



Outdoor CPE

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What is CPE

2

CPE
Application

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Tenda CPE

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Cases

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Competitor

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Competitor

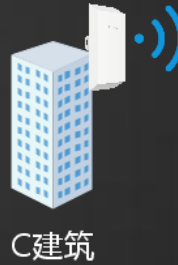
1

What is CPE?

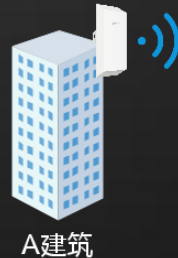
Outdoor CPE is designed to WISP CPE solutions and long-distance wireless network solutions for video surveillance and data transmission (The longest transmission distance in the industry is 231 kilometers.).



Point to Point



Wireless Reapting

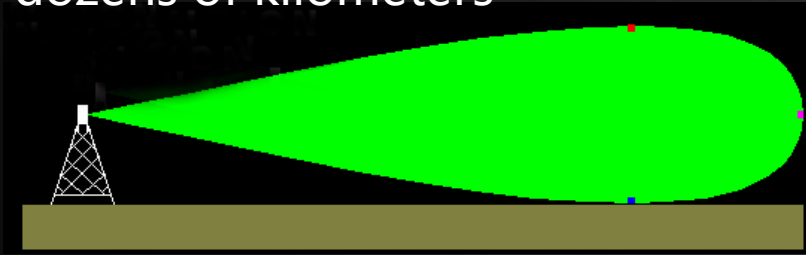


Point to Multi

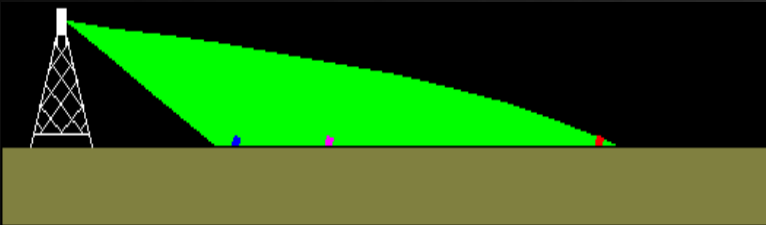
1 Difference between CPE and outdoor AP

1. Transmission Distance

CPE transmission distance can reach dozens of kilometers



Outdoor AP transmission distance does not exceed 200 meters



2. Application scenario

Data transmission such as video surveillance



Wi-Fi Coverage



1 Why CPE has powerful transmission?

1. High transmission power



2. High gain antenna



3. ACK timeout optimization

←→
Vary according to distance



●————●
The longest distance is 300 meters

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2 CPE Application



Elevator monitoring



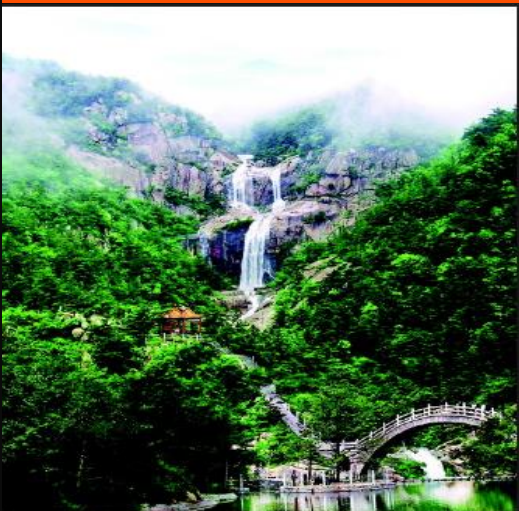
Community Monitoring



Site Monitoring



Orchard Monitoring



Scenic Area Monitoring



Reservoir monitoring



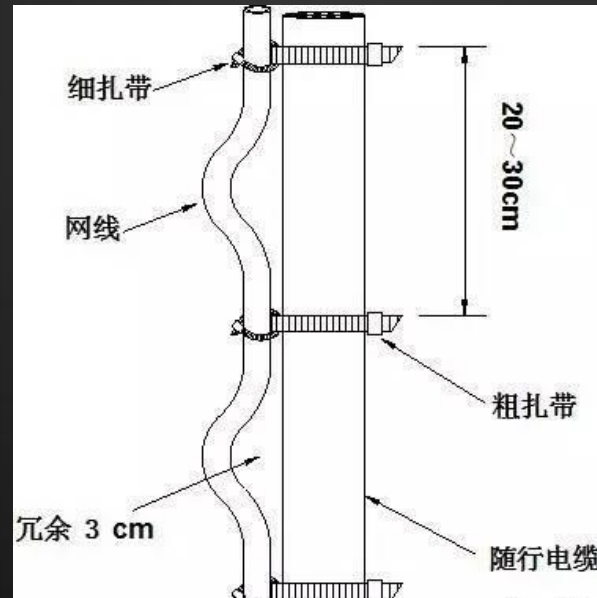
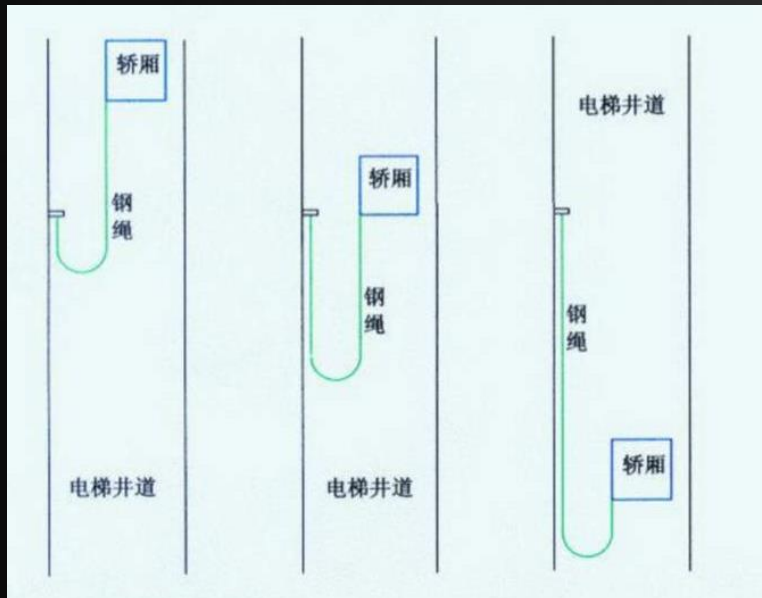
Dock Monitoring



Agriculture Monitoring

2 Elevator Monitoring

1. Long construction time and high cost with network cable transmission monitoring. Must use tie to fasten the cable every 50-80 cm.
2. The network cable and tie are easy to be aging and fall off.



2 Outdoor Monitoring

1. Long construction time and high cost in deploying the optical fiber under the ground
2. Long transmission distance



2 Why use CPE?

1. Easy to fasten and save time
2. Wireless transmission and Long transmission distance



Convenient and Cost Saving

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3 Tenda CPE

Standard CPE



O1
500m Outdoor
Point To Point CPE



O3
5km Point to Point
Outdoor CPE



O5
3km Point to Point
Outdoor CPE



O6
10km Point to Point
Outdoor CPE

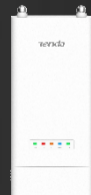
Long Range
CPE



O2 5GHz
Long Range
Outdoor CPE



O4 5GHz
Long Range
Outdoor CPE



B6 5GHz 11n 300Mbps
Basestation

Antenna



ANT12-5G360
12dBi omnidirectional
antenna



ANT16-5G120
16dBi directional
antenna



ANT19-5G120
19dBi directional
antenna

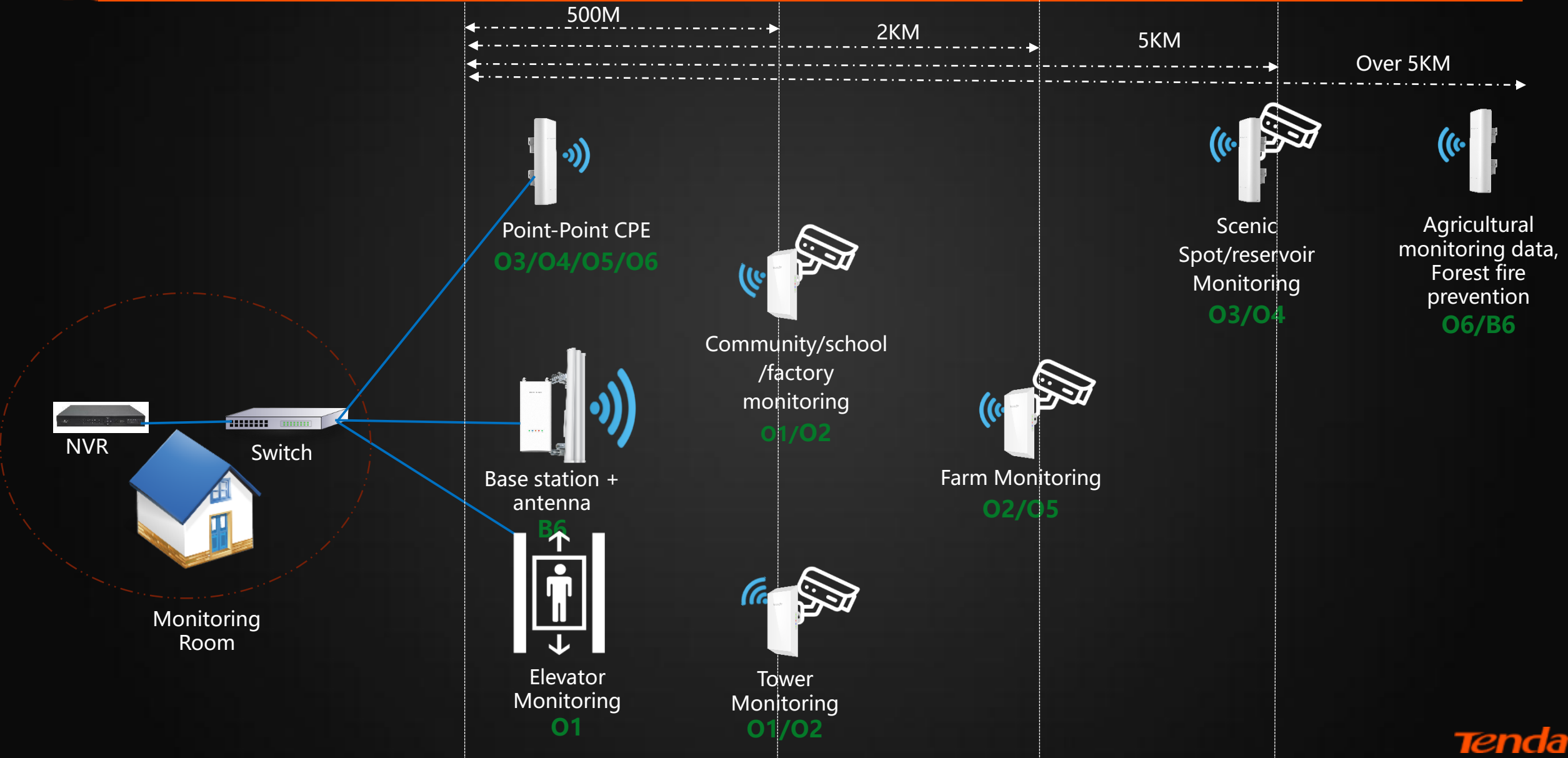


ANT30-5G
30dBi directional
antenna

3 Tenda CPE

Model					
Market Segment: Transmission Distance, Number of Cameras (transmission bandwidth)					
Business concerns: 1, Transmission without Stuck (distance, transmission bandwidth); 2, Easy Installation; 3, Easy Management (maintenance)					
Scene	Lift	School, Factory Farm, Community	Farm, Orchard	Scenic Spots, Forest areas, Livestock farms	Agricultural monitoring data, Forest fire prevention
Target customers	Security Distributor	Security Distributor	Security Distributor	Security Distributor	Security Distributor
Distance Transmission bandwidth	100 Meters	100~500 Meters	500 M~2KM	2KM~5KM	Over 5KM
4-8Mbps (1-2 Two mega pixel cameras)	O1	O1	O2/O3	O3/O4/O6	O6/B6
32Mbps (4-8 Two mega pixel cameras)	/	O1/O2	O3/O2	O4/O6	O6/B6
32Mbps~60Mbps (8-15 Two mega pixel cameras)	/	O2	O2	O4/O6	O6/B6
60Mbps~100Mbps (15-25 Two mega pixel cameras)	/	O2/O4	O4/O5	O6	O6
100Mbps以上 (Over 25 Two mega pixel cameras)	/	O5/O6	O5/O6	O6	O6

3 CPE Application Topology



3 CPE Selling Point

The outdoor transmission distance can reach 20 kilometers.

It is 4 times the transmission distance of the general outdoor bridge.

3 CPE Selling Point, 20km Transmission Distance



400mW external power amplifier

30dBi dual polarized directional antenna

Wireless anti-jamming optimization

Level 6-receive signal conditioning

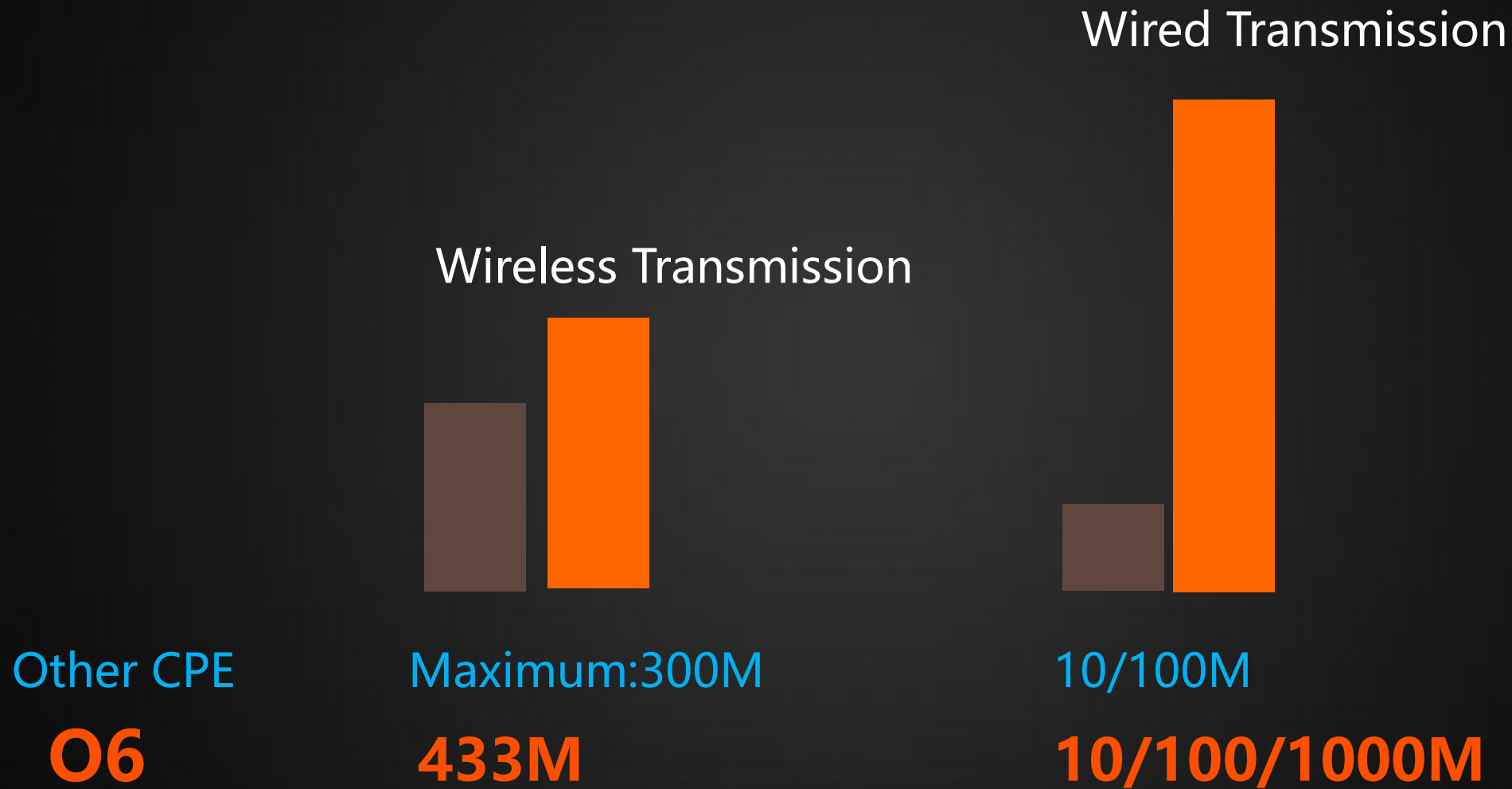
ACKTimeout optimization

10/20/30/40MHz Bandwidth

3 CPE Selling Point

Transmission bandwidth
1.5 times as high as other 100M CPE

3 Tenda CPE-Transmission Bandwidth up to 200Mbps



3 Tenda CPE Selling Points

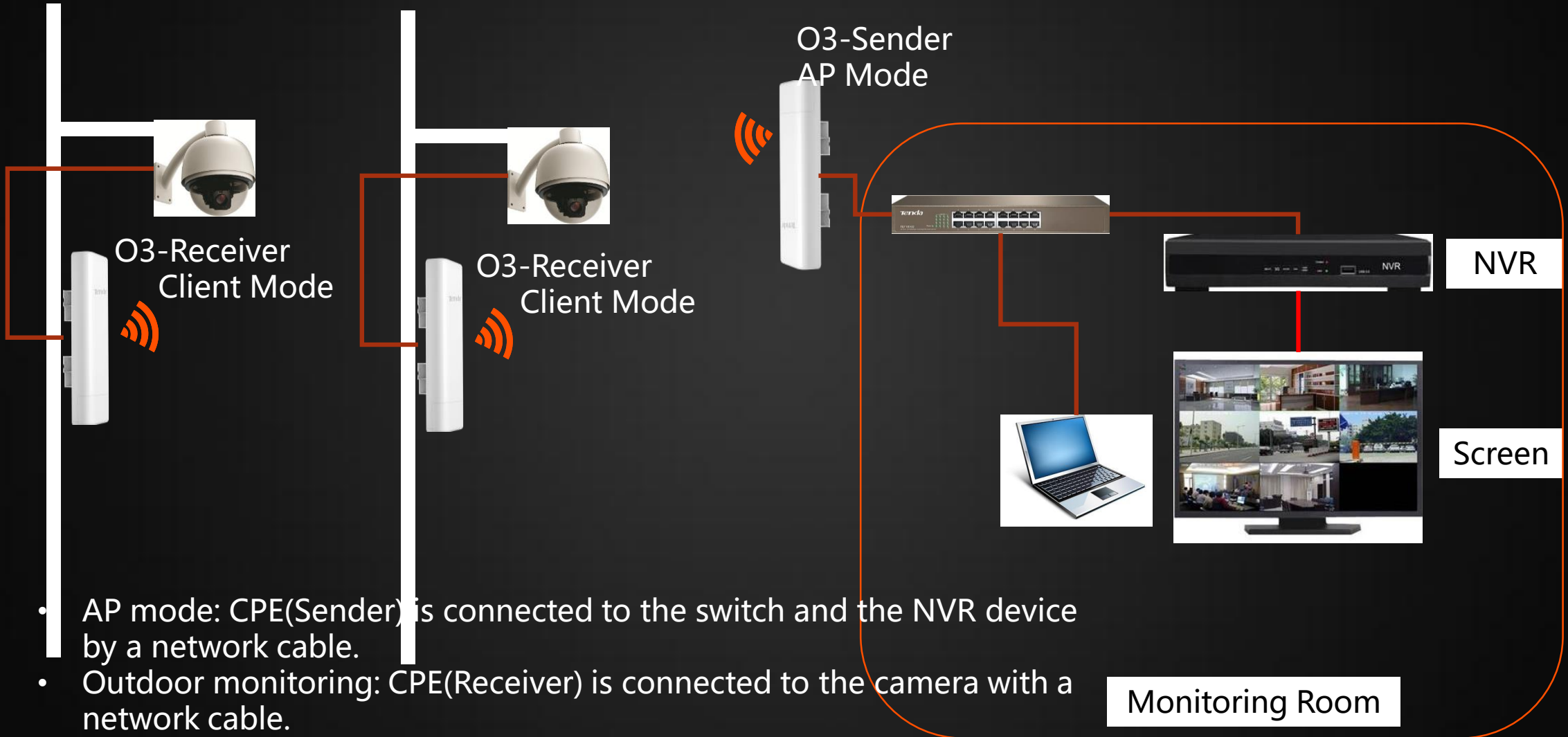
Easy Installation

3 Tenda CPE Selling Points-Automatic Matching

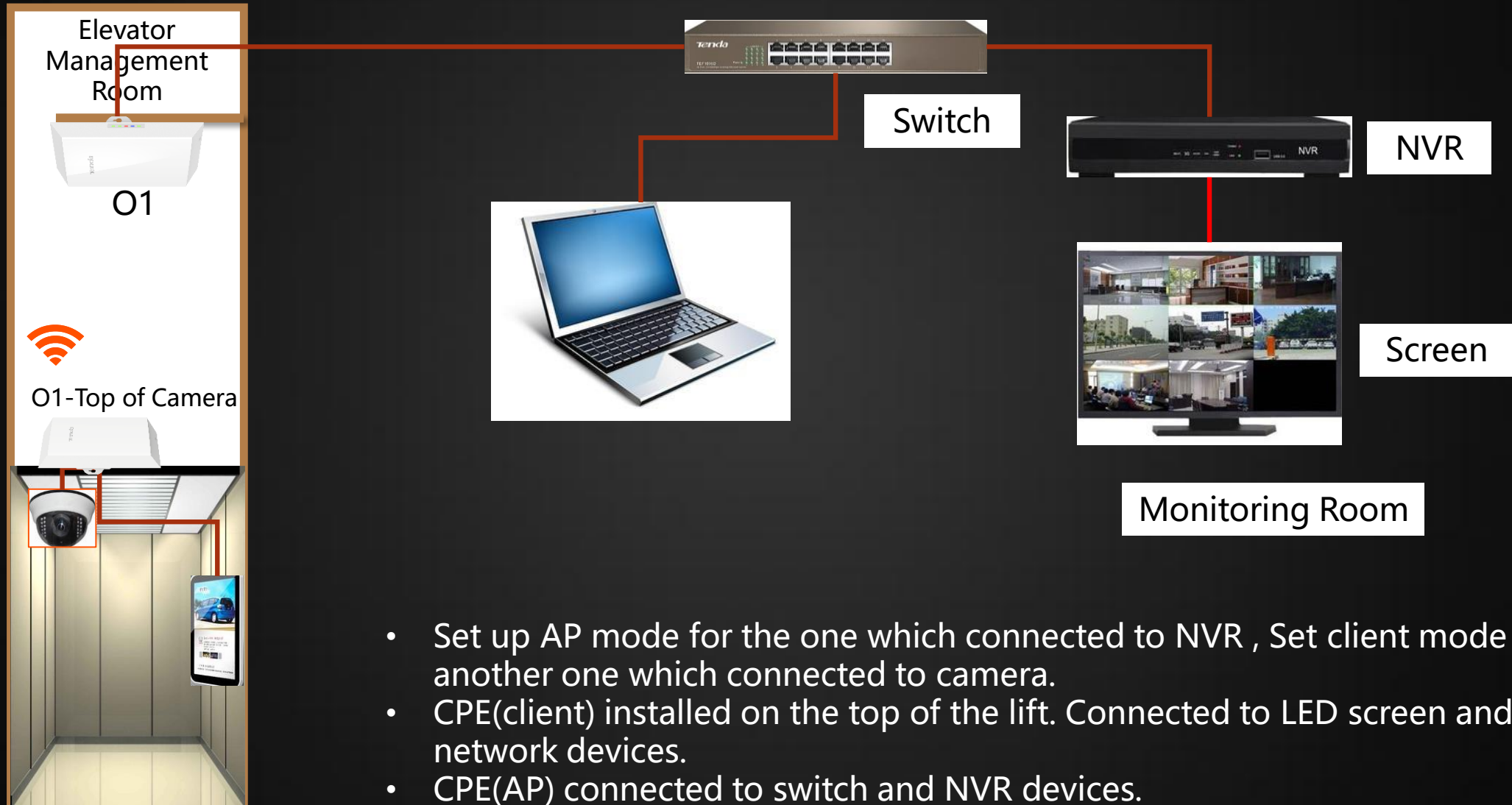
Point-to-Point
Automatic
Matching

Point-to-Multiple
Automatic Pairing

3 Tenda CPE Selling Points



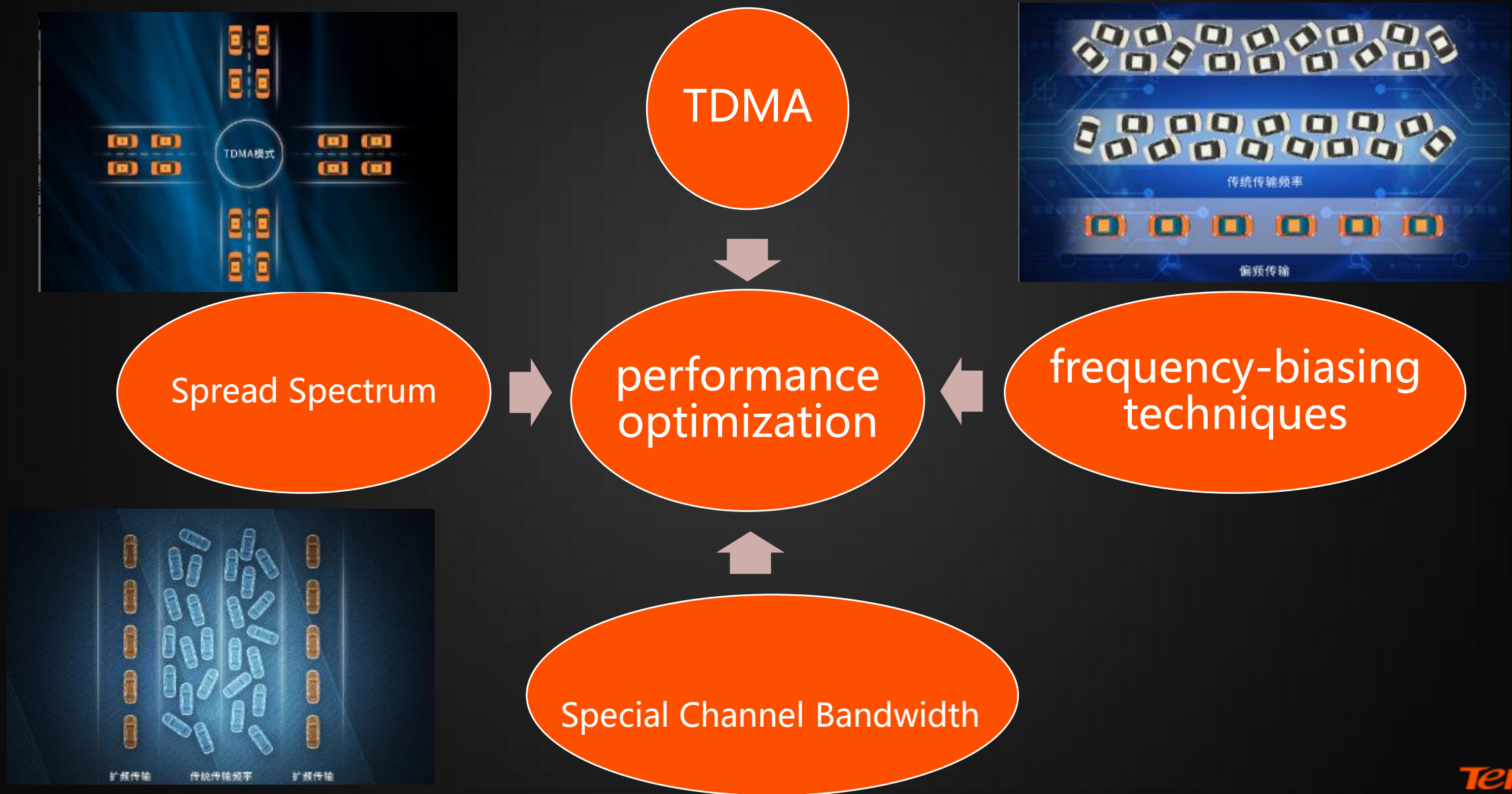
3 Tenda CPE Selling Points



3 Tenda CPE Selling Points

50% better performance than
general CPE

3 Tenda CPE Selling Points



3 Tenda CPE Selling Points

Cost Saving compared with fiber construction

3 Tenda CPE Selling Points

	Wired Monitoring	Wireless Monitoring
Remote installation	Fiber + Fiber Transceiver	Two kinds of CPE
Effectiveness of monitoring	Stable	Stable with 2 Mega Pixels
Efficiency	Fiber must be put under the ground	Install a pair of CPE
Maintainability	Unsafe, Low maintenance	Easy Maintenance
Cost (3km)	Fiber: 1500 Fiber Transceiver: 150 Labor cost: 2000 Total: 3750	≤800

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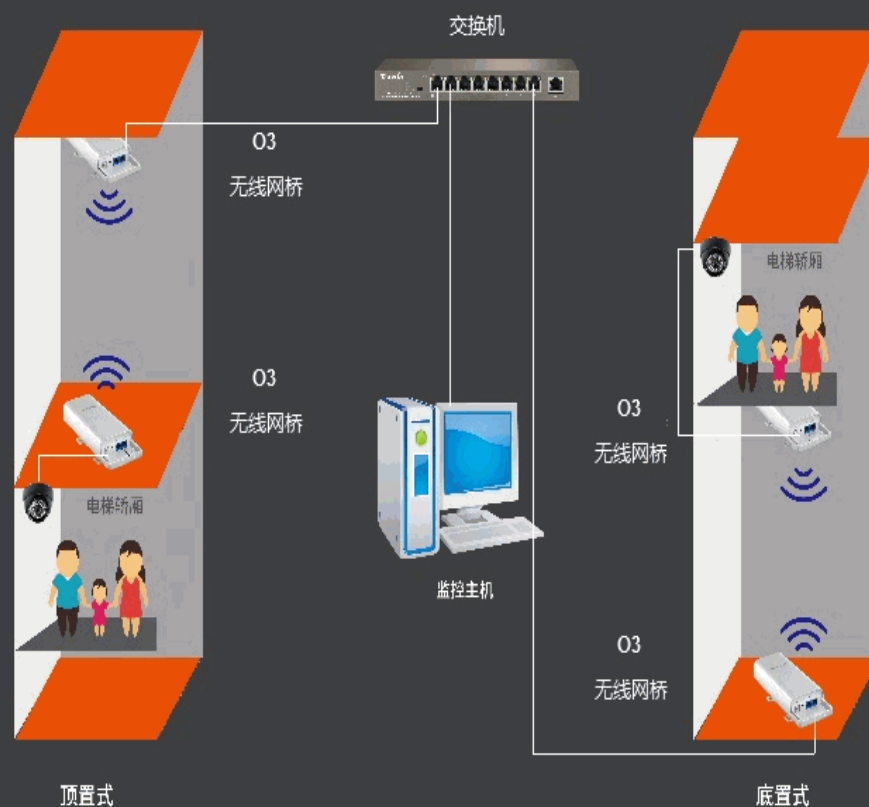
5

Competitor

4 Case—Lift Monitoring



03 电梯无线监控方案示意图



4 Case—Community Monitoring



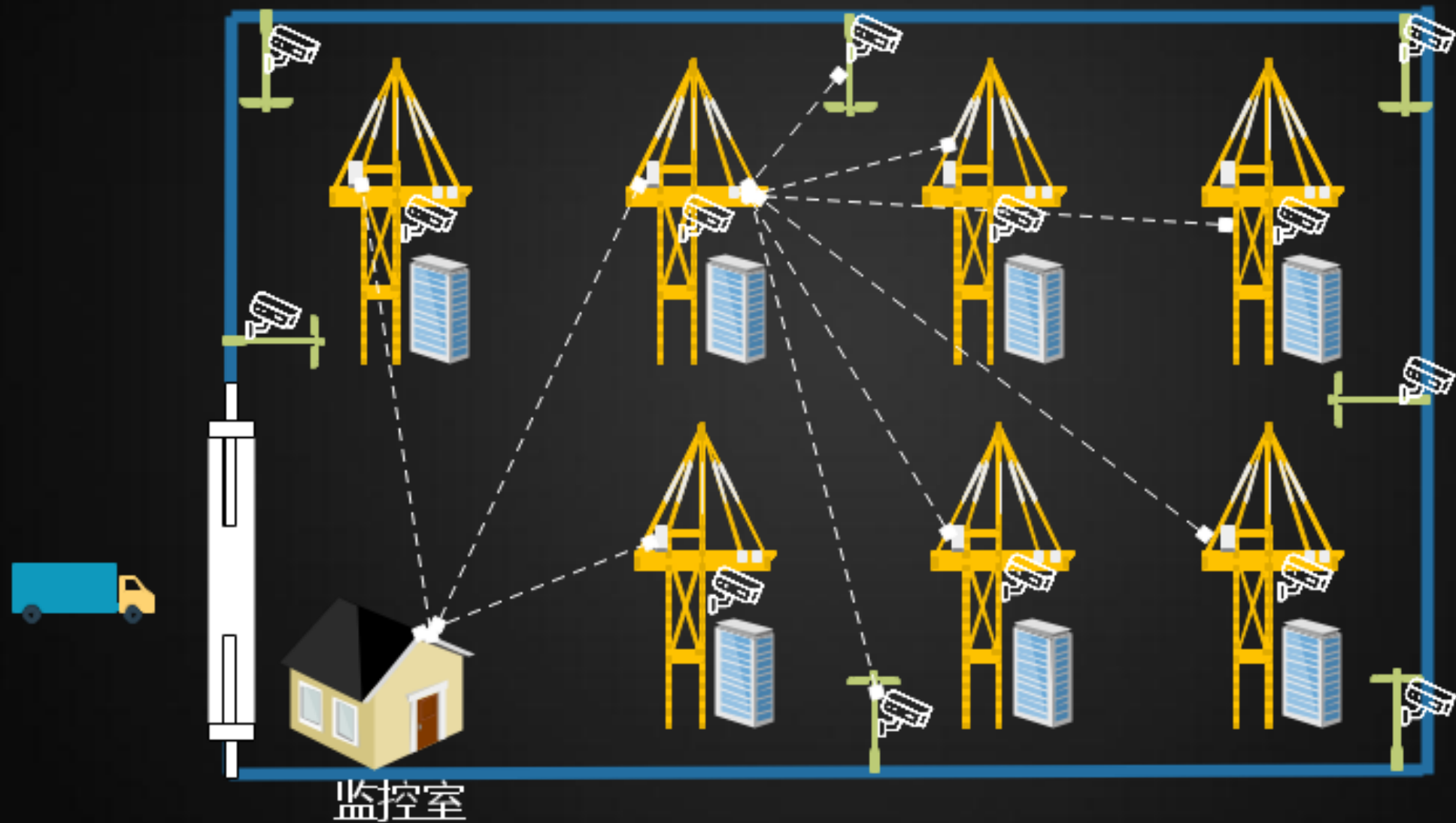
4 Case—Lift Monitoring



Install CPE on
the top of the
Lift and Shaft



4 Case—Tower Crane



4 Case—Tower Crane



4 Case—Farm Monitoring



4 Case—Middle School Monitoring



4 Case—Factory Monitoring



4 Case—Farm Monitoring



4 Case—Community Monitoring



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5 Competitor



2.4GHz 8dBi Outdoor CPE
01

Selling Points:

- Easy Setup: Auto-matching, Easy Setup
- Easy Installation: DC or Passive PoE/12V1A/Pole Mount
- Transmission Distance: 8dBi Antenna/500M

Competitor: Mercury MWB201 TP-Link CPE200

Advantage:

- Auto-matching



5GHz 2km Point to Point
Outdoor CPE

O2

Selling Points :

- Easy Setup: Auto-matching, Easy Setup
- Easy Installation: DC or Passive PoE/12V1A/Pole Mount
- Transmission Distance: 12dBi Antenna /2km
- Bandwidth: 5GHz/Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth/TDMA

Competitor: Mercury MWB505 TP-Link CPE500

Advantage:

- Easy Setup: Auto-matching
- Bandwidth: Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth/TDMA

5 Competitor



2.4GHz 5km Point to Point
Outdoor CPE

03

Selling Points :

- Easy Setup : Auto-matching, Easy Setup
- Easy Installation : DC or Passive PoE/12V1A/Pole Mount
- Transmission Distance : 800mw Chipset/12dBi Antenna /5km

Competitor : Mercury MWB205 TP-Link CPE210

Advantage :

- Transmission Distance : 800mw/12dBi Antenna
- Easy Setup : Auto-matching

5 Competitor



5GHz 5km Point to Point
Outdoor CPE

O4

Selling Points :

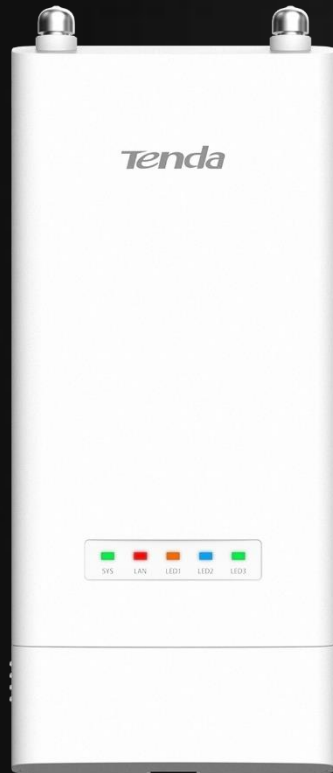
- Easy Setup : Auto-matching, Easy Setup
- Easy Installation : DC or Passive PoE/12V1A/Pole Mount
- Transmission Distance : 400mw Chipset/14dBi Antenna /5KM
- Bandwidth: 5GHz/ Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth /TDMA

Competitor : Mercury MWB515 TP-Link CPE510

Advantage :

- Transmission Distance: 400mw/14dBi Antenna
- Easy Setup : Auto-matching, Easy Setup
- Bandwidth : Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth /TDMA

5 Competitor



20km 5GHz 11n 300Mbps
Basestation
B6

Selling Points :

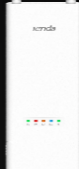
- Easy Setup : Auto-matching, Easy Setup
- Easy Installation : DC or Passive PoE/12V1A/Pole Mount
- Transmission Distance : 400mw Chipset/20km(With dish antenna)
- Capacity-oriented mode : 5GHz/ Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth /TDMA

Competitor : TP-Link BS510

Advantage :

- Easy Setup : Auto-matching, Easy Setup
- Capacity-oriented mode : Spread Spectrum/frequency-biasing techniques/Special Channel Bandwidth /TDMA

Tenda网桥产品规格

Model	O1	O2	O3	O4	O5	O6	B6
Picture							
Transmission Distance	500M	2km	5km	5km	3km	10km	/
Frequency Range	2.4GHz	5GHz	2.4GHz	5GHz	5GHz	5GHz	5GHz
Standard&Protocol	802.11b/g/n	802.11a/n	802.11b/g/n	802.11a/n	802.11a/n/ac	802.11a/n/ac	802.11a/n
Maximum wireless speed	300Mbps	300Mbps	150Mbps	300Mbps	433Mbps	433Mbps	300Mbps
Ports	1*100M	1*100M	2*100M	1*100M	1*1000M	1*1000M	1*100M
antenna	8dbi	12dbi	12dbi	15dbi	16dBi	16dBi	2个RG-SMA
Antenna angle	Horizontal 60° Vertical 30°	Horizontal 30° Vertical 30°	Horizontal 60° Vertical 30°	Horizontal 30° Vertical 30°	Horizontal 30° Vertical 15°	Horizontal 30° Vertical 15°	/
Dustproof and waterproof	IP65	IP65	IP64	IP64	IP64	IP64	IP65
Lightning protection	/	6000V	6000V	6000V	6000V	6000V	6000V
Power Method	9V0.6A Passive PoE	12V1A Passive PoE	12V1A Passive PoE	24V0.5A Passive PoE	24V0.5A Passive PoE	24V0.5A Passive PoE	24V0.5A Passive PoE
Auto-matching	YES	YES	YES	YES	/	/	YES
TDMA	/	YES	/	YES	/	/	YES
Spread Spectrum	/	YES	/	YES	/	/	YES
frequency-biasing	/	YES	/	YES	/	/	YES
Special Channel Bandwidth	/	YES	/	YES	/	/	YES

Tenda天线产品规格

Model	ANT12-5G360	ANT16-5G120	ANT19-5G120	ANT30-5G
Picture				
Frequency Range	5100-5850 MHz	5100-5850MHz	5100-5850MHz	4900-6500 MHz
antenna	11-12dBi	15-16dBi	19dBi	30dBi
Polarization Direction	Horizontal-vertical bipolarization	Horizontal-vertical bipolarization	Horizontal-vertical bipolarization	Horizontal-vertical bipolarization
Horizontal polarization horizontal lobe width (6dB)	360°	120°	120°	6°
Vertically polarized horizontal lobe width (6dB)	360°	120°	120°	6°
Vertical lobe width	6°	7°	4°	5°
Front-to-back ratio	/	>25dB	>25dB	> 35dB
Isolation	>27dB	>30dB	>30dB	>30dB
VSWR	≤ 1.5type; 2.0max	≤ 1.5type; 2.0max	≤ 1.5type; 2.0max	<1.5type; max2.0
Maximum input power	50W	50W	50W	100W
Input impedance	50Ω	50Ω	50Ω	50Ω
Antenna size (LxWxD)	Φ70x870mm	388x150x20mm	785x150x20mm	Φ650*380mm
Diameter Requirements for Fixed Holders	30-70mm	30-80mm	30-80mm	50-100mm
Mechanical dowlndip	/	+3° to -10°	+4° to -10°	+15° to -15°
Connection interface	2↑RP-SMA interface	2↑RP-SMA interface	2↑RP-SMA interface	2↑N interface
working temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C -70°C
Installation mode	Pole Mount	Pole Mount	Pole Mount	Pole Mount

Thank YOU

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