

# Navian Marketing Report

Front End Module と高周波部品市場の中期展望

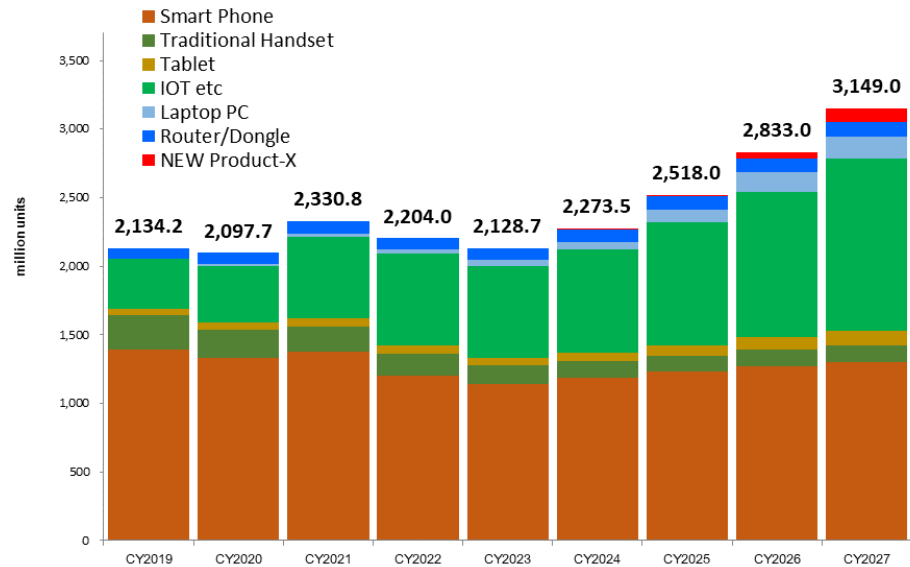
## RF Devices/Modules for Cellular 2023-2024

2024 年 5 月 1 日 発刊

本レポートで対象とする RF Devices / Modules

- ①Front end Module (ASM・RX Module・TX Module・PAiD・PAMiD・FEMiD・Multiplexer・Antenna Multiplexer・5G TX Module/PAMiF・AIP・mmW Module) ②Antenna Switch (For Main RF・For RX Diversity) ③Power Amplifier Module ④Duplexer(SAW/BAW/TF-SAW) ⑤Band Pass Filter(SAW/BAW/TF-SAW/LTCC for Sub 6GHz/IPD for Sub 6GHz) ⑥TCXO

### Cellular Terminal Shipment Forecast by Product Type



**New Product X**

表示や入出力がSmart phone等の既存のMobile機器とは一線を画す5G時代を牽引する新型機器の登場を予想。



**Cellular PC/Tablet**

5Gの実用化に伴って、Tablet・Notebook PCのCellular搭載が本格化。Notebook PC・Tablet市場を刺激するカンフル剤としても期待。



**Cellular IOT**

Cellular Terminalの次代を担う成長分野。今後5G(含む5G Redcap)化の進展も期待されRF部品需要を押し上げる。



**Smart phone**

Cellular市場の主役も成熟化によって、成長は鈍化。5G化やWiFi、NTN(衛星通信)等の採用によってRFFEは複雑化が進む。



**Cellular V2X**

Cellular V2Xの搭載率は50%程度だが、今後100%に。5G化は2-3年後より本格化。CategoryとしてはIOTに分類される。



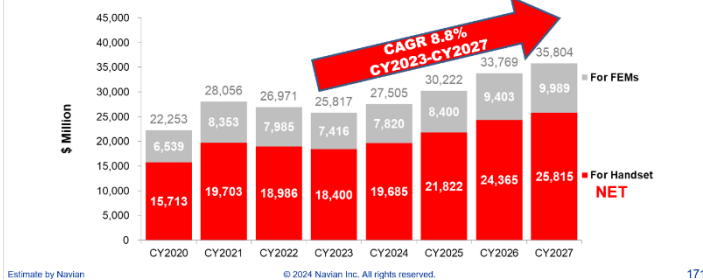
**Cellular Wearable Devices**

スマートウオッチ等でCellular機能付きの製品。5G化例は未だなく。RFFEのコンテンツ増加は形状的に期待しにくい。

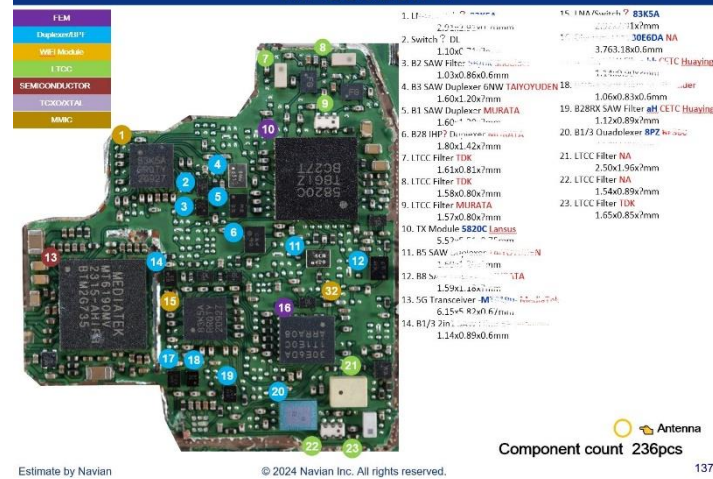
# Report Sample

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

- ◆ 先の市場規模予測のデータは、Antenna Switch・Duplexer・BPF・PAMのFEM向け需要分、及びFEM向けMultiplexerをダブルカウントしたもの。
- ◆ これらRFFE向けの需要を除いた2023年における市場規模(For Handset)は、前年比96.9%の18,400.2million dollarsとなった。
- ◆ 2027年の市場規模は25,815.2million dollarsに拡大すると予測した。
- ◆ 2023年からの年平均成長率は8.8%となる。
- ◆ 一方、FEM向けの市場規模は、2023年で前年比92.9%の7,416.4million dollarsと大きく減少した。
- ◆ 2024年以降も、Handset向け(COB)の成長率を下回る傾向が継続し、2027年のFEM向けの市場規模は9,988.5million dollarsとなる。
- ◆ FEM向けの2023年からの年平均成長率は7.7%と、handset向けの年平均成長率8.8%を下回ることになる。



## itel Power 55 RF Section-1



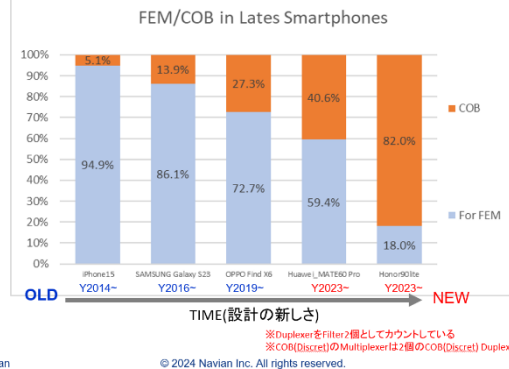
## NTN for Mobile service Outline-1/2

- ◆ Smartphone等のMobile機器向けのNTN(Non Terrestrial Networks) サービスが注目されている。
- ◆ 代表的なネットワークとしては、衛星通信サービスとなる。
- ◆ 現在、AppleのiPhoneやHUAWEIの一部のSmartphoneで、NTN専用の周波数を使用した衛星通信サービスが実用化されている。
- ◆ この他、既存のCellular周波数を使用した衛星通信サービスも近々に実用化される見通し。

| Cellular Operator/Satellite                        |                  | Smartphone OEM/Satellite                                       |                  |
|----------------------------------------------------|------------------|----------------------------------------------------------------|------------------|
| Cellular事業者と衛星通信事業者が既存のCellular周波数を使用して行う衛星通信サービス。 |                  | AppleやHUAWEI等のSmartphoneメーカーと衛星通信事業者がNTN専用の周波数を使用して行う衛星通信サービス。 |                  |
| Band1                                              | Space X/KDDI     | n254                                                           | Globalstar/Apple |
| Band2                                              | Space X/T-Mobile | n255                                                           | Tiantong/HUAWEI  |
| Band3                                              | AST/Rakuten      | L-Band                                                         | Beidu/HUAWEI     |

## Filter demand by FEM/COB in Latest 5G Smartphones

- ◆ iPhoneを筆頭に従来型の5G SmartphoneはPAMiDを中心としたFEM採用がメイン。
- ◆ この為、5G普及に伴ってFilter需要はFEM向けが拡大。
- ◆ ところが、HUAWEIやHonorの最新機種ではCOBでの採用が増加傾向に。
- ◆ HONOR90liteでは、PAMiDの採用を止め、全面的にCOBベースのRF設計を採用。



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### 資料発刊要領

## RF Devices/Modules For Cellular 2023-2024 日本語版 -CD-ROM (PDF file & Excel file)-

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# レポート申込用紙

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