SAMSUNG

MITs TELEPHONE
SGH–D730

SERVICE *Manual*

MITs TELEPHONE

CONTENTS

1. SGH-D730 Specification

1-1. GSM General Specification

	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~13dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class	5pcl ~ 15pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	-

1-2. GSM Tx Power Class
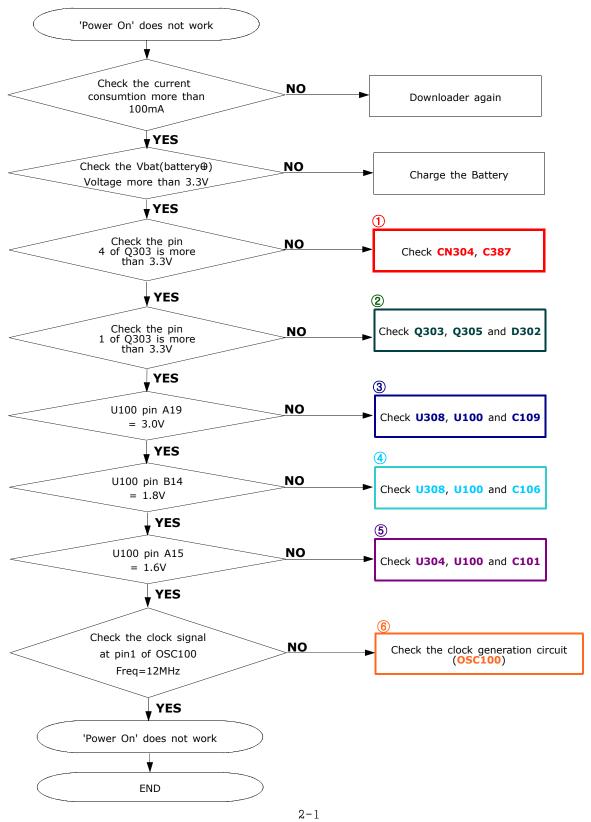
TX Power control level	GSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	11	8±4dBm	11	8±4dBm
17	9±3dBm	12	6±4 dBm	12	6±4 dBm
18	7±3 dBm	13	4±4 dBm	13	4±4 dBm
19	5±3 dBm	14	2±5 dBm	14	2±5 dBm
		15	0±5 dBm	15	0±5 dBm
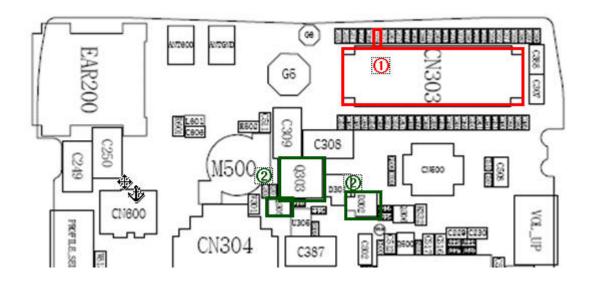
2. SGH-D730 Flow Chart of Troubleshooting and Circuit Diagrams

2-1.Baseband

2-1-1. Power ON

'Power On' does not work

Check the current consumtion more than 100mA → **NO** → Downloader again

YES

Check the Vbat(battery⊕) Voltage more than 3.3V → **NO** → Charge the Battery

YES

Check the pin 4 of Q303 is more than 3.3V → **NO** → ① Check **CN304**, **C387**

YES

Check the pin 1 of Q303 is more than 3.3V → **NO** → ② Check **Q303**, **Q305** and **D302**

YES

U100 pin A19 = 3.0V → **NO** → ③ Check **U308**, **U100** and **C109**

YES

U100 pin B14 = 1.8V → **NO** → ④ Check **U308**, **U100** and **C106**

YES

U100 pin A15 = 1.6V → **NO** → ⑤ Check **U304**, **U100** and **C101**

YES

Check the clock signal at pin1 of OSC100 Freq=12MHz → **NO** → ⑥ Check the clock generation circuit (**OSC100**)

YES

'Power On' does not work

END

2-1

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2-1-2. Initial

```
                    ┌─────────────────┐
                    │  Initial Failure │
                    └─────────────────┘
                             │
                             ▼
```

Check the
pin 2 of
U301 is "High"   ── NO ──▶ ① Check **U301**

YES
│
▼

Check the
pin F4 of
U400 is "High"   ── NO ──▶ ② Check the **U400**

YES
│
▼

U400 pin B14
= 3.0V   ── NO ──▶ ③ Check the **U400**

YES
│
▼

U400 pin C16
= 1.8V   ── NO ──▶ ④ Check the **U400**

YES
│
▼

Check the clock
signals at
pin3 and pin5 of
OSC400
Freq=13MHz   ── NO ──▶ ⑤ Check the clock generation circuit (**OSC400**)

YES
│
▼

Check the pin C12
of U500 is "High"   ── NO ──▶ ⑥ Check **U500**

YES
│
▼

Check and resolder LCD connector CN303
if there is solder bridge between the pins

YES
│
▼

```
                    ┌─────────────────┐
                    │       END        │
                    └─────────────────┘
```

2-8

VRF

L400

C405

CLK13M_RF

R400

C408

C409

R401

4 VCC
3 OUT
6 BUFFOUT
BUFFIN 5
VCONT
GND
1
2
OSC400

R439

AFC

C417

CLK13M_TR

R405

CLK13M_MC

R406

C419

C418

V_IN

VDD_30D

VDD_30D

R383

U301

7 GND

3 IN
OUT 4
2 GND
NC 5
1 EN
BYP 6

U308

R302

C319

C317

C318

R325

C310

3 VDD
GND 1
VOUT 2

OHP_nRESET

2-9

2-1-3. Sim Part

```
      ┌─────────────────────┐
      │  Phone can't access │
      │     SIM card        │
      └─────────────────────┘
                │
                ▼
            ╱───────────╲                              ① 
          ╱  Check the pin 3 of ╲    NO        ┌────────────────────────┐
         ╱      CN500            ╲──────────▶  │ Check the circuit related to │
          ╲    Voltage = 3V     ╱              │        U500            │
            ╲───────────╱                      └────────────────────────┘
                │ YES
                ▼
            ╱───────────╲                              ②
          ╱  Check the SIM ╲      NO            ┌────────────────────────┐
         ╱   connector's     ╲────────────▶    │   resolder or change   │
        ╱      (CN500)         ╲                │        CN500           │
         ╲ connector's to SIM ╱                └────────────────────────┘
          ╲     card        ╱
            ╲───────────╱
                │ YES
                ▼                                      ③
      ┌─────────────────────┐   NO            ┌────────────────────────┐
      │ Check the circuit around CN500 │──▶   │ Check the related circuit of │
      │    input circuitry  │               │        CN500           │
      └─────────────────────┘               └────────────────────────┘
                │ YES
                ▼                                      ④
      ┌─────────────────────┐   NO            ┌────────────────────────┐
      │ Check the circuit around │────────▶  │ Check the related circuit of │
      │    U500 output       │               │        U500           │
      │ and voltage supply circuitry │       └────────────────────────┘
      └─────────────────────┘
                │ YES
                ▼
      ┌─────────────────────┐
      │        END          │
      └─────────────────────┘
```

2-1-4. Charging Part

```
        ┌─────────────────────────┐
        │  Abnormal charging part  │
        └─────────────────────────┘
                     │
                     ▼
            ╱─────────────────╲                              ①
           ╱  Check the pin 23,24 ╲      NO           ┌──────────────────┐
          ╱    of CN301 is Vbat     ╲ ───────────────▶│  Check CN301     │
           ╲                       ╱                  └──────────────────┘
            ╲─────────────────────╱
                     │ YES
                     ▼
            ╱─────────────────╲                              ②
           ╱   Check the pin 8 of ╲     NO            ┌──────────────────┐
          ╱        CN301            ╲ ───────────────▶│  Check CN301     │
           ╲       is GND          ╱                  └──────────────────┘
            ╲─────────────────────╱
                     │ YES
                     ▼
        ┌─────────────────────────┐
        │           END            │
        └─────────────────────────┘
```


2-10

2-1-5. Microphone Part

```
        ┌─────────────────────────┐
        │  Microphone does not work│
        └─────────────────────────┘
                    │
                    ▼
            ╱─────────────╲          NO      ┌──────────────────────────┐
           ╱  Check the    ╲ ───────────────▶│ Reassemblage microphone  │
          ╱ assembled status╲                └──────────────────────────┘
          ╲ of microphone.  ╱
           ╲───────────────╱
                    │ YES
                    ▼
                                                    ①
            ╱─────────────╲          NO      ┌──────────────────────────┐
           ╱ Check the     ╲ ───────────────▶│   resolder or change     │
          ╱  reference      ╲                │(R243,C227,R221,C232,     │
          ╲ voltage on mic  ╱                │     R231,)               │
           ╲ path R221=2.4V╱                 └──────────────────────────┘
            ╲─────────────╱
                    │ YES
                    ▼
                                                    ②
            ╱─────────────╲          NO      ┌──────────────────────────┐
           ╱ Is microphone ╲ ───────────────▶│     Check U500           │
           ╲    ok?        ╱                 └──────────────────────────┘
            ╲─────────────╱
                    │ YES
                    ▼
           ┌─────────────────┐
           │       END       │
           └─────────────────┘
```


2-13

2-1-6. Speaker Part

```
            ┌─────────────────────────┐
            │  Speaker does not work  │
            └─────────────────────────┘
                        │
                        ▼
                                            ①
         ◇ Check the connection ◇   NO    ┌──────────────────────────┐
           status spk to CN303    ──────▶ │ Resolder and check the board
                        │                 │  to board connector CN303 │
                       YES                └──────────────────────────┘
                        ▼
                                            ②
            ◇ Check the ◇         NO      ┌──────────────────────────┐
           pin 4 of U201 = "LOW"  ──────▶ │      Check U203          │
                        │                 └──────────────────────────┘
                       YES
                        ▼
                                            ③
           ◇ Check R232, R233 ◇   NO      ┌──────────────────────────┐
                        │        ──────▶   │  Change or resolder      │
                       YES                │      R232,R233           │
                        ▼                 └──────────────────────────┘

           ◇ Is speaker ok? ◇     NO      ┌──────────────────────────┐
                        │        ──────▶   │   Change Speaker         │
                       YES                └──────────────────────────┘
                        ▼
            ┌─────────────────────────┐
            │          END            │
            └─────────────────────────┘
```

VDD_30D

U201

Pin	Name		Name	Pin
1	V+		NO2	10
2	NO1		COM2	9
3	COM1		IN2	8
4	IN1		NC2	7
5	NC1		GND	6

CODEC_EAR_L

HEADSET_GND

EAR_SEL

EAR_R

EAR_L

CODEC_EAR_L

G G G G
11 12 13 14

C248   C238

2-1-7. LCD

```
┌─────────────────────────────────┐
│        LCD does not Display       │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│  First, Check the connection of J2 and LCD │
└─────────────────────────────────┘
                 │
                 ▼
```

①
Have a some problem of connector (J2) — YES → Replace a connector (J2)

│ NO
▼

②
Display a image(MMI) clearly — NO → Check the connection of LCD and the solder-status of CN303

│ YES
▼

③
Backlight does work — NO → Check the Voltage (. If had no problem, Check the LCD_BL_EN signal (U1)

│ YES
▼

④
backlight's brightness is uniform — NO → Change to New Compnent(U1). If not effect, change to new LCD

│
▼

```
┌─────────────────────────────────┐
│               END                 │
└─────────────────────────────────┘
```


2-17

2.8LCD

J1		
IOVCC	1	
VCI	2	
_CS	3	LCD_CS
SCL	4	LCD_SCL
SDI	5	LCD_SDI
PD0	6	
ENABLE	7	LCD_ENABLE
_RESET	8	LCD_RESET
PD1	9	LCD_PD1
PD2	10	LCD_PD2
PD3	11	LCD_PD3
PD4	12	LCD_PD4
PD5	13	LCD_PD5
PD6	14	LCD_PD6
PD7	15	LCD_PD7
PD8	16	LCD_PD8
PD9	17	LCD_PD9
PD10	18	LCD_PD10
PD11	19	LCD_PD11
PD12	20	
PD13	21	LCD_PD13
PD14	22	LCD_PD14
PD15	23	LCD_PD15
PD16	24	LCD_PD16
PD17	25	LCD_PD17
DOTCLK	26	LCD_DOTCLK
VSYNC	27	LCD_VSYNC
HSYNC	28	LCD_HSYNC
GND1	29	
GND2	30	C4

2-18

2-2.RF
2-2-1. GSM Receiver

CONTINUOS RX ON
RF INPUT : 62CH
Cell power : -50dBm

NORMAL CONDITION
catch the channel? — **NO** → CHECK
R601, contact ①

YES

F603 CHECK
pin13 ≥ -65dBm? — **NO** → CN600, C607
resolder or change ②

YES

F603 CHECK
pin1,2 ≥ -65dBm? — **NO** → F603
resolder or change ③

YES

U600 CHECK
pin20,21 ≥ -65dBm? — **NO** → C609, C610,L602
resolder or change ④

YES

U600 CHECK
pin9,32 : 2.8V — **NO** → U500 PIN A13, C513
resolder or change ⑤

YES

U600 CHECK
C604:13MHz — **NO** → R400, C408, C604
resolder or change ⑥ — **NO** → OSC400 CHECK
pin 4 : 2.8V
pin 3 : 13MHz
V p-p : 800mV

NO

OSC400
change ⑦

YES

U600 CHECK
pin 1,2,3,4,5,6,7:
Vp-p 100mV — **NO** → U600
resolder or change ⑧

YES

GSM Receiver is ok? — **NO** → GSM RX path component
resolder or change

END

2-2-2. DCS Receiver

CONTINUOS RX ON
RF INPUT : 698CH
Cell power : -50dBm

NORMAL CONDITION
catch the channel? — **NO** → CHECK
R601, contact ①

↓ **YES**

F603 CHECK
pin13 ≥ -65dBm? — **NO** → CN600, C607
resolder or change ②

↓ **YES**

F603 CHECK
pin3,4 ≥ -65dBm? — **NO** → F603
resolder or change ③

↓ **YES**

U600 CHECK
pin18,19 ≥ -65dBm? — **NO** → C630, C631,L603
resolder or change ④

↓ **YES**

U600 CHECK
pin9,32 : 2.8V — **NO** → U500 PIN A13, C513
resolder or change ⑤

↓ **YES**

U600 CHECK
C604:13MHz — **NO** → R400, C408, C604
resolder or change ⑥ — **NO** → OSC400 CHECK
pin 4 : 2.8V
pin 3 : 13MHz
V p-p : 800mV

↓ **NO**

OSC400
change ⑦

↓ **YES**

U600 CHECK
pin 1,2,3,4,5,6,7:
Vp-p 100mV — **NO** → U600
resolder or change ⑧

↓ **YES**

DCS Receiver is ok? — **NO** → DCS RX path component
resolder or change

↓

END

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2-2-3. PCS Receiver

```
┌─────────────────────────┐
│   CONTINUOS RX ON        │
│   RF INPUT : 698CH       │
│   Cell power : -50dBm    │
└─────────────────────────┘
```

NORMAL CONDITION catch the channel? — **NO** → CHECK R601, contact ①

YES

F603 CHECK pin13 ≥ -65dBm? — **NO** → CN600, C607 resolder or change ②

YES

F603 CHECK pin5,6 ≥ -65dBm? — **NO** → F603 resolder or change ③

YES

U600 CHECK pin16,17 ≥ -65dBm? — **NO** → C617, C621,L606 resolder or change ④

YES

U600 CHECK pin9,32 : 2.8V — **NO** → U500 PIN A13, C513 resolder or change ⑤

YES

U600 CHECK C604:13MHz — **NO** → R400, C408, C604 resolder or change ⑥ — **NO** → OSC400 CHECK pin 4 : 2.8V pin 3 : 13MHz V p-p : 800mV — **NO** → OSC400 change ⑦

YES

U600 CHECK pin 1,2,3,4,5,6,7: Vp-p 100mV — **NO** → U600 resolder or change ⑧

YES

PCS Receiver is ok? — **NO** → PCS RX path component resolder or change

↓

(END)

2-2-4. GSM Transmitter

```
F603 pin 13          NO      F603            NO    ② U500
about          ────────►     pin 11 : 2.8V  ─────►   check &
2~5dBm?                                               change
   │ YES                        │ YES
   ▼                            ▼
① CN600,C607,R601      NO    U602 pin11
  check & change     ◄─────   3~6dBm?
                                │ YES
                                ▼
                             ③ F603/C613
                               check & change
```

CONTINUS TX ON CONDITION
MS TX level 19
CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

```
U602               NO    ④ BATTERY, BATTERY CONNECTOR
pin 3,17 : 3.7V   ─────►   check & change
   │ YES
   ▼
U602               NO    ⑤ U500
pin 1 : 'LOW'     ─────►   check & change
   │ YES
   ▼
U602               NO    ⑥ U500
pin 18 : 'HIGH'   ─────►   check & change
   │ YES                         ▲
   ▼                          NO │
U602                            │
pin 20 : 1.2V ?   ──────────────┘
   │ YES
   ▼
U602 pin 4         NO
: -5dBm?      ───────────┐
   │ YES                 │
   ▼                     ▼
⑦ U602              U600
  change & resolder  pin9,32
                     2.8V
```

```
                NO    U600
⑧ U500     ◄────────  pin9,32 2.8V
  change or resolder    │ YES
                        ▼
   ┌─────────────────────────────────────────────────────────────────┐
   │                                                                   │
U600          NO    U600              NO    OSC400            YES   ⑫ U600
pin4,5,6,7  ─────►  pin8 13MHz      ─────►  pin 3 : 13MHz   ─────►   change or
1.7V                Vp-p :950mV             Vp-p : 950mV             resolder
 │ NO    │ YES         │ YES                    │ NO
 ▼       ▼             ▼                        ▼
⑨ U500  ⑩ U600    ⑪ U600 change or      OSC400            NO   ⑬ U500
  change   check &      resolder            pin 4 : 2.8V ?  ─────►   change or resolder
          change                                │ YES
                                                ▼
                                            ⑭ U600
                                              change or
                                              resolder
```

2-2-5. DCS Transmitter

F603 pin 13 about 2~3dBm? — **NO** → F603 pin 9,12 : 2.8V — **NO** → ② U500 check & change

CONTINUS TX ON CONDITION
MS TX level 12
CH : 698
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

F603 pin 13 about 2~3dBm? — **YES** → ① CN600,C607,R601 check & change

F603 pin 9,12 : 2.8V — **YES** → U602 pin15 3~4dBm?

U602 pin15 3~4dBm? — **NO** (down)

U602 pin15 3~4dBm? — **YES** → ③ F603 / L607 check & change

U602 pin 3,17 : 3.7V — **NO** → ④ BATTERY, BATTERY CONNECTOR check & change

U602 pin 3,17 : 3.7V — **YES**

U602 pin 1 :'HIGH' — **NO** → ⑤ U500 check & change

U602 pin 1 :'HIGH' — **YES**

U602 pin 18 : 'HIGH' — **NO** → ⑥ U500 check & change

U602 pin 18 : 'HIGH' — **YES**

U602 pin 20 : 1.2V ? — **NO** → (up to ⑥)

U602 pin 20 : 1.2V ? — **YES**

U602 pin 3 : -5dBm? — **NO** → U600 pin9,32 2.8V

U602 pin 3 : -5dBm? — **YES** → ⑦ U602 change & resolder

U600 pin9,32 2.8V — **NO** → ⑧ U500 change or resolder

U600 pin9,32 2.8V — **YES**

U600 pin4,5,6,7 1.7V — **NO** → ⑨ U500 change

U600 pin4,5,6,7 1.7V — **YES** → ⑩ U600 check & change

U600 pin8 13MHz Vp-p :950mV — **NO** (to OSC400)

U600 pin8 13MHz Vp-p :950mV — **YES** → ⑪ U600 change or resolder

OSC400 pin 3 : 13MHz Vp-p : 950mV — **YES** → ⑫ U600 change or resolder

OSC400 pin 3 : 13MHz Vp-p : 950mV — **NO**

OSC400 pin 4 : 2.8V ? — **NO** → ⑬ U500 change or resolder

OSC400 pin 4 : 2.8V ? — **YES** → ⑭ U600 change or resolder

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2-2-6. PCS Transmitter

```
F603 pin 13 about 2~3dBm?  --NO-->  F603 pin 9,12 : 2.8V  --NO-->  ② U500 check & change
         |YES                              |YES
① CN600,C607,R601                   U602 pin15 3~4dBm?  --NO-->
   check & change                         |YES
                                    ③ F603 / L607 check & change
```

CONTINUS TX ON CONDITION
MS TX level 12
CH : 660
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

```
U602 pin 3,17 : 3.7V  --NO-->  ④ BATTERY, BATTERY CONNECTOR check & change
      |YES
U602 pin 1 :'HIGH'  --NO-->  ⑤ U500 check & change
      |YES
U602 pin 18 : 'HIGH'  --NO-->  ⑥ U500 check & change
      |YES
U602 pin 20 : 1.2V ?  --NO-->  (to ⑥)
      |YES
U602 pin 3 : -5dBm?  --NO-->  U600 pin9,32 2.8V
      |YES
⑦ U602 change & resolder

U600 pin9,32 2.8V  --NO-->  ⑧ U500 change or resolder
      |YES
U600 pin4,5,6,7 1.7V  --NO-->  U600 pin8 13MHz Vp-p :950mV  --NO-->  OSC400 pin 3 : 13MHz Vp-p : 950mV  --YES-->  ⑫ U600 change or resolder
      |NO              |YES                |YES                           |NO
⑨ U500 change   ⑩ U600 check & change   ⑪ U600 change or resolder    OSC400 pin 4 : 2.8V ?  --NO-->  ⑬ U500 change or resolder
                                                                           |YES
                                                                      ⑭ U600 change or resolder
```

2-29

2-3-1. Bluetooth Part

```
        ( BT connection disable )
                  │
                  ▼
        ◇ Check BT function ON ◇ ──NO──▶ [ Enable BT function ]
                  │ YES
                  ▼
                                          ①
        ◇ Check the voltage of ◇ ──NO──▶ [ Check U202 and change ]
          R126 is around 3V
                  │ YES
                  ▼
                                          ②
        ◇ Check 32KHz Clock on ◇ ──NO──▶ [ Check U700 or
          R707                              Initial part ]
                  │ YES
                  ▼
                                          ③
        ◇ Check 13MHz Clock on ◇ ──NO──▶ [ Check OSC700 and
          C142                              change ]
                  │ YES
                  ▼
                                          ④
        ◇ Check "High" signal ◇ ──NO──▶ [ Resolder or change R708 ]
          on R708
                  │ YES
                  ▼
                                          ⑤
        ◇ Check the            ◇ ──NO──▶ [ Resolder or change
          assembled status of                AN700 ]
          AN700
                  │ YES
                  ▼
                                          ⑥
        ◇ Exchange U702 ◇ ──NO──▶ [ Change U702 ]
                  │ YES
                  ▼
              ( END )
```

3. SGH-D730 Exploded View and Parts List

3-1. Cellular phone Exploded View

QCK01

QFR01

QVO01

QFU01

QKP01

QLC01

QSP01

QMP01

QAU01

QME01

QM001

QCR08

QMI01

QCR32

QCA01

QAN02

QRF03

QFL01

QCR05

QSC08

QRE01

QVO05

QMW02

QBA01

QIF01

QRF01

QCR20

QBA00

3-2. Cellular phone Parts list

Location No		Desciption	SEC CODE
QAN02		INTENNA-SGHD730;IAPT0CSP4020SAB,SGH-	GH42-00606A
QAU01		AUDIO-RECEIVER;32ohm,109dB,12X7.0MM	3009-001086
QBA00		PMO-BATTERY COVER;SGH-D730,PC,ING/BL	GH72-20993A
QBA01		BATTERY-1000MAH,BLACK,ENG,M;BEX310AB	GH43-02018A
QCA01		UNIT-CAMERA;SGH-D730,IC03056AA,-,ITA	GH59-02167A
QCK01		MEC-KEY CAM PRO;SGH-D730,EU,PC,-,-,-	GH75-06706A
QCR05		SCREW-MACHINE;PH,+,M1.4,L3,ZPC(BLK),	6001-001478
QCR08		SCREW-MACHINE;CH,+,M1.4,L3,BLK,SWRCH	6001-001456
QCR20		SCREW-MACHINE;BH,+,M1.7,L3.5,NYLOCK,	6001-001429
QCR32		SCREW-MACHINE;CH,+,M1.4,L2,ZPC(BLK),	6001-001700
QFL01		MEC-F/LOWER;SGH-D730,OPEN,-,-,ING/BL	GH75-06698A
QFR01		MEC-FRONT COVER;SGH-D730,OPEN,-,-,IN	GH75-06699A
QFU01		MEC-SUB F/UPPER CASE;SGH-D730,OPEN,P	GH75-06697A
QKP01		MEC-KEYPAD;SGH-D730,OPEN,-,-,D/GRY,-	GH75-06707A
QLC01		LCD-SGHD730 MODULE;LTD190QC-F0E,SGH-	GH07-00724A
QME01		UNIT-METAL DOME;SGH-D730,SGH-D730 F/	GH59-02217A
QMI01		MICROPHONE-ASSY;2,500uA,-38dB,2.2,SG	GH30-00197A
QMO01		MOTOR DC-SGHD730;DMJBRK30C,SGH-D730,	GH31-00173A
QMP01		PBA MAIN-SGHD730;SGH-D730,XEG,GERM,P	GH92-02082A
QMW02		PMO-MAIN WINDOW V2;SGH-D730,ACRYL,-,	GH72-23768A
QRF01		MPR-TAPE RF COVER;SGH-D730,PC SHEET,	GH74-13888A
QSC08		RMO-SCREW CAP;SGH-D730,URETHAN,-,-,-	GH73-04720A
QSP01		SPEAKER;0.5W,8ohm,89dB,800Hz,17X13mm	3001-001774
QVO01		MEC-KEY VOLUME;SGH-D730,EU,PC,-,-,-,	GH75-06705A
QRE01		MEC-REAR COVER;SGH-D730,OPEN,-,-,SIL	GH75-06700A
	QRF03	PMO-EAR JACK COVER;SGH-D730,PC+URETH	GH72-21001A
	QIF01	PMO-IF JACK COVER;SGH-D730,PC+URETHA	GH72-21002A
	QVO05	MEC-MMC COVER;SGH-D730,OPEN,-,-,SIL,	GH75-06702A

Desciption	SEC CODE
BAG PE;LDPE,T0.05,W80,L180,TRP,-,-	6902-000634
CBF INTERFACE-PC DATA CABLE;SGH-E530	GH39-00404A
CHARGER-SGHE880 TC;TCH237ESE,SGH-E88	GH44-00861A
S/W UTILITY-SGHD730 MASTER CD;SGH-D7	GH46-00160A
S/W CD-USER MANUAL GUIDE;SGH-D730,SG	GH46-00165A
UNIT-EARPHONE;SGH-i270,EM-SS550E-ST,	GH59-01543A
UNIT-SIM SOCKET ASSY;SGH-D730,YWGD73	GH59-02230A
LABEL(P)-WATER SOAK;COMM,NORGE,100G,	GH68-02026A
MANUAL-WEEE CARD;COMM,SEC,ENGLISH,UN	GH68-07013A
LABEL(R)-MAIN (EU);SGH-D730,XET,MAT,	GH68-07443A
MANUAL-QRG;SGH-D730,XEG,GERMAN,GERM,	GH68-07766A
BOX(P)-UNIT (EU);SGH-D730,SC300+F(KO	GH69-03078A
CUSHION-CASE (EU);SGH-D730,HIPS,T1.0	GH69-03127A
MPR-BOHO FPCB FIX;SGH-E610,ST-5543,8	GH74-11231A
MPR-LCD SHIELD TAPE A;SGH-D730,SHIEL	GH74-13893A
MPR-LCD SHIELD SPONGE 2;SGH-D730,SHI	GH74-13979A
MPR-TAPE LCD INSULATION;SGH-D730,3M	GH74-14571A
MPR-TAPE FRONT FPCB;SGH-D730,3M 1352	GH74-14849A
MPR-BOHO VINYL UPPER B;SGH-D730,ST 5	GH74-14851A
MPR-BOHO VINYL LOWER A;SGH-D730,ST 5	GH74-14852A
MPR-BOHO VINYL MA WIN B;SGH-D730,ST	GH74-14855A
MPR-LCD SHIELD SPONGE 3;SGH-D730,SHI	GH74-15223A
MPR-TAPE PCB INSULATION;SGH-D730,3M	GH74-15779A
MPR-LUGHT MASK SPONGE A;SGH-D730,SRS	GH74-17170A
MPR-LUGHT MASK SPONGE B;SGH-D730,SRS	GH74-17171A
MPR-BOHO VINYL MAIN WIN;SGH-D730,PVC	GH74-17514A
MPR-BOHO VINYL DUAL WIN;SGH-D730,PVC	GH74-17515A

3-3. Test Jig (GH80-03309A)

3-3-1. RF Test Cable (GH39-00283A)

3-3-2. DATA CABLE (GH39-00404A)

3-3-3. Serial Cable

3-3-4. Power Supply Cable

3-3-5. Test Cable (GH39-00382A)

3-3-6. TC (GH44-00861A)

4. SGH-D730 MAIN Electrical Parts List

SEC Code	Design LOC	Design LOC	SEC Code	Design LOC	Design LOC
ZD303,ZD304	0403-001387	DIODE-ZENER	U703,V301,V302,V802	1405-001082	VARISTOR
ZD302	0403-001427	DIODE-ZENER			
ZD306	0406-001197	DIODE-TVS	V803,V804,V805,V806	1405-001082	VARISTOR
D301,D302	0407-001002	DIODE-ARRAY			
U300	0407-001038	DIODE-ARRAY	V807,V808,V809,V810	1405-001082	VARISTOR
Q801	0501-002202	TR-SMALL SIGNAL			
			V811,V812,V813,VR200	1405-001082	VARISTOR
Q101,Q305,Q306,Q307	0504-001113	TR-DIGITAL			
			V303,V304,V305,V306	1405-001138	VARISTOR
Q500	0504-001113	TR-DIGITAL			
Q102	0504-001140	TR-DIGITAL	R707	2007-000138	R-CHIP
U305	0504-001176	TR-DIGITAL	R405	2007-000142	R-CHIP
Q303	0505-001165	FET-SILICON	R308,R383,R708	2007-000148	R-CHIP
Q308	0505-001217	FET-SILICON	R223,R302,R332,R364	2007-000162	R-CHIP
LED802,LED803,LED804	0601-001819	LED			
			R522	2007-000162	R-CHIP
LED805,LED806,LED807	0601-001819	LED	R166	2007-000167	R-CHIP
			R113,R114,R408	2007-000170	R-CHIP
LED808,LED809,LED810	0601-001819	LED	R226,R227,R232,R233	2007-000171	R-CHIP
LED811,LED812,LED813	0601-001819	LED			
			R440,R601,R717	2007-000171	R-CHIP
LED814,LED815,LED816	0601-001819	LED	R243,R244	2007-001119	R-CHIP
			R502	2007-001319	R-CHIP
LED817,LED818,LED819	0601-001819	LED	R222	2007-001339	R-CHIP
			R406	2007-002797	R-CHIP
LED820	0601-001819	LED	R602	2007-007014	R-CHIP
U103	0801-002882	IC			
U100	0904-001916	IC	R306,R307	2007-007021	R-CHIP
U202	1001-001193	IC	R414,R415	2007-007573	R-CHIP
U201	1001-001261	IC	R160	2007-007590	R-CHIP
U306	1009-001018	IC	R168,R400,R823,R824	2007-008045	R-CHIP
U602	1201-002218	IC			
U105	1203-002976	IC	R825,R826,R827,R828	2007-008045	R-CHIP
U500	1203-003304	IC			
U600	1205-002433	IC	R829,R830,R831,R832	2007-008045	R-CHIP
U402	1209-001219	IC			
U309	1209-001585	IC	R833,R834,R835,R838	2007-008045	R-CHIP
VR203,VR204	1405-001082	VARISTOR			
V801	1405-001108	VARISTOR	R839,R840,R841,R842	2007-008045	R-CHIP

SEC Code	Design LOC	Design LOC	SEC Code	Design LOC	Design LOC
R843	2007-008045	R-CHIP	F601,F602	2011-001363	R-NETWORK
R241,R242	2007-008048	R-CHIP	C511	2203-000233	C-CERAMIC,CHIP
R147,R148,R165	2007-008052	R-CHIP	C120,C629	2203-000278	C-CERAMIC,CHIP
R108,R122,R123,R156	2007-008055	R-CHIP	C633	2203-000311	C-CERAMIC,CHIP
R309,R324,R339,R380	2007-008055	R-CHIP	C144,C145,C712	2203-000386	C-CERAMIC,CHIP
R382,R401,R407,R410	2007-008055	R-CHIP	C713	2203-000425	C-CERAMIC,CHIP
R362	2007-008401	R-CHIP	C235,C236,C240,C708	2203-000438	C-CERAMIC,CHIP
R129,R367,R368,R369	2007-008419	R-CHIP	C613	2203-000550	C-CERAMIC,CHIP
R375,R376,R377,R836	2007-008419	R-CHIP	C422,C423	2203-000628	C-CERAMIC,CHIP
R325	2007-008478	R-CHIP	C141,C142	2203-000643	C-CERAMIC,CHIP
R236,R303,R304,R361	2007-008483	R-CHIP	C607	2203-000995	C-CERAMIC,CHIP
R378,R402,R403,R409	2007-008483	R-CHIP	C233	2203-001239	C-CERAMIC,CHIP
R109,R110,R111,R112	2007-008516	R-CHIP	C630,C631	2203-001385	C-CERAMIC,CHIP
R139,R144,R154,R238	2007-008516	R-CHIP	C605	2203-001405	C-CERAMIC,CHIP
R239,R301,R336,R337	2007-008516	R-CHIP	C617,C621	2203-005050	C-CERAMIC,CHIP
R341,R404,R416,R439	2007-008516	R-CHIP	C609,C610	2203-005288	C-CERAMIC,CHIP
R441,R520	2007-008516	R-CHIP	C424	2203-005480	C-CERAMIC,CHIP
R100,R164	2007-008531	R-CHIP	C302,C317,C385	2203-005482	C-CERAMIC,CHIP
R107,R121,R130,R155	2007-008542	R-CHIP	C714	2203-005552	C-CERAMIC,CHIP
R370,R371,R372,R373	2007-008542	R-CHIP	C231,C232,C234,C241	2203-005682	C-CERAMIC,CHIP
R374,R381,R501,R702	2007-008542	R-CHIP	C246,C247,C248,C324	2203-005682	C-CERAMIC,CHIP
R703,R715,R716	2007-008542	R-CHIP	C325,C326,C327,C328	2203-005682	C-CERAMIC,CHIP
R220,R221,R230,R231	2007-008588	R-CHIP	C335,C337,C338,C339	2203-005682	C-CERAMIC,CHIP
R342	2007-008648	R-CHIP	C340,C341,C346,C347	2203-005682	C-CERAMIC,CHIP
R163	2007-008812	R-CHIP	C348,C350,C351,C352	2203-005682	C-CERAMIC,CHIP
			C354,C355,C356,C357	2203-005682	C-CERAMIC,CHIP
			C358,C360,C366,C367	2203-005682	C-CERAMIC,CHIP
			C368,C369,C370,C371	2203-005682	C-CERAMIC,CHIP
			C372,C373,C374,C375	2203-005682	C-CERAMIC,CHIP
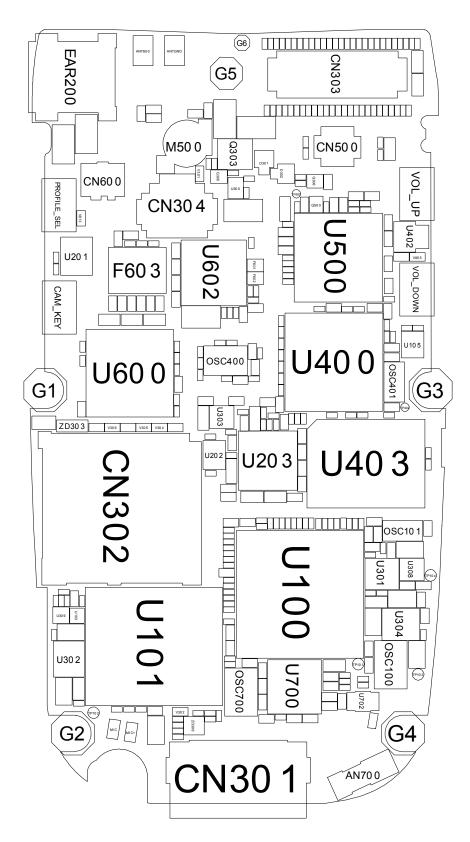
SEC Code	Design LOC	Design LOC	SEC Code	Design LOC	Design LOC
C376,C377,C378, C379	2203-005682	C-CERAMIC,CHIP	C334,C400,C401, C402	2203-006194	C-CERAMIC,CHIP
C380,C381,C382, C383	2203-005682	C-CERAMIC,CHIP	C405,C408,C409, C411	2203-006194	C-CERAMIC,CHIP
C389,C390,C391, C392	2203-005682	C-CERAMIC,CHIP	C412,C413,C414, C417	2203-006194	C-CERAMIC,CHIP
C393,C394,C395, C396	2203-005682	C-CERAMIC,CHIP	C419,C445,C500, C504	2203-006194	C-CERAMIC,CHIP
C397,C410,C506, C509	2203-005682	C-CERAMIC,CHIP	C221,C222,C365, C704	2203-006208	C-CERAMIC,CHIP
C510,C603,C616, C625	2203-005682	C-CERAMIC,CHIP	C709,C710	2203-006257	C-CERAMIC,CHIP
C715	2203-005682	C-CERAMIC,CHIP	C307,C388,C508	2203-006324	C-CERAMIC,CHIP
C303,C604,C608, C611	2203-005736	C-CERAMIC,CHIP	C242	2203-006344	C-CERAMIC,CHIP
C612,C618,C624, C626	2203-005736	C-CERAMIC,CHIP	C100,C103,C104, C106	2203-006423	C-CERAMIC,CHIP
C627,C628	2203-005736	C-CERAMIC,CHIP	C108,C109,C110, C114	2203-006423	C-CERAMIC,CHIP
C101,C102,C105, C111	2203-005806	C-CERAMIC,CHIP	C115,C117,C118, C121	2203-006423	C-CERAMIC,CHIP
C119,C315,C316, C418	2203-005806	C-CERAMIC,CHIP	C136,C137,C140, C202	2203-006423	C-CERAMIC,CHIP
C304	2203-006090	C-CERAMIC,CHIP	C204,C305,C322, C323	2203-006423	C-CERAMIC,CHIP
C107,C112,C116, C143	2203-006093	C-CERAMIC,CHIP	C398,C399,C406, C441	2203-006423	C-CERAMIC,CHIP
C207,C208,C209, C210	2203-006093	C-CERAMIC,CHIP	C442,C443,C444, C501	2203-006423	C-CERAMIC,CHIP
C212,C213,C215, C220	2203-006093	C-CERAMIC,CHIP	C503,C507,C518, C519	2203-006423	C-CERAMIC,CHIP
C318,C384,C512, C513	2203-006093	C-CERAMIC,CHIP	C620,C706,C707	2203-006423	C-CERAMIC,CHIP
C515,C516,C517, C520	2203-006093	C-CERAMIC,CHIP	C319,C320,C364	2203-006427	C-CERAMIC,CHIP
C523,C711	2203-006093	C-CERAMIC,CHIP	C601	2203-006556	C-CERAMIC,CHIP
C245	2203-006137	C-CERAMIC,CHIP	C407	2203-006648	C-CERAMIC,CHIP
C229,C230,C404, C416	2203-006190	C-CERAMIC,CHIP	C308,C309,C387, C623	2404-001274	C-TA,CHIP
C113,C238,C239, C332	2203-006194	C-CERAMIC,CHIP	C249,C250	2404-001306	C-TA,CHIP
			C226,C227	2404-001333	C-TA,CHIP
C619,C622	2203-006194	C-CERAMIC,CHIP	C201,C203,C386, C502	2404-001381	C-TA,CHIP
			C310	2404-001392	C-TA,CHIP

SEC Code	Design LOC	Design LOC
C301,C361	2404-001394	C-TA,CHIP
L301	2703-001231	INDUCTOR-SMD
L606	2703-002665	INDUCTOR-SMD
L701,L703	2703-001724	INDUCTOR-SMD
L607	2703-001749	INDUCTOR-SMD
L602	2703-001907	INDUCTOR-SMD
L608	2703-002308	INDUCTOR-SMD
L304	2703-002734	INDUCTOR-SMD
L603	2703-002759	INDUCTOR-SMD
OSC700	2801-004189	CRYSTAL-UNIT
OSC100	2801-004318	CRYSTAL-UNIT
OSC400	2809-001284	OSCILLATOR-VCTCXO
L303,L305,L400	3301-001534	CORE-FERRITE BEAD
CAM_KEY,PROFILE_SEL	3404-001152	SWITCH-TACT
VOL_DOWN,VOL_UP	3404-001152	SWITCH-TACT
CN600	3705-001358	CONNECTOR-COAXIAL
CN304	3711-005571	CONNECTOR-HEADER
CN500	3711-005550	CONNECTOR-HEADER
EAR200	3722-002082	JACK-PHONE
M500	4302-001130	BATTERY
U400	GH09-00036A	TR09WQTKE15IN3B-DT
U700	new item1	BRF6150
OSC101,OSC401	new item2	CC7V-T1A-32.768K
U702	new item3	DBF71B001
CN301	new item4	HF24-AD0100
F603	new item5	LMSP54HA-348TEMP
U403	new item6	LRS18C8A
R837	new item7	MCR006MZP5F5601
R363	new item9	MCR01F4303

SEC Code	Design LOC	Design LOC
R237,R240	new item8	MCR006YZPF3302
U303,U308	new item10	MIC5255-3.0BML
AN700	new item11	PARTRON-D500
CN302	new item12	PGS010-20A103194
U301	new item13	PST425A160NR
U101	new item14	PF38F4470 LLYFHQ
U302	new item15	TPS62222
U304	new item16	TPS62300DRC
U203	new item17	WM8753-BGA
CN303	new item18	AXK8L60125S
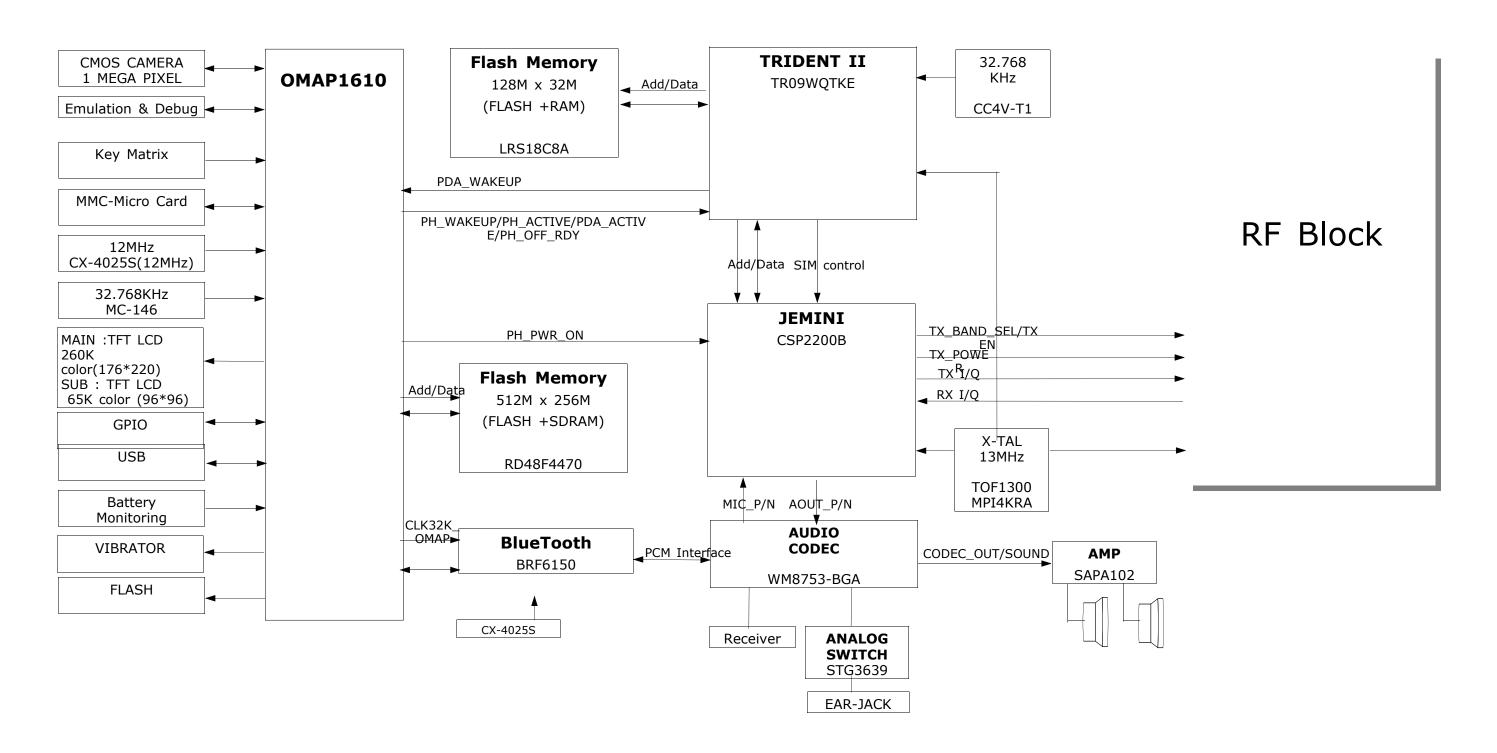
4-4

GSM:925MHz~960MHz

Antenna

DCS:1805MHz~1880MHz

PCS:1930MHz~1990MHz

CSP2200B
(GEMINI)

TRIDENT II

BASE BAND

DSP16000

ARM7TDMI

OMAP1610

MultiMedia
Processor

L

N

A

PGA

ADC

PGA

ADC

CHANNEL
FILTER

PGA

DAC

I

PGA

DAC

Q

100KHz

1 / 2

SI4205

FEM
LMSP54HA-348

SERIAL DATA
INTERFACE

GSM:890MHz~915MHz

DCS:1710MHz~1785MHz

PCS:1850MHz~1910MHz

PAM
SKY77328

TX VCO

DET

I

Q

RF
PLL

IF
PLL

CLK

TOF1300MPI4KRA
(13MHz)

AFC

TXPOWER

UI

AUDIO

SAMSUNG ELECTRONICS

SAMSUNG