# **Navian Marketing Report**

# **RF Devices/Modules For Cellular Terminal**

# Quarterly Market Report Q3-Q4 2022

Released on June 17th ,2023

**RF** Components & Modules in this report

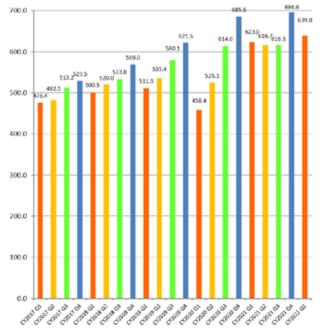
(1) Front end Module (ASM • TX Module • PAiD • FEMiD • All - in - One FEM • PAMiD •

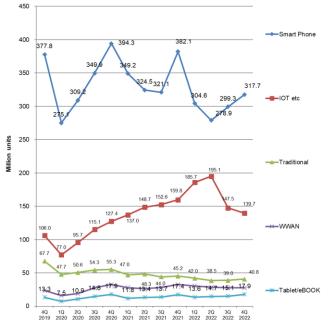
**5G TX Module/PAMiF-NEW**· Multiplexer·A-Multiplexer·**5G RX Module-NEW**)

2 Antenna Switch (Main RF/Diversity) Power Amplifier Module 4 Duplexer

**(5)** Band Pass Filter **(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







Smart Phone 0 🛒 💽 

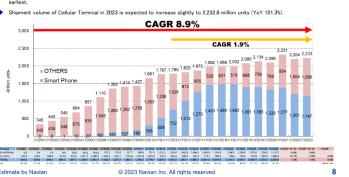


Voice





#### Shipment volume of Cellular Terminal in 2022 was 2,204.0 million units (YoY 94. From our previous report forecasting YoY 95.8%, the negative range increased by 1.2%. Drop in smartphone demand has become serious mainly in China, and in addition, Cellular IOT which used to see healthy gro significantly lost momentum in late 2022. Economic recovery of China expected with the lift of Zero-Covid policy is still not evident in 2023, and concerns for slowdown of economy due to progressing global inflation are stronger. Demand recovery of Cellular Terminal should not happen until late 2023 at the

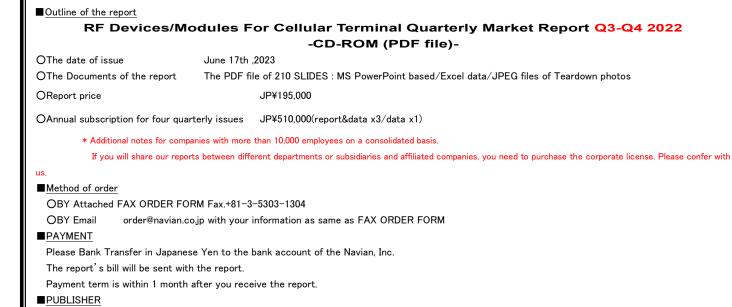


**Cellular Terminal Annual Shipment** 

History CY2001-CY2023



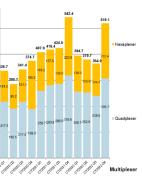
ATY Million pcs AMOUNT \$ Million



**Report Sample** 

Non-Voice

#### 4Q 2022: Multiplexer Market Size



 Market size for Multiplexers in Q4 2022 was 519.1 Million pcs i quantity and 504.5 million dollars in amoun

- Due to seasonality of the surge in demand for new iPhone models the market grew significantly by QoQ 142.6% in quantity and 136.7% in amount, but still continues to decline to YoY 95.7% (quantity) and 78.3% (amount).
- In multiplexer market, the FEM built-in type has been expand proportion to the increase in FEM such as PAMiD and EN-D
- However, due to the sluggishness of 5G smartphones, growth of mainly PAMiD has been weak, and also the type that mounts 2 multiplexers has been decreasing.
- Of the Quadplexers built into PAMiD\_Band-2/4 type is bardly use ent PAMiD, and only the Band-1/3 Quadplexer is bein installed in increasing number of cases.
- PAMiD which has built-in Hexaplexer that support Band-1/3/7 and Band-2/4/30 is mostly the PAMiD that Broadcom supplies Apple.
- Multiplexers for EN-DC are available with built-in FEM (EN-DC FEM) or with EN-DC circuits formed onboard, both of which are increasing, but not enough to boost the multiplexer market.

Meanwhile, demand for onboard type Quadplexer (Band-1/3 or Band-2/4), which once surged in response to LTE's carrier aggregation, is on a downward trend due to the shift to PAMID triggered by the introduction of 5G.

		CY2020 Q1	CA5639 05		CY2000 Q4		CY2824 G2							pop	309
	Quadplexer	217.5			189.5	258.7	280.8					239.8		127.0%	98.2%
	I losaplosor	119.2	95.2	124.4	185.2	149.2						124.2		171.0%	95.0%
	IOIAL	2357		341.4						394.7		364 (1		142 EN	95 /%
	Quadplexer	208.0			184.1							174.1		98.2%	67.4%
	Hexaplexer	231.0			359.0					216.7		195.0		1/1.0%	85.5%
	TOTAL	437.8	387.4	447.6	543.1	488.4	497.4	489.2	643.9	399.0	385.8	389.1	504.5	138.7%	78.3%
by Navian		© 2023 Navian Inc. All rights reserved.										6			

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