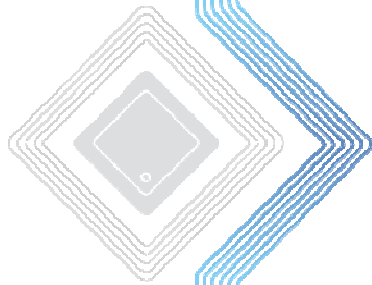


**RichWave**



# **RichWave Technology Corp.**

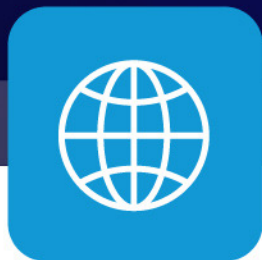
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Jun 2019

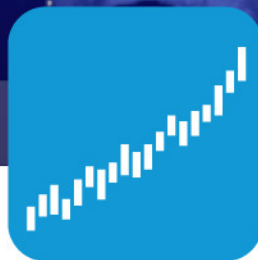
# COMPANY OVERVIEW

SHANGHAI  
SHENZHEN  
SEONGNAM  
TAIPEI  
CHUPEI

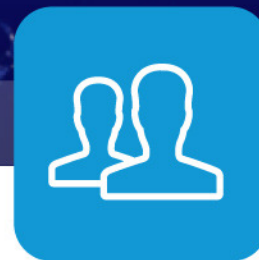
SAN JOSE



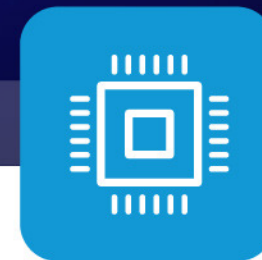
Founded  
**Jan. 2004**



Listed in TSE  
**Nov. 2015**



Customers  
**350+**



Products  
**270+**

**Vision**



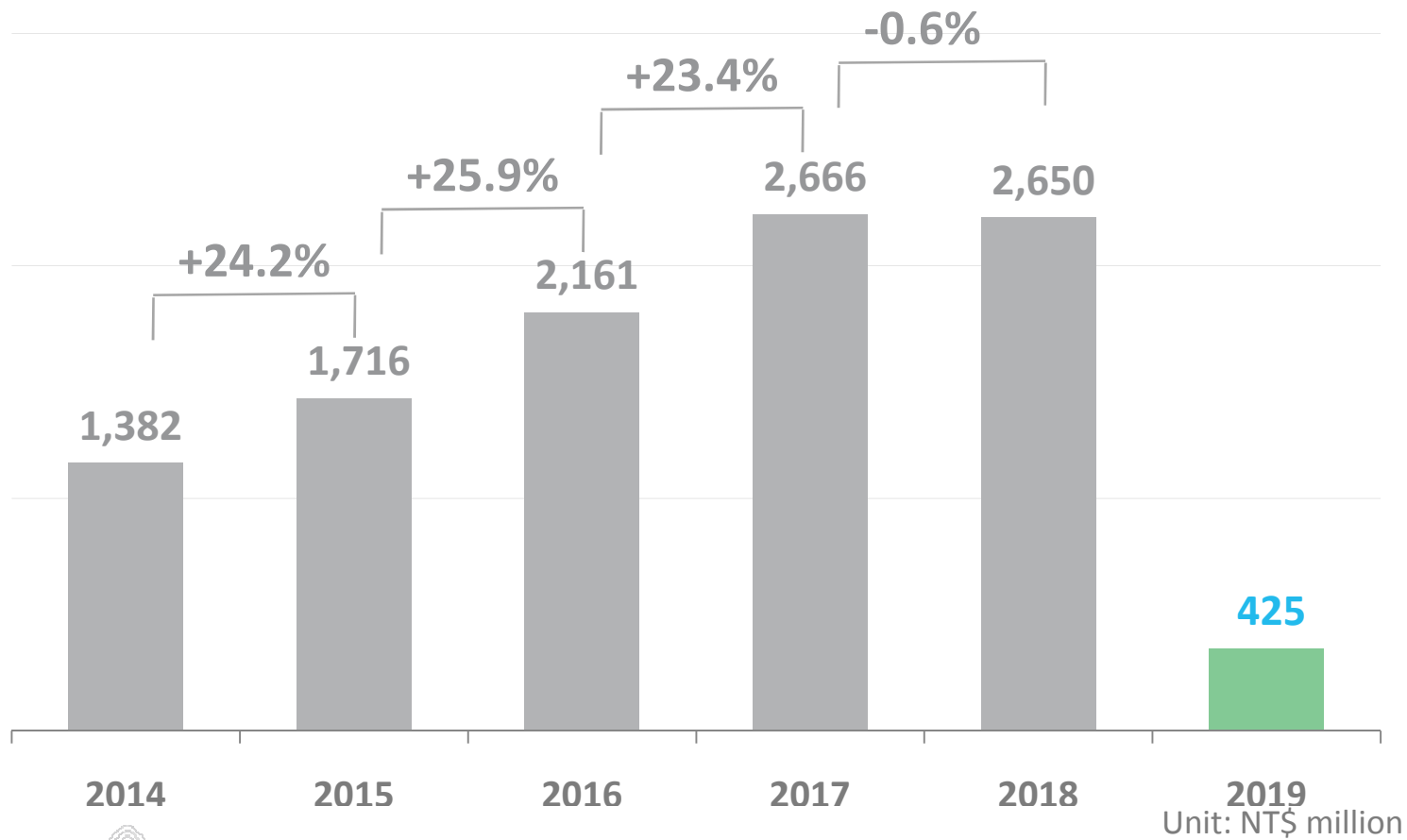
**World RF IC Leader  
by Technology and Innovation**



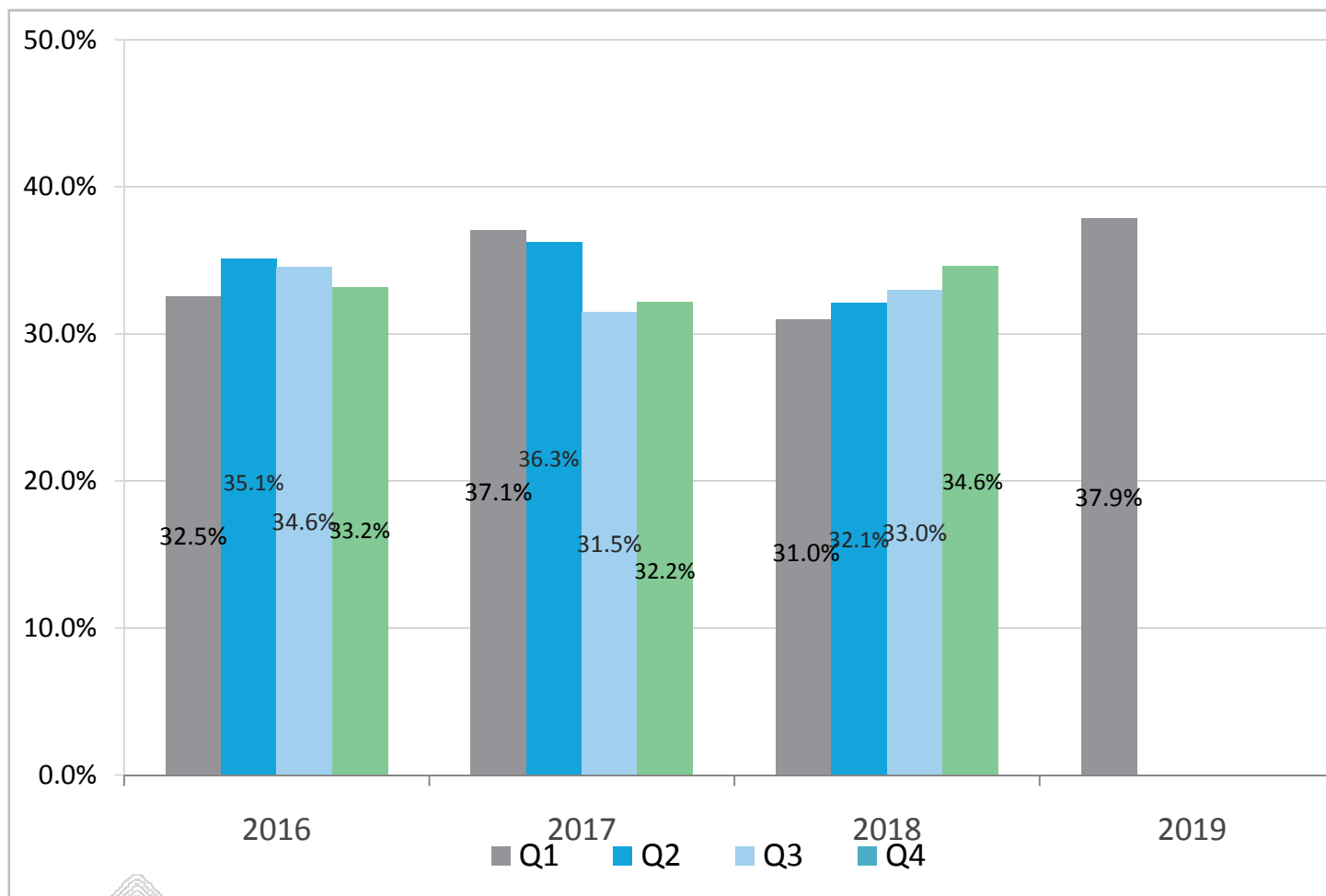
# 2019 Q1 P&L

Amount: NT\$ MN	2019 Q1		2018 Q4		QoQ	2018 Q1		YoY
	Amount	%	Amount	%	%	Amount	%	%
Net Sales	425	100.0%	606	100.0%	-29.9%	662	100.0%	-35.8%
Gross Margin	161	37.9%	210	34.6%	-23.3%	205	31.0%	-21.5%
Operating Expense	174	40.9%	164	27.1%	6.1%	155	23.4%	12.3%
Operating Profit	-13	-3.0%	46	7.5%	-128.3%	50	7.6%	-126.0%
Non-Op. Profits(Loss)	-1	-0.2%	1	0.2%	-200.0%	-6	-0.9%	83.3%
Net Income before Tax	-14	-3.2%	47	7.7%	-129.8%	44	6.6%	-131.8%
Net Income after Tax	-11	-2.6%	40	6.6%	-127.5%	36	5.4%	-130.6%
EPS	-0.18		0.65			0.60		

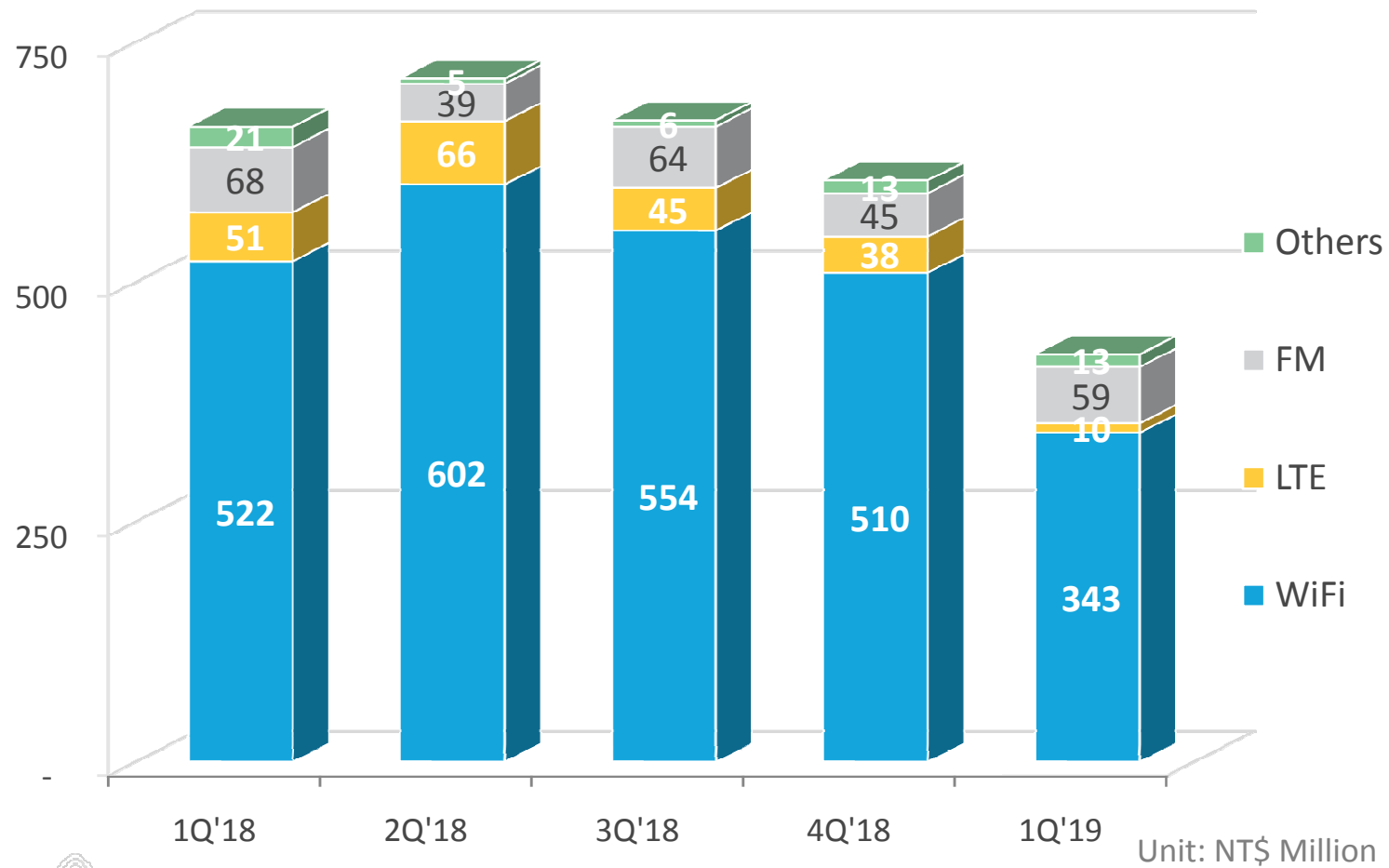
# Net Sales 2014-2019



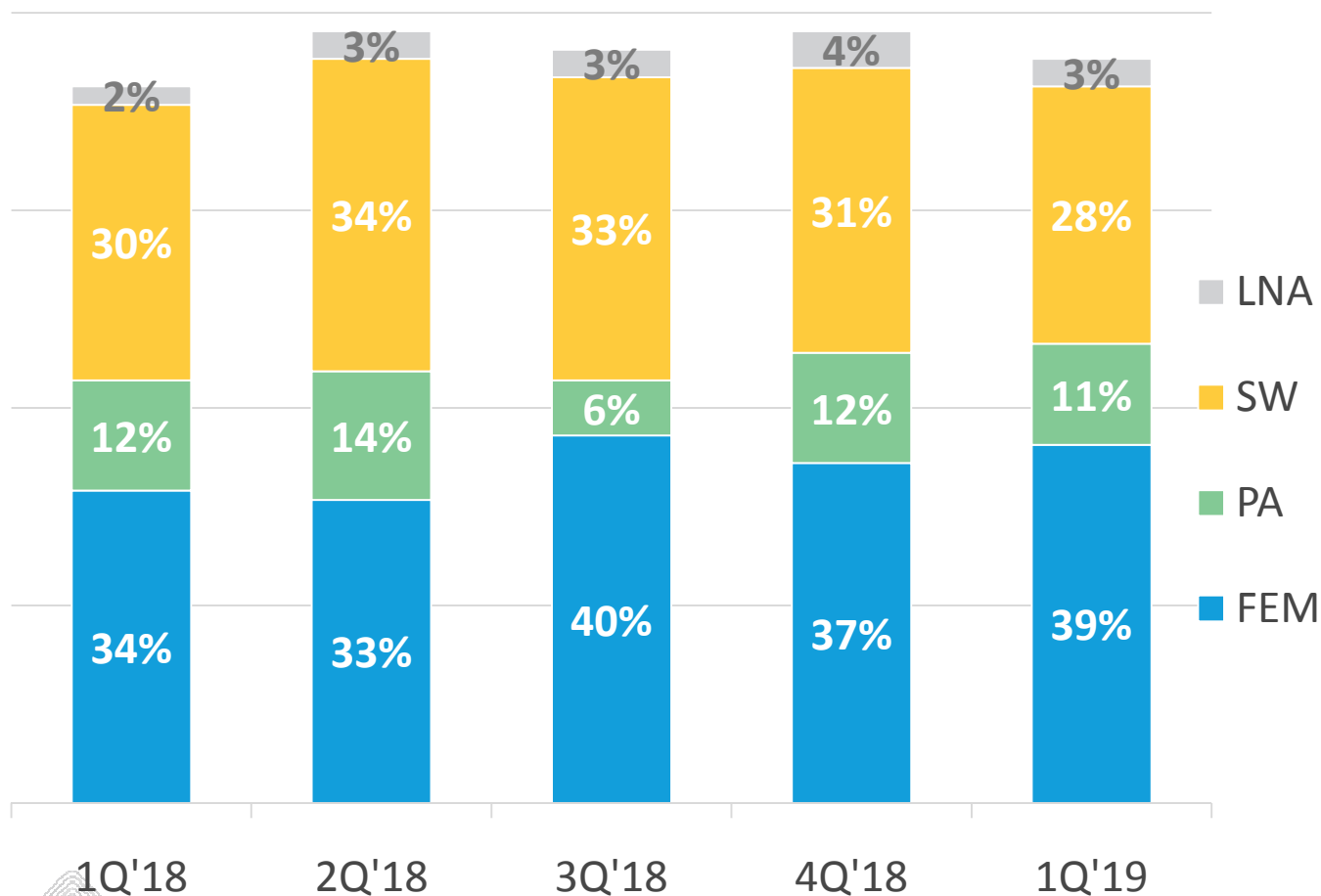
# Gross Margin Trend 2016-2018



# Revenue by Products



# High Integration WiFi FEM & High Power PA Gain Weighting





# Business Highlights – WiFi

- Won Broadcom 11ax reference design for platforms
  - 4x4 performance segment – 2G FEM & 5G FEM
  - 2x2 main stream – 5G FEM
- Won Quantenna 11ac reference design for platforms
  - 4x4 performance segment & main stream – 5G FEM



# Business Highlights – WiFi

- Won WiFi 11ac FEM design for AP/Gateway:
  - China: Router for China Telecom, 10GPON for China mobile, Enterprise AP for Ruiji and H3C, GPON for Nokia Bell
  - Southeast Asia: GPON home gateway for Reliance, Router for Philipppians' telco, Vietnam telco, DSL for TRUE Thailand telco
  - EU: Repeater for Telefonica, Home gateway for Liberty Global, Router for Freebox, DSL for Vodafone, GPON for Russia telco, Router for Italian telco, STB for France telco, Residential gateway for UK telco, Cable modem & STB for Sagemcom
  - America: AP for Netgear, AP/Base station for Arlo, Cable modem for Mexico, Argentina cable operators, GPON for Brazil telco, GPON for Telmex
- Won WiFi FEM/SW design for:
  - Doorbells for Amazon
  - Samsung IP Cam
  - Google home



**NETGEAR®**



**ZTE**



**Ruijie**

**H3C**

**SAGEMCOM**



**true**



# Business Highlights – Mobile

- Started to ship WiFi 11ac 2.4GHz & 5GHz FEMs for:
  - LG smart phone, Motorola smart phone, Quectel modules for IoT
- Won WiFi 11ac 2.4GHz & 5GHz FEMs design for:
  - Lenovo PAD, Sharp smart phone
- Won LTE LNA design for:
  - Samsung smart phone, Quectel LTE modules for IoT
- Won WiFi/LTE SW design for:
  - Motorola smart phone, Nokia feature phone, Lora modules



**SAMSUNG**



motorola  
a Lenovo company

**SHARP**

**QUECTEL**

**Lenovo**

**NOKIA**

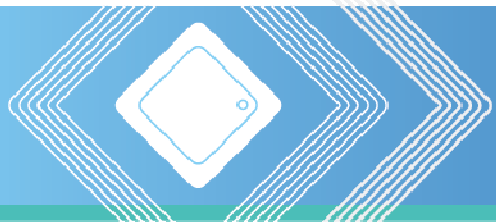
# Business Highlights – Automotive

- Won 2G Rx FEM and 5G full FEM design for WiFi modules for automotive for GM
- Won LTE SW design for LTE modules for automotive telematics for Bosch



**BOSCH**





**RichWave**