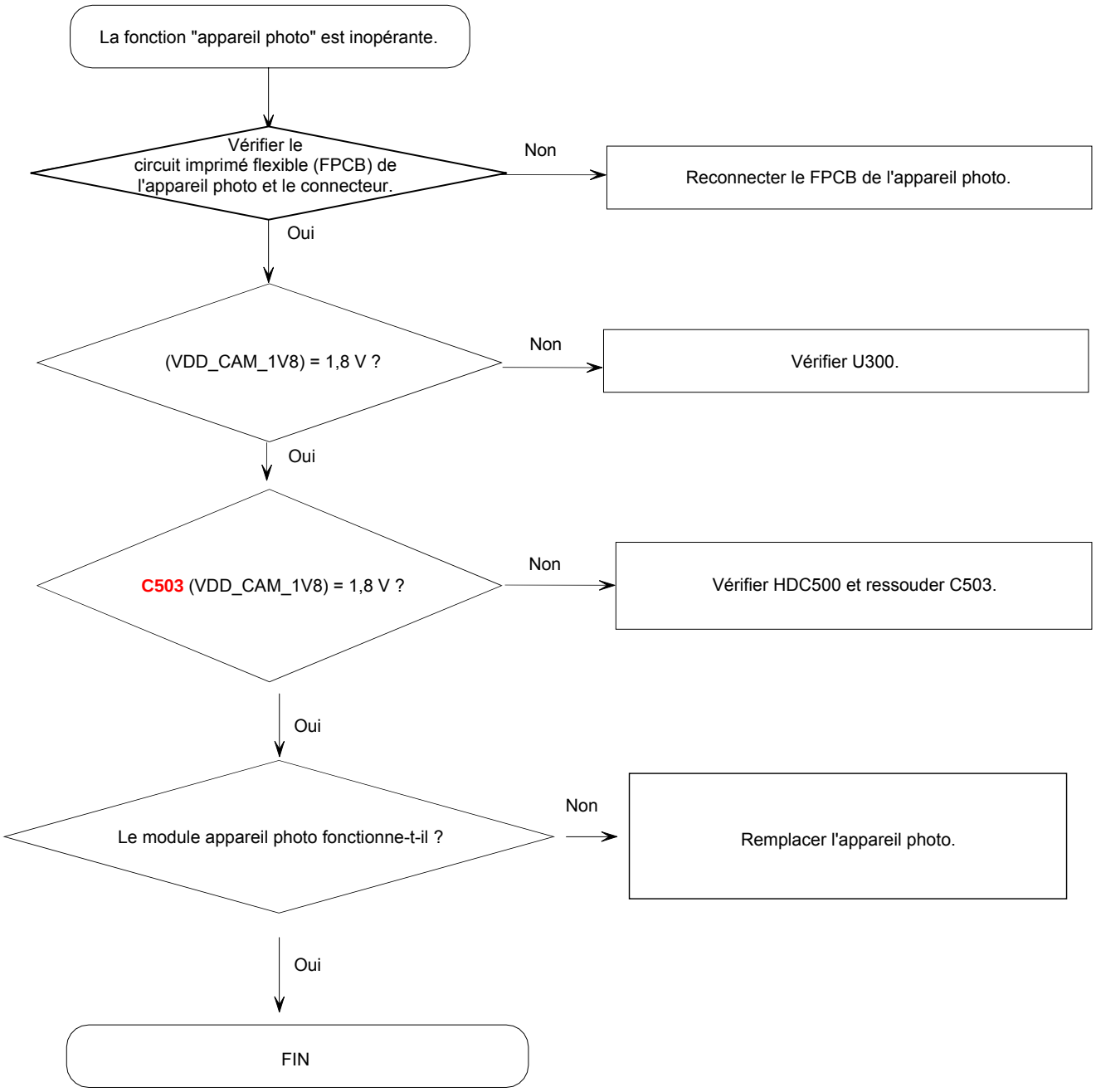


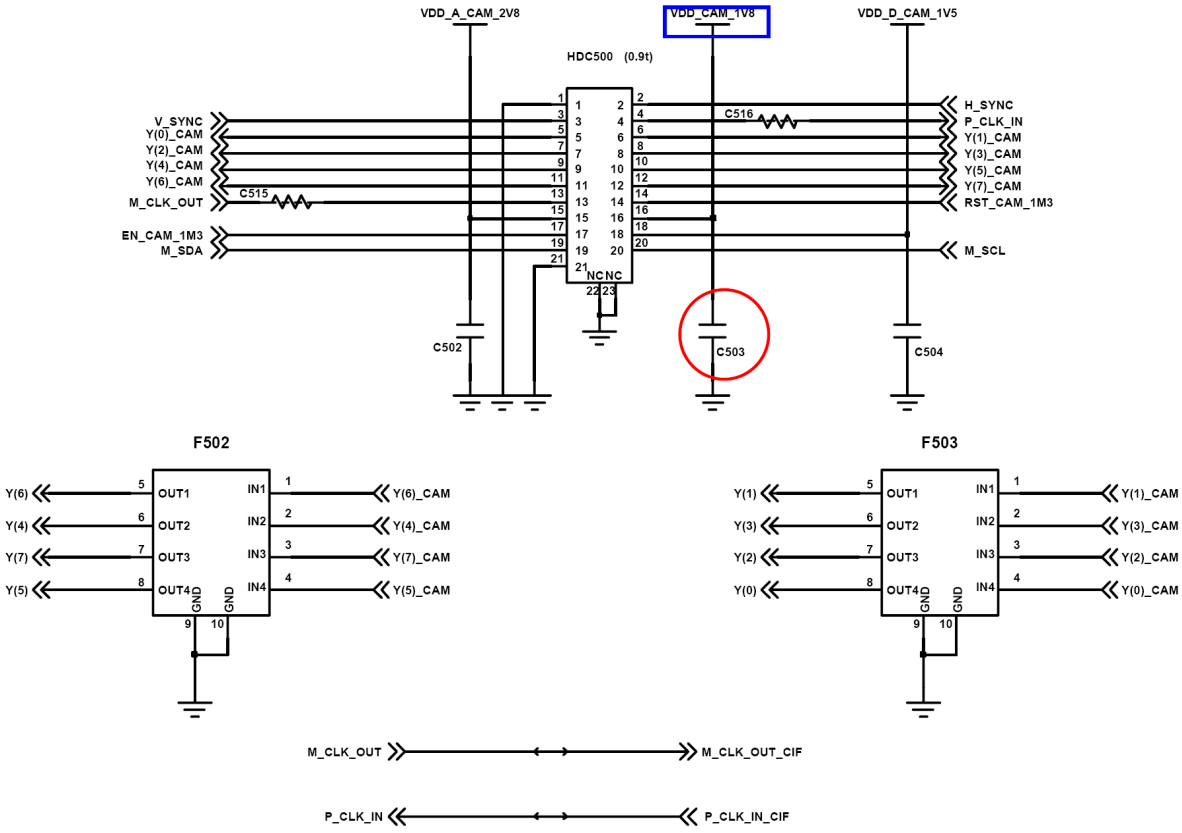
Connecteur IF



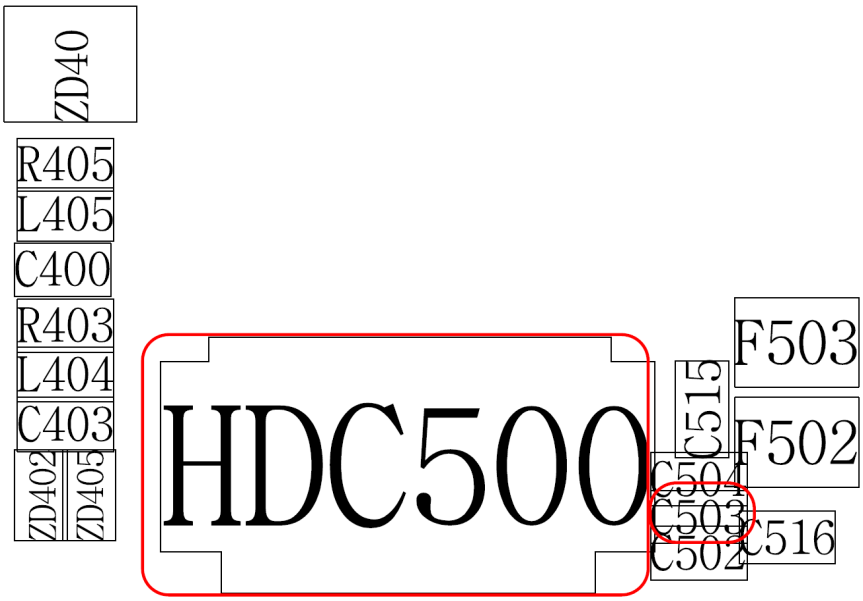


9-1-9. Section appareil photo (Mega et VGA)

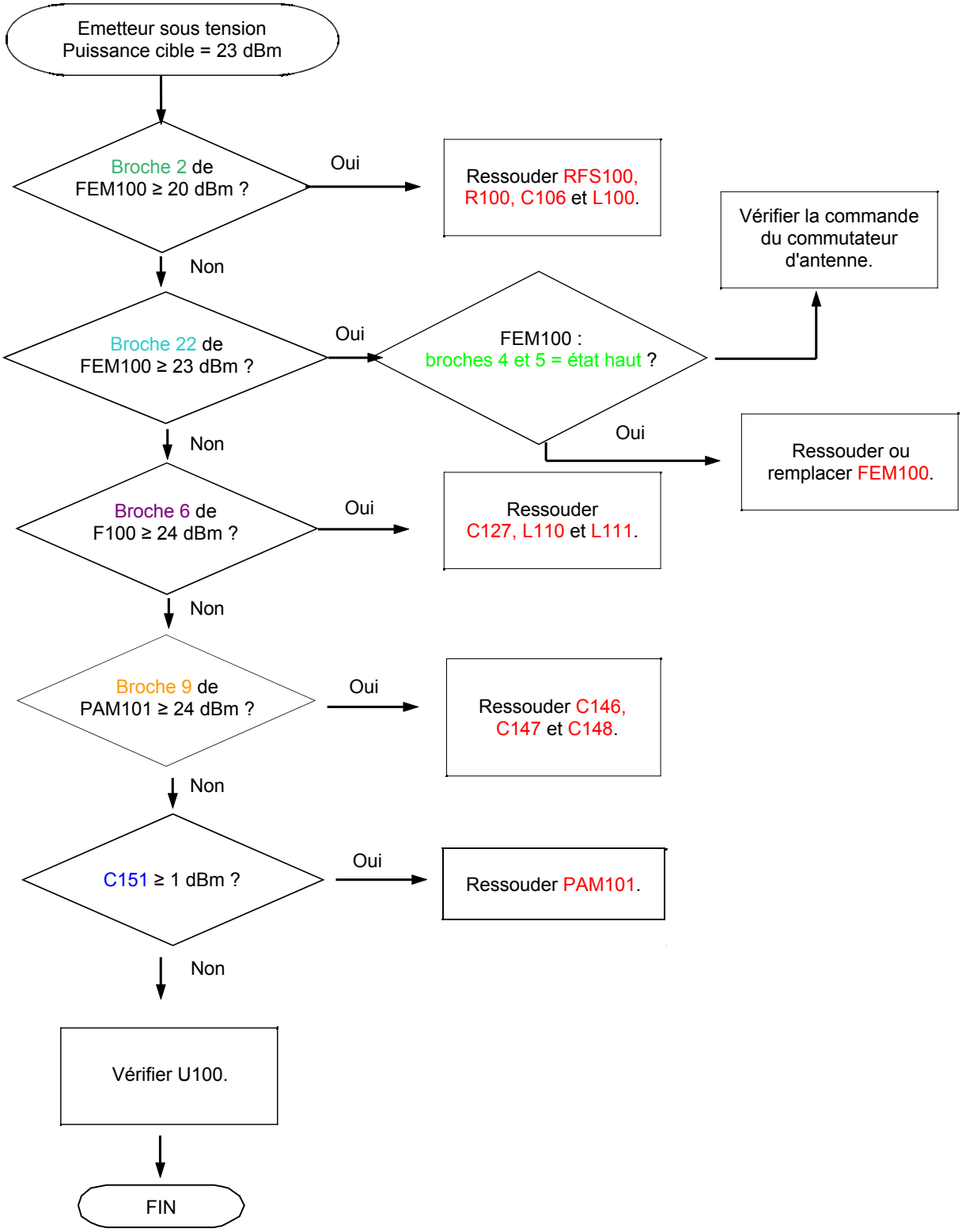


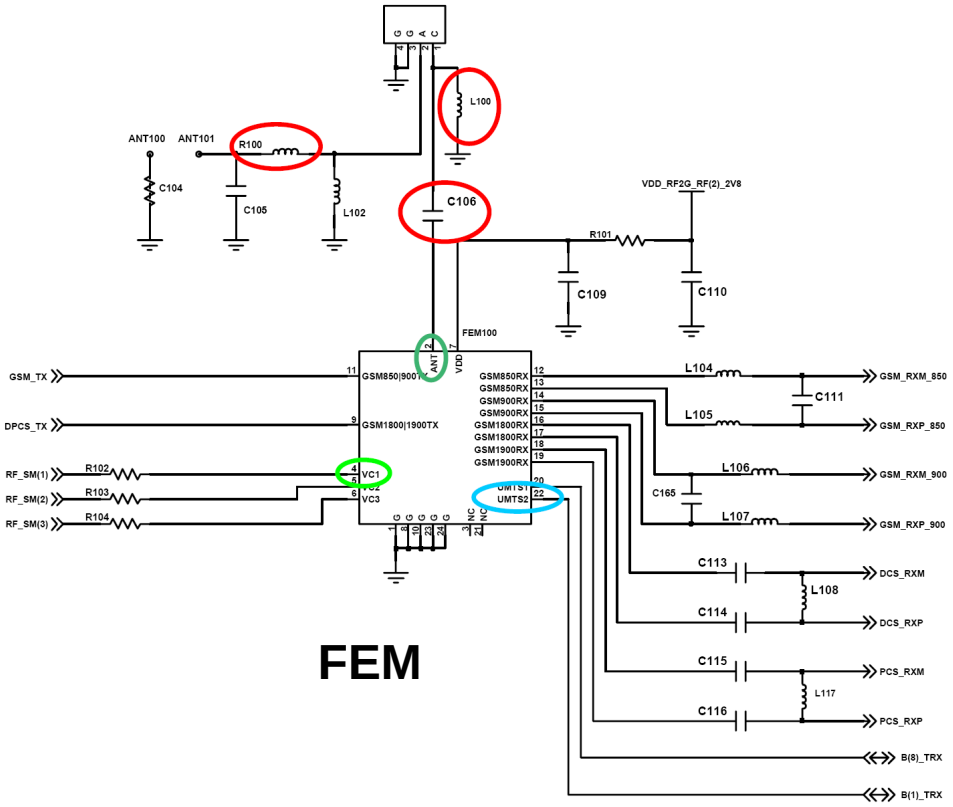


Con. appareil photo 1,3 mégapixel

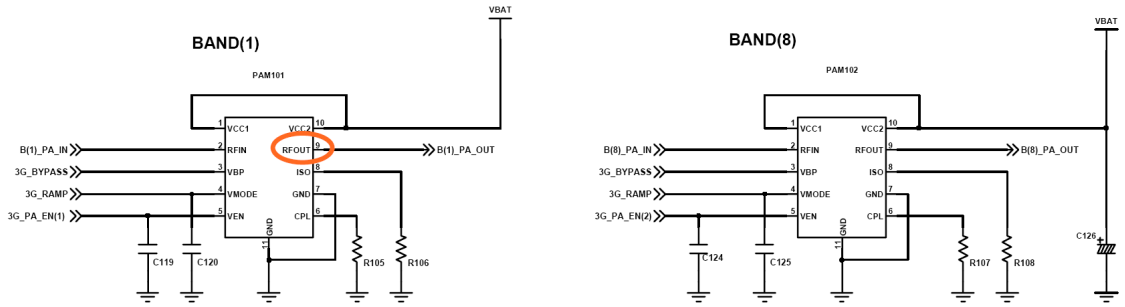


9-2. Emission WCDMA

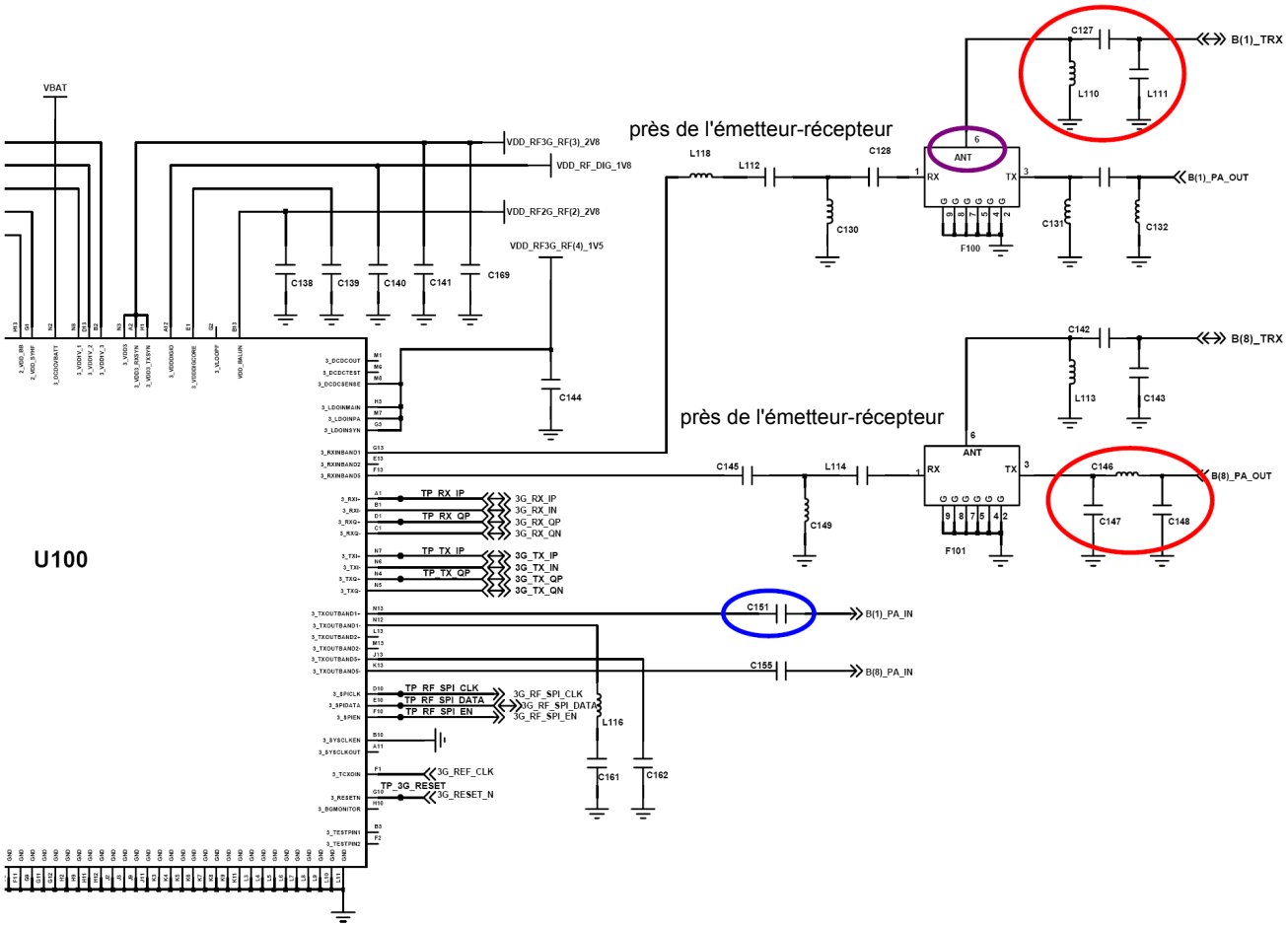


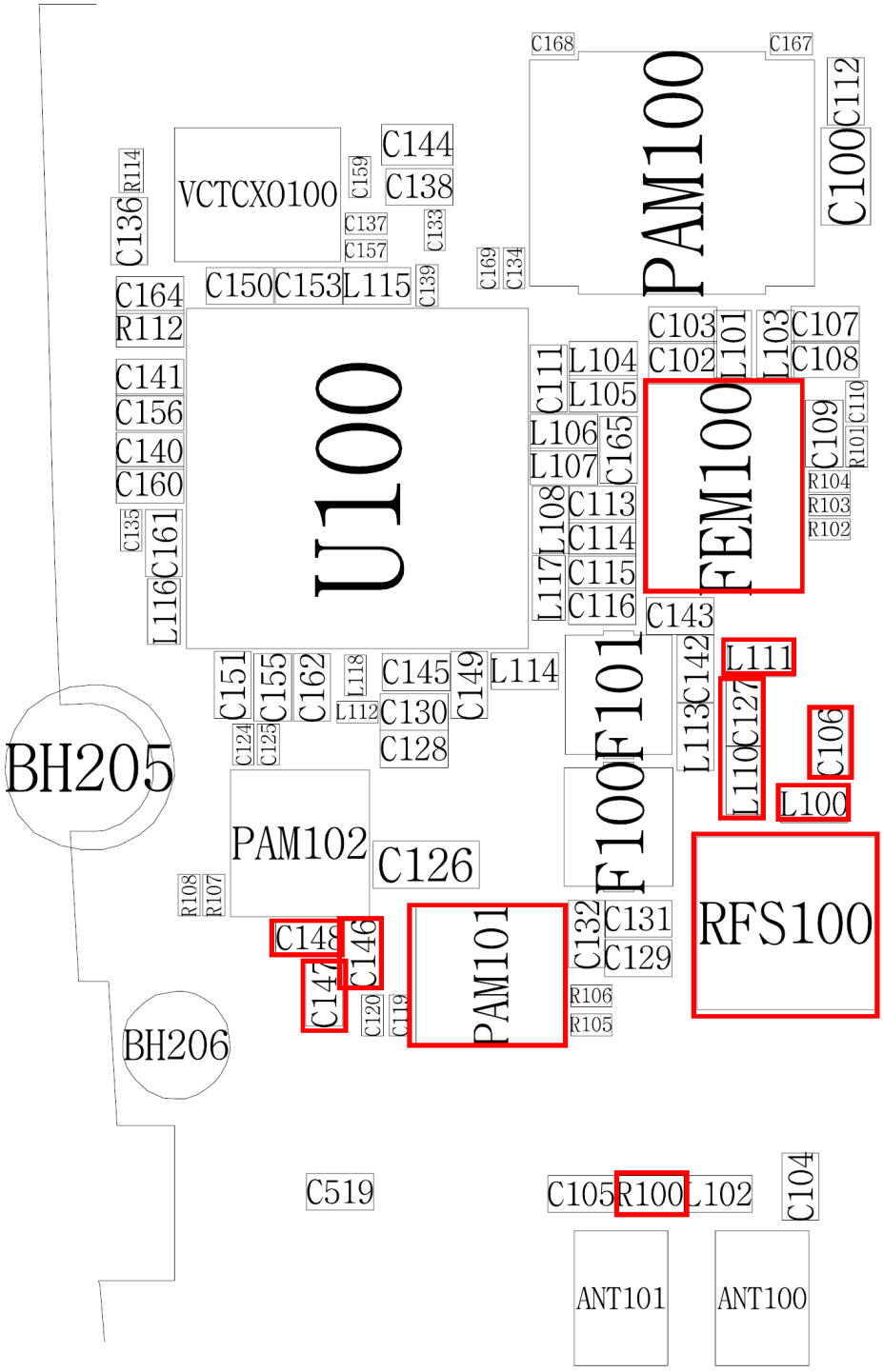


FEM

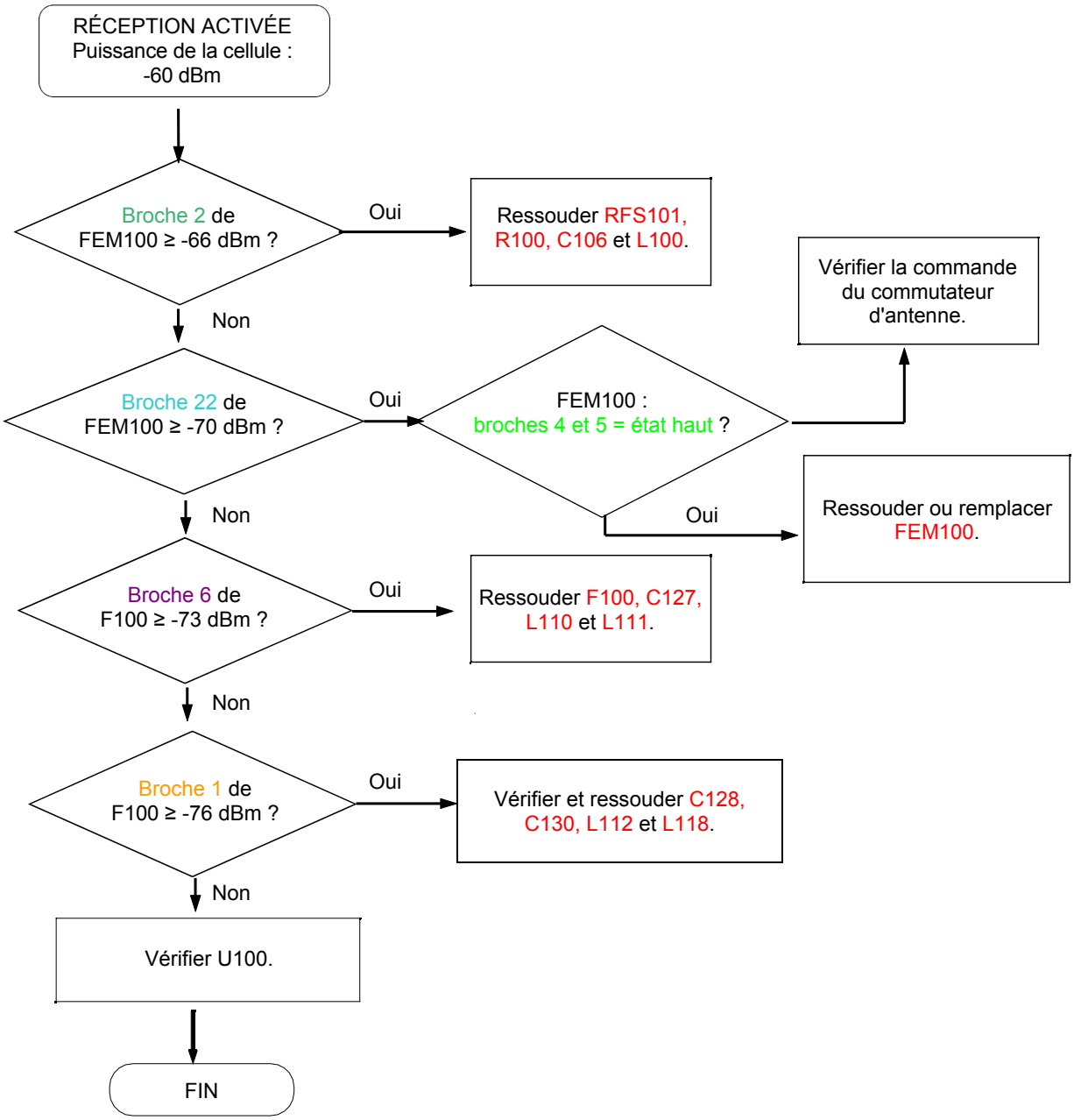


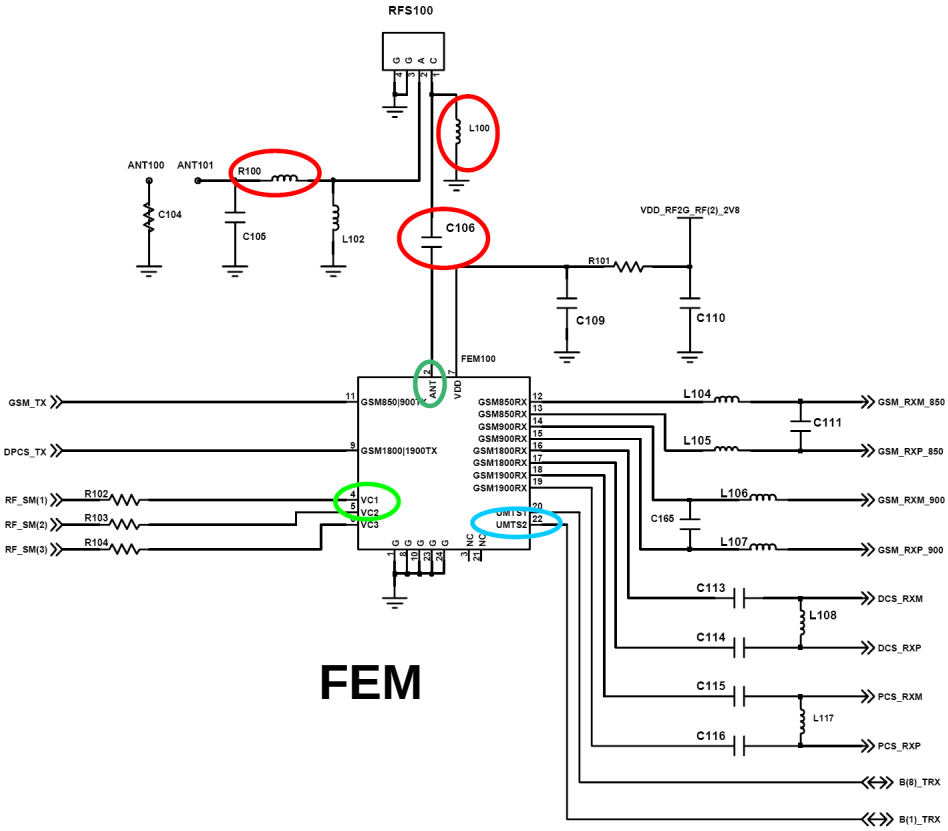
PAM (3G)

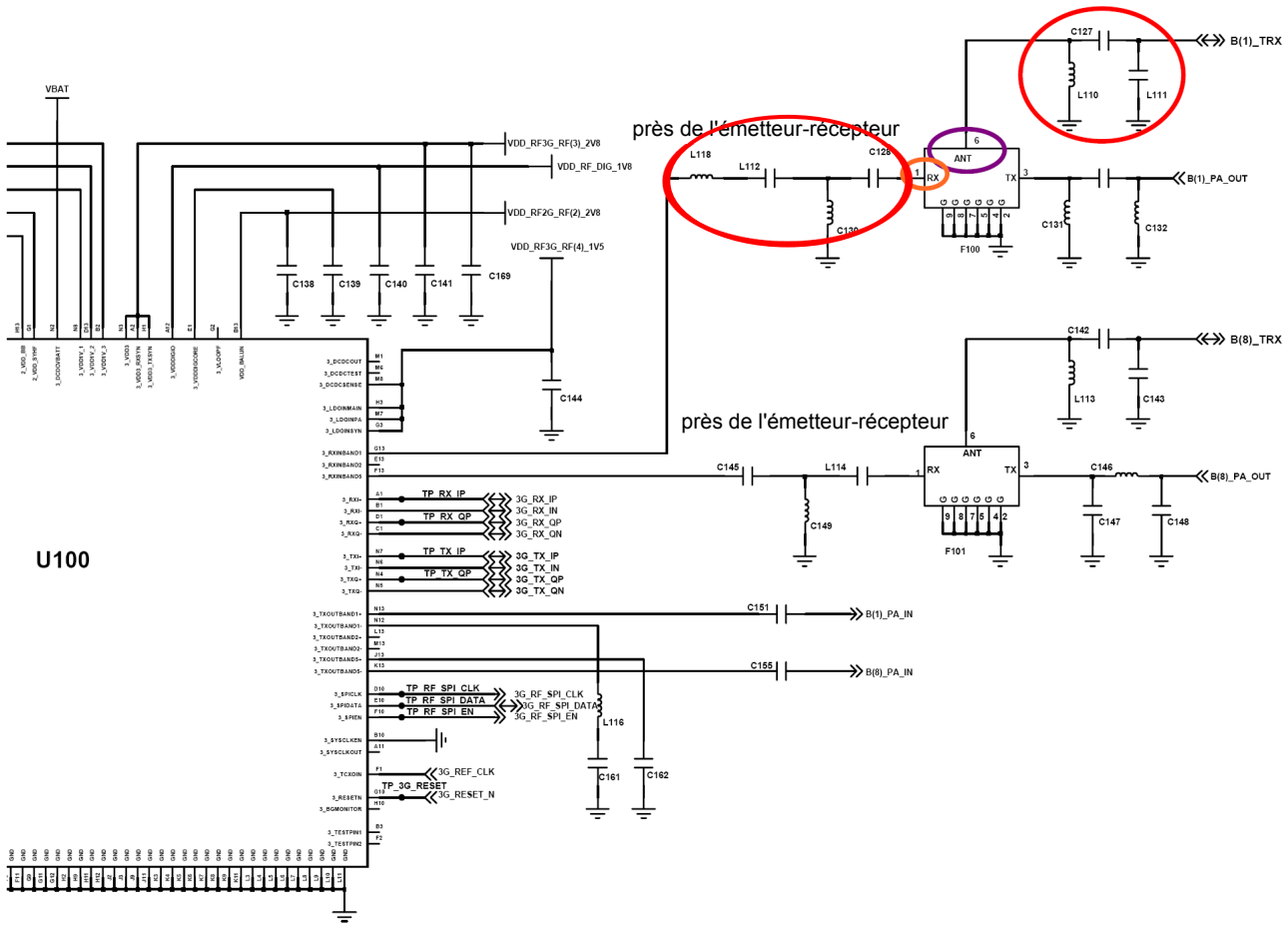


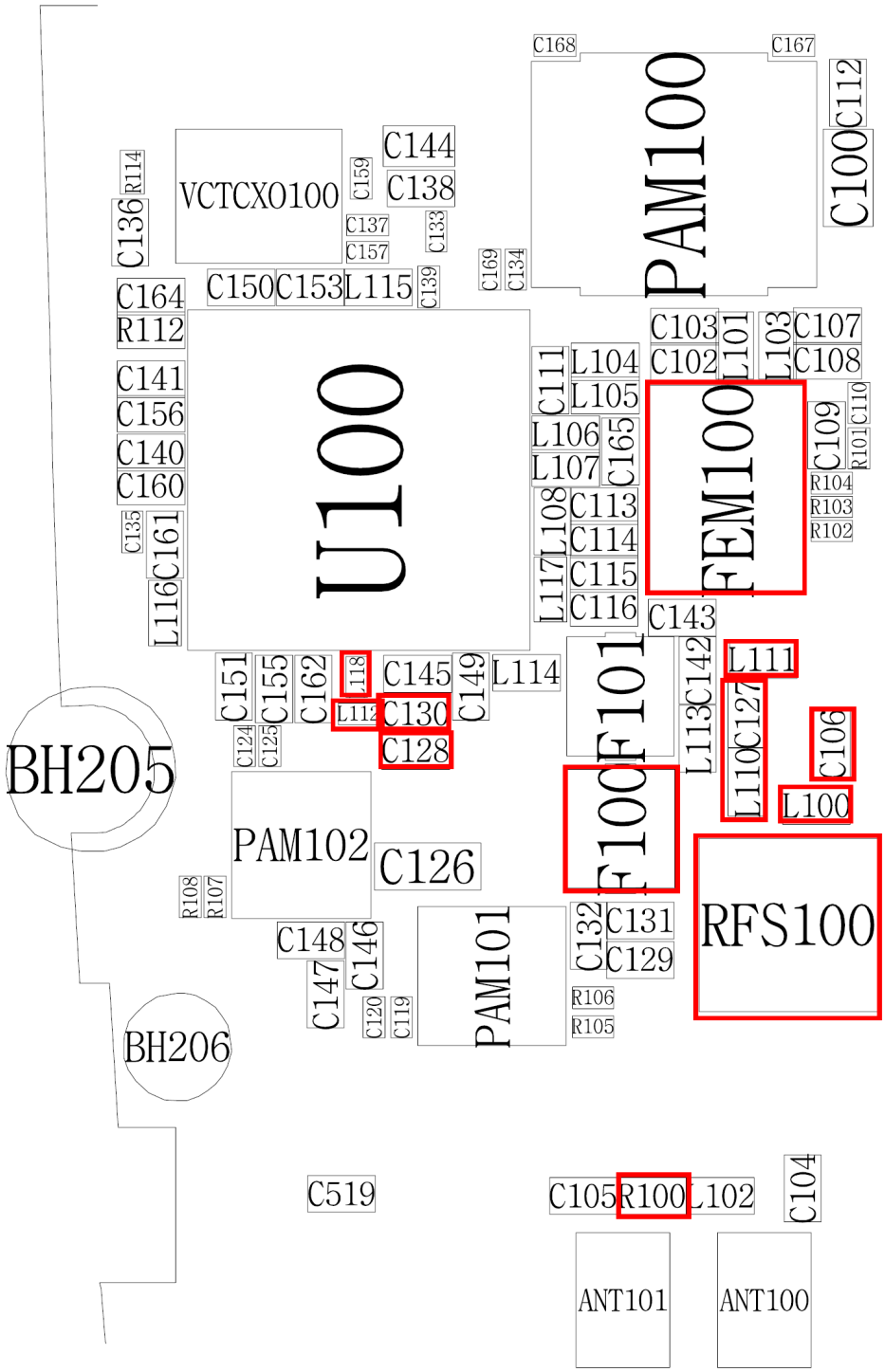


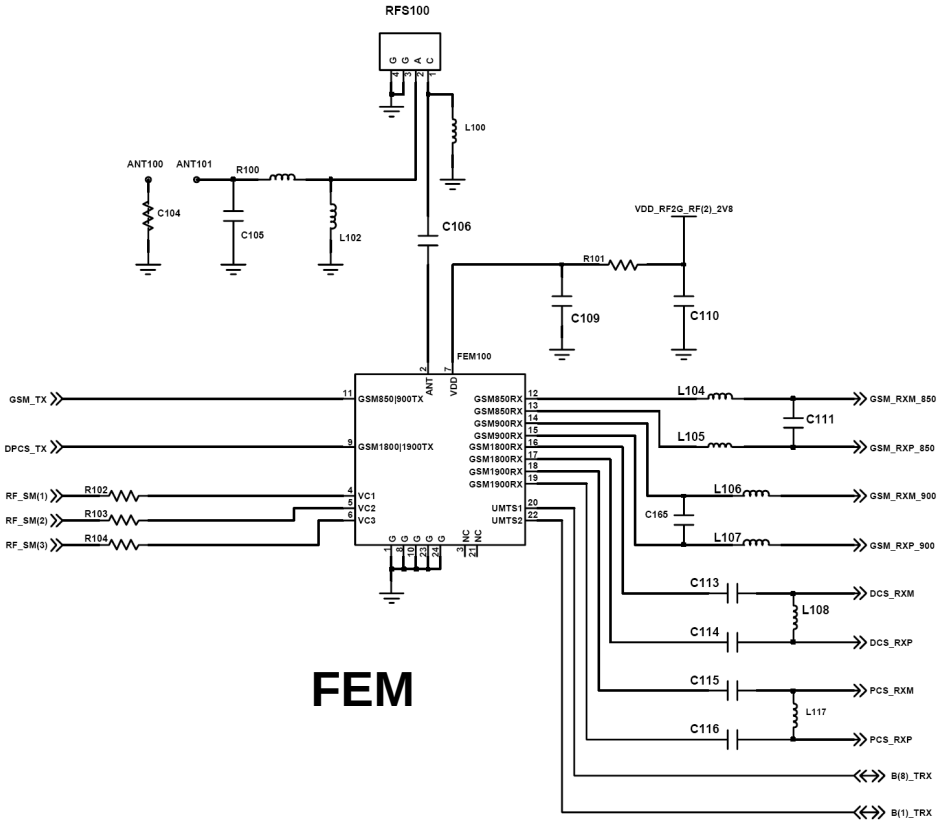
9-3. Réception WCDMA

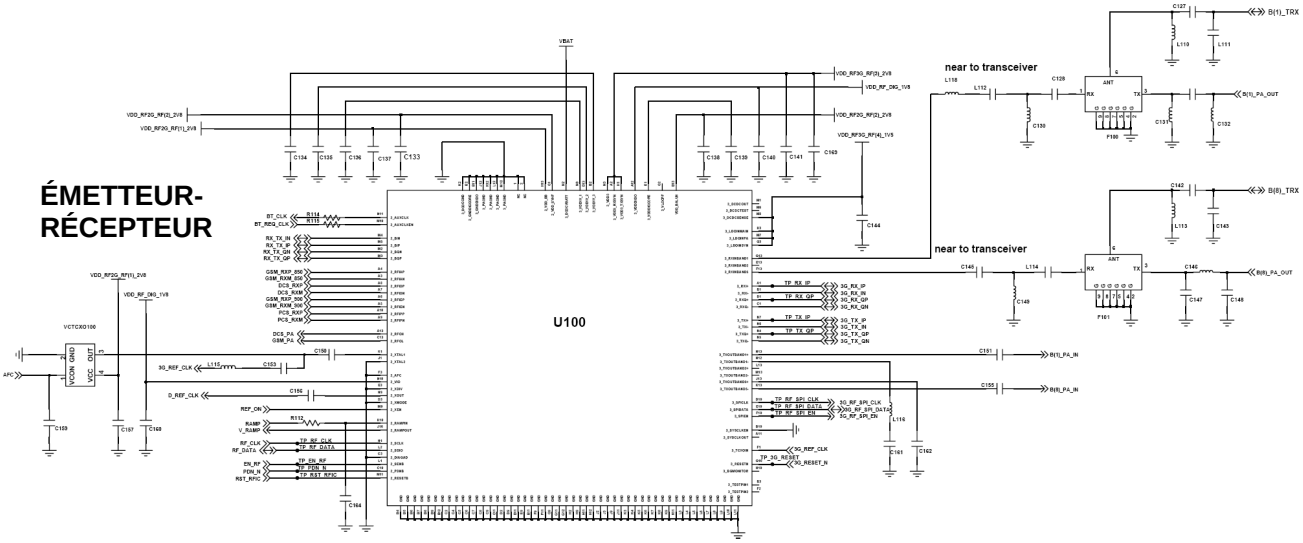


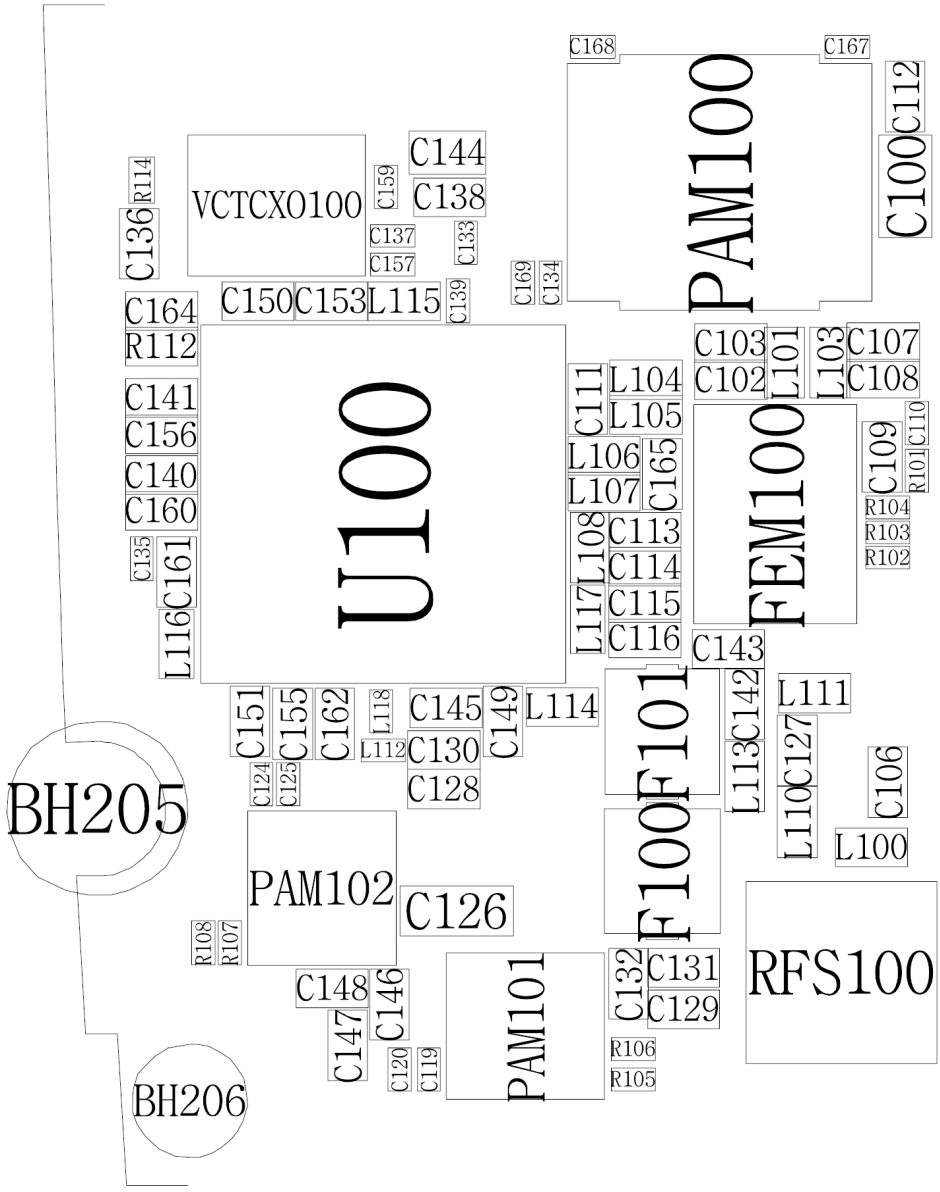




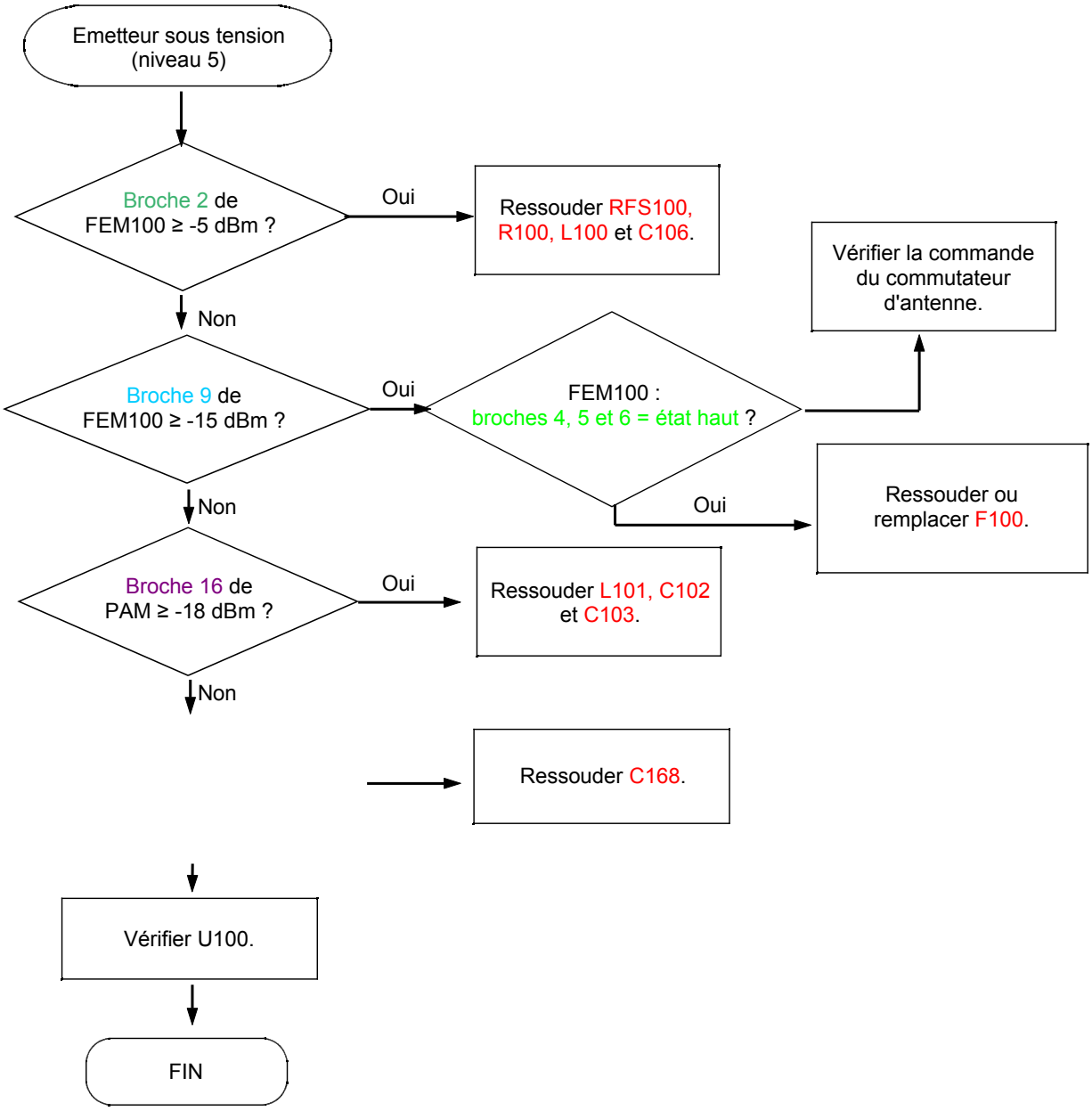


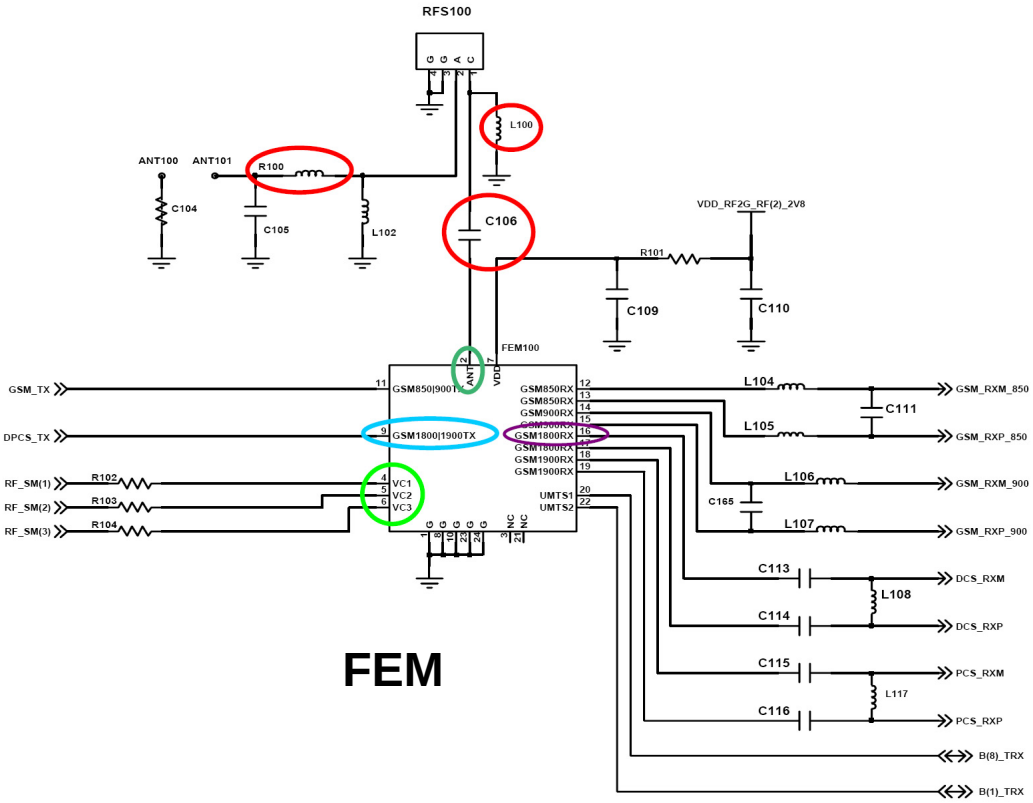




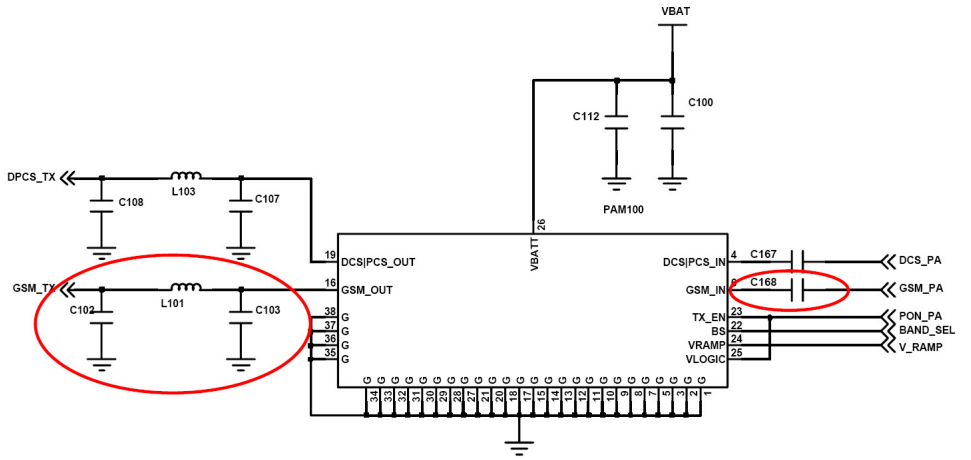


9-4. Emetteur EGSM



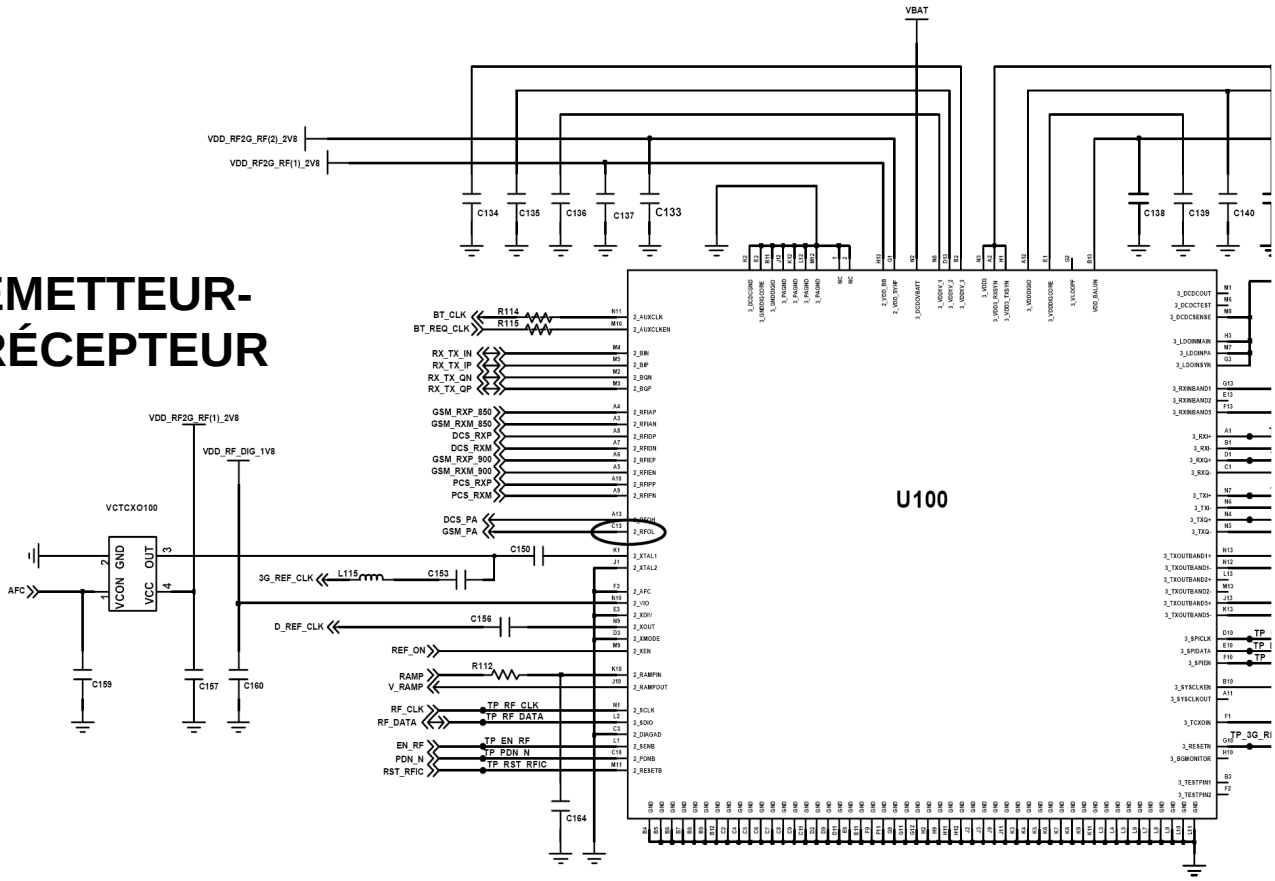


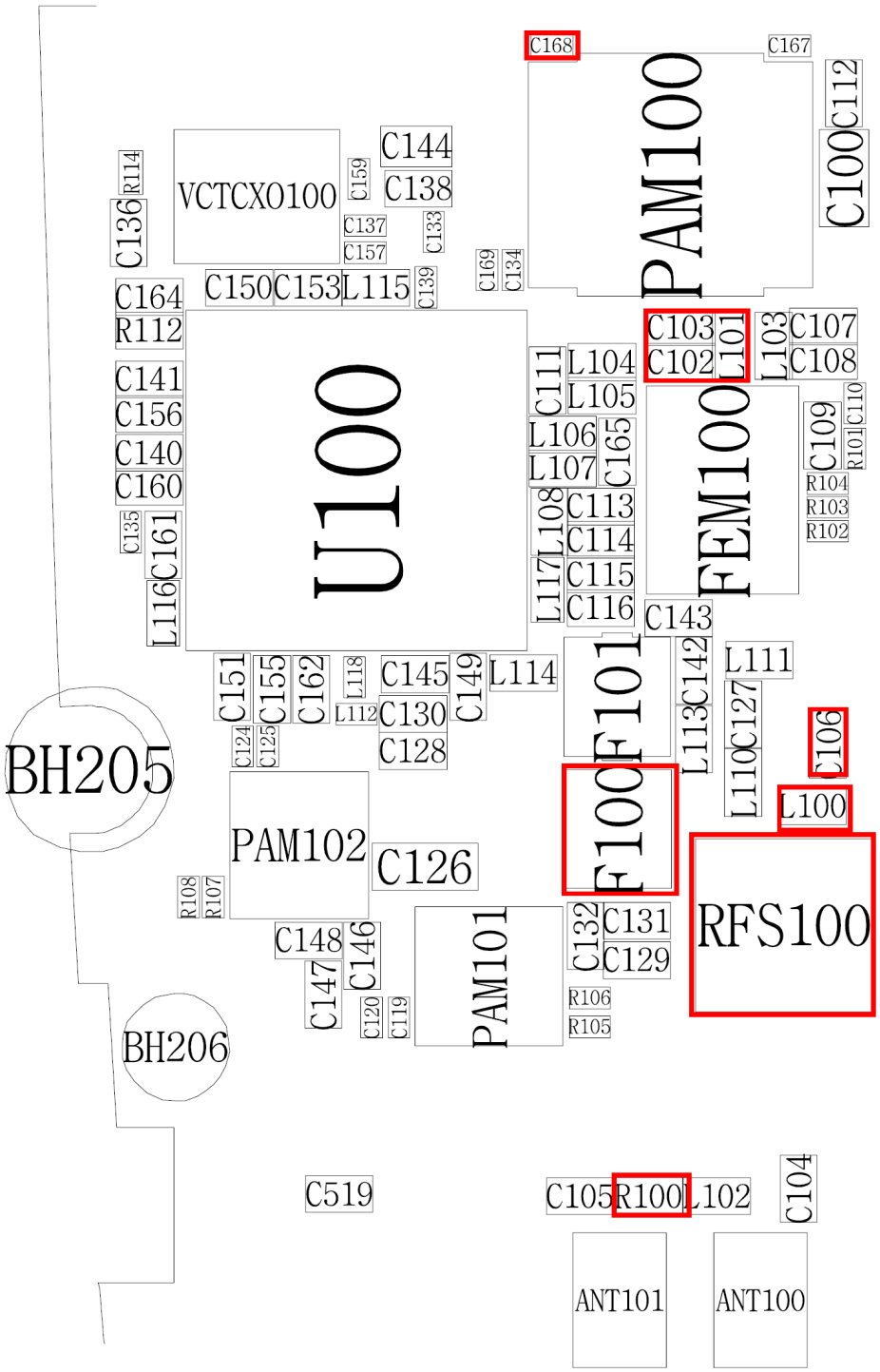
FEM



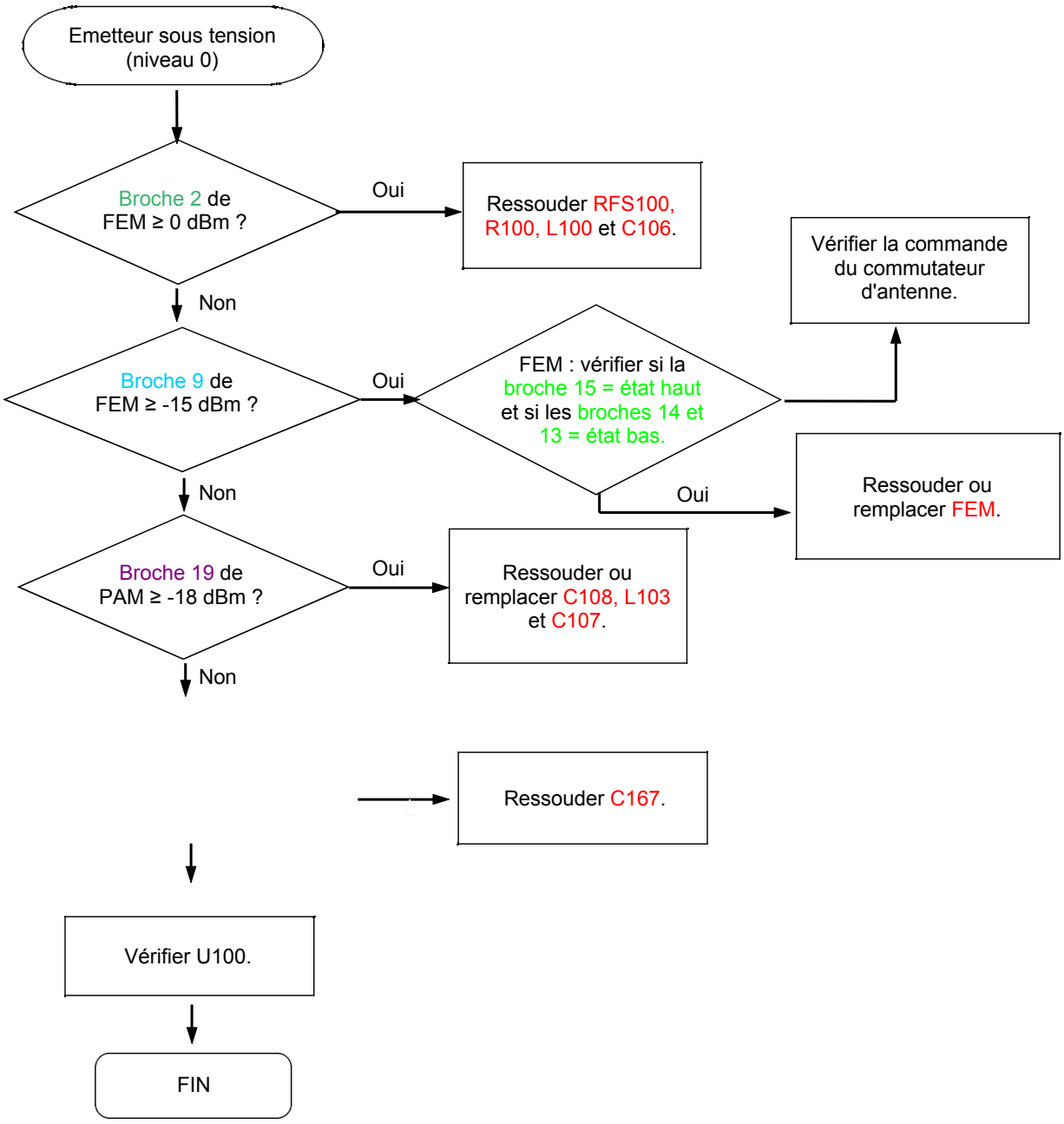
PAM (2.5G)

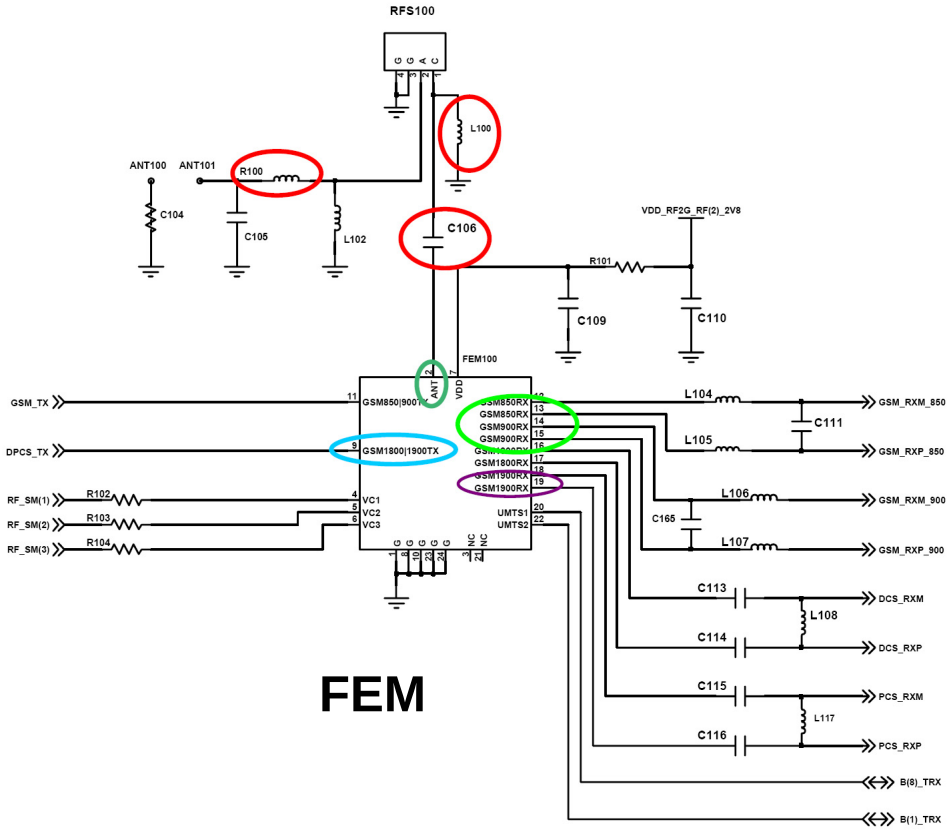
ÉMETTEUR-RÉCEPTEUR



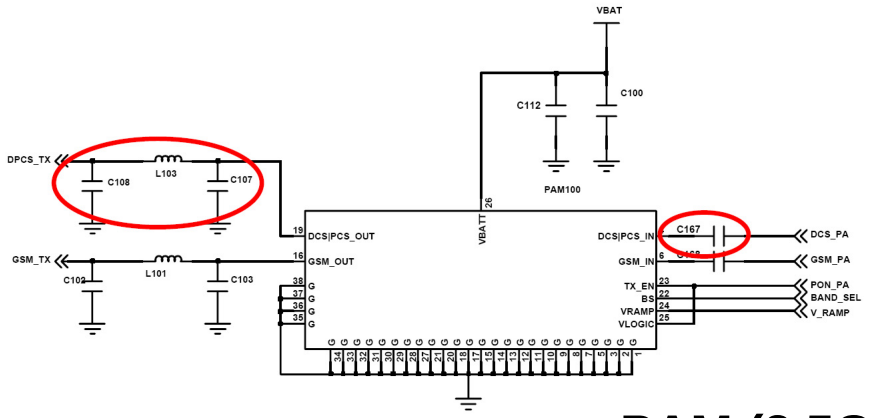


9-5. Emetteur DCS/PCS



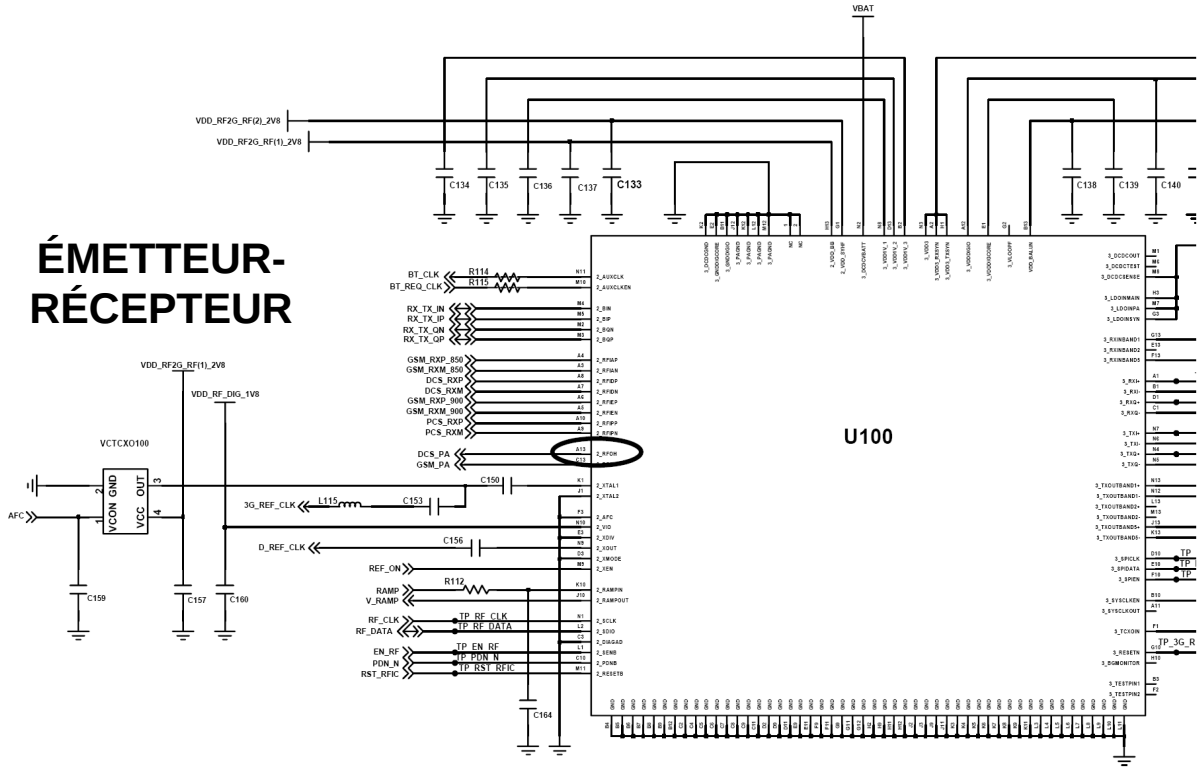


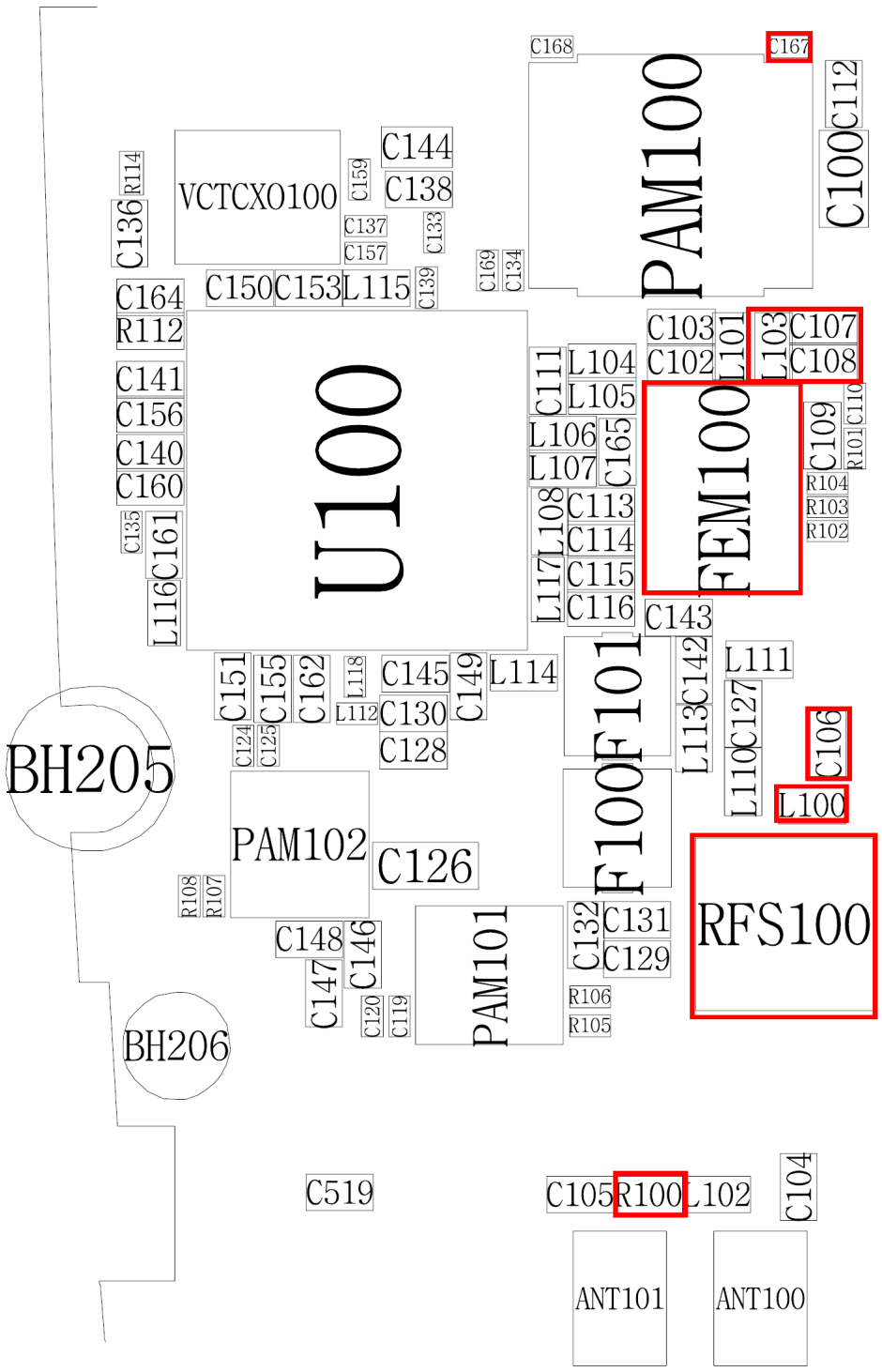
FEM



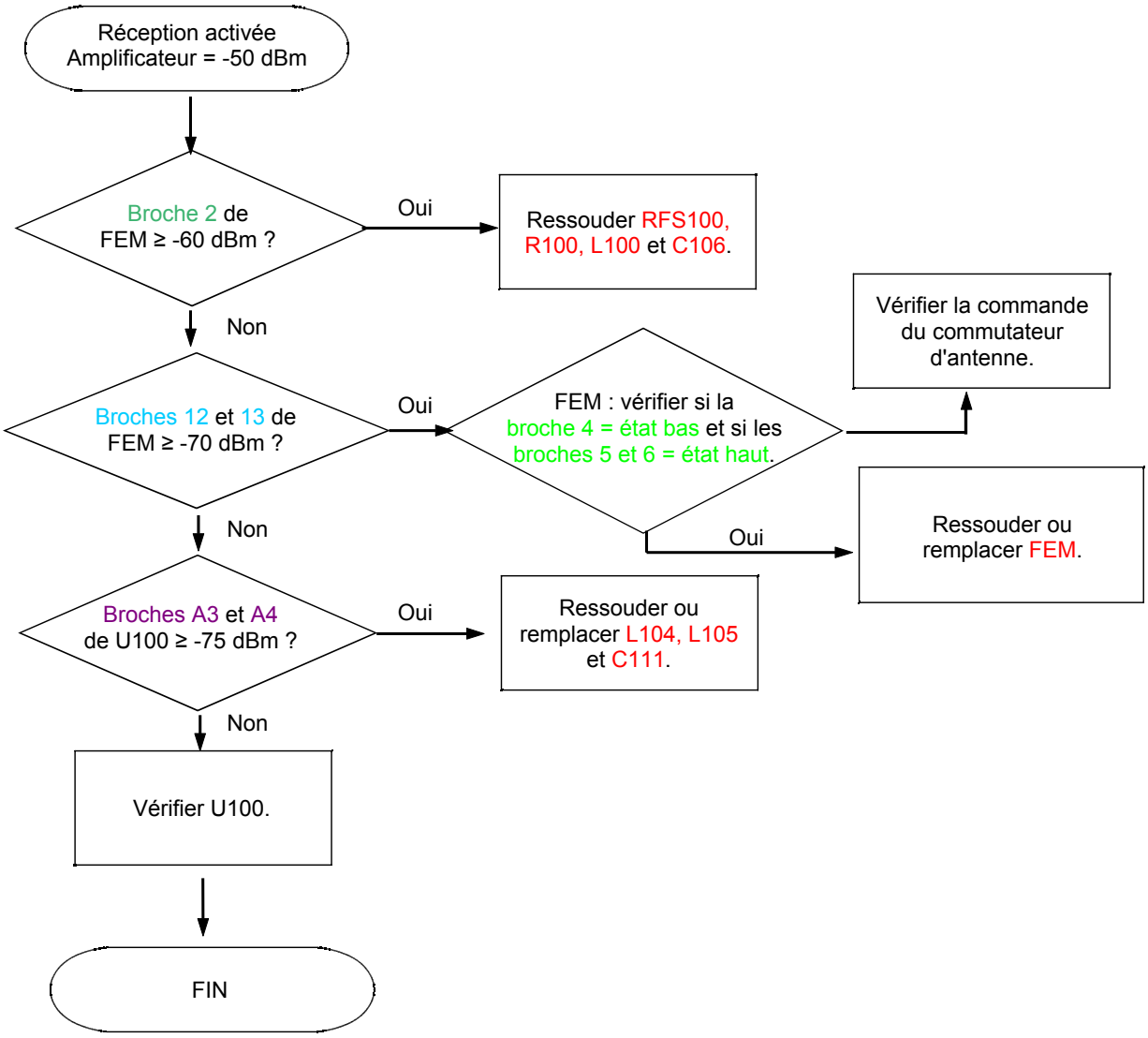
PAM (2.5G)

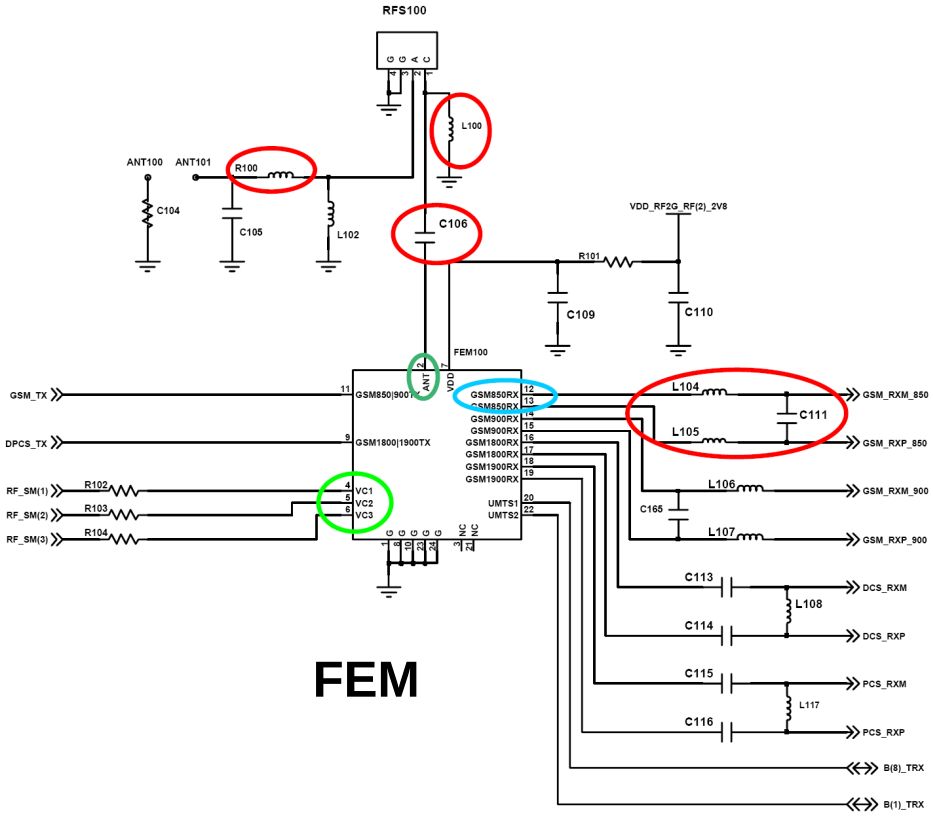
ÉMETTEUR-RÉCEPTEUR

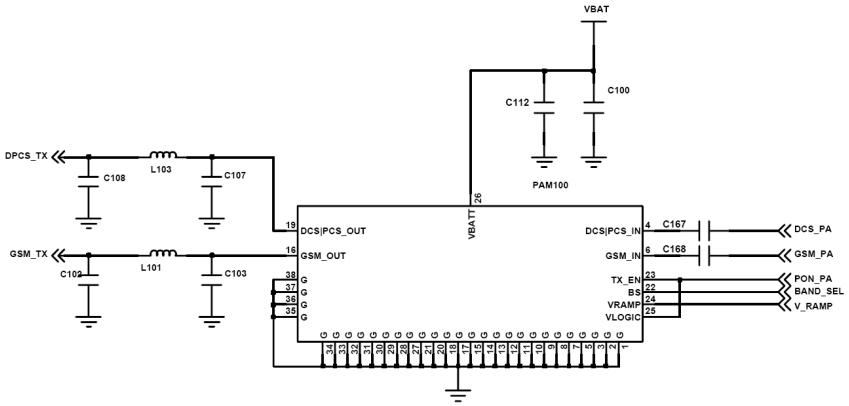




9-6. Récepteur GSM850







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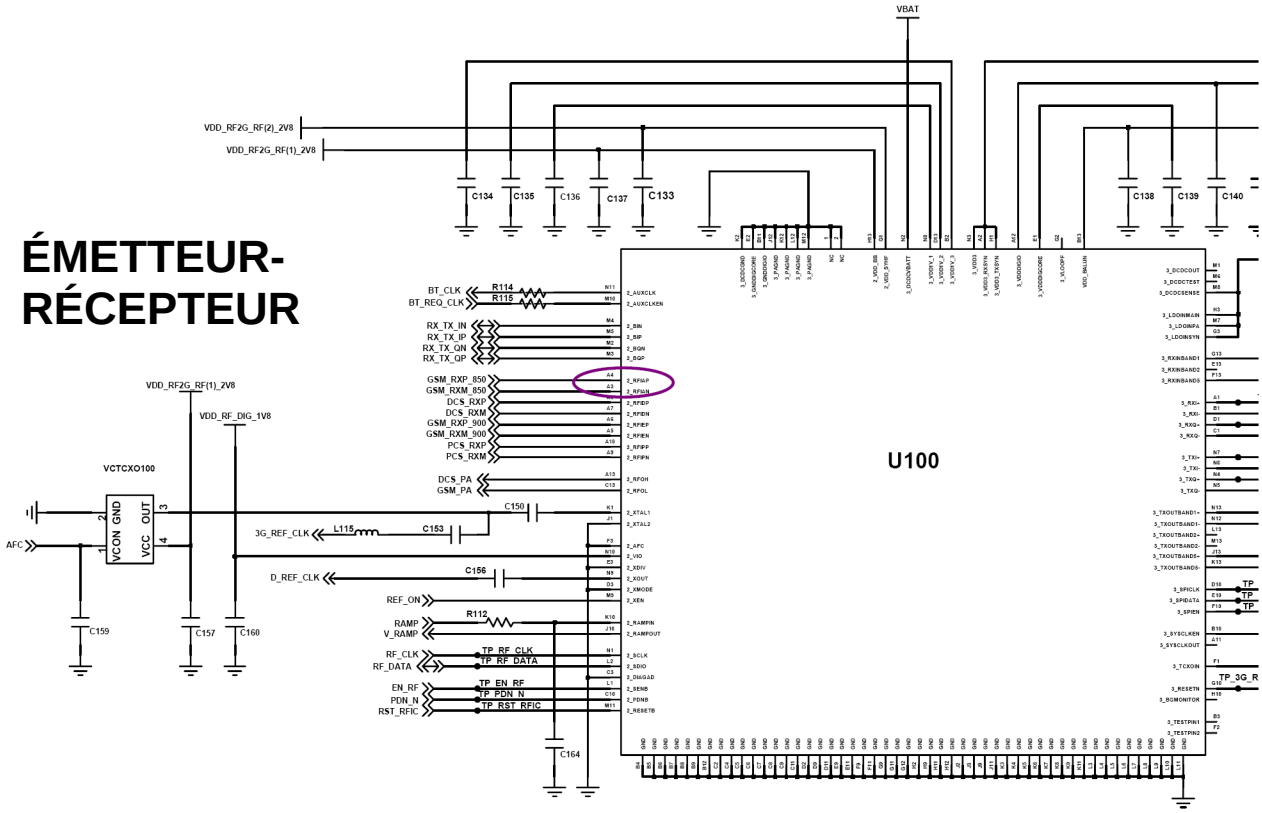
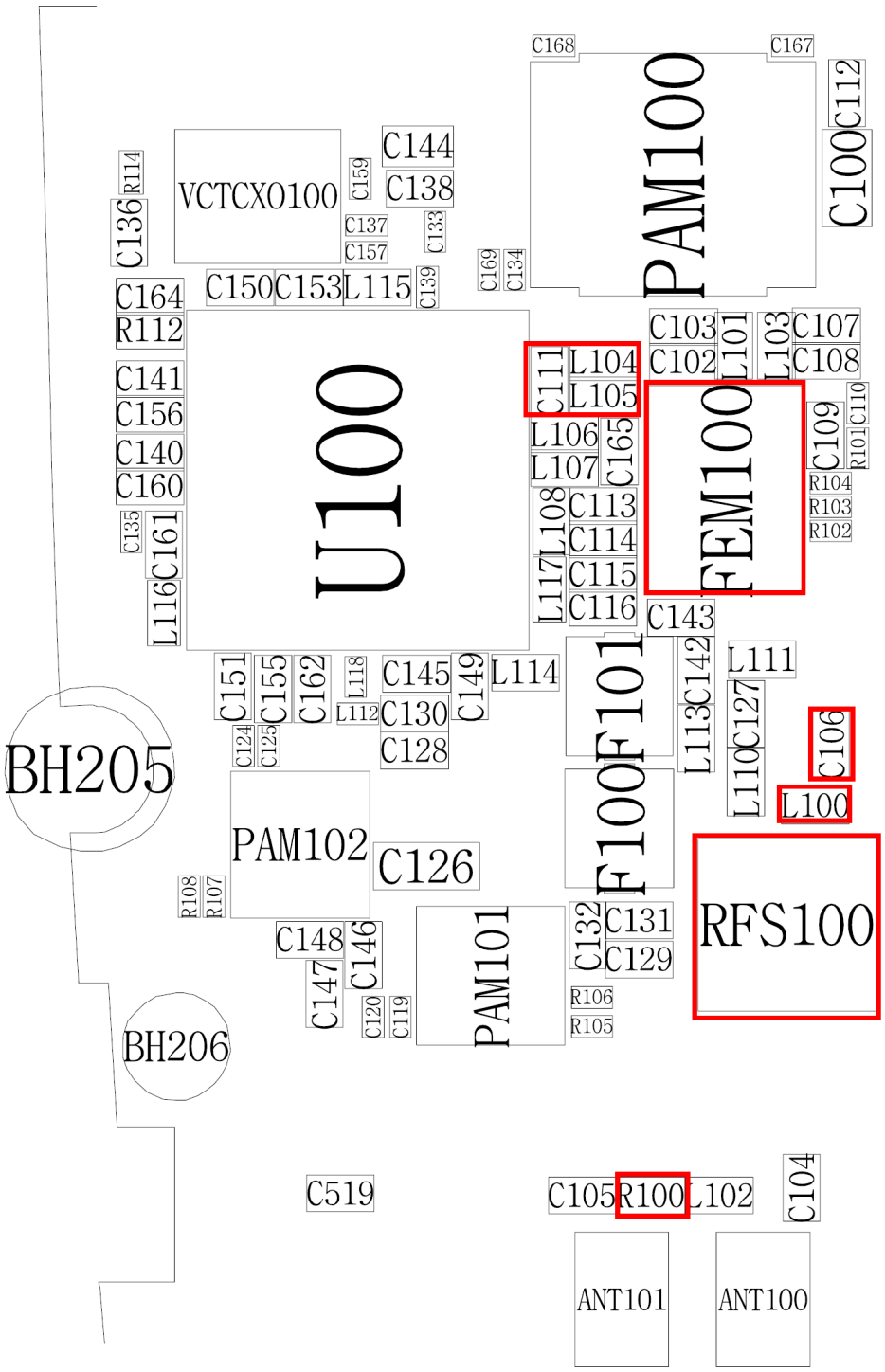
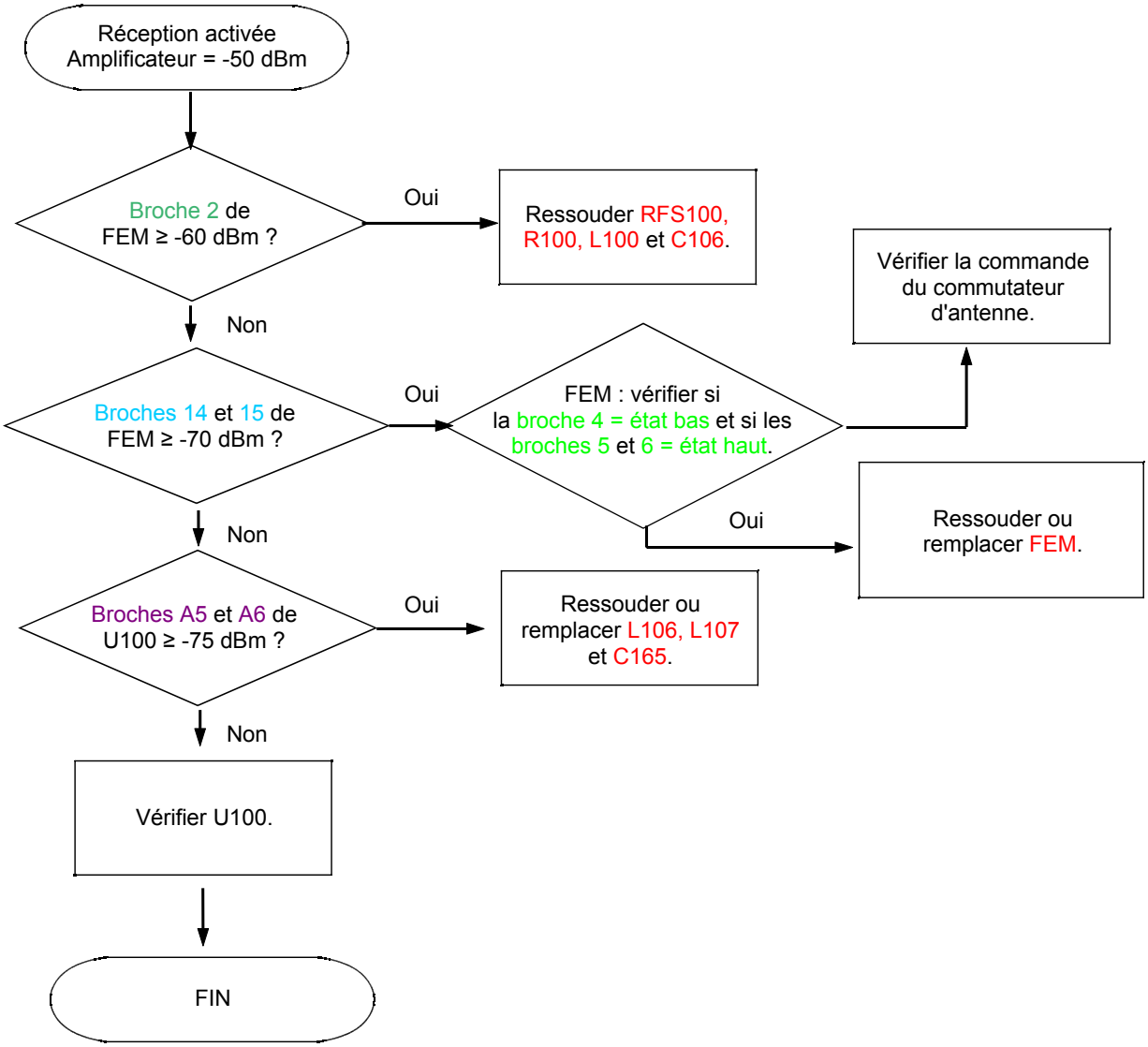
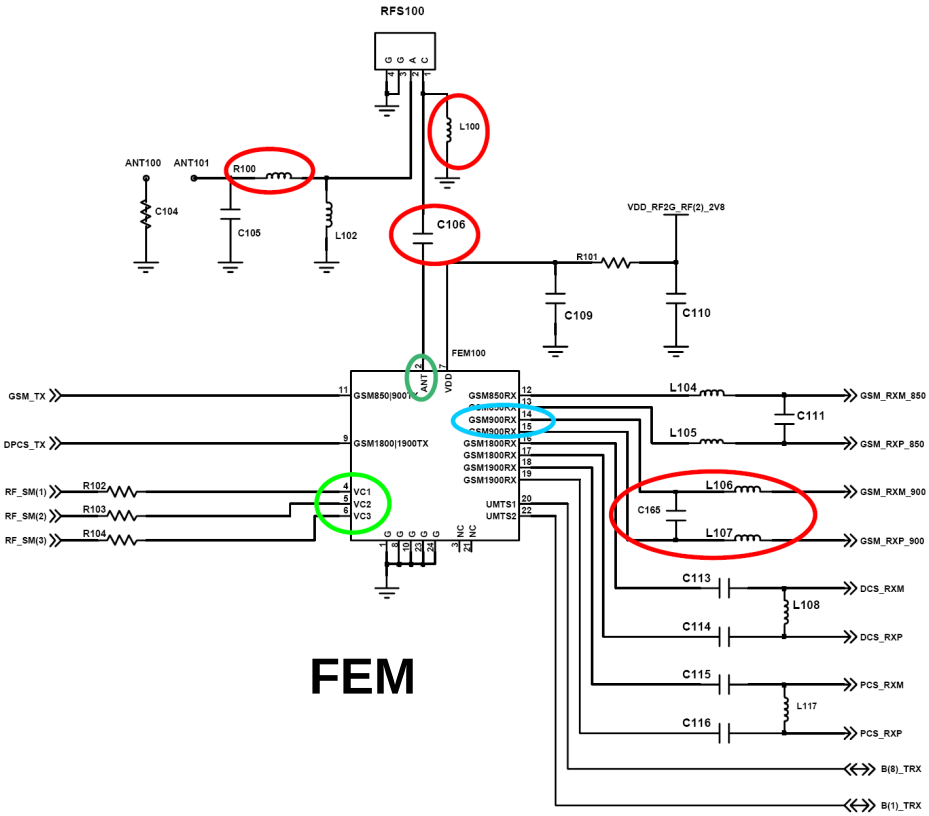




9-7. Récepteur GSM900





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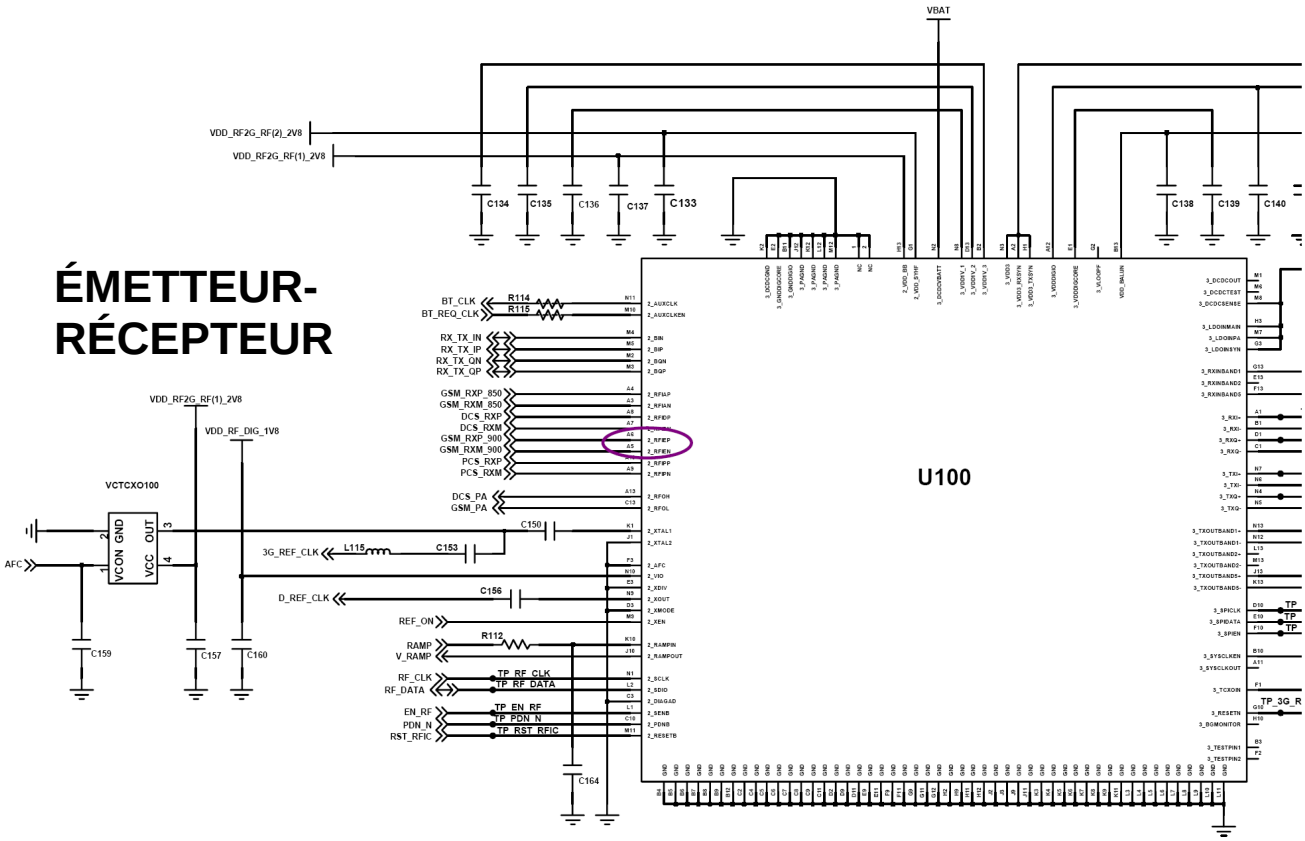
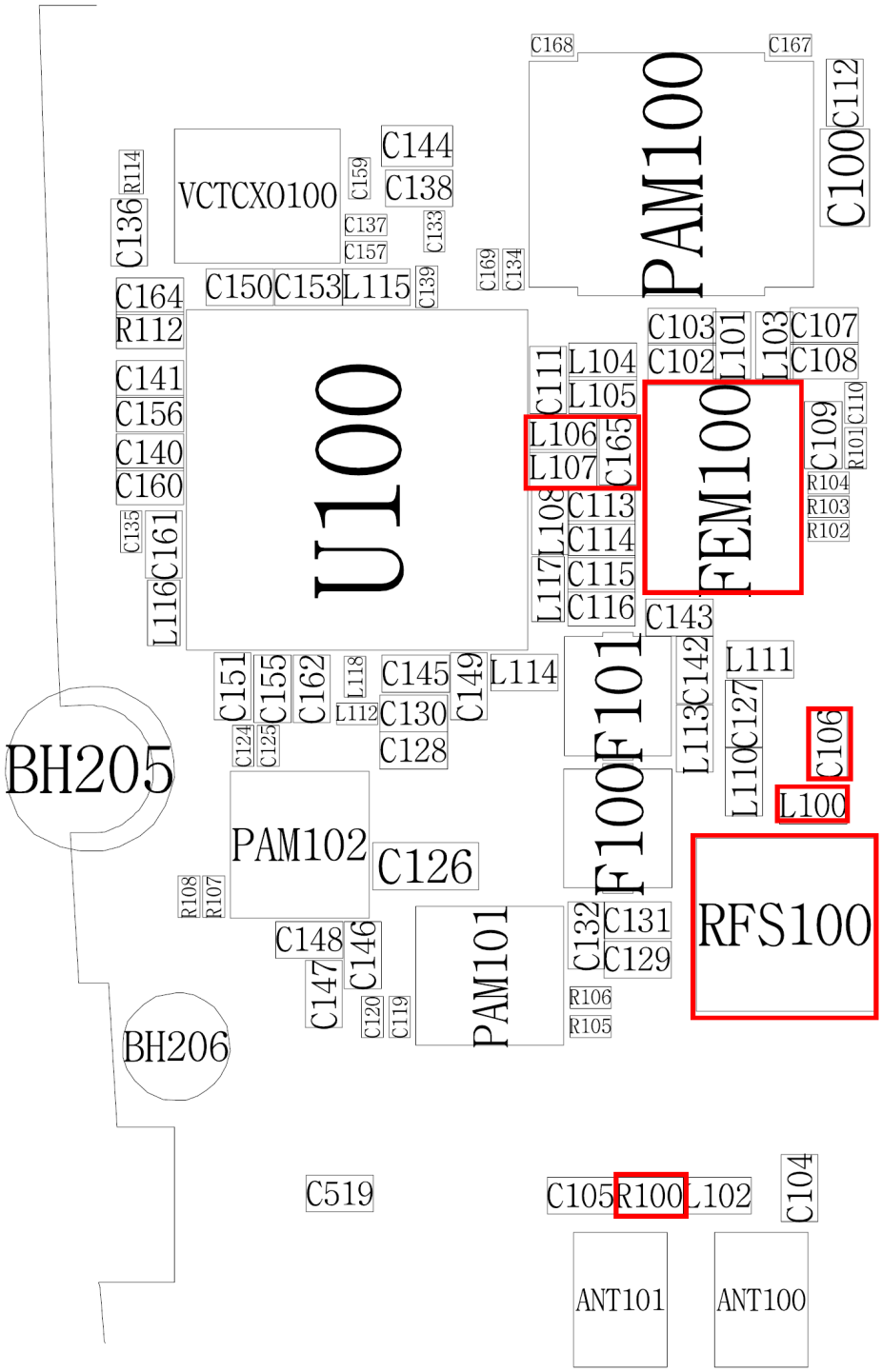
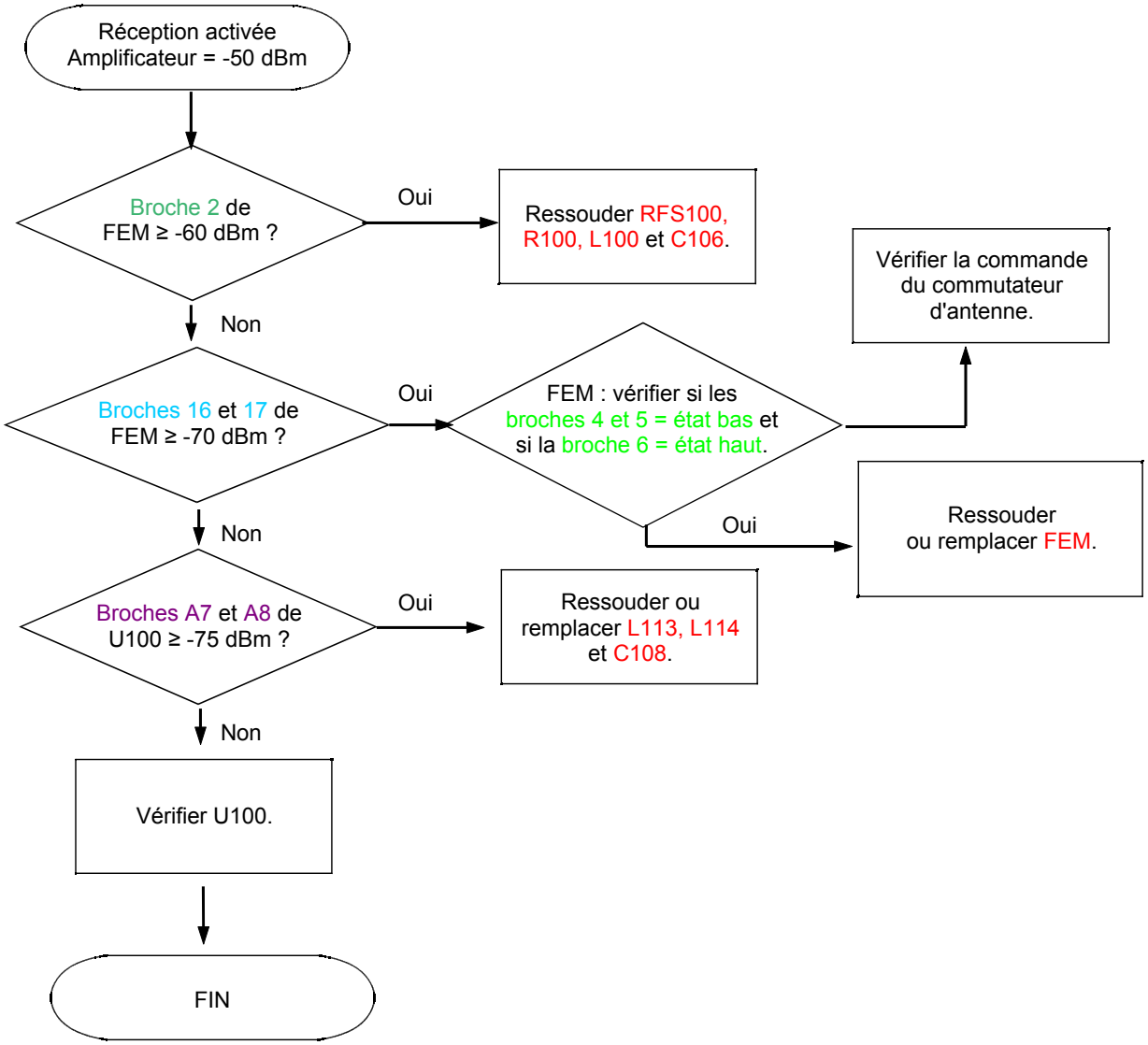
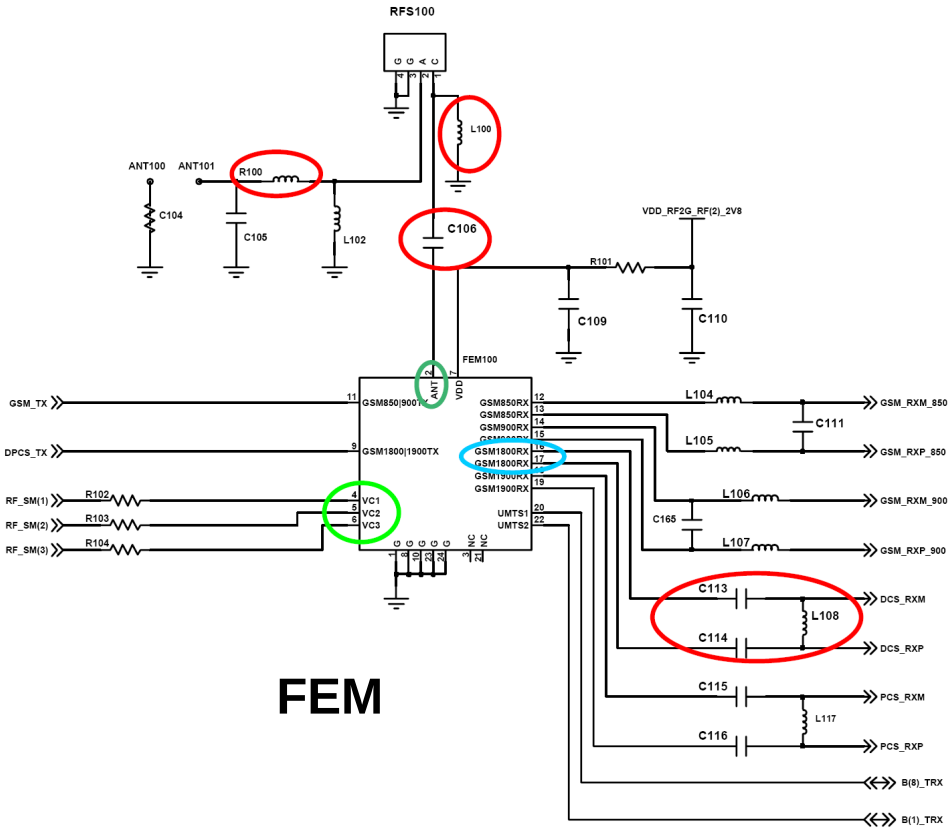




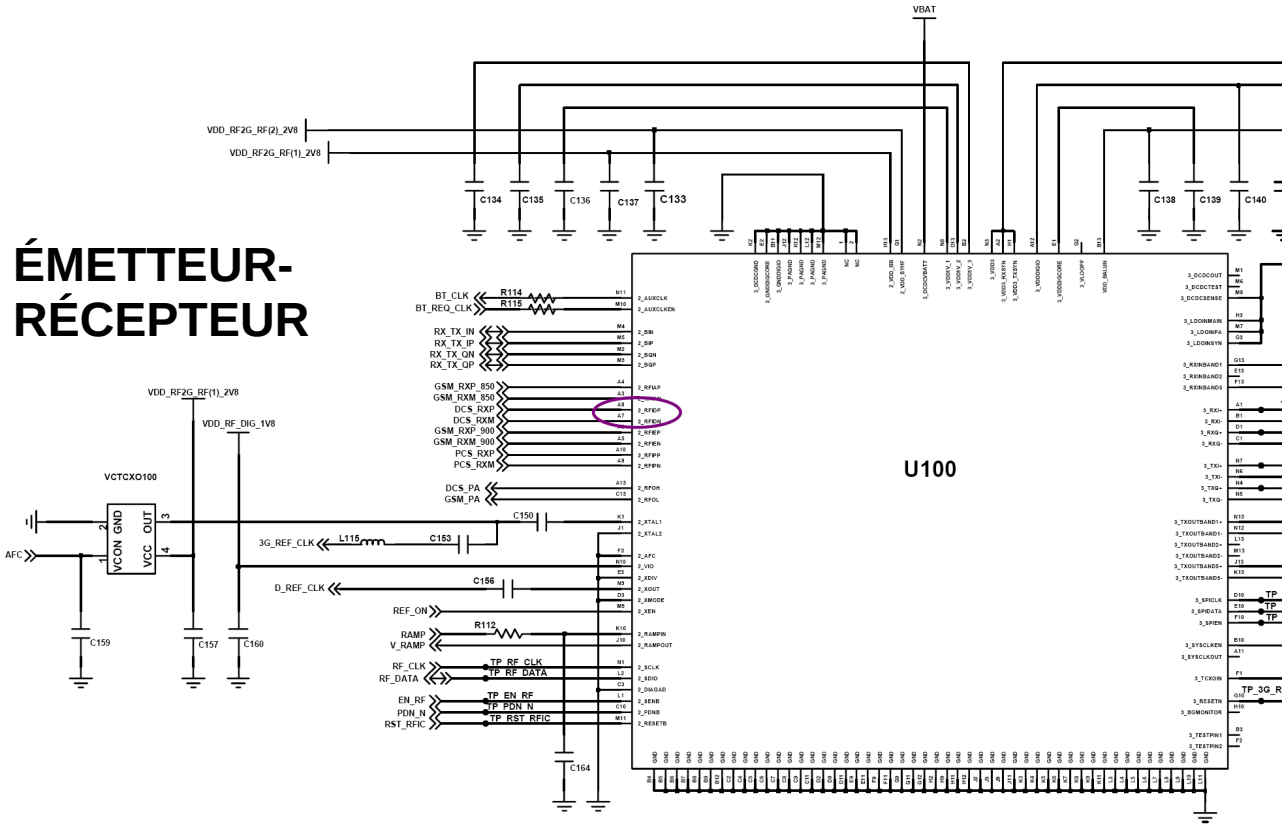
9-8. Récepteur DCS

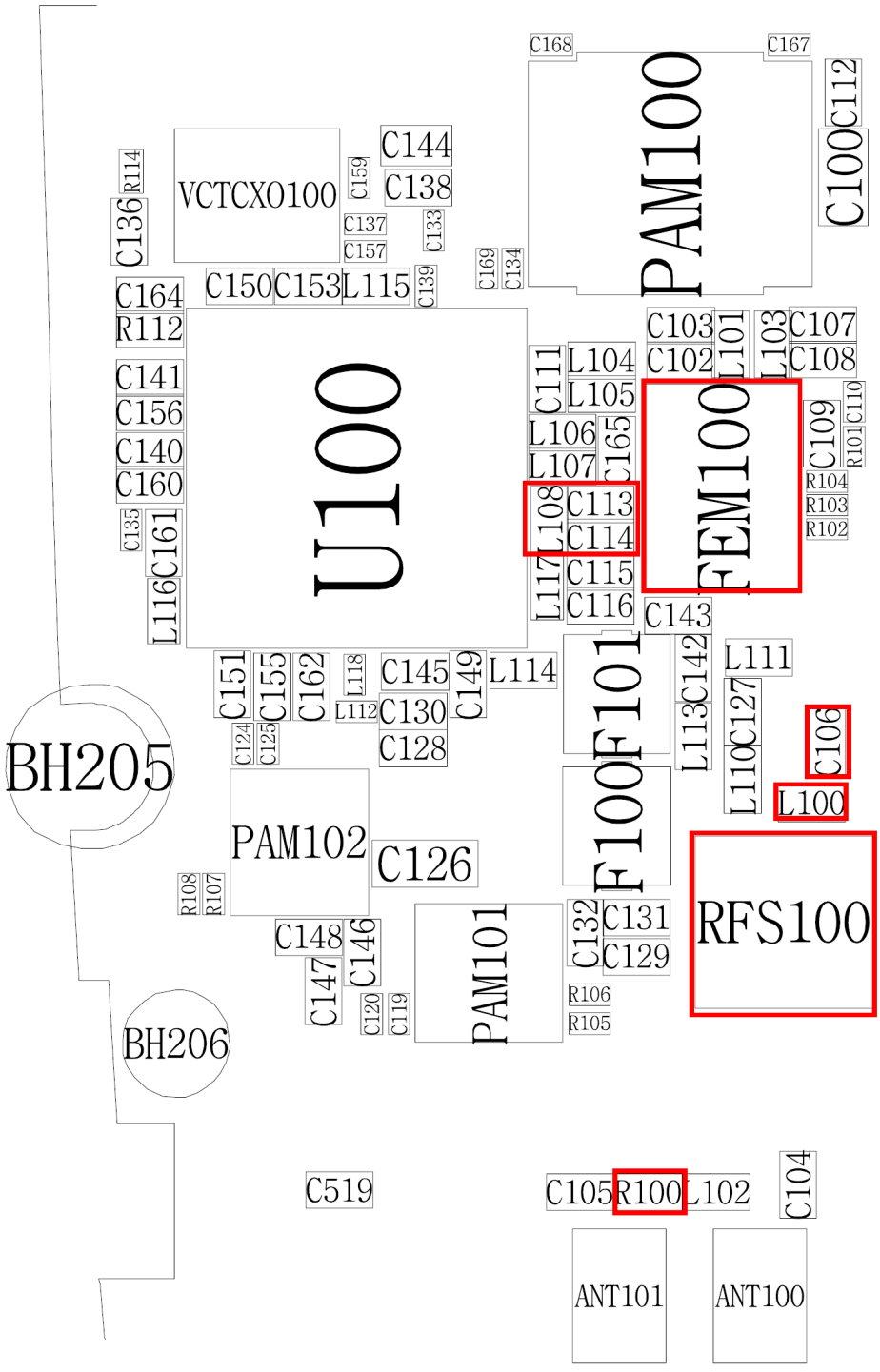




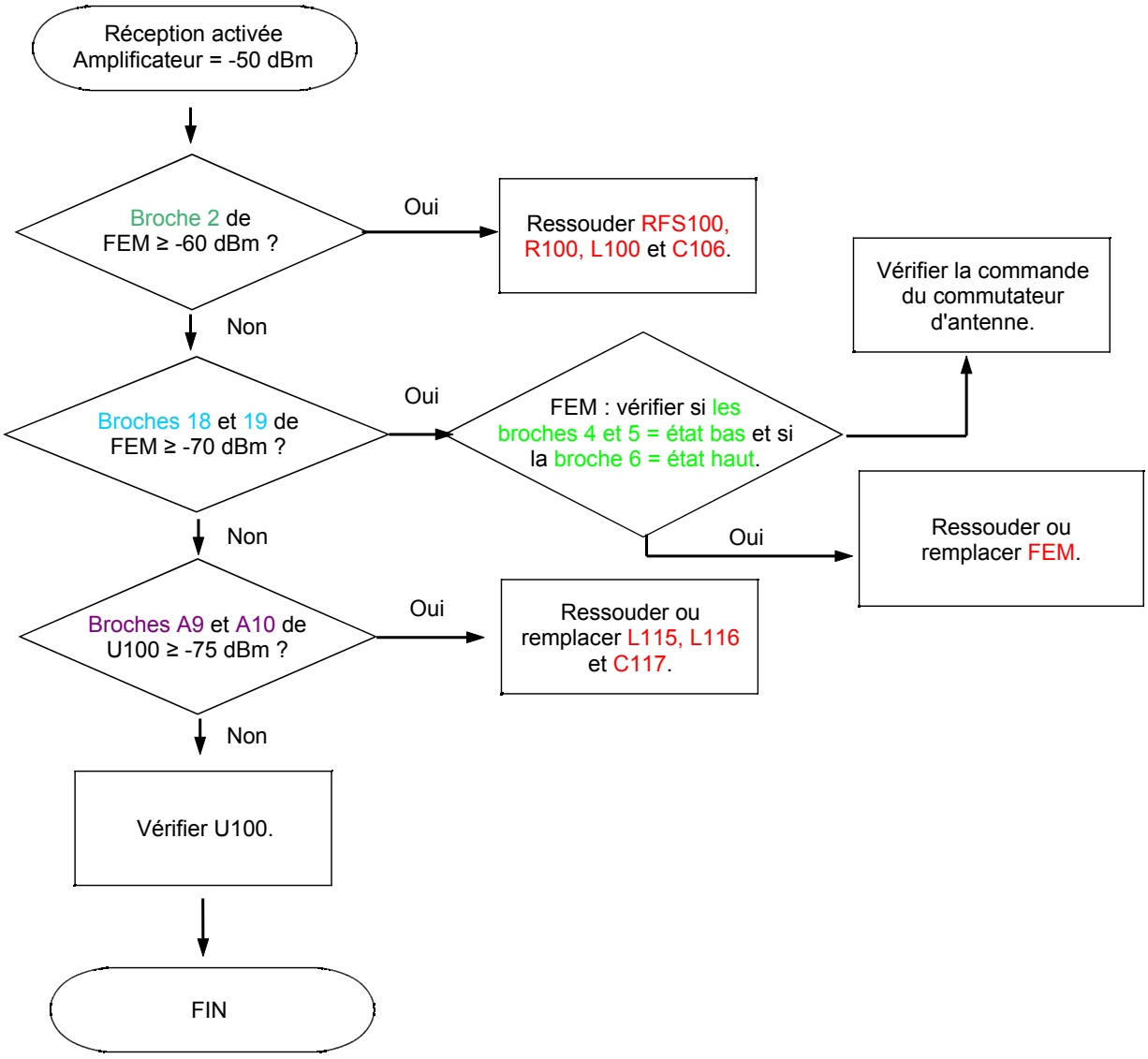
FEM

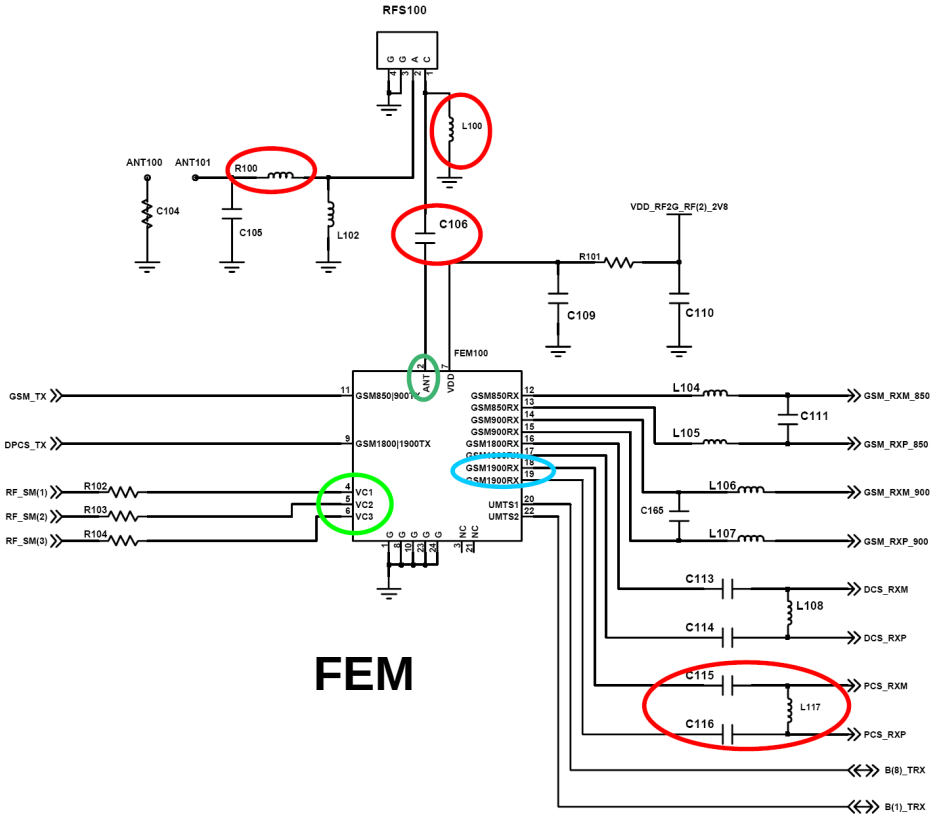
ÉMETTEUR-RÉCEPTEUR





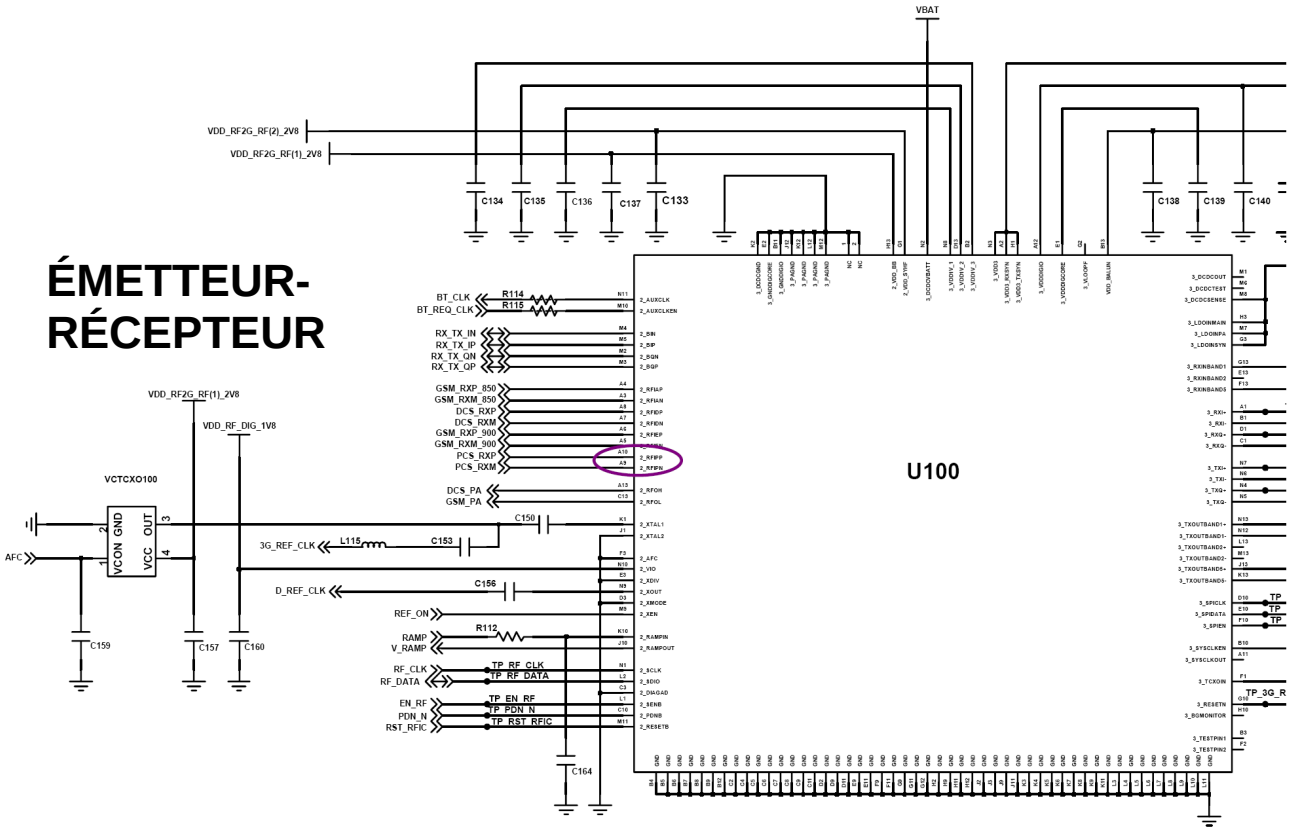
9-9. Récepteur PCS

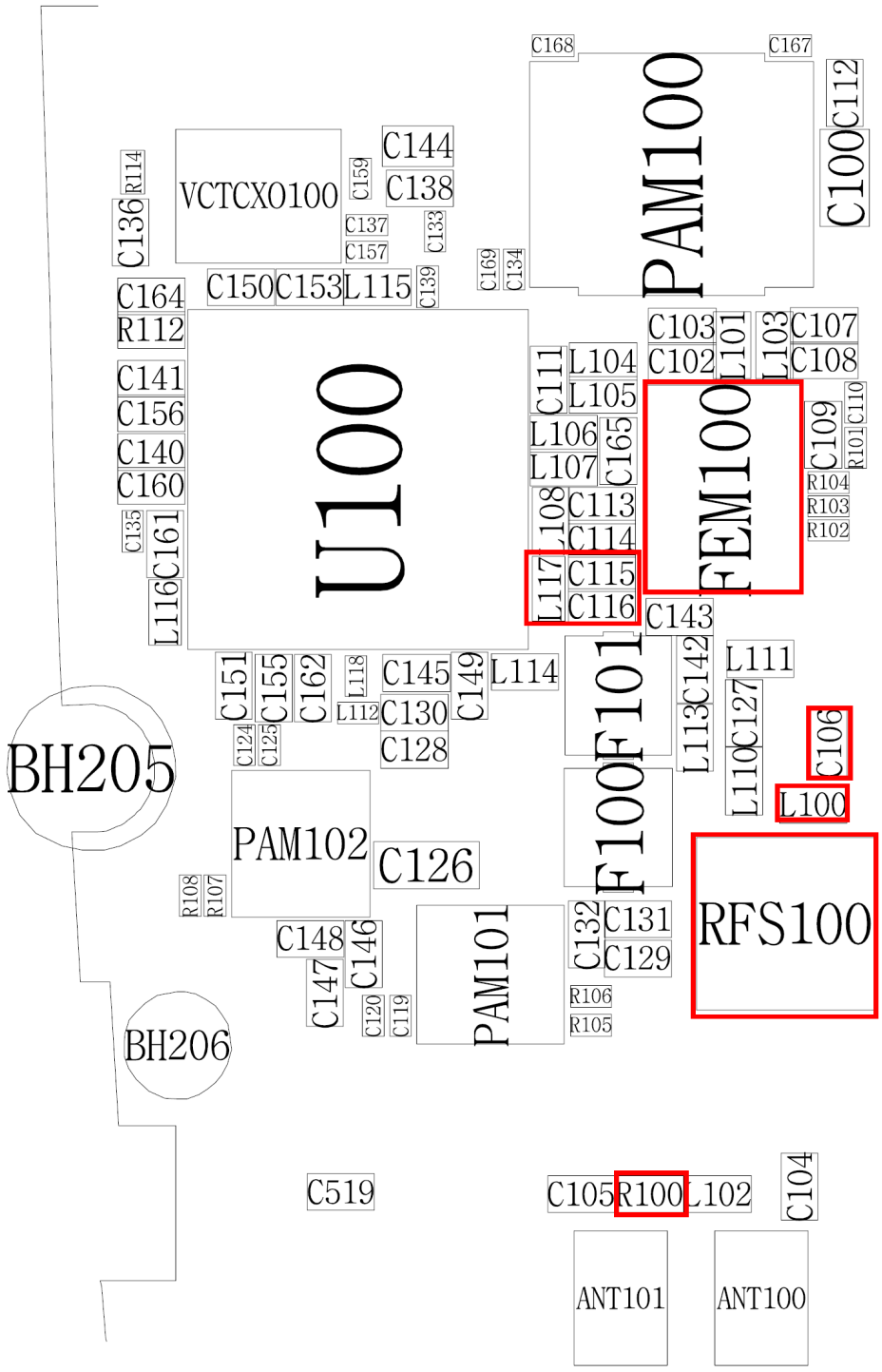




FEM

ÉMETTEUR-RÉCEPTEUR





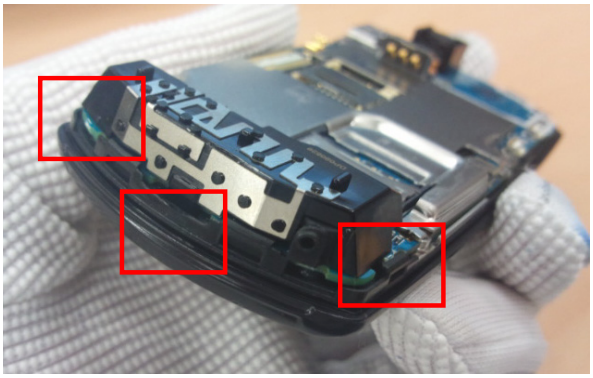
10. Reference data

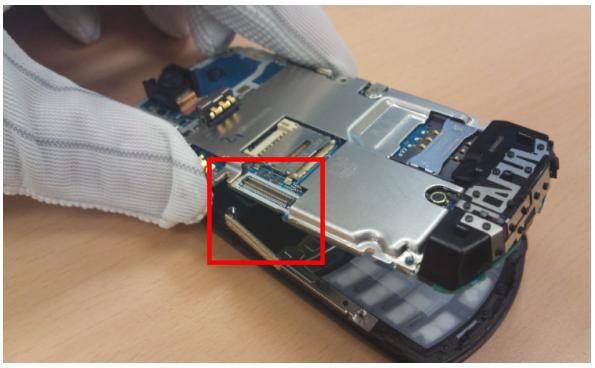
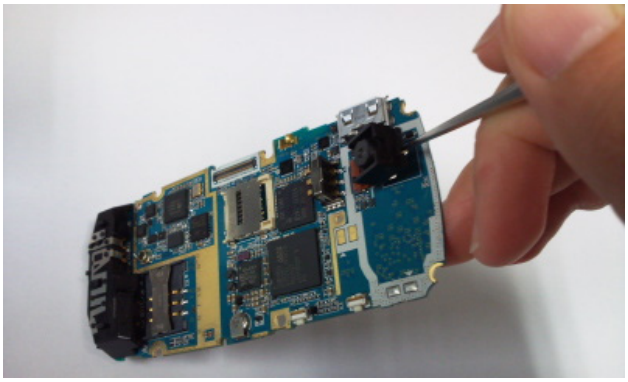
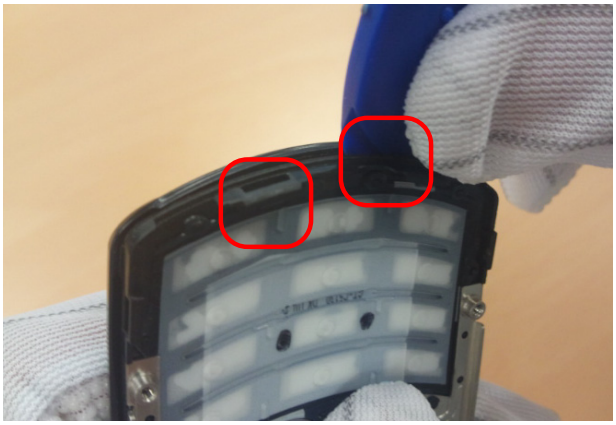
Reference Abbreviation

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** **:** European Standard
- **ES** **:** Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** **:** Transport Stream

11. Disassembly and Assembly Instructions

11-1. Disassembly

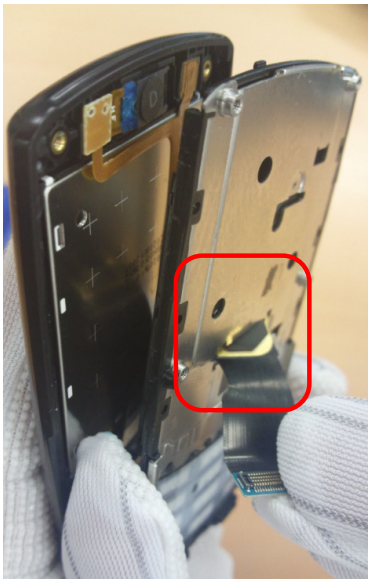
1 	2  
1) Remove screws at 6 points. *Caution! Be careful not to make scratch and molding damage	1) Hold up Slide Ass'y to upside. Disassemble left and right of REAR locking part using tool.(2 points) .
3 	4 
1) Pull the REAR by lifting it from bottom to top *Caution! Be careful not to make scratch and molding damage!	1) Slide down and Disassemble Front locking partl. (3 points)

5 	**6** 
1) Dettach Slide FPCB and Pull PBA by lifting it from bottom to top. *Caution! Be careful to not to tear the Slide FPCB.	*Caution! Disassemble camera bracket using pincette not using hands
7 	**8** 
1) Remove screws at 4 points.	1)Slide up and Disassemble bottom of Front locking part. (3 points)

9

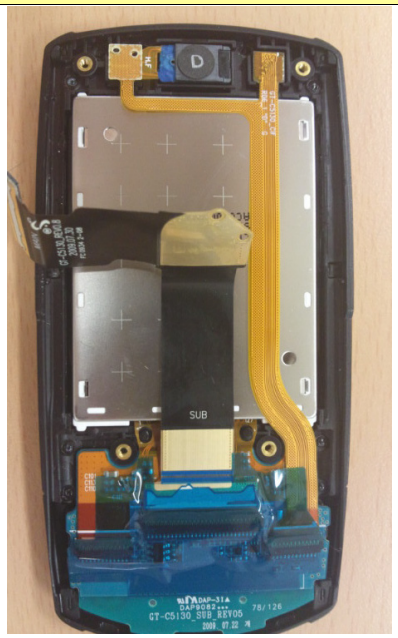
1) Disassemble side of Front locking partl. (2 points)
2) Detach SLIDE FPCB from lower.by pincette
*Caution!
Be careful to not to tear the Slide FPCB.

10



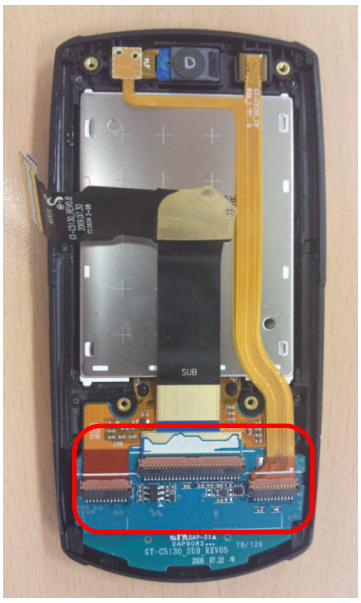
1) Pull the LOWER by lifting it from bottom to top. and remove from Front ass'y.
*Caution! Be careful to not to tear the Slide FPCB.

11

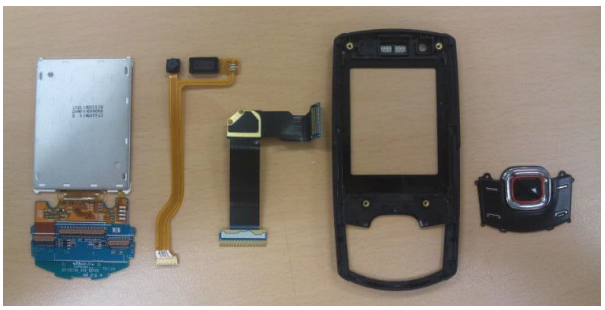


1) Remove green tape and then you can disassemble Slide FPCB.
*Caution!
Be careful about conductive tape.

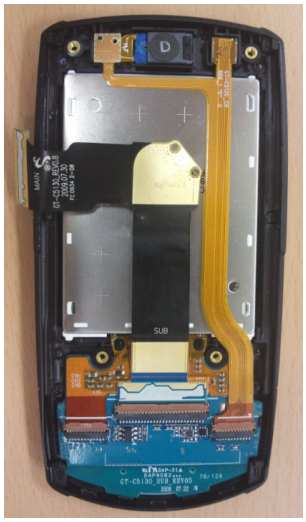
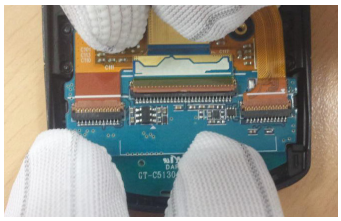
12

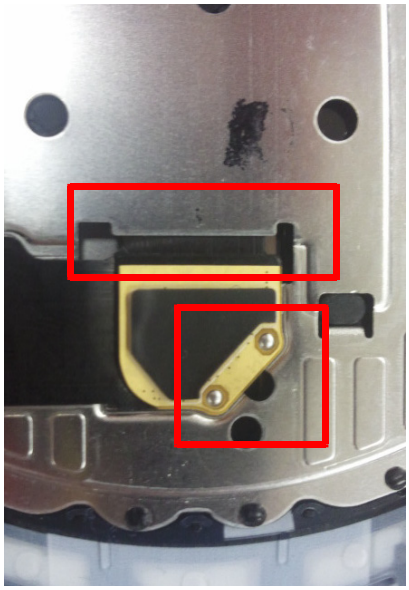
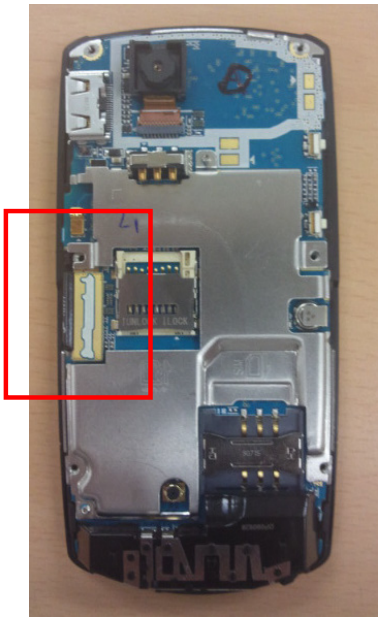


1) Open FPCB connecter and disassemble Slide FPCB.
2) Open FPCB connecter and disassemble receiver.

13 	
1) Disassemble LCD module.	1) Disassemble LCD+SUB PBA from UPPER. *Caution ! If you grip SUB PCB , it will get FOG damage. LCD is attached to SUB PBA.

11-2. Assembly

1 	2 
1) Assemble Keypad to UPPER.	1) Assemble LCD + SUB PBA to UPPER.
3  	4 
1) Assemble FPCB connecter and Slide FPCB., RECEIVER .	1) Insert Slide FPCB at Slide FRONT hole *Caution! Be careful to not to tear the Slide FPCB.

5 	6 
1) Assemble SLIDE LOWER by pressing 3 points from the bottom.	1) Slide down and Drive screws at 4 points with touque 1.3 +/- 0.1gf/㎠
7 	8 
1) Attach SLIDE FPCB to lower. 2) Check the FPCB is correctly inserted	1) IInsert FPCB of SUB PBA to Main PBA . Make sure that FPCB is completely inserted.

9 	**10** 
1) Assemble REAR by pressing 3 points from the bottom.	1) Drive Screws at 6 points with torque 1.3 +/- 0.1 Kgf/㎠.