

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-CY2020
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

1. Cellular Terminal Shipment by Maker & Product Type
Q1 CY2016-Q3 CY2019
2. Cellular Terminal Shipment by Maker & Cellular Standard
Q1 CY2016-Q3 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-CY2020
4. RF Platform Market Share by Cellular Terminal Manufacturer
 - (1) UMTS RF Platform Market Share by Cellular Terminal Manufacturer
Quarterly data: Q1 CY2016-Q3 CY2019
Annual data: CY2016-CY2019
 - (2) UMTS RF Platform Market Share by Cellular Terminal Manufacturer
Quarterly data: Q1 CY2016-Q3 CY2019
Annual data: CY2016-CY2019

PHASE 3. RF Devices / Modules 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) Q3 CY2019 : Front End Module Market Size & Trend by Product
 - ①Antenna Switch Module
 - ②TX Module
 - ③FEMiD
 - ④All-in-One FEM

- ⑤PAMiD
- ⑦PAiD
- ⑧Multiplexer (Quadplexer/Hexaplexer)
- ⑨Antenna –Multiplexer
2. Antenna Switches
 - (1) Antenna Switch Market Size in Q3 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 Q3 CY2019
 - (2) Annual Market Size of Power Amplifier Module by Product Type in CY2019
 - (3) Annual Detailed Data of Power Amplifier Module Market
4. Duplexers
 - (1) Duplexer Market Size in Q3 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 Q3 CY2019
 - (2) Annual Market Size of Band Pass Filter in CY2019
6. TCXOs
 - (1) TCXO Market Size in Q3 CY2019
 - (2) Annual Market Size of TCXO in CY2019

PHASE 4. RF COMPONENT/MODULE KEY MANUFACTURER TREND

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 Q3 CY2019 & CY2019 Forecast

- RX Module Market Share Breakdown per Product Type
- (3) TX Module
TX Module Market Share for Q3 CY2019 & CY2019 Forecast
TX Module Market Share Breakdown per Product Type
- (4) FEMiD
FEMiD Market Share for Q3 CY2019 & CY2019 Forecast
FEMiD Market Share Breakdown per Product Type
- (5) PAiD
PAiD Market Share for Q3 CY2019 & CY2019 Forecast
PAiD Market Share Breakdown per Product Type
- (6) Filter Bank
Filter Bank Market Share for Q3 CY2019 & CY2019 Forecast
Filter Bank Market Share Breakdown per Product Type
- (6) Duplexer Bank
Duplexer Bank Market Share for Q3 CY2019 & CY2019 Forecast
Duplexer Bank Market Share Breakdown per Product Type
- (7) Multiplexer
Multiplexer Market Share for Q3 CY2019 & CY2019 Forecast
Multiplexer Market Share Breakdown per Product Type
2. Antenna Switches
 - (1) Antenna Switch Market Share for Q3 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
 - (5) Annual Antenna Switch for Diversity Market Share Breakdown
per Product Type
 - (6) Antenna Switch Supply chain
3. Power Amplifier Module
 - (1) PAM Market Share for Q3 CY2019 & CY2019 Forecast
 - (2) 3G/4G PAM Market Share for Q3 CY2019 & CY2019 Forecast
 - (3) UMTS PAM Supply chain
 - (4) M/M PAM Type & Supply Chain
 - (5) M/M PAM Market Share for Q3 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 Q3 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 Q3 CY2019 & CY2019 Forecast
 - (2) BPF Market Share history by Product Type: SAW & BAW
6. TCXOs
 - (1) TCXO Market Share for Q3 CY2019 & CY2019 Forecast
 - (2) TCXO Market Share Breakdown per Product Type
 - (3) TCXO Supply chain

PHASE 5. 5G Situation & Forecast

1. 5G Shipment CY2019-CY2020
2. ANTENNA FEM for Millimeter Wave
3. 5G RFFE Case Studies -Sub 6GHz-
Sub 6GHz RFFE of
SAMSUNG GALAXY S10 5G SM-G977N
Sub 6GHz RFFE of Huawei MATE20X5 EVR-AN00
Sub 6GHz RFFE of Xiaomi Mi Mix 3 5G M1810E5GG
4. 5G RFFE Market Forecast in CY2019
5. 5G RFFE Market Forecast in CY2019
6. 5G RFFE Vendor Trend in CY2019RFFE for Sub 6Hz
7. 5G RFFR Market Forecast in CY2019
8. Table: 5G RFFR Market Forecast in CY2019
9. 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. 1. iPhone 11Pro A2215
- 2019model Latest iPhone-
3. Huawei MATE 20X 5G
-Huawei First 5G Smart phone-
Dual band Sub 6GHz & n41 for 5G
4. Xiaomi Mi MIX 3 5G
- Xiaomi First 5G Smart phone-

ORDER FORM
ATTN: NAVIAN INC.
Fax : +81-3-5303-1304

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

Report Title	Price	Initial
RF Devices/Modules For Cellular Terminal Quarterly Market Report Q3 2019 PDF File	JPY168,000	
<input checked="" type="checkbox"/> Annual Report (four quarterly issues)	JPY560,000	

* Additional notes for companies with more than 10,000 employees on a consolidated basis.

If you will share our reports between different departments or subsidiaries and affiliated companies, you need to purchase the corporate license. Please confer with us.

Annual subscribers (four quarterly issues) – please check ONE invoicing option below.

- Full invoicing (invoiced upon first report delivery).
 Split invoicing (quarter invoicing upon quarterly report delivery).

YOUR P.O. NUMBER	<i>For our invoice referencing purpose.</i>
------------------	---

Date of order	(YYYY)	/ (MM)	/ (DD)			
First name		Last name				
Company						
Job title		Department				
Address						
State/Province		Zip code		Country		
Contact Phone		FAX				
E-mail	@					

Authorizing Signature

Signature Date

CONTACT

ATTN: Yoshiyasu Andoh
E-mail: andoh@navian.co.jp

Navian Inc.
2-18-2, Zenpukuji, Suginami-ku, Tokyo 167-0041, Japan
Phone: +81-3-5303-1303
Fax: +81-3-5303-1304