

## 客戶導向的經營團隊 A Team of Customer Orientation

創新與服務，是穩得成立以來未曾改變的宗旨，也是與客戶一起成長的原動力。專業的工程師團隊，結合穩得完整的EMC與線路保護元件產品線，讓客戶不再為零組件間相互干擾的問題，以及因供應商不同而產生的責任歸屬而困擾；從電源到訊號輸出，從源頭設計到安規認證，唯有穩得可以一次性完整的提供所有EMC、RF及安規認證的解決方案。

以台北為總部，穩得業務據點遍布韓國首爾、日本埼玉、新加坡、中國上海、蘇州及深圳等地，未來將持續拓展大中華及亞洲地區的服務網絡；我們創新的整合型服務，讓客戶把所有煩惱的EMC問題交給我們，不但提升了產品上市的效率，並把節省下來的時間，讓客戶更聚焦在如何增加附加價值，並成立ISO/IEC 17025電性測試實驗室，也通過TAF與UL、CBTL的認可。

秉持不斷的創新理念，穩得更研發出享有全球專利的主動式防雷模塊Surge Pro<sup>®</sup>，並首創過電壓保護變壓器Surge Trans<sup>®</sup>，大幅降低客戶產品的售後維修成本。我們服務的客戶產品應用範圍涵括：如手機、桌上型電腦、筆記型電腦、平板電腦、數位相機、導航系統、監控系統，工業用電腦、醫療用設備、通信設備、網通產品、風力發電系統、LED照明系統…等。

我們深信“客戶導向”絕非口號，而是穩得致力於建立長期卓越夥伴關係的一個承諾！

## 穩得的使命 Our Mission

### 3E Business

[ Excellent Service & Solution Provider.  
Excellent Supplier of Electronic Components.  
Excellent Partnership with Customers. ]

## 創新的服務模式

# EMC & Safety & RF 認證整合型服務

### ● 一次性購足的服務流程

- 1 EMC / 保護相關零件 / Layout規劃諮詢
- 2 EMC前測 (Pretest) 報告
- 3 EMC偵錯 (Debugging)
- 4 取得認證報告  
認證內容：提升客戶產品上市效率，降低客戶認證成本。

### ● 認證應用領域與範圍

- 1 一般醫療用產品 & 工業用主機
- 2 工科醫設備
- 3 電源供應器
- 4 影音類、電腦周邊、其他3C及網路通信產品
- 5 鐵道 & 航海相關設備
- 6 安全監控設備 & 警報系統
- 7 無線射頻產品 (WIFI、BT、LE、SRD...etc)
- 8 量測、控制和實驗室用之控制設備
- 9 國際認證  
認證內容：EMC & RF & Safety  
認證範圍：美洲地區、北歐、東歐、紐澳、亞洲、中東地區、非洲地區。

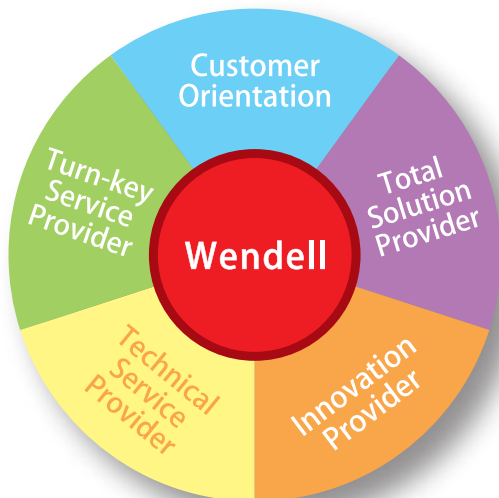
### ● 優質專業的技術團隊

- 1 穩得技術團隊擁有20年的實務經驗
- 2 中華民國靜電放電協會專業合格工程師執照
- 3 系統廠EMC部門主管經歷
- 4 保護元件設計原廠FAE主管經歷
- 5 Samsung / Panasonic / Toshiba / LG / IDIS EMC技術合作經驗
- 6 擁有多項防突波元件及模組專利
- 7 科技大學專聘講師  
認證內容：以豐富的經驗及專業，協助客戶縮短開發時間。

### ● 全方位的認證測試環境

- 1 Safety Lab.
- 2 EMC Testing Lab.  
RE chambers  
-743 chamber  
-966 semi-anechoic chamber  
CE testing room  
RS 844 20V/m chamber  
CS testing room  
Harmonic & Flicker testing room  
EMS testing room ( Surge, EFT, DIP, PFMF )  
ESD testing room
- 3 RF Testing Lab.  
966 semi-anechoic chamber  
1166 Fully anechoic chamber  
RF Conducted Measurement Room

### ● Why Wendell



● 電磁相容(EMC)/無線(RF)測試認證服務

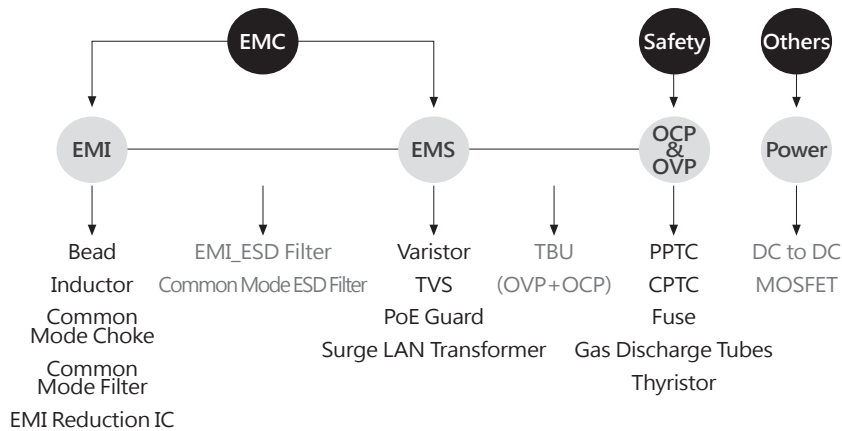
Country	Mark	Standards
Taiwan		CNS13803 LP0002
USA		FCC Part 15 Subpart B / C / E FCC Part 18
Canada		ICES-003、RSS-Gen、RSS-210、RSS-247、RSS-102
EU		EN 300 328 / EN 301 893 EN 300 330 / EN 301 489-1/-3/-17 EN 55032 / EN 55024 / EN 50130-4 EN 61000-6-1 / EN 61000-6-2 EN 61000-6-3 / EN 61000-6-4 EN 55011 / EN 60601-1-2 EN 50121-3-2 / EN 50121-4 EN 300 220 / EN 300 440 EN 302 502 / EN 303 417 EN 55035 / EN 60945
Japan		V3 / V32 MIC ARIB STD T-71 / T-66 ; RCR STD-33
China		CCC Series Standards
New Zealand and Australia		AS / NZS CISPR 32 AS / NZS 4268 AS / NZS CISPR 11, AS / NZS 610006.1, AS / NZS 610006.2 AS / NZS 610006.3, AS / NZS 610006.4
Korea		KN32 / KN35 standards

● 安規(Safety)測試與國際換證服務

Country	Mark	Standards
Taiwan		CNS 14336-1 / CNS 14408
USA		UL 60950-1 / UL 60065 UL 62368-1 / UL 60601-1 / UL 61010-2-201
EU		IEC / EN60950-1, IEC / EN60065 IEC / EN62368-1, IEC / EN60601-1 IEC / EN61010-1, IEC / EN61010-2-201 EN50563, EN50564
CB Scheme		CCC, PSB, BIS, EAC, KC, MSIP NOM, SIRIM, RCM...etc.

● 完整的EMC和保護元件產品線

**Benefit**：減少零組件間相互干擾的問題，以及因供應商不同而產生的責任歸屬問題。



## EMC Device

### Chip Bead



#### Single Type

Size(Inches) : 01005~1812  
Impedance : 10~2500ohm  
Rated Current : 100~900mA



#### High Current Type

Size(Inches) : 0201 / 0402 / 0603 / 0805 /  
1206 / 1806 / 1812  
Impedance : 10~1500ohm  
Rated Current : 1000~6000mA



#### GHz Type

Size(Inches) : 0402  
Impedance : 600~1800ohm  
Rated Current : 200~300mA



#### Array Type

Size(Inches) : 1206  
Impedance : 30~1000ohm  
Rated Current : 150~500mA

### Chip Inductor



#### Ferrite Type

Size(Inches) : 0603 / 0805  
Inductance : 0.047~10μH  
Rated Current : 15~300mA  
Tolerance : ±10% / ±20%

### Wire Wound Ceramic Inductor



Size(Inches) : 0402 / 0603 / 0805 / 1008  
Inductance : 1.0~1000nH  
Rated Current : 30~1360mA  
Tolerance : ±0.2nH / ±0.3nH / ±2% /  
±5% / ±10%

### Air Wound Coil



Size : 3.7x3.1~10.6x6.35mm  
Inductance : 2.5~538nH  
Q(Min) : 87~145  
Rated Current : 1.2~4A  
Tolerance : ±5%

### Chip Power Inductor



Size(Inches) : 0603 / 0805 / 0806  
Inductance : 0.47~2.2μH  
Rated Current : 2000~4200mA  
Tolerance : ±20%

### Molding Type Power Inductor



Size : 2.5x2.0~23.0x23.0mm  
Inductance : 0.1~150μH  
Rated Current : 0.8~80A  
Tolerance : ±20%  
AEC-Q200 Qualified

### Shielding Power Inductor



Size : 2.0x1.6~8.0x8.0mm  
Inductance : 0.24~220μH  
Rated Current : 0.3~8.5A  
Tolerance : ±20% / ±30%  
AEC-Q200 Qualified

### Choke Coil Power Inductor



Size : 3.0x3.5~12.0x12.0mm  
Inductance : 1~1000μH  
Rated Current : 0.06~16A  
Tolerance : ±10%~±30%

### Common Mode Filter



#### Single Type

Size(Inches) : 0302 / 0504 / 0805 / 1206  
Impedance : 12 / 35 / 50 / 65 / 67 / 75 / 90 /  
100 / 120 / 160 / 180 / 200 / 220 /  
260 / 360 / 600 / 1000 / 2000ohm



#### Array Type

Size(Inches) : 0805  
Impedance : 100ohm

### Common Mode ESD Filter



#### Single Type

Size(Inches) : 0201 / 0302 / 0504  
Impedance : 12 / 35 / 50 / 65 / 90ohm  
Capacitance(Max) : 1.7pF



#### Array Type

Size(Inches) : 0603 / 0805  
Impedance : 75 / 100ohm  
Capacitance(Max) : 1.7pF

### EMI reduction IC



Supply Voltage : 1.8V / 3.3V  
Frequency : 10~54MHz  
Deviation : ±0.05%~±0.37%  
Temp Grade : Industrial / AEC-Q100 G1 /  
AEC-Q100 G2  
Package : uDFN 1x1mm / WDFN 2x2mm

### Oscillator with EMI reduction



Supply Voltage : 1.8~3.3V±10%  
Frequency : 10~40MHz  
Deviation : 0.07~0.7%  
Frequency Stability : ±50~100ppm  
Temp Grade : Industrial / AEC-Q100 G1 /  
AEC-Q200 G2  
Size : 2.5x2.0mm / 2.0x1.6mm

### ESD Suppressor



#### Single Type

Size(Inches) : 0201 / 0402 / 0603  
Working Voltage : 5 / 18V / 24V  
Capacitance : 0.15pF

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## Varistor



### Single Type

Size(Inches) : 0201 / 0402 / 0603 / 0805 / 1206 / 1210 / 1812 / 2220  
Capacitance : 3~8500pF  
DC Voltage : 5.5~385V



### High Current Type

Size(Inches) : 1206 / 1210 / 1812 / 2220  
DC Voltage : 9~65V  
Surge Current : 500~3000A  
(8 / 20 wave form)



### High Voltage Type

Size(Inches) : 1206 / 1210  
DC Voltage : 9 / 38 / 60V  
Surge Current : 100 / 150A  
(10 / 700 wave form)

## Disk Varistor / TMOV



Diameter : 7~53φ  
Trigger Voltage : 18~1800V  
Capacitance : 60~86000pF

## EMI ESD Filter



### RC Type

4 Elements / 6 Elements / 8 Elements  
Package : 0603 / 0805 / 1205 / 1305  
Working Voltage : 5.6 / 9 / 14 / 18V  
Resistance : 10~400ohm

## TVS Diode



Package : 0201 / 0402 / 0603 / 8L NSOIC / SC-89 / SC-70 / SMA / SMB / SMC / SMB-3 / SMC-3 / DO218 / SOD-123 / SOD-323 / SOD-523 / SOD-923 / SOT-143 / SOT-23 / SOT-23-6 / SOT-363 / SOT-523 / MSOP-10 / MSOP-08 / DFN-10 / DFN-6 / DFN1610 / DFN2626  
Working Voltage : 2.5~513V  
Minimum Breakdown Voltage : 3.5~630V  
AECQ101 Qualified

## Bridge Diode



Package : ABF / ABS / MBS / DBS / GBJ / GBU / KBP / D3K  
Working Voltage : 50~1000V  
Output Current : 0.5~25A

## Schottky Diode



Package : 0603 / 0201 / SMA / SMB / SMC / SOD-123 / SOD-323 / SOT-23 / SOT-323 / SOT-523 / TO-277  
Reverse Voltage : 50~1000V  
Forward Current : 0.5~20A

## Balun Transformer



Size : 2012  
Frequency : 50~1200MHz / 1000~1500MHz  
Insertion : 1.2dB / 1.4dB  
Customized

## Rectifier Diode



Package : SMA / SMAF / SMB / SMC / SOD-123 / SOD-123FL / TO-277B  
Reverse Voltage : 50~1000V  
Forward Current : 1A~20A

## Zener Diode



Package : SOD-123 / SOD-323 / SOD-523 / SMA / SMB / SMC / SOT-23 / SOT-323 / DO-35 / DO-41 / LL-34  
Zener Voltage : 2.4V~350V  
Power Dissipation : 200mW~3000mW

## General Purpose Transistor



Package : SC-89 / SOT-23 / SOT-363 / SOT-883  
Collector-Emitter Voltage(V) : -40~300V  
Power Dissipation : 150mW~350mW

## Circuit Protection

### PPTC



#### SMD Type

Safety Standard : CSA UL TUV  
Size(Inches) : 0402 / 0603 / 0805 / 1206 / 1210 / 1812 / 2018 / 2920  
Ihold Current : 0.05~7Amp  
Rated Voltage : 6.0~60.0V  
AEC-Q200 Qualified



#### Mid-Low Voltage SMD Type

Safety Standard : CSA UL TUV  
Size(Inches) : 2920 / 3425  
Ihold Current : 0.3~3Amp  
Rated Voltage : 6.0~60.0V



#### High Voltage SMD Type

Safety Standard : CSA UL TUV  
Size(Inches) : 3729  
Ihold Current : 0.13Amp  
Rated Voltage : 250V



#### Mid-Low Voltage Radial Type

Safety Standard : CSA UL TUV  
Ihold Current : 0.05~13.0Amp  
Rated Voltage : 16.0~90.0V



#### High Voltage Radial Type

Safety Standard : CSA UL TUV  
Ihold Current : 0.12~0.18Amp  
Rated Voltage : 250 / 600V



#### Strap Type

Safety Standard : CSA UL TUV  
Ihold Current : 1.70~6.0Amp  
Rated Voltage : 10~24V



#### AC Type

Safety Standard : UL  
Ihold Current : 0.05~0.55Amp  
Vmax AC : 240V

mer Orientation

### CPTC



Types : Radial Leaded Surface Mount  
Ihold Current : 0.05~0.18Amp

### Transient Current Suppressors



#### Superior overcurrent protection

Maximum Impulse Voltage : 40V  
Trigger Current : 375~1100mA  
Low Resistance : 1.0-2.3ohm  
DFN Package

### Transient Blocking Unit



#### TBU-Intergrated OVP OCP Device

Different Voltage and Package Selection  
Safety Standard : K.20 / K.21 / K.45 / GR-1089

### Telecom Fuse



Size(Inches) : 3812  
Rated Current : 0.5 / 1.25 / 2.0Amp  
Rated Voltage : 600V  
Safety Standard : GR-1089 & UL1950 / 60950

### Thyristor



Different Voltage and Package Selection  
Subscription-Line IC (SLIC)  
Over Voltage Protection  
Fixed Voltage & Programmable Voltage Selection  
Protection Voltage : 15~750V  
Safety Standard : GR-1089 / K.20 / K.21 / K.45

### Fuse



Safety Standard : UL / TUV / CQC / PSE / VDE / KC  
Size(Inches) : 0402 / 0603 / 1206 / 2410 / 2923  
Fixed Voltage & Programmable  
Rated Current : 0.1~60Amp  
Rated Voltage : 24~1000V

### Thermal Fuse



Safety Standard : UL / TUV / CCC / PSE / VDE / KC  
Tf(°C) : 73~240°C  
Ir(A) : 10~15A

### Multi-Protector BTU



OCP+OTP 2-in-1 solution  
Short test under 220Vac  
Anti-surge Above 2.0KV  
Over temperature  
(Tf: 221°C, function temperature : 217°C)

### GDT



#### SMD Type

DC Breakdown Voltage : 100V / S : 60~3000V  
Impulse Current : @8 / 20μS : 0.5~100KA

#### FLAT® GDT

DC Breakdown Voltage : 90~600V  
Impulse Current : @8 / 20μS : 10KA

#### Radial Type

DC Breakdown Voltage : 100V / S : 60~7200V  
Impulse Current : @8 / 20μS : 2.5~40KA  
Safety Standard : UL / Telcordia / ITU / IEC / RUS / IEEE

### Sparctube



#### Switching Sparkgap Devices

Igniters for architectural and automotive Xenon discharge lamps  
High energy, low loss capability  
Switch Voltage : 350~1000V

### Power TVS Diode



Repetitive Standoff Voltage :  
6kA : 380 / 430V 10kA : 58 / 76 / 470V  
6kA / 10kA , 8 / 20μs surge capability  
AC line protection  
UL Recognized  
High power DC bus protection  
Low clamping voltage under surge

### Resistive Product

#### Trimmer



#### Sealed Type

Multiturn :  
3005 / 3006 / 3009 / 3057 / 3059 / 3214 / 3223 / 3224 / 3250 / 3252 / 3260 / 3262 / 3266 / 3269 / 3290 / 3292 / 3296 / 3299 / 3339  
Single-turn :  
3312 / 3313 / 3314 / 3329 / 3345 / 3361 / 3362 / 3386



#### Open-Frame Type

Single-turn :  
0655 / 3302 / 3303 / 3306 / 3319 / 3352 / 3364 / TC33 / TC42

### Power Resistor / High Current Sense Resistor



Types : Chip / D2PAK / TO-220 / SMD Wirewound / Through-Hole  
Power : 0.125~35W  
Impedance : 0.005~1mohm

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### Mini-Breaker(TCO)



Trip Temp : 72°C / 77°C / 82°C / 85°C / 90°C  
Contact Rating : 6000Cycles , DC9V-12V /  
12A~25A  
Resistance : 5mohm~15mohm

## Magnetic Communication

### LAN Transformer



Designed to meet  
IEEE802.3af / at / bt requirement  
Single to multi-port support  
Data rate :  
10 / 100M & 10 / 100 / 1000BaseT  
& 2.5G & 5G & 10G

## Surge Protection Device

### Surge LAN Transformer



Designed to meet  
IEEE802.3af / at requirement  
Surge Level : (IEC-61000-4-5)  
Differential Mode 2KV  
Common Mode 6KV  
ESD Level : (IEC-61000-4-2)  
Single to multi-port support  
Data rate :  
10 / 100M & 10 / 100 / 1000BaseT

### PoE Guard



High level surge protection device for  
equipment with PoE interface.  
Surge Level : Max 150A at 10 / 700 $\mu$ s  
waveform : (IEC-61000-4-5)  
ESD Level : (IEC-61000-4-2)  
Air + / -30KV Contact : + / -30KV  
Compact Size : 16.5 x 12.5 x 3.9mm  
High forward current, up to 1A  
Low leakage current  
Low VF  
Working Voltage : 57Vdc

### Power Line Application



Suitable for Power system equipment for  
AC inlet at 90~305VAC  
Surge protection level up to 10KV  
Compatible waveform for 1.2 / 50 $\mu$ s  
& 10 / 700 $\mu$ s (IEC-61000-4-5)  
Hi-Pot Voltage 1.8KV  
Short Circuit Protection  
IP67

## Power

### MOSFET



Type :  
LV-MOSFET ( $\leq$ 40V)  
MV-MOSFET (50V~300V)  
HV-MOSFET ( $\geq$ 400V)  
Super Junction / IGBT  
Package :  
SOT-23 / SOT-23S / SOT-26 / SOT-89 /  
SOT-223 / SOT-323 / TO-251 / TO-252 /  
TO-263 / TO-3P / SO-8 / DFX-2X2 /  
PMPAK-3X3 / PMPAX-5X6

## Switching Power Supply

### Medical Application



Type : Openframe / Enclosed / U-Bracket /  
External adapter  
Output range : 5~450W  
DC Output Voltage range : 3.3~48V  
Medical safety : UL / TUV / CB / CE

### Industrial Application



Type : Openframe / Enclosed / U-Bracket /  
External adapter  
Output range : 5~450W  
DC Output Voltage range : 3.3~48V  
Safety : UL / TUV / CB / CE  
Active PFC and Parallel Operation

### High Density DC-DC Converter



Type : SIP / DIP /  $\frac{1}{2}$ Brick Modular / Open Frame  
Output range : 0.75~350W  
DC Output Voltage range : 1.1~118V Isolation  
Up To 1 , 500Volts , Regulated Outputs

mer Orientation

## 全球佈局

### 服務據點 Service Location

#### 台北營業總部 / 台灣 (Taipei Headquarters / Taiwan)

TEL : 886-2-2917-5770 FAX : 886-2-2917-3752

ADD : 231028 新北市新店區寶橋路188號6樓

ADD : 6F., No. 188, Baoqiao Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

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#### 穩得電性檢測股份有限公司 / 台灣 (Taipei / Taiwan)

TEL : 886-2-7730-3993 FAX : 886-2-2914-6763

ADD : 231028 新北市新店區寶橋路235巷6弄6號3樓

ADD : 3F., No. 6, Aly. 6, Ln. 235, Baoqiao Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

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#### 蘇州市連虹電子有限公司 / 中國 (Suzhou / China)

TEL : 86-512-6564-5770 FAX : 86-512-6564-5773

ADD : 215128 蘇州市吳中區東吳南路388號吳中銀座大廈A座11樓1102室

ADD : Room 1102, 11F Building A, Ginza Building, No. 388, South Dongwu Rd.,  
Wuzhong Dist., Suzhou 215128, China

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#### 深圳千虹電子有限公司 / 中國 (Shenzhen / China)

TEL : 86-755-8329-7152 FAX : 86-755-8329-7058

ADD : 518116 深圳市龍崗區阪田街道雪崗路2018號天安雲谷產業園二期4棟31樓3112

ADD : 3112, Building 4, Phase II, Tian'an Yungu Industrial Park,  
Gangtou Community, Bantian Street, Longgang District Shenzhen 518116, China

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#### 上海辦事處 / 中國 (Shanghai / China)

TEL : 86-21-6486-0025 FAX : 86-21-6486-0725

ADD : 200030 上海市徐匯區零陵路899號飛洲國際19樓K室

ADD : Room 19K, No. 899, Ling Road, Xuhui District, Shanghai 200030, China

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#### Wendell Korea Co., Ltd. / Korea

TEL : 82-2-3472-3892 FAX : 82-2-3472-3894

ADD : 1304~1305, KOLON DIGITAL TOWER 21, Yangpyeong-ro 22-gil, Yeongdeungpo-gu,  
Seoul 07205, Korea

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#### Wendell Co., Ltd. / Japan

TEL : 81-48-706-5770 FAX : 81-48-706-3752

ADD : Room 101, 6-31-24, Kamikizaki, Urawa Dist., Saitama City, Saitama 3300071, Japan

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#### Wendell Pte. Ltd. / Singapore

TEL : 65-9392-3727

ADD : Blk 633B, Punggol Drive #12-687, Singapore 822633