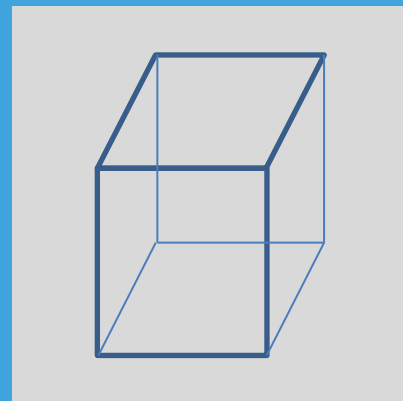
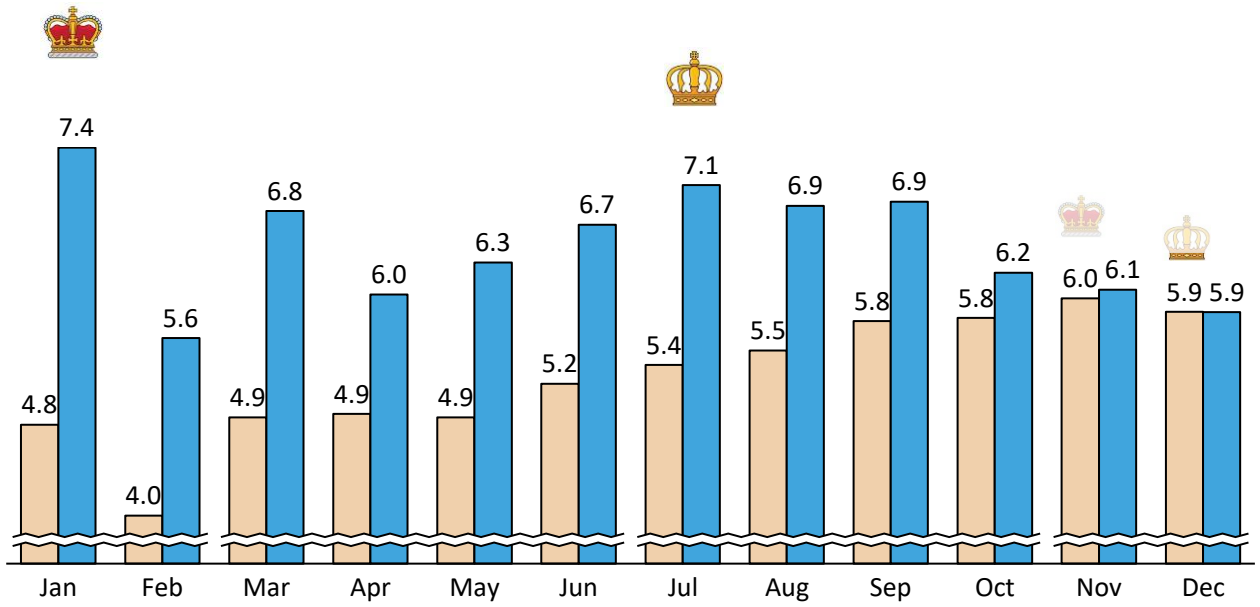


台灣半導體(股)

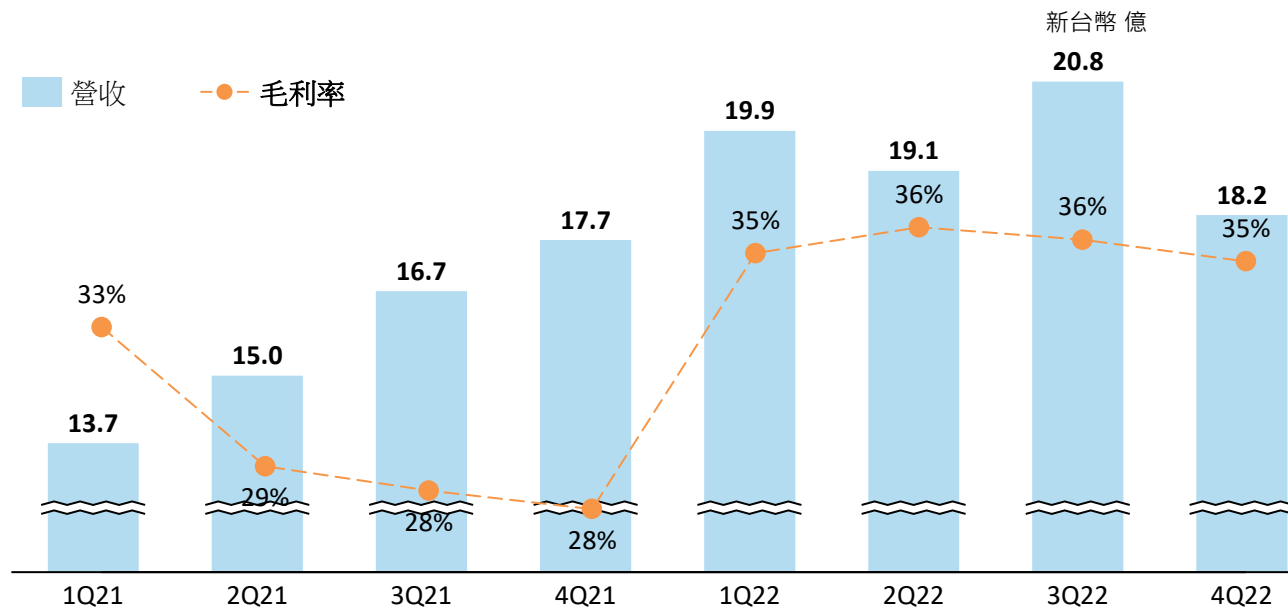
財務報告



單月營收 (Taiwan Semi)



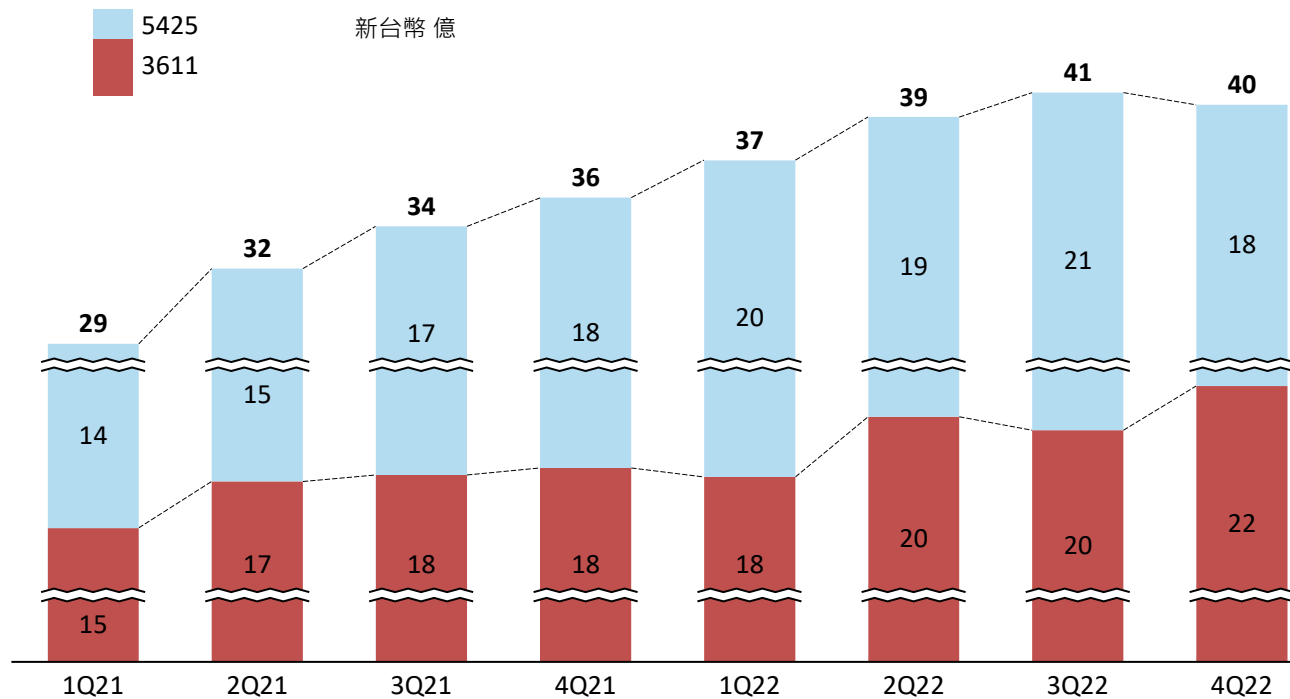
季度營收 / 毛利率 (Taiwan Semi)



2022 vs. 2021 TSC Semi

NT\$ 億	TSC (5425)				
	2022		2021		YoY
	Amnt	%	Amnt	%	%
Net Revenue	\$77	100%	\$63	100%	22%
Gross Margin	27	35%	19	29%	7.5 bps
S&M	5.9	8%	5.6	9%	7%
Admin	4.5	6%	3.3	5%	34%
R&D	1.3	2%	1.0	2%	21%
OPEX	11.7	15%	9.9	16%	0.2 bp
Ops Income	15.3	20%	8.6	14%	7.2 bps
Non-Ops	1.3	2%	0.1	0%	2111%
Tax	4.5	6%	2.7	4%	70%
Net Income	\$12.1	16%	\$6.0	9%	9.5 bps

季度營收比較 (集團營收)



2022 vs. 2021

合併損益

NT\$ 億	TSC Group				
	2022		2021		YoY
	Amnt	%	Amnt	%	%
Net Revenue	\$157	100%	\$132	100%	19%
Gross Margin	53	34%	41	31%	3 bps
S&M	13.0	8%	11.8	9%	10%
Admin	9.1	6%	7.3	5%	25%
R&D	3.6	2%	3.2	2%	12%
OPEX	25.6	16%	22.2	16%	0 bp
Ops Income	27.9	18%	\$19.1	15%	3 bps
Non-Ops	2.2	1%	0.4	0%	477%
Tax	8.4	5%	5.7	4%	48%
Net Income	\$21.8	14%	\$13.8	11%	3 bps
EPS (Basic) NTD	\$6.28		\$3.55		

2022 vs. 2021

合併損益

營收成長 +19%

- NT\$157億 vs. 132億
- 專案備貨積極
- 出貨動能成長 (+ units)
- 產品結構優化 (+ ASP)

營業利潤率 +3 bps

- 18% vs. 15%
- + 控管費用
- + 出口運費 (業務)
- + 專案費用 (研發)

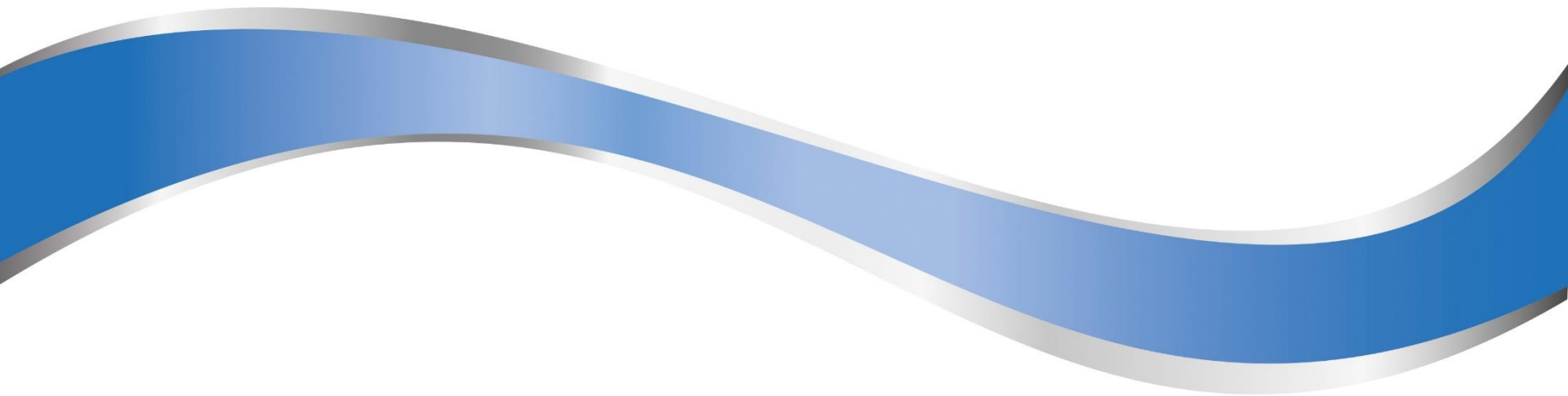
毛利率 +3 bps

- 34% vs. 31%
- 區域獲利效益
- 完整性產品線
- 成本結構優化

稅後淨利 +3 bps

- 14% vs. 11%
- 區域+產品 優化
- 子公司獲利成長
- 台幣匯兌利得增加

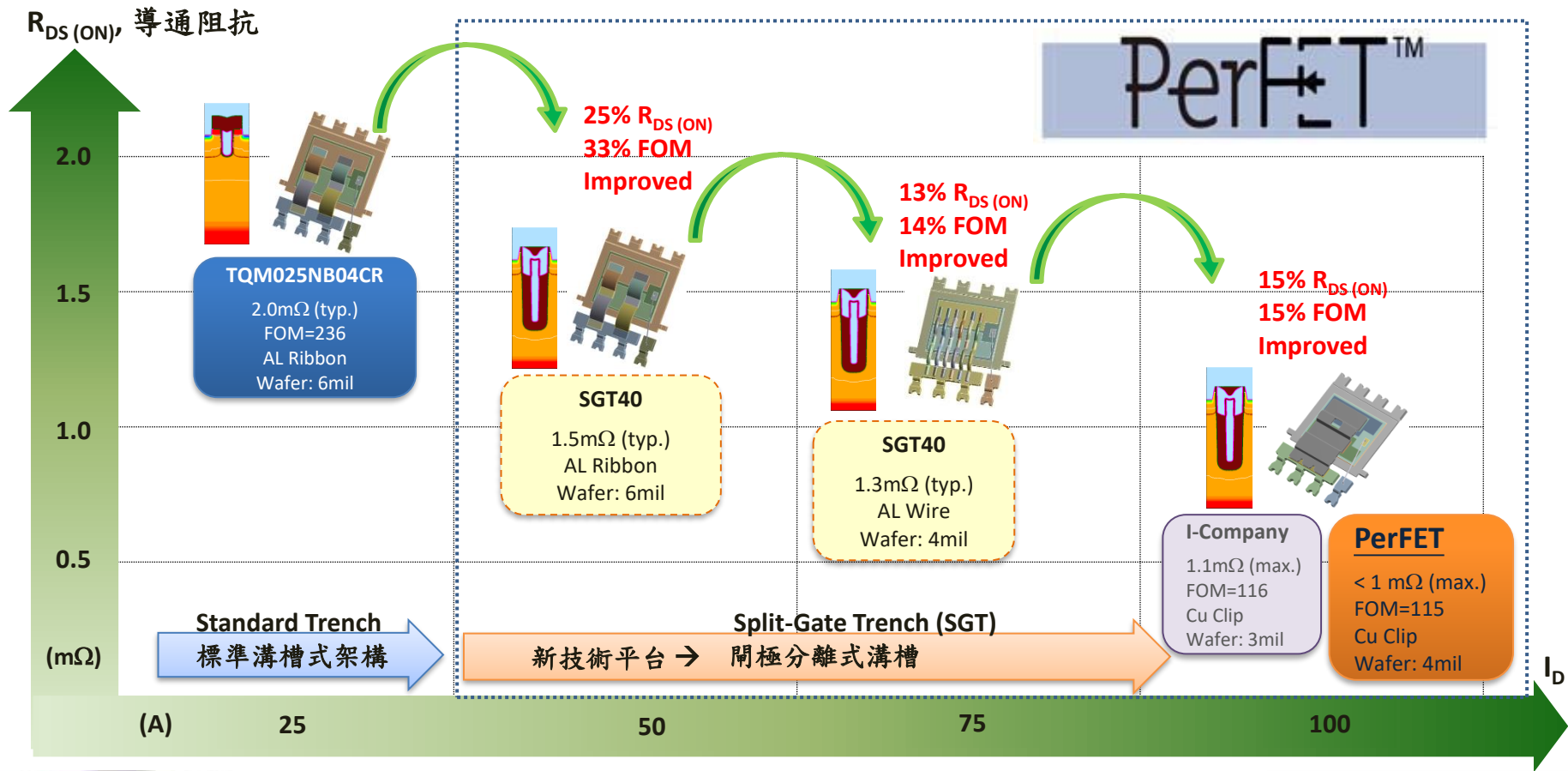
SGT MOSFET Development Status



全球銷售據點 & 重點客戶合格供應商

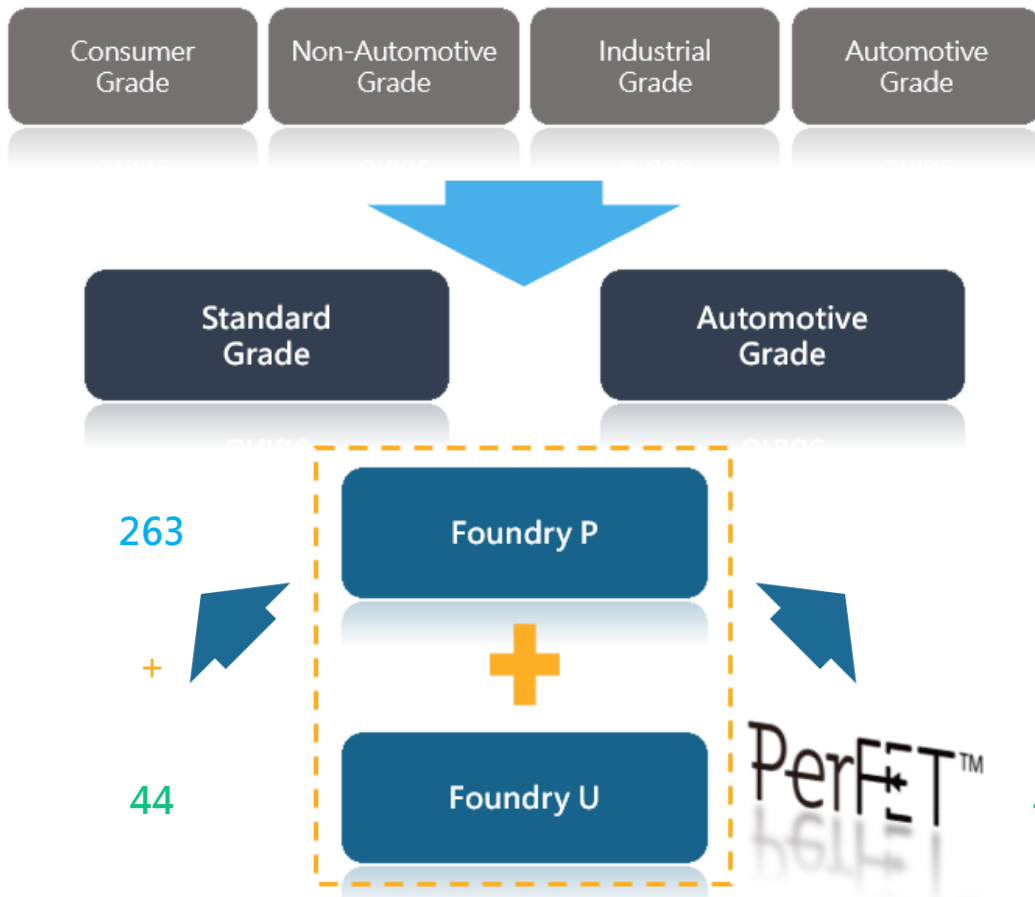


台半車用MOSFET高端製程能力



FOM (Figure-of-Merit): MOSFET 產品性能指數

台半車用MOSFET專案時程



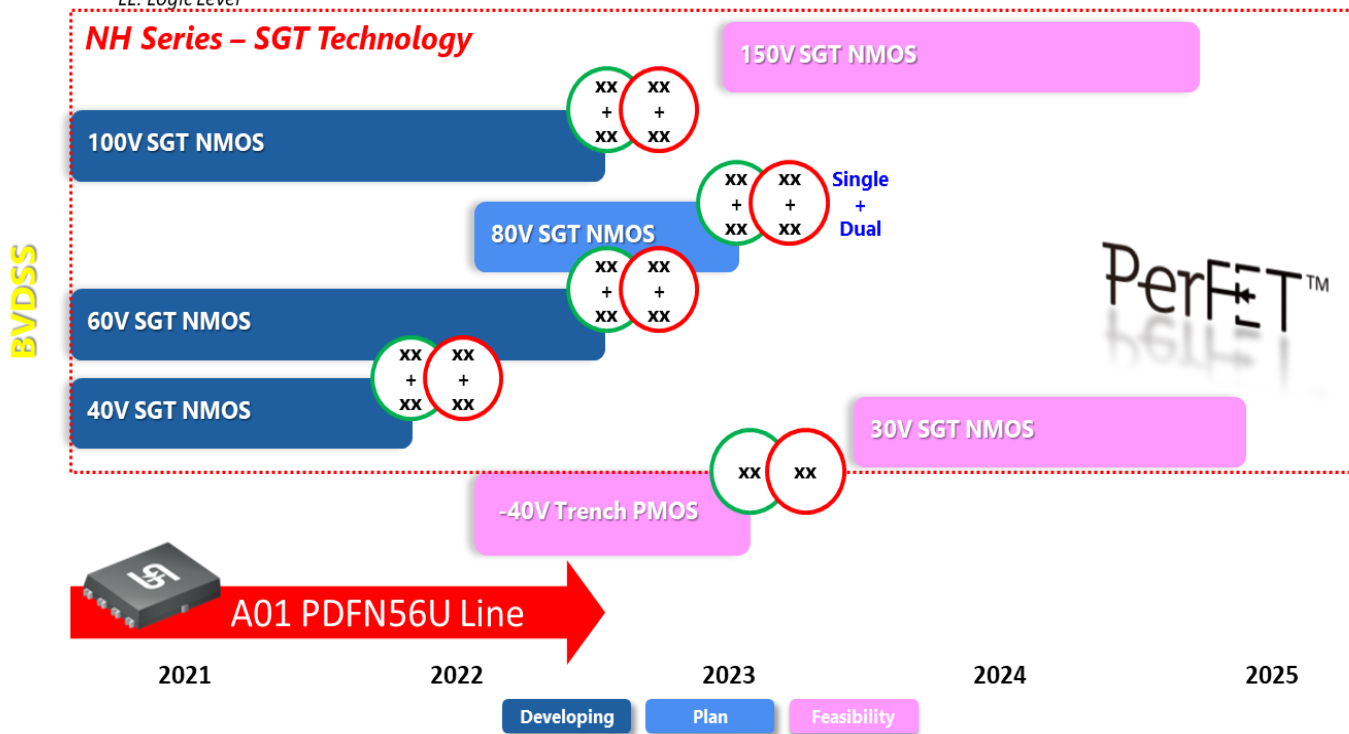
產品優勢

- 自主設計
- (雙) 晶圓廠 代工協作
- 產品規格提升
- 品質 + 價值 + 競爭力

台半車用MOSFET專案時程

- SL: Standard Level
- LL: Logic Level

○ Standard Grade Items ○ Automotive Grade Items

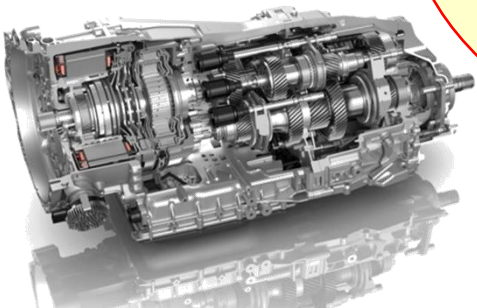


MOSFET 於車用系統的應用

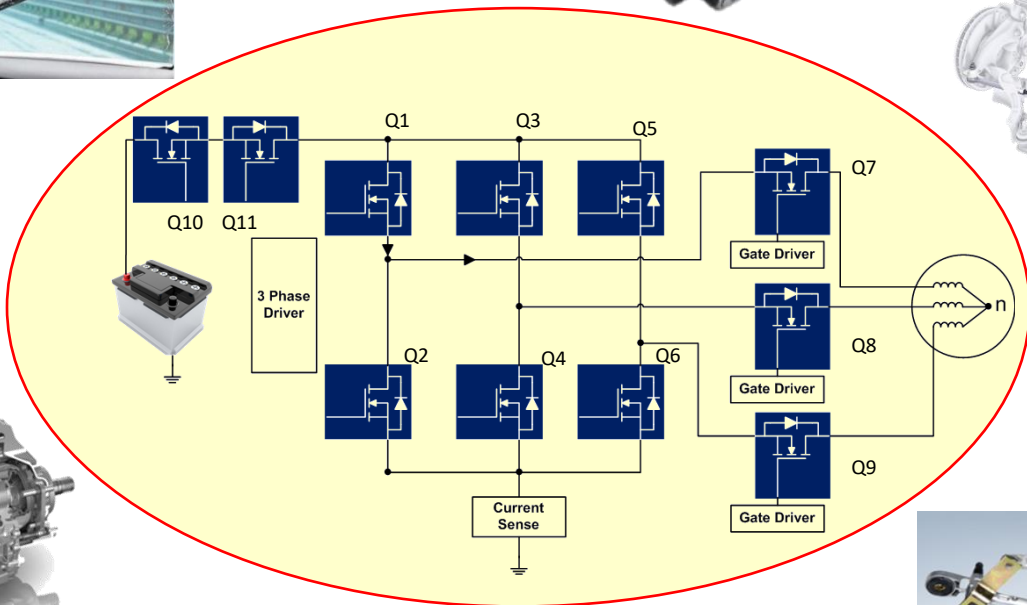


雨刷控制

電子控制單元



離合器傳輸控制



電子動力轉向系統



車窗升降馬達控制器

MOSFET基本應用需求:

- V_{DS} 電壓: 40V 及 60V
- 低阻抗 $R_{DS(ON)}$, 低工耗, 高效率
- 貼鉚封裝, ex. DFN 5x6, DFN 3x3, ...

MOSFET 於車用系統的應用 (cont.)

動力總程系統 (Powertrain)

40V MOSFET, N-Channel
3.3mΩ, 7mΩ, 11mΩ

暖通空調系統 (HVAC)

40V, N-Channel, SDT/SGT
1.8mΩ, 2.5mΩ, 3.3mΩ

車用照明 (Lighting)

60V, N-Channel, SL
11mΩ, 13mΩ

離合器傳輸控制 (Clutch)

40V, N-Channel, SDT/SGT
1.8mΩ, 2.5mΩ, 3.3mΩ

車身控制模組 (BCM)

40V MOSFET, N-Channel
3.3mΩ, 7mΩ, 11mΩ

車窗、雨刷、
座位、車廂、
天窗、
後照鏡...

儀錶板 (Dashboard)

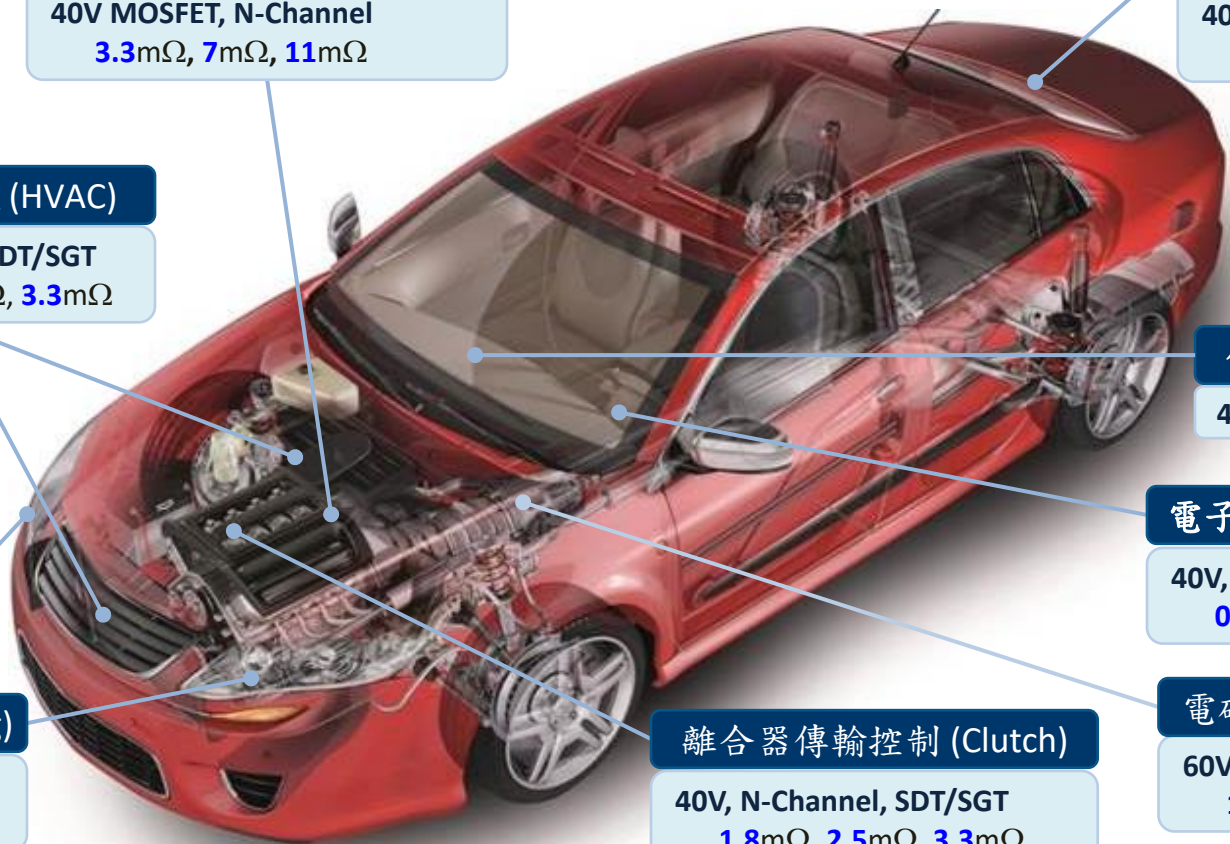
40V, N-Channel, 11mΩ

電子動力轉向系統 (EPS)

40V, N-Channel, SGT, LL/SL
0.95mΩ, 1.1mΩ

電磁閥 (Solenoid Valve)

60V, N-Channel, SDT/SGT
11mΩ, 15mΩ





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