

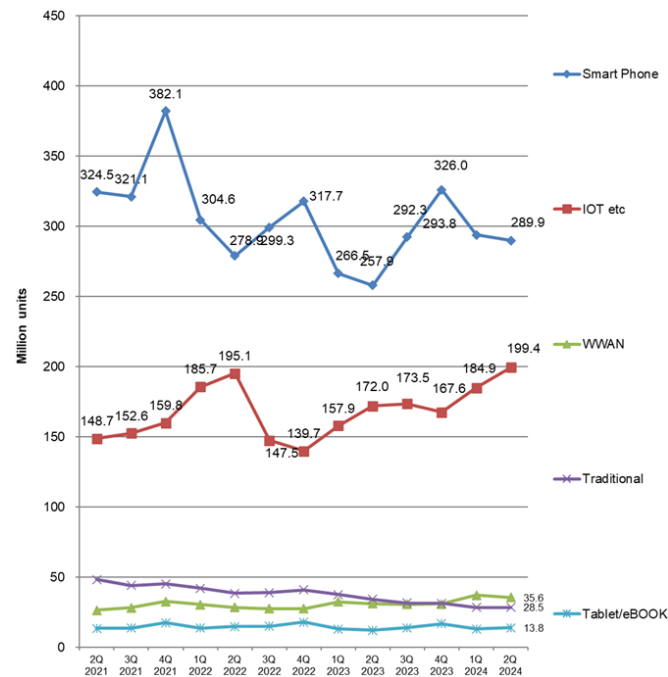
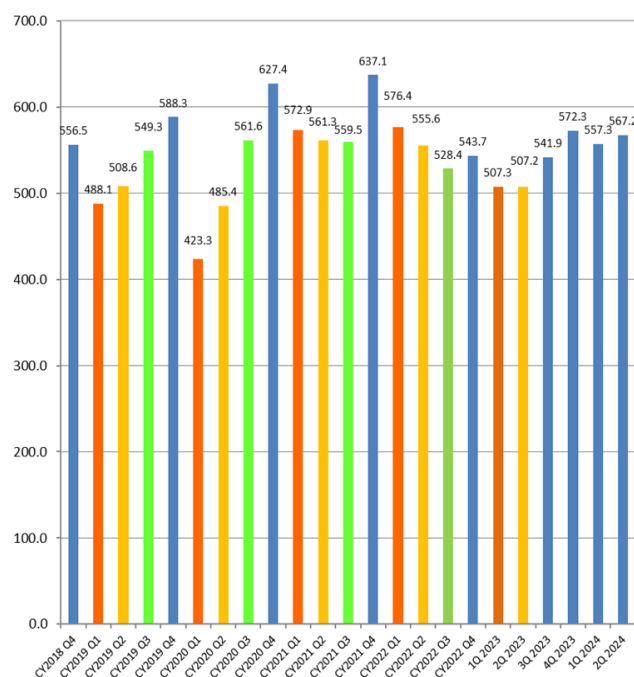
RF Devices/Modules For Cellular Terminal Quarterly Market Report Q2 2024

2024 年 11 月 30 日 発刊

本レポートで対象とする Cellular Terminal 用高周波部品・モジュール

- 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
- ⑤ Band Pass Filter
- ⑥ TCXO

Cellular Terminal の製品タイプ別及び規格別出荷構成比 四半期推移



e-Book Reader Tablet PC



WWAN Terminal

Adapter



Embedded Module



Smart Phone



Traditional Handset

Mobile Phone



Fixed Wireless Terminal

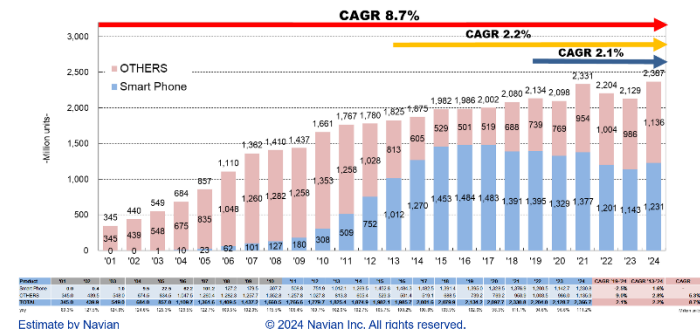


Non-Voice

Voice

Cellular Terminal Annual Shipment History CY2001-CY2023

- ◆ 2023年のCellular Terminalの出荷台数は、前年比96.6%の2,204.0million unitsとなった。
- ◆ 2022年に続いて2年連続のマイナス成長となったものの、2023年後半からは復調の傾向がみられ、2024はプラス成長が見込まれている。
- ◆ Smartphone・IOT等が中国市場を中心に回復している他、アフリカや東南アジアなどの新興国での需要拡大も貢献度が高まっているようだ。
- ◆ 2024年のCellular Terminalの出荷台数は、前年比111.2%の2,368.7million unitsと二桁成長が見込まれる。

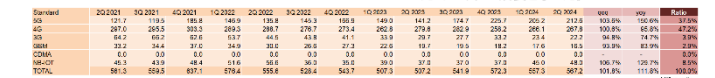


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Cellular Terminal Quarterly Shipment by Standard

- ◆ 2024年第2四半期の5G出荷量は212.6百万台で、前年同期の141.2百万台から大きく増加した (YoY 150.6%)。
- ◆ これは前年の2023年前半におけるCellular市場が低迷していたこと、またHUAWEIの5G復活前であったため、前年実績が低かったことが背景にある。
- ◆ また、2023年後半からのHUAWEIの5G Smartphoneの復活やTranssionの5G 対応 Smartphoneの出荷拡大がプラス材料となっている。
- ◆ 2023年前半まで5G拡大の牽引役を果たしてきたiPhoneだが、中国市場でのシェア縮小などから、その影響力は低下している。
- ◆ 4G出荷量は前年同期比で約95.8%の267.8百万台となった。
- ◆ 4GはIOTではプラスとなっているものの、Smartphoneの5G移行が進んだことで、前年同期比でマイナス成長となった。

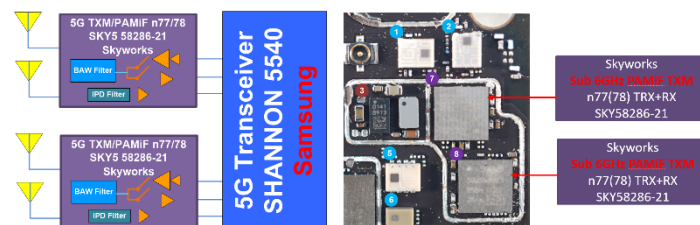


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Sub 6GHz RFFE of Google Pixel9

- ◆ Google Pixel9のSub 6GHzの構成を下記に示す。
- ◆ Sub 6GHzのバンド数は、3.5GHz帯 (n77/n78) のシングルバンドに対応し、MIMOの仕様は送信 (TX) x 2/受信 (RX) x2の4x4 MIMOとなっている。
- ◆ Sub 6GHzのRFFEは、n77(78)とn79のDual band対応のPAMiF(SKY58286-21)を2個使用する。
- ◆ このPAMiFは、Skyworksの製品で、送受信回路の他MIMO用の受信回路も備え、2個組み合わせることで送信 (TX) x2/受信 (RX) x2の4x4 MIMO回路を構成する。
- ◆ Sub 6GHz用のFilterはTRX用がBAW、RX用がIPDと推定される。

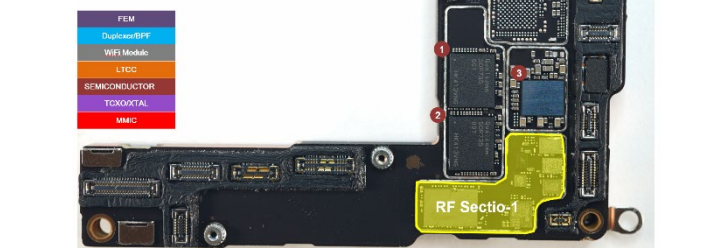


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iPhone16 -A3286- Motherboard Front SIDE

1. 5G Transceiver SDR735 Qualcomm Component count -OTHER 379pcs + RF1 59pcs TOTAL 438pcs- 6.00x5.05x0.70mm
2. 5G Transceiver SDR735 Qualcomm 6.00x5.05x0.70mm
3. Power Management PMX65 Qualcomm 4.90x4.01x0.54mm



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**PHASE 1. CELLULAR TERMINAL SHIPMENT
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