



2023 Q4 Conference Call

Agenda:

- About RichWave Technology
- Business Performance by Segment
- Financial Report
- ESG Highlight

About RichWave Technology

Business Direction & Strategy

Growing Position in WiFi– WiFi7 and Beyond

+

Diversified Offering in IoT, Mobile, Automotive Applications

+

Mastering Multiple Diversified Technology

+

Best Partner and Excellent Customer Service

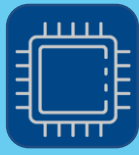
Creating Long Term Value with Technology and Market Strategy



Founded
Jan. 2004



Listed in TSE
Nov. 2015



Product
270+



WW Granted Patent
622



2023 IC shipment
1.4 BN pcs

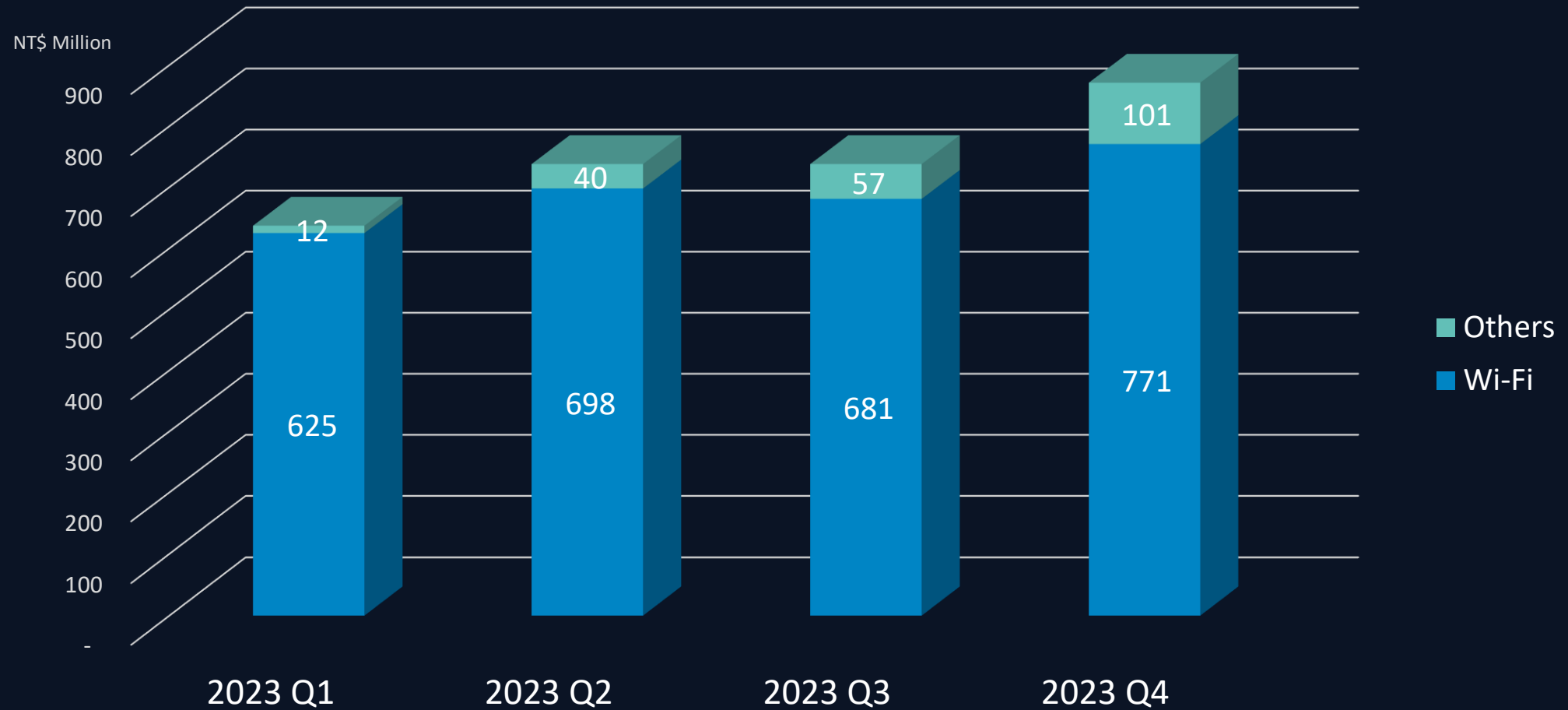


IP Ranking
89

Worldwide Company Site

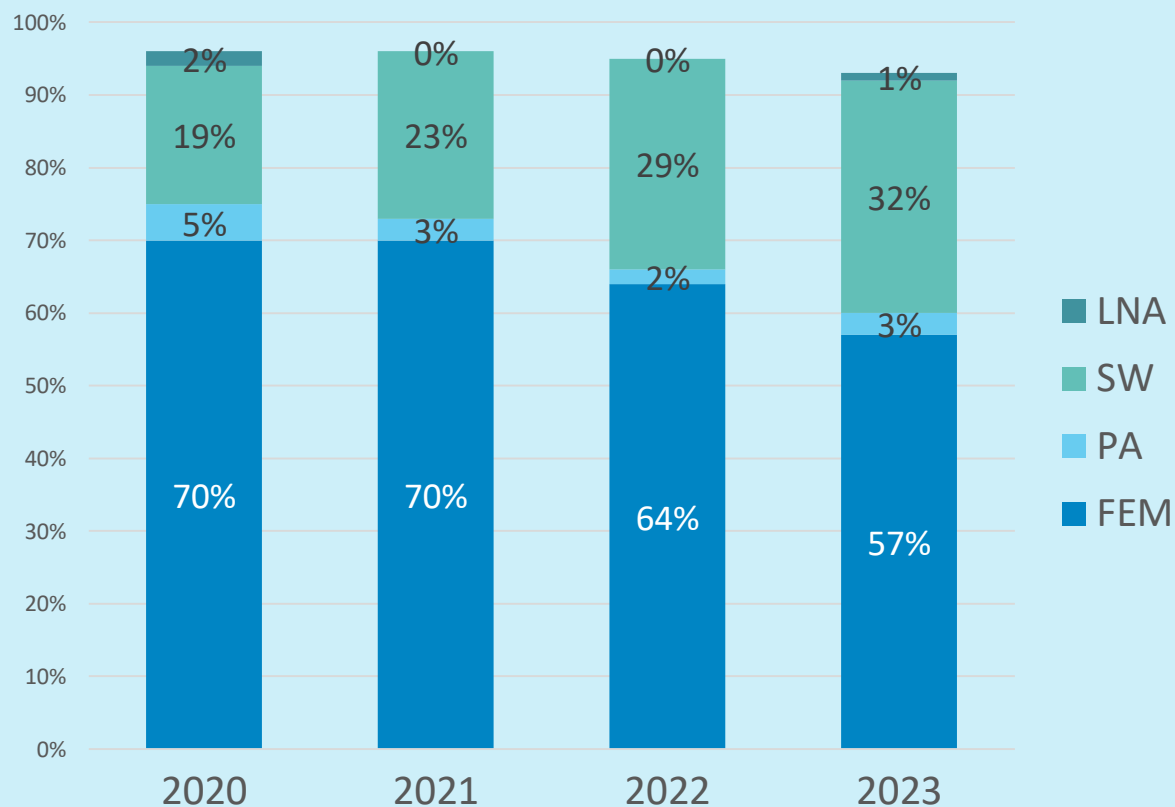


Revenue-by Segment



Position in High Performance FEM and 3rd Parties' Platform

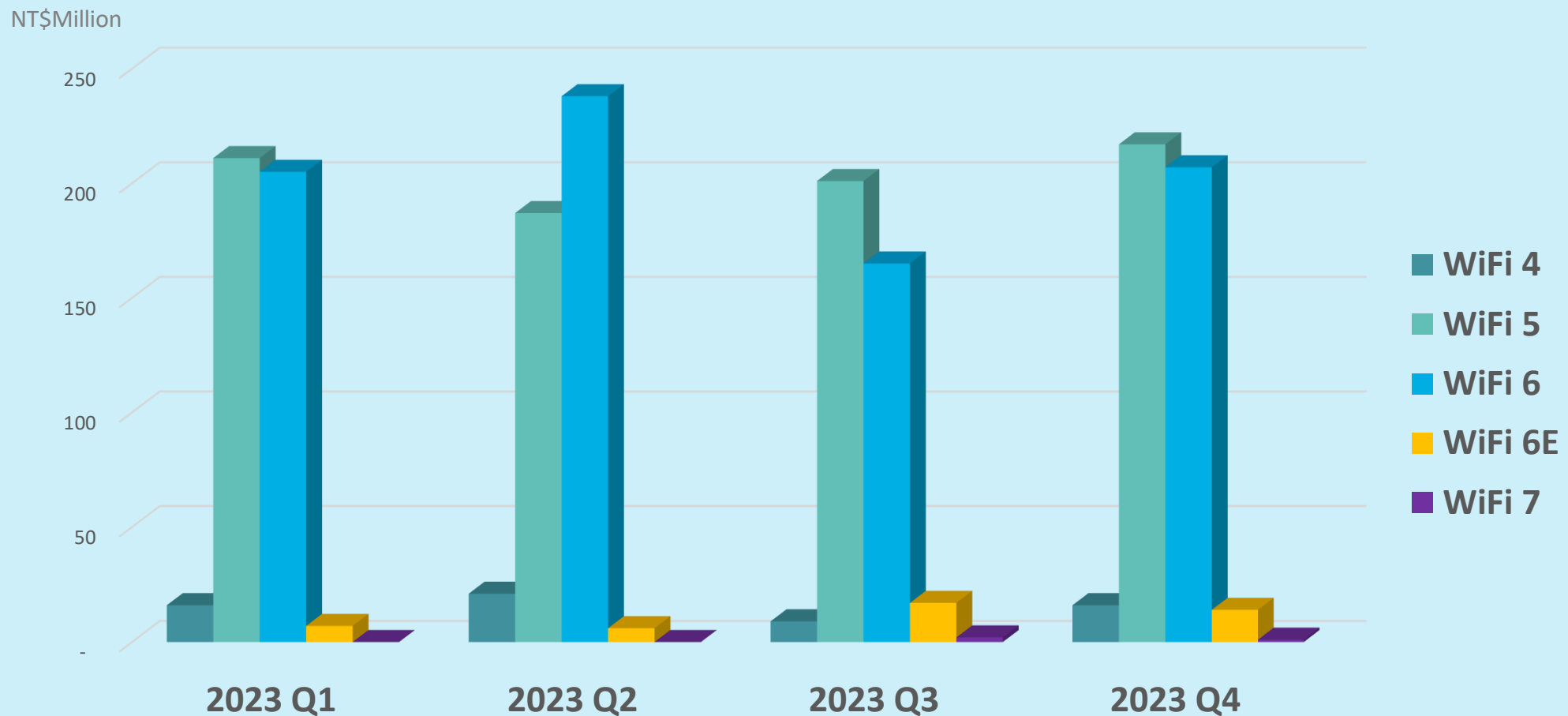
Position in High Performance FEM market



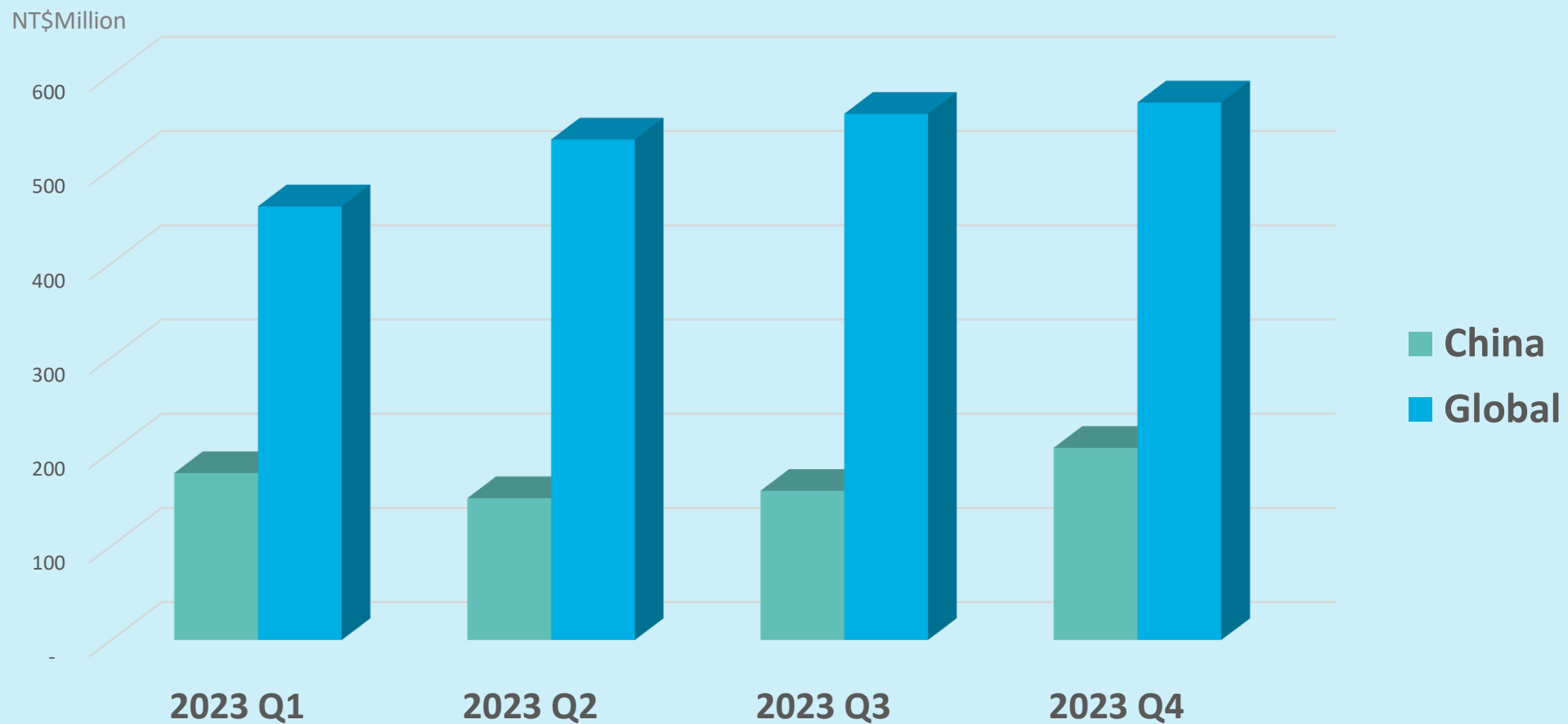
Qualified by main chip platforms



Wi-Fi Revenue by Protocol



Wi-Fi Revenue by Region



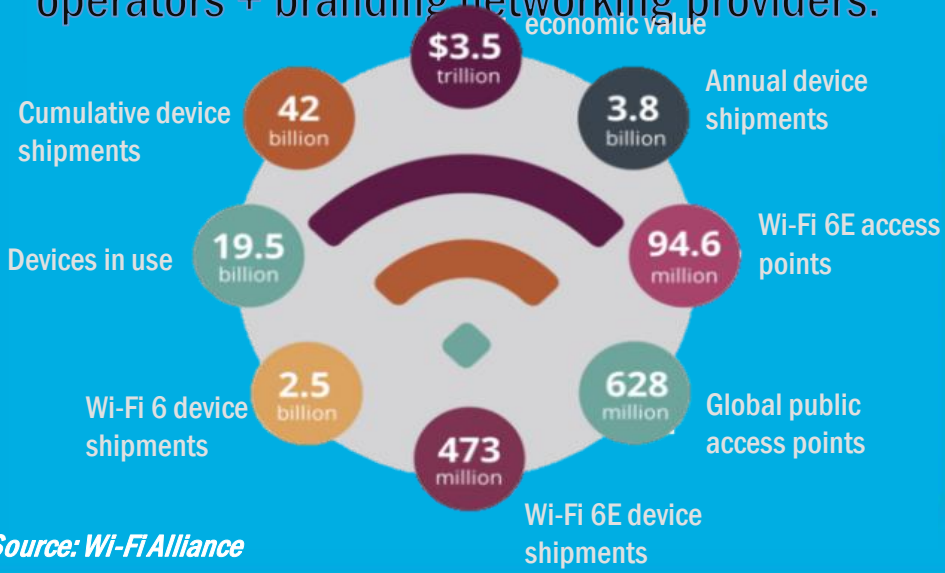


Wi-Fi

- Growing global business and customer base.
- Technology position in broadband trend and WiFi7.
- Expanding filter product line: Design in EU

Wi-Fi By the numbers 2023

operators + branding networking providers.



Source: Wi-Fi Alliance

- 4 802.11n
- 5 802.11ac
- 6 802.11ax
- 6^E 802.11ax
- 7 802.11be





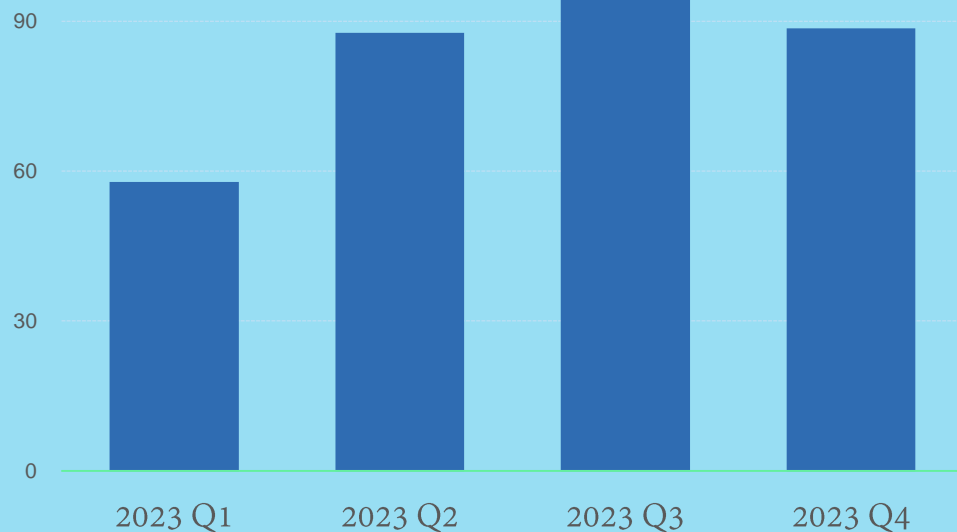
Mobile

- Expanding smartphone product line.
- Smartphone Wi-Fi6 FEM shipping continues.
- Smartphone WiFi6E FEM design in new customer.



MOBILE PRODUCT REVENUE

NT\$Million



FEM



LNA



SW



Filter



MOBILE PRODUCT

Wi-Fi

- Rx-FEM
- Full-FEM
- Switch
- Diplexer
- filter

4G/5G

- Tuner/SRS/LTE SW, GPS filter/diplexer, LTE Tx/Rx filter, GPS LNA/FEM, LTE LNA

FM

- Broadcasting
- FM Tuner



IoT & Automobile

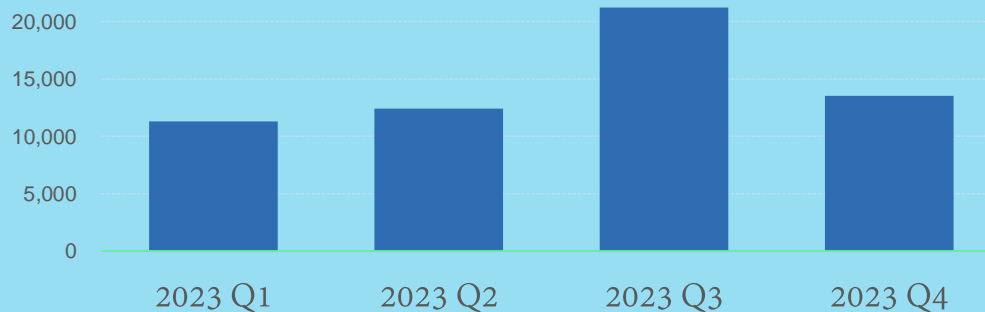
Make Your Life Smarter

- Automotive parts follow S-QA-012 and AEC-Q100
- Continues to ship to worldwide customers.
- BT module continues to design in US customer.
- In development for WiFi HaLow FEM



AUTOMOTIVE PRODUCT REVENUE

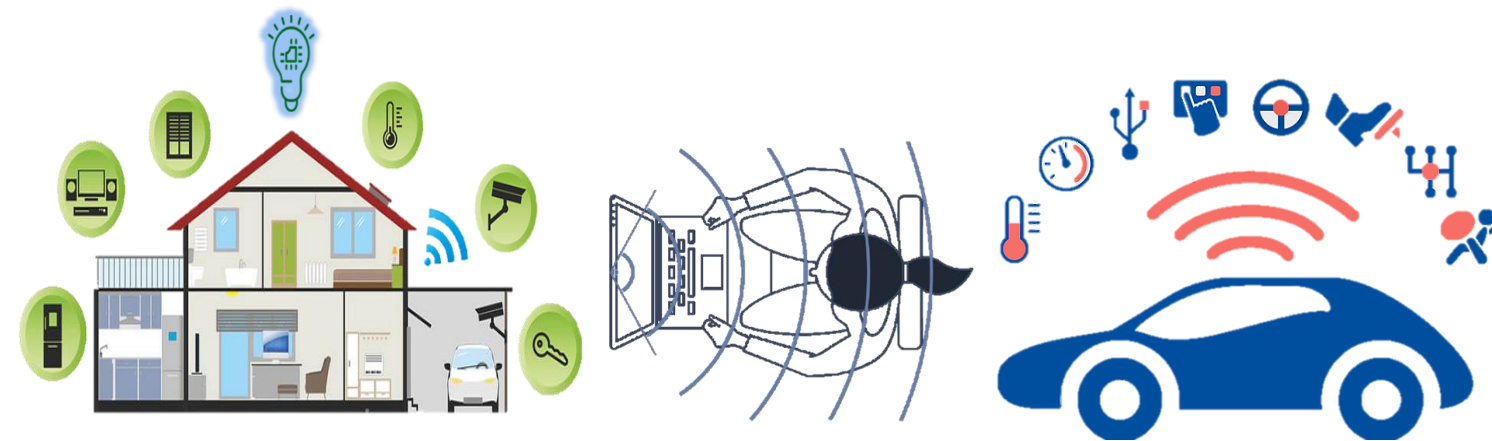
NT\$Thousand



Radar Sensor

To See Beyond Your Vision

- Shipment for 5.8GHz radar sensor used in smart lighting, e-lock and car security continues.
- 10GHz radar sensor solution expands to smarter appliances application, including air conditioner & TV
- In-design with millimeter wave radar.

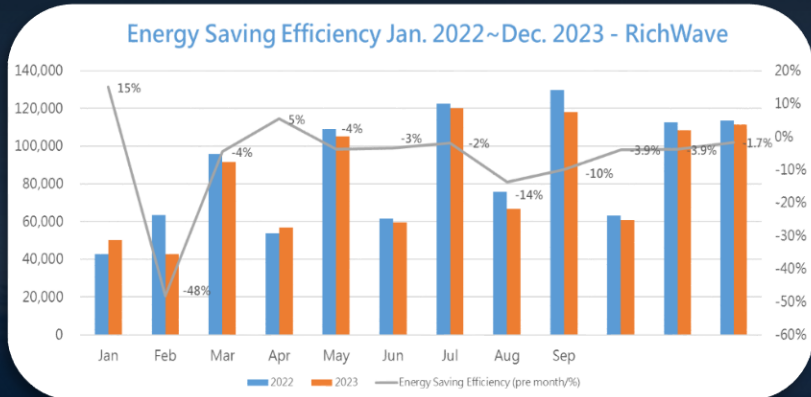


2023Q1~Q4 P&L

NT\$ Thousand	2023 Q1		2023 Q2		2023 Q3		2023 Q4		QoQ
	Amount	%	Amount	%	Amount	%	Amount	%	%
Net Revenue	636,974	100%	737,954	100%	738,381	100%	871,272	100%	18%
Operating Cost	480,130	75%	559,909	76%	547,267	74%	595,185	68%	9%
Gross Profit	156,844	25%	178,045	24%	191,114	26%	276,087	32%	44%
Operating Expense	268,004	42%	272,367	37%	276,396	37%	282,802	32%	2%
Operating Profit	- 111,160	-17%	- 94,322	-13%	- 85,282	-12%	- 6,715	-1%	92%
Non-Op. Profits(Loss)	279	0.04%	24,186	3.3%	30,275	4%	-35,393	-4%	-217%
Profit before Tax	- 110,881	-17%	- 70,136	-10%	- 55,007	-7%	- 42,108	-5%	23%
Income Tax (Expense)Benefit	21,948	3%	15,678	2%	10,001	1%	-103,469	-12%	-1135%
Net Income after Tax	- 88,933	-14%	- 54,458	-7%	- 45,006	-6%	- 33,893	-4%	25%
EPS	-0.99		-0.60		-0.50		-0.37		

2023 ESG Highlight

- Energy Use Intensity (EUI) decreased 5%, surpassing the original target by 0.6.
- By implementing multiple energy conservation & carbon reduction policies, we reduced 51,768kWh of purchased electricity, which equals 25.6251 tCO2e GHG emission.
- Total amount of waste generated in 2023 decreased 39.4% YoY to 12.5 tonnes. Waste generated per personper day decreased 28.8% to 0.88kg.



- Waste Generated Per Person Per Day (Kg)
- Waste Recycle Per Month (%)



➢ Maintain ISO14001 Certification and implement ISO14064-1 GHG Emissions Inventories and Verification by a Third-Party Audits



2023 Energy Conservation Results

- 1. Conservation & Emission Reduction Policy :**
 - Reduced 35% contract capacity supplied by Taiwan Power Company since Apr. 2023.
 - Reduced 18,341 kWh electricity by adjusting air-condition equipment with high power consumption.
- 2. Energy conservation in the workplace :**
 - Electric consumption reduced 602kWh/month for each office section in 2023.
- 3. Energy Efficiency for IT Equipment Room :**
 - Cooling capacity improved from 6kW to 14kW, and power consumption of air-condition equipment decreased by 6.1%.
- 4. Energy Saving in Labs :**
 - Energy consumption in lab decreased 1.9% from 13,626kWh to 12,806kWh per month.
- 5. Energy Saving in Warehouse :**
 - Energy consumption in warehouse decreased 4.1% from 13,743kWh to 13,174kWh per month.



Disclaimer

This document may contain forward-looking statements, including but not limited to all statements that address activities, events or developments that the Company expects or anticipates to take place in the future based on the projections of the Company toward the future, and various factors and uncertainty beyond the Company's control. Therefore, the actual results may differ materially from those contained in the forward-looking statements.

Some factors may cause actual results materially different from the information provided herein. These factors are: the impact of competition on product and pricing, timely acceptance of products design by our customers, timely introduction of new technologies, ability to ramp new products into volume, industry's shifts in supply and demand for semiconductor products, market oversupply or shortage, availability of supply chain capacity, financial stability in end markets, potential difficulties in talents retention, unexpected costs and expenses, loss of significant customers, involvement in legal or administrative proceedings, new regulations that may impact our business operation, fluctuations in foreign exchange rates, global economic conditions or non-economic conditions and any other risks factors.



Thank you

Follow us on:  

For more information, visit us at:

www.richwave.com.tw