PMGO Profile 2021

2021/11/17

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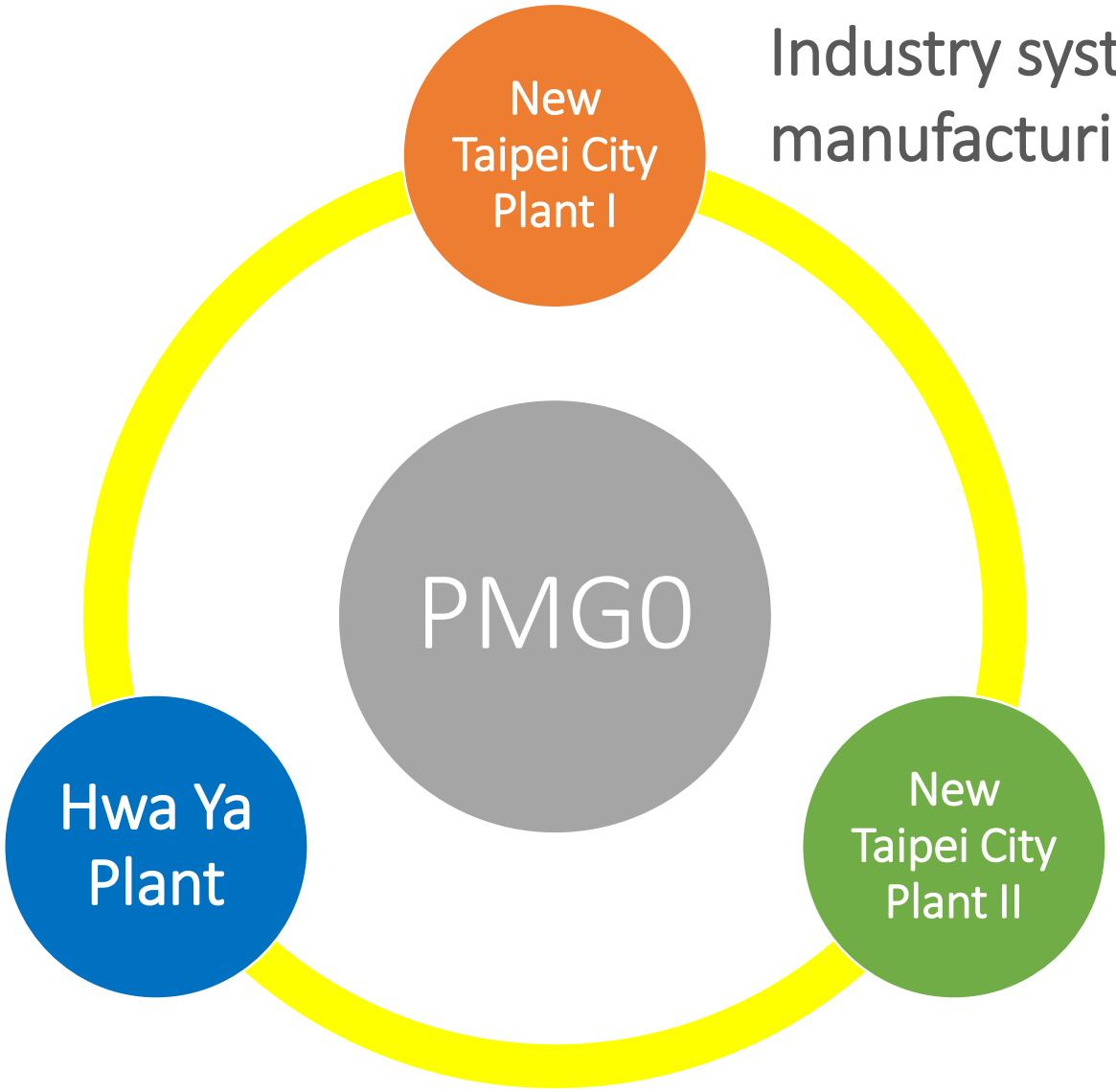
About PMG0

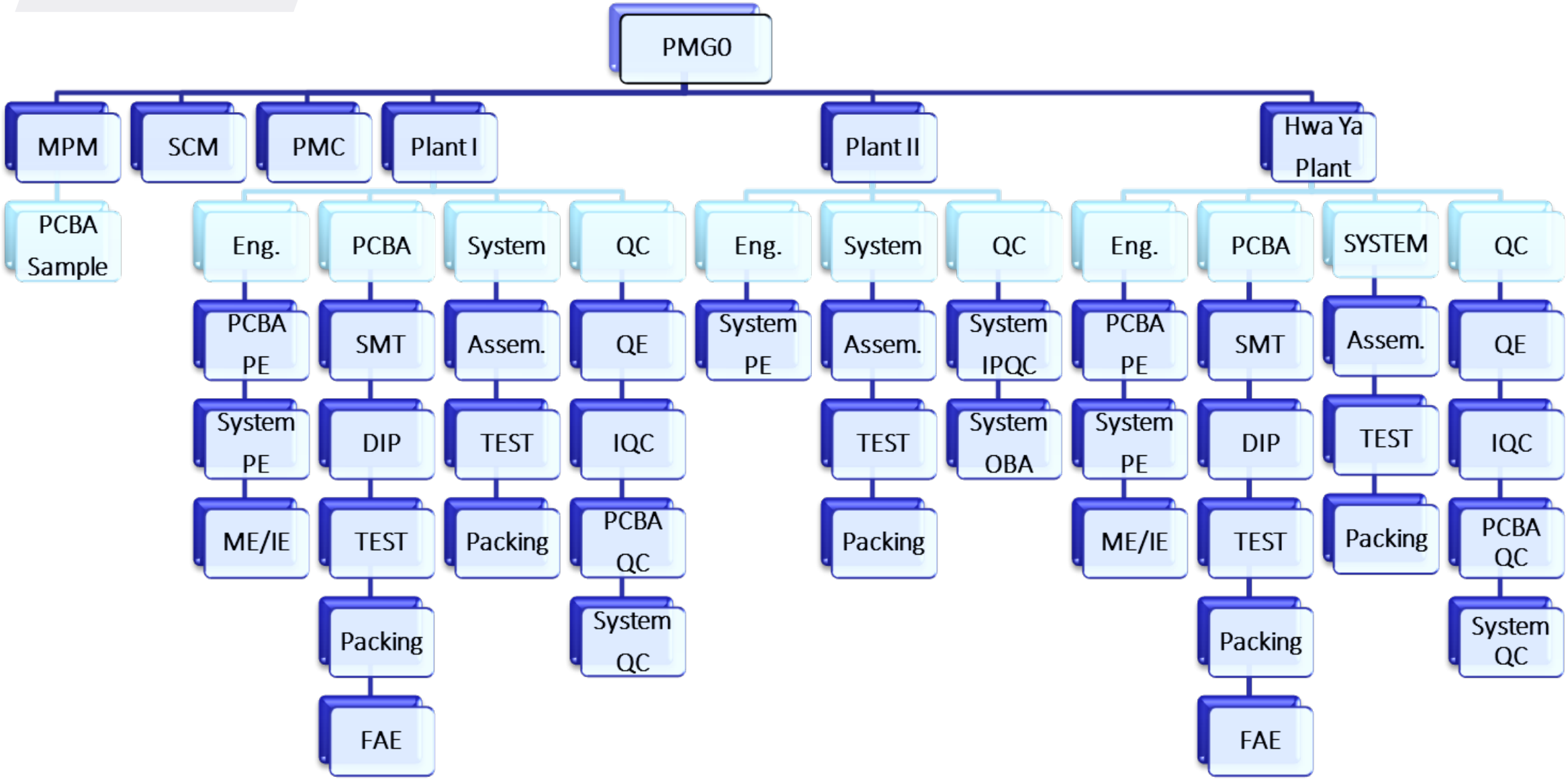


Industry system professional manufacturing plant

Industry 4.0 demonstration plant

Smart IP CAM professional manufacturing plant

PMG0 Organization



PMG0 Capacity

		Line	2021 Capacity
New Taipei City Plant I	PCBA	3	37,000
New Taipei City Plant II	PCBA	0	0
Hwa Ya Plant	PCBA	2	32,000
New Taipei City Plant I	SYSTEM	1.5	13,000
New Taipei City Plant II	SYSTEM	3	15,000
Hwa Ya Plant	SYSTEM	2	22,000

PCBA : 69,000pcs
SYSTEM : 50,000pcs

Smart Factory

Smart Site	Smart Control	Smart Operation	Smart Management
Raw Materials, Products, & Jigs w/RFID Tags	Reflow	HMI	e-WMS
Product Records through RFID	Wave-Soldering	SCADA	APS
E-SOP Optimization	Burn-In Room		ERP
Sensors for Environmental Monitoring	Visual Inspection Process		MES
Sensor for ESD Event Detection	Feedback from Machine		SCM
Predictive Maintenance (PdM)			War Room

Cloud Computing

ISO Certificates List

ISO 9000, ISO 14000, ISO 45001, ISO 13485

- ISO 45001:2018
- ISO 9001:2015 (TW, US, CN)
- ISO 14001:2015
- ISO 13485:2016 (TW,US)

New Taipei City Plant I & II

Johnny

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New Taipei City Plant I &II Capacity

1. **Board-Level Capacity → 37,000 pcs**
2. **System-Product Capacity → 28,000 units**

Production Capacities	Shifts (Daily)	Hours (Daily)	PCs/Sets (month)	Facilities
Board-Level Product	3	24	37,000	SMD Line x 3
Outsourcing Capacity			>5,000	Board level>5,000 System level >10,000
System-Level Product	1	8	28,000	System Line x 4.5

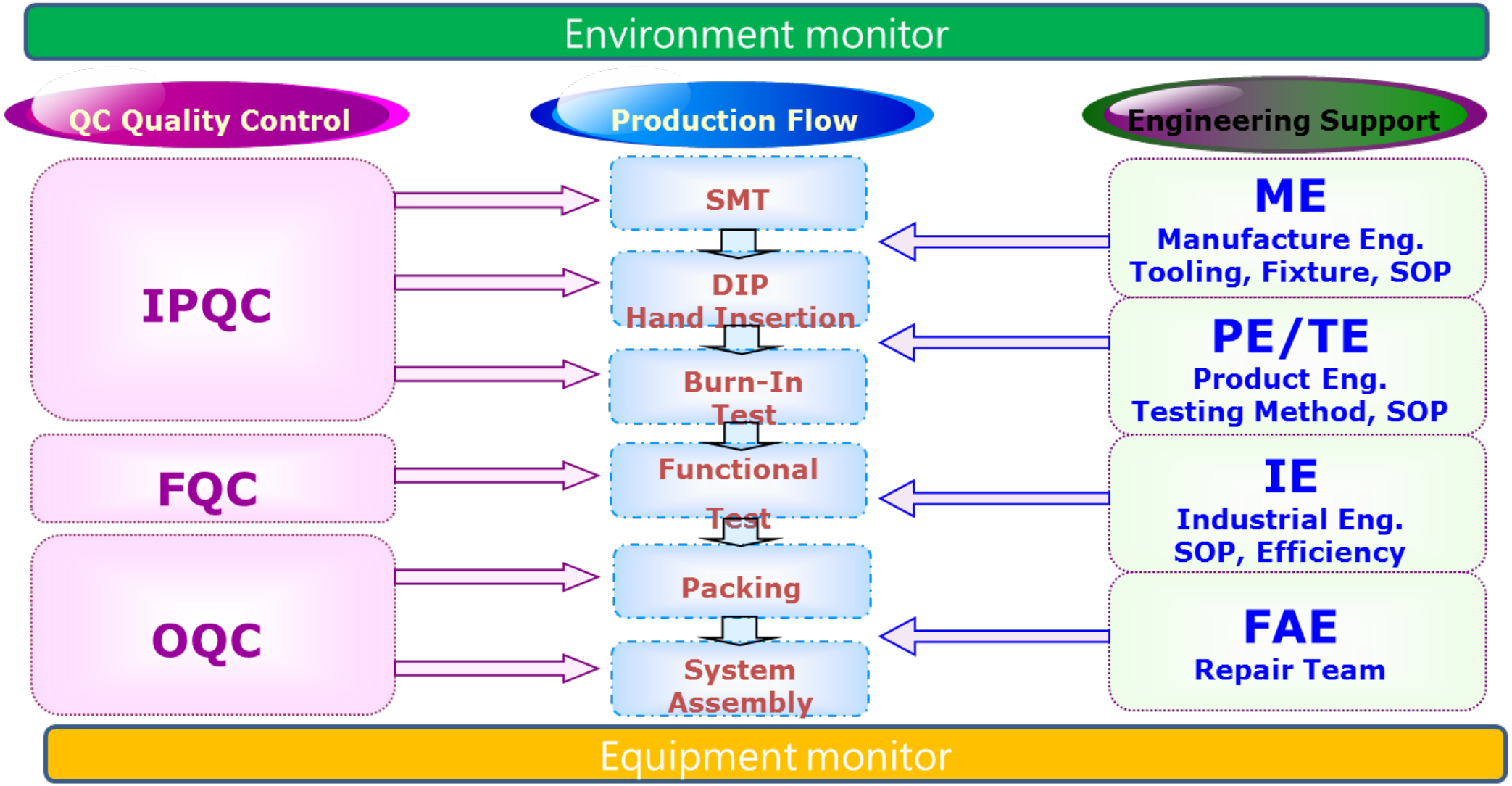
Factory Employees =268 **Space =15,000 sq.M**

Demand/Supply Management

Forecasting Process

- Monthly Rolling 3-Month Sales Forecast Review
- Weekly Supply Demand Status Review
- Daily Main Production Schedule and Materials
- Requirements Program Update
- Including Customers, Subcontractors, and Components Suppliers

Production Flow



Quality Control

SMT Process

BGA/SPI Checking
100% AOI Inspection

DIP Process

Touch-up &
Power On Test

IPQC Audition (105E)

FQC

Assembly

100% Function Test

20% PCBA Burn-In

IPQC Audition

100% Burn-In

100% Function Test

Packing

Inventory /
Shipping

OQC
Test & Inspection
105E II AQL 0.65%

Hwa Ya Plant

Def

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Hwa Ya Plant Capacity

1. **Board-Level Capacity → 32,000 pcs**
2. **System-Product Capacity → 22,000 units**

Production Capacities	Shifts (Daily)	Hours (Daily)	PCs/Sets (month)	Facilities
Board-Level Product	3	24	32,000	SMD Line x 2
System-Level Product	2	8	22,000	System Line x 2
System-Level Product	1	8	28,000	System Line x 4.5

Factory Employees =191 **Space =8,300 sq.M**

Hwa Ya Plant Strength

1. Highly Automated Production to Reduce Manpower 15%
2. Highly Automated Production to add performance 20%
3. AOI Replace Visual Inspection in DIP Process
4. Real-time Equipment Monitoring & Predictive Maintenance
5. RFID for Warehouse & WIP Management
6. War Room implement for facility , production line, PDM(Predictive maintenance), nCare, eSafe

SMT Process

Repair

On line
100%

Off line
sampling

Laser engraving → Print → SPI → High Speed & Multi-function → Reflow → AOI → X-RAY

LBS 800K

Horizon 03iX

TR7006L

CM602-L

Pyramax 125N

TR7500

Dage XD7500VR

DIP Process

Router Machine

Υ-S330IN-LINE-SL(L)

Automatic Insertion

NPM-W2

Wave- solder

JC-400CLFDL/R

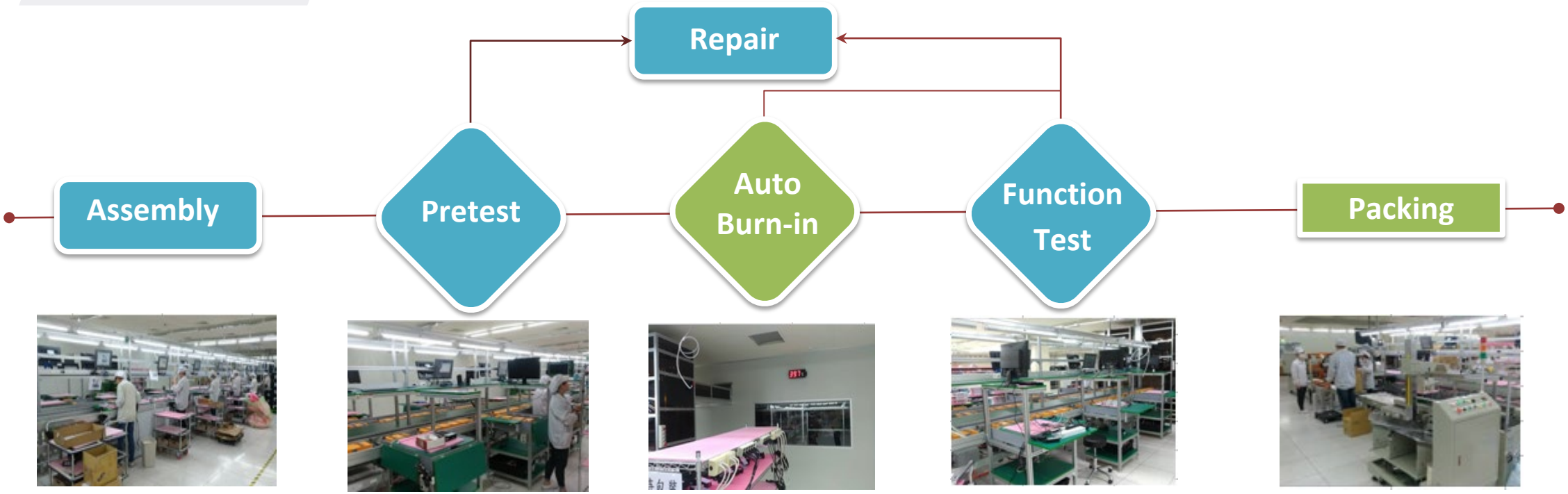
AOI + Selective wave soldering

OPTIMA III/ORISSA SYNCHRODEX

Touch-up

Touch-up line

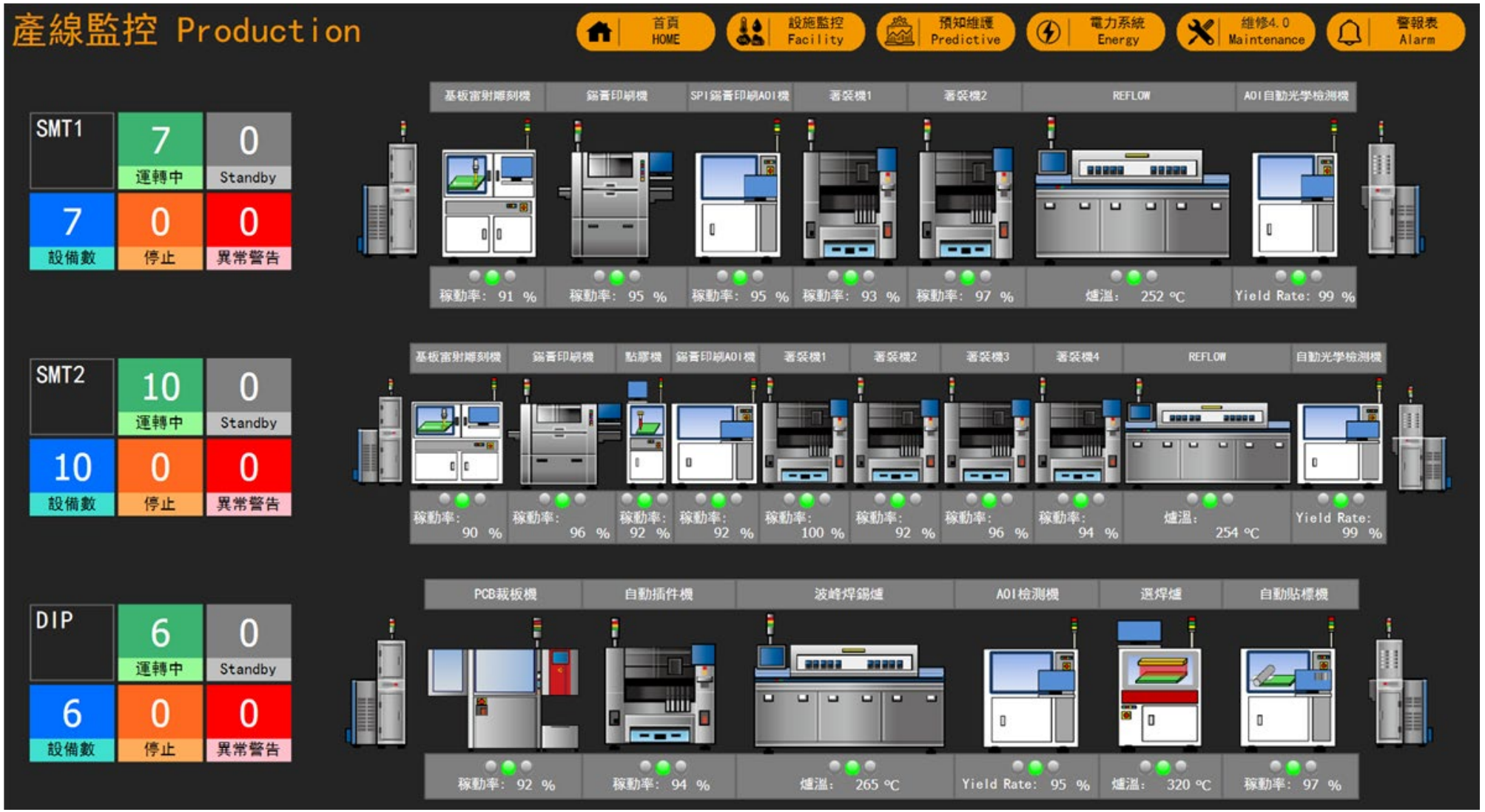
System Process



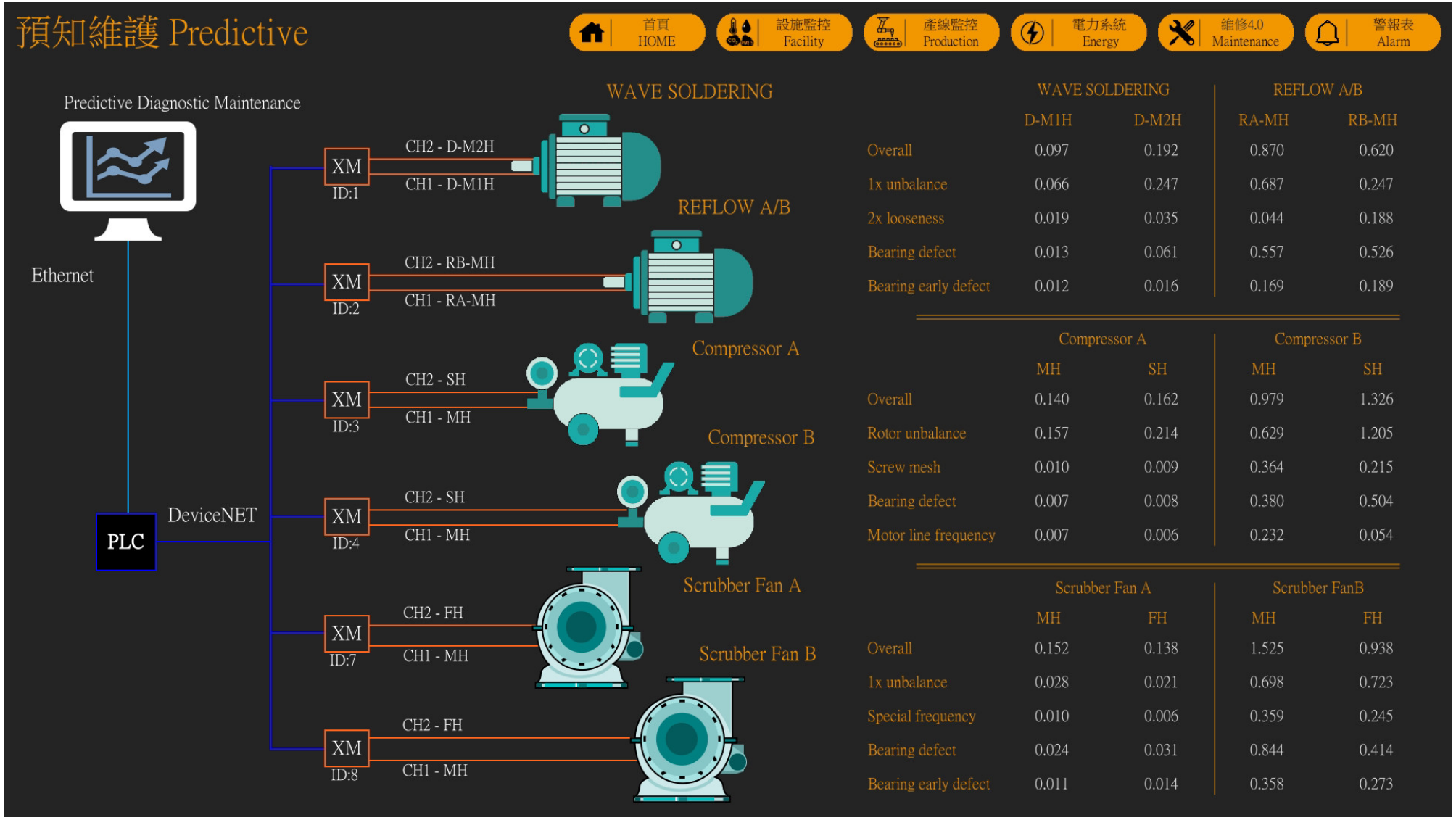
Temperature: 35~45°C

Auto carton folding -> sealing -> labeling -> palletizer

Machine Monitoring HMI



Predictive Maintenance HMI



	WAVE SOLDERING		REFLOW A/B	
	D-M1H	D-M2H	RA-MH	RB-MH
Overall	0.097	0.192	0.870	0.620
1x unbalance	0.066	0.247	0.687	0.247
2x looseness	0.019	0.035	0.044	0.188
Bearing defect	0.013	0.061	0.557	0.526
Bearing early defect	0.012	0.016	0.169	0.189

	Compressor A		Compressor B	
	MH	SH	MH	SH
Overall	0.140	0.162	0.979	1.326
Rotor unbalance	0.157	0.214	0.629	1.205
Screw mesh	0.010	0.009	0.364	0.215
Bearing defect	0.007	0.008	0.380	0.504
Motor line frequency	0.007	0.006	0.232	0.054

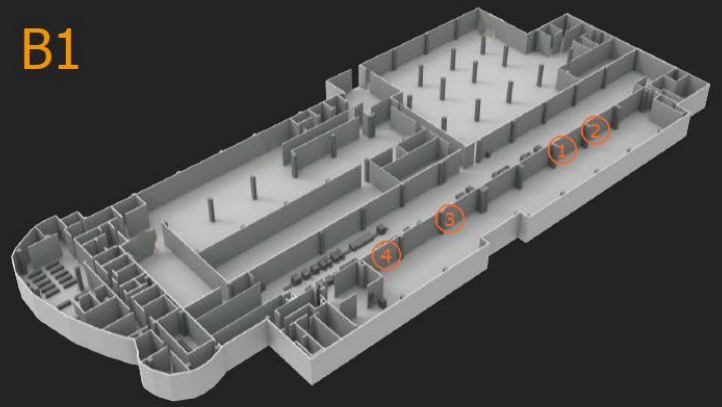
	Scrubber Fan A		Scrubber FanB	
	MH	FH	MH	FH
Overall	0.152	0.138	1.525	0.938
1x unbalance	0.028	0.021	0.698	0.723
Special frequency	0.010	0.006	0.359	0.245
Bearing defect	0.024	0.031	0.844	0.414
Bearing early defect	0.011	0.014	0.358	0.273

Energy Monitor and Analysis

電力監控 Energy

首頁 HOME | 設施監控 Facility | 產線監控 Production | 預知維護 Predictive | 維修4.0 Maintenance

B1



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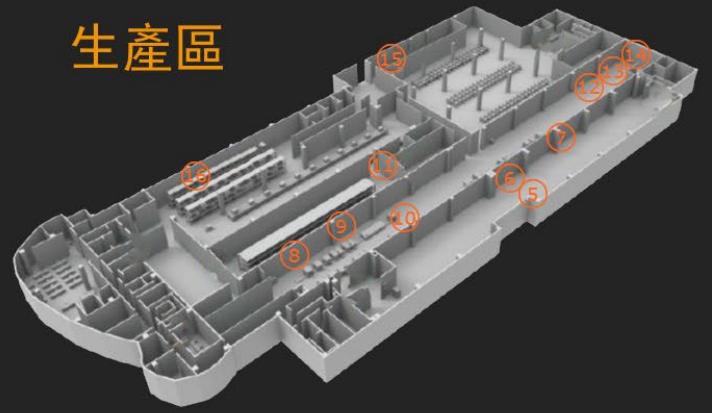
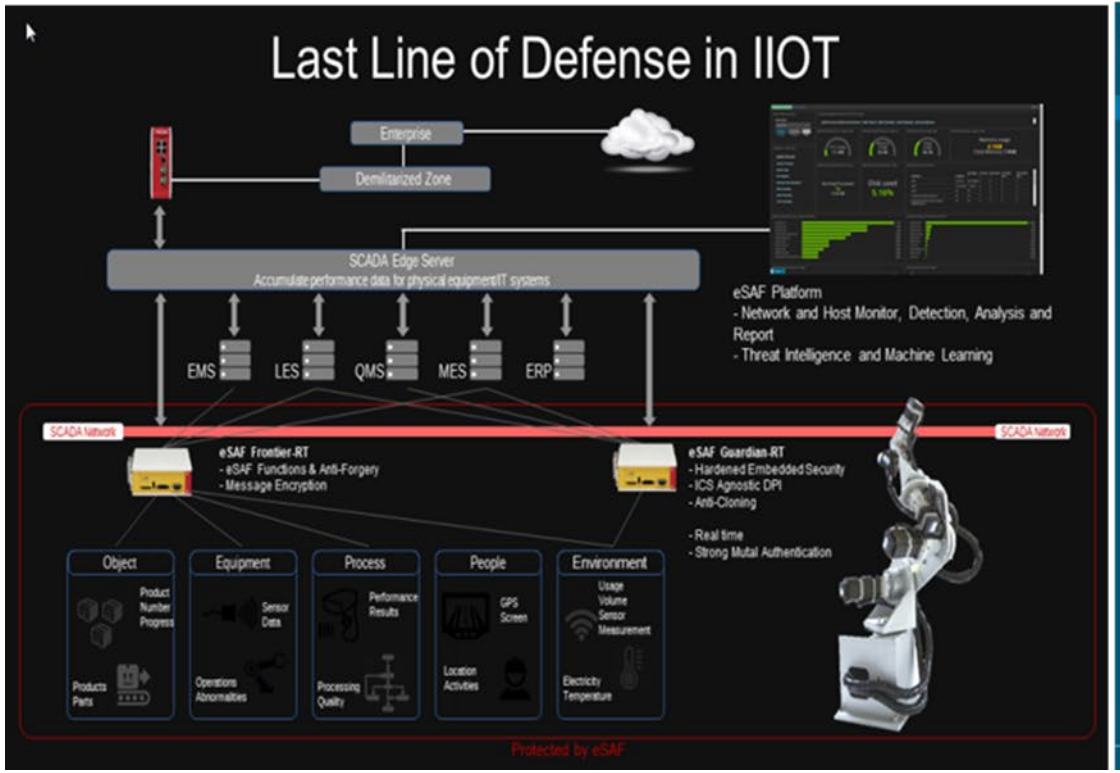


	功率	功因	總用電度數	尖峰用電量	半尖峰用電量	離峰用電量	昨日累積尖峰用電量	昨日累積半尖峰用電量	昨日累積離峰用電量
1 B1機房	33.7 KW	85.5 %	55238.8 KWH	11087.8 KWH	18299.2 KWH	22223.1 KWH	11087.8 KWH	18058.3 KWH	22046.3 KWH
2 B1機房	6.9 KW	74.0 %	10181.8 KWH	1878.8 KWH	3446.6 KWH	4132.8 KWH	1878.8 KWH	3409.8 KWH	4099.6 KWH
3 B1機房	0.0 KW	0.0 %	1039.1 KWH	309.3 KWH	386.5 KWH	284.2 KWH	309.3 KWH	383.0 KWH	284.1 KWH
4 B1機房	186.6 KW	97.6 %	326938.5 KWH	70948.1 KWH	113480.7 KWH	120755.1 KWH	70948.1 KWH	112454.8 KWH	120411.7 KWH
5 4F空調機房	57.2 KW	85.3 %	96808.6 KWH	25388.9 KWH	37959.5 KWH	27007.2 KWH	25388.9 KWH	37617.9 KWH	27006.5 KWH
6 4F空調機房	0.1 KW	79.2 %	40607.2 KWH	13970.4 KWH	15990.9 KWH	8526.6 KWH	13970.4 KWH	15990.4 KWH	8526.0 KWH
7 4F空調機房	80.2 KW	79.1 %	118820.3 KWH	30808.3 KWH	45883.3 KWH	32643.4 KWH	30808.3 KWH	45411.5 KWH	32643.4 KWH

	平均相電壓	平均電流	功因	功率	用電量
8 4F SMT	228.3 V	47.0 A	77.0 %	24.7 KW	46820.8 KWH
9 4F SMT	228.1 V	29.4 A	-89.7 %	18.0 KW	31910.0 KWH
10 4F SMT	228.4 V	27.3 A	69.7 %	13.1 KW	34801.0 KWH
11 4F DIP	229.2 V	24.4 A	-98.0 %	60.7 KW	79475.7 KWH
12 4F SYSTEM	128.3 V	23.4 A	-61.8 %	5.6 KW	9343.2 KWH
13 4F SYSTEM	222.8 V	56.4 A	80.4 %	30.3 KW	23606.3 KWH
14 4F SYSTEM	223.6 V	0.9 A	-97.1 %	0.6 KW	14100.5 KWH
15 4F SYSTEM	223.5 V	0.0 A	0.0 %	0.0 KW	420.8 KWH
16 4F OFFICE	228.0 V	16.3 A	-98.6 %	11.0 KW	11160.6 KWH

eSafe for equipment



Thank You