



# Sunlord 2021



# Corporate Overview

**01** Year of Establishment: September, 2000

**02** Formation: China-HK Joint Company

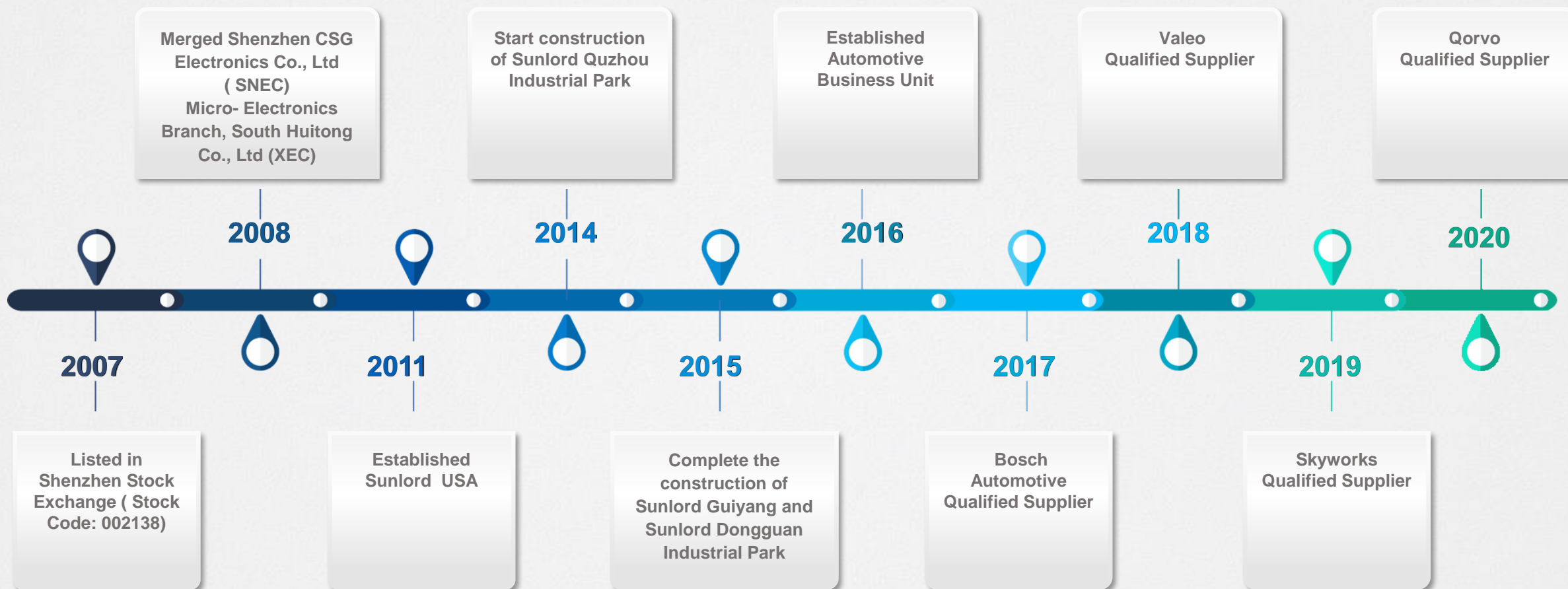
**03** Number of Employee: 5944 ( By the end of Dec., 2020)

**04** Headquarter: Shenzhen, China

**05** Factories: Seven in China



# Milestones





# Sunlord Industrial Park



**Shenzhen Plant ( IATF16949 )**  
Location: Guanlan, Longhua, Shenzhen, China Mfg Space: 121K<sup>m</sup><sup>2</sup>



**Guizhou**



**Dongguan 1**



**Quzhou**



**Shenzhen R&D (Under construction)**  
Mfg space: 80K <sup>m</sup><sup>2</sup>



**Shanghai (Under Construction)**  
Mfg Space: 136K <sup>m</sup><sup>2</sup>



**Dongguan 2 (Under Construction)**  
Mfg Space: 439K <sup>m</sup><sup>2</sup>



**Xiangtan Sunlord (Under construction)**  
Mfg space: 32K <sup>m</sup><sup>2</sup>



# Vision and Quality Policy

## Vision

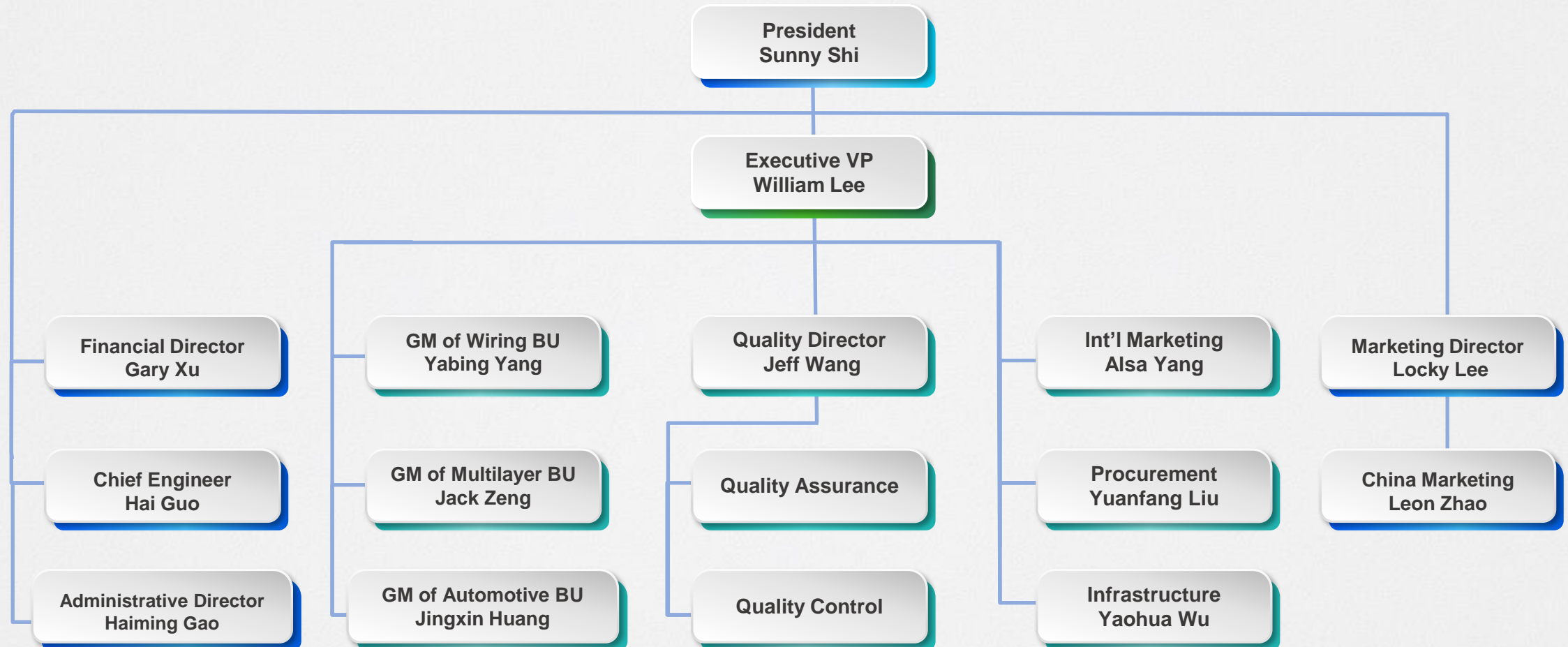
We are committed to become a worldwide leader in the development, manufacture and total solutions of passive electronic components armed with top-notch technology and core competitive advantages through endless pursuit of innovation and globalization strategy.

## Quality Policy

To provide top-quality products and perfect services for customers worldwide through standardization, technological innovation and continuous improvement.



# Organization Structure

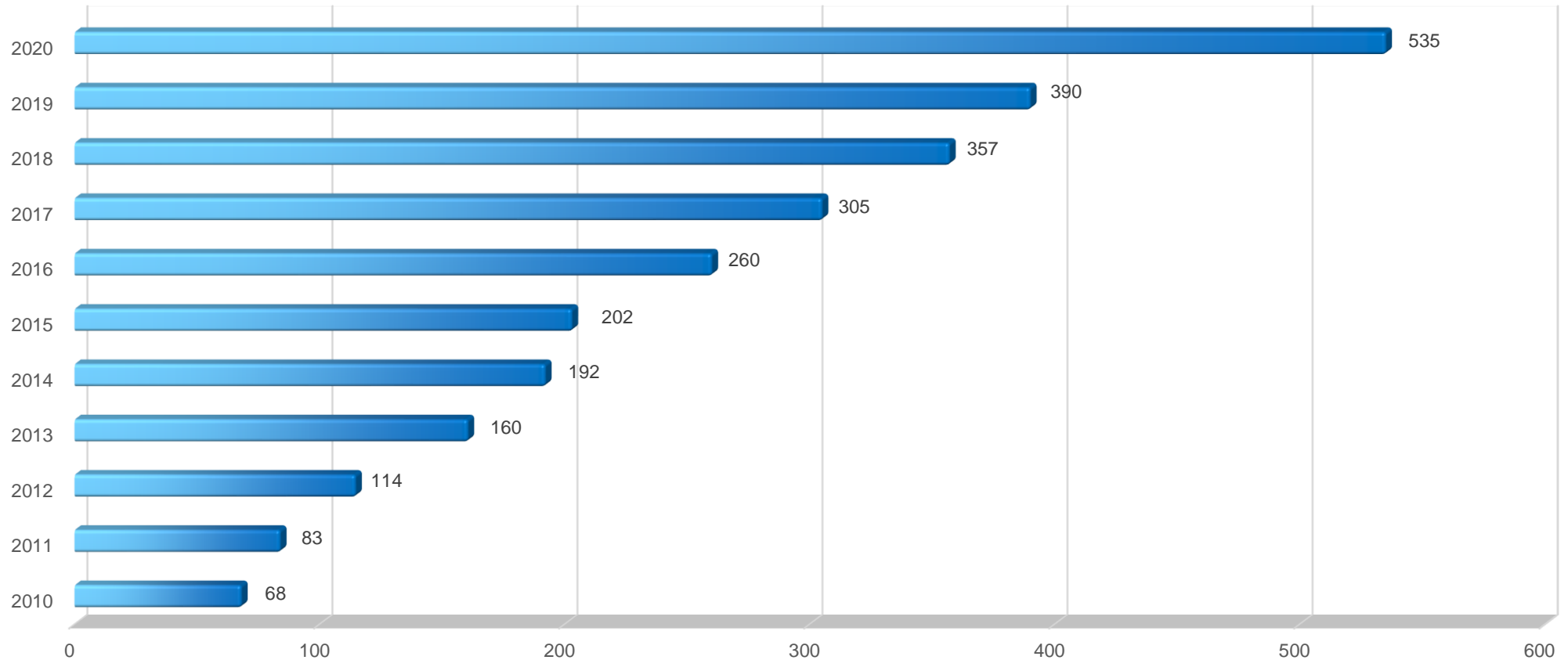


# 2010 ~ 2020 Annual Sales

Sales Revenues (mil. USD)

2010-2020 CAGR 29.09%

Sales Revenues (mil. USD)

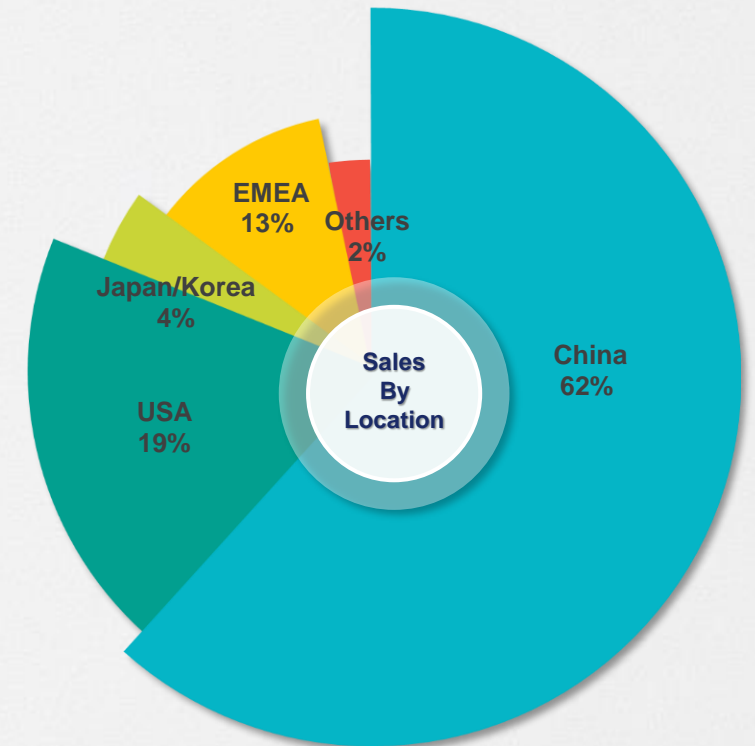
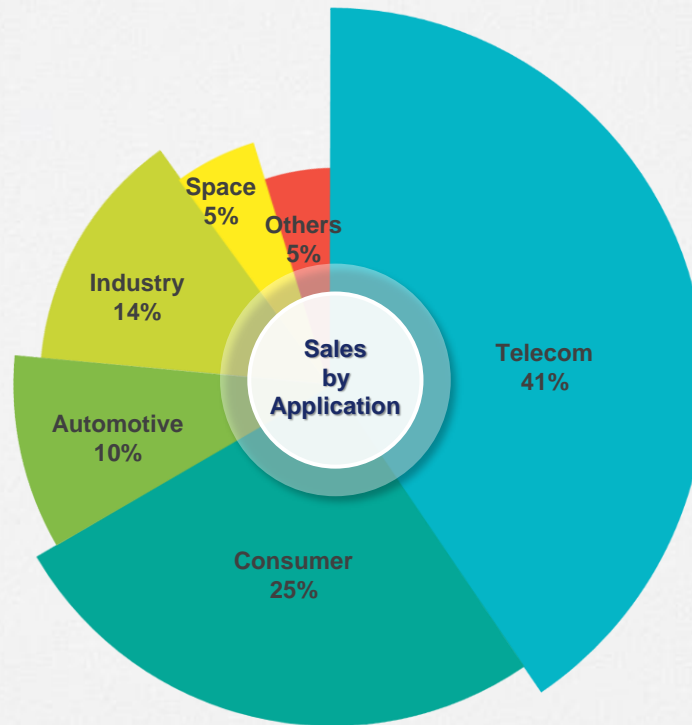
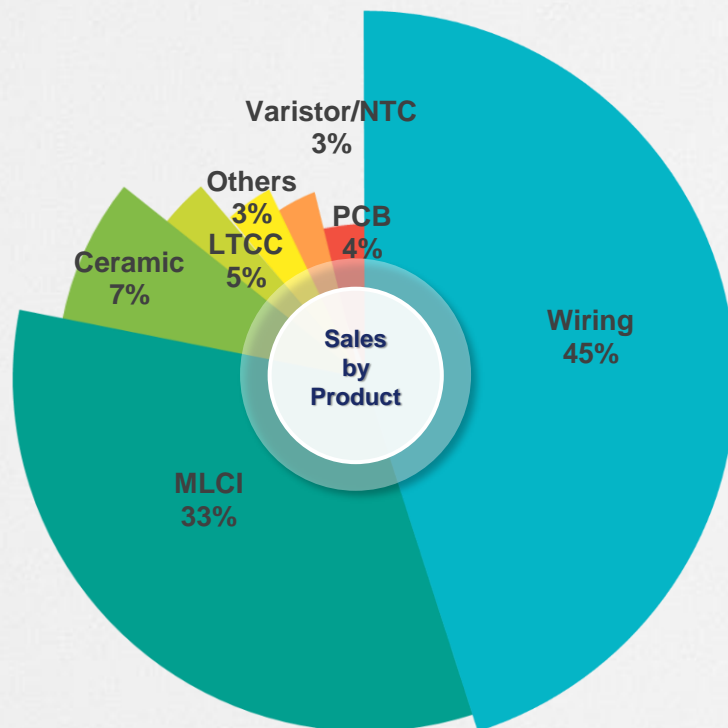




# 2020 Business Achievement

▲ 2020 Revenue: USD535M

▲ Business Chart





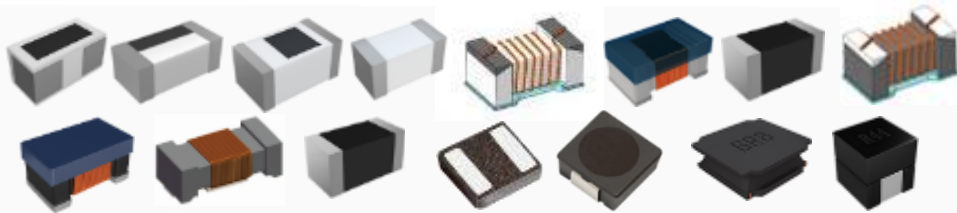
# 2021 ~ 2024 Capacity Expansion Plan

No.	Product Lines	Capacity (million)			
		2021	2022	2023	2024
1	MLCI	156,000	180,000	200,000	220,000
2	Varistor/NTC	13,000	14,000	16,000	18,000
3	LTCC	3,000	3,600	4,200	5,000
4	Power Inductor (Glue)	18,500	23,400	29,600	38,300
5	Power Inductor (Molding)	3,200	5,700	10,200	12,200
6	Transformer	240	260	320	370
7	WW Inductor/CMC	6,200	9,000	14,000	22,000
8	other	800	1,000	1,300	1,600
Total Capacity (Million pcs)		200,940	236,960	275,620	317,470

# Main Product Lines for General

## Inductor

RF Inductor, Signal Inductor, Power Inductor



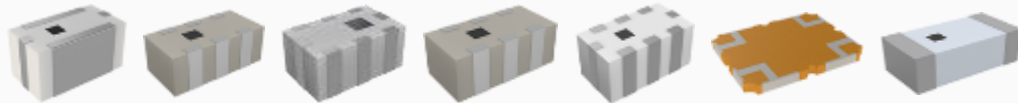
## EMC Components

Bead, Common Mode Filter, Tantalum Capacitor



## LTCC Technology

LC Filter, Balun, Balance Filter, Diplexer, Coupler, Antenna



## Sensor

NTC Thermistor



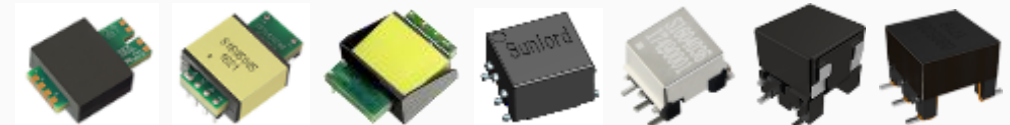
## Circuit Protection

Varistor, ESD Suppressor, PPTC



## Transformer

Planar Transformer, Wire Wound Transformer





# Main Product Lines for General

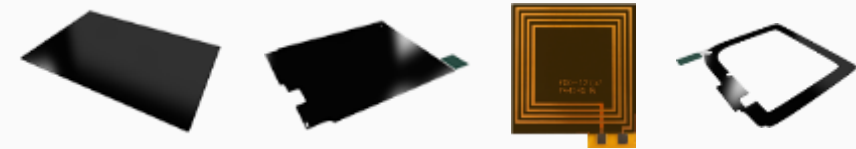
## Zirconia Ceramic

Back Cover, Shell, Fingerprint Identification Cover



## NFC Products

NFC Sheet, Flexible Antenna



## PDS Antenna



## PCB

HDI, TH



# New Products Recommendation



## Molding Power Inductor

WTX Series series  
Size: 2016/2520/3225/3230/40/50/60/10mm  
Inductance: 0.1uH~15uH  
Saturation Current: 0.8A~27A

Large Current  
High Reliability



## Wire Wound Common Mode Filter

AMCW-L/G Series  
Size: 3.2\*2.5\*2.2 mm  
Inductance: 80 – 200 uH  
Transmission rate: 1 ~100~1000 Mbps

Automotive grade  
Small size  
High transmission rate  
For automotive Ethernet



## Mini Molding Power Inductor

MWTC Series  
Size: 2012/2016/2520 mm  
Thickness: 0.65/0.8/1.0 mm  
Inductance: 0.11uH~4.7uH  
Saturation Current: 1.5A~7.1A

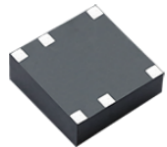
Tiny Size  
Large Current



## Wire Wound SMD Power Inductor

AMWPB Series  
Size: 6.0\*6.0\*4.5 ~7.0\*7.0\*4.5 mm  
Inductance: 1 – 10 uH  
High reliability

Automotive grade



## LTCC Transformer

Customized  
Low profile  
Suitable for surface mounting  
for Low power and high switching frequency  
application

Low profile  
High strength  
High reliability



## Small Size Wire Wound Ceramic Inductor

MWSD0603C/0804C Series  
Inductance: 0.8-56nH  
Size: 0.53\*0.4 mm, 0.8\*0.4 mm  
Ir: 130~1800mA

Tiny Size  
High Q value



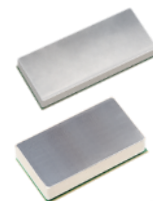
# New Products Recommendation



## RF Circulator & Isolator

7mm, 10mm, 12.5mm, 15mm, 20mm series  
Size: D7mm~D20mm  
Frequency range: 70MHz-6GHz,  
IL: 0.15dB Max.; Isolation: 28dB Min.

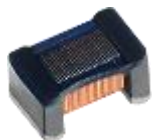
High performance  
High reliability



## 5G Ceramic Dielectric Filter

VFCF Series  
Size: 20\*10\*5.0~55\*25\*7.5 (mm)  
Frequency: 2.6GHz/3.5GHz/4.9GHz  
2.6GHz products average power: 5~20W  
3.5GHz products average power: 5~10W

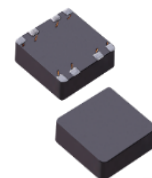
High performance  
High reliability



## Wire Wound Chip Ferrite Inductor

MWSD-F Series  
Size: 0.6\*0.3/0.7\*0.3 mm  
Inductance: 17-560nH  
Ir: 90~480mA

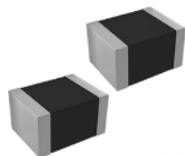
Small Size  
High Rated Current



## Auxiliary transformer for DC/DC

TWP Series  
Specification: customized  
Suitable for PSIP molding process

High reliability

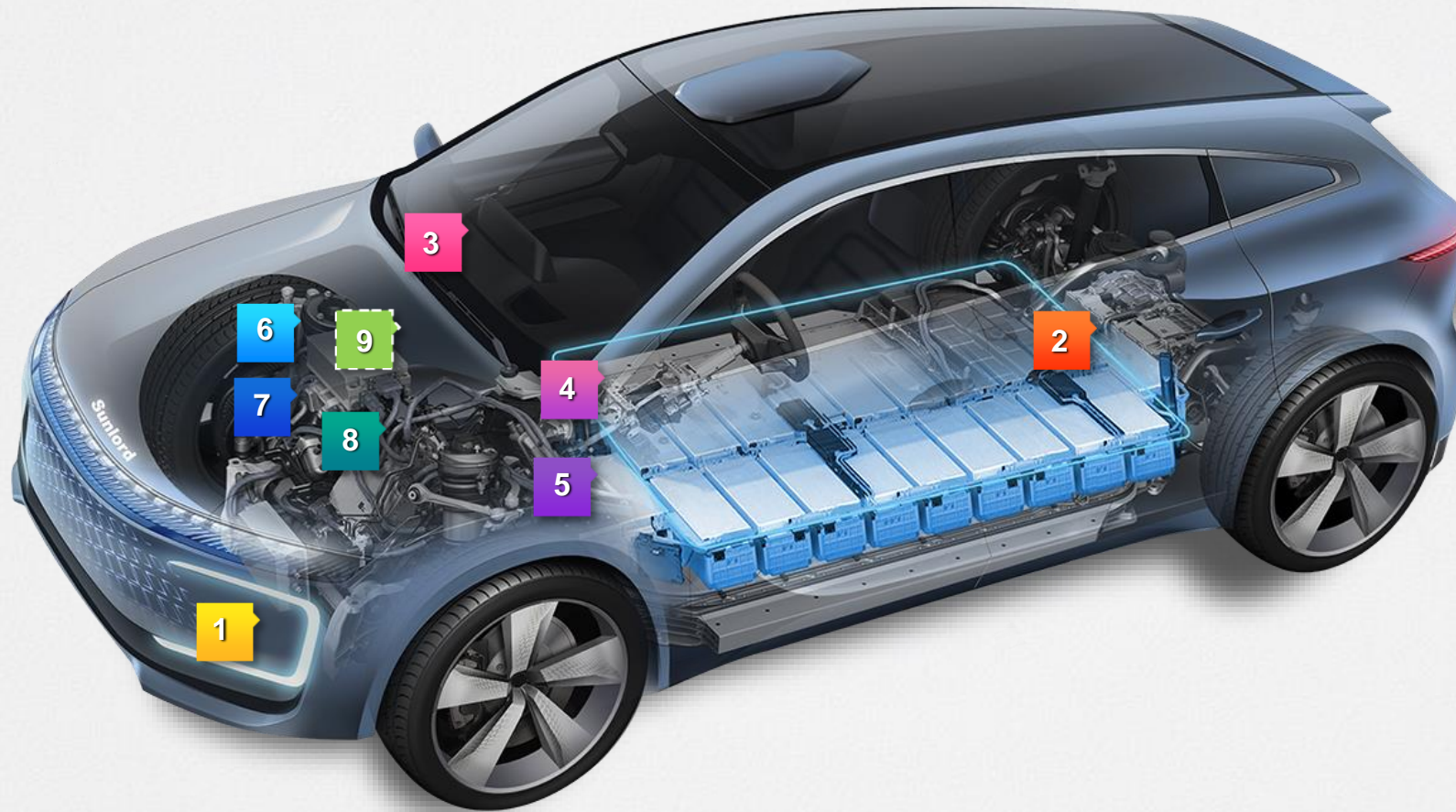


## High Energy Type Varistor

SDVL-HS Series  
Size: 1608/2012/3216/3225/4532/5650 mm  
DC. Working Voltage: 9~150V  
Peak 8/20 Current: 20A~5000A

Ultra High Energy

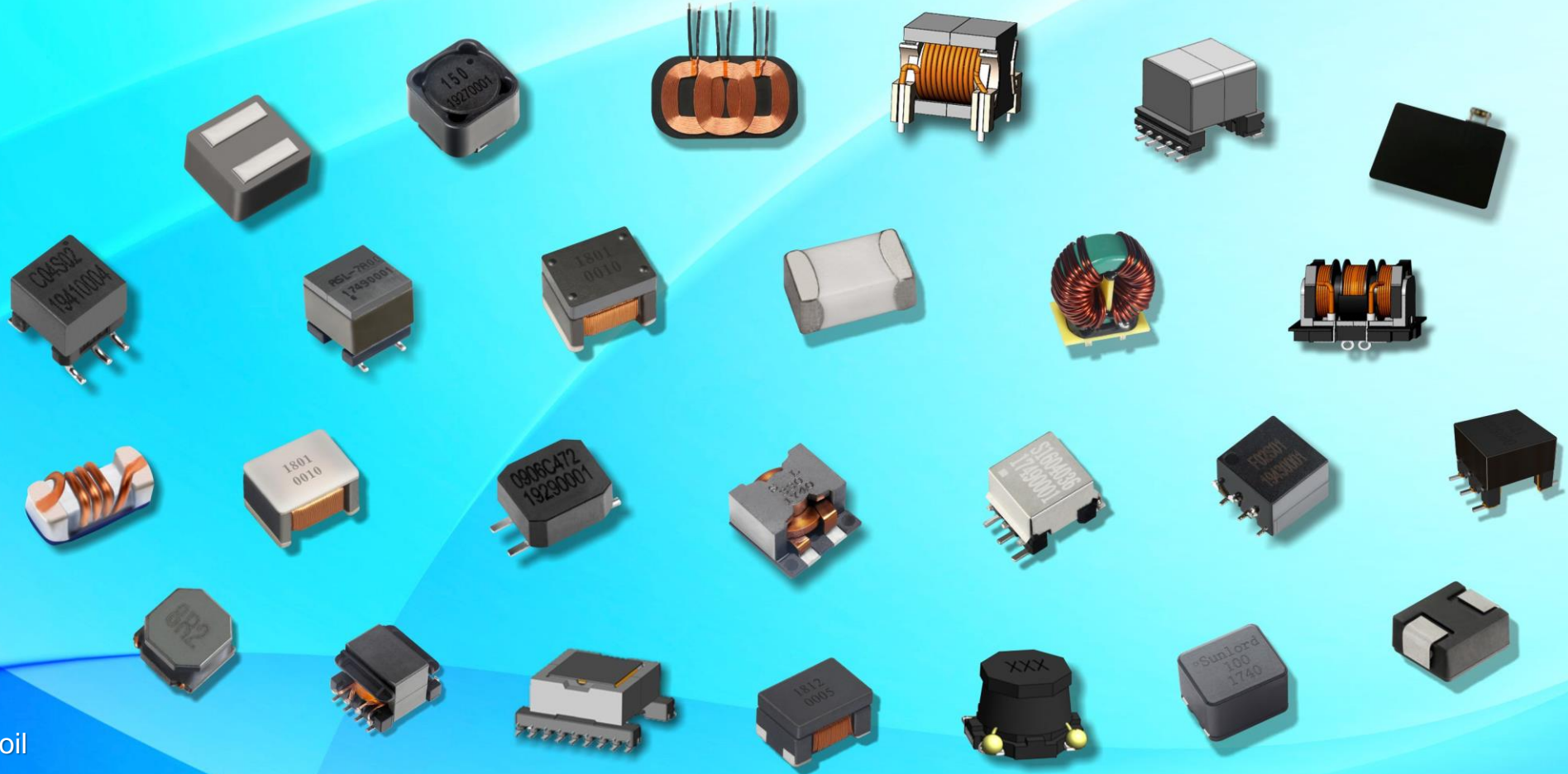
# Application Focus—Automotive



- 1 LED lighting
- 2 BMS
- 3 Infotainment
- 4 ADAS
- 5 T-BOX
- 6 On Board Charger
- 7 DC/DC converter
- 8 Motor Driving
- 9 48V system



# Application Focus—Automotive



- ▲ CMC
- ▲ Power Inductor
- ▲ RF Inductor
- ▲ Wireless Charging Coil
- ▲ Transformer

# Product Development Roadmap

For 5G Communication Terminal Devices	For 5G Communication Infrastructures	For IoT Applications	For Data Center	For Automotive
<ul style="list-style-type: none"><li>• 1412/1608/2012 metric size power inductor</li><li>• Common mode chock for MIPI C-PHY &amp; M-PHY</li><li>• 0201 metric size &amp; ultra high Q RF inductor</li><li>• 0402/0201 metric size chip bead</li><li>• Low THD+N Audio Bead</li><li>• 0402/0201 metric size NTC thermistor</li></ul>	<ul style="list-style-type: none"><li>• Ceramic wave guide filter</li><li>• High reliability LTCC RF components</li><li>• LTCC substrate</li><li>• Microstrip RF Circulator &amp; Isolator</li><li>• High reliability power inductor</li><li>• mm wave RF module</li><li>• 30-60GHz ultra high frequency noise suppressing Bead</li><li>• Large energy chip varistor</li></ul>	<ul style="list-style-type: none"><li>• LTCC RF components</li><li>• 0402 metric size &amp; ultra high Q RF inductor</li><li>• 0603/0804 metric size wire wound RF inductor</li><li>• 0402/0201 metric size Bead</li><li>• DC-DC power module</li></ul>	<ul style="list-style-type: none"><li>• Large current assembly power inductor for VRM application</li><li>• High Reliability molding power inductor</li><li>• Coupled Power Inductor</li><li>• Polymer Tantalum Capacitor</li></ul>	<ul style="list-style-type: none"><li>• Power inductor</li><li>• RF inductor</li><li>• CM choke</li><li>• Transformer</li></ul>

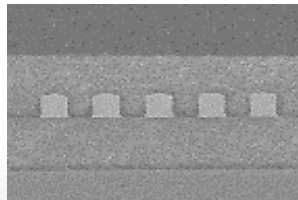


# Core Technology – 445 Patents

## Ultra Fine Process Technology

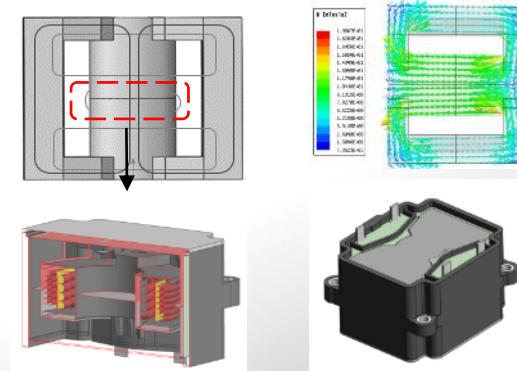


Line width/line  
spacing : 10um/10um  
Front view

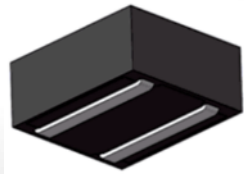
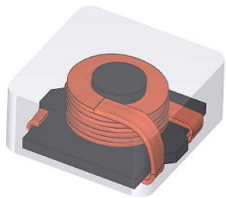


Line width/line  
spacing : 10um/10um  
Sectional view

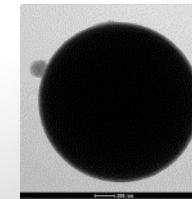
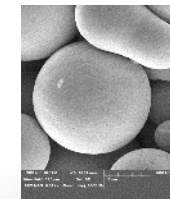
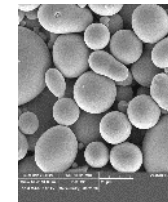
## Gapless Core Technology



## High Reliability Molding Technology



## Low Core Loss and High $\mu$ i Metal Alloy Material Technology



# Reliability Standards

## Consumer & Telecom

EIA Standard,  
IEC60068,GB2423

## Industry

EIA Standard,  
IEC60068,GB2423

## Space

ESCC Standard,MIL-STD-  
202G,GJB

## Automotive

AEC-Q200  
IEC60068



# State-of-the-Art Facilities

CNAS Accreditation  
Lab According to  
ISO/IEC 17025:2005



UL Eyewitness  
Laboratory



“Sunlord-KEYSIGHT”  
Electronic Measurement  
Joint Laboratory



## Material Analysis

SEM/EDS, XRD,  
DTA/TG, etc.

## Failure Analysis

Tegamin System,  
X-Ray CT System,  
Probe Station, etc.

## Reliability Test

Thermal Shock  
Chamber, Pressure  
Cooker Test  
Chamber,  
High Acceleration  
Mechanical Shock  
Test-Bed, etc.

## Electrical Test

Microwave  
Anechoic Chamber ,  
RF Impedance  
/Material Analyzer,  
B-H Analyzer, etc.

## Manufacturing

Laser Drilling  
Machine,  
Tube Furnace with  
H2, 3D printer, etc.



**Confidential**





# Customer Base



# Sales Network



## Headquarters

Sunlord Electronics Co., Ltd.  
Sunlord Industrial Park, Guanlan Da Fu Yuan,  
Guan Guang Road, Longhua New District,  
Shenzhen 518110, China





Sunlord

Sunlord

Sunlord

**Thank You!**