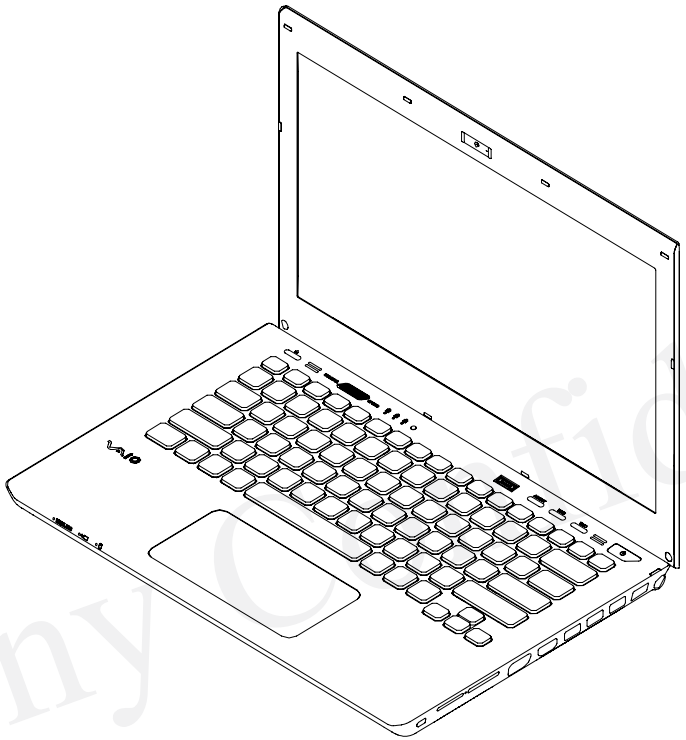
SVS131 Series

SERVICE MANUAL

Ver.1-2013A

Revision History



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- Design and specifications are subject to change without notice.

PERSONAL COMPUTER

SONY

9-890-952-01

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Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

CAUTION: The battery pack used in this device may present a fi re or chemical burn hazard if mistreated. Do not disassemble, heat above 60˚C (140˚F) or incinerate. Dispose of used battery promptly. Keep away from children.

CAUTION: Changing the back up battery.
• Overcharging, short circuiting, reverse charging, multilation or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
• If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.

The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components repaired and/or replaced.

Service and Inspection Precautions

1. Obey precautionary markings and Instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the ⚠ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing Wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duPlicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270˚C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!
LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANSCE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

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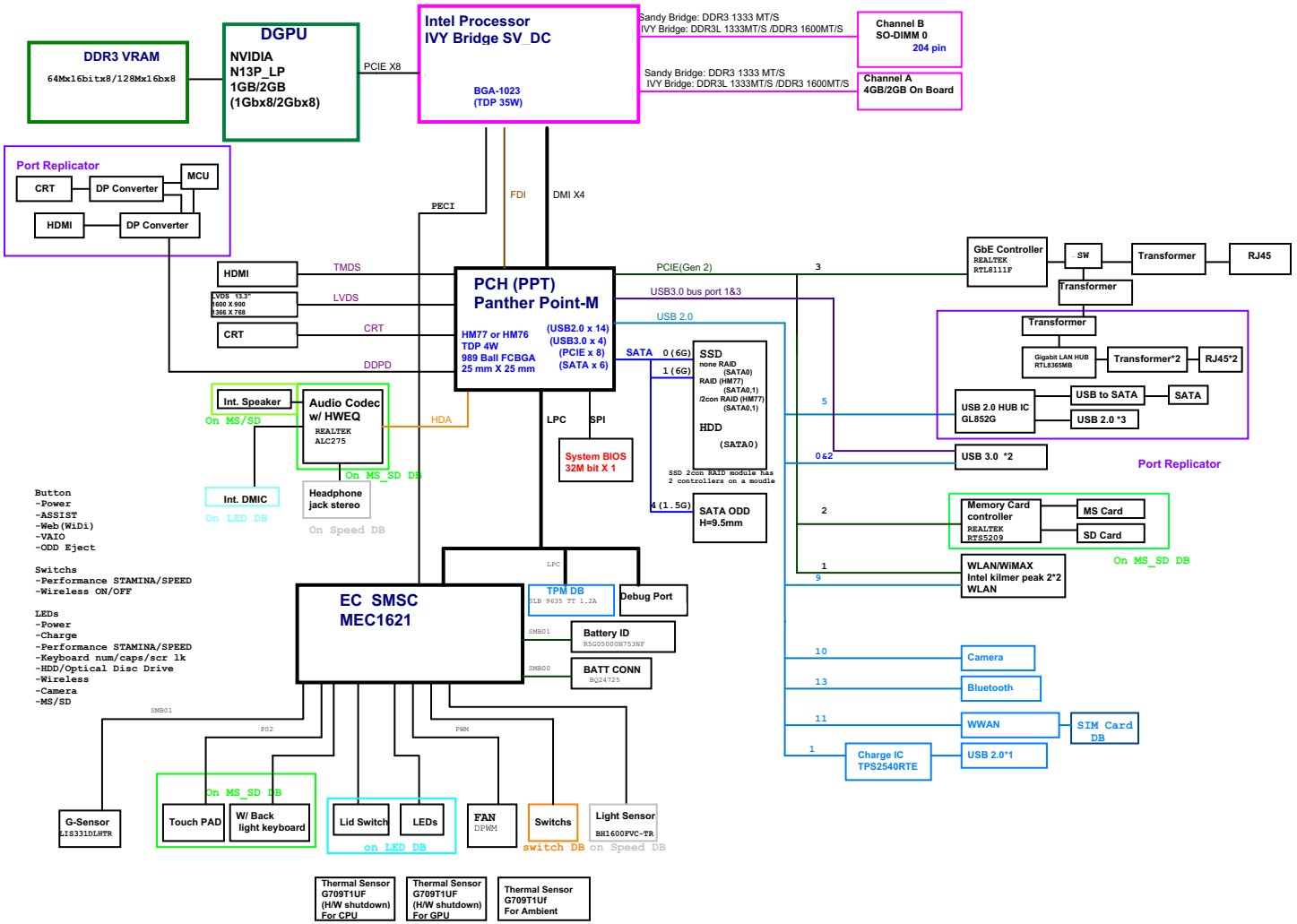
CHAPTER1.
BLOCK DIAGRAM

1-1.SVS131 Series (For Ext-Gfx model)



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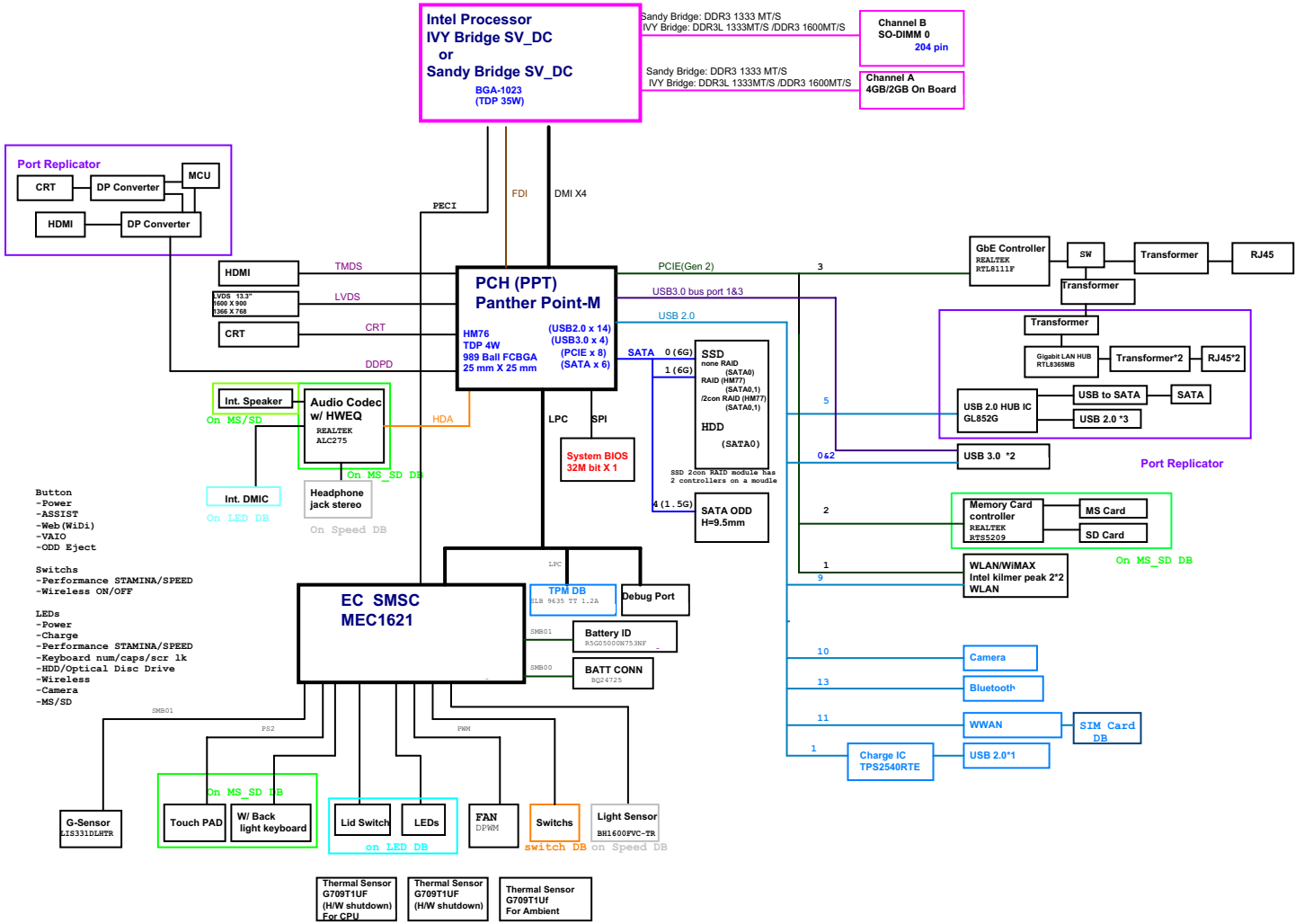
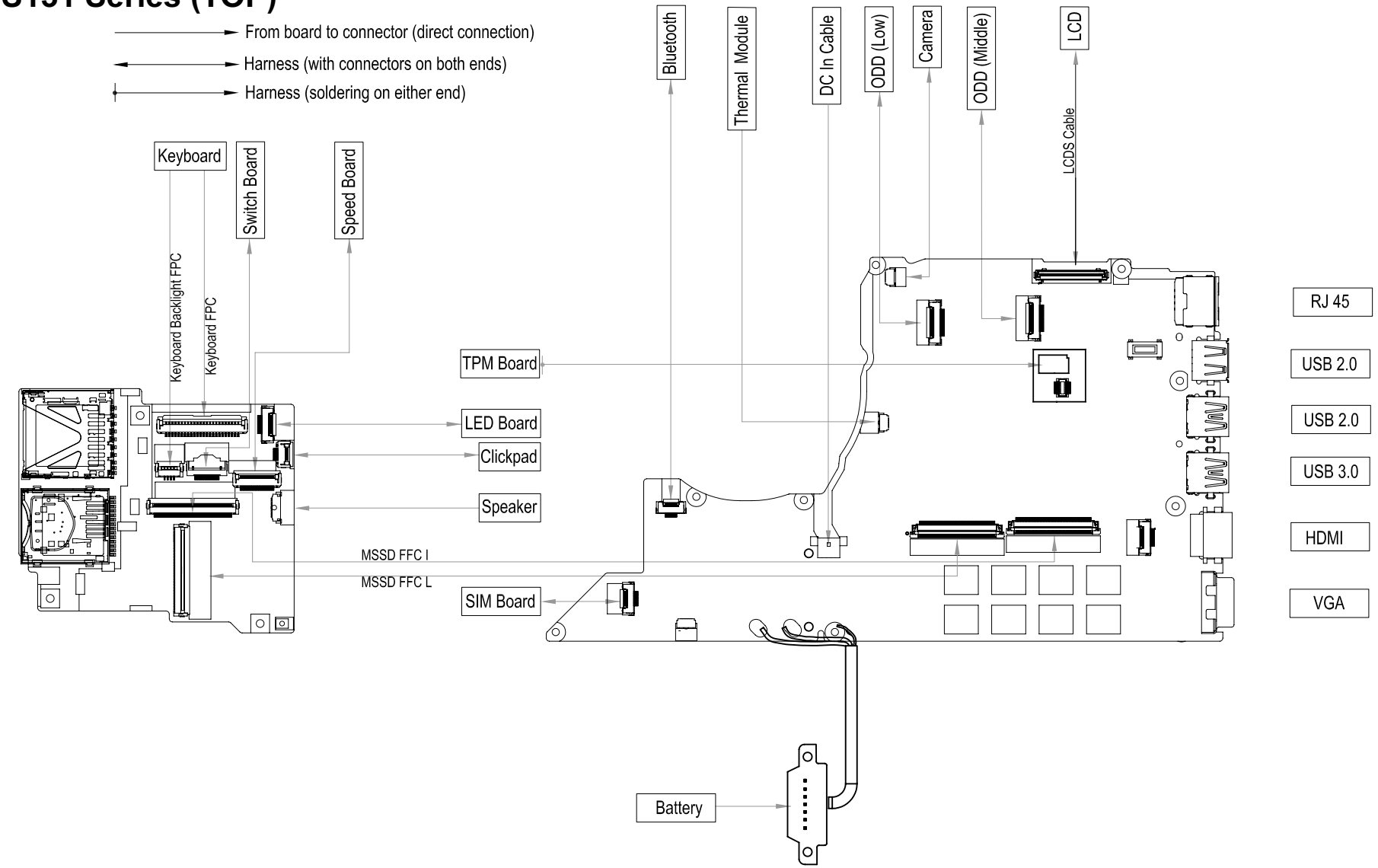
1-2.SVS131 Series (For Int-Gfx model)



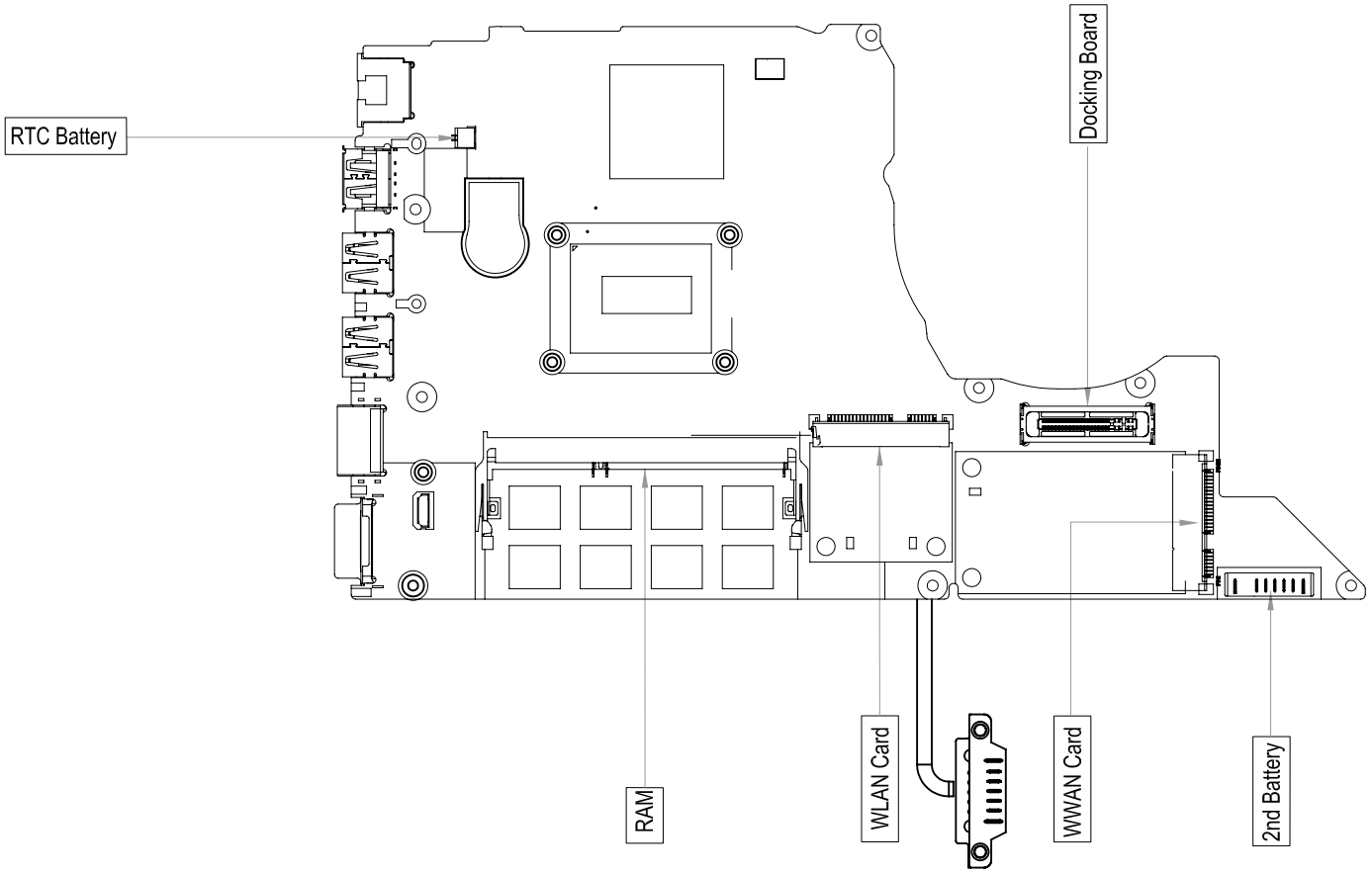
CHAPTER2.
FRAME HARNESS DIAGRAM

2-1.SVS131 Series (TOP)



[Sony Confidential]

2-2. SVS131 Series (BOTTOM)



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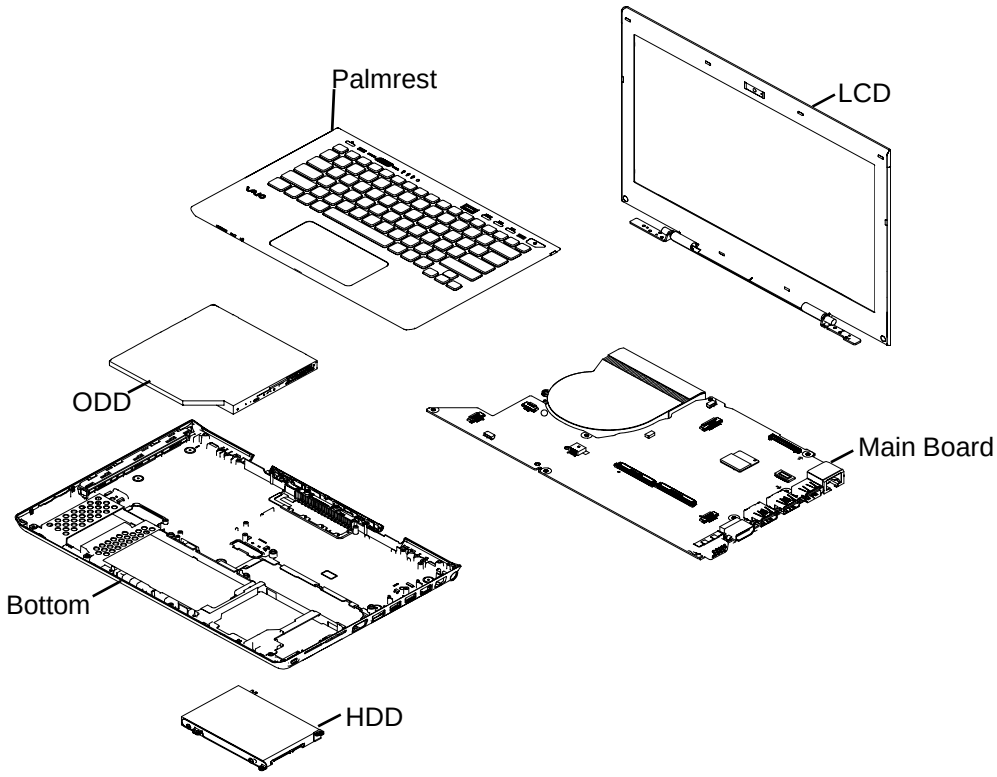
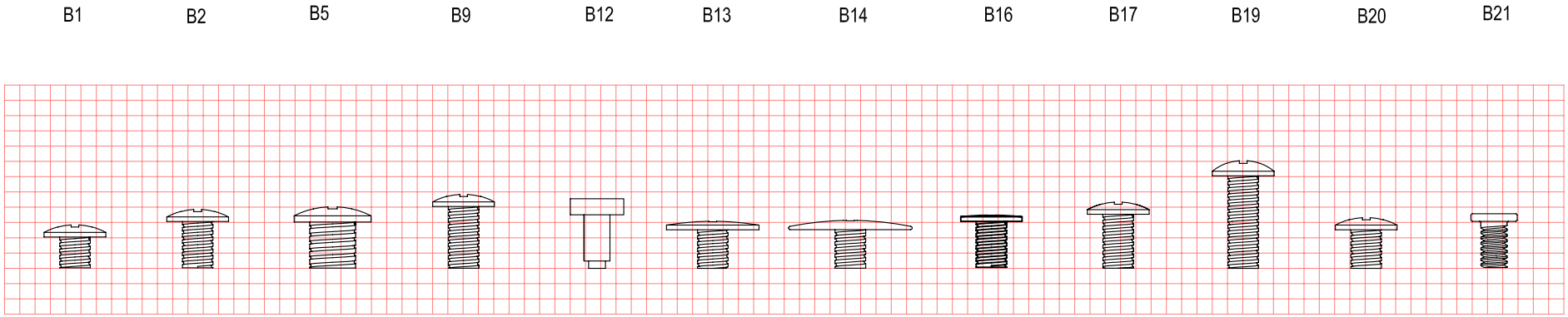
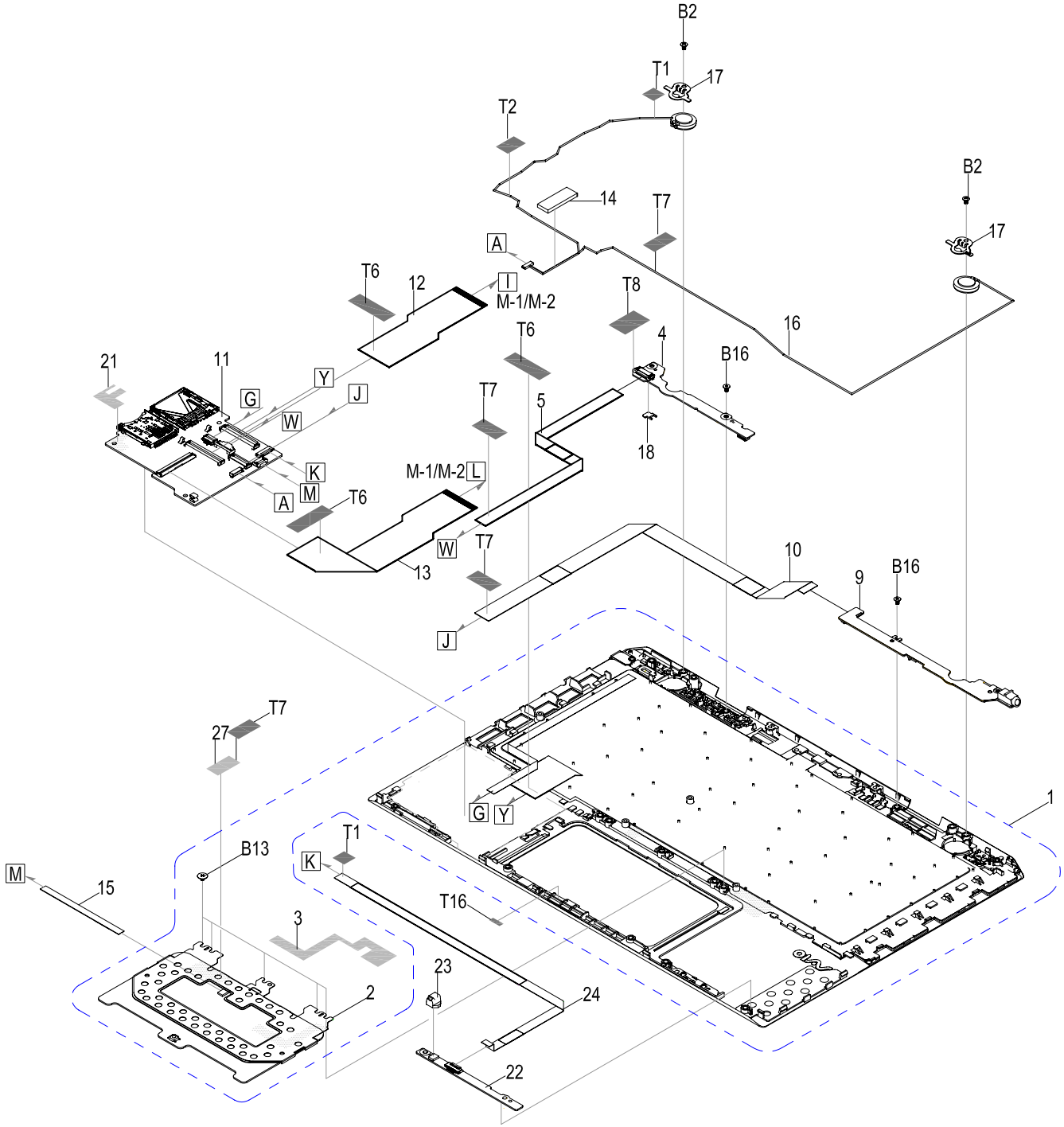


S-1.Screws

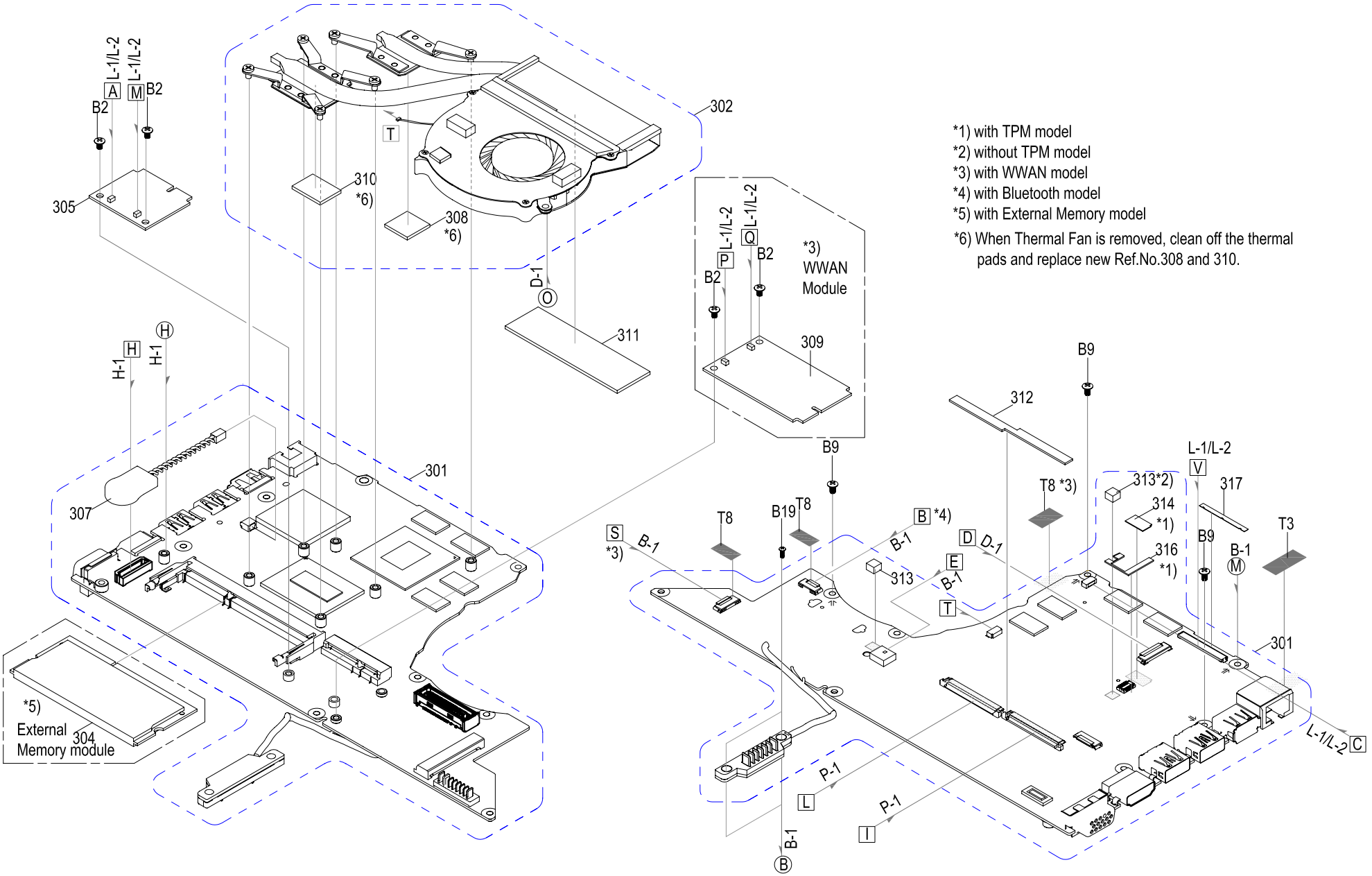

B1
B2
B5
B9
B12
B13
B14
B16
B17
B19
B20
B21
M2*L2
M2*L3
M3*L3
M2*L4
M1.7*L3
M2*L2.5
M2*L2.5
M2*L3
M2*L3.5
M2*L6
M2*L2.5
M1.7*L3
Silver
Black
Silver
Black
Black
Silver
Silver
Silver
Silver
Black
Silver
Silver

P-1.Palmrest



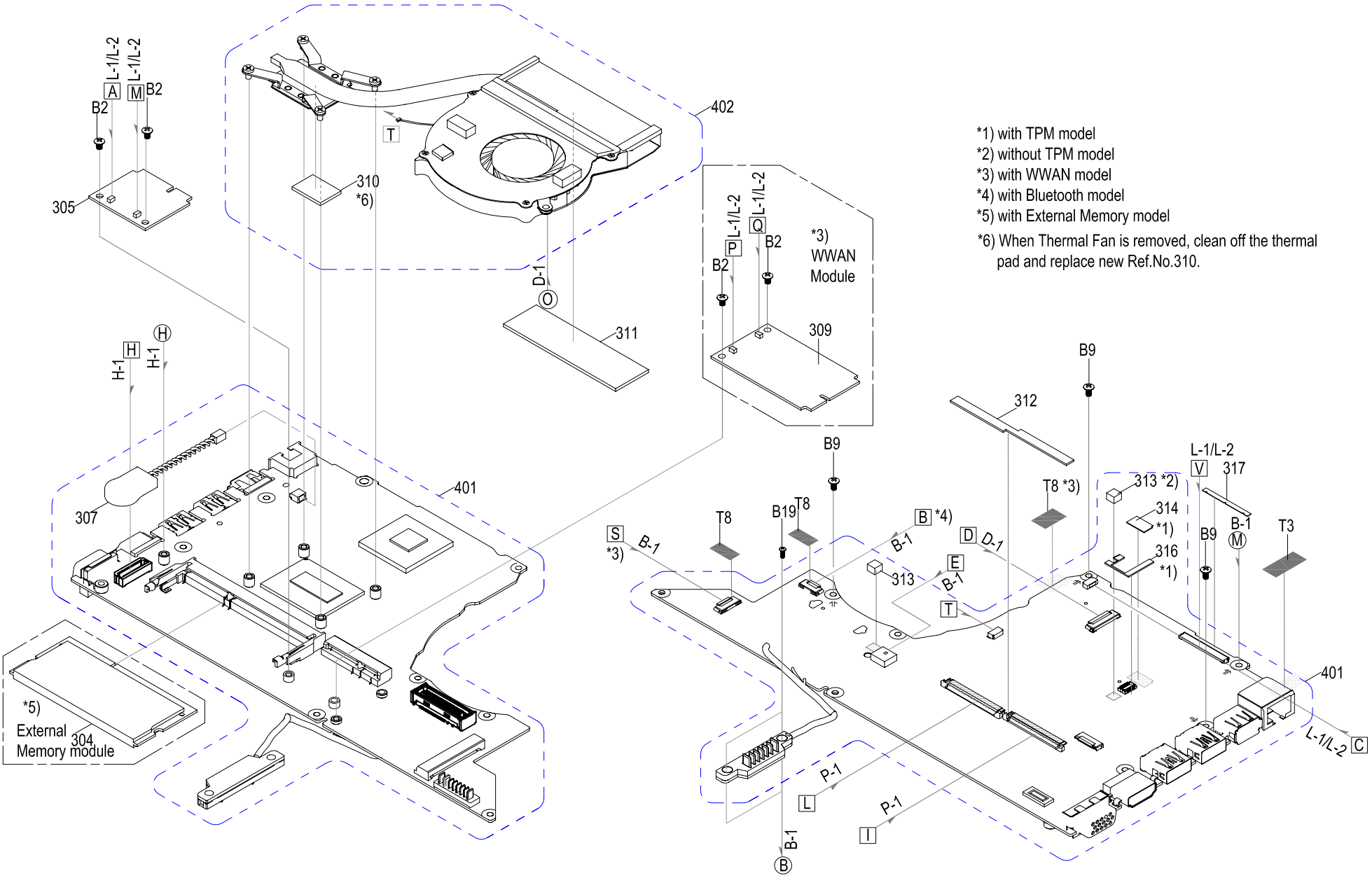
[Sony Confidential]

M-1.Main Board (For Ext-Gfx model)



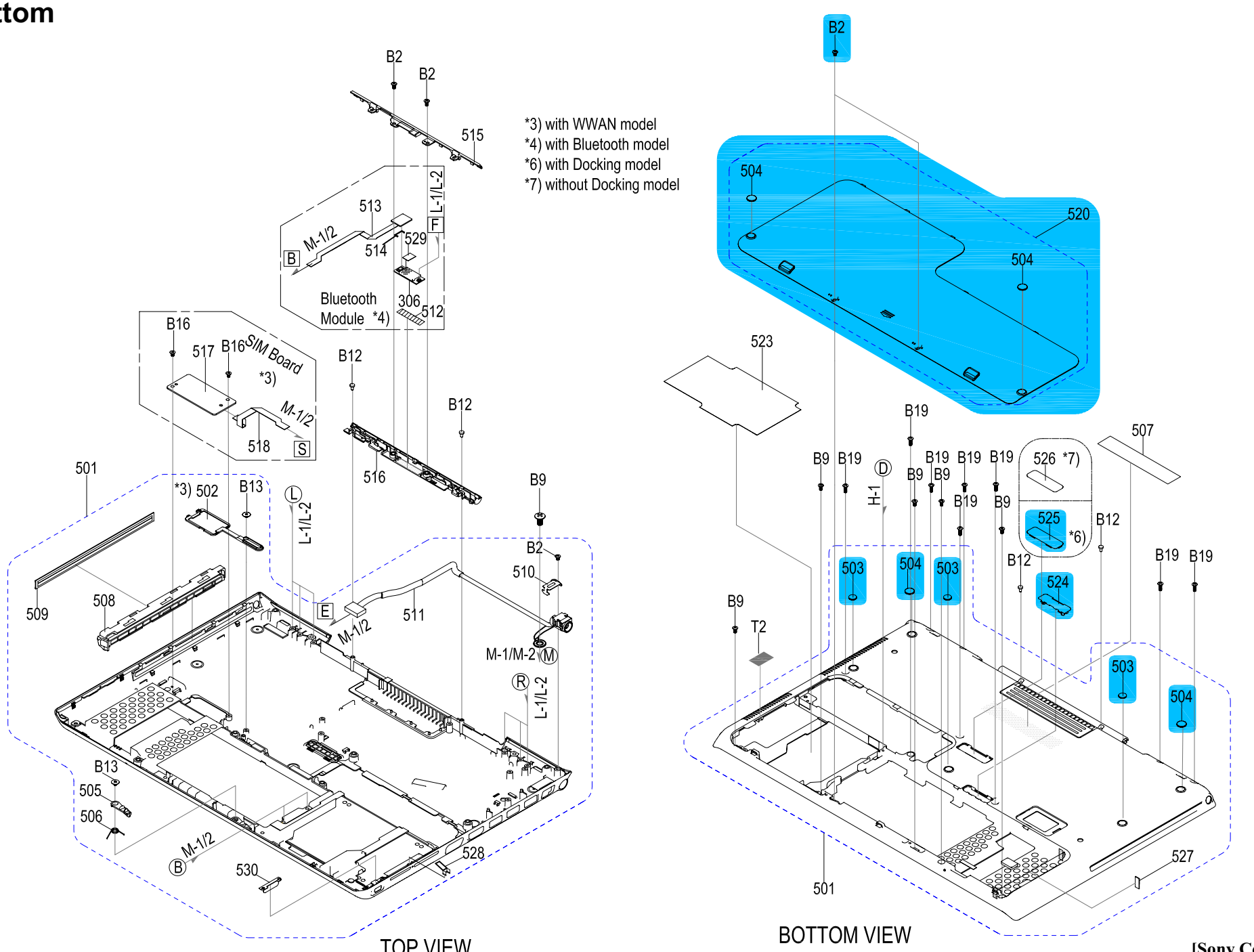
[Sony Confidential]

M-2.Main Board (For Int-Gfx model)



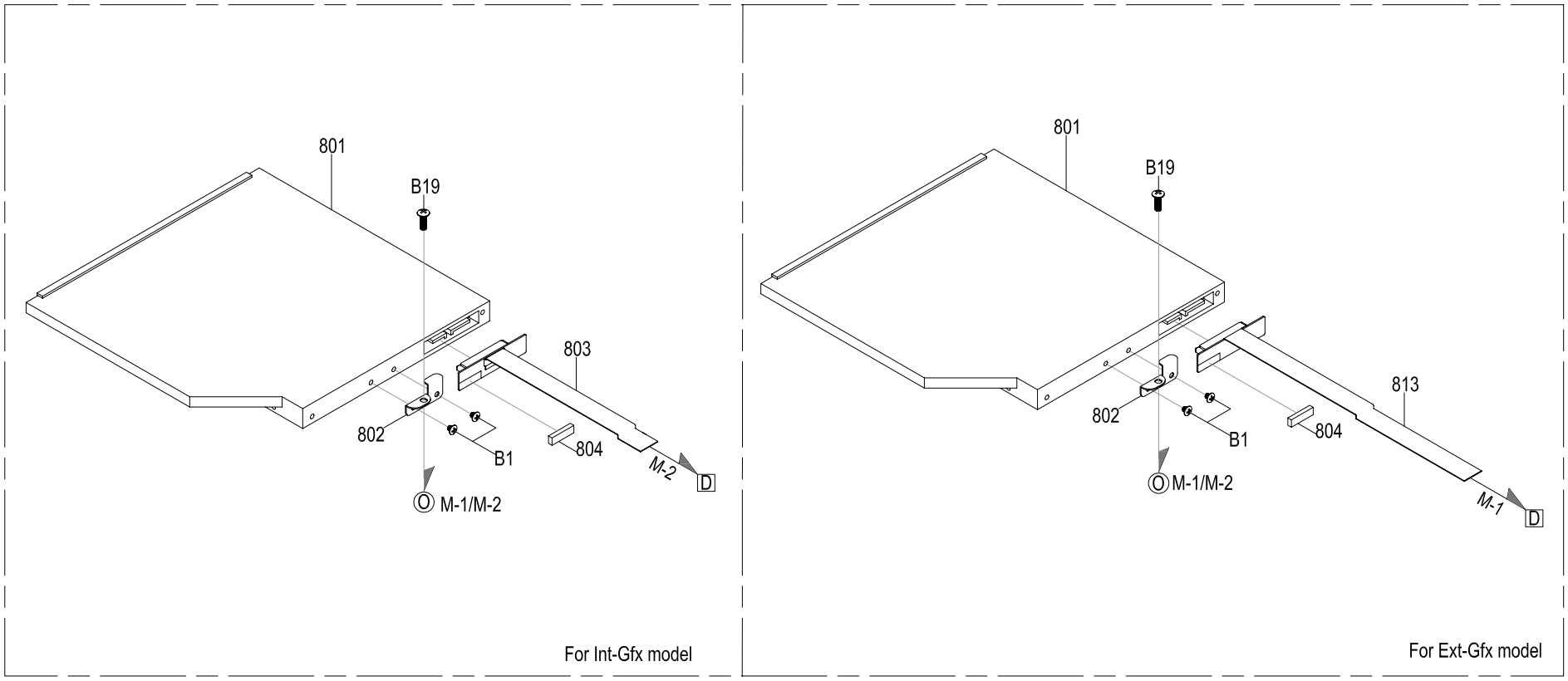
[Sony Confidential]

B-1.Bottom

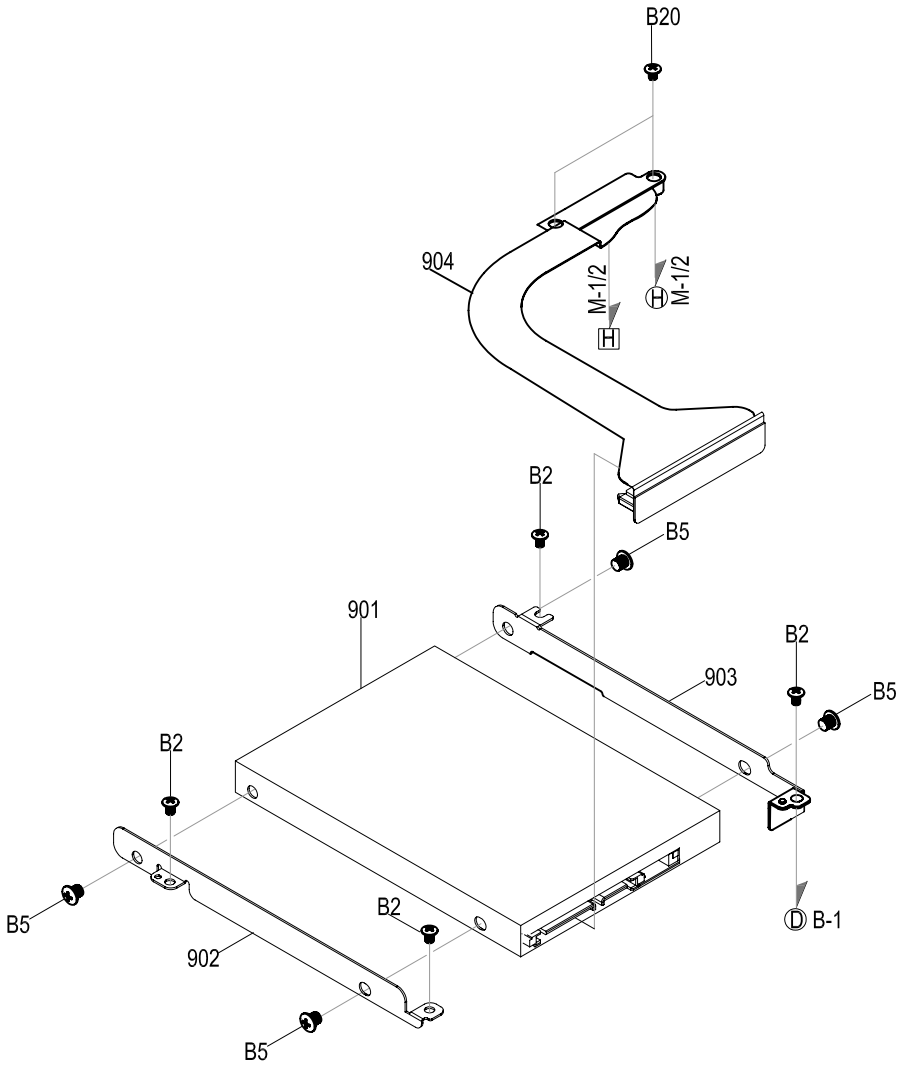


[Sony Confidential]

D-1.ODD


801
B19
803
802
B1
804
M-2
D
M-1/M-2
For Int-Gfx model
801
B19
813
802
B1
804
M-1
D
M-1/M-2
For Ext-Gfx model

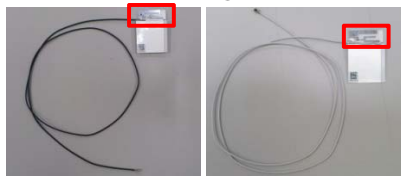
H-1.HDD



L-1.LCD (Display:13.3/1600x900/LED/ClearLikeAG/Flat)

SVS131 Series have two kinds of WLAN ANTENNA (Ref.No.1011 and 1012).
When replacing either, The Main and Aux Antenna must use same vendor's parts.
Part's vendor can be distinguished by shape of red boxed area. Wide shape one is ACON's, the other is NWING's.

NWING



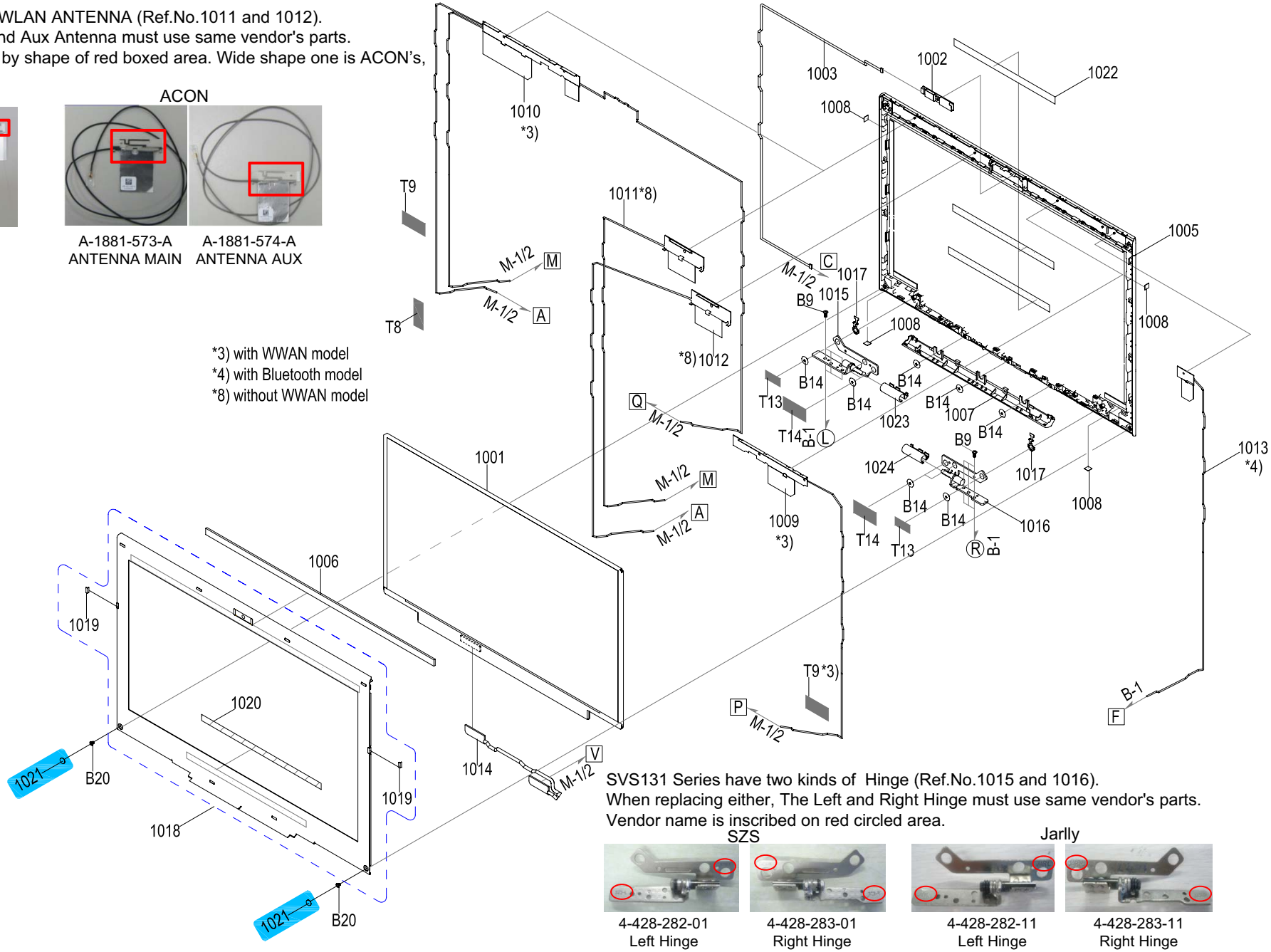
A-1881-575-A ANTENNA MAIN

A-1881-576-A ANTENNA AUX

ACON

A-1881-573-A ANTENNA MAIN

A-1881-574-A ANTENNA AUX



*3) with WWAN model
*4) with Bluetooth model
*8) without WWAN model

SVS131 Series have two kinds of Hinge (Ref.No.1015 and 1016).
When replacing either, The Left and Right Hinge must use same vendor's parts.
Vendor name is inscribed on red circled area.

SZS

4-428-282-01 Left Hinge

4-428-283-01 Right Hinge

Jarlly

4-428-282-11 Left Hinge

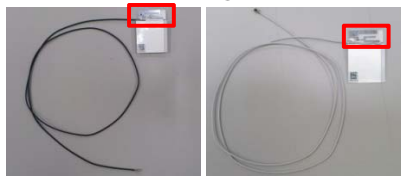
4-428-283-11 Right Hinge

[Sony Confidential]

L-2.LCD (Display:13.3/1366x768/LED/ClearLikeAG/Flat)

SVS131 Series have two kinds of WLAN ANTENNA (Ref.No.1011 and 1012).
When replacing either, The Main and Aux Antenna must use same vendor's parts.
Part's vendor can be distinguished by shape of red boxed area. Wide shape one is ACON's, the other is NWING's.

NWING



A-1881-575-A ANTENNA MAIN

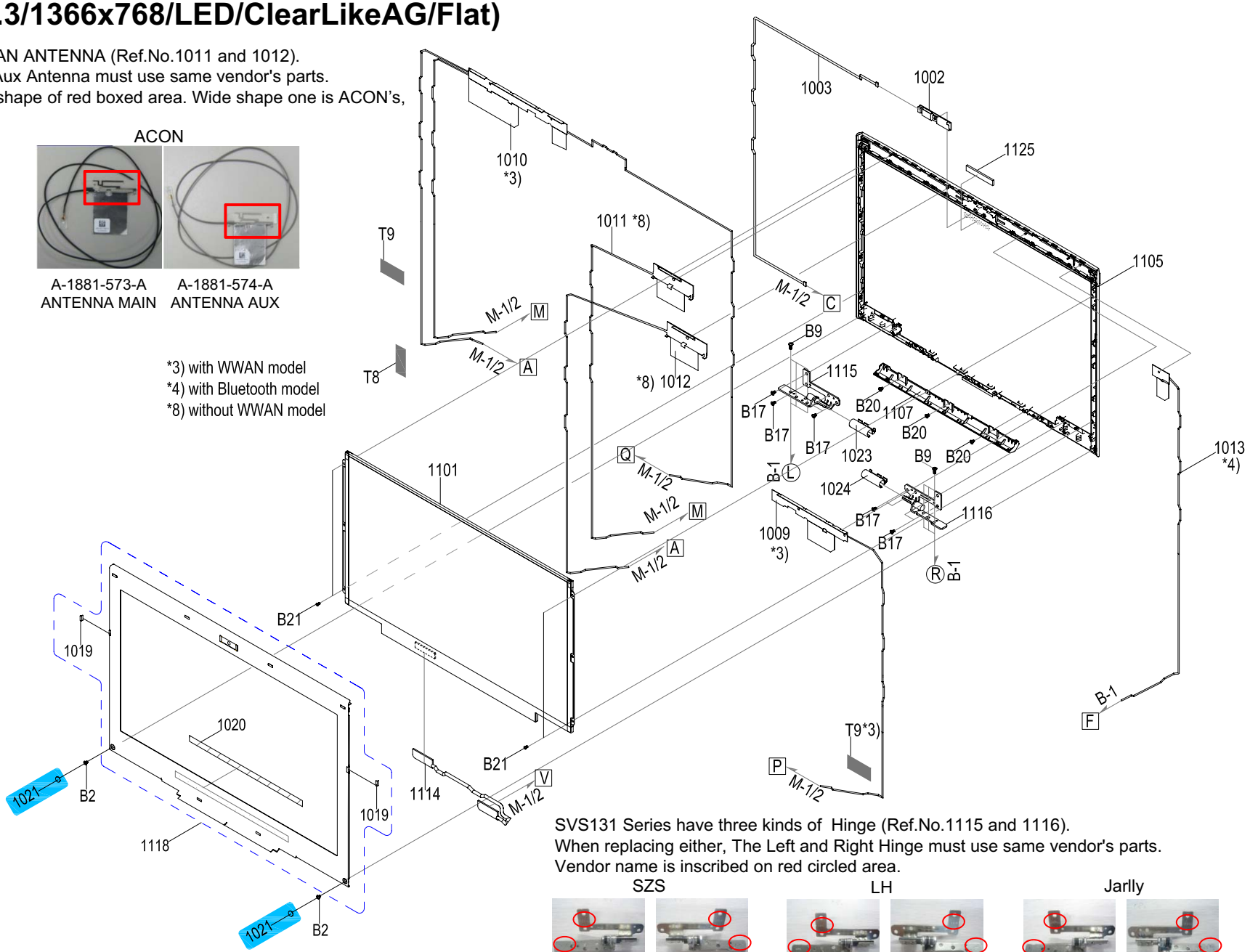
A-1881-576-A ANTENNA AUX

ACON

A-1881-573-A ANTENNA MAIN

A-1881-574-A ANTENNA AUX

*3) with WWAN model
*4) with Bluetooth model
*8) without WWAN model



SVS131 Series have three kinds of Hinge (Ref.No.1115 and 1116).
When replacing either, The Left and Right Hinge must use same vendor's parts.
Vendor name is inscribed on red circled area.

SZS

4-428-652-01 Left Hinge

4-428-653-01 Right Hinge

LH

4-428-652-11 Left Hinge

4-428-653-11 Right Hinge

Jarlly

4-428-652-21 Left Hinge

4-428-653-21 Right Hinge

[Sony Confidential]

A-1.Accessories

2005
Power Cord

2005
Power Cord
(for Stick Type Adapter)

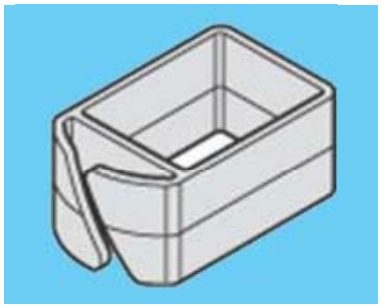
2006
AC Adapter

2006
AC Adapter
(Stick Type)

2007
Battery Pack

2011
Carrying Pouch

2012
Cable Clip

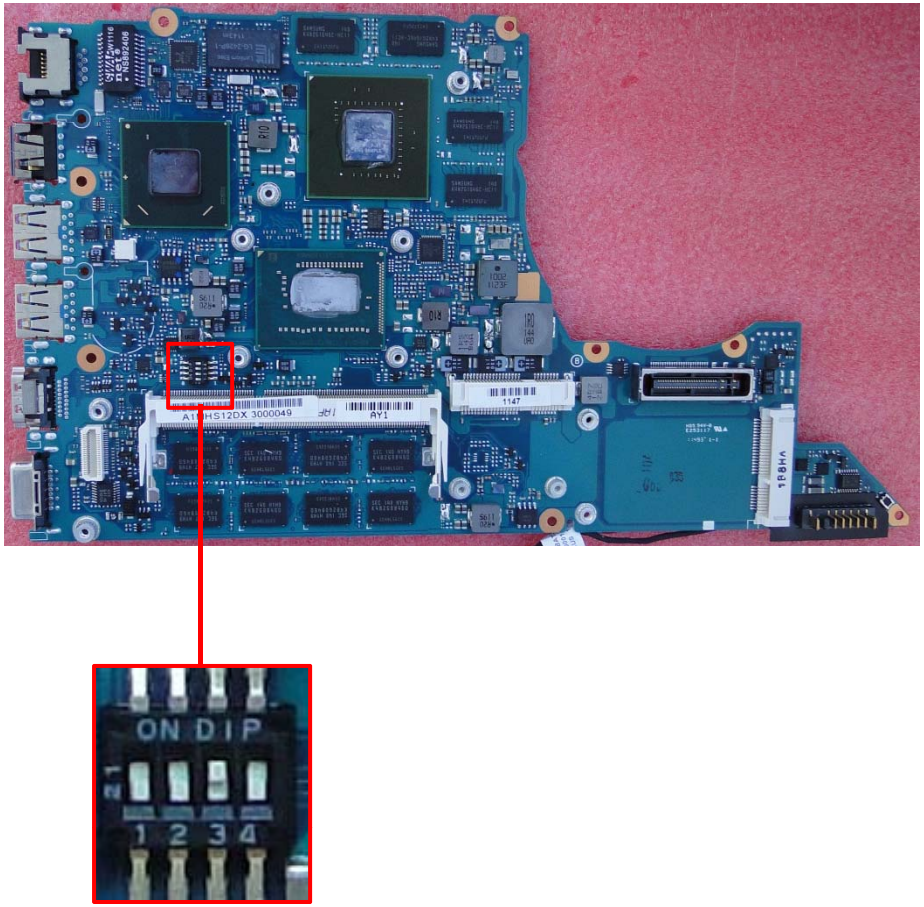


2014
Extended Battery

2015
Battery Adapter

WWAN/LCD DIP Switch (For Win7 model)

WWAN/LCD DIP Switch Location

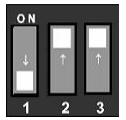
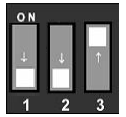
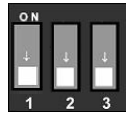


Note: There are four DIP Switches.

1. The first three DIP Switch setting is different by the type of system(Win7 or Win8).
   A. When the model is Win7 system, 1st to 3rd bits are setting for WWAN/GPS.
   B. When the model is Win8 system, 1st bit is setting for WWAN and 2nd ,3rd bit are setting for LCD.
2. The fourth one is used for the Anti-Theft.

The first three DIP switch setting is different by the type of system(Win7 or Win8) . For setting method, please refer to the table.

1. The first three ones is used for WWAN Card, please set them as below.

LTE, without GPS (A-1920-699-A)	
GOBI3000 ,without GPS (A-1920-698-A)	
For all the SKUs without WWAN Card	

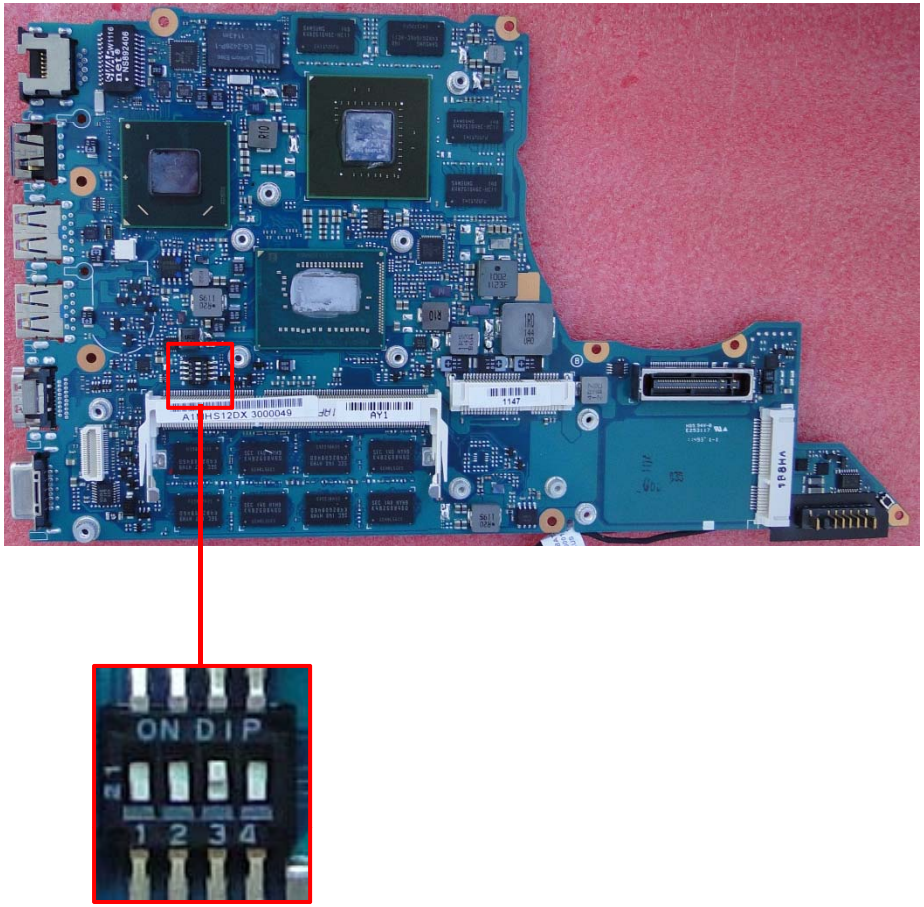
2. The fourth one is used for Intel Anti-Theft setting.
   When replacing Main Board, not to change the setting on removed Main Board.

For all EU SKUs. With Intel Anti-Theft	
For all JP, US, PA, AP, CN SKUs Without Intel Anti-Theft	

[Sony Confidential]

WWAN/LCD DIP Switch (For Win8 model)

WWAN/LCD DIP Switch Location



Note: There are four DIP Switches.

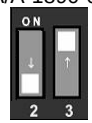
1. The first three DIP Switch setting is different by the type of system(Win7 or Win8).
   A. When the model is Win7 system, 1st to 3rd bits are setting for WWAN/GPS.
   B. When the model is Win8 system, 1st bit is setting for WWAN and 2nd ,3rd bit are setting for LCD.
2. The fourth one is used for the Anti-Theft.

The first three DIP switch setting is different by the type of system(Win7 or Win8) . For setting method, please refer to the table.

1. The first one is used for WWAN Card, please set them as below.

With WWAN SKUS	
Without WWAN SKUS	

2. The second and third are used for LCD DIP Switch setting.

13.3/1600x900/LED/ClearLikeAG/Flat/CMI (A-1890-097-A/A-1940-862-A)	
13.3/1366X768/LED/CLEARLIKEAG/FLAT/AUO (A-1890-100-A/A-1898-069-A)	
13.3/1366X768/LED/CLEARLIKEAG/FLAT/CMI (A-1890-098-A/A-1890-099-A)	

3.The fourth one is used for Intel Anti-Theft setting.
When replacing Main Board, not to change the setting on removed Main Board.

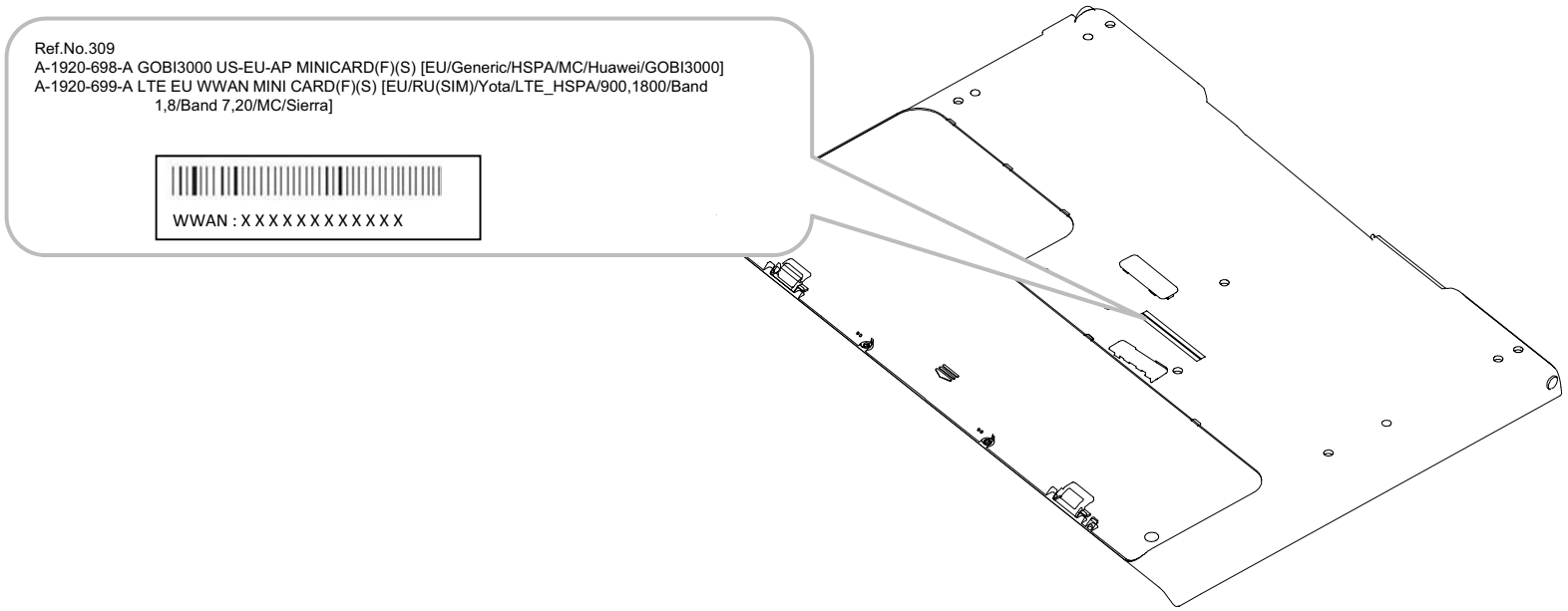
With Intel Anti-Theft	
Without Intel Anti-Theft	

CHAPTER4.
OTHERS

4-1.Note for WWAN Board Replacement

When replacing the WWAN Board (Ref.309 A-1920-698-A/ A-1920-699-A), change the barcode label on the bottom.

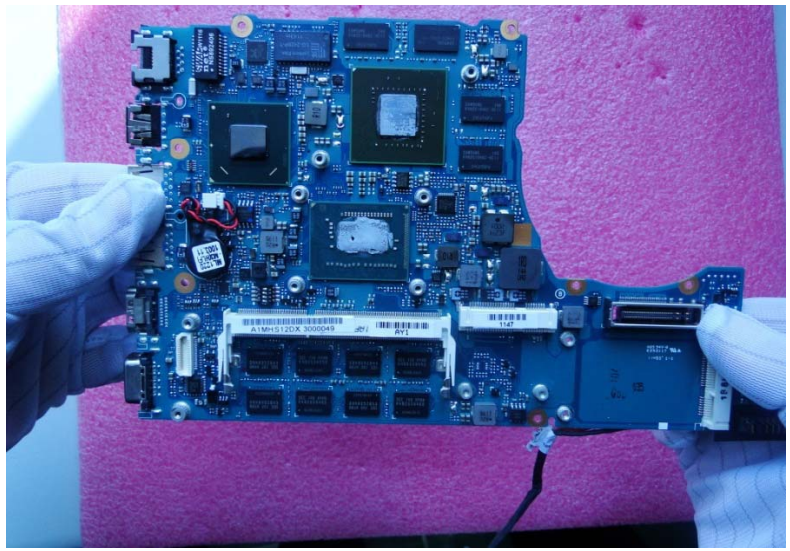
1. Peel off the barcode label which is attached to the bottom. (Refer to the figure below.)



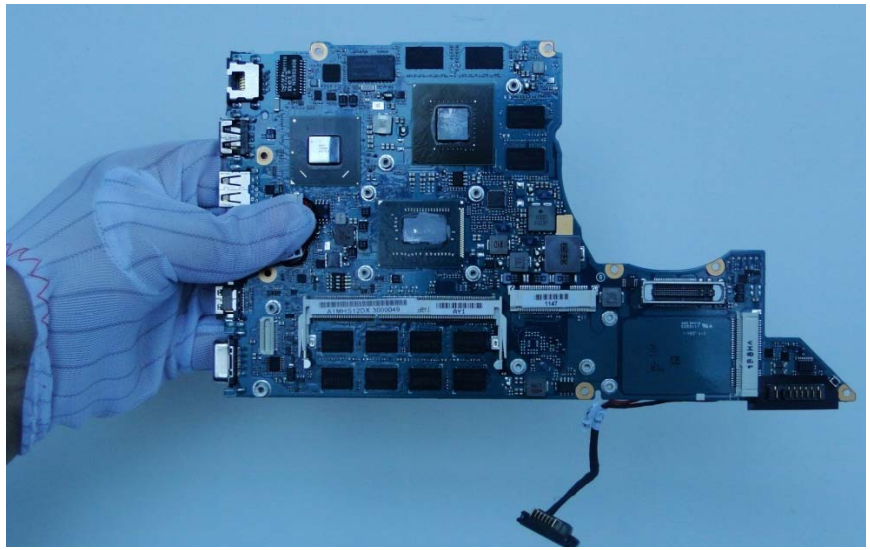
2. Attach the barcode label which is included with the WWAN Board to the position where you peeled off the label in the step 1.

4-2 Holding Method of Main Board

1. When operating with both hands, gently hold the middle of Main Board edge as show.
2. When operating with one-hand, gently hold the middle of Main Board edge and keep vertical.



(Level)



(Vertical)

[Sony Confidential]

4-3 How to distinguish vendor of WLAN Antenna

SVS131 Series have two kinds of WLAN ANTENNA (Ref.No.1011 and 1012).
When replacing either, The Main and Aux Antenna must use same vendor's parts.
Part’s vendor can be distinguished by shape of red boxed area. Wide shape one is ACON’s, the other is NWING’s.

NWING

A-1881-575-A
ANTENNA MAIN

A-1881-576-A
ANTENNA AUX

ACON

A-1881-573-A
ANTENNA MAIN

A-1881-574-A
ANTENNA AUX

SVS131 Series

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CS & Quality Div. VAIO Global CS Dept.

9-890-952-01

Sony Corporation

Revision History

Suffix	Ver.	Date	Contents	QM No.
-01	Ver.1	2013.01.23	First Edition	
<Remarks>				

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