



Company Profile

World-class leading edge with MOCVD

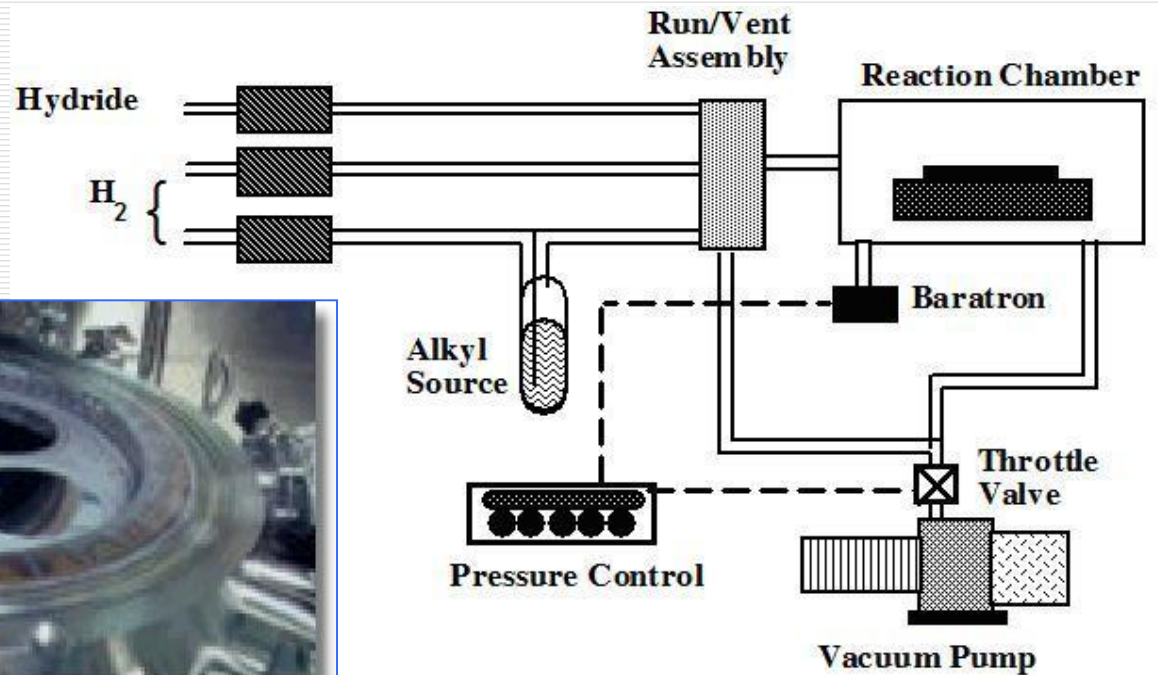




Core Technology

MOCVD (有機金屬氣相沉積法)

- Metal Organic Chemical Vapor Deposition





Core Technology

Production
Reactor

MOCVD Metal Organic Chemical Vapor Deposition

Way to
Produce

Through the organic metal chemical vapor deposition method, the semiconductor film is grown on the substrate, and the epitaxial layer is accurately controlled through the real-time monitoring of the machine to complete the production of epitaxial wafers for different products such as GaAs 、 InP and GaN.

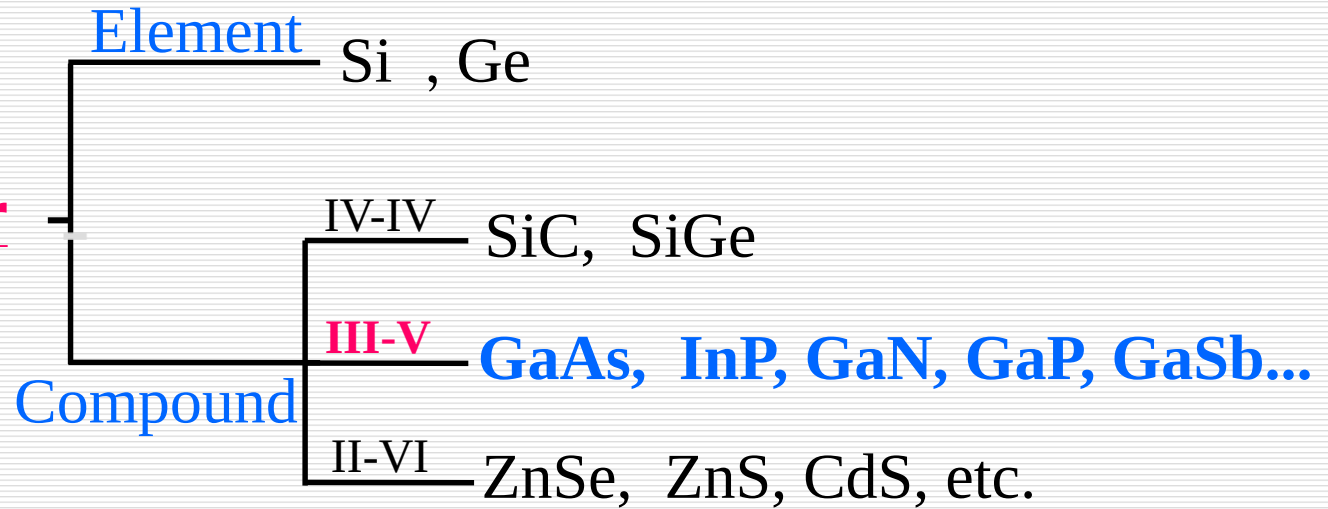
Production
Principle

The epitaxial layer is heated by MOCVD in the cavity of the substrate, and an atomic layer is stacked layer by layer to form an epitaxial layer.



Semiconductor (by Material)

Semiconductor



Period	Column II	III	IV	V	VI
2	Be 鈹 Beryllium	B 硼 Boron	C 碳 Carbon	N 氮 Nitrogen	O 氧 Oxygen
3	Mg 鎂 Magnesium	Al 鋁 Aluminum	Si 矽 Silicon	P 磷 Phosphorus	S 硫 Sulfur
4	Zn 鋅 Zinc	Ga 鎵 Gallium	Ge 鍺 Germanium	As 砷 Arsenic	Se 硒 Selenium
5	Cd 鎘 Cadmium	In 銦 Indium	Sn 錫 Tin	Sb 銻 Antimony	Te 碲 Tellurium
6	Hg 汞 Mercury	Tl 鉍 Thallium	Pb 鉛 Lead		

二元化合物 Binary : GaAs, InP, GaP, GaN, etc.

三元化合物 Ternary : InGaAs, InGaP, AlGaAs, etc.

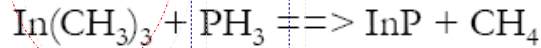
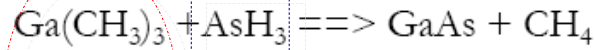
四元化合物 Quaternary : AlGaInP, InGaAsP, etc.

五元化合物 Pentanary : AlGaInAsN, etc.



Chemical Reaction During Epitaxy

化學反應式：



主要原物料：

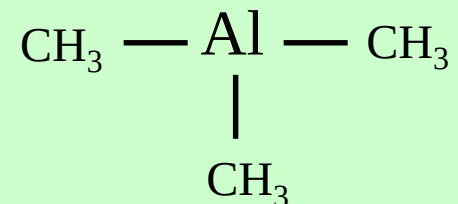
MO Source + **Hydride** + Carrier Gas : **H₂**

TEAl : Tri-ethyl-Aluminum (C_2H_5)₃Al
TMGa : Tri-Methyl-Gallium (CH_3)₃ Ga
TMIn : Tri-Methyl-Indium (CH_3)₃In
DETe : Di-ethyl-Tellurium (C_2H_5)₂Te
DEZn : Di-ethyl-Zinc (C_2H_5)₂Zn
CP₂Mg : Bis (cyclo-penta-dienyl) Magnesium 環戊二烯鎂

AsH₃ : Arsine
PH₃ : Phosphine
SiH₄ : Silane
Si₂H₆ : Disilane
H₂Se : Hydrogen Selenide
CBr₄ : Carbon Tetrabromide

TMAI Tri - Methyl - Aluminum (CH_3)₃Al

三 甲 基 鋁





Advantages of Compoundsemiconductor

1. High Electron Mobility (5.7x higher than CMOS)
2. High Frequency Response
3. Wide Band Width
4. High Linearity
5. High Power
6. Alternative Choice of Material
7. Anti-radiation

適用於微電子產品—HBT、pHEMT、BiHEMT、GaN on XX

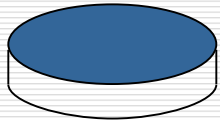
光電子產品— PIN (PD、APD) 、VCSEL、LD、SC、
CW-Laser、 GaN on XX



GaAs in Wireless Communication Supply Chain

Sumitomo, Freiburger, AXT

2~6 "GaAs Substrate

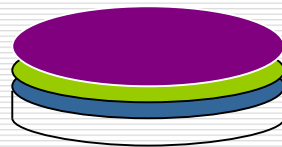


GaAs Epi- Wafer
磊晶片



MOCVD Reactor

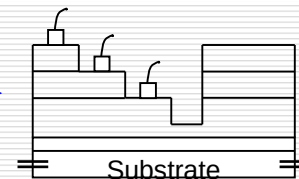
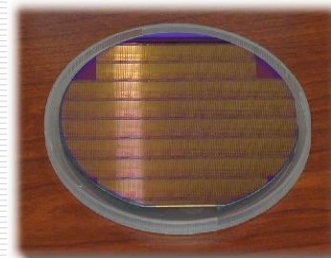
**VPEC is a Pure
Epi Provider**



IDM : Qorvo, Skyworks

**Fabless : Avago,
Qualcomm, Richwave,**

**Microelectronics
IC Process**



**Foundry :
WIN, AWSC**



**Wireless
Communication**



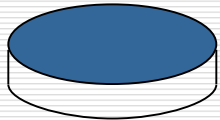
IC Package & Testing



Optoelectronic Products Industry Supply Chain

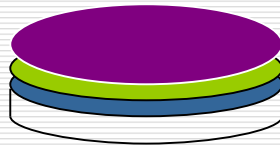
AXT, Freiberger, JX

2~4 "InP Substrate

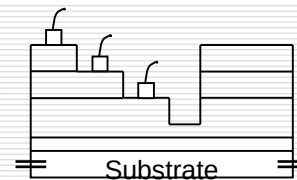
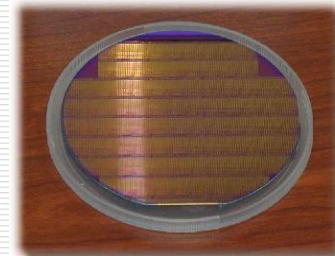


MOCVD Reactor

InP Epi- Wafer
磊晶片



Optoelectronics
IC Process



AI Data center



Optical Transceiver

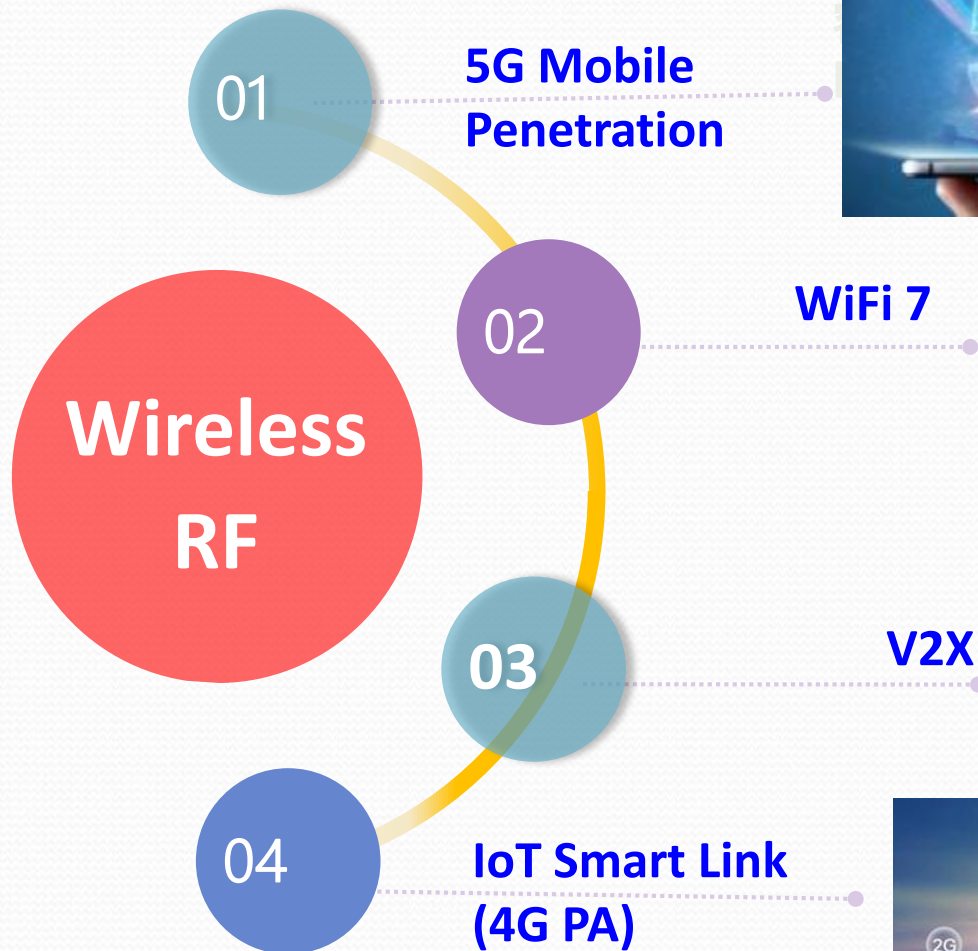
VPEC is a Pure Epi Provider



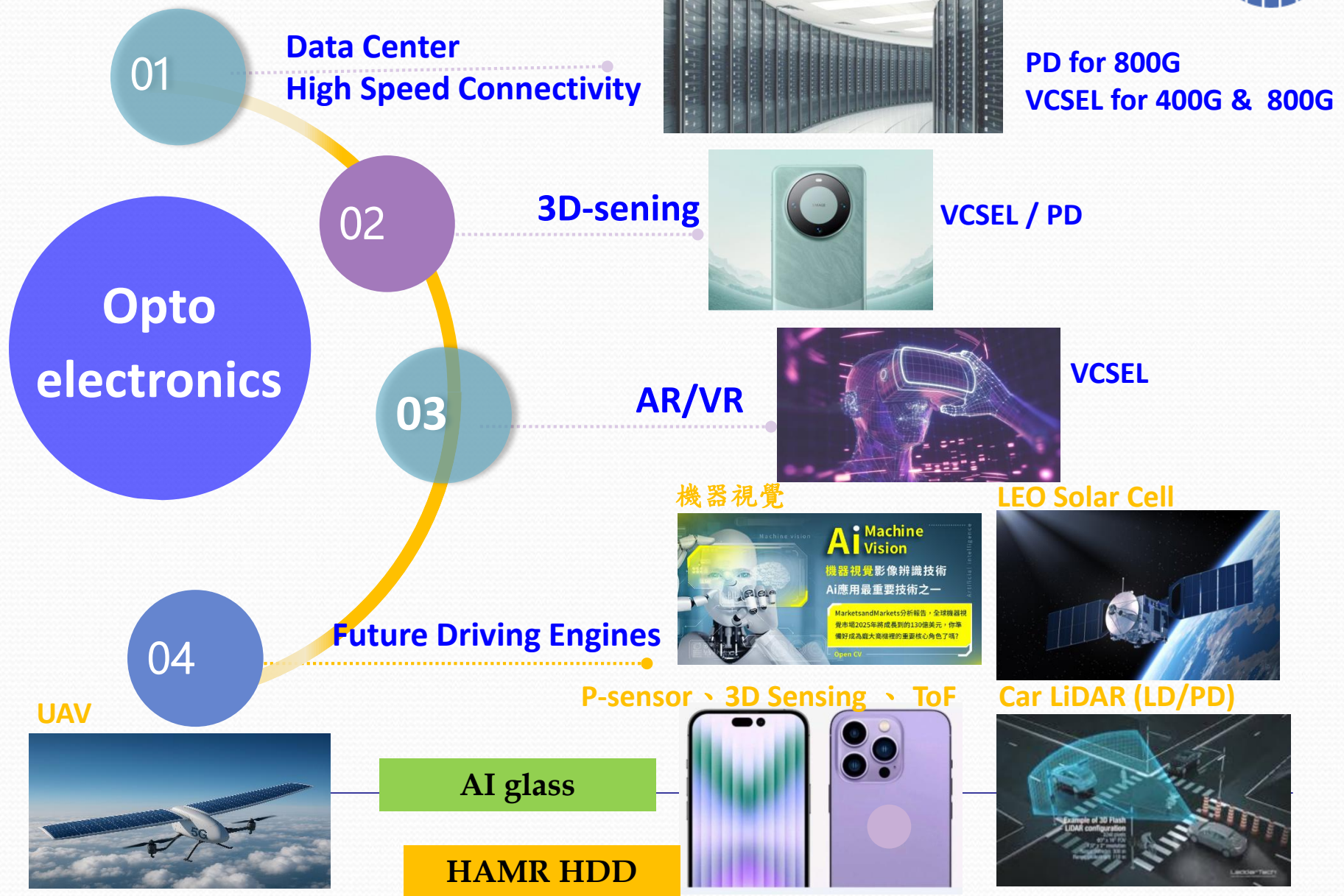
2023-2026 H1 Financial Result

	2026 H1	%	2025	%	2024	%	2023	%
Revenue	1,924,683	100%	3,380,143	100%	3,241,217	100%	2,694,104	100%
Gross margin	738,137	38%	1,219,726	36%	1,278,964	39%	1,108,914	41%
Operating Profit	450,464	23%	669,263	20%	721,214	22%	542,069	20%
Non-operating income & expense	29,836	2%	-1,912	0%	96,460	3%	-347	0%
Tax	-71,627	-4%	-119,409	-4%	-146,619	-5%	-91,490	-3%
Net income	408,673	21%	547,942	16%	671,055	21%	450,232	17%
EPS	2.20		2.97		3.63		2.43	

2027 Outlook



2027 Outlook



AI glass



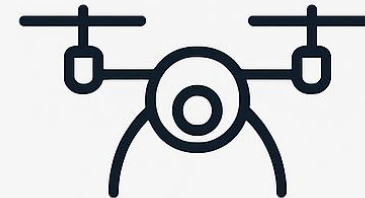
Micro LED
Wi-Fi 7
ToF

AI datacenter



CW-laser
VCSEL
PD

Drone



Solar Cell
Wi-Fi 7