



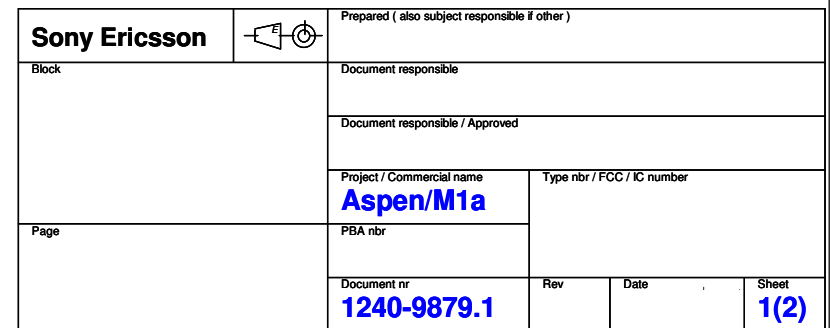
# **Schematics, Electrical**

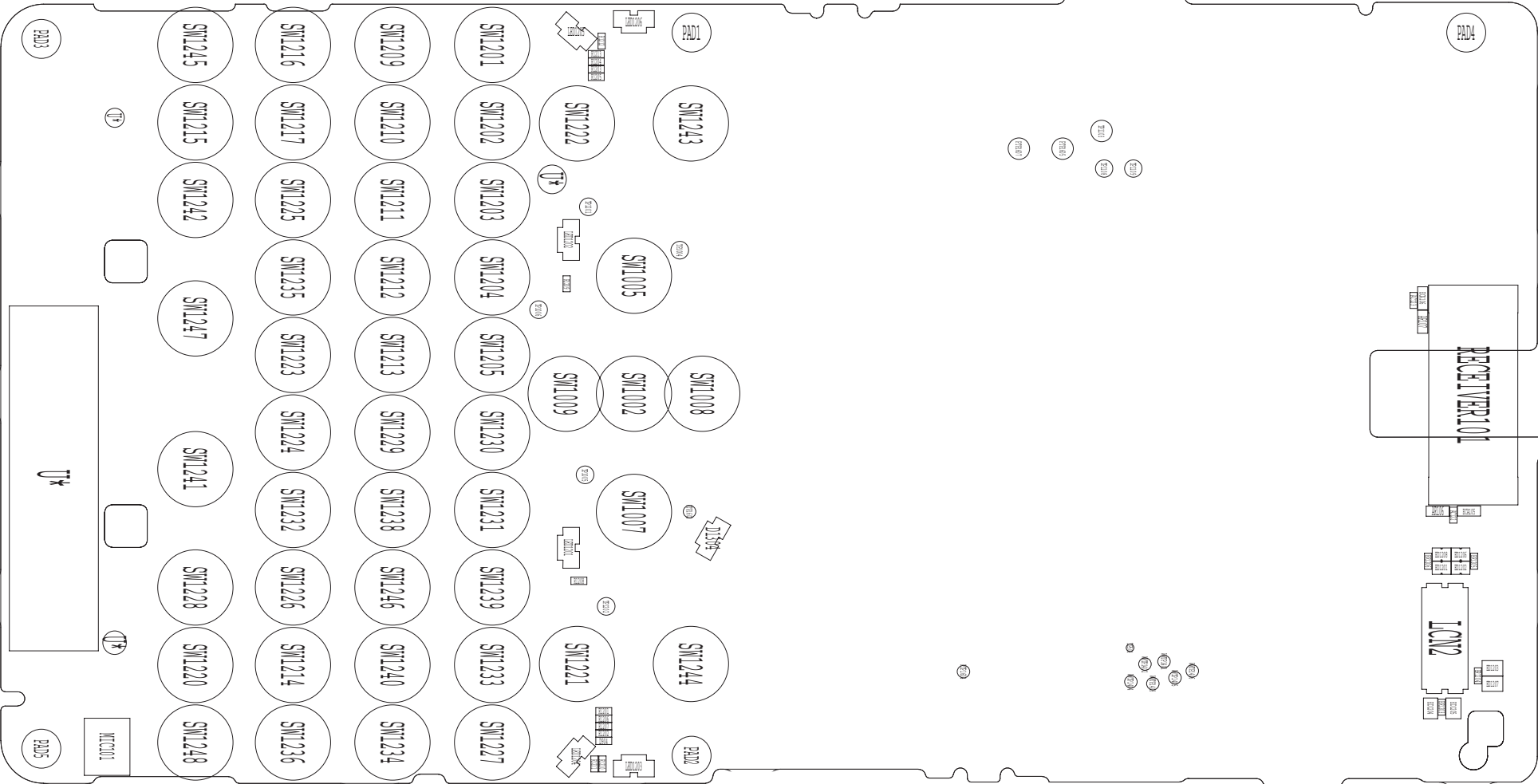
Applicable for Aspen/M1a



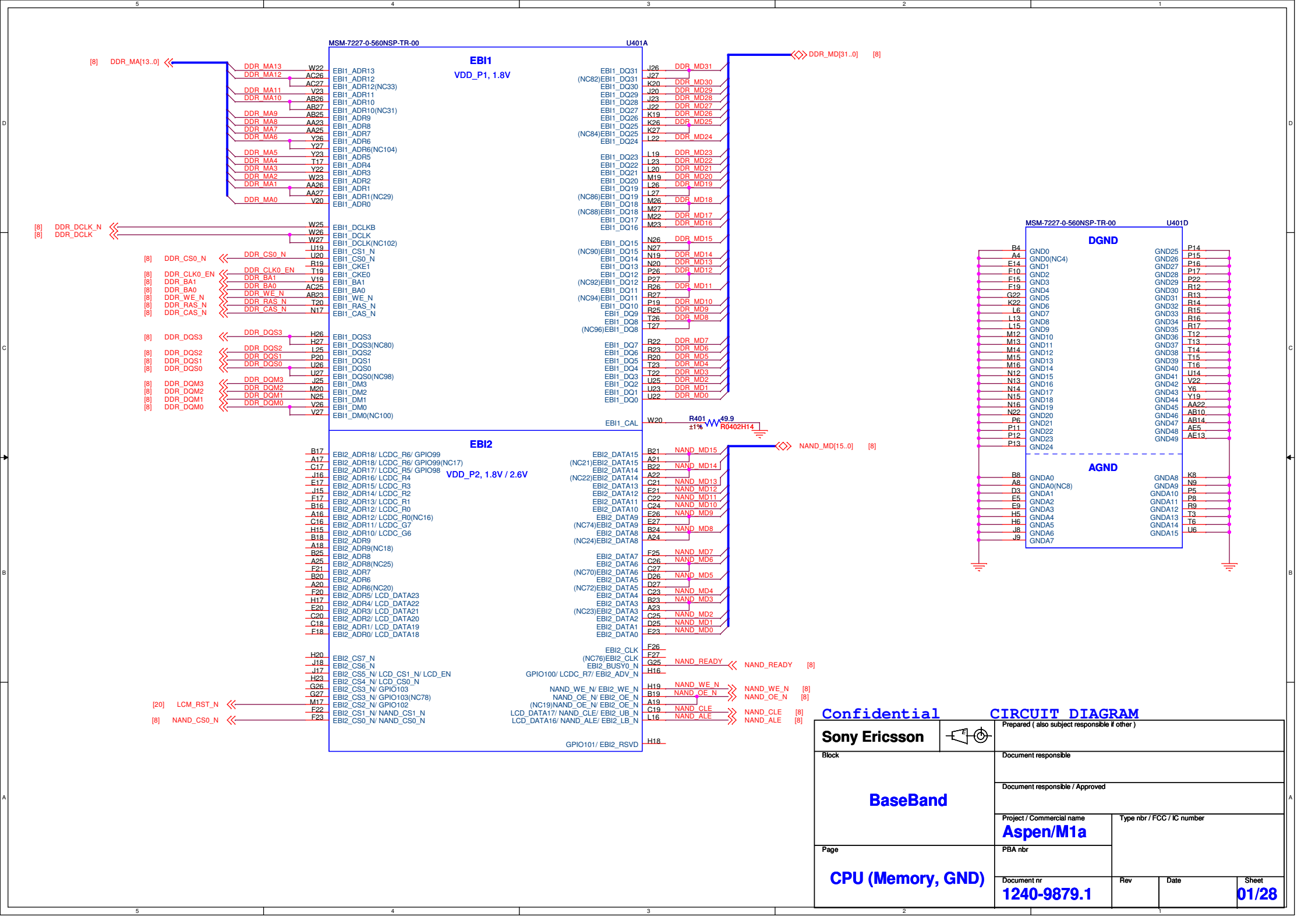
## Revision History

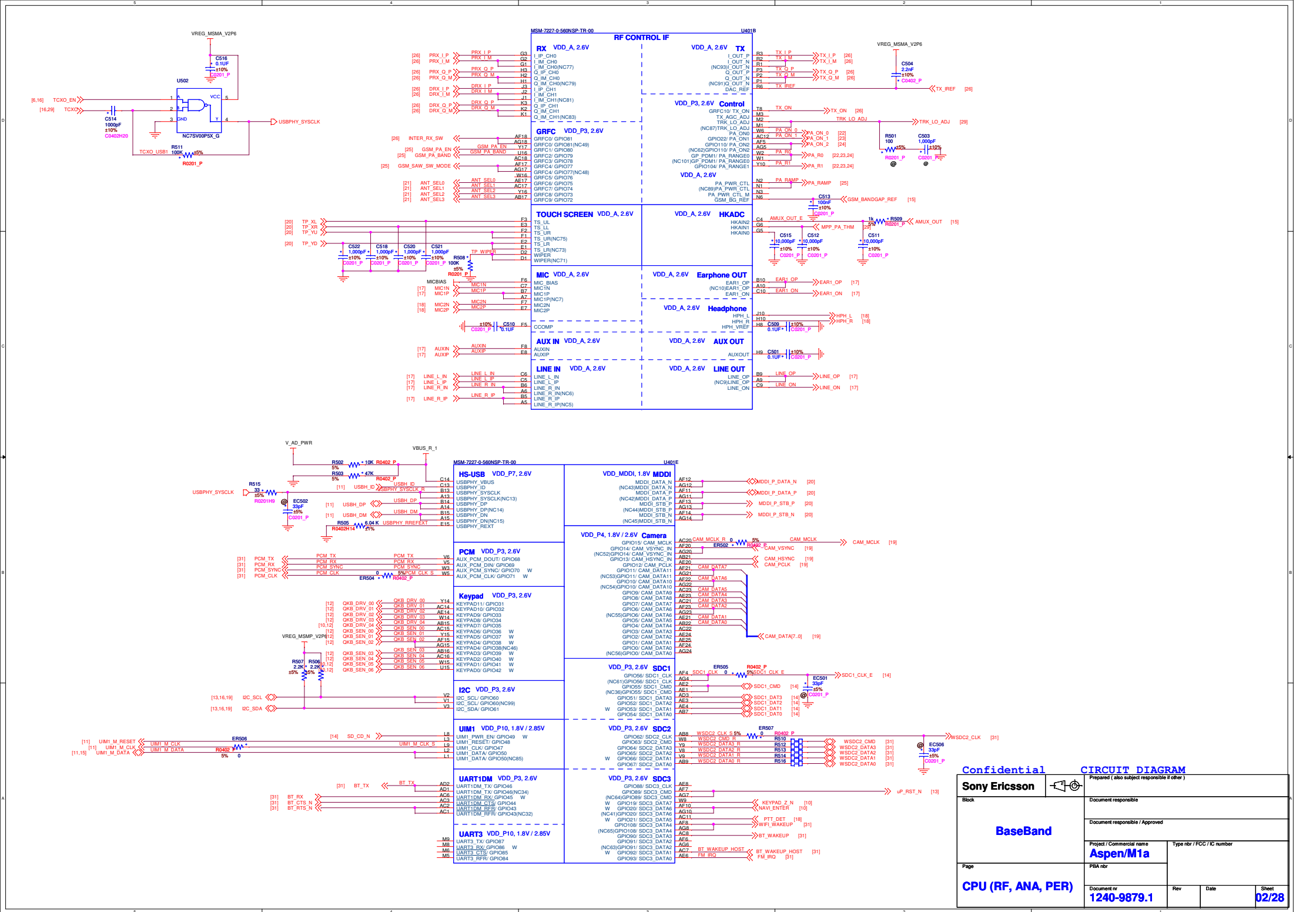
Rev.	Date	Changes / Comments
1	2010-Jun-14	Initial release

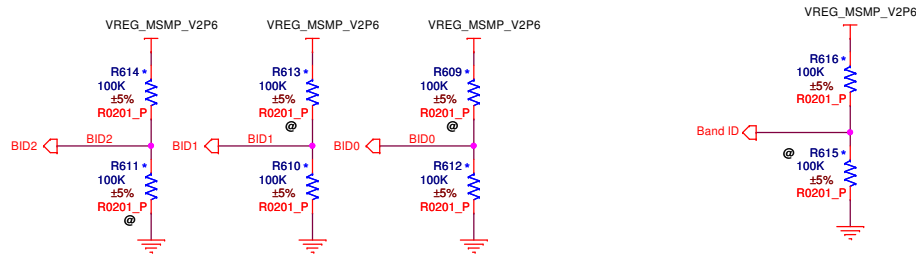
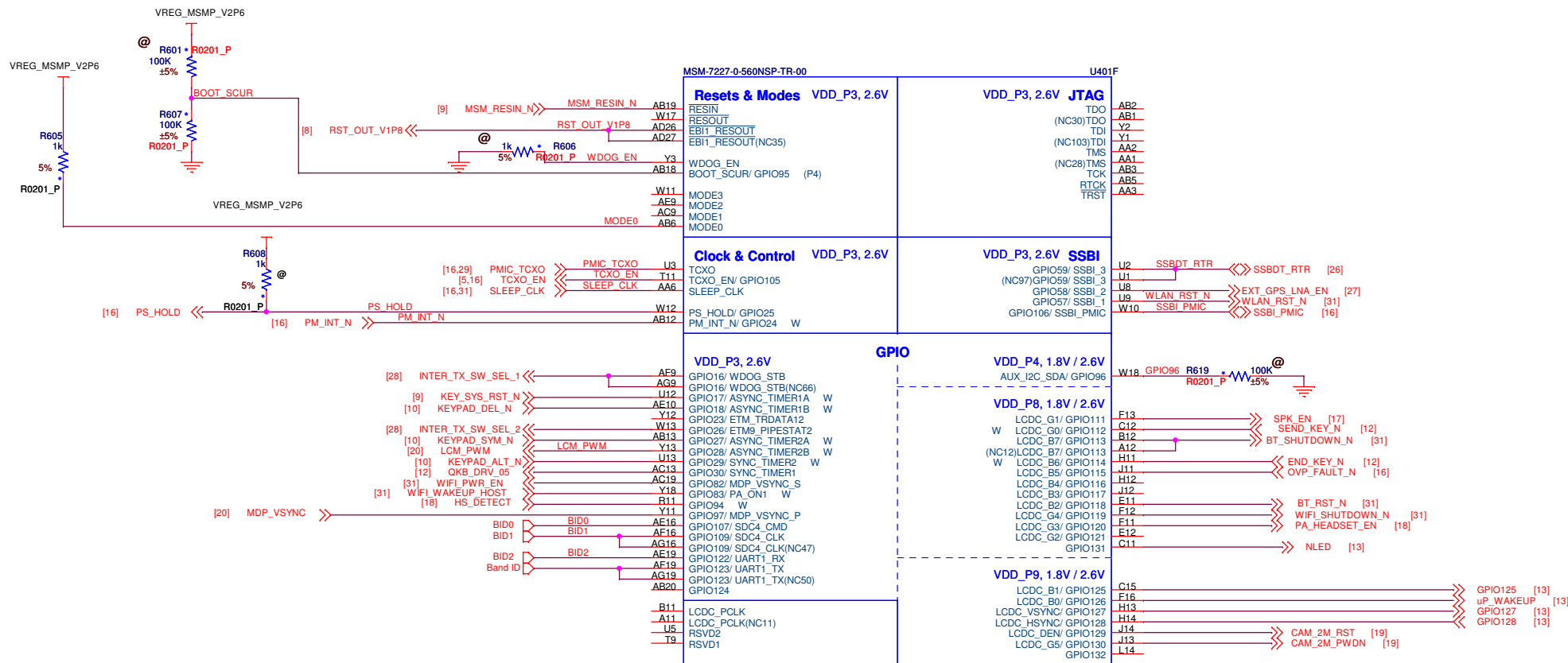




Sony Ericsson		Prepared ( also subject responsible if other )			
Block		Document responsible			
		Document responsible / Approved			
Page		Project / Commercial name <b>Aspen/M1a</b>		Type nbr / FCC / IC number	
		PBA nbr			
		Document nr <b>1240-9879.1</b>	Rev	Date	Sheet <b>2(2)</b>



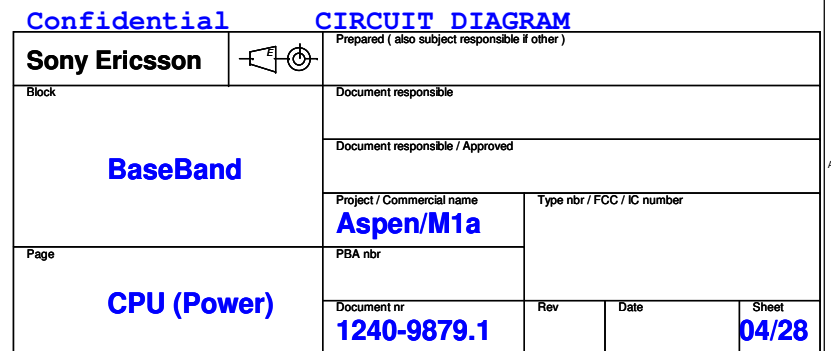




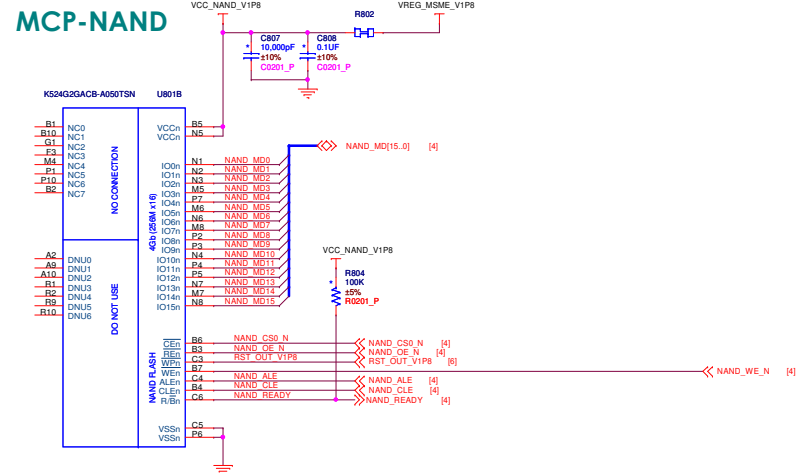
Confidential

CIRCUIT DIAGRAM

Sony Ericsson		Prepared (also subject responsible if other)			
Block		Document responsible			
		Document responsible / Approved			
Page		Project / Commercial name	Type nbr / FCC / IC number		
		Aspen/M1a			
CPU (Peripheral)		PBA nbr			
		Document nr	Rev	Date	Sheet
		1240-9879.1			03/28







**VIBRATOR**

VPH\_PWR

D901

ER901

ER902

VIB\_DRV\_S

VIB\_DRV\_N

VIB\_DRV\_N S

VIB901

F77C-CS1

EC901

EC902

C0402\_P

C0402\_P

**RESET KEY**

VREG\_MSMP\_V2P6

R1411

10K

±5%

R0201\_P

EC903

2.2uF

±20%

C0402\_P

SW901

EVQP2B02B

GND

**Reset**

VREG\_MSMP\_V2P6

R904

100K

±5%

R0201\_P

R905

100K

±5%

R0201\_P

D902

RB521ZS-30

PON\_RST\_N

KEY\_SYS\_RST\_N

MSM\_RESIN\_N

PBA nbr

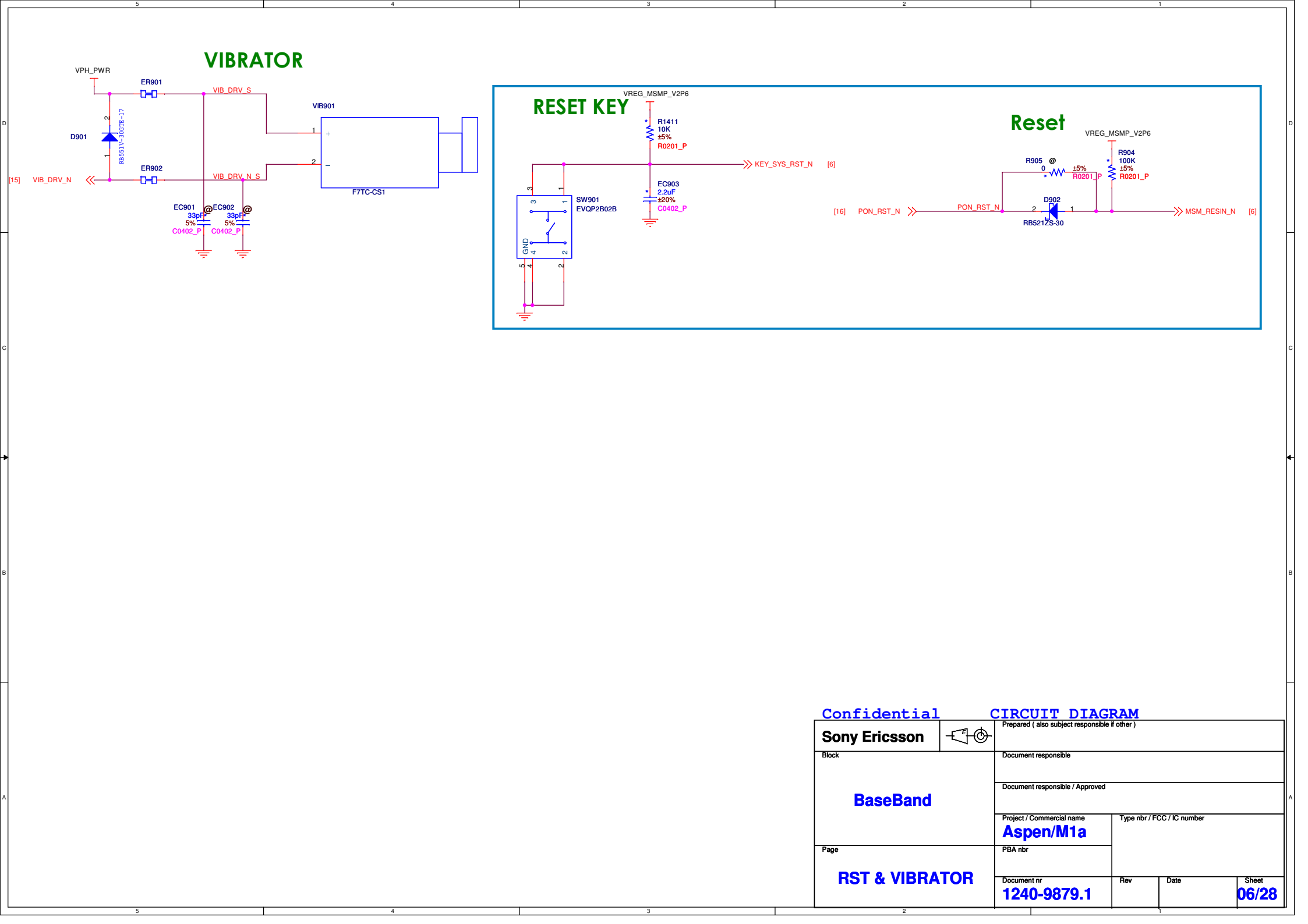
Document nr

Rev

Date

Sheet

06/28



**VIBRATOR**

VPH\_PWR

ER901

VIB\_DRV\_S

VIB901

F7TC-CS1

D901

RB551V-30GTE-17

ER902

VIB\_DRV\_N

VIB\_DRV\_N\_S

EC901

33pF

5%

C0402\_P

EC902

33pF

5%

C0402\_P

**RESET KEY**

VREG\_MSMP\_V2P6

R1411

10K

±5%

R0201\_P

EC903

2.2uF

±20%

C0402\_P

SW901

EVQP2B02B

GND

**Reset**

VREG\_MSMP\_V2P6

R905

0

±5%

R0201\_P

R904

100K

±5%

R0201\_P

D902

RB521ZS-30

PON\_RST\_N

MSM\_RESIN\_N

**Confidential**

**CIRCUIT DIAGRAM**

**Sony Ericsson**

**BaseBand**

**RST & VIBRATOR**

Prepared (also subject responsible if other)

Document responsible

Document responsible / Approved

Project / Commercial name

**Aspen/M1a**

Type nbr / FCC / IC number

PBA nbr

Document nr

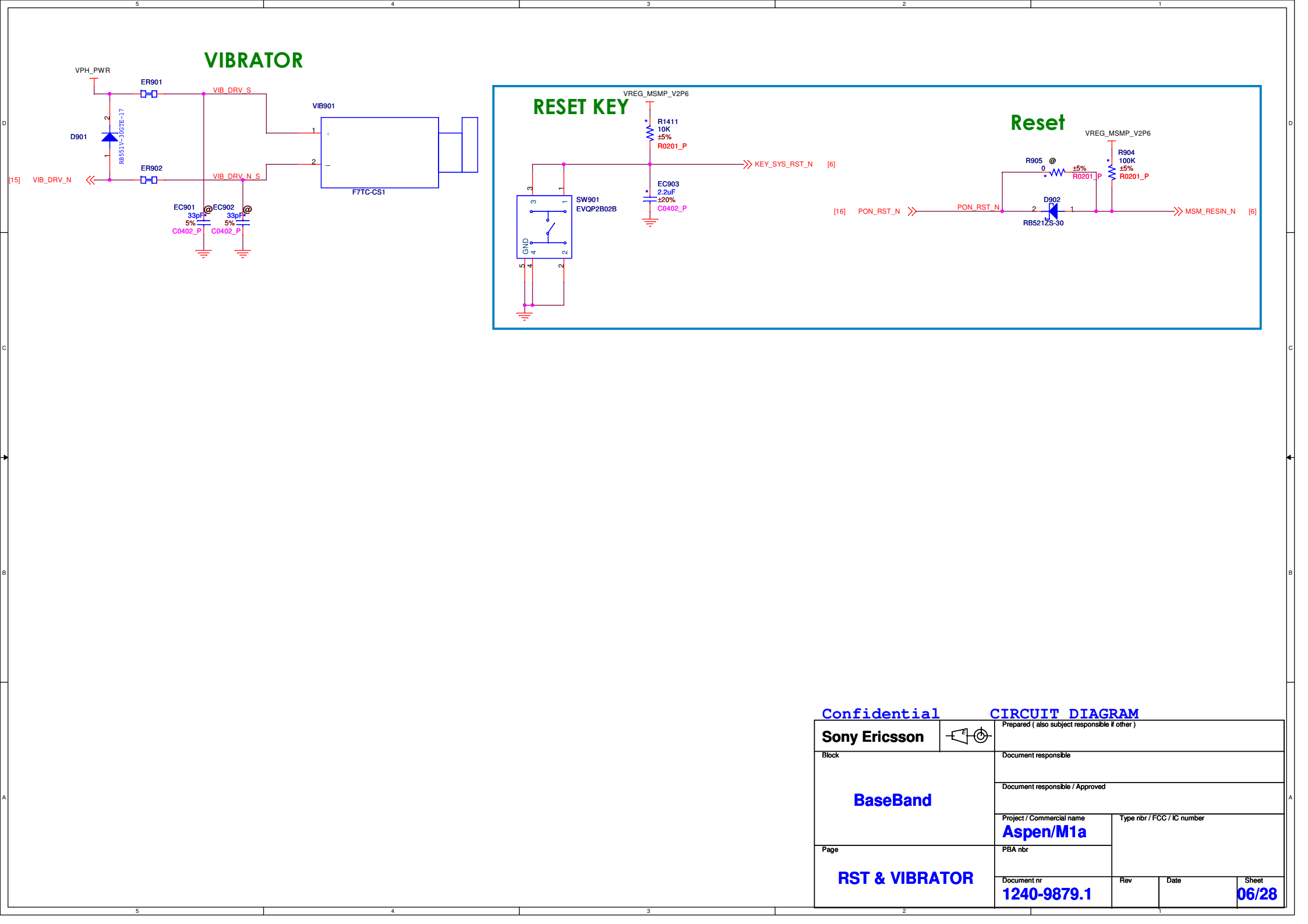
**1240-9879.1**

Rev

Date

Sheet

**06/28**



**VIBRATOR**

VPH\_PWR

D901

ER901

ER902

VIB\_DRV\_S

VIB\_DRV\_N

VIB901

F77C-CS1

EC901

EC902

C0402-P

C0402-P

**RESET KEY**

VREG\_MSMP\_V2P6

R1411

10K

±5%

R0201-P

EC903

2.2uF

±20%

C0402-P

SW901

EVQP2B02B

GND

**Reset**

VREG\_MSMP\_V2P6

R904

100K

±5%

R0201-P

R905

100K

±5%

R0201-P

D902

RB521ZS-30

PON\_RST\_N

MSM\_RESIN\_N

KEY\_SYS\_RST\_N

PBA nbr

Document nr

Rev

Date

Sheet

06/28

**VIBRATOR**

The vibrator circuit is powered by VPH\_PWR and includes components ER901, D901, RB551V-30GTE-17, ER902, F7TC-CS1, EC901, EC902, C0402\_P, and VIB\_DRV\_N S.

**RESET KEY**

The reset key circuit includes SW901 (EVQP2B02B), R1411 (10K ±5%), EC903 (2.2uF ±20%, C0402\_P), and VREG\_MSMP\_V2P6.

**Reset**

The reset circuit includes R905 (±5%), D902 (RB521ZS-30), R904 (100K ±5%), R0201\_P, and VREG\_MSMP\_V2P6.

**Confidential**

**CIRCUIT DIAGRAM**

Sony Ericsson		Prepared (also subject responsible if other)	
Block		Document responsible	
		Document responsible / Approved	
BaseBand		Project / Commercial name <b>Aspen/M1a</b>	
		Type nbr / FCC / IC number	
Page		PBA nbr	
RST & VIBRATOR		Document nr <b>1240-9879.1</b>	Rev Date Sheet <b>06/28</b>

**VIBRATOR**

VPH\_PWR

ER901

VIB\_DRV\_S

VIB901

F7TC-CS1

D901

RB551V-30GTE-17

ER902

VIB\_DRV\_N

VIB\_DRV\_N\_S

EC901

33pF

5%

C0402\_P

EC902

33pF

5%

C0402\_P

**RESET KEY**

VREG\_MSMP\_V2P6

R1411

10K

±5%

R0201\_P

EC903

2.2uF

±20%

C0402\_P

SW901

EVQP2B02B

GND

**Reset**

VREG\_MSMP\_V2P6

R905

0

±5%

R0201\_P

R904

100K

±5%

R0201\_P

D902

RB521ZS-30

PON\_RST\_N

MSM\_RESIN\_N

**Confidential**

**CIRCUIT DIAGRAM**

**Sony Ericsson**

**BaseBand**

**RST & VIBRATOR**

Prepared ( also subject responsible if other )

Document responsible

Document responsible / Approved

Project / Commercial name

**Aspen/M1a**

Type nbr / FCC / IC number

PBA nbr

Document nr

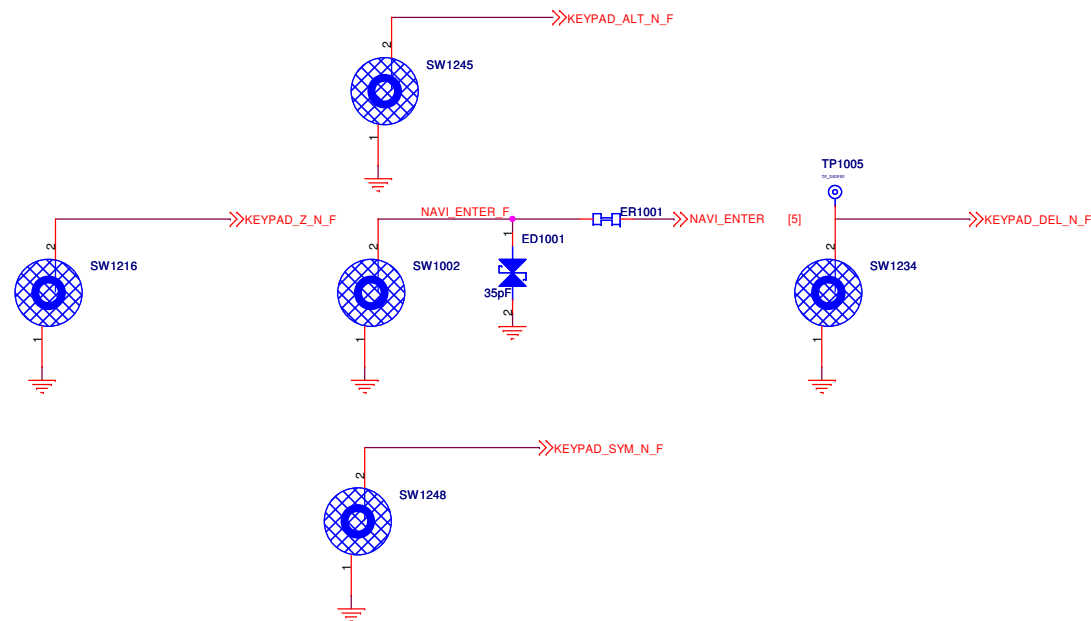
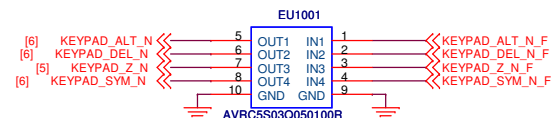
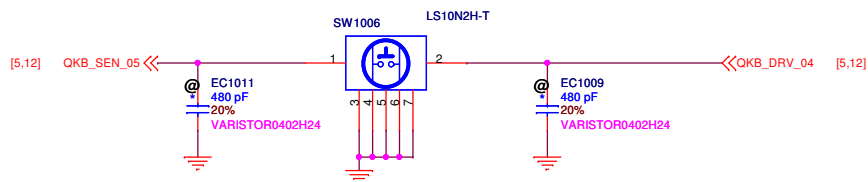
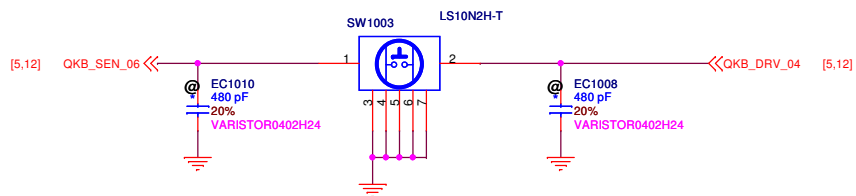
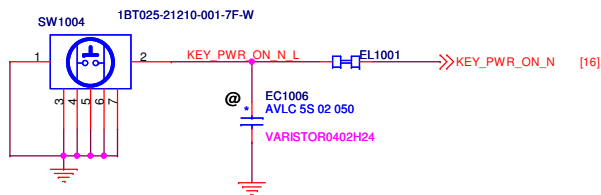
**1240-9879.1**

Rev

Date

Sheet

**06/28**

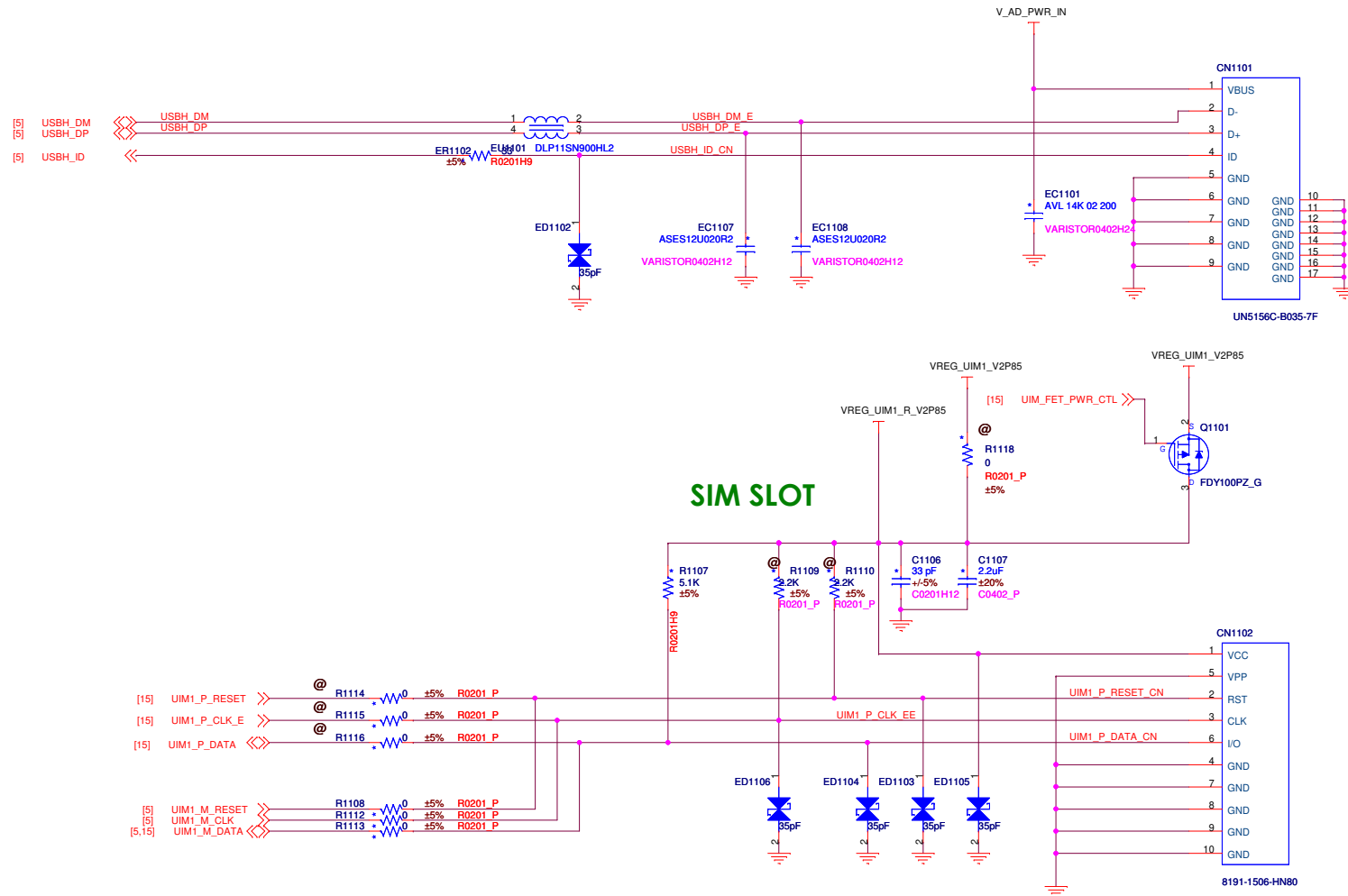


Confidential

CIRCUIT DIAGRAM

Sony Ericsson		Prepared ( also subject responsible if other )	
Block		Document responsible	
		Document responsible / Approved	
		Project / Commercial name	Type nbr / FCC / IC number
Page		Aspen/M1a	
		PBA nbr	
		Document nr	Rev Date Sheet
		1240-9879.1	07/28

## HIGH SPEED USB



Confidential

### CIRCUIT DIAGRAM



Prepared ( also subject responsible if other )
--

**Sony Ericsson**

[illegible]

	Document responsible
--	----------------------

## BaseBand

Document responsible / Approved

Project / Commercial name  
**Aspen/M1a**

Type nbr / FCC / IC number
----------------------------

Page

	PBA nbr
--	---------

## USB & SIM

Document nr

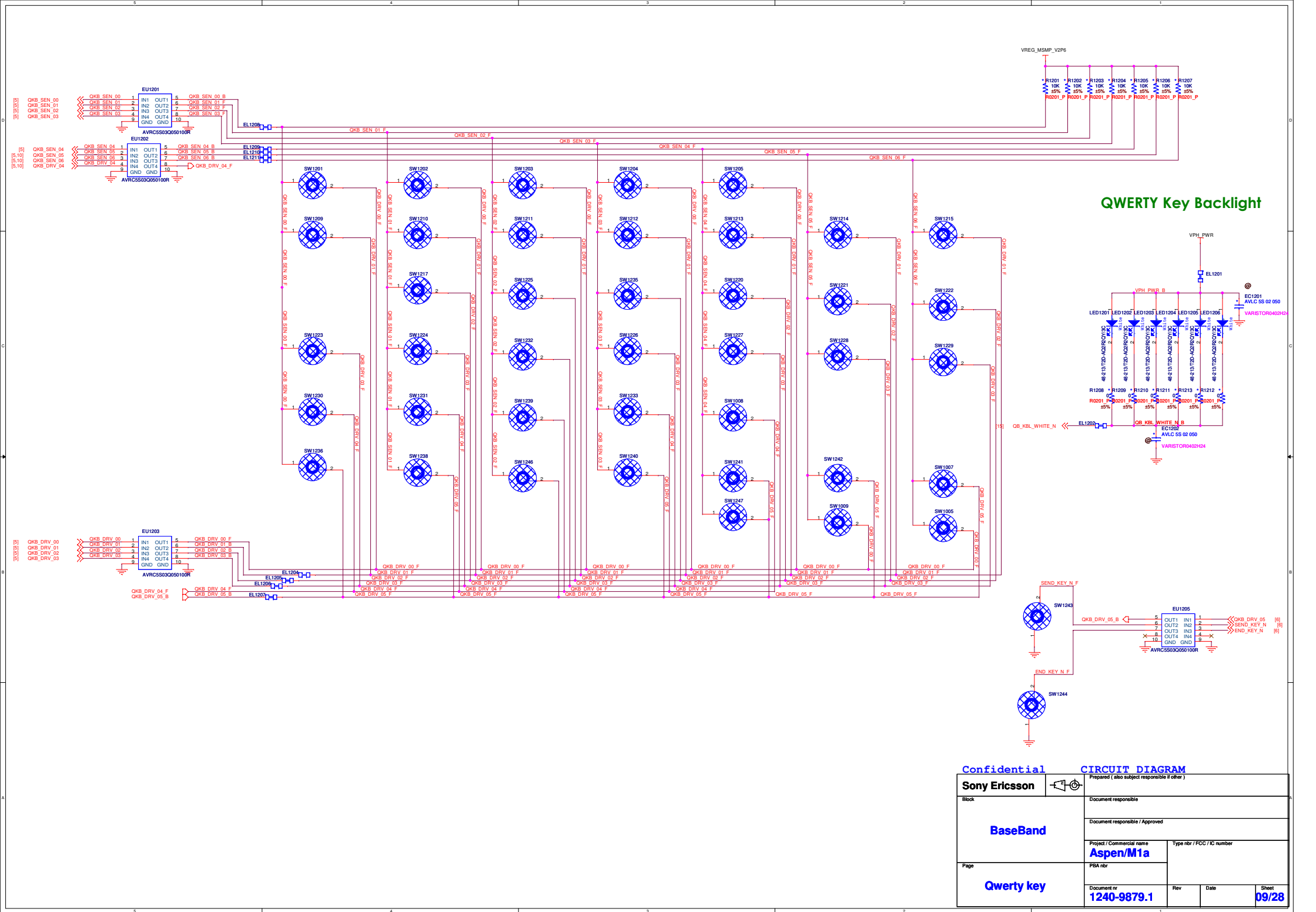
	Rev
--	-----

Date
------

Sheet

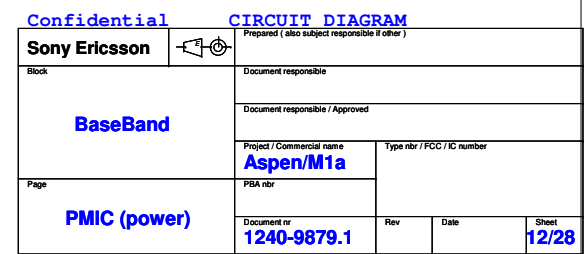
**Document ID**  
**1240-9879.1**

08/28

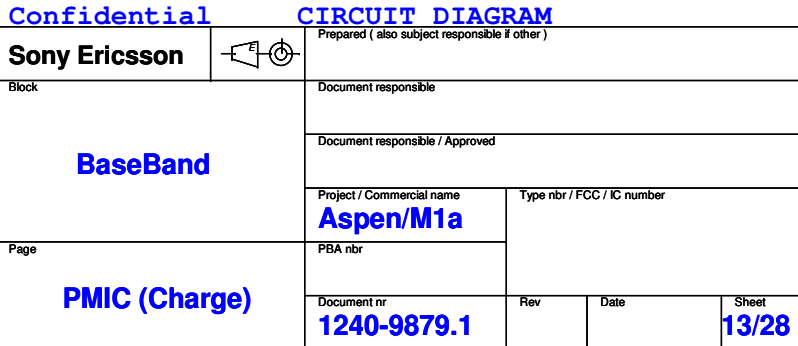




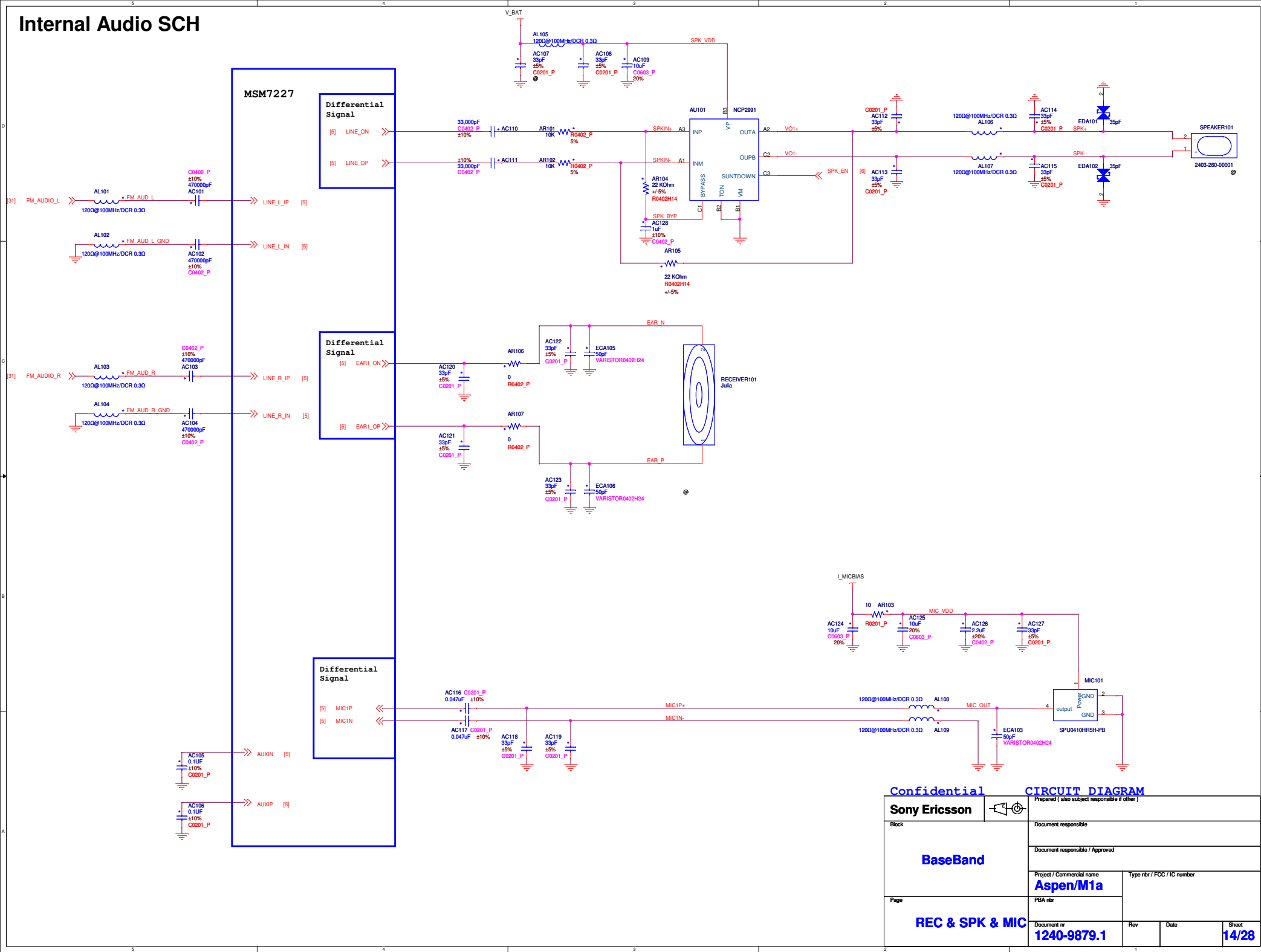








## Internal Audio SCH



Confidential

### CIRCUIT DIAGRAM

Prepared ( also subject responsible if other )

**Sony Ericsson** 

	Document responsible
--	----------------------

Document responsible / Approved

Document responsible / Approved

Project / Commercial name	
---------------------------	--

Type nbr / FCC / IC number
----------------------------

## Aspen/M1a

	PBA nitr
--	----------

Document nr  
**1240-9879.1**

	Re
--	----

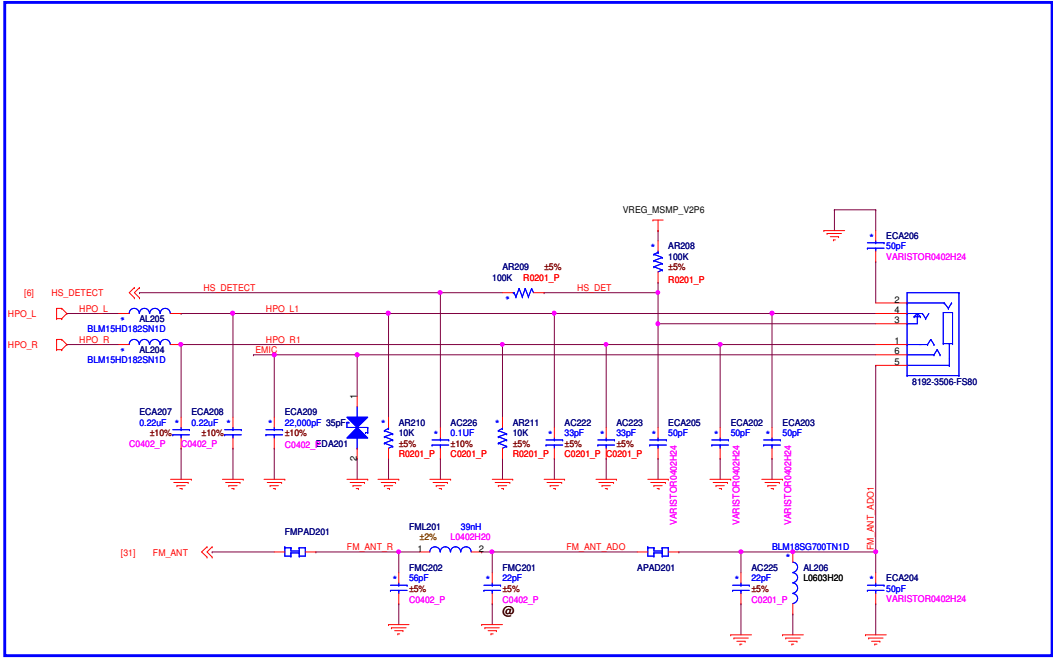
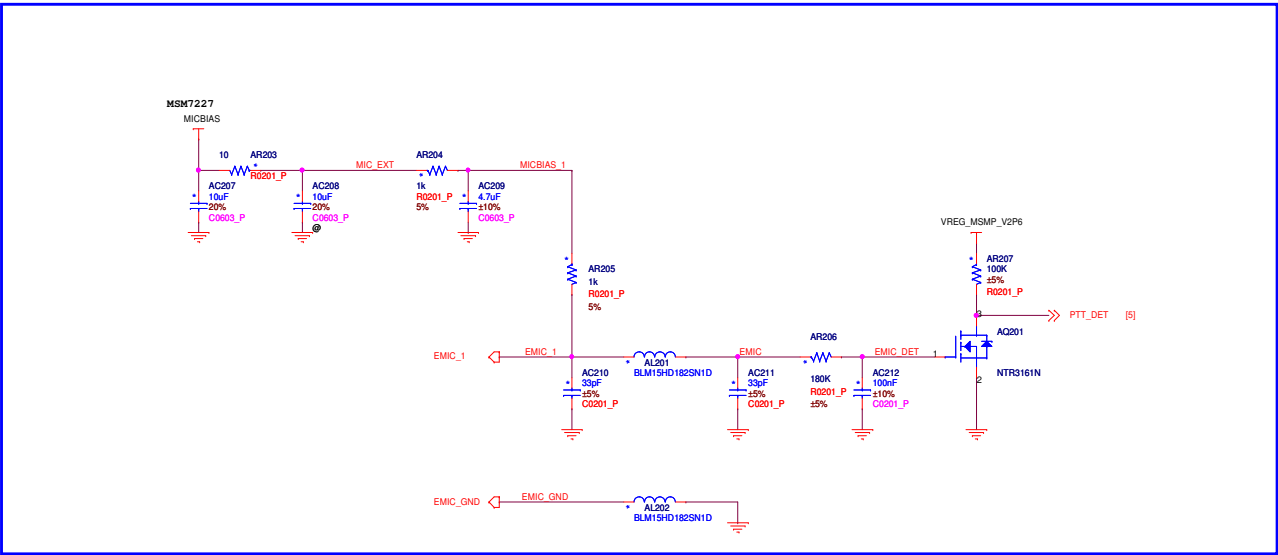
Date
------

Sheet  
14/28

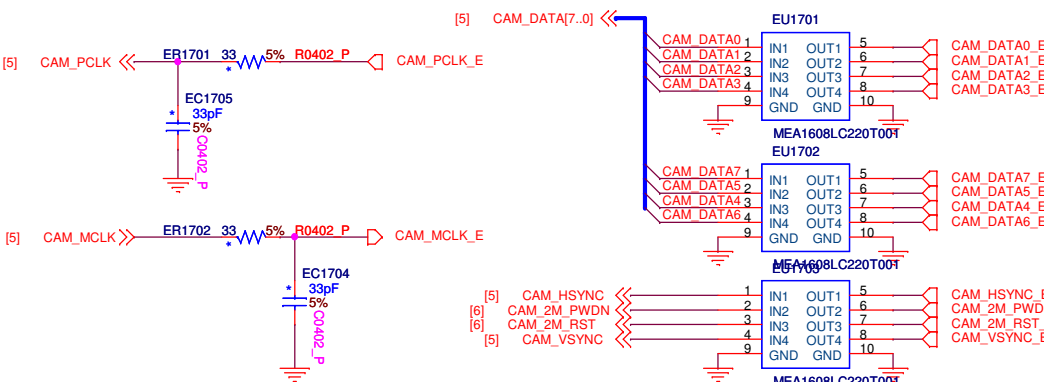
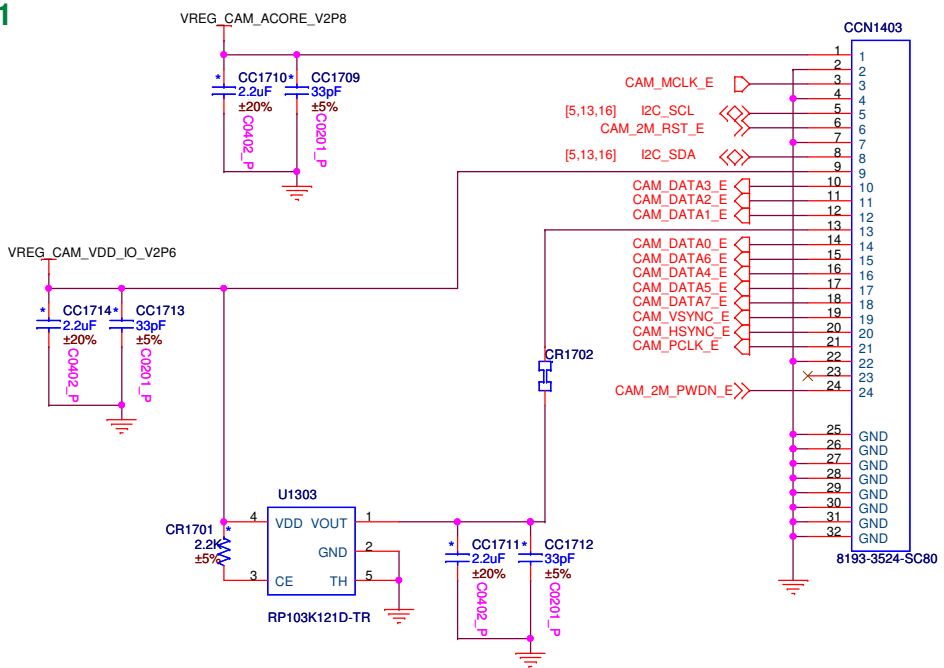
## BaseBand

## REC & SPK & MIC

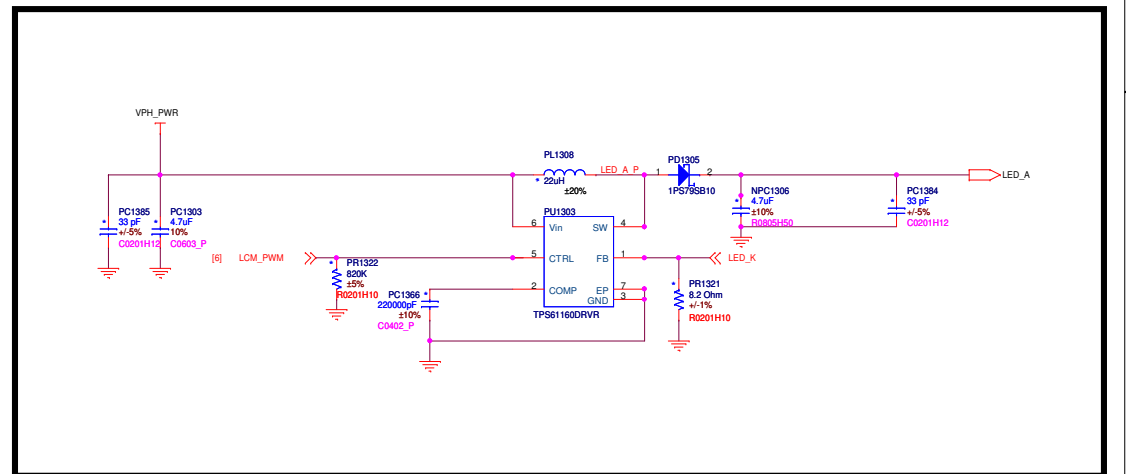
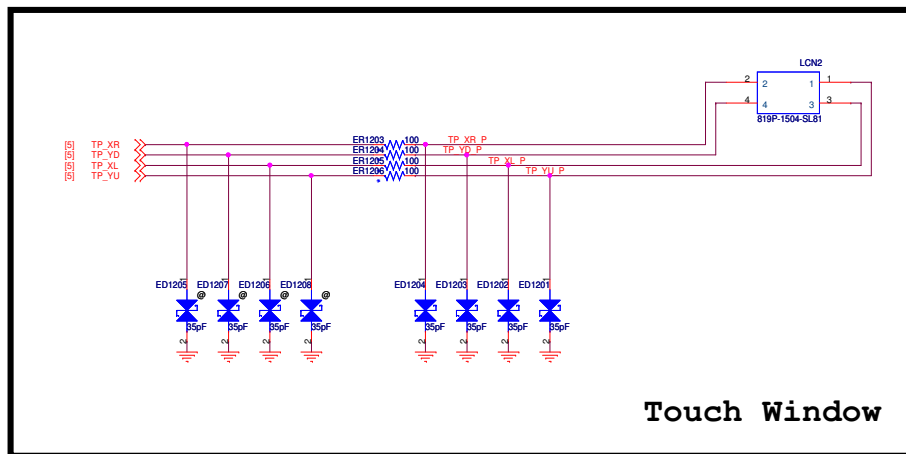
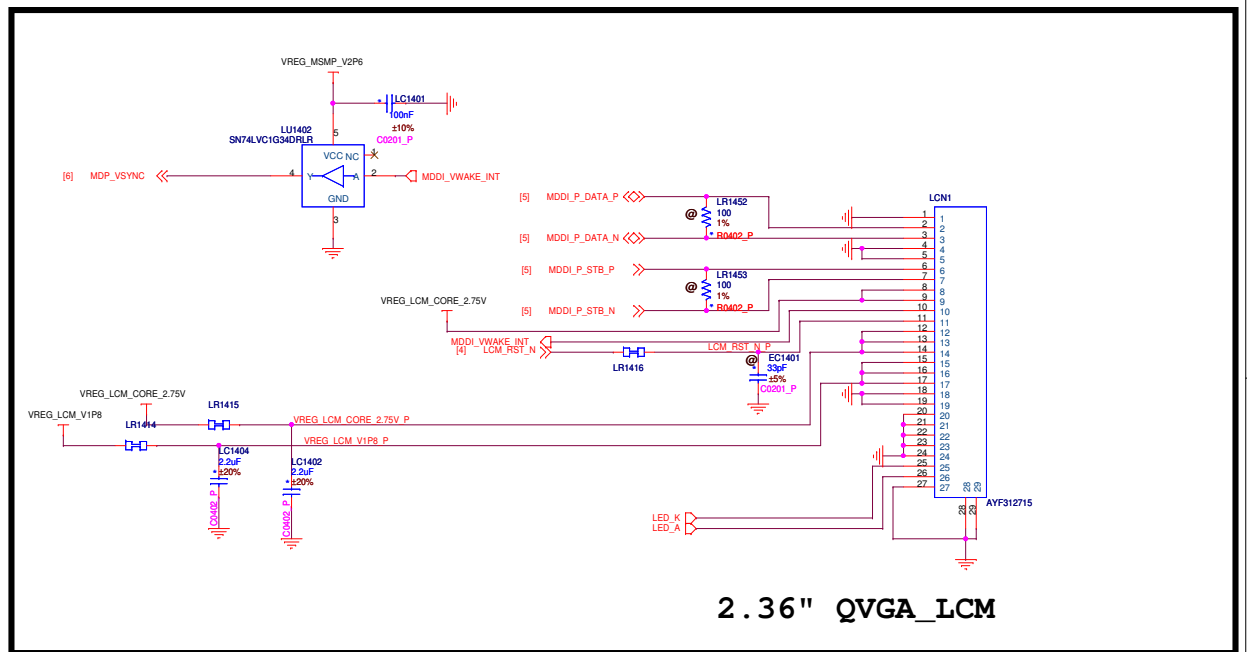
Document nr  
**1240-9879.1**



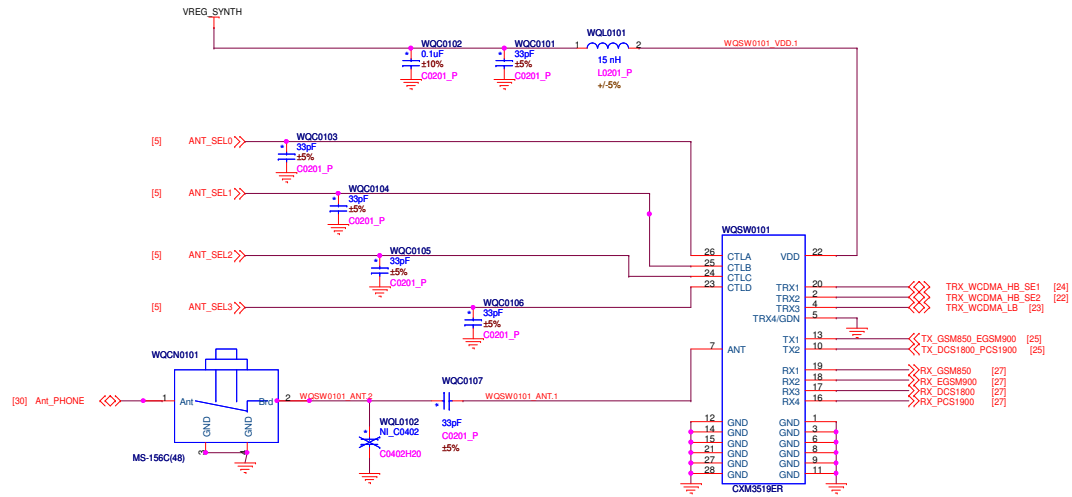
ISX-001



Confidential		CIRCUIT DIAGRAM			
Sony Ericsson		Prepared ( also subject responsible if other )			
Block		Document responsible			
BaseBand		Document responsible / Approved			
Page		Project / Commercial name		Type nbr / FCC / IC number	
Camera		Aspen/M1a			
		PBA nbr			
		Document nr	Rev	Date	Sheet
		1240-9879.1			16/28



## PRIMARY ANTENNA&SWITCHPLEXER



Confidential

### CIRCUIT DIAGRAM

Prepared ( also subject responsible if other )

**Sony Ericsson**

Block	
-------	--

**RF**

Document responsible

Document responsible / Approved

Project / Commercial name  
**Aspen/M1a**

Type nbr / FCC / IC number

---

PBA nibr

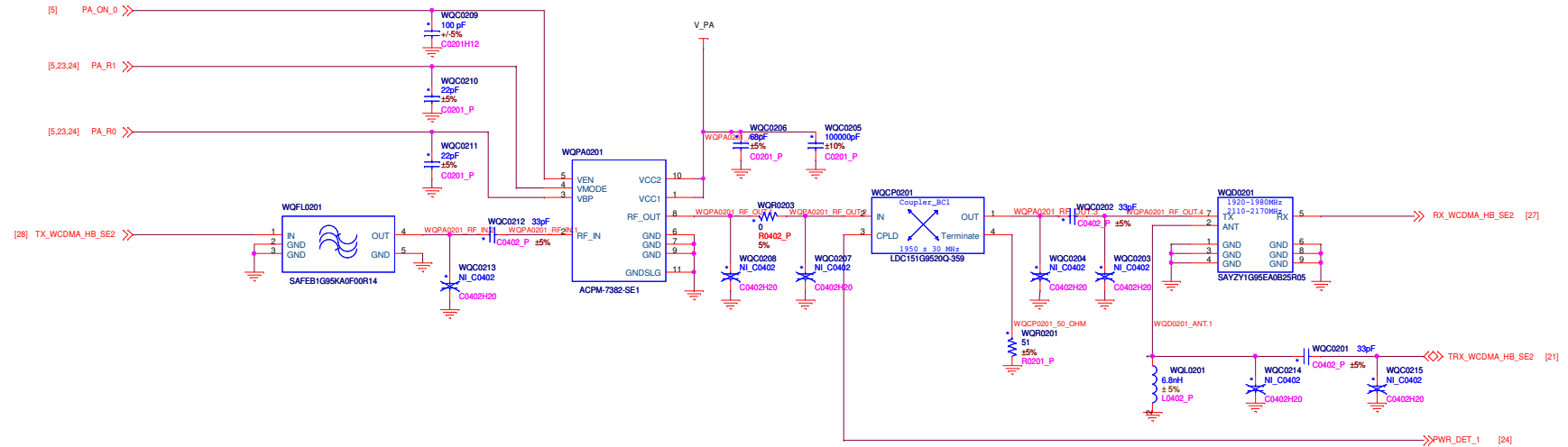
Document nr  
**1240-9879.1**

Rev

Date \_\_\_\_\_

Sheet  
18/28

# WCDMA PA/TX CHAIN FOR HB SE2 (BC1)

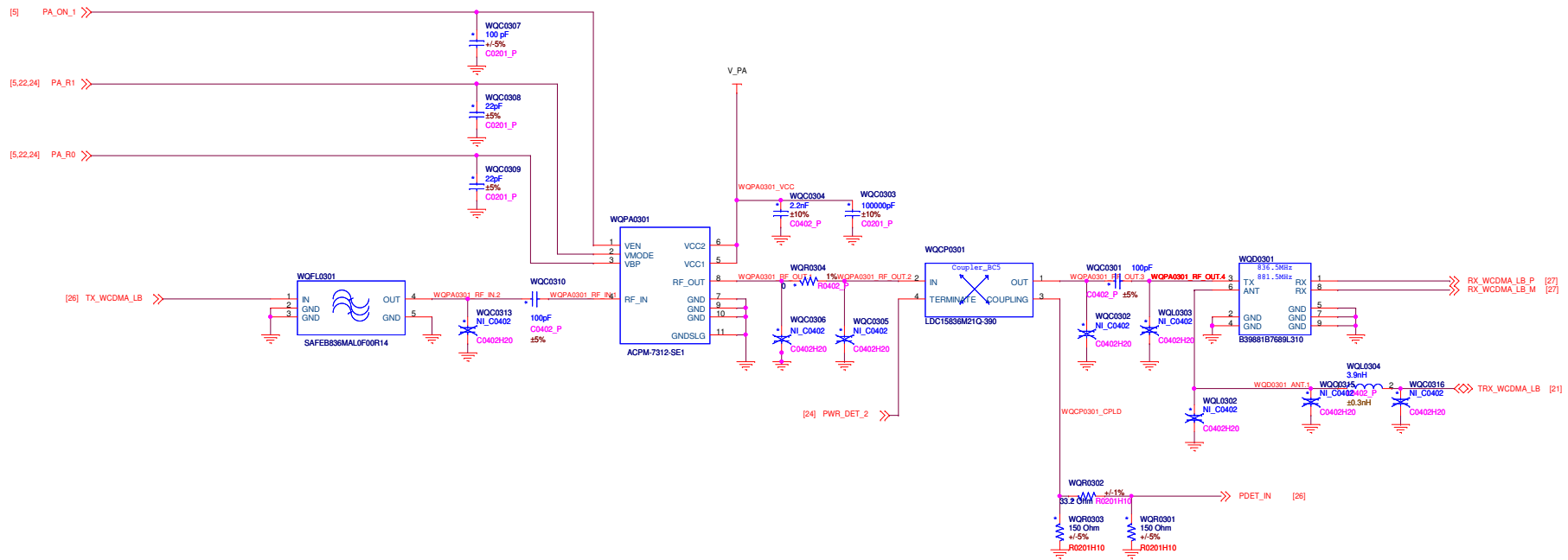


Confidential

CIRCUIT DIAGRAM

Sony Ericsson		Prepared ( also subject responsible if other )	
Block	RF	Document responsible	
		Document responsible / Approved	
		Project / Commercial name Aspen/M1a	Type nbr / FCC / IC number
Page	WCDMA TX 2100	PBA nbr	
		Document nr 1240-9879.1	Rev Date Sheet 19/28

# WCDMA 850 (BC5) PA/TX CHAIN



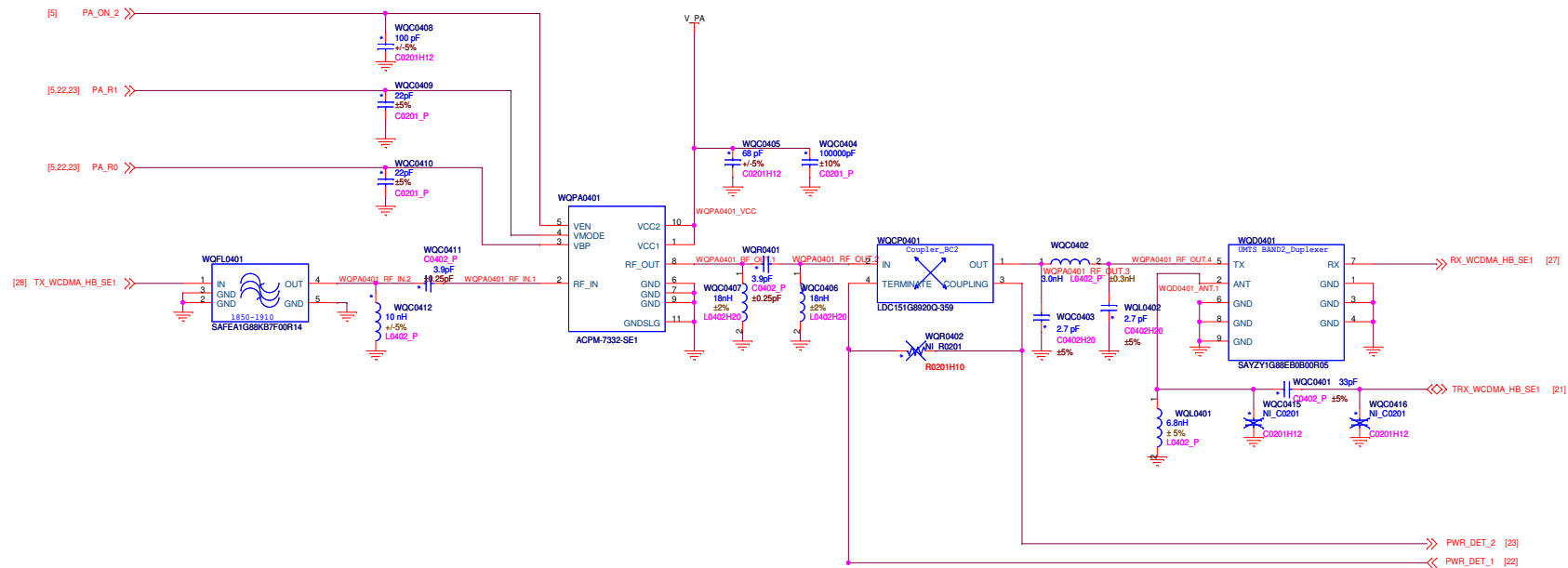
Confidential

CIRCUIT DIAGRAM

Sony Ericsson		Prepared (also subject responsible if other)	
Block	RF	Document responsible	
		Document responsible / Approved	
		Project / Commercial name	Type nbr / FCC / IC number
Page	WCDMA TX 850	Aspen/M1a	
		PBA nbr	
		Document nr	Rev Date Sheet
		1240-9879.1	20/28



# WCDMA PA/TX CHAIN FOR HB SE1 (1900)

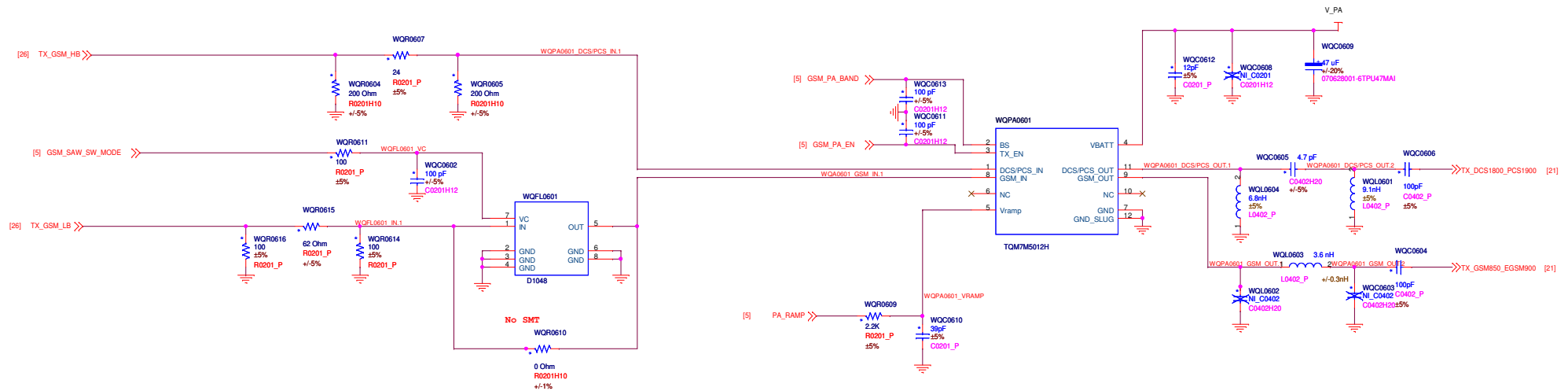


Confidential

CIRCUIT DIAGRAM

<b>Sony Ericsson</b>		Prepared (also subject responsible if other)	
Block		Document responsible	
<b>RF</b>		Document responsible / Approved	
Page		Project / Commercial name <b>Aspen/M1a</b>	Type nbr / FCC / IC number
<b>WCDMA TX 1900</b>		PBA nbr	Document nr <b>1240-9879.1</b>
		Rev	Date
		Sheet	<b>21/28</b>

## GSM\_QUAD\_BAND\_PA



Confidential

### CIRCUIT DIAGRAM

Prepared ( also subject responsible if other )
--

**Sony Ericsson**

	Document responsible
--	----------------------

Document responsible / Approved

\_\_\_\_\_

---

Project / C

Document nr  
**1240-9879.1**

	Rev
--	-----

Date
------

Sheet  
**22/28**

## GSM PA



[21] RX\_PCS1900  $\gg$  WQ0804  $\gg$  GSM\_PCS\_RX [26]

[21] RX\_DCS1800  $\gg$  WQ0803  $\gg$  GSM\_DCS\_RX [26]

[21] RX\_GSM900  $\gg$  WQ0802  $\gg$  GSM\_900\_RX [26]

[21] RX\_GSM850  $\gg$  WQ0801  $\gg$  GSM\_850\_RX [26]

[23] RX\_WCDMA\_LB\_M

WQLO813 18nH ±5%  
C0402\_P ±0.25pF  
WQLO809 12nH ±5%  
C0402\_P ±0.25pF  
WQLO811 1.8 pF  
WCDMA\_PRI\_RX\_B5\_M

[24] RX\_WCDMA\_LB\_P

WQLO812 1.8 pF  
C0402\_P ±0.25pF  
WCDMA\_PRI\_RX\_B5\_P

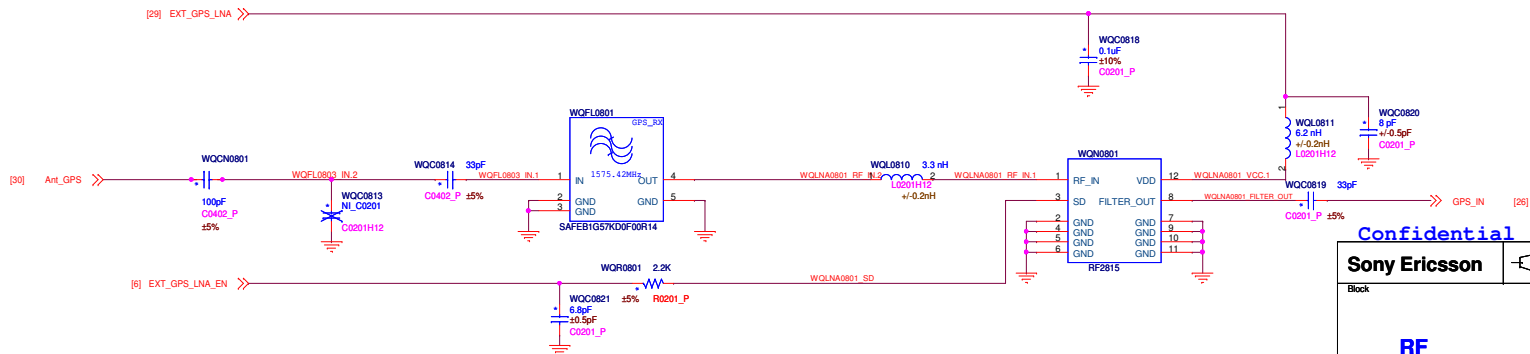
[25] RX\_WCDMA\_HB\_SE1

WQLO816 33pF ±5%  
C0402\_P ±0.25pF  
WQLO817 2.4nH ±0.3nH  
C0402\_P ±0.25pF  
WQLO818 2.4nH ±0.3nH  
WCDMA\_RX\_PCS\_SE1

[26] RX\_WCDMA\_HB\_SE2

WQLO812 100pF ±5%  
C0402\_P ±0.5pF  
WQLO805 9 pF  
C0402\_H20 ±0.3nH  
WQLO810 1.0nH ±0.3nH  
C0402\_P ±0.5pF  
WCDMA\_RX\_IMT\_SE2

## GPS RX MATCHING NETWORK



### CIRCUIT DIAGRAM

	Document responsible
--	----------------------

\_\_\_\_\_

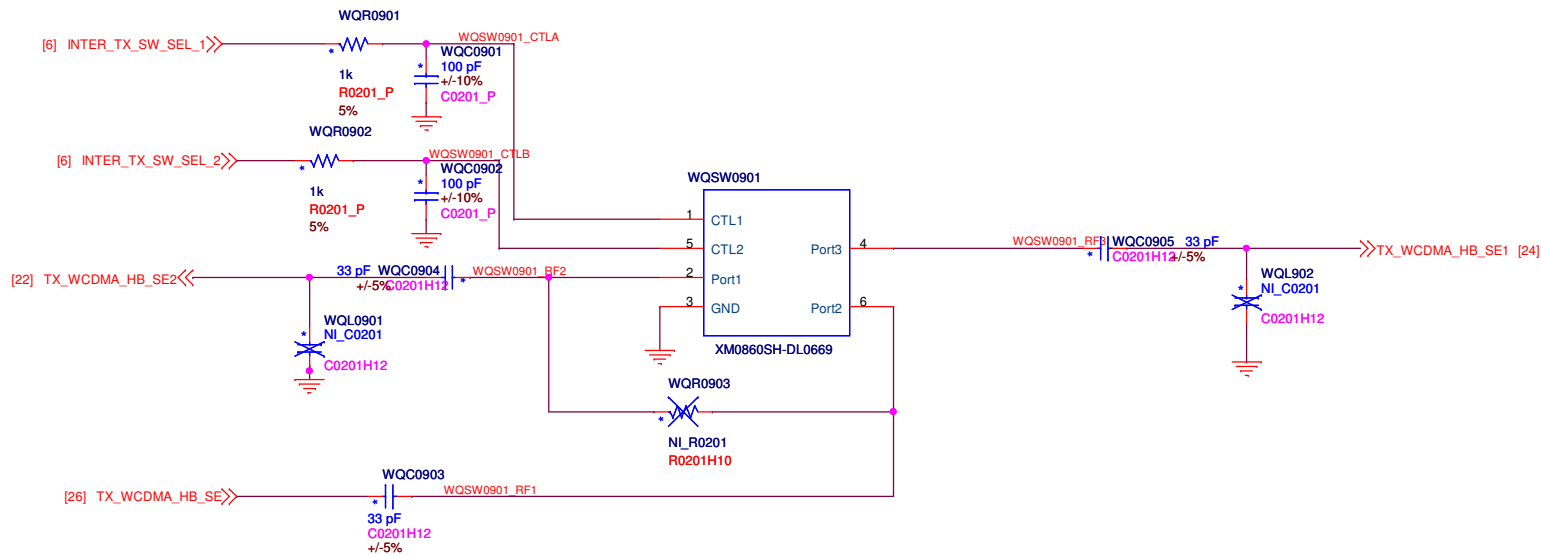
Type nbr / FCC / IC number	
----------------------------	--

[illegible]

Rev	Date	Sheet


24/28

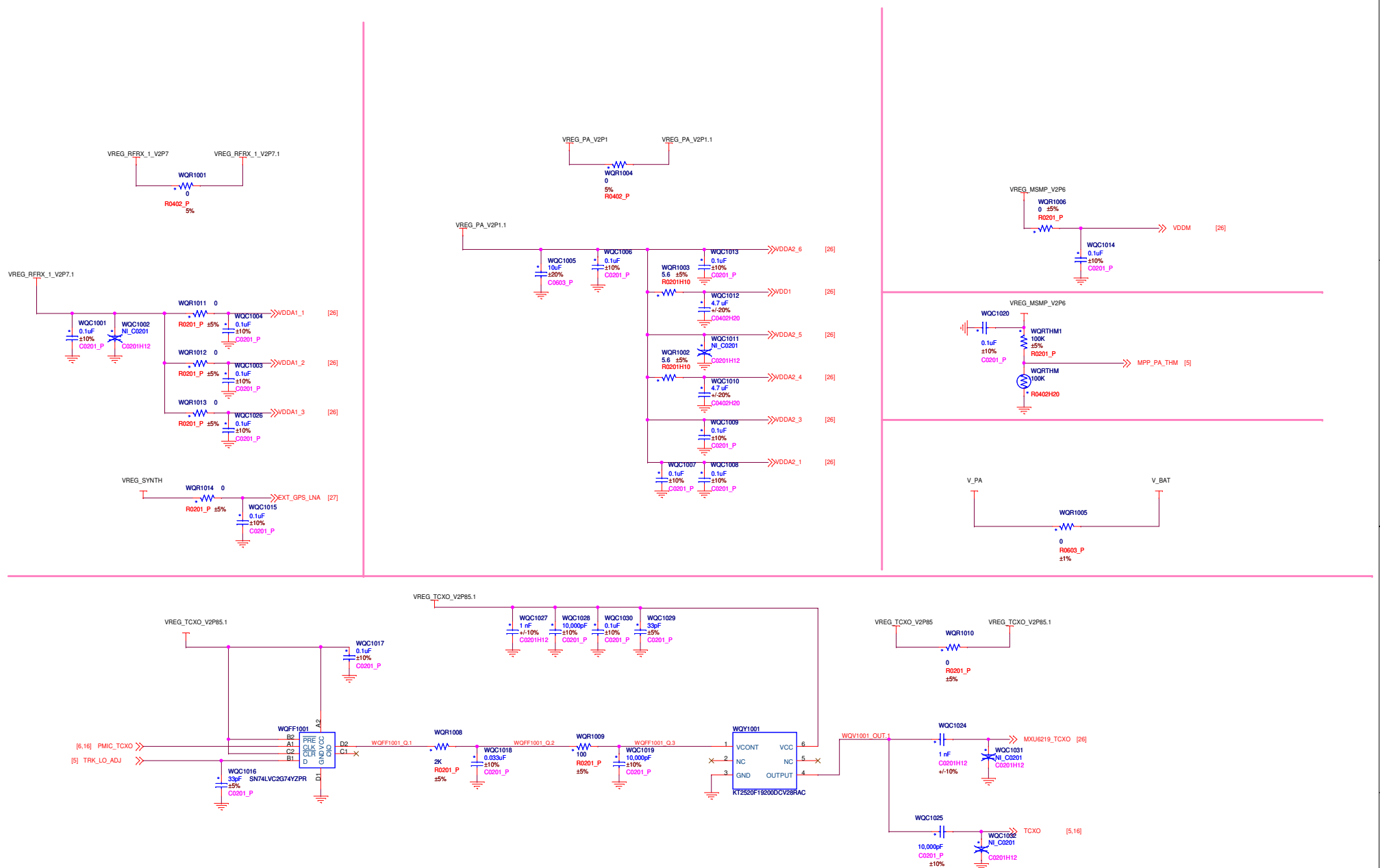
## UMTS TX SWITCH



Confidential


### CIRCUIT DIAGRAM

<b>Sony Ericsson</b>				Prepared ( also subject responsible if other )	
Block          <b>RF</b>		Document responsible			
		Document responsible / Approved			
Page          <b>UMTS TX SW</b>		Project / Commercial name <b>Aspen/M1a</b>		Type nbr / FCC / IC number	
		PBA nbr			
		Document nr <b>1240-9879.1</b>		Rev	Date



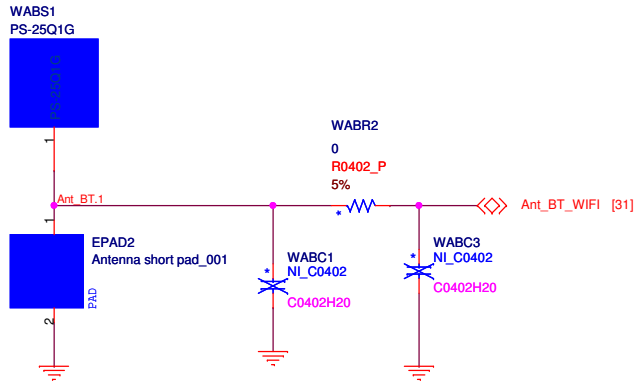
Confidential

CIRCUIT DIAGRAM

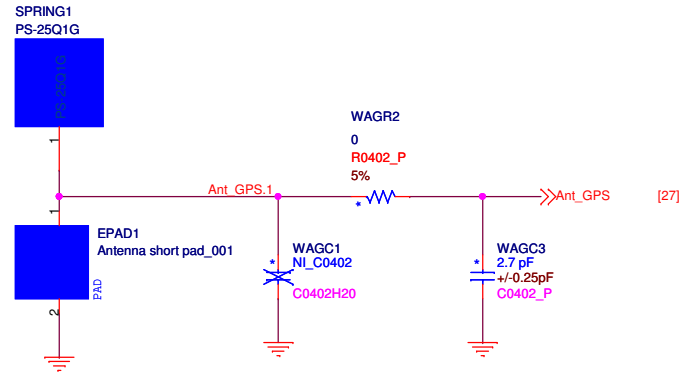
Confidential		PWR DISTR & VCTCXO		Prepared (also subject responsible if other)	
Sony Ericsson					
Block		Document responsible			
		Document responsible / Approved			
		Project / Commercial name		Type nbr / FCC / IC number	
RF		Aspen/M1a			
		PBA nbr			
Page		Document nr		Rev	
PWR DISTR & VCTCXO		1240-9879.1		Date	
				Sheet	
				26/28	

PWR DISTR & VCTCXO

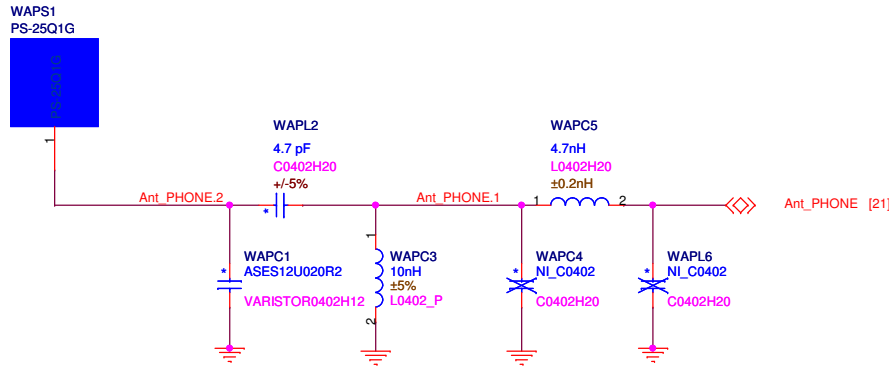
## Bluetooth&WIFI single Antenna



## GPS Antenna




## Phone Antenna



Confidential

CIRCUIT DIAGRAM

Sony Ericsson				Prepared ( also subject responsible if other )		
Block	RF	Document responsible				
		Document responsible / Approved				
		Project / Commercial name		Type nbr / FCC / IC number		
Page	Antenna	Aspen/M1a				
		PBA nbr				
		Document nr		Rev	Date	Sheet
		1240-9879.1				27/28

