

LTEC Corporation

patent research and product analysis

特許 調査

patent research

製品 解析

product analysis

株式会社 エルテック

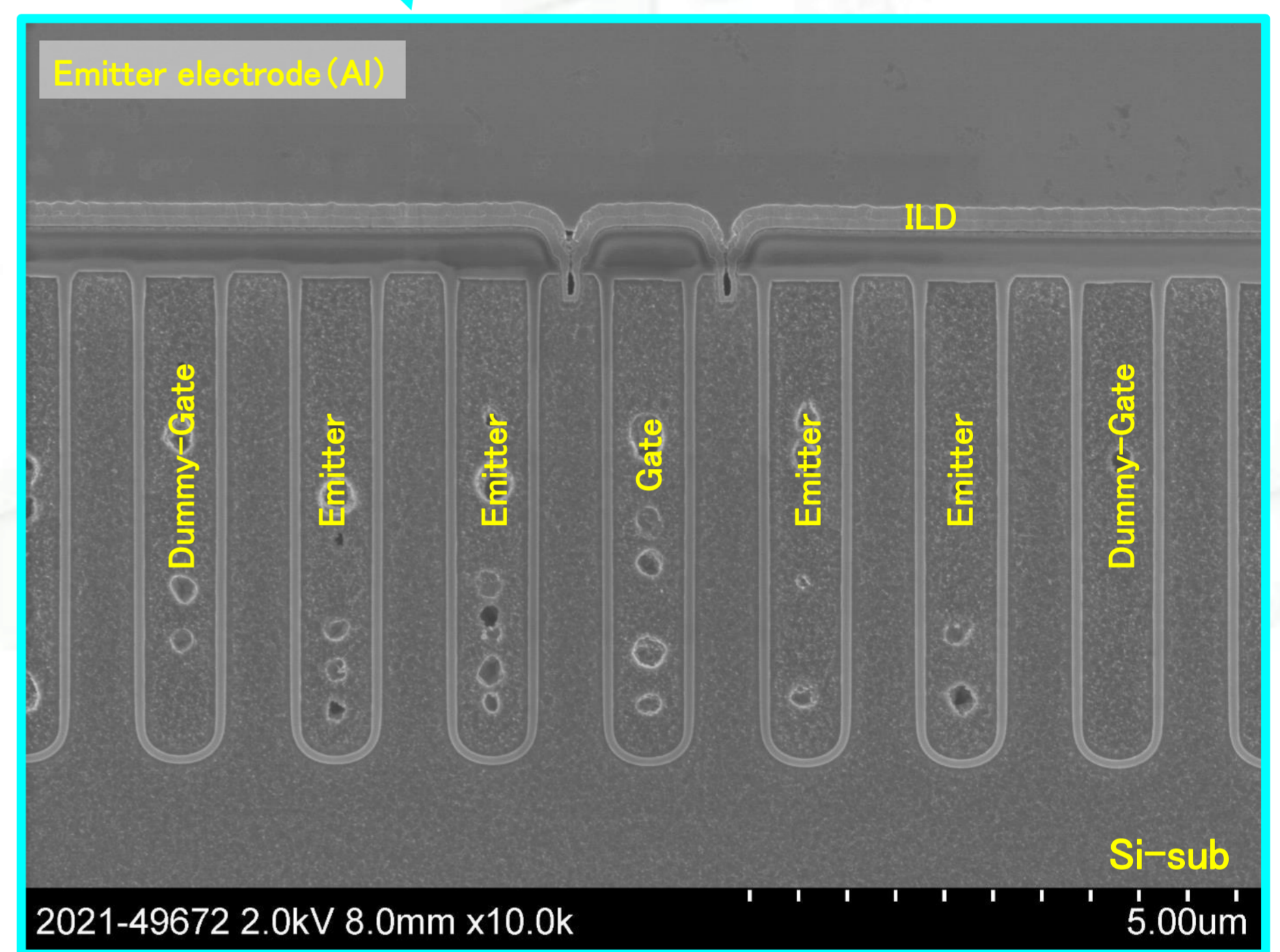
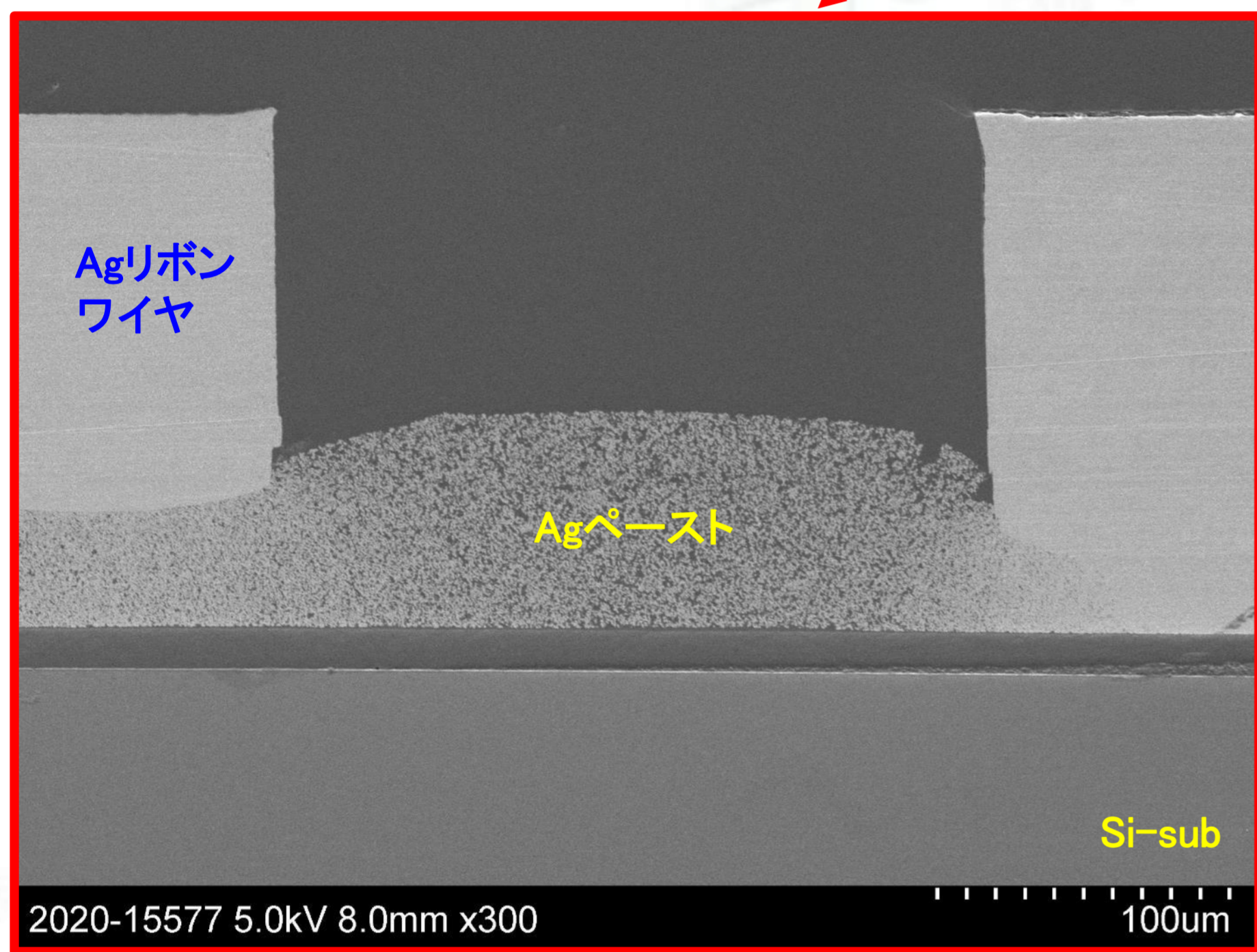
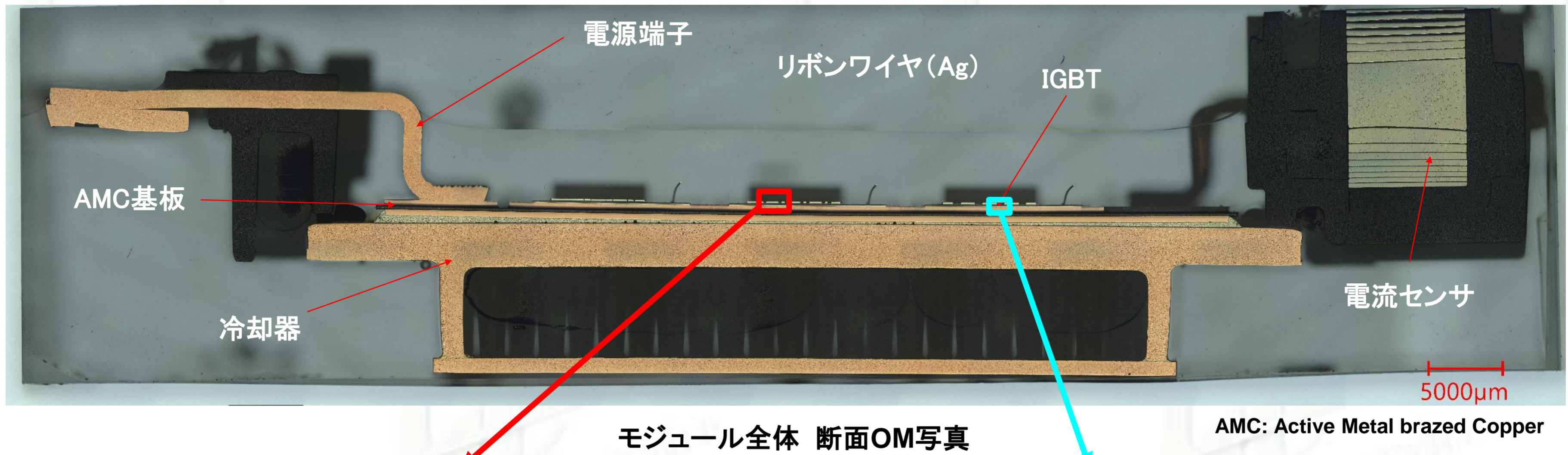
半導体および電子電機分野の解析フィールド
で日本屈指の技術サービス会社



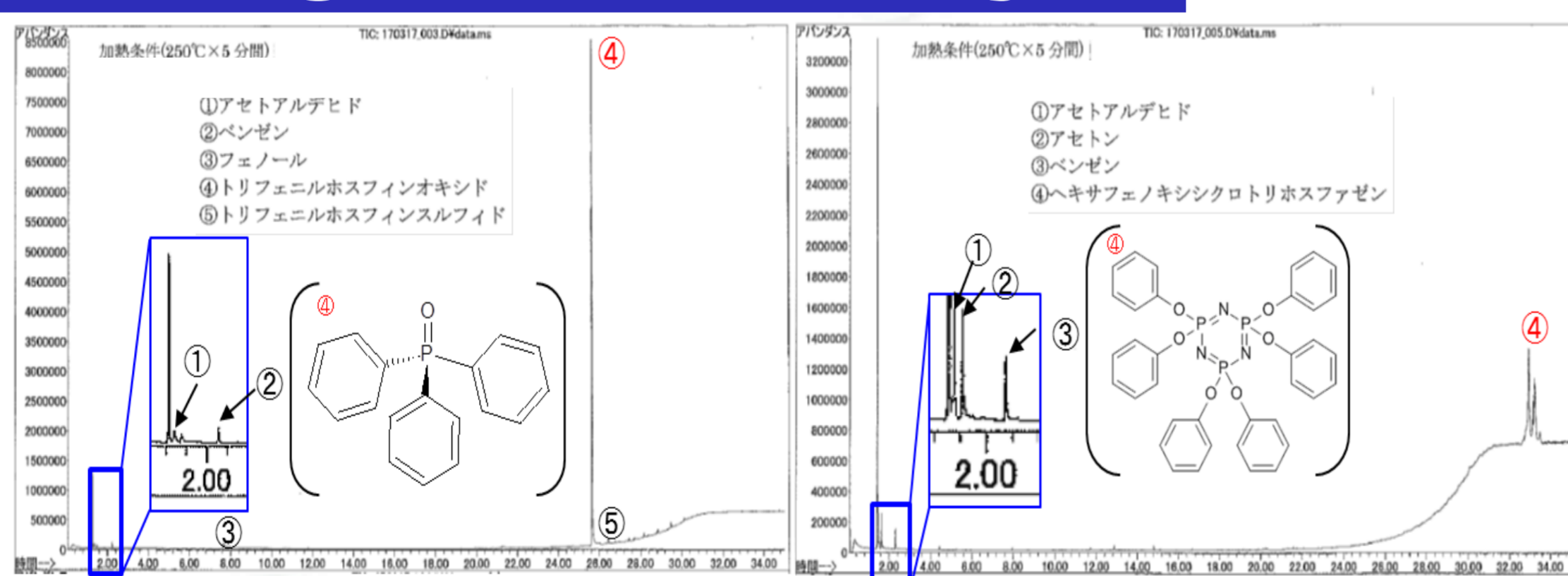
Device reverse engineering

Power Device Analysis service

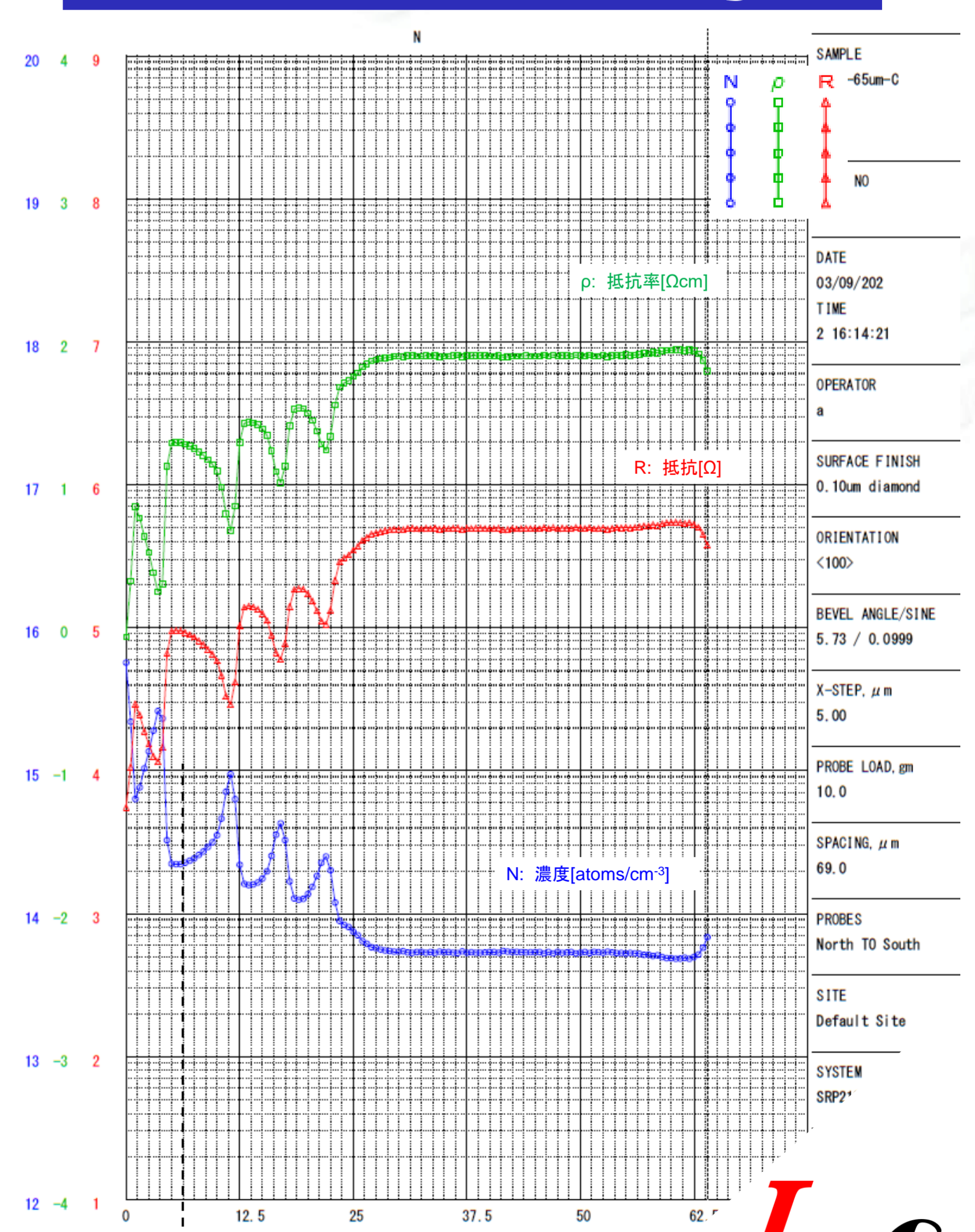
Structure Analysis



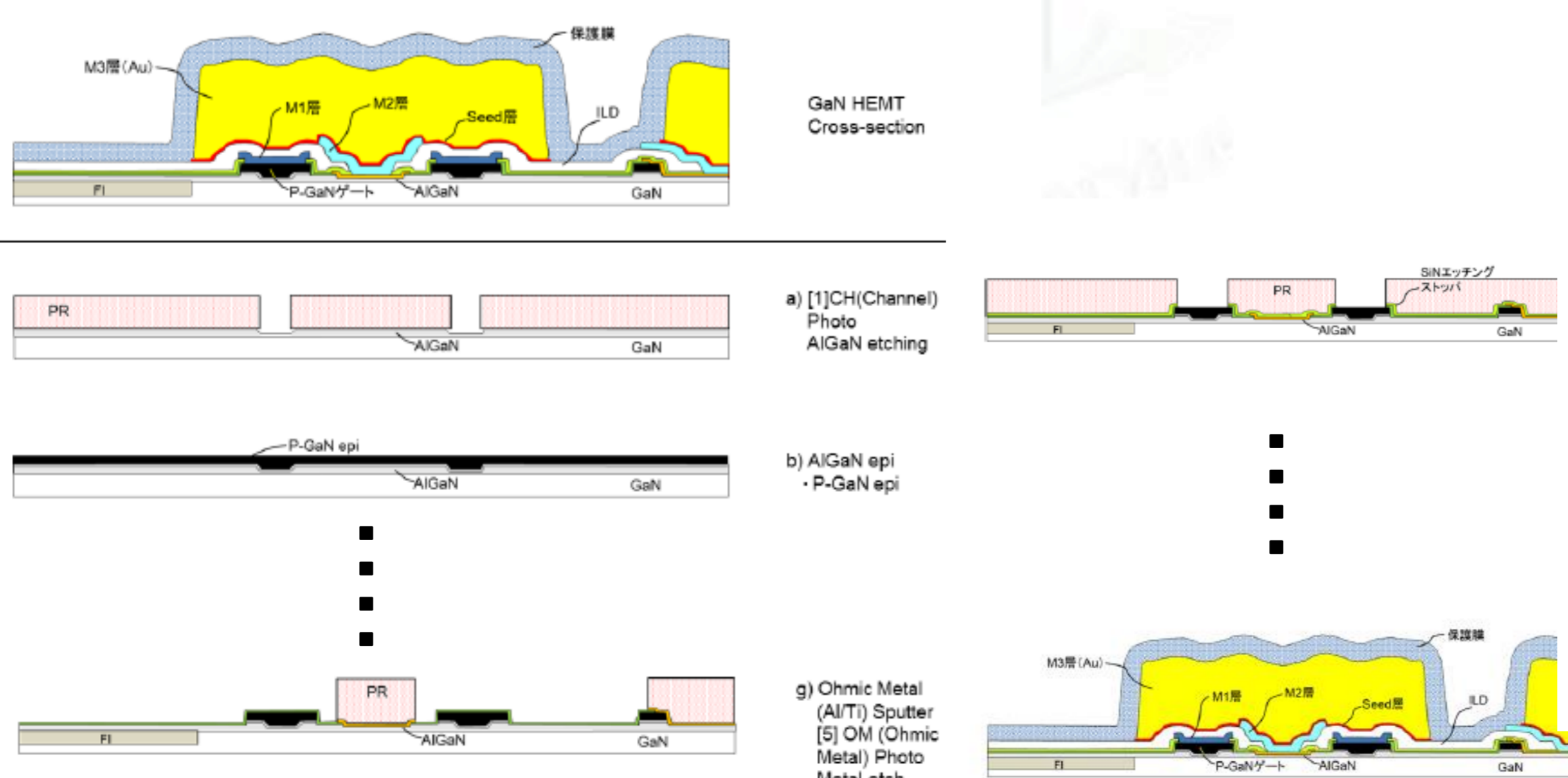
Package GC-MS Analysis



BackSide SR-Analysis

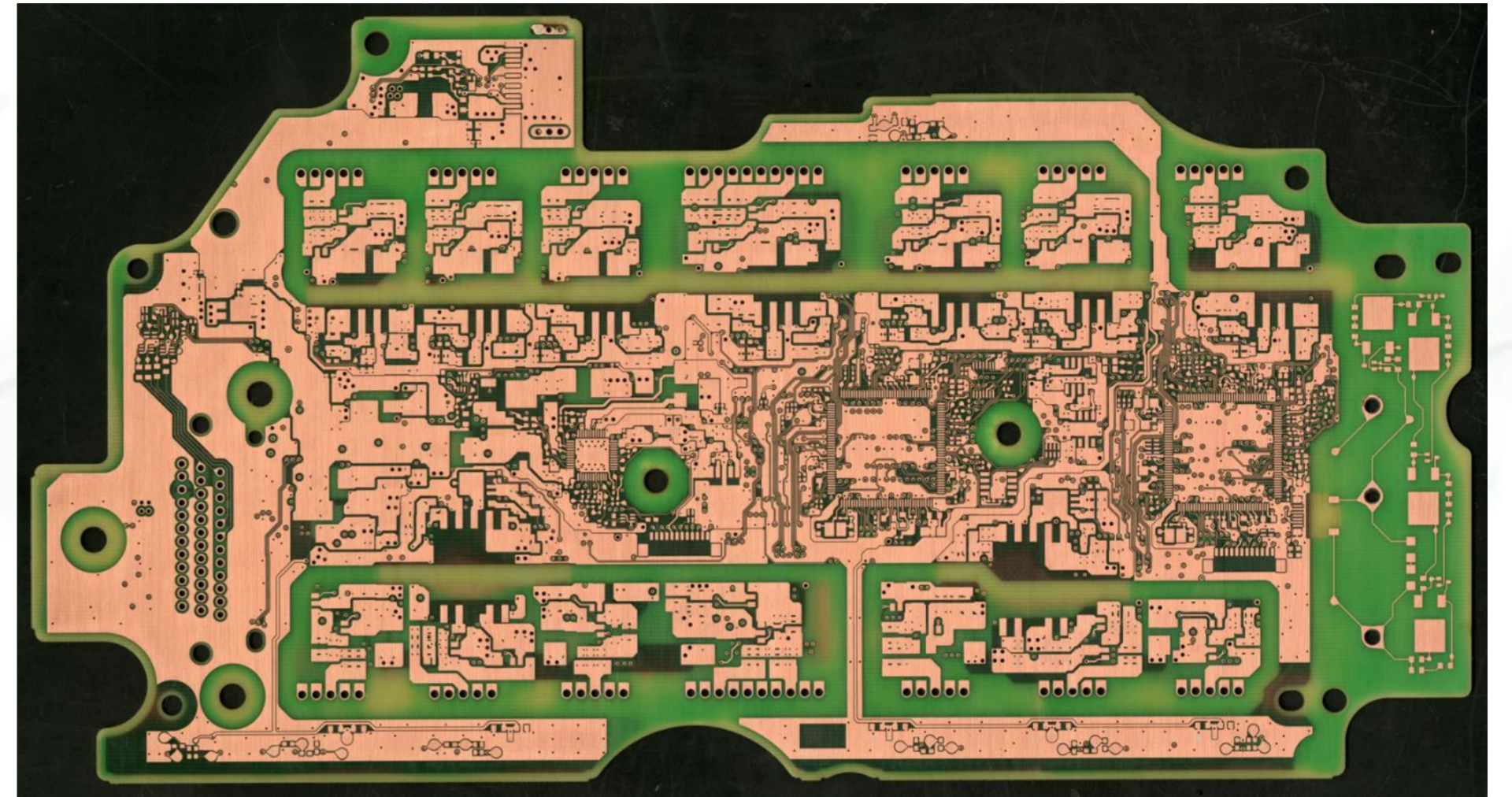
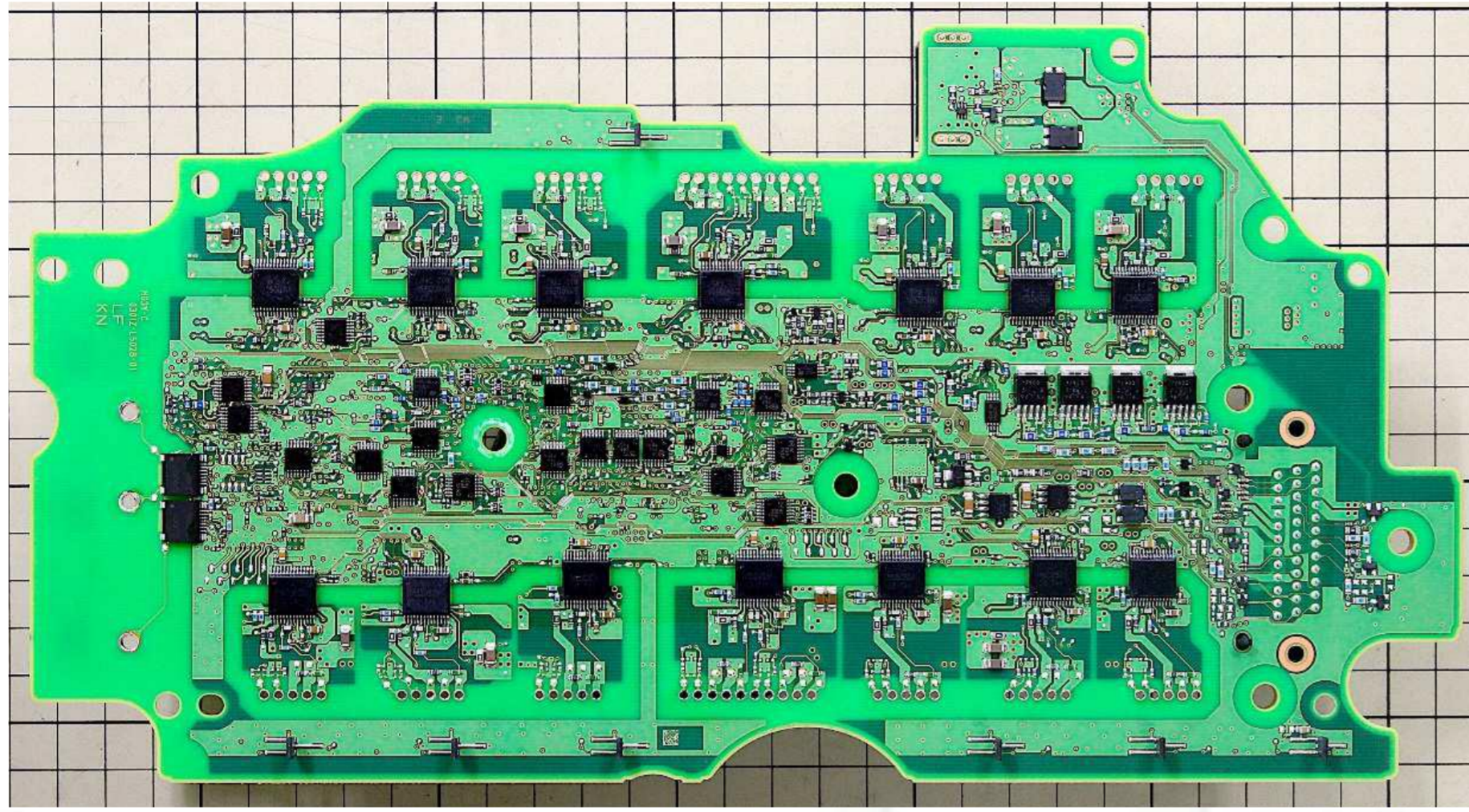


Estimation of Process flow



PCB reverse engineering

Create components level detail schematic flow



機械学習を活用した当社独自ツールで各層の配線パターンをデジタルデータ化。



Parts mounting position

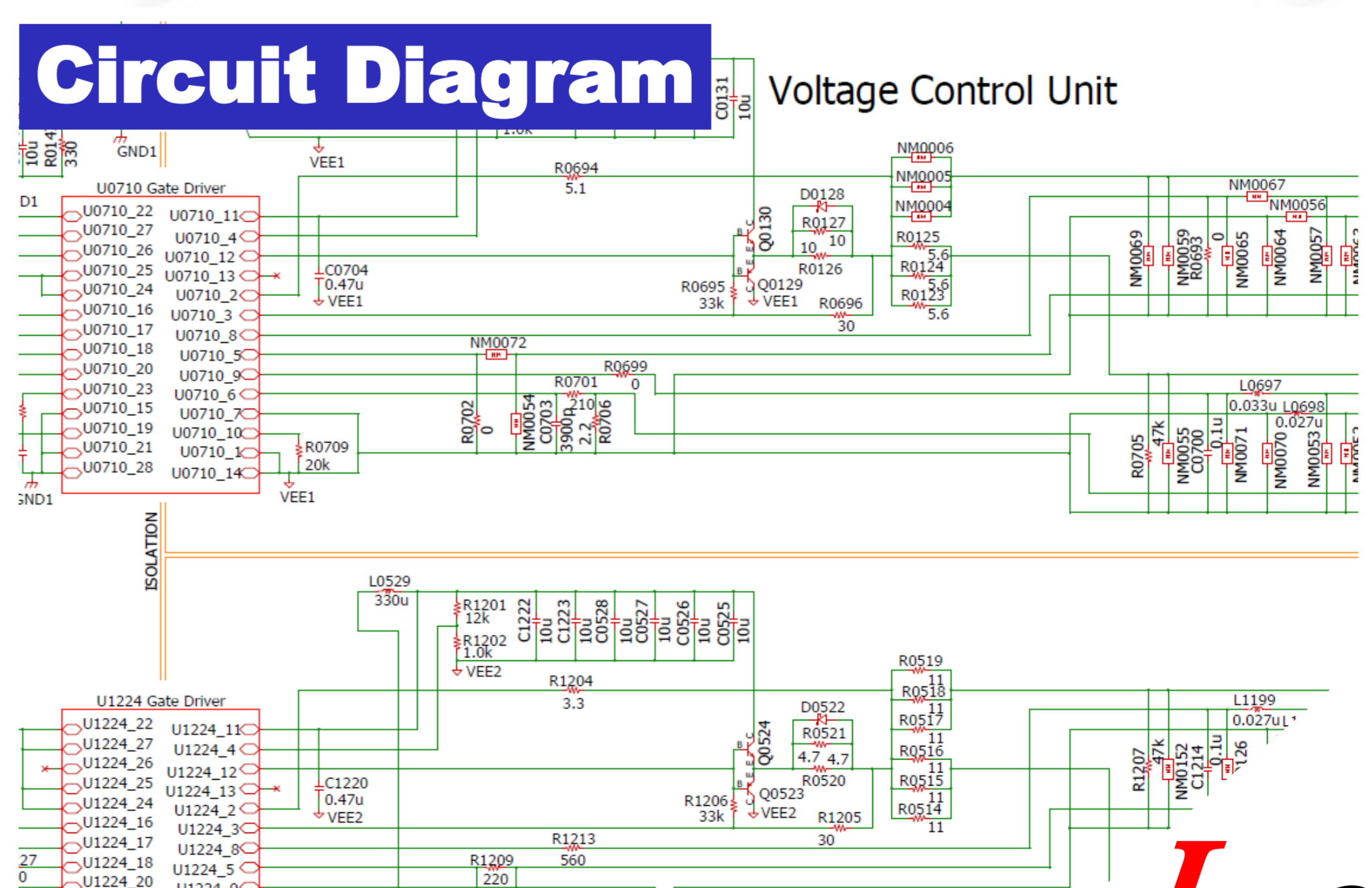
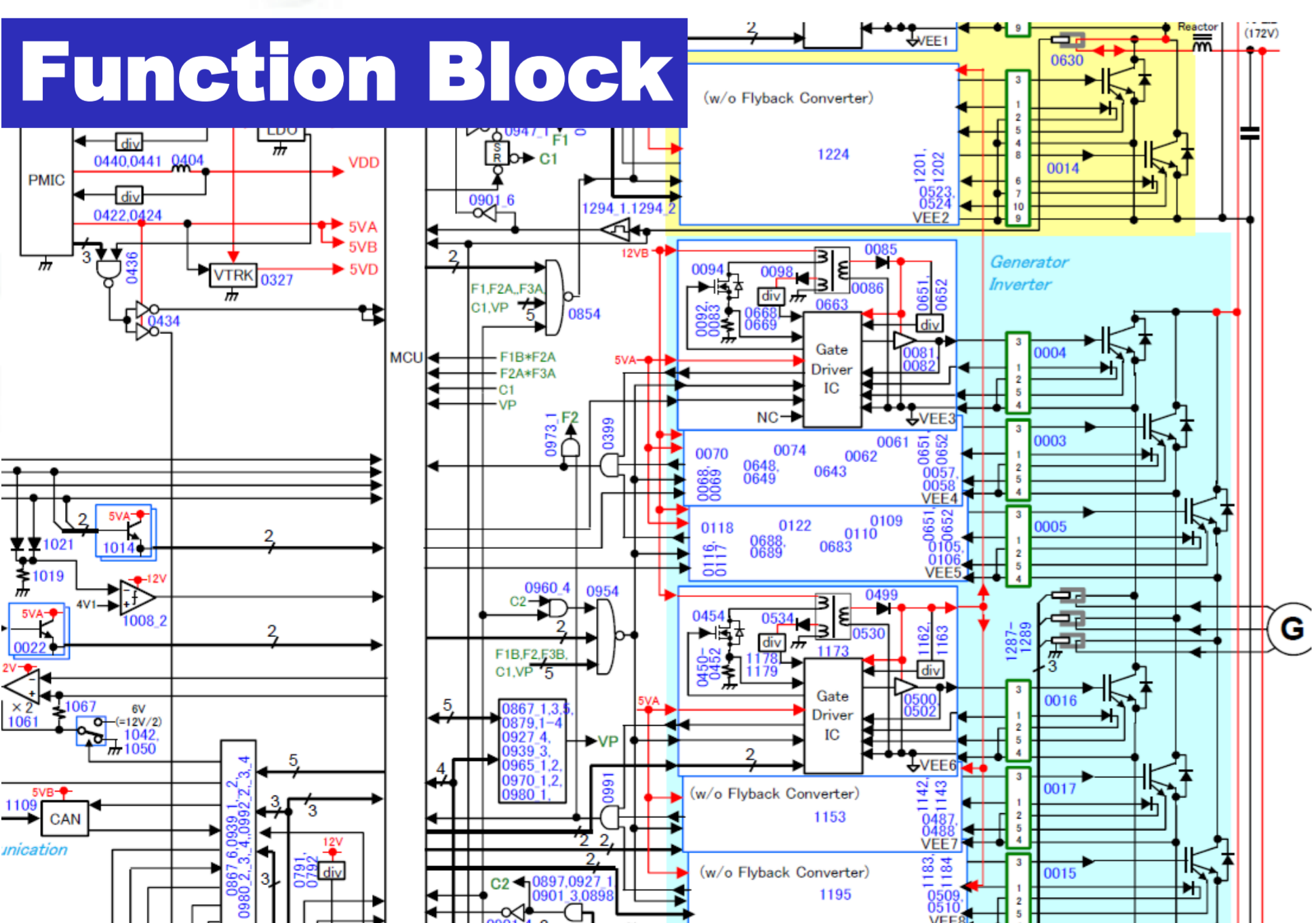
Circuit Pattern

Parts List

Ref	Value	Footprint	Manufacturer	Part Number	Description	Normal	Measure	Remark (*2)
0317				Resistor		0.1u F	103.128u F	inference
0318				Resistor		4.7u F	4.647u F	inference
0319				Resistor		2.7k ohm	2.711k ohm	inference
0320				Capacitor		2.7k ohm	2.701k ohm	inference
0321	AT1RFQ5045 99C57XK		Texas Instruments	IC	REF5045QDRQ1 Low-Noise, Very Low Drift, Precision Voltage Reference VOUT=4.5V			cf. datasheet
0322				Capacitor		10u F	9.472u F	inference
0323		102		Resistor		1.0k ohm	999.301 ohm	inference
0324	SC		TOSHIBA	Diode	CRS13 Schottky Barrier Diode VRRM(max)=60V IFAV(max)=1.0A@Ta=25°C VF(max)=0.55V@IFM=1.0A			cf. datasheet
0325				Capacitor		2.2u F	2.182u F	inference
0326				Capacitor		0.1u F	102.411u F	inference
0327	115B028N C1941		Infineon	IC	TL8115B0E1 High Precision Voltage Tracker			cf. datasheet
0328				Capacitor		1u F	1.061u F	inference
0329				Capacitor		2.2u F	2.193u F	inference
0330		101		Resistor		100 ohm	100.721 ohm	inference
0331		R10		Resistor		0.10 ohm	164m ohm	inference
0332		R10		Resistor		0.10 ohm	165m ohm	inference
0333		R10		Resistor		0.10 ohm	132m ohm	inference
0334	94360E 1934 B1 0584		Nxpperia	Transistor	BUK9Y43-60E NMO5 VDS(max)=60V, ID(max)=22A, RDS(on)(max)=43mΩ @VGS=4.5V, ID=SA,Tj=25°C			cf. datasheet



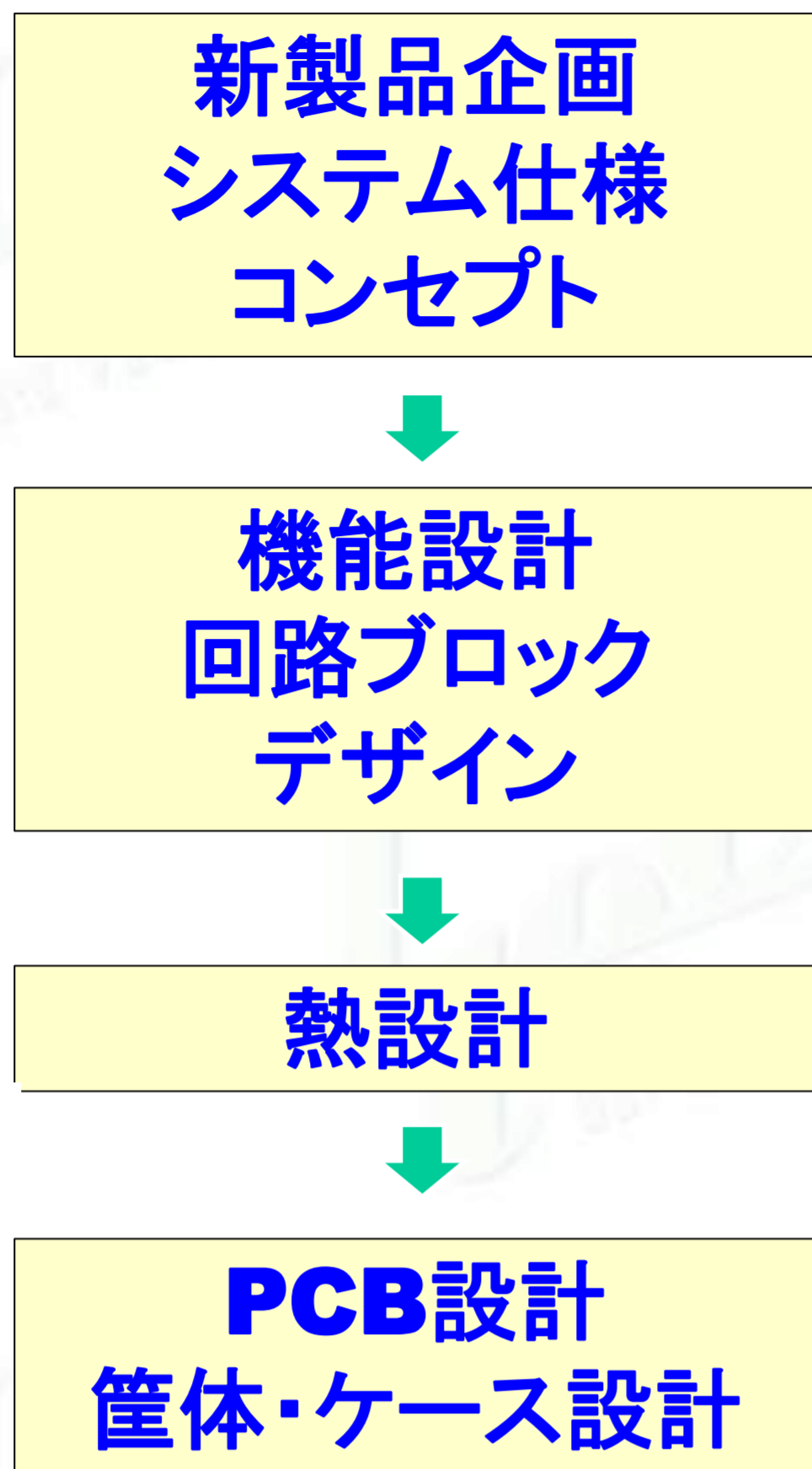
搭載部品の情報と配線情報



Reverse engineering service

LTEC Mission

Customer



LTEC Service

- ・競合他社ベンチマーキング
コスト、性能比較
- ・調査サービス: IP/特許調査 技術動向調査
- ・構造、材料解析
モデル改善および機能限界を評価する
- ・電気特性評価
動特性、静特性、短絡耐量
- ・短絡などの異常動作時に適用可能な
拡張Zthモデルの提供
- ・構造、材料解析
- ・電気特性評価
- ・熱抵抗試算

Achievements of Automotive Components analysis

Powertrain
Product analysis results
After 2016

875 cases

ADAS
Product analysis results
After 2016

559 cases

Others
Product analysis results
After 2016

261 cases

