



Company Profile

光頡科技股份有限公司

ISO9001

ISO14001

ISO13485

IATF16949

AEC-Q200

VDA6.3



History 公司發展歷程

1997-
2001



Established

2002-
2011



Expanded

2012-
2016



Go on Public

2016-
2018



Automotive Market

2019-
2022



Medical Market
5G Market

2023~



Long term Strategy

- 成立於新竹科學園區, 研發與量產薄膜製程被動元件
- 電阻, 電感薄膜製程代工服務.

- 併購泰銘電子, 更名為光頡科技高雄分公司
- ISO9001/14001 TS16949 認證
- 開發並完成 01005 電阻
- MELF 柱狀電阻 0102 量產

- 美國分公司成立
- Viking 上櫃
- 擴建新竹二廠
- ERP 系統升級
- 合金系列整合展開

- 通過 IATF16949
- 通過德國車規 VDA 6.3
- 高雄擴廠
- 全無鉛系列展開
- AEC-Q200 產品系列展開

- 積極擴展薄膜、MELF、合金產品
- ISO13485 認證
- MES (製造執行系統)
- 大陸設廠/擴產計劃
- 高頻/ 高溫/ 大功率/ 寬邊系列

- 更多環境和未來解決方案
- 不斷開發新產品, 覆蓋更多市場與應用

Facility Overview

工廠據點

◆ 成立日期: October 1, 1998
◆ 資本額: US\$ 39 Million



Wuxi Factory



Hsin Chu Factory II



Headquarter



Expansion Nantong Factory- 2025!

Chengdu, China

Shanghai, China

Dong Guan, China



Office , CA



Kaoshiung Factory I & II



• Wuxi TMTEC:
Employee 95 people
Factory : 5,400 square
meter



• 2012 Set up Viking
Tech America Corporation



• Kaohsiung (Thick film, MELF, current sensing)
Employee : 326 people
Factory : 13,220 Square meter



• Headquarter (Thin Film R and I)
Employee: 363 people
Factory I : 4486 Square meter
Factory II : 6570 Square meter

Quality System品質認證



IATF 16949
VDA6.3



ISO 9001



ISO 14001



ISO 13485



Sales Revenue

營業額

Year	2016	2017	2018	2019	2020	2021	2022	2023 (目標)
NTD/ Dollar	1,720,619,000	1,848,069,000	2,653,959,000	2,144,528,000	2,126,184,000	3,106,483,000	3,161,886,000	3,700,000,000
RMB/ Dollar	391,049,773	420,015,682	603,172,500	487,392,727	483,223,636	706,018,864	718,610,455	840,909,091
USD/ Dollar	57,353,967	61,602,300	88,465,300	71,484,267	75,935,143	110,945,821	107,182,576	123,333,333

營業額



Marketing Position 市場定位

薄膜精密元件
Si Wafer、IC Package

薄膜被動元件

Chip R.L.C

厚膜被動元件. 功率電感



高精密特性 / 品牌價值 / 生產技術

市場範圍

Marketing Position 市場定位

-Global Thin Film Resistors market status-

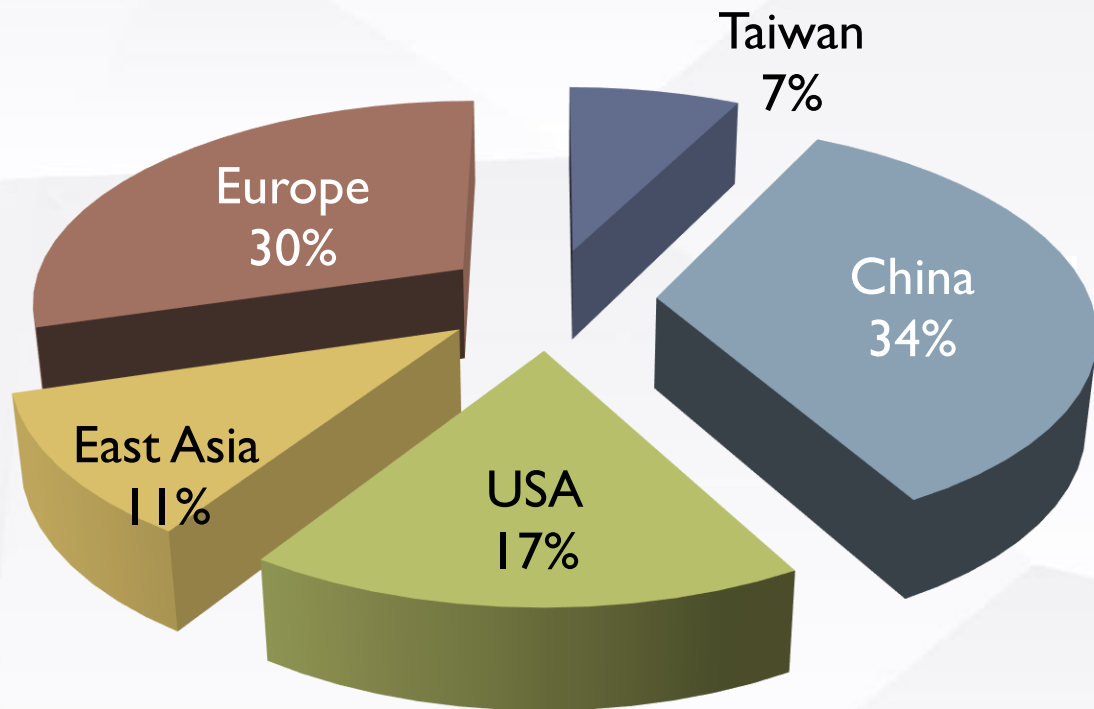
Table 5. Global Thin Film Resistors Sales Volume Market Share by Manufacturers (2018-2021)

Year	2018	2019	2020	2021E
Vishay	27.70%	28.39%	28.93%	29.31%
KOA	10.10%	10.33%	10.41%	10.54%
Susumu	9.10%	9.26%	9.35%	9.38%
Viking Tech ★	7.93%	6.29%	6.13%	6.17%
Panasonic	4.20%	4.29%	4.13%	4.18%
Yageo	4.15%	4.35%	4.26%	4.21%
Walsin Technology	3.83%	3.99%	3.69%	3.69%
Bourns ✓	2.53%	2.57%	2.27%	2.30%
TE Connectivity ✓	1.77%	1.76%	1.68%	1.64%
Samsung Electro-Mechanics	1.78%	1.84%	1.85%	1.86%
Ta-I Technology	2.01%	2.04%	1.99%	1.94%
Uniohm	0.99%	1.00%	0.97%	0.99%
Ralec Electronics	0.75%	0.75%	0.75%	0.76%
Ever Ohms	0.64%	0.65%	0.60%	0.60%
Others ▲	22.52%	22.50%	22.97%	22.44%
Total	100%	100%	100%	100%

Source: Above companies; Secondary Sources, Expert Interviews and QYResearch, 2021

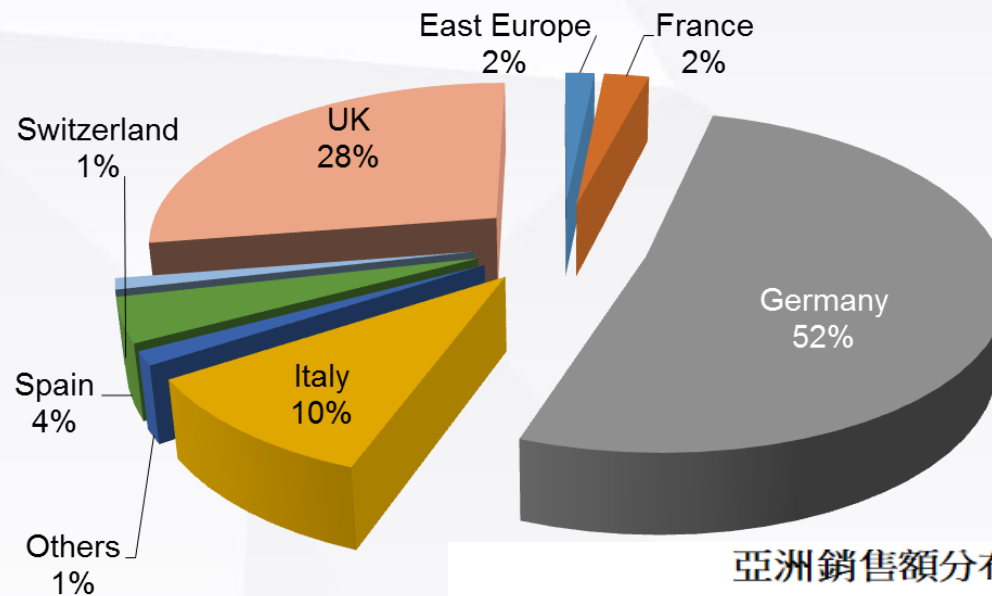
Source: Global Thin Film Resistors Market Research Report 2021

Market Share 市場分布

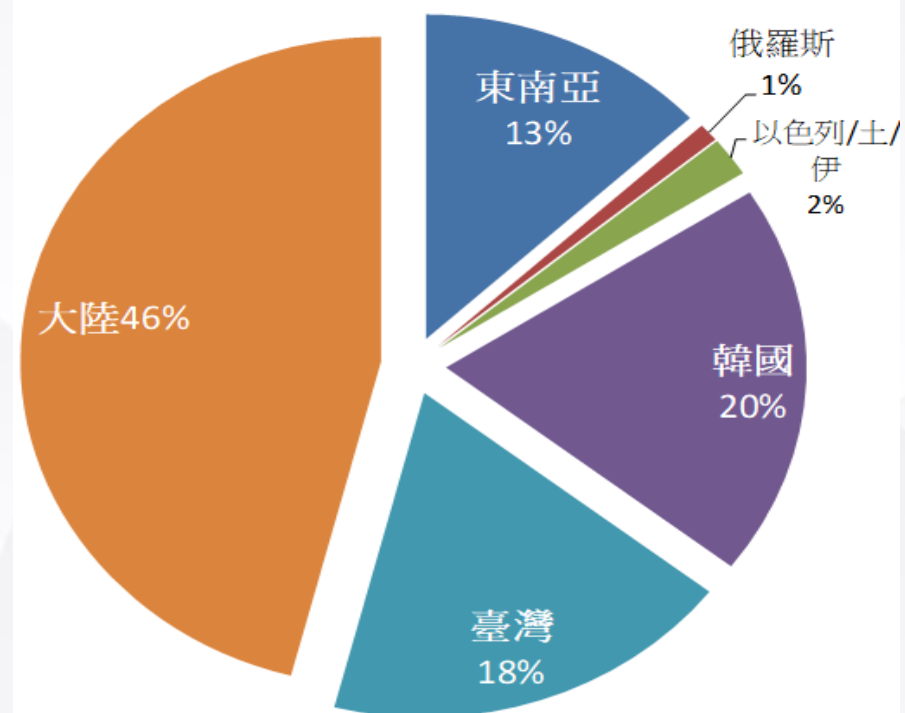


Global Market Share

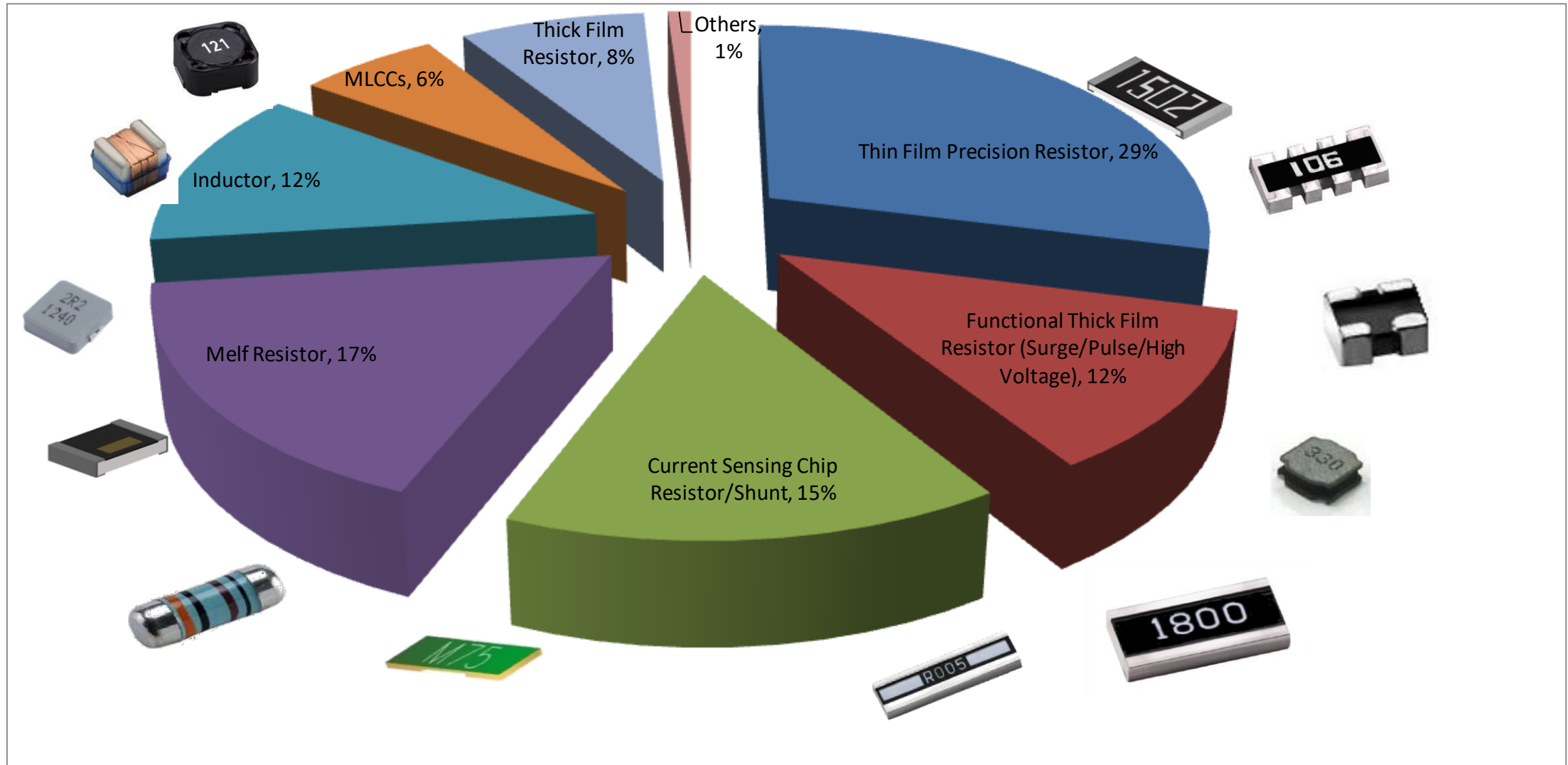
歐洲區銷售額分布



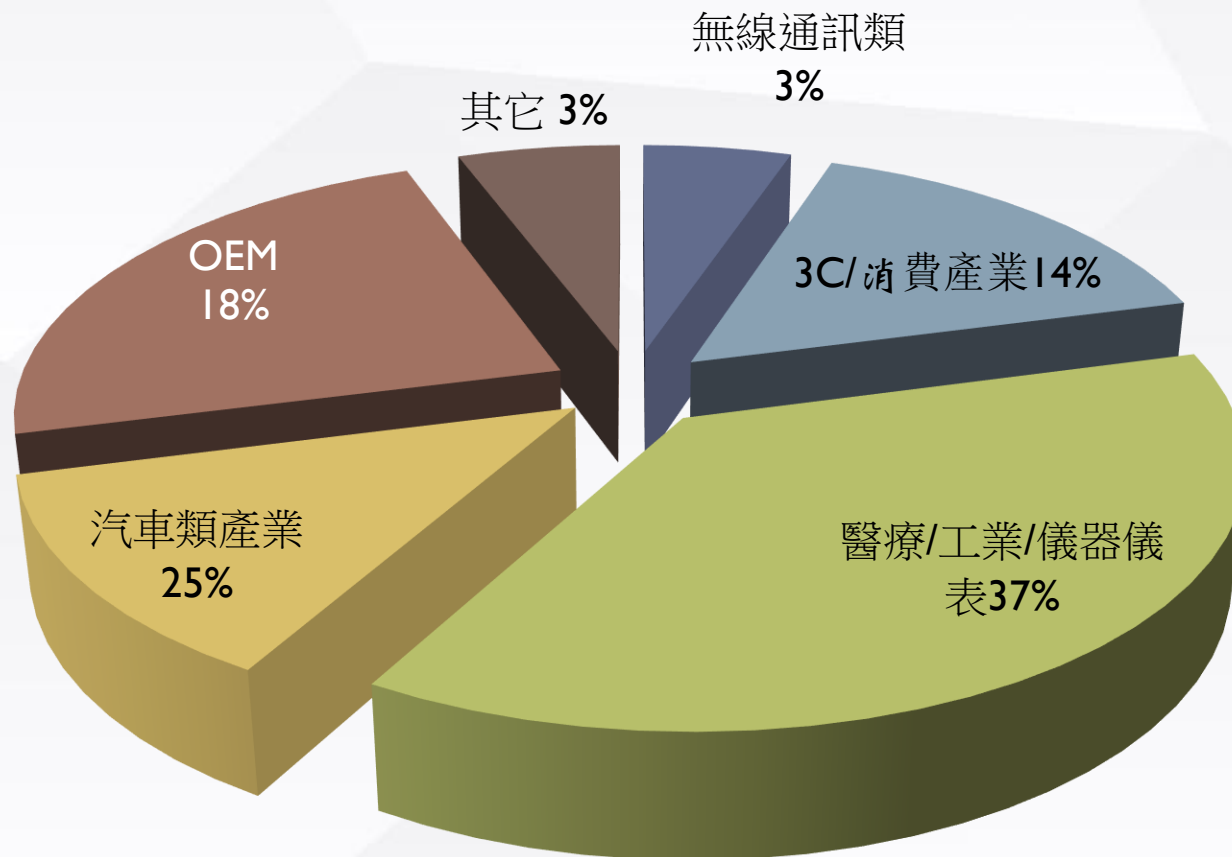
亞洲銷售額分布



Market Share 產品分布



Market Segments 產業應用



■工業類產業I: 測試設備, 新能源, 電源管理.

■醫療類產業: 個人健康量測、血氧機、耳溫槍

■消費性產業: 智能家電、藍芽設備、自動販賣機、咖啡機

■汽車類產業: 車燈、多媒體、車鎖、電子式啟動器、BMS、胎壓系統、發動機控制系統、ADAS

■其它: 通信系統、衛星設備

Customers/Application 產業指標客戶



Industrial

ENERGY
THAT
CHANGES



METTLER TOLEDO



国家电网
STATE GRID

南瑞集团公司
NARI GROUP CORPORATION



PEPPERL+FUCHS



LARSEN & TOUBRO



ADVANTECH

LUMINOUS
verter • UPS • Battery



长城开发科技股份有限公司



Automotive



BOSCH



CASCO



DENSO
Crafting the Core



Koito



LG



Consumer

DIEHL



SANDEN
Delivering Excellence



TP-LINK®
The Reliable Choice



Healthcare

OMRON

mindray 迈瑞

andon 九安

Viking series 產品

Viking Product Overview

Resistors

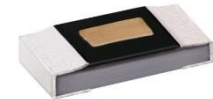
Precision 薄膜/厚膜精密電阻
Metal Strip 合金超低阻
Ultra Low Ohm 超低阻
Surge Withstanding 耐浪湧/耐突波電阻
Anti-Sulfurated 抗硫電阻
Power Resistor 功率電阻
Array 排阻



R

Inductors

High Frequency 高頻薄膜/積層/繞線電感
Miniture
High Power 功率電感
BEAD/ Common Mode Filter 磁珠/共模扼流圈



I

Capacitors

Multilayer Capacitor 積層電容
Ultra High Q and Low ESR 高Q低ESR低感



C

M

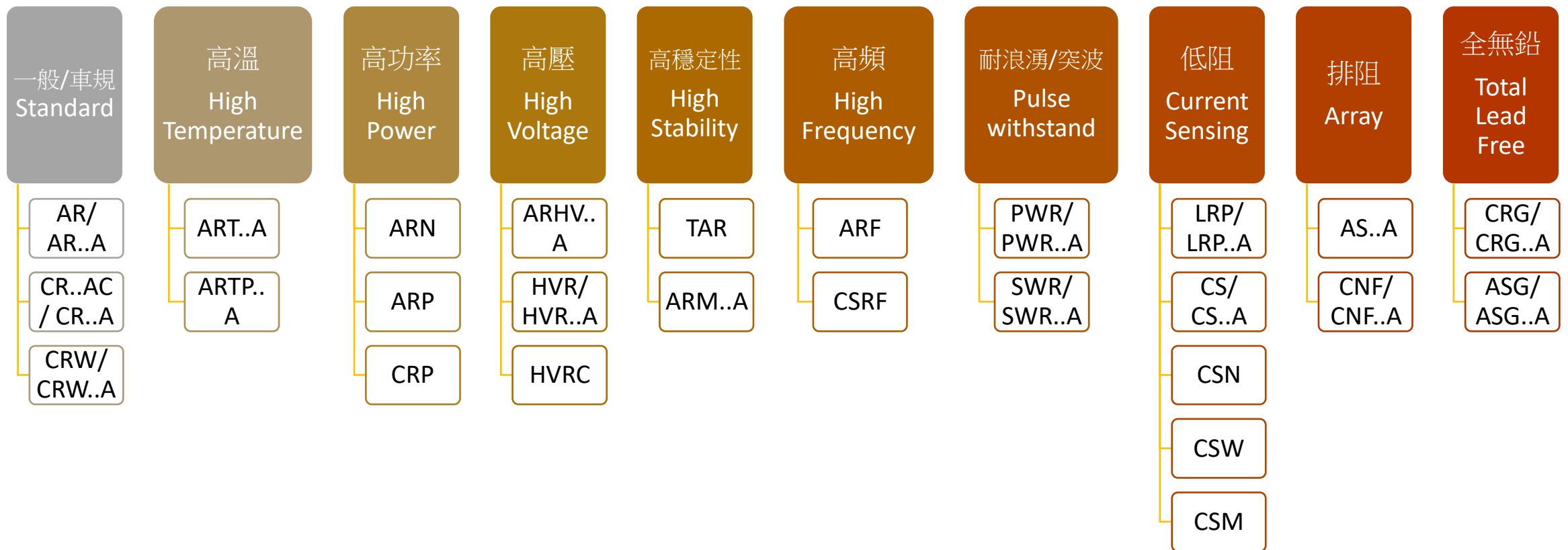
MELF Resistors

車規/ 高頻/ 高壓精密柱狀電阻
AEC Q200 Compliance
Thin film technology
Excellent overall stability
Sn termination on Ni barrier layer
T ight t olerance down to ± 1
Extremely l ow TCR down to 10 PPM/ C
High power rating up to 1 Watts

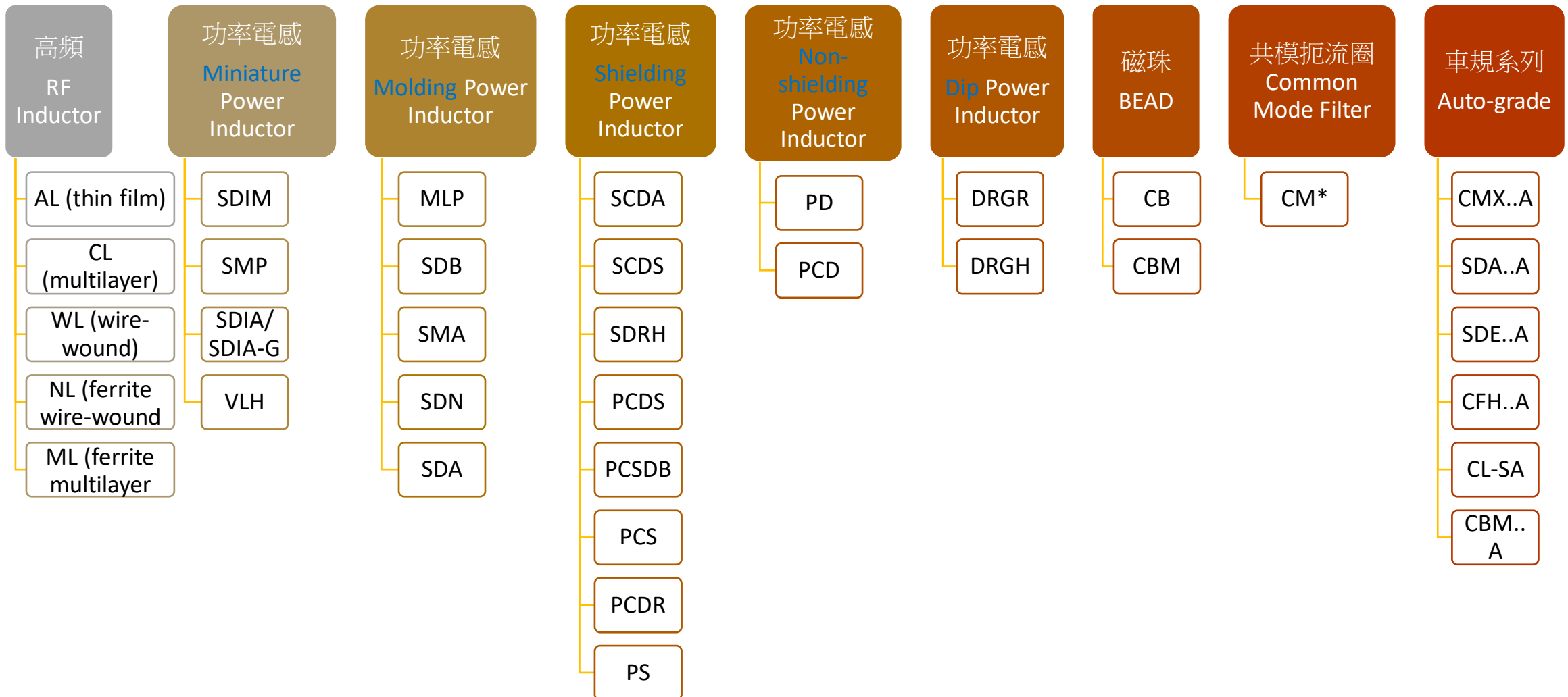


Viking series 電阻

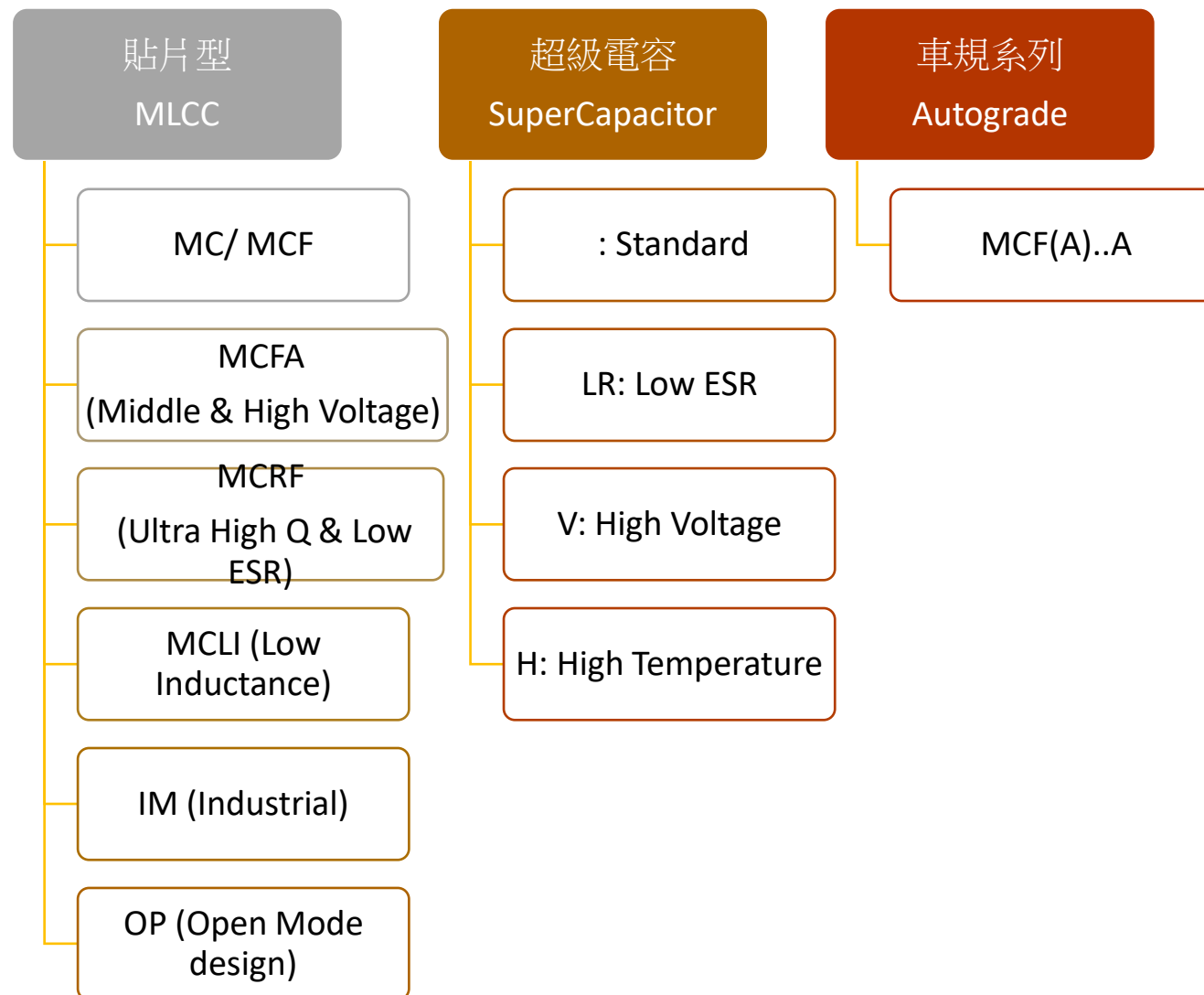
Solution of Resistors



Viking series 電感 Solution of Inductors



Solution of Capacitors





MELF RESISTOR & THIN FILM RESISTOR

Product Stars



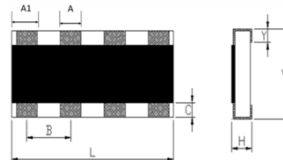
New product overview- Thin Film



VIKING Cross Reference	Competitor Series	Features特性
TAR	PAT	Tantalum Nitride, Immunity to humidity, moisture and sulfur
ART..A	MCx/ MCx AT Precision	Operating Temp up to 175°C
ARTP..A	MCx HP	Operating Temp up to 175°C & High Power
ARN	PCAN	Aluminum Nitride, Higher Power Rating (1206 2W/ 2512 6W)
ARHV..A	TNPW e3	- High operating voltage to 1000 V - Low voltage coefficient <1 ppm/V
ARP	HRG	1206 with 1Watts
ARM..A	RG	- High precision resistance tolerance ± 0.02 % - Very small TCR ± 5 ppm/°C - Resistance values 10Ω to 5.1MΩ
ARF	FC (40G)	High Frequency Thin Film (40GHz)~ 50GHz coming soon

New product overview- Thick Film



VIKING Cross Reference	Competitor Series	Features 特性
CRW(A) Series	WK73R	1225/1020/0612/0508 Automotive and Medical application
CRP Series	RCP	Aluminum Nitride Thick Film Precision Chip Resistors High Power(2512 3.5W, 1206 2.4W)
CRG (A) Series ASG (A) Series	RCG	Green Resistor without RoHS exemptions
CNF (A) Series		Thick Film Array Flat Chip Resistor •no holes between the terminals •strong mechanical strength •extremely resistant to damage
HVRC	RCV、 CRHA	• Higher component and equipment reliability • Excellent performance at high voltage • Low VCR
CSRF Series	MMx HF	• Suitable for RF applications • Specialty trimmed technology
CSW	WK73S	1225/1020/0612/0508
LRP (A) Series	WSLP	• 2512/1206/2010 • High power rating up to 3 Watts • Low TCR down to ±25 PPM/°C • Resistance values from 3m to 200m ohm

Automotive Grade Series 汽車級系列



Series	Product	Resistance range	Tolerance	TCR (ppm/°C)	Size	Factory location
AR..A	Automotive Grade Thin Film Chip Resistor	10Ω ~ 1MΩ	0.05% ~ 1%	±10~±50	0402 ~ 2512	Hsinchu
CSRA	Metal Film Precision Resistor (AEC-Q200 Compliance)	0.1Ω ~ 1MΩ	0.1% ~ 5%	±5~±100	0102, 0204, 0207	Kaohsiung
CS..A	Automotive Grade Current Sensing Chip Resistor	0.003Ω ~ 1Ω	1%, 2%, 5%	±100~±600	0402 ~2512 1225/3720/7520	Kaohsiung
CR..A	Automotive Grade Thick Film Chip Resistor	1Ω ~ 10MΩ	1%, 5%	±100, ±200	0201 ~ 2512	Kaohsiung
AS..A	Automotive Grade Anti-Sulfur Chip Resistor	1Ω ~ 10MΩ	0.5%, 1%, 5%	±100, ±200	0201 ~ 2512	Kaohsiung
CN..A CNF..A	Automotive Grade Thick Film Array Chip Resistor	1Ω ~ 1MΩ	1%, 5%	±200	0402/0603 8P4R	Kaohsiung

Automotive Grade Series 汽車級系列



Series	Product	Resistance range	Tolerance	TCR (ppm/°C)	Size	Factory location
PWR..A	Automotive Grade Pulse Withstanding Chip Resistor	1Ω ~ 20MΩ	0.5% ~ 5%	±100~±200	0402 ~ 2512	Kaohsiung
SWR..A	Automotive Grade Surge Withstanding Chip Resistor	1Ω ~ 20MΩ	5% ~ 20%	±100~±300	0402 ~ 2512	Kaohsiung
HVR..A	Automotive Grade High Voltage Chip Resistor	30KΩ ~ 100MΩ	1%, 5%	±100~±400	0402 ~2512	Kaohsiung
LRP..A	Automotive Grade Metal Strip Ultra Low Ohm Resistor	0.001Ω ~ 0.2Ω	0.5%, 1%, 5%	±25, ±50, ±75, ±100	1206/ 2010/ 2512	Kaohsiung

More series coming soon



Viking Roadmap

產品藍圖



2022~

- Thick film with tight tolerance and low TCR, high power
- Upgrade Operating temperature, power rating, resistance range, expended size.
- **Lead-free** thick film series

2023~

- Long side high power thin film metal resistor
- Long-side Current sensing
- Long side metal current Sensing
- Pulse, PWR..A series power upgrade
- Tan Nitride TAR Series upgrade High reliability
- Expansion plans Execute

2024~

- Whole series without RoHS exemption and Automotive Green Products
- Thick film ultra high power, ultra high ohm 0.1% 25ppm

2025~

- Thin film chip Resistor apply for aerospace and military grade
- Thin Film Array Chip Resistor 0.05% 5PPM Automotive grade

Viking Capacity

產能

Viking/M	電阻	Hsin Chu	Kaohsiung			WUXI	GuangDong
		(單位KK)	(單位KK)			(單位KK)	(單位KK)
		Thin Film	Thick Film	MELF	Metal Strip	CR (Thick Film)	CR (Thick Film)
	2022	400	1900	200~250	30	2000	30000
	2023	400~600	1900(TW)	250	30(TW)	2000	30000
	2024	600(TW)+100	1900(TW)+	250(TW)+	30(TW) +		

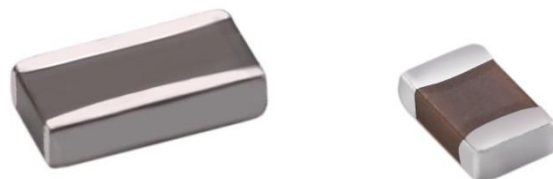
※大陸擴產計畫

Viking Capacity 產能



電感	疊層型	繞線型	功率電感	Miniature Molding 功率電感
	(單位KK)			
2022 Monthly Capacity	5000	105	200	100
2023 Monthly Capacity	7200	130	250	200

Viking Capacity 產能

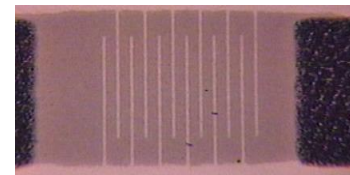


電容	1005	0201	0402	0603	0805	1206以上
	(單位KK)					
Monthly Capacity	5550	26350	17600	8800	6780	1920

Viking Advantage

我們的優勢

1. 薄膜 0.01% & 1ppm 專業製造商
2. 深耕Automotive and Industrial 市場
3. 封裝樣式多選擇 SMD/ MELF/ LEADED...等
4. 產品多樣性選擇 (薄膜/ 厚膜/ 合金/ 功能性電阻)
5. 獨家材料配比/分析技術/ 客製化提供/ 產品優化
6. 專利技術：獲得國內外專利63件、每年申請專利維持增長



EXPERT OF Thin Film Technology

Make things smaller
and smarter



Thanks for your listening.

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