



DISCLAIMER: All company names, product names, and service names mentioned are used for identification purposes only and may be registered trademarks, trademarks, or service marks of their respective owners. All analyses are done without participation, authorization, or endorsement of the manufacturer. Any cost analyses presented in this material are estimates prepared by TechInsights from generally available data. While TechInsights believes that these estimates reflect the probable costs, the actual producer did not supply the data, and therefore the actual costs may be different from these estimates. Furthermore, TechInsights extends no warranties with respect to any information in this document, and shall bear no liability whatsoever for the use of the information.

Copyright © 2015, TechInsights. All rights reserved. Do not reproduce, distribute, disseminate, photocopy, fax, transmit, download to a shared database, or otherwise copy, transfer, sell, publish, or send this material, or any portion thereof, by any means without the express written permission of TechInsights.

Report Information

Prelim. Report Publish Date	9/2/2015
SI Number	SI38944
Analyst Name	Tim M Mate

Product Description

Product Type	Smartphone
Brand	Samsung
Device Name	Z1
Device Model #	SM-Z130H/DS
Official Release Date	1/14/2015
Target Market	India
Retail Price	\$76.75
Weight (grams)	112.4 (Measured)
Device Dimensions (mm)	120.5 x 63.1 x 10.0 (Measured at Longest/Widest/Thickest Points)

Product Features

Operating System	Tizen 2.3
Processor Spec	1.2 GHz Dual-Core Spreadtrum
RAM Support	0.75 GB
Communications	GSM: 850/900 LTE: 900/2100 DCS: 1800, PCS: 1900
Connectivity	WiFi 802.11b/g/n, Bluetooth 4.0 w/ A2DP, microUSB 2.0, FM Radio, GPS
User Interface	Capacitive Keys & Touchscreen
Storage	Internal: 4 GB ROM External: microSD (max. 64 GB)
Sensors	3-Axis MEMS Accelerometer, VGA Front Camera Sensor
Battery Type	3.8 V, 1500 mAh, Li-ion
Battery Life (Hrs.)	Use Time: 7; Standby Time: Unknown
Display	4" PLS TFT-LCD, 800 x 480 Pixels, 16,777,216 Colors
Rear Camera	3.1 MP CMOS, LED Flash, Video Capability

Preliminary Report
















Discussion

Dear Client:

Preliminary reports are meant to help you quickly identify the major IC wins at a system level. Such ICs are usually found on the main board PCB or other system-level substrates. The ICs found within a subsystem, such as a camera or display subsystem, are not considered a major IC with regard to a device's overall system. The reasoning is that while the preliminary report tries to identify the major ICs unique to a device, subsystems may be used in several different devices. However, in the final report, all ICs and modules are identified, including those found within subsystems.

A major IC may be categorized as follows:

Component Function:

-  Applications & Baseband Processor
-  Application Processor
-  Baseband Processor
-  Camera / Image
-  Connectivity
-  Display / Touchscreen
-  Logic
-  Memory: Mixed
-  Memory: Non-Volatile
-  Memory: Volatile
-  Mixed Signal
-  Other
-  Power Management / Audio
-  RF Component
-  Sensor

Please note that the information in this report should be considered preliminary. Although every effort has been made to ensure the accuracy of the data, this device is currently still in analysis. As the device is further analyzed, we reserve the right to update the data as needed without notification.

Once the analysis of our device is complete, we will publish a full report. In the event the information in the final report does not match the information found in this preliminary report, the final report and all of its content will supersede the information found in the preliminary report.

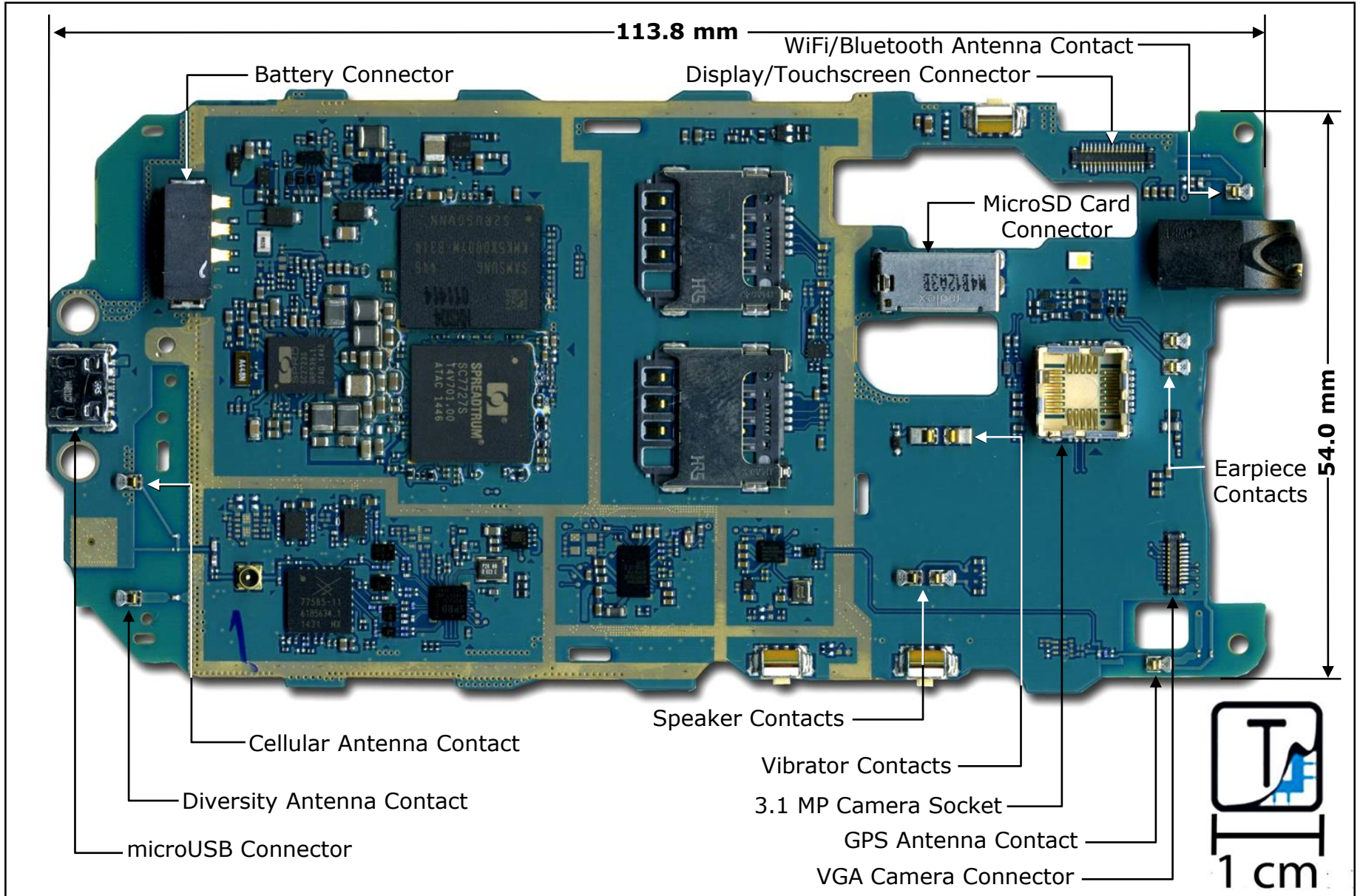
Identification by Component Function

In both the 2015 Deep Dive and Survey Plus reports, ICs and modules are categorized by their function within the system.

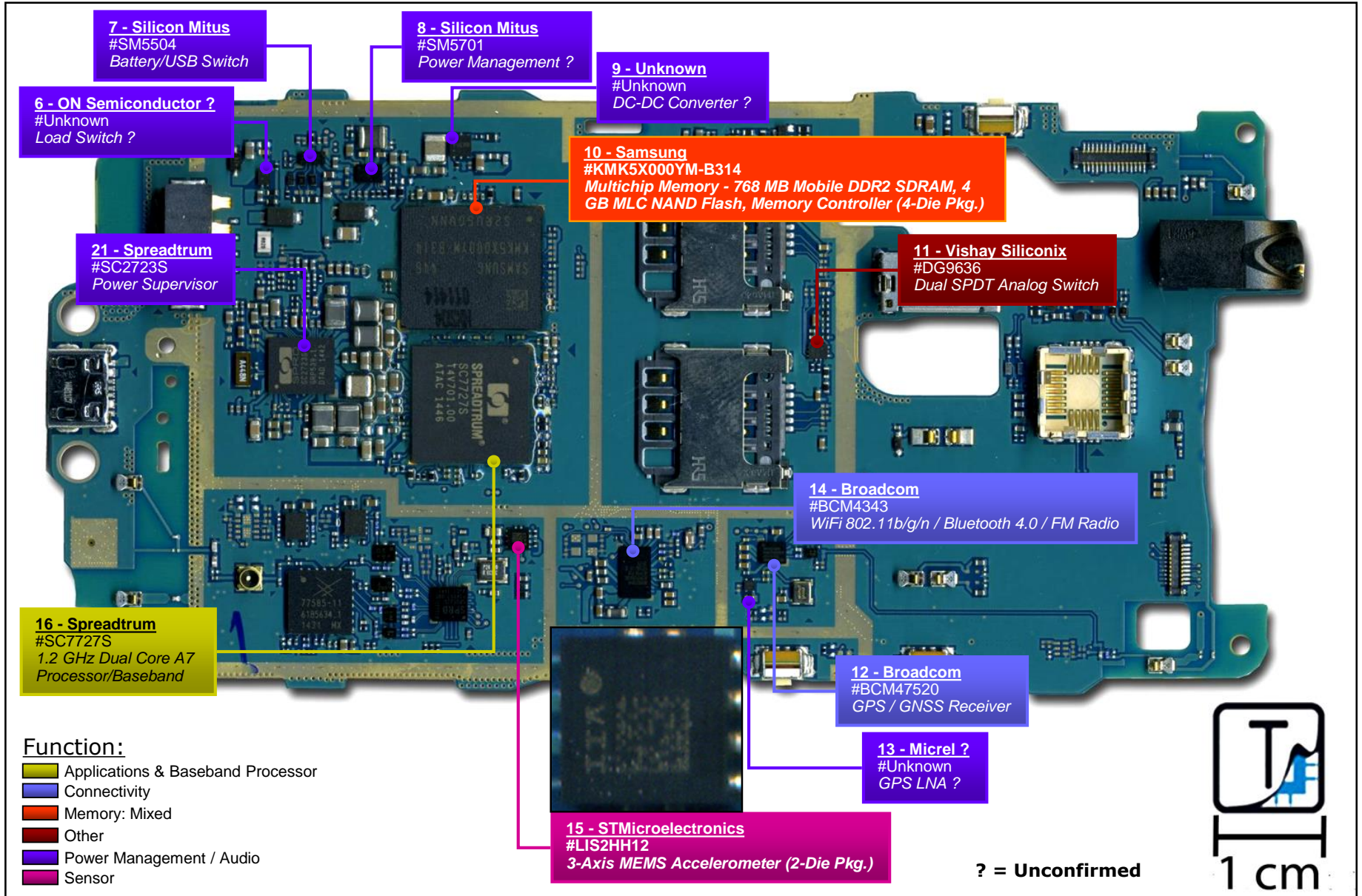
These categories are in alignment with the high-level IC function categories currently found in IRIS 2.0. The categories will also be found in the updated Excel BoM workbooks included with each final report.

Component Function	
Applications/Baseband Processor	Processors that are both Applications/Baseband Processors
Application Processor	Main Processor without Cellular Modem
Baseband Processor	Cellular Modem Processor
Camera / Image	Image Sensors, Video processors, Image Coprocessors, VGA Camera
Connectivity	WiFi, Bluetooth, GPS, USB, ZigBee Components
Display / Touchscreen	Display Driver, Touchscreen Controller, etc.
Memory: Mixed	Components with both non-volatile and volatile memory
Memory: Non-Volatile	NAND, NOR, EEPROMs, etc.
Memory: Volatile	RAM, SDRAM, etc.
Mixed Signal	DSPs, MCUs, Mixed-Signal Arrays, Processors (non-audio, non-apps, non-baseband)
Other	Small Logic AND, OR Gates, LDOs, Transistors, Regulators
Power Management / Audio	Audio CODECs, Envelope Tracking, Power Management
RF Component	RF Antenna Switches, RF Filters, RF Power Amplifiers, RF Receivers, RF Transceivers, etc.
Sensor	Accelerometer, Gyroscope, Barometer, Heart Rate, MEMS Microphones, Pressure, Temperature, Ambient Light/Proximity

Main Board (Side 1)



Main Board (Side 1 ICs)



7 - Silicon Mitus
#SM5504
Battery/USB Switch

8 - Silicon Mitus
#SM5701
Power Management ?

9 - Unknown
#Unknown
DC-DC Converter ?

6 - ON Semiconductor ?
#Unknown
Load Switch ?

10 - Samsung
#KMK5X000YM-B314
Multichip Memory - 768 MB Mobile DDR2 SDRAM, 4 GB MLC NAND Flash, Memory Controller (4-Die Pkg.)

21 - Spreadtrum
#SC2723S
Power Supervisor

11 - Vishay Siliconix
#DG9636
Dual SPDT Analog Switch

14 - Broadcom
#BCM4343
WiFi 802.11b/g/n / Bluetooth 4.0 / FM Radio

16 - Spreadtrum
#SC7727S
1.2 GHz Dual Core A7
Processor/Baseband

12 - Broadcom
#BCM47520
GPS / GNSS Receiver

13 - Micrel ?
#Unknown
GPS LNA ?

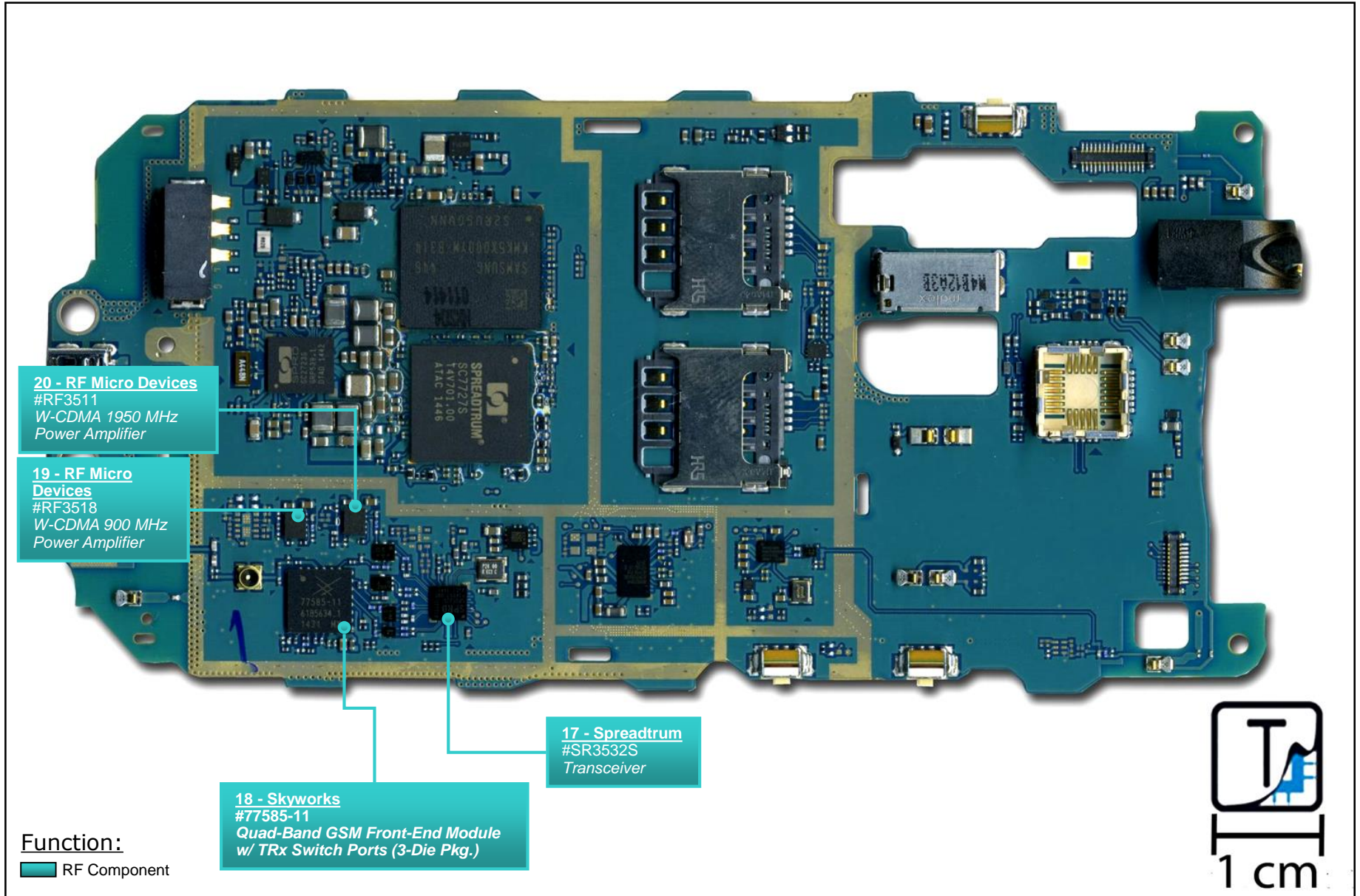
15 - STMicroelectronics
#LIS2HH12
3-Axis MEMS Accelerometer (2-Die Pkg.)

- Function:**
- Applications & Baseband Processor
 - Connectivity
 - Memory: Mixed
 - Other
 - Power Management / Audio
 - Sensor

? = Unconfirmed



Main Board (Side 1 ICs - Radio)



20 - RF Micro Devices
#RF3511
W-CDMA 1950 MHz
Power Amplifier

19 - RF Micro Devices
#RF3518
W-CDMA 900 MHz
Power Amplifier

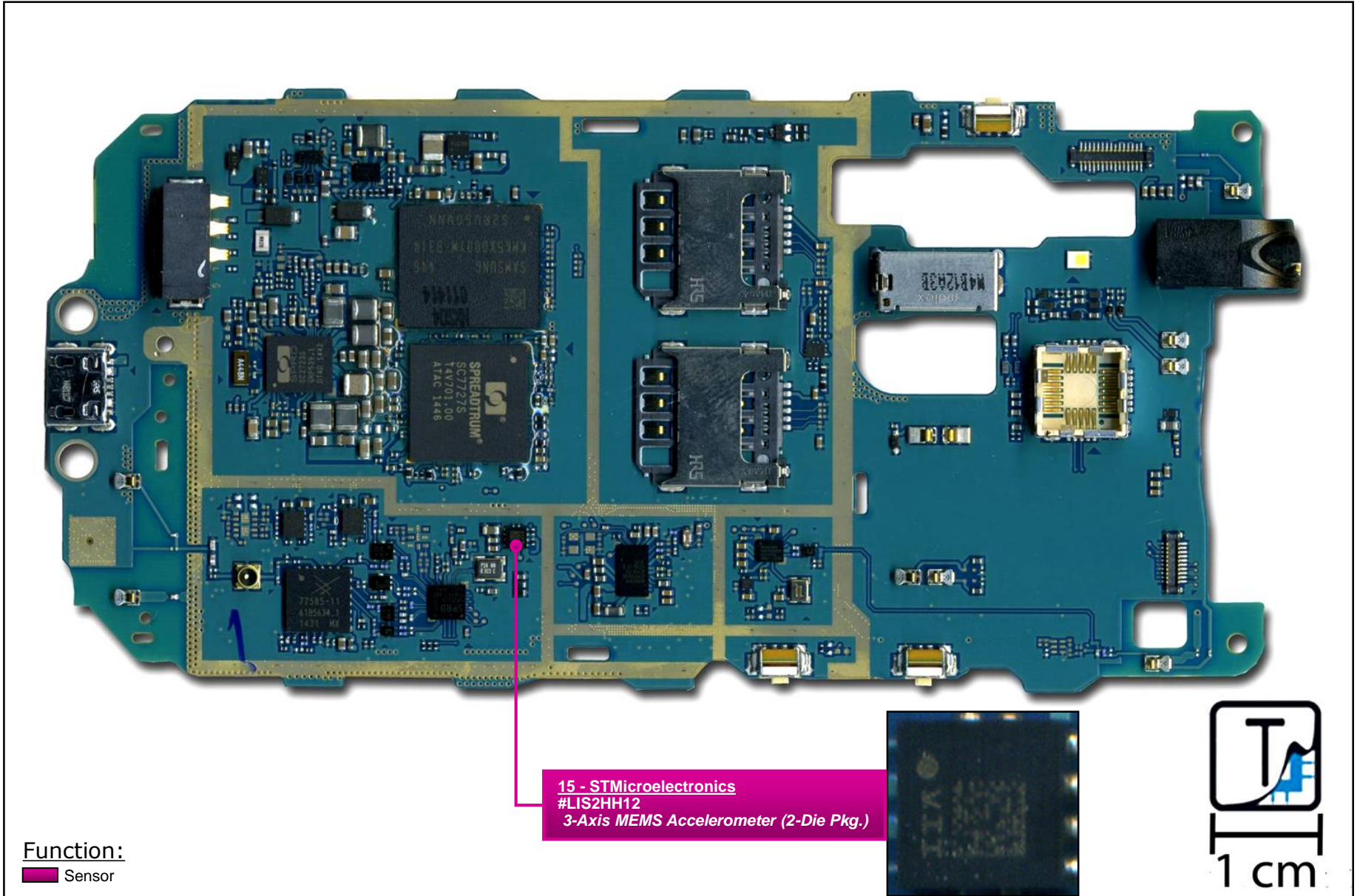
18 - Skyworks
#77585-11
Quad-Band GSM Front-End Module
w/ TRx Switch Ports (3-Die Pkg.)

17 - Spreadtrum
#SR3532S
Transceiver

Function:
RF Component



Main Board (Side 1 ICs - Sensors)

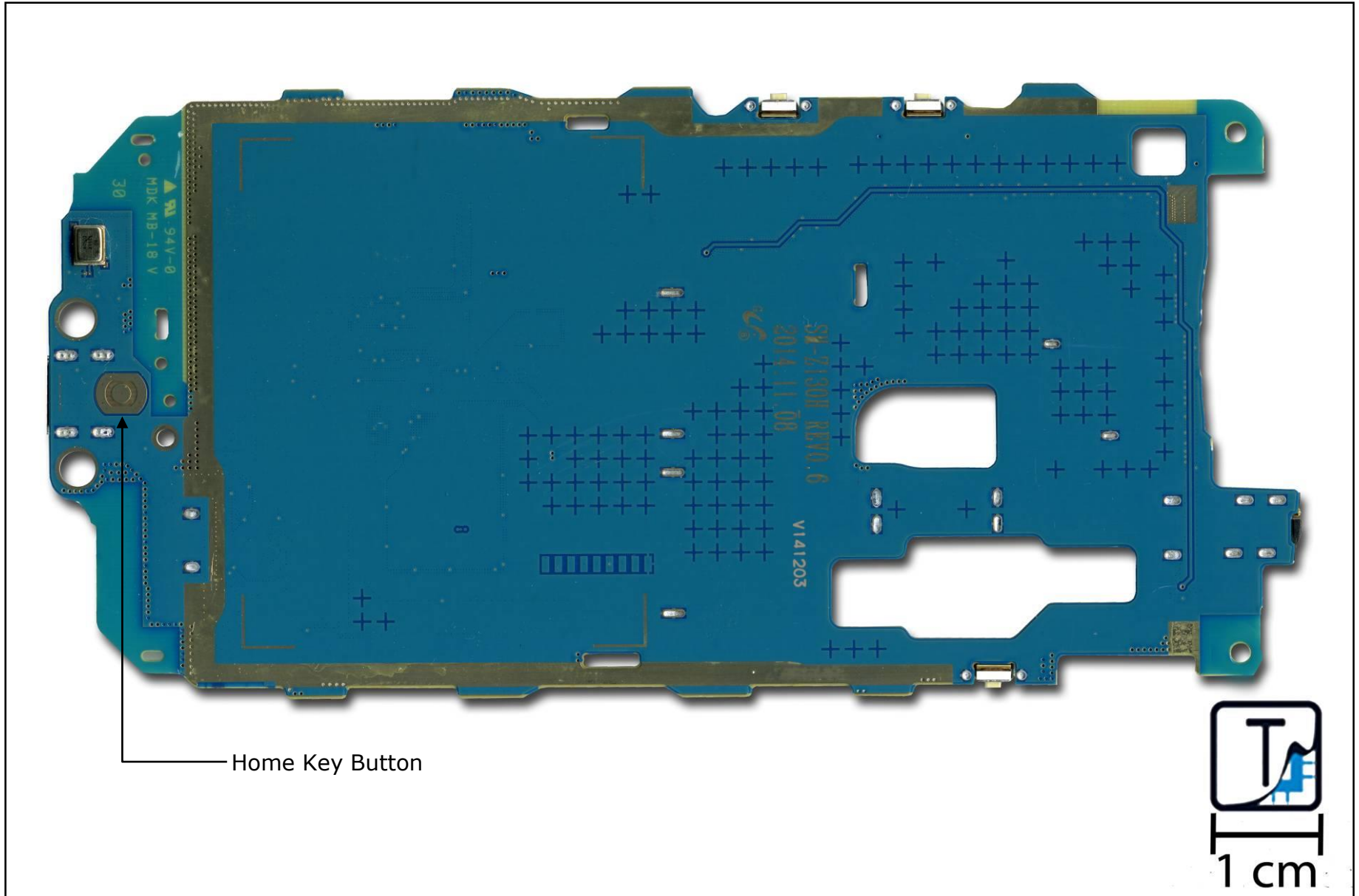


15 - STMicroelectronics
#LIS2HH12
3-Axis MEMS Accelerometer (2-Die Pkg.)

Function:

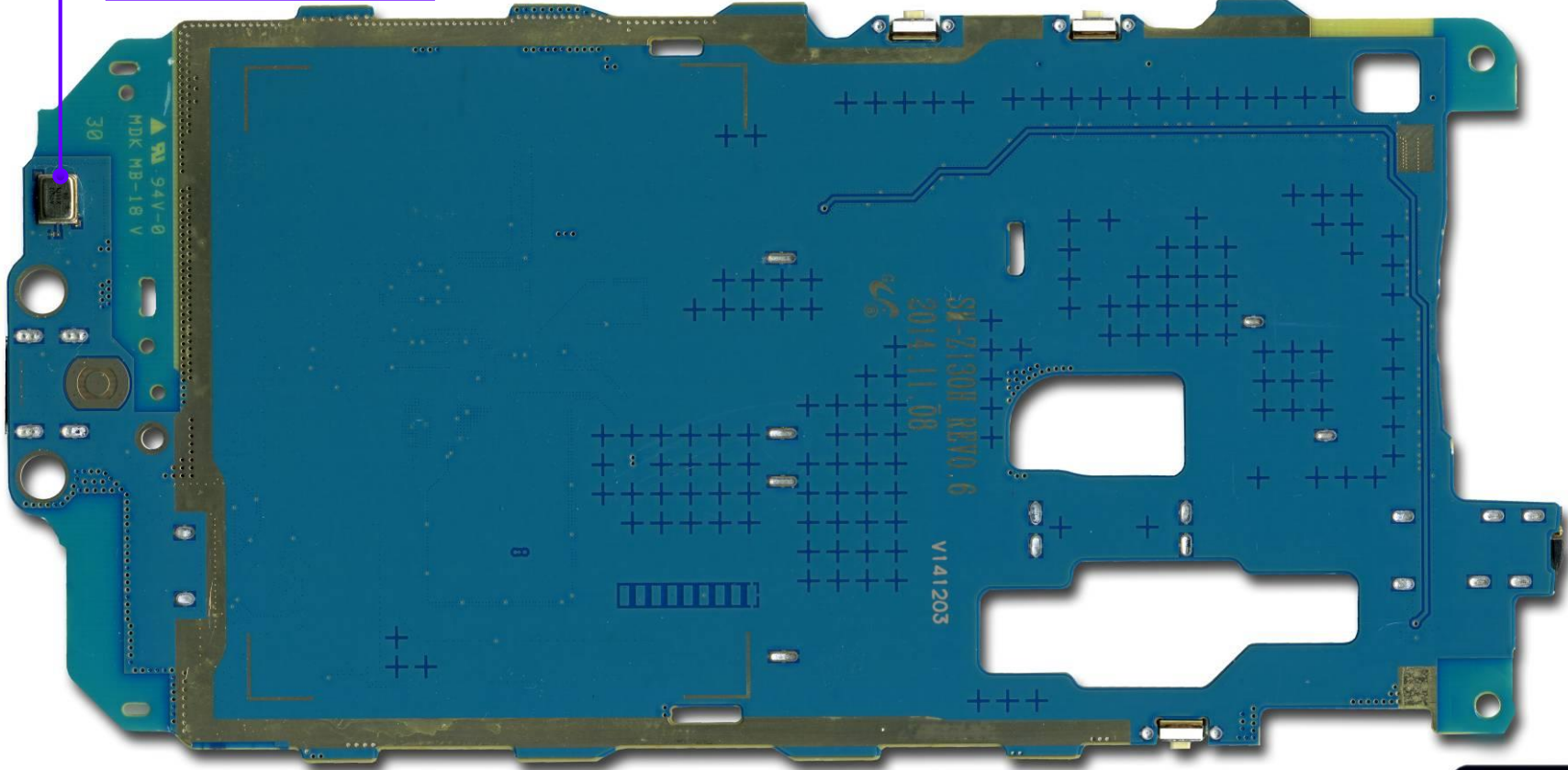
Sensor

Main Board (Side 2)




Main Board (Side 2 ICs)

22 - Cirrus Logic ?
#WM7132PE ?
MEMs Microphone (2-Die Pkg.)



Function:

 Power Management / Audio

? = Unconfirmed

