

Navian Marketing Report

~Medium-term forecast of RF Devices / Modules Market

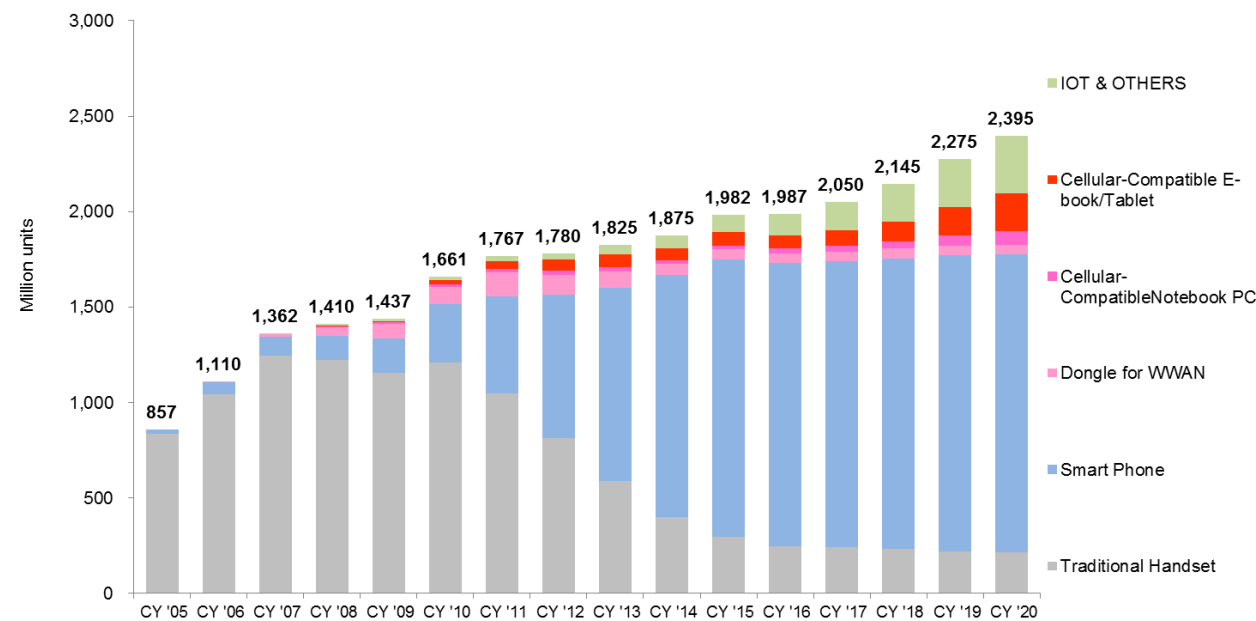
Cheunging RF circuit and RF Devices / Modules by Evolution of LTE~ RF Devices/Modules for Cellular 2016-2017

Available on April 8 2017

RF Devices / Modules For Cellular in this Report

- ①Front end Module (ASM·RX Module·TX Module·PAiD·PAMiD·FEMiD·FILTER BANK·Duplexer Bank·Multiplexer·Antenna Multiplexer) ②Antenna Switch (For Main RF·For RX Diversity) ③Power Amplifier Module ④Duplexer(SAW/BAW/IHP) ⑤Band Pass Filter(SAW/BAW/IHP) ⑥TCXO

Cellular Terminal Shipment Forecast



**e-Book Reader
Tablet PC**

E-book Reader

Tablet PC

**WWAN Terminal
Adapter**

Embedded Module

Smart Phone

**Traditional Handset
Mobile Phone**

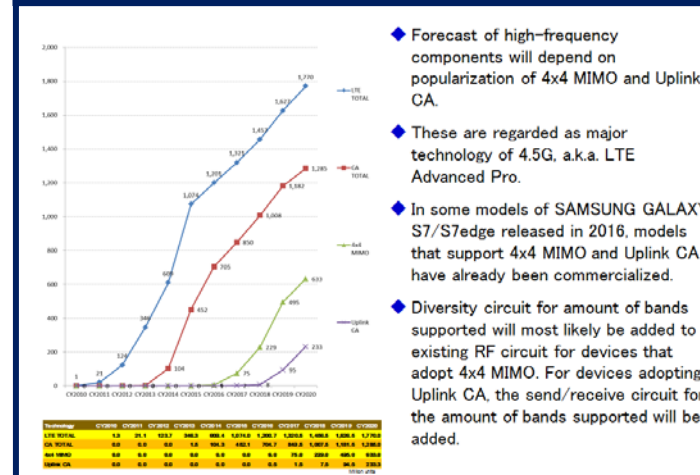
Fixed Wireless Terminal

Non-Voice

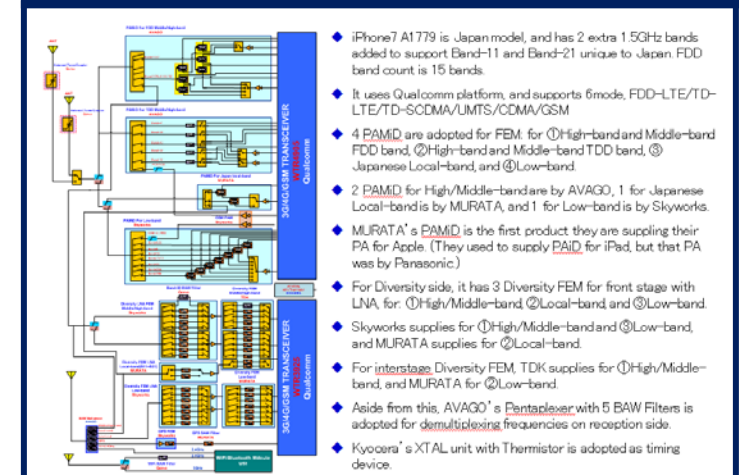
Voice

Report Sample

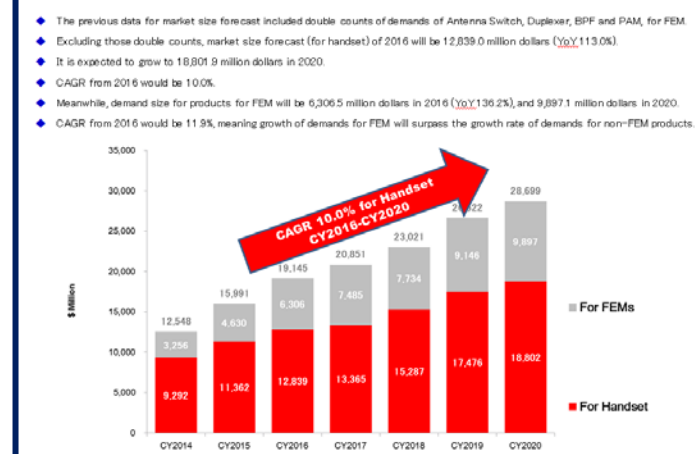
4x4 MIMO & Up link CA Forecast



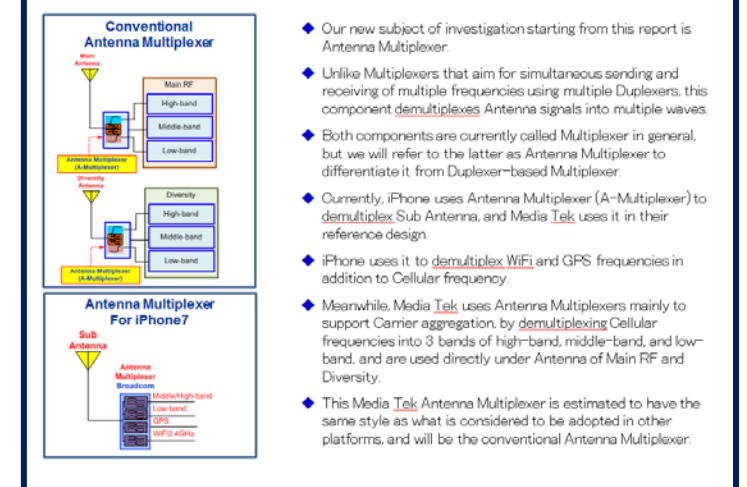
iPhone 7 A1779 Japan Model RF Circuit



RF Devices / Modules Total Market Forecast - For FEMs / For COB -



Antenna-Multiplexer Outline



RF Devices/Modules For Cellular 2016 2017 English version -CD-ROM (PDF file & Excel file)-

- Release Schedule April 8 2017
- Report format 314 SLIDES(Estimated)(PDF file)
PDF file of report/Excel data
- Price ① 220,000JPN for Year's subscribers of Navian quarterly report'
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Phase1. Cellular Terminal Shipment Forecast**I. Cellular Terminal Shipment AND Update**

- Road map of Cellular Standard
- Outline of Cellular Terminals by Product Category
- Cellular Terminal Annual Shipment
- History & Forecast CY2000-CY2016
- Annual Cellular Terminal Shipment Trend by Product Type
- Annual Cellular Terminal Shipment Trend by Cellular Standard
- Annual Cellular Terminal Market Share Trend
- CY2013-CY2016: Cellular Terminal Shipment by Maker & Product Type
- CY2013-CY2016: Cellular Terminal Shipment by Maker & Product Type

II. Cellular Terminal Shipment Forecast –CY2020

- Road map of Cellular Standard
- Cellular Standard Outline & Trend
- Cellular Multi-band/Multi-mode Trend
- Cellular Terminal Forecast by Product Type
- Cellular Terminal Forecast by Cellular Standard
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- Cellular-capable Non-voice Terminals
- Examples of Multi-SIM Service
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- Band Count Forecast by Duplex Method
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- 4x4 MIMO & Up link CA Forecast
- 4x4 MIMO & Up link CA Forecast
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- FDD Band Forecast by Band Plan
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- RX Diversity Compatible Terminal forecast

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- Apple & SAMSUNG Major Products Shipment Volume CY2013-CY2016
- RF Device & Module Count for iPhone & GALAXY S
-RF circuit example and RF Devices / Modules usage-
- RF Devices & Modules Count in Successive iPhones
- RF Devices & Modules Count in Successive GALAXY S
- RF Devices & Modules for iPhone :iPhone 3G- iPhone 6s
- RF Devices & Modules for iPhone : GALAXY S - S6
- RF Block diagram estimation of SAMSUNG Smartphones
GALAXY S4 E330S LTE-A / GALAXY S4 i9505 - LTE :Qualcomm Chipset
GALAXY S4 i9500 / GALAXY S4 mini GT-I9195 LTE / GALAXY S4 mini GT-I9190
SAMSUNG Galaxy S5 SM-G900F / GALAXY S6 SM-G920F Global Model
GALAXY S6 SM-G9208 Chinese Model / Samsung Galaxy J1 J100F Duos 4G
Samsung GALAXY A3 Dual SIM SM-A3000 / SAMSUNG GALAXY J2 Prime

SM-G532 / SAMSUNG GALAXY ON8 SM-J710FZDGINS / GALAXY S7 SM-G935F / GALAXY S7 SM-G9350

9. RF Block diagram estimation of iPhones

Apple 4S/iPhone5 A1429/iPhone5 A1428/iPhone5S/5C TDD/FDD/iPhone5S/5C FDD/
iPhone6_A1586 TDD/FDD/ iPhone6_A1549 FDD/ iPhone6S A1688/ iPhone 6S Plus
A1634 / iPhone 7 A1779 Japan Model / iPhone 7 A1778 Global Model

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III. 3G/4G Platform Forecast

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- UMTS/GSM RF Platform share by Terminal Brand CY2014-CY2015

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- 4G RF Platform Examples
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- Karbons Quattro L50HD / 4. Micromax Canvas Pulse E451 / 5. LAVAA71 4G
6. iPhone SE A1723 / 7. Huawei P9 EVA-L09 / 8. OPPO R9m / 9. OPPO R9 Plasm
10. ZTE NUBIA Z11 Mini NX529J / 11. iPhone 7 A1779 JAPAN Model
12. SAMSUNG GALAXY J2 Prime / 13. SAMSUNG GALAXY ON8
14. Huawei Honor 6X / 15. iPhone 7 A1778 - Global model -

Phase4. RF Devices / Modules Market Status & Forecast CY2012-CY2018**I. RF Devices / Modules Total Market Forecast**

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- RF Devices / Modules Total Market Forecast - For FEMs / For COB -
- RF Devices / Modules Total Market Forecast by Product- Except overlap -
- RF Devices / Modules Total Market Forecast Detail Data- Except overlap -
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- RF Devices / Modules For Apple vs OTHERS
- RF Devices / Modules For Cellular Market Share Breakdown -CY2014-CY2016-

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- Sub Front End Module Variation & Circuit Examples
- PAMID as the most promising FEM in history
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