Apple iPhone 6s Plus - Teardown & Physical Analyses of Key Components

Description: The Apple iPhone 6s Plus holds many IC components which are listed and reviewed in the report. All these ICs (more than 60 references) have been opened in order to measure the real silicon area consumption. A special focus has been made to highlight the component structure and understand the manufacturing process on “noteworthy” components among 4 selected topics: Advanced packaging, MEMS/Sensor, RF and Imaging. True innovations have been observed in the sensors components like a new process for the MEMS microphone improving the SNR or a 3D packaging with TSV in the fingerprint sensor and many more.

Also a technological comparison with the Samsung Galaxy S6 has been made in order to understand choices made by both smartphone makers.

Key inspected components:

MEMS/Sensors components

Fingerprint sensor – new generation: new packaging, new processes (includes TSV)
eCompass – new supplier, custom product which has never been used in a smartphone
Microphone – new process improving the SNR
6-Axis IMU – new reference, custom design
Ambient light sensor – new reference, wafer-level package

Imaging components

Front and rear camera modules
Flash LED – flip-chip integration

Packaging components

Apple A9 Processor – advanced Package-on-Package (PoP) structure
Qualcomm Snapdragon – multi-chip, smallest pitch on the board
Dialog Power management – largest ball count WLP (380-ball)

RF component

Wi-Fi & Bluetooth combo module
Power Amplifier Module

Contents:

1. Executive Summary
2. Apple iPhone 6s Plus Teardown
3. Electronic Board
   - High Resolution Pictures
   - ICs Identification
   - ICs Identification (mfr., ref., fcn., pkg. type, size & pin count)
   - ICs Silicon Area
   - Repartition by package type
   - Mfr. Design wins ranking
   - ICs Package footprint & Silicon Area ranking
   - PCB Characteristics
   - PCB Cross-Section
   - PCB min. line width
3. Advanced Packaging
   - Apple A9 PoP
- Package views & dimensions
- Package Opening & Dies measurement
- Package Cross-Section
- Qualcomm Snapdragon
- Package views & dimensions
- Package Opening & Dies measurement
- Package Cross-Section
- Dialog WLP Power Management
- Package views & dimensions
- Package Cross-Section

5. MEMS/Sensors
- Fingerprint Sensor
- Button Assembly View
- Fingerprint sensor Cross-Section
- Sensor dies measurement
- 3-Axis eCompass
- Package views & dimensions
- Package Opening & Dies measurement
- Package Cross-Section
- Microphone
- Package views & dimensions
- Package Opening & Dies measurement
- Package Cross-Section
- 6-Axis IMU
- Package views & dimensions
- Package Opening & Die measurement
- MEMS opening & sensor details
- Cross-Section
- Ambient Light Sensor
- Package views & dimensions
- Package Opening & Die measurement
- Package Cross-Section

6. RF Devices
- 5G Wi-Fi & Bluetooth Combo Chip
- Package views & dimensions
- Package Opening & Dies Measurement
- Package Cross-Section
- Power Amplifier Module
- Package views & dimensions
- Package Opening & Dies measurement
- Package Cross-Section

7. Camera Modules & Flash LED
- 12Mp Rear Camera Module
- Module views & dimensions
- Module Opening & CIS die measurement
- Module Cross-Section
- 5Mp Front Camera Module
- Module views & dimensions
- Module Opening & CIS die measurement
- Module Cross-Section
- Flash LED
- Package views & dimensions
- Package Opening & LED die measurement
- Package Cross-Section

Ordering:

Order Online - [http://www.researchandmarkets.com/reports/3499335/](http://www.researchandmarkets.com/reports/3499335/)

Order by Fax - using the form below
Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Apple iPhone 6s Plus - Teardown & Physical Analyses of Key Components
Web Address: http://www.researchandmarkets.com/reports/3499335/
Office Code: SCH371Q9

Product Format
Please select the product format and quantity you require:

Quantity
Electronic (PDF) - Enterprisewide: □ USD 4071

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: □ Mr □ Mrs □ Dr □ Miss □ Ms □ Prof
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer:

Please transfer funds to:

- Account number: 833 130 83
- Sort code: 98-53-30
- Swift code: ULSBIE2D
- IBAN number: IE78ULSB98533083313083
- Bank Address: Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ___________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World