

# Navian Marketing Report

## RF Devices/Modules For Cellular Terminal

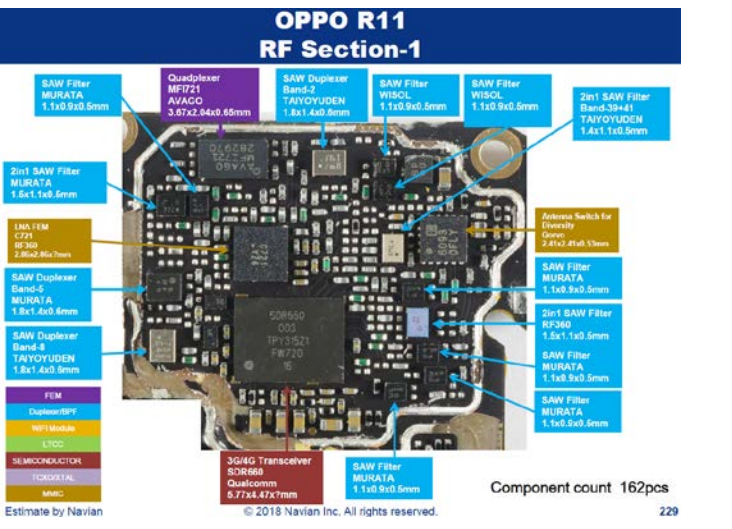
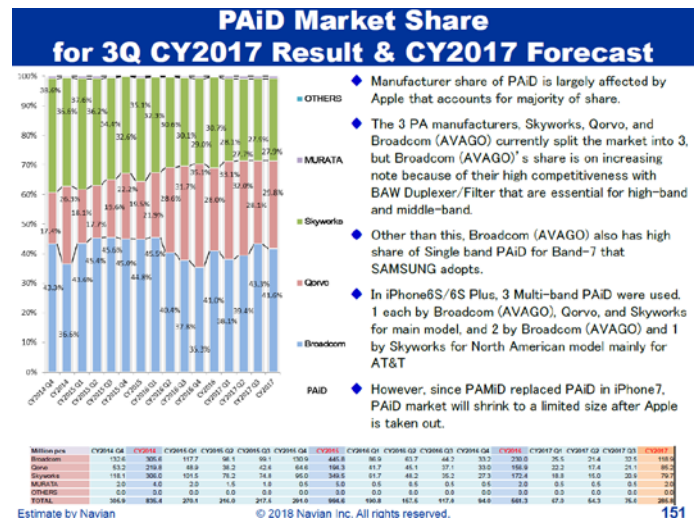
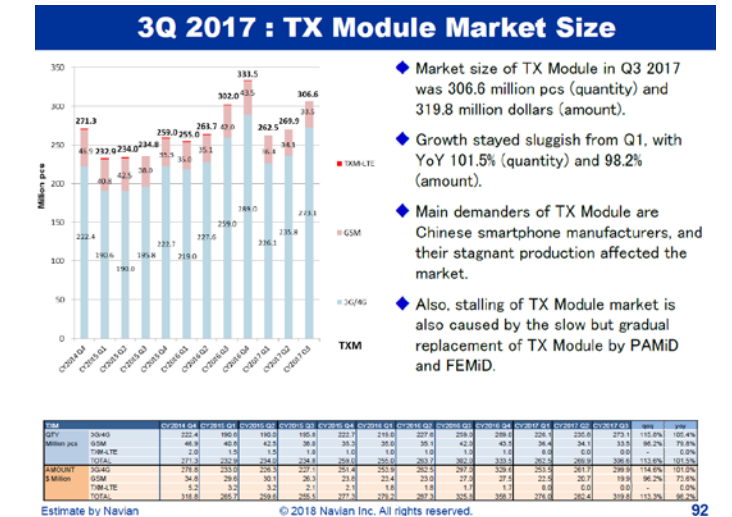
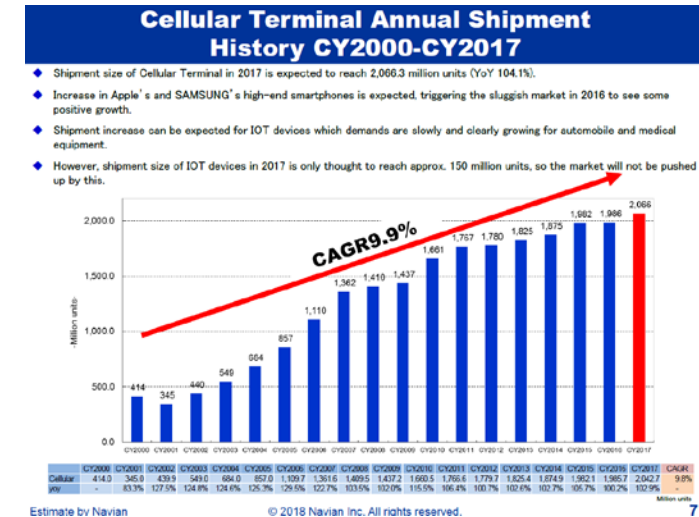
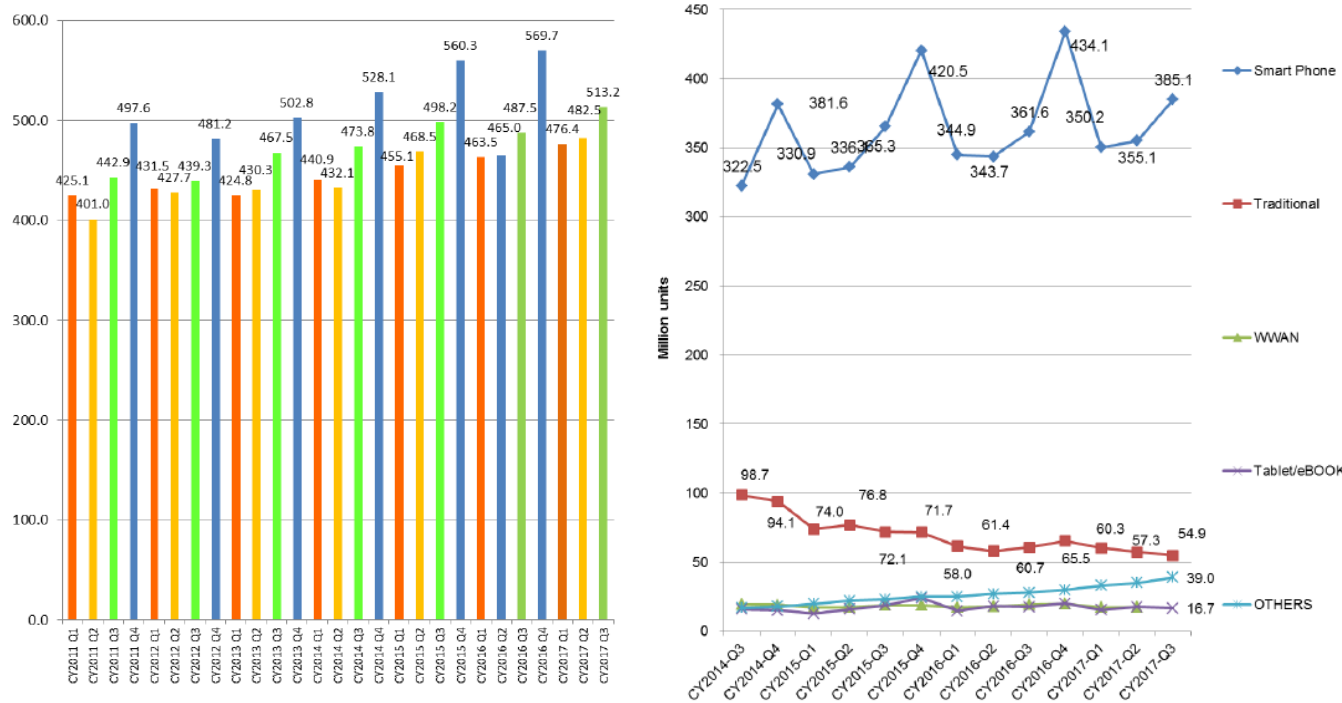
### Quarterly Market Report Q3 2017

Released on January 30th 2018

#### RF Devices/Modules for Cellular Terminal in the report

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

#### Cellular Terminal Shipment History



#### e-Book Reader

#### Tablet PC

#### WWAN Terminal

#### Adapter

#### Embedded Module

#### Smart Phone

#### Traditional Handset

#### Mobile Phone

#### Fixed Wireless Terminal

Non-Voice

Voice

#### Outline of the report

### RF Devices/Modules For Cellular Terminal Quarterly Market Report Q3 2017

-CD-ROM (PDF file)-

- The date of issue: January 30, 2018
- The Documents of the report: The PDF file of 231 SLIDES : MS PowerPoint based/Excel data/JPEG files of Teardown photos
- Report price: JP¥168,000
- Annual subscription for four quarterly issues: JP¥560,000 (JP¥140,000/report)

\* 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.

#### Method of order

○ BY Attached FAX ORDER FORM Fax.+81-3-5303-1304

○ BY Email: order@navian.co.jp with your information as same as FAX ORDER FORM

#### PAYMENT

Please Bank Transfer in Japanese Yen to the bank account of the Navian, Inc.

The report's bill will be sent with the report.

Payment term is within 1 month after you receive the report.

#### PUBLISHER

Navian Inc. <http://www.navian.co.jp>

**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 CY2000-CY2017
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  
1Q 2014-3Q2017
2. Cellular Terminal Shipment by Maker & Cellular Standard  
1Q 2014-3Q2017
3. Annual Cellular Terminal Market Share Trend
  - (1) Cellular Terminal Shipment by Manufacturer & Product Type  
CY2014-CY2017
  - (2) Cellular Terminal Shipment by Manufacturer & Cellular Standard  
CY2014-CY2017
4. RF Platform Market Share by Cellular Terminal Manufacturer
  - (1) UMTS RF Platform Market Share by Cellular Terminal Manufacturer  
Quarterly data: 1Q 2014-3Q2017  
Annual data: CY2013-CY2017
  - (2) UMTS RF Platform Market Share by Cellular Terminal Manufacturer  
Quarterly data: 1Q 2014-3Q2017  
Annual data: CY2013-CY2017

**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 Market
  - (4) 3Q2017 : Front End Module Market Size & Trend by Product
    - ①Antenna Switch Module
    - ②RX Module
    - ③TX Module
    - ④FEMiD
    - ⑤All-in-One FEM

- ⑥PAMiD
- ⑦PAiD
- ⑧Filter Bank
- ⑨Duplexer Bank
- ⑩Multiplexer (Quadplexer/Hexaplexer)
- ⑪Antenna –Multiplexer
2. Antenna Switches
  - (1) Antenna Switch Market Size in 3Q2017
    - 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 CY2017
    - Market Forecast of Antenna Switch
    - Market Forecast of Antenna Switch for Main RF by Throw Count
    - Market Forecast of Antenna Switch for Main RF by Substrate
    - Market Forecast 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 3Q2017
  - (2) Annual Market Size of Power Amplifier Module by Product Type in CY2017
  - (3) Annual Detailed Data of Power Amplifier Module Market
4. Duplexers
  - (1) Duplexer Market Size in 3Q2017
  - (2) Annual Market Size of Duplexer by Band in CY2017
  - (3) Annual Detailed Data of Duplexer Market
5. Band Pass Filters
  - (1) Band Pass Filter Market Size in 3Q2017
  - (2) Annual Market Size of Band Pass Filter in CY2017
6. TCXOs
  - (1) TCXO Market Size in 3Q2017
  - (2) Annual Market Size of TCXO in CY2017

**PHASE 4. RF COMPONENT/MODULE KEY MANUFACTURER TREND**

1. Front End Modules
  - (1) Antenna Switch Module
    - ASM Market Share for Q3 CY2017 Result & CY2017 Forecast
    - ASM Market Share Breakdown per Product Type
  - (2) RX Module

- RX Module Market Share for Q3 CY2017 Result & CY2017 Forecast
  - RX Module Market Share Breakdown per Product Type
- (3) TX Module
  - TX Module Market Share for Q3 CY2017 Result & CY2017 Forecast
  - TX Module Market Share Breakdown per Product Type
- (4) FEMiD
  - FEMiD Market Share for Q3 CY2017 Result & CY2017 Forecast
  - FEMiD Market Share Breakdown per Product Type
- (5) PAiD
  - PAiD Market Share for Q3 CY2017 Result & CY2017 Forecast
  - PAiD Market Share Breakdown per Product Type
- (6) Filter Bank
  - Filter Bank Market Share for Q3 CY2017 Result & CY2017 Forecast
  - Filter Bank Market Share Breakdown per Product Type
- (6) Duplexer Bank
  - Duplexer Bank Market Share for Q3 CY2017 Result & CY2017 Forecast
  - Duplexer Bank Market Share Breakdown per Product Type
- (7) Multiplexer
  - Multiplexer Market Share for Q3 CY2017 Result & CY2017 Forecast
  - Multiplexer Market Share Breakdown per Product Type
2. Antenna Switches
  - (1) Antenna Switch Market Share for Q3 CY2017 Result & CY2017 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 CY2017 Result & CY2017 Forecast
  - (2) 3G/4G PAM Market Share for Q3 CY2017 Result & CY2017 Forecast
  - (3) UMTS PAM Supply chain
  - (4) M/M PAM Type & Supply Chain

- (5) M/M PAM Market Share for Q3 CY2017 Result & CY2017 Forecast
- (6) M/M 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 CY2017 Result & CY2017 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 CY2017 Result & CY2017 Forecast
  - (2) BPF Market Share history by Product Type: SAW & BAW
6. TCXOs
  - (1) TCXO Market Share for Q3 CY2017 Result & CY2017 Forecast
  - (2) TCXO Market Share Breakdown per Product Type
  - (3) TCXO Supply chain

**PHASE 5. Hot Products Teardown**

1. Teardown Summary
  - Product outline: Product type/Release date/price/Network
  - RF Components / Modules usage
2. iPhone8 Plus A1897 Global model
  - (1) RF Components and Modules in iPhone 8/8+
  - (2) RF Circuit Block-diagram Estimation
  - (3) Motherboard pictures & Major components/modules
  - (4) RF Section pictures & RF Components / Modules
3. ONEPLUS 5 A5000
  - (1) RF Circuit Block-diagram Estimation
  - (2) Motherboard pictures & Major components/modules
  - (3) RF Section pictures & RF Components / Modules
4. GALAXY J5 Pro SM-J530FZKDXSG
  - (1) RF Circuit Block-diagram Estimation
  - (2) Motherboard pictures & Major components/modules
  - (3) RF Section pictures & RF Components / Modules
5. OPPO R11
  - (1) RF Circuit Block-diagram Estimation
  - (2) Motherboard pictures & Major components/modules
  - (3) RF Section pictures & RF Components / Modules

**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 <b>Q3 2017</b> 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