Navian Marketing Report

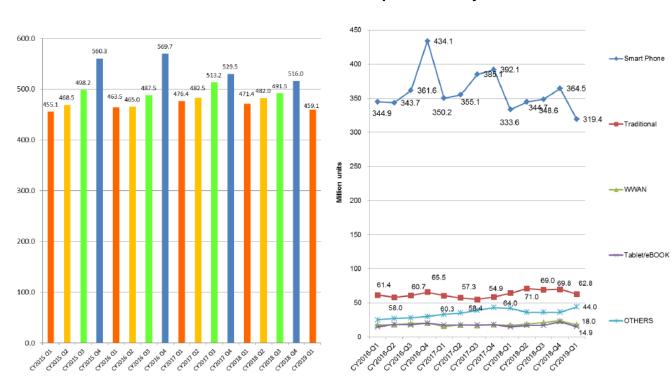
RF Devices/Modules For Cellular Terminal Quarterly Market Report Q1 2019

Released on September 5, 2019

RF Components & Modules in This Report

- 1 Front end Module (ASM-TX Module-PAiD-FEMiD-All-in-One FEM-PAMiD-5G TX Module/PAMiF-NEW- Multiplexer-A-Multiplexer-5G RX Module-NEW)
- 2 Antenna Switch (Main RF/Diversity) Power Amplifier Module 4 Duplexer
- **⑤Band Pass Filter ⑥TCXO**

Cellular Terminal Shipment History



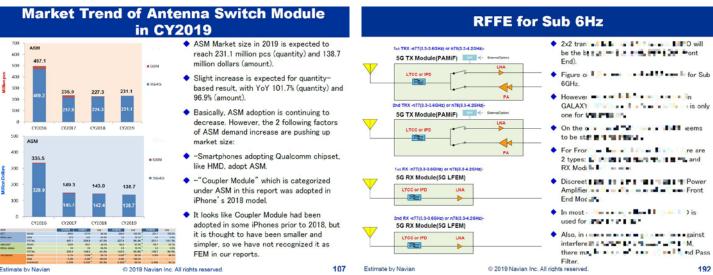




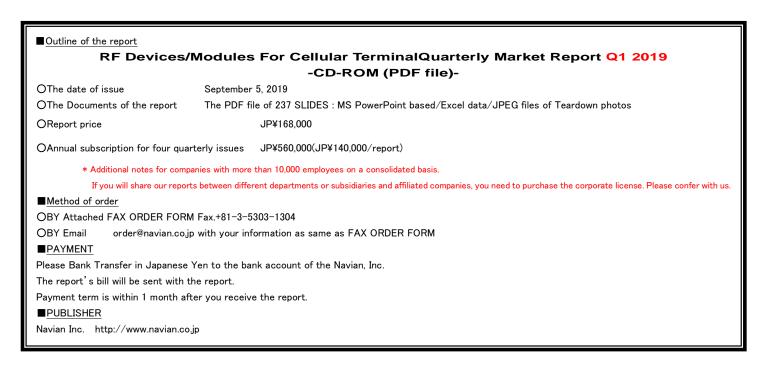




Report Sample







PHASE 1. CELLULAR TERMINAL SHIPMENT

AND UPDATE

- 1. Cellular Terminal Quarterly Shipment History
- 2. Cellular Terminal Quarterly Shipment by Product Type
- 3. Cellular Terminal Quarterly Shipment by Standard
- 4. Cellular Terminal Annual Shipment
- 5. Annual Shipment History CY2001-CY2019
- 6. Annual Cellular Terminal Shipment Trend by Product Type
- 7. Annual Cellular Terminal Shipment Trend by Cellular Standard

PHASE 2. SHIPMENT AND STATUS OF CELLULAR TERMINAL KEY MANUFACTURER

- Cellular Terminal Shipment by Maker & Product Type
 Q1 CY2016-Q1 CY2019
- Cellular Terminal Shipment by Maker & & Cellular Standard
 Q1 CY2016-Q1 CY2019
- 3. Annual Cellular Terminal Market Share Trend
- (1) Cellular Terminal Shipment by Manufacturer & Product Type CY2015-CY2019
- (2) Cellular Terminal Shipment by Manufacturer & Cellular Standard CY2015-CY2019
- 4. RF Platform Market Share by Cellular Terminal Manufacturer
- (1) UMTS RF Platform Market Share by Cellular Terminal Manufacturer Quarterly data: Q1 CY2016-Q1 CY2019
- (2) UMTS RF Platform Market Share by Cellular Terminal Manufacturer Quarterly data: Q1 CY2016-Q1 CY2019 Annual data: CY2016-CY2019

PHASE 3. RF Devices / Modules

Annual data: CY2016-CY2019

For Cellular Market Trend

- 1. Front End Modules
- (1) Quarterly Front End Module Market Trend
- (2) Annual Front End Module Market Trend by Product
- (3) Detailed Data of Front End Module Marke
- (4) Q1 CY2019 : Front End Module Market Size & Trend by Product
- ①Antenna Switch Module
- ②TX Module
- 3FEMiD
- 4All-in-One FEM

⑤PAMiD

- 65G TX Module(PAMiF)
- ⑦PAiD

- 105G RX Module
- 2. Antenna Switches
- (1) Antenna Switch Market Size in Q1 CY2019

Antenna Switch TOTAL Market Size

Antenna Switch for Main RF Market Size by Throw Count

Antenna Switch for Main RF Market Size by Substrate

Antenna Switch for Diversity Market Size by Substrate

- (2) Quarterly Detailed Data of Antenna Switches
- (3) Annual Market Size of Antenna Switch in CY2019

Market Size of Antenna Switch

Market Size of Antenna Switch for Main RF by Throw Count

Market Size of Antenna Switch for Main RF by Substrate

Market Size of Antenna Switch for Diversity by Substrate

- (4) Annual Detailed Data of Antenna Switch Market
- 3. Power Amplifier Module
- (1) Power Amplifier Module Market Size in Q1 CY2019
- (2) Annual Market Size of Power Amplifier Module by Product Type in CY2019
- (3) Annual Detailed Data of Power Amplifier Module Market
- Duplexers
 - (1) Duplexer Market Size in Q1 CY2019
- (2) Annual Market Size of Duplexer by Band in CY2019
- (3) Annual Detailed Data of Duplexer Market
- 5. Band Pass Filters
- (1) Band Pass Filter Market Size in Q1 CY2019
- (2) Annual Market Size of Band Pass Filter in CY2019
- 6. TCXOs
- (1) TCXO Market Size in Q1 CY2019
- (2) Annual Market Size of TCXO in CY2019

PHASE 4.RF COMPONENT/MODULE KEY MANUFACTURER TEREND

- 1. Front End Modules
- (1) Antenna Switch Module

ASM Market Share for Q2 CY2019 Forecast & CY2018 Forecast ASM Market Share Breakdown per Product Type

(2) RX Module

RX Module Market Share for Q1 CY2019 & CY2019 Forecast
RX Module Market Share Breakdown per Product Type

(3) TX Module

TX Module Market Share for Q1 CY2019 & CY2019 Forecast
TX Module Market Share Breakdown per Product Type

(4) FEMiD

FEMiD Market Share for Q1 CY2019 & CY2019 Forecast FEMiD Market Share Breakdown per Product Type

(5) PAiD

PAiD Market Share for Q1 CY2019 & CY2019 Forecast
PAiD Market Share Breakdown per Product Type

(6) Filter Bank

Filter Bank Market Share for Q1 CY2019 & CY2019 Forecast Filter Bank Market Share Breakdown per Product Type

(6) Duplexer Bank

Duplexer Bank Market Share for Q1 CY2019 & CY2019 Forecast Duplexer Bank Market Share Breakdown per Product Type

(7) Multiplexer

Multiplexer Market Share for Q1 CY2019 & CY2019 Forecast

Multiplexer Market Share Breakdown per Product Type

2. Antenna Switches

(1) Antenna Switch Market Share for Q1 CY2019 & CY2019 Forecast Antenna Switch for Main RF

Antenna Switch for Main RF =>SP7T

(2) Quarterly Antenna Switch for Main RF Market Share Breakdown

per Product Type

(3) Annual Antenna Switch for Main RF Market Share Breakdown

per Product Type

(4) Quarterly Antenna Switch for Diversity Market Share Breakdown

per Product Type

per Product Type

(5) Annual Antenna Switch for Diversity Market Share Breakdown

(6) Antenna Switch Supply chain

- 3. Power Amplifier Module
- (1) PAM Market Share for Q1 CY2019 & CY2019 Forecast
- (2) 3G/4G PAM Market Share for Q1 CY2019 & CY2019 Forecast
- (3) UMTS PAM Supply chain
- (4) M/M PAM Type & Supply Chain

- (5) M/M PAM Market Share for Q1 CY2019 & CY2019 Forecast
- (6) MM PA Shipment Breakdown per Manufacturer
- (7) Quarterly PAM Market Share Breakdown per Product Type
- (8) Annual Power Amplifier Module Market Share Breakdown

per Product Type

4. Duplexers

- (1) Duplexer Market Share for Q1 CY2019 & CY2019 Forecast
- (2) Duplexer Supply chain
- (3) Quarterly Duplexer Market Share Breakdown per Product Type
- (4) Annual Duplexer Market Share Breakdown per Product Type
- 5. Band Pass Filters
- (1) BPF Market Share for Q1 CY2019 & CY2019 Forecast
- (2) BPF Market Share history by Product Type: SAW & BAW
- 6. TCXOs
- (1) TCXO Market Share for Q1 CY2019 & CY2019 Forecast
- (2) TCXO Market Share Breakdown per Product Type
- (3) TCXO Supply chain

PHASE 5. 5G Situation & Forecast

1.5G Shipment CY2018-CY2020

2.ANTENNA FEM for Millimeter Wave

3.RFFE for Sub 6Hz

4.5G RFFR Market Forecast in CY2019

5.5G RFFR Market Forecast in CY2019

6.5G RFFR Vendor Trend in CY2019

PHASE 6. Hot Products Teardown

1. Teardown Summary

Product outline: Product type/Release date/price/Network RF Components / Modules useage

2. SAMSUNG GALAXY S10 5G SM-G977N

- World First's Korean 5G Smart phone Motorola 5G moto mod
- 5G Millimeter Wave Adapter for MOTOROLA moto z3-
- 4. Huawei P30 ELE-L29
- Latest Huawei High-end Smart phone -
- 5. OPPO AX7 CPH1903(GN)
- OPPO Low-end Smart phone-



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RF Devices/Modules For Cellular Terminal Quarterly Market Report English Version

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RF Devices/Modules Fo Quarterly Market Repor	JPY168,000		
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