PEGATRON 和碩聯合科技 5G

PEGATRON Private 5G Introduction

2025

Rev.01

2/21/2025

- Navigate the Future Faster | The Value Leader in Enterprise 5G -

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Current Role

Pegatron (5G Business)
❖ 부사장 – Wireless Convergence

중남미 엑셀러레이터
❖ 센터장

한국원자력대학원 (산자부)
❖ 해외사업 연구자문

Prior Experience

(미국 통신분야 #1)
기획실 M&A
무선통신 재무담당

(글로벌 #1 자산운용)
뉴욕 지사
텔레콤 애널리스트

(글로벌 4대 패션부분 대학)
뉴욕주립대 송도캠퍼스 설립
Chief Operating Officer

(5G 통신장비사)
M&A 전략
Executive Vice President

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Company Introduction

A trusted provider of electronic manufacturing services.
Offers a wide range of products and solutions to business worldwide.

Established on
June. 27th 2007

Headquarters
Taipei, Taiwan

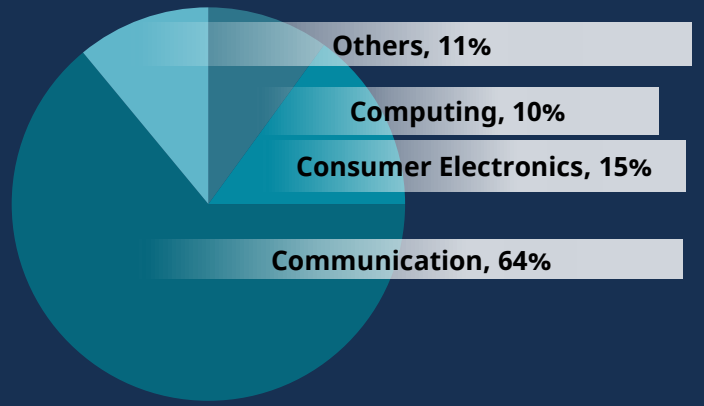
2023 Consolidated Revenue
USD $
40.3 Bn

Global Operation Sites
24

Total Number of Employees
~100,000

2024 Fortune Global 500
No. 375

2023 Revenue Breakdown by Main Product Segment



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Company Introduction – Global Operations

PEGATRON 5G

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Global Operations

TW	Taipei	**CN**	Suzhou	**JP**	Tokyo	**ID**	Batam
	Xindian		Shanghai	**KR**	Seoul	**AU**	Sydney
	Taoyuan		Chongqing	**VN**	Hai Phong	**CZ**	Ostrava
	Hsinchu			**IN**	Chengalpattu	**US**	San Jose
	Taichung			**SG**	Singapore		Jeffersonville
						MX	Juarez

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Company Introduction – Major Product Categories

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Computing

- Notebook PC
- Desktop PC
- Motherboard
- AI Server & Cloud Computing
- Edge Computing

Artificial Intelligence

- Digital Twins
- AI-enabled SOP Analysis
- Vision AI

Automotive

- ADAS Computing
- Lidar
- IVI & eCockpit
- Body Controller
- Infotainment System
- EVSE
- EV ECU
- Powertrain
- E-Bike

IoT & Smart appliances

- AR/VR
- Headset
- Game Console
- AIoT
- Exercise Equipment
- E-cigarette
- Smart Helmet
- Healthcare

Communication devices

- Smartphone
- 5G O-RAN
- Network Switch
- Cable Modem
- Set-Top Box
- Access point, FWA

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5G Solution Introduction – Product Portfolio

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Radio Unit

Macro Cell

2025Q4

PR2850

- Option 7.2a, 4Carriers per 4T4R 2 carriers per 8T8R
- n78/n79/n41
- Support BW: up to 100MHz
- AISG Port support
- Output Power: 40W/chain
- -40~55 °C, IP65

Micro Cell

PR2400

- Option 7.2a, 4T4R
- n48/n78/n79
- Support BW: up to 100MHz
- Output Power: 5W/chain
- -40~55 °C, IP65

2025Q3

PR2800

- Option 7.2a, 4Carriers per 4T4R 2 carriers per 8T8R
- n77
- Support BW: up to 100MHz
- Output Power: 10W/chain
- -40~55 °C, IP65

Pico Cell

PR1400

- Option 7.2a, 4T4R
- n48/n78/n79/n77
- Support BW: up to 100MHz
- Output Power: 250mW/chain
- 0~40 °C, IP30

2025Q1

PR1450

- Option 7.2a, 4T4R
- n48/n78/n79/n77
- Support BW: up to 100MHz
- Output Power: 250mW/chain
- 2CC supported
- -5~50 °C, IP50

Baseband Unit

2026 **Next Gen. BBU**

PG5300

- 5G NR SA Sub-6G, 3GPP R15/R16/R17. TDD Mode.
- Max. Number of Supported Cells up to 12.
- Active Users 1024/cell above
- Built-in GNSS Timing Source, 1588PTPv2 & Sync.E
- Support Energy Saving, C3/C4
- -5~55 °C
- Pegatron RAN Operation System License (PROS)

PG5200

- 5G NR SA Sub-6G, 3GPP R15/16. TDD Mode.
- Max. Number of Supported Cells up to 3.
- Active Users up to 128/Cell, Single Cell only can up to 256 Active Users.
- Users/TTI up to 8UEs.
- Handover, Network Slices Supported.
- Built-in GNSS Timing Source, 1588PTPv2 & Sync.E
- -5~55 °C
- Pegatron RAN Operation System License (PROS)

Integrated Small Cell

2025Q3

PS2400

- 5G NR SA Sub-6G, 3GPP R15/16.
- Option 2, TDD Mode
- n48/n78/n79/n77
- Support BW: up to 100MHz
- Output Power: 5W/chain
- Built-in GNSS Timing Source, 1588PTPv2
- -40~55 °C, IP65

2025Q2

PS1400

- 5G NR SA Sub-6G, 3GPP R15/16.
- Option 2, TDD Mode
- n48/n78/n79/n77
- Support BW: up to 100MHz
- Output Power: 250mW/chain
- Built-in GNSS Timing Source, 588PTPv2
- 0~45 °C, IP30

Fronthaul/Backhaul

CSR DM8218-F

- 16 1/10/25G SFP+ ports, 2 100/400G QSFP28 ports
- Built-in Timing Source1588v2 PTP & Sync. E (Optional)
- 0~50 °C

CSR DM6214-B

- 12 10/25G SFP+ ports, 2 25/100G QSFP28 ports
- Built-in Timing Source1588v2 PTP & Sync. E
- -40~65 °C

CSR DM2118-B

- 4GE RJ45, 8 GE SFP ports, 2 10/25G SFP+ ports
- Built-in Timing Source1588v2 PTP & Sync. E
- -40~65 °C

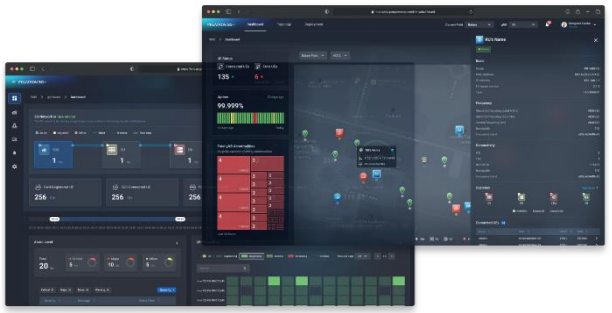
CSR S9500-30XS

- 2 40/100G QSFP28 ports, 8 1/10/25G SFP28 ports
- 20 100M/1/10G SFP+ ports
- Built-in Timing Source, 1588v2PTP, Sync.E
- -40~65 °C

FHM M3000-14XC

- 8 1/1025G Fronthaul Multiplexer to RRU
- -40~70 °C

Operation Support System



Network Management System (NMS)

- Key functionalities: Deployment, Administration, Topology

Element Management System (EMS)

- FCAPS (Fault, Configuration, Account, Performance) management system
- Key functionalities: Dashboard, gNB Management, UE Management, Tools, Alarm Management, Setting Management.

Launched with Country Cert.

In developing (Lanuch@2025)

Planning and Market Evaluation

5G Solution Introduction – P5G NR Radio Access Network System Solution

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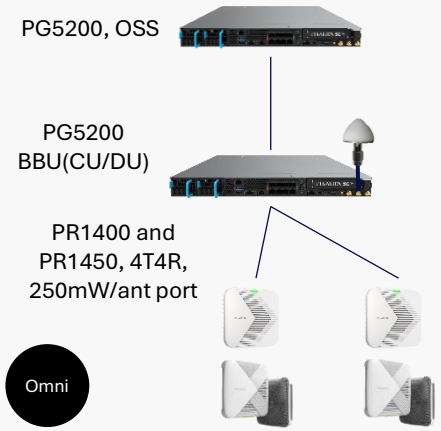
Indoor solutions with OSS

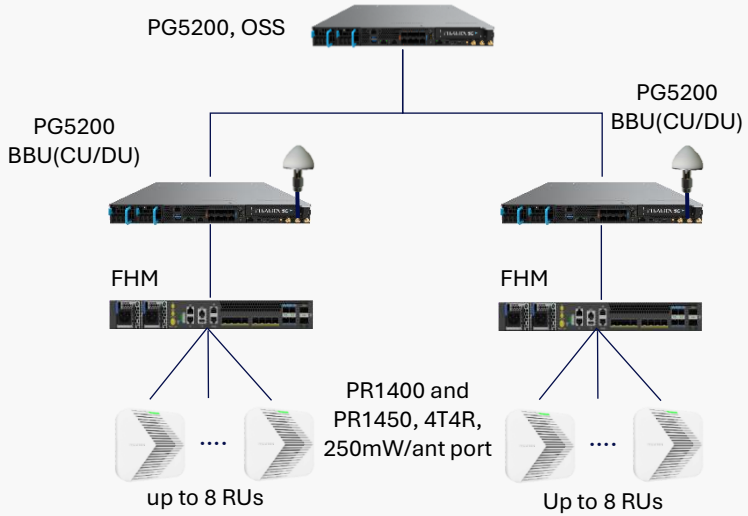
Dedicated OSS HW for southbound vRAN BBU and Indoor RRU



Note:
1. An internal omni antenna transmit line of sight up to 40 meter at RSRP -100dBm
2. L3 switch is subject to require, regarding of the number of networking products or the capacity of field deployment.

Integrated Density/Extension Solutions

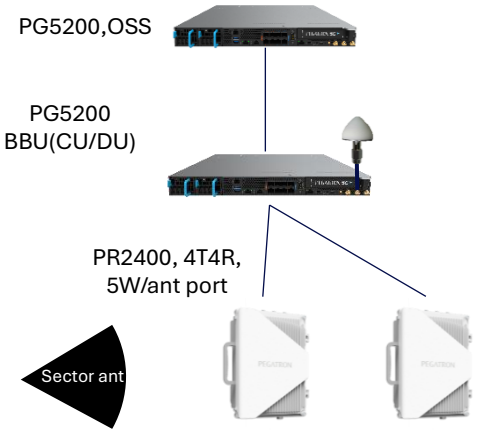
Dedicated OSS HW for southbound vRAN BBU and cell sharing integration



Note:
1. L3 switch is subject to require, regarding of the number of networking products or the capacity of field deployment.

Outdoor solutions with OSS

Dedicated OSS HW for southbound vRAN BBU and outdoor RRU



Note:
1. Sector antenna with 12dBi gain and horizontal bean at 60^{O} transmit line of sight 400 meter at RSRP -100dBm
2. L3 switch is subject to require, regarding of the number of networking products or the capacity of field deployment.

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5G Solution Introduction – User Equipment – 5G UE, 5G IOT, PON, Wi-Fi 7

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- Available
- Sample
- Under development
- Under planning

PON

GPON HGU (FG36AX)
- Airoha EN7529DT
- Wi-Fi 6 (4+4)
- 4x1GbE
- 2xFXS1

XGS-PON SFU/HGU (FX100/FX130/FX175)
- Airoha AN7581ST / AN7581DT / AN7581PT
- 1x10GbE
- 1x10GbE+3x1GbE
- 1x10GbE+3x2.5GbE
- XGS-PON/GPON QOSA

GPON HGU (FG72BE)
- Airoha AN7551PT
- Wi-Fi 7 (4+4)
- 4x1GbE + 1x2.5GbE
- 2xFXS

GPON HGU (FG36BE)
- Airoha AN7553CT
- Wi-Fi 7 (2+2)
- 4x1GbE
- 2xFXS

Wi-Fi 7

EG180BE
- Wi-Fi 7 (2+4+4)
- 2x2.5GbE

EG65BE
- Wi-Fi 7 (2+4)
- 1x2.5GbE+2x1GbE

EX180BE
- Wi-Fi 7 (2+4+4)
- 2x10GbE + 3x1GbE

5G FWA IDU

MG54AX
- SDX62, 3GPP Rel. R16
- 4G LTE, 5G NR (Sub-6G)
- Wi-Fi 6 (2+4)
- 1 GbE
- JPN Telec Certified

MG36AX/MG18AX
- MTK T750, 3GPP Rel. 15
- 4G LTE, 5G NR (Sub-6G)
- Wi-Fi 6 (4+4/2+2)
- 2.5 GbE

MG72BE
- MTK T830, 3GPP Rel.16
- 4G LTE, 5G NR (Sub-6G)
- Wi-Fi 7 (4+4)
- Dual 2.5 GbE

MG50BE
- MTK T830, 3GPP Rel.16
- 4G LTE, 5G NR (Sub-6G)
- Wi-Fi 7 (2+3)
- 1* 2.5 GbE + 3* GbE

5G FWA ODU

M2U300
- SDX65, 3GPP Rel. 16
- 4G LTE, 5G NR (Sub-6G & mmW)
- mmW SA, High Performance Antennas
- Up to 10 GbE, PoE PD
- Outdoor IP65

M2U350
- SDX65, 3GPP Rel. 16
- 5G NR (mmW)
- mmW SA, High Performance Antennas
- Up to 10 GbE, PoE PD
- Outdoor IP65

5G IOT

5G 4K Camera
- SDX62, Sub-6G
- 4K Video
- Night Vision
- JPN Telec Certified
- IP65, -10 to 50° C

MD100
- SDX62, 3GPP Rel. 16
- eMBB
- USB Power Passthrough
- No Wi-Fi

MD200
- SDX35, 3GPP Rel. 17
- 5G RedCap
- No Wi-Fi

5G 4K Camera Gen.2
- SDX35, 3GPP Rel. 17
- 5G RedCap
- 4K Video, Night Vision
- IP66, -20 to 60° C
- External antenna

2023 2024 2025

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5G Solution Introduction –Compliance and Awards

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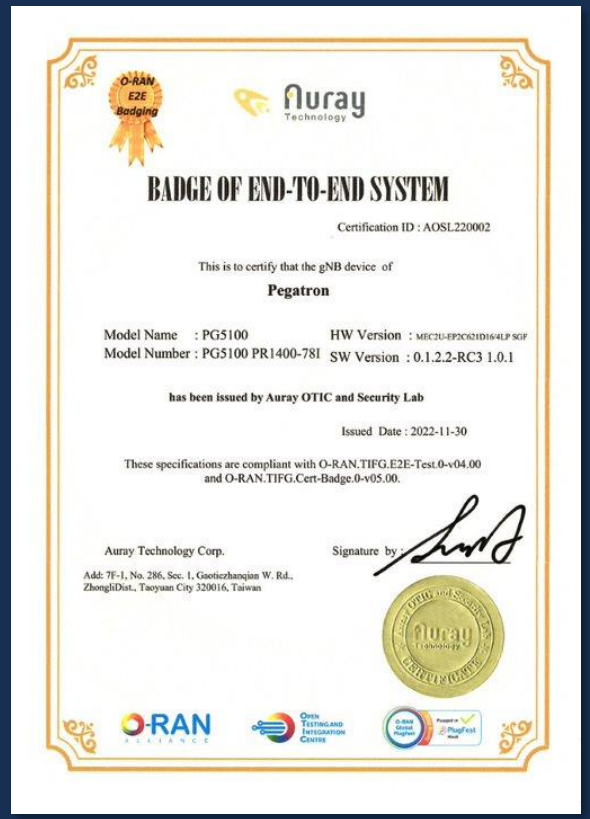
O-RAN Global PlugFest 2021 – Plugged in PlugFest

O-RAN Global PlugFest Spring 2022 – Plugged in PlugFest

O-RAN Global PlugFest Spring 2023 – Plugged in PlugFest

O-RAN ALLIANCE

Open Testing and Integration Centre



O-RAN E2E Badging

Auray Technology

BADGE OF END-TO-END SYSTEM

Certification ID : AOSL220002

This is to certify that the gNB device of

Pegatron

Model Name : PG5100
Model Number : PG5100 PR1400-78I
HW Version : MEC2U-EP2C62D16/4LP SGF
SW Version : 0.1.2.2-RC3 1.0.1

has been issued by Auray OTIC and Security Lab

Issued Date : 2022-11-30

These specifications are compliant with O-RAN.TIFG.E2E-Test.0-v04.00 and O-RAN.TIFG.Cert-Badge.0-v05.00.

Auray Technology Corp.

Signature by :

Add: 7F-1, No. 286, Sec. 1, Gaotiezhanqian W. Rd., ZhongliDist., Taoyuan City 320016, Taiwan

O-RAN ALLIANCE

Open Testing and Integration Centre

WW 1st ORAN E2E Badge

SCF SMALL CELL AWARDS 2022

Innovative Application Award 2022

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5G Private Network Worldwide Experience

Smart Manufacturing

Digital Resilience

Education & Healthcare

Utilities & Energy

Transportation & Maritime

Campus & Exhibition Center

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5G Private Network Use Case : Smart Manufacturing

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Pegatron Taipei Factory

Pegatron Vietnam Factory

Pegatron Taoyuan Factory

PEGAVISION Factory

Smart PCB Factory

中華電信 Chunghwa Telecom

Automation Equip Factory

Automated Logistics

遠傳FET

Meat Processing Plant

遠傳FET

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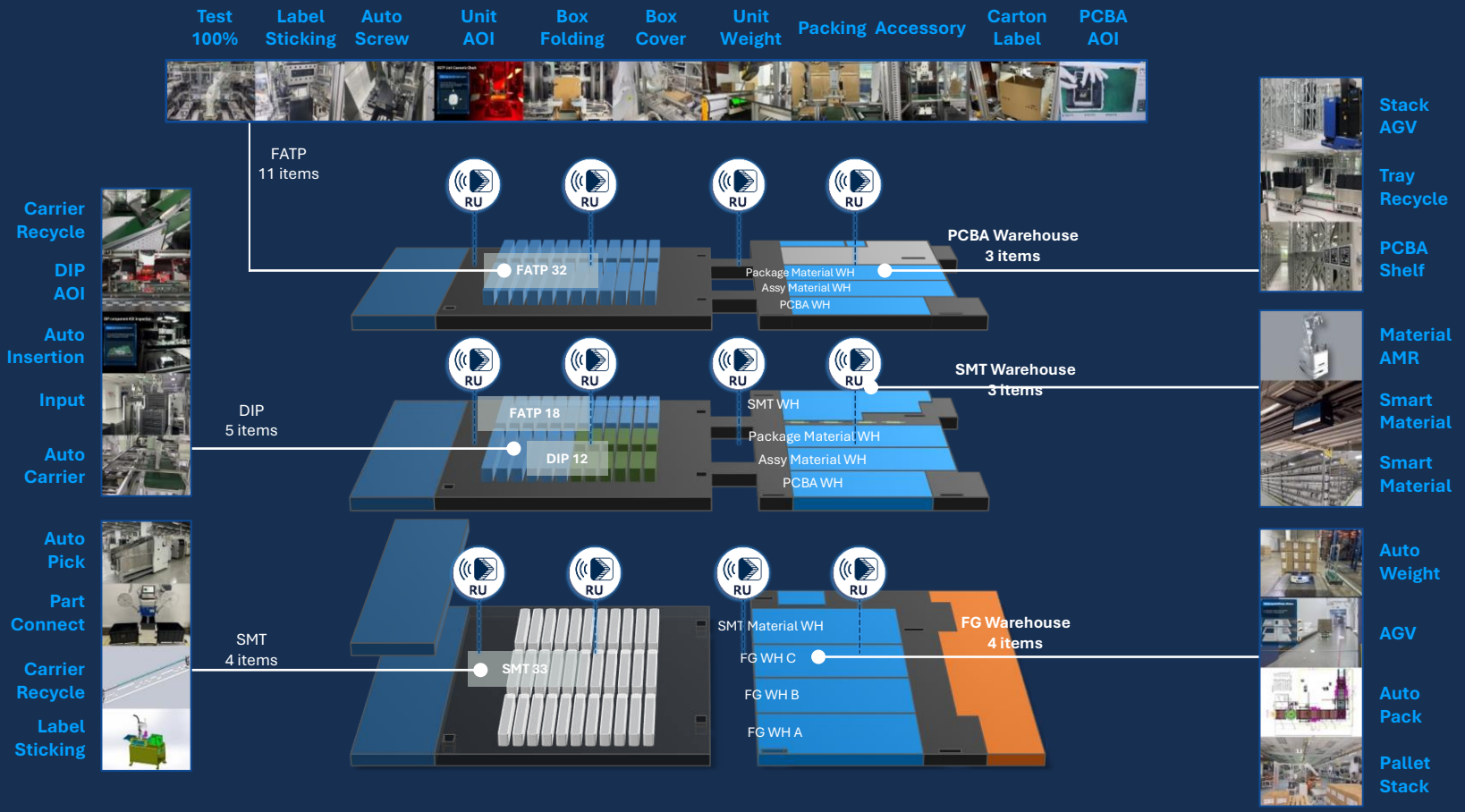
5G Smart Factory in Indonesia



Devices Connection :

> 1000+

Signal Coverage :

>85,000 m²

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5G Private Network Use Case: Defense/Industrial

Digital Resilience

Hsinchu Fire Department

5G + MEO (SES)

2022

MODA Digital Resilience

5G + MEO (SES) / 5G +LEO (OneWeb)

20224

moda

數位發展部

Ministry of Digital Affairs

Yang Ming Marine

5G + LEO (Starlink)

20224

YANG MING

YANG MING MARINE TRANSPORT CORP.

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5G Private Network Use Case

Petrochemical Industry, Education, Campus & Exhibition Center

台灣中油股份有限公司
CPC Corporation, Taiwan

Petrochemical Industry

ITRI
Industrial Technology Research Institute

遠傳FET

Energy Saving
Southern Taiwan Innovation & Research Park, MOEA

遠傳FET

Interactive Theater

moda
數位發展部
Ministry of Digital Affairs

Rural VR Education

TaiNEX
台北國際會議中心

中華電信
Chunghwa Telecom

Exhibition Center

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