

Navian Marketing Report

RF Devices/Modules For Cellular Terminal

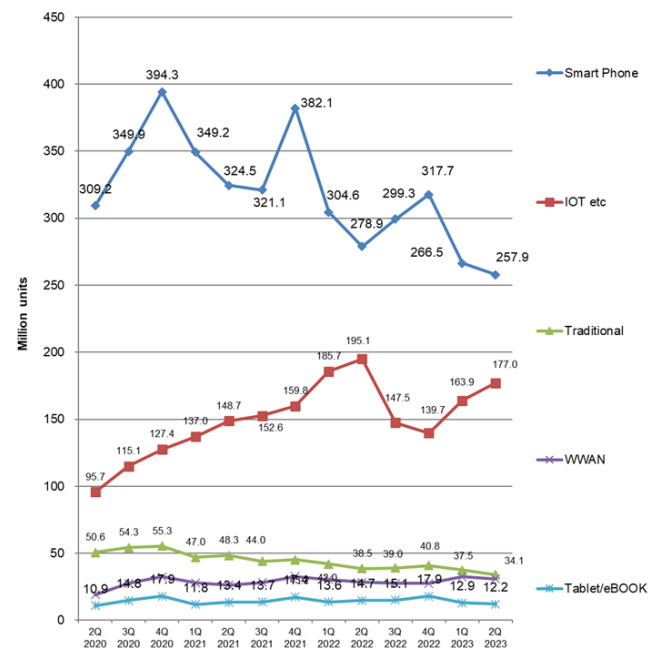
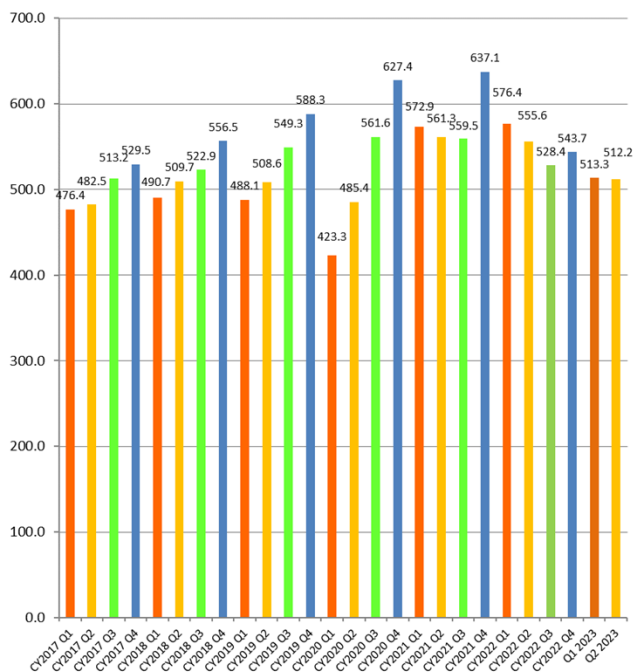
Quarterly Market Report Q2 2023

Released on November 24th ,2023

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
- ⑤ Band Pass Filter ⑥TCXO

Cellular Terminal Shipment History



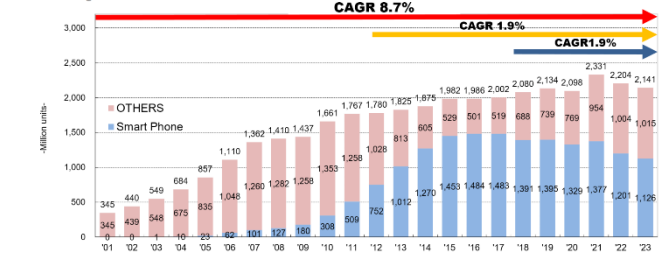
Non-Voice

Voice

Report Sample

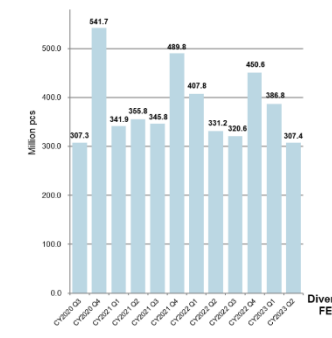
Cellular Terminal Annual Shipment History CY2001-CY2023

- Shipment volume of Cellular Terminal in 2022 was 2,204.0 million units, YoY 94.6%.
- Shrinkage of smartphone demand is serious, mainly in China, and also, Cellular IOT which was going strong has greatly lost momentum in late 2022.
- Even in 2023, after the Zero Covid policy had been lifted, China's economy did not recover as expected, and with added concerns for slowdown of economy due to progress of global inflation, recovery of demands in late 2023 which was originally expected does not seem promising.
- Shipment volume of Cellular Terminal in 2023 is 2,141.0 million units (YoY 97.1%), and it should record a 2nd consecutive year of shrinkage.



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2Q 2023: Diversity FEM Market Size



- Market size of Diversity FEM in Q2 2023 was 307.4 million pcs (quantity) and 426.7 million dollars (amount).
- There has been a continuous decline year over year, with a 92.8% (quantity) and an 86.9% (amount).
- In addition to the sluggish production and shipments of 5G smartphones which heavily use Diversity FEMs, Diversity FEM market has turned to a shrinking trend also due to increased adoption of EN-DC FEMs, which has transmission function added to Diversity FEM with built-in PA, etc., in iPhone, SAMSUNG Galaxy series, etc..
- Demand for Diversity FEM was expected to increase with the spread of 5G, which uses 4x4 MIMO as standard, but most 5G smartphones in China use only one Diversity FEM per device, which is not enough to boost the demand for Diversity FEM.

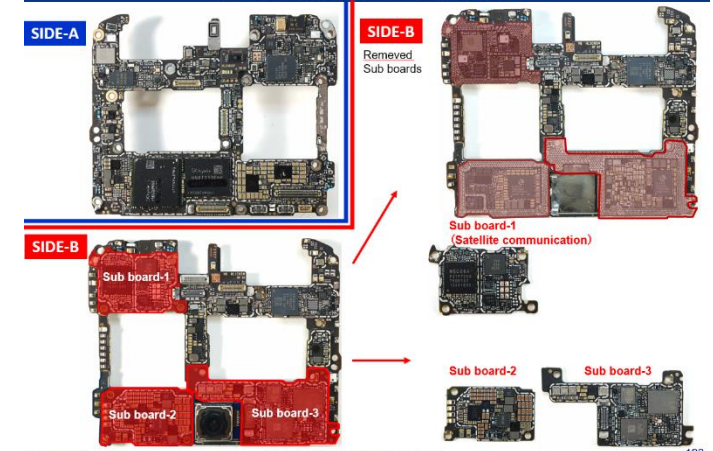
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PAMiD Supply chain

SmartPhone	Chip brand	Modem brand	Power brand	Local brand	Supply chain Map	Reference date
SAMSUNG S22-5G/4G	Qualcomm	Qualcomm	Qualcomm	Qualcomm	Qualcomm	2022
iPhone15	Apple	Apple	Apple	Apple	Apple	2023
HUAWEI Mate60 Pro	HiSilicon	HiSilicon	HiSilicon	HiSilicon	HiSilicon	2023

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HUAWEI MATE 60 Pro Motherboard Structure



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Outline of the report

RF Devices/Modules For Cellular Terminal Quarterly Market Report Q2 2023 -CD-ROM (PDF file)-

- The date of issue: November 24th ,2023
- The Documents of the report: The PDF file of 223 SLIDES : MS PowerPoint based/Excel data/JPEG files of Teardown photos
- Report price: JP¥195,000
- Annual subscription for four quarterly issues: JP¥510,000(report&data x3/data x1)

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