

# Public Safety Device

## Product Catalog

# Company Profile

Prevail Technology specializes in the latest telecom network optimization and Internet of Things (IoT), particularly addressed to the emerging 5G system and digitization transformation as well. We aim to be not only a trustable manufacturer of telecom equipment, but also a professional system solution provider to customers with the up-to-date technology and first level quality. Our ICT products/solutions with the latest technology can well support the operator/integrator customers to accelerate deployment of 5G/4G network and IoT application, minimize CAPEX/OPEX, and meanwhile improve the system performance.

Our commitment to customers is guaranteed by following key features:

- Rich product portfolios:
  - 5G/4G MIMO DAS/repeater (types like MIMO/SISO, digital, multi-band, ICS, fiber optic, etc.)
  - Passive DAS/IBS
  - IoT data terminals
  - CPE
- Concept of High End to continuously develop newest technology and realize commercialization and massive production
- Strong R&D team
- Ability to develop customized products in short time
- Experts to propose the right solutions
- High volume production capability

## Philosophy

Technologies prevail.

## Vision

To be a driving force in ICT field.

## Mission

Focus on radio technology, follow the pace of modern technology evolution.



## 8-BAND DIGITAL OUTDOOR INTEGRATED SIGNAL JAMMER 5G/4G/3G/2G/Wi-Fi

Model: 54068D (P/N: 54068D.0758)

### Working Principle

The digital outdoor jammer effectively blocks mobile phone communications within the target area. It analyzes the downlink dedicated channel of the base station to obtain the baseband signal, then reorganizes it as an interference code to shield the downlink interference signal of the mobile phone. This product confidently supports the shielding of mobile phones of different standards without causing any interference to the uplink of the base station. Within the shielding area, it effectively blocks mobile phone communication services of various operators, including voice, data, SMS, and other services.



### Product Features

- Signaling-level jamming code to provide exact blocking performance
- New jamming algorithm to guarantee no interference with the FDD/TDD base station or other frequency band devices
- Adaptive, plug and play, no parameter setting required
- Block all mobile phone wireless communication frequency bands
- Support the networking of all devices, network port connection, standard TCP/IP protocol, remote real-time monitoring of device operating status, and remote adjustment of device parameters
- Greener energy consumption and more intelligent with lower transmission power, but at least 5 times the shielding performance over the traditional analog shielding technology

### Application Scenario

- Security and privacy: prisons, military campuses, government agencies, embassies, etc
- Health and public safety: industrial plants, production workshops, gas stations, hospitals, etc





## Technical Specifications

P/N: 54068D.0758

System	5G/4G/3G/2G/Wi-Fi	
Jamming Frequency Range	B20 (700)	758-803MHz
	B5 (850)	869-894MHz
	B2 (1900)	1930-1990MHz
	B1 (2100)	2110-2170MHz
	B7 (2600)	2620-2690MHz
	N78 (3500)	3300-3800MHz
	Wi-Fi (2.4G)	2400-2484MHz
	Wi-Fi (5G)	5150-5825MHz
Output Power	$\geq 10\text{W}/40\text{dBm}$ per band (signal strength $\geq -75\text{dBm}$ ) adjustable	
Jamming Distance	$\geq 80\text{m}$ (RSRP $\leq -75\text{dBm}$ )	
Alarm Function	Support	
System Channel Control	Support	
Power Supply	AC110/220 V, 50/60Hz	
Power Consumption	520W	
Dimensions	615*590*270mm	
Weight	$\leq 45\text{kg}$	
MTBF	50,000 hours	
IP Rating	IP65	
Operating Temperature	-25 to 50°C	

Technical specification is subject to change without prior notice.

## 6-BAND DIGITAL OUTDOOR INTEGRATED SIGNAL JAMMER 5G/4G/3G/2G

Model: 54066D (P/N: 54066D.0738)

### Working Principle

The digital outdoor jammer effectively blocks mobile phone communications within the target area. It analyzes the downlink dedicated channel of the base station to obtain the baseband signal, then reorganizes it as an interference code to shield the downlink interference signal of the mobile phone. This product confidently supports the shielding of mobile phones of different standards without causing any interference to the uplink of the base station. Within the shielding area, it effectively blocks mobile phone communication services of various operators, including voice, data, SMS, and other services.



### Product Features

- Signaling-level jamming code to provide exact blocking performance
- New jamming algorithm to guarantee no interference with the FDD/TDD base station or other frequency band devices
- Adaptive, plug and play, no parameter setting required
- Block all mobile phone wireless communication frequency bands
- Support the networking of all devices, network port connection, standard TCP/IP protocol, remote real-time monitoring of device operating status, and remote adjustment of device parameters
- Greener energy consumption and more intelligent with lower transmission power, but at least 5 times the shielding performance over the traditional analog shielding technology

### Application Scenario

- Security and privacy: prisons, military campuses, government agencies, embassies, etc
- Health and public safety: industrial plants, production workshops, gas stations, hospitals, etc





## Technical Specifications

P/N: 54068D.0738

System	5G/4G/3G/2G	
Jamming Frequency Range	B20 (700)	758-803MHz
	B5 (850)	869-894MHz
	B2 (1900)	1930-1990MHz
	B1 (2100)	2110-2170MHz
	B7 (2600)	2620-2690MHz
	N78 (3500)	3300-3800MHz
Output Power	$\geq 10\text{W}/40\text{dBm}$ per band (signal strength $\geq -75\text{dBm}$ ) adjustable	
Jamming Distance	$\geq 80\text{m}$ (RSRP $\leq -75\text{dBm}$ )	
Alarm Function	Support	
System Channel Control	Support	
Power Supply	AC110/220V, 50/60Hz	
Power Consumption	520W	
Dimensions	615*590*270mm	
Weight	$\leq 45\text{kg}$	
MTBF	50,000 hours	
IP Rating	IP65	
Operating Temperature	-25 to 50°C	

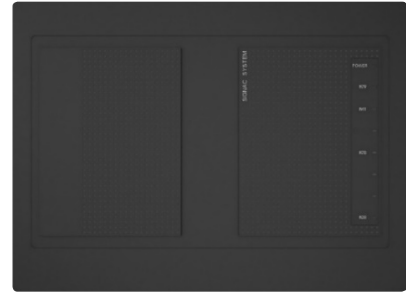
Technical specification is subject to change without prior notice.

## 11-BAND DIGITAL INDOOR INTEGRATED JAMMER 5G/4G/3G/2G/Wi-Fi

Model: 533611D (P/N: 533611D.0758)

### Working Principle

The 5G digital indoor low-power jammer is an advanced system that consists of digital signal processing and radio frequency amplification modules. The system operates by receiving mobile signals through the donor antenna and then passing them through filters, low-noise amplifiers, analog mixers, and analog-to-digital conversion (ADC). Through precise digital signal processing and synchronization, the signals are further enhanced with digital up-conversion (DUC), digital-to-analog conversion (DAC), and analog mixing before being sent to the power amplifier. Finally, the amplified shielding signal is confidently transmitted to the designated area through the built-in service antenna.

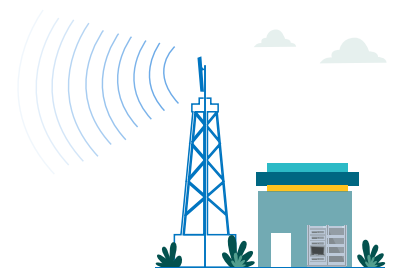
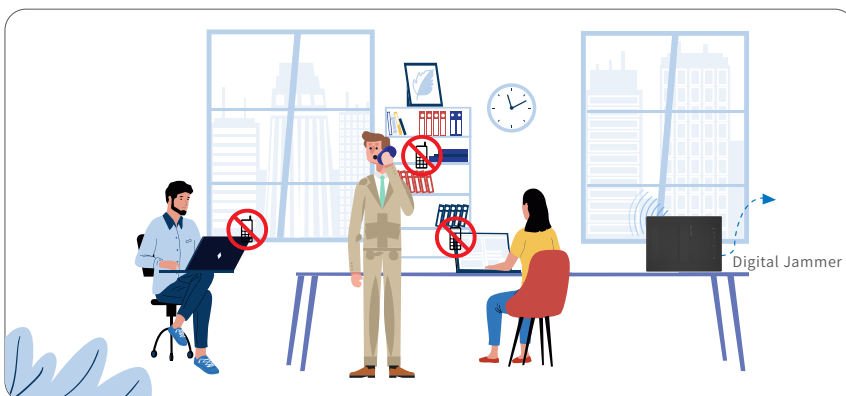


### Product Features

- Built-in antenna
- Adaptive, plug and play, no parameter setting required
- Compact design, easy for installation
- Block all mobile phone wireless communication frequency bands
- Support the networking of all devices, network port connection, standard TCP/IP protocol, remote real-time monitoring of device operating status, and remote adjustment of device parameters
- Small transmission power, 5 times the shielding advantage compared with the traditional analog shielding technology
- No interference with the FDD/TDD base station or other frequency band devices
- Timing function to set the running time of each device

### Application Scenario

- Audio-visual venues: theaters, cinemas, concerts, libraries, recording studios, auditoriums, etc
- Security and privacy: prisons, courts, examination rooms, meeting rooms, funeral homes, government agencies, financial institutions, embassies, etc
- Health and public safety: industrial plants, production workshops, gas stations, gas stations, hospitals, etc





## Technical Specifications

P/N: 533611D.0758

System	5G/4G/3G/2G/Wi-Fi	
Jamming Frequency Range	B28 (700)	758-803MHz
	B20 (800)	791-821MHz
	B5 (850)	869-894MHz
	B8 (900)	925-960MHz
	B4 (1700)	2110-2155MHz
	B3 (1800)	1805-1880MHz
	B2 (1900)	1930-1990MHz
	B1 (2100)	2110-2170MHz
	N78 (3500)	3300-3600MHz
	Wi-Fi	2400-2485MHz
	Wi-Fi	5725-5835MHz
Output Power	Wi-Fi	≥1W/30dBm
	Other Systems	≥2W/33dBm (signal strength ≥ -70dBm)
Jamming Distance	≥6m (RSRP ≤ -75dBm)	
Antenna	Built-in	
Alarm Function	Support	
Remote Control	Support	
System Channel Control	Support	
Power Supply	AC110/220 V, 50/60Hz	
Power Consumption	200 W	
Dimensions	410*260*80mm	
Weight	≤6.5 kg	
IP Rating	IP40	
Operating Temperature	-25 to 50°C	

Technical specification is subject to change without prior notice.



## 8-BAND DIGITAL DISTRIBUTED SIGNAL JAMMER 5G/4G/3G/2G/Wi-Fi

Model: 54068D (P/N: 54068D.0758)

### Working Principle

The digital distributed jammer effectively blocks mobile phone communications within the target area. It analyzes the downlink dedicated channel of the base station to obtain the baseband signal, then reorganizes it as an interference code to shield the downlink interference signal of the mobile phone. This product confidently supports the shielding of mobile phones of different standards without causing any interference to the uplink of the base station. Within the shielding area, it effectively blocks mobile phone communication services of various operators, including voice, data, SMS, and other services.

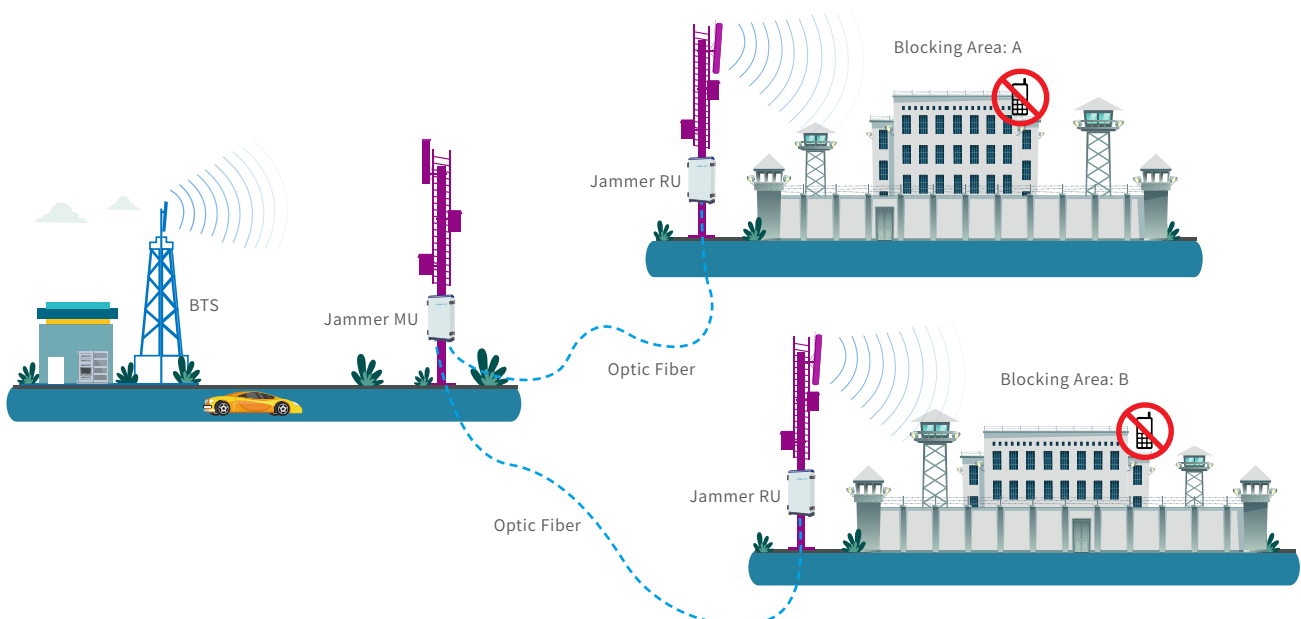


### Product Features

- Unique MU+RU distributed structures for easy networking
- Signaling-level jamming code to provide exact blocking performance
- New jamming algorithm to guarantee no interference with the FDD/TDD base station or other frequency band devices
- Adaptive, plug and play, no parameter setting required
- Block all mobile phone wireless communication frequency bands
- Support the networking of all devices, network port connection, standard TCP/IP protocol, remote real-time monitoring of device operating status, and remote adjustment of device parameters
- Greener energy consumption and more intelligent with lower transmission power, but at least 5 times the shielding performance over the traditional analog shielding technology

### Application Scenario

- Audio-visual venues: theaters, cinemas, concerts, libraries, recording studios, auditoriums, etc
- Security and privacy: prisons, courts, examination rooms, meeting rooms, funeral homes, government agencies, financial institutions, embassies, etc
- Health and public safety: industrial plants, production workshops, gas stations, gas stations, hospitals, etc





## Technical Specifications

P/N: 54068D.0758MU

System	5G/4G/3G/2G/Wi-Fi	
Jamming Frequency Range	B20 (700)	758-803MHz
	B5 (850)	869-894MHz
	B2 (1900)	1930-1990MHz
	B1 (2100)	2110-2170MHz
	B7 (2600)	2620-2690MHz
	N78 (3500)	3300-3800MHz
	Wi-Fi (2.4G)	2400-2484MHz
	Wi-Fi (5G)	5150-5825MHz
Output Power	$\geq -10 \pm 2\text{dBm}$ per system (signal strength $\geq -75\text{dBm}$ )	
Gain	$75 \pm 3\text{dB}$ , step $\leq 2\text{dB}$	
Gain Control Range	0~40dB	
RF Connector	N-Female	
Power Supply	AC110/220 V, 50/60Hz	
Power Consumption	680W	
Dimensions	513mm*461mm*187mm	
Weight	$\leq 35\text{ kg}$	
IP Rating	IP65	
Operating Temperature	$-40^{\circ}\text{C} \sim 55^{\circ}\text{C}$	
Relative Humidity	15%~95%	

Technical specification is subject to change without prior notice.



## Technical Specifications

P/N: 54068D.0758RU

System	5G/4G/3G/2G/Wi-Fi	
Jamming Frequency Range	B20 (700)	758-803MHz
	B5 (850)	869-894MHz
	B2 (1900)	1930-1990MHz
	B1 (2100)	2110-2170MHz
	B7 (2600)	2620-2690MHz
	N78 (3500)	3300-3800MHz
	Wi-Fi (2.4G)	2400-2484MHz
	Wi-Fi (5G)	5150-5825MHz
Output Power	$\geq 10\text{W}/40\text{dBm}$ per system (signal strength $\geq -75\text{dBm}$ ) adjustable	
Jamming Distance	$\geq 80\text{m}$ (RSRP $\leq -75\text{dBm}$ )	
Gain	$65 \pm 3\text{dB}$ , step $\leq 2\text{dB}$	
Gain Control Range	0~30dB	
RF Connector	N-Female	
Power Supply	AC110/220 V, 50/60Hz	
Power Consumption	680W	
Dimensions	513mm*461mm*187mm	
Weight	$\leq 35\text{ kg}$	
IP Rating	IP65	
Operating Temperature	$-40^{\circ}\text{C} \sim 55^{\circ}\text{C}$	
Relative Humidity	15%~95%	

Technical specification is subject to change without prior notice.

## VEHICLE-MOUNTED IMSI CATCHER

Model: 44748V (P/N: 44748V.0723)

### Overview

To effectively support the technical investigation work of public security and security departments, it is essential to gather key information from mobile phone users in specific areas. The vehicle mounted IMSI Catcher is a vital mobile phone positioning product that utilizes advanced technologies in wireless communication. This equipment is essential for the investigators to locate criminal suspects and ensure the safety of communities.

The vehicle mounted IMSI Catcher utilizes wireless communication methods to accurately pinpoint the location of a target mobile phone without disrupting the user's regular communication. This is especially crucial in densely populated cities and high-rise buildings where this product can be extremely valuable. It is portable, user-friendly, and operates seamlessly with 2G/3G/4G wireless communication protocols.

Once the approximate location of the target mobile phone is determined, the device scans nearby public network base stations to gather system parameters. It then configures its settings accordingly and adds the IMSI of the target phone to the list through an app. The device then emits signals to entice nearby mobile phones to update their locations to the IMSI Catcher.

After identifying the IMSI of the target mobile phone(s), the IMSI Catcher evaluates the signal strength of the user by monitoring uplink and downlink signals. By measuring the wireless signal emitted by the target phone, it can approach the target discreetly and ultimately locate the phone using a Direction Finder.



### Product Features

- The mobile phone detection feature supports IMSI collection for mobile phones across all frequency bands
- When an IMSI number from the target list is detected, the portrait tag is displayed on the supporting APP, allowing for the approach of the target mobile phone based on field strength. Precise positioning can be achieved with the Direction Finder
- Support automatic scanning at startup, automatic air interface synchronization, and GPS synchronization
- Intelligent configuration features include automatically calculating frequency, PCI, and TAC
- APP is capable of broadcasting field strength values through voice.
- Collision analysis is also supported by the APP



## Technical Specifications

P/N: 44748V.0723	
Frequency Range	2G (GSM) B3 (1800MHz)
	2G (GSM) B8 (900MHz)
	3G (UMTS) B1 (2100MHz)
	4G (LTE) B3 (1800MHz)
	4G (LTE) B7 (2600MHz)
	4G (LTE) B8 (900MHz)
	4G (LTE) B20 (800MHz)
	4G (LTE) B28 (700MHz)
	4G (LTE) B40 (2300MHz)
Operators	All Operators
Working Mode	Active
Capacity	8 Carriers
Maximum Output Power	50W per band (customized)
Adjustable Range	0-10dB with 1dB step
Receiving Sensitivity	≥-104dBm
Adjustable Range	0-10dB with 1dB step
Coverage Distance	≤1000m (depends on field signal strength)
Capture Mode	Instant capture and timing repeat capture of the IMSI
Accuracy of Positioning	<1m (through the Direction Finder)
Capture Release Duration	≤3s
Synchronization	GPS Synchronization, Air Interface Synchronization
Synchronization Precision	≤0.1 ppm
RF Performance	Comply with 3GPP
RF Connector Type	4.3-10 Female
Power Supply	AC110/220V, 50/60Hz
Installation Mode	Vehicle Mounted
Protection Level	IP65
Operating Temperature	-25 to 50°C
Relative Humidity	0-95% (non-condensing)
Management Software	Via App

Technical specification is subject to change without prior notice.

### Warning:

It has come to our attention that the device is intended for use only by special departments and companies officially authorized by law. Other companies or individuals are strictly forbidden from installing and using the device. It is imperative that the device(s) are not utilized to conceal or assist criminal and/or terrorist activities. Thank you for your attention to this matter.



## STATIONARY IMSI CATCHER

Model: 44046S (P/N: 44046S.0723)

### Overview

To effectively support the technical investigation work of public security and security departments, it is essential to gather key information from mobile phone users in specific areas. An IMSI Catcher is a device used for collecting mobile phone information that utilizes advanced wireless communication technologies. It is a tool commonly used by security departments to assist in identifying criminal suspects during investigations.

The IMSI Catcher primarily utilizes wireless communication methods to gather information from the target mobile phone without interrupting the user's regular communication. This product is especially effective in high-traffic areas such as highway entrances and densely populated cities. It operates in conjunction with GSM/UMTS/LTE wireless communication protocols. Upon activation, the device scans nearby commercial network base stations to gather system parameters. It then adjusts its settings accordingly and emits signals to attract nearby mobile phones to connect to the IMSI Catcher. The IMSI numbers are then captured and stored within the device.



### Product Features

- Support IMSI, Date and Time, IMEI collection functions for mobile phones across all frequency bands
- Include hierarchical user management based on rights and devices, device management functions such as device mapping, parameter configuration, and remote upgrades
- The software and hardware watchdog ensure equipment protection for stable and reliable operation
- Automatic configuration of frame offset, and correction of frequency offset functions allow for long-term operation without interference
- The management platform offers features such as status view, device management, equipment maintenance, trajectory analysis, floating population analysis, resident population analysis, concomitant analysis, user rule analysis, attribution analysis, IMSI collision analysis, and IMSI collision analysis



## Technical Specifications

P/N: 44046F.0723		
Frequency Range	2G (GSM)	B3 (1800MHz)
	2G (GSM)	B8 (900MHz)
	3G (UMTS)	B1 (2100MHz)
	4G (LTE)	B3 (1800MHz)
	4G (LTE)	B7 (2600MHz)
	4G (LTE)	B8 (900MHz)
	4G (LTE)	B20 (800MHz)
	4G (LTE)	B28 (700MHz)
	4G (LTE)	B40 (2300MHz)
Operators	All Operators	
Working Mode	Active	
Capacity	6 Carriers	
Maximum Output Power	10W per band (customized)	
Adjustable Range	0-10dB with 1dB step	
Receiving Sensitivity	$\geq -104\text{dBm}$	
Adjustable Range	0-10dB with 1dB step	
Coverage Distance	$\leq 300\text{m}$ (depends on field signal strength)	
Capture Mode	Instant capture and timing repeat capture of the IMSI	
Capture Release Duration	$\leq 3\text{s}$	
Synchronization	GPS Synchronization, Air Interface Synchronization	
Synchronization Precision	$\leq 0.1\text{ppm}$	
RF Performance	Comply with 3GPP	
RF Connector Type	N-Female	
Power Supply	AC110/220V, 50/60Hz	
Installation Mode	Pole-mounted	
Protection Level	IP65	
Operating Temperature	-25 to 50°C	
Relative Humidity	0-95% (non-condensing)	
Management Software	Via App	

Technical specification is subject to change without prior notice.

### Warning:

It has come to our attention that the device is intended for use only by special departments and companies officially authorized by law. Other companies or individuals are strictly forbidden from installing and using the device. It is imperative that the device(s) are not utilized to conceal or assist criminal and/or terrorist activities. Thank you for your attention to this matter.



## TETRA BAND-ADJUSTABLE DIGITAL BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04311D

### Product Features

- Digital filtering supports adjustable bandwidth, each band supports 3 sub-bands
- Each sub-band is turned on and off, and gain control is performed separately
- Donor signal monitoring for easy optimization and troubleshooting
- RJ45 Cable for local connection & wireless modem for remote monitoring (optional)
- Intelligent algorithm to prevent UL interference
- Self-control to minimize interference for new rollout base station

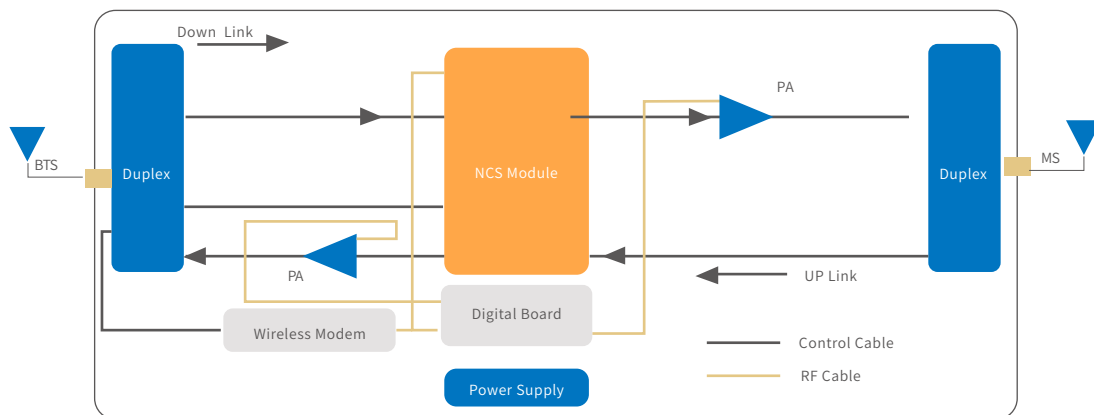


### Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



### Block Diagram







## Technical Specifications

04311D		SYSTEM
Frequency Range	Uplink	380-385MHz (adjustable)
	Downlink	390-395MHz (adjustable)
Number of Sub-bands		1-3
Bandwidth		1/2MHz (adjustable)
Maximum Output Power	Uplink	27±2dBm
	Downlink	43±2dBm
Maximum Gain		85±3dB
Gain Adjustment Range		0-31dB @ Step of 1dB
Inter-Modulation		≤-45dBc
VSWR		≤1.5
In Band Ripple		≤3dB
Spurious Emission	9kHz-1GHz: ≤-36dBm	
	1GHz-12.75GHz: ≤-30dBm	
Noise Figure		≤5dB
System Delay		≤7μs
I/O Impedance		50Ω
RF Connector		N- Female
Operation Temperature Range		-25°C ~ + 55°C
Relative Humidity Range		≤95% (non-Condensing)
Power Consumption		≤160W
Power Supply		AC 176-264V,47-63Hz
Application		Indoor or Outdoor (IP65)
Dimensions		410*490*190mm
Weight		≤25kgs



## TETRA DIGITAL FIBER OPTIC BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04321D

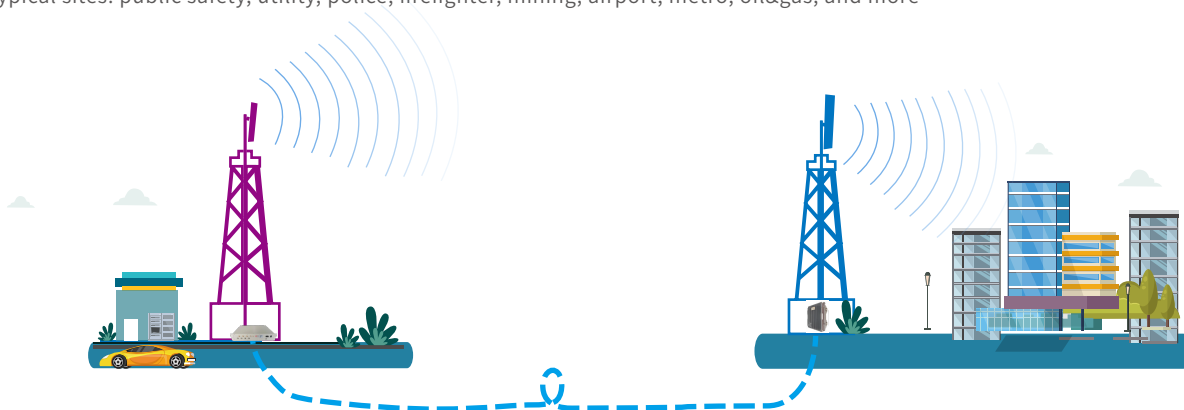
### Product Features

- Digital filtering, bandwidth adjustable
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water, and corroding
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- 1 MU (Master Unit) can support up to 8 RU (Remote Unit) to maximize utilization of fiber optic cable
- Local supervision by TCP/IP, remote by TCP/IP or modem

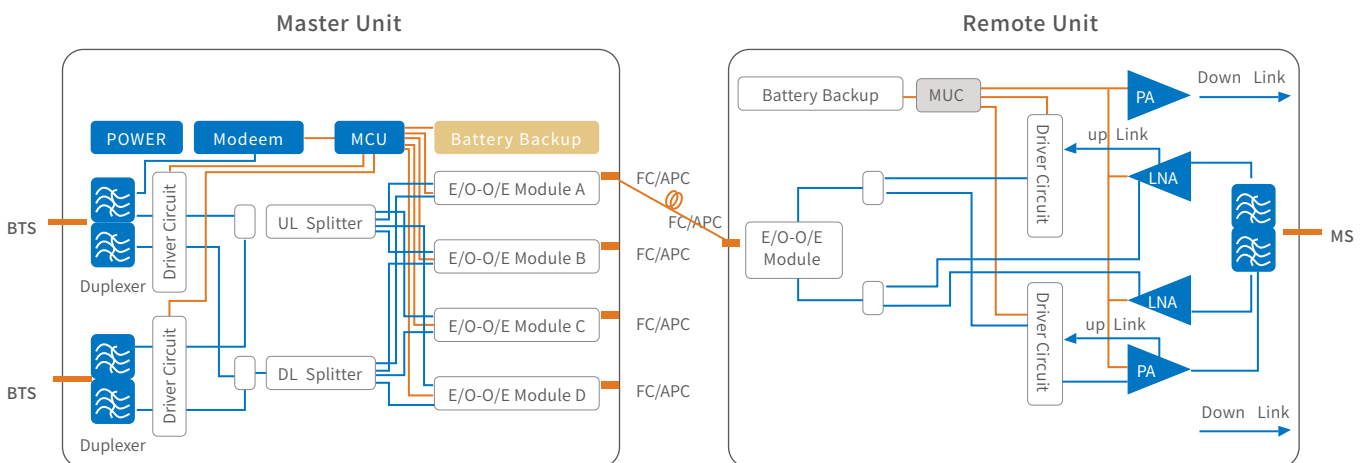


### Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



### Block Diagram





## Technical Specifications

04321D		Master Unit(MU)		Remote Unit (RU)	
Frequency Range	Uplink	380-385MHz (adjustable)			
	Downlink	390-395MHz (adjustable)			
Maximum Input Power (Non-Destructive)		10dBm			
Transmission Distance		≤20km			
Maximum RF Output Power		-15±2dBm (UL)		43±2dBm (DL)	
Maximum Gain (Cable Access)		50±3dB			
Gain Adjustment Range		1-31dB @ step of 1dB			
VSWR		≤1.5			
Noise Figure		≤6dB (Only for Uplink)			
In-band Ripple		≤±3dB			
Spurious Emission		≤-36dBm			
Third-Order Inter-Modulation		≤-45dBc / 30kHz			
System Delay		≤8μs			
I/O Impedance		50Ω			
Connector	RF Connector	1Xn-Female		1xN-Female	
	Optic Connector	8X FC/APC		1X LC/UPC	
Fiber Optical Type		Single Mode			
Optical Output Power		≥-9dBm			
Optical Receiver Sensitivity		≤-10dBm			
Temperature Range		Operation: -25°C ~ + 55°C			
Relative Humidity Range		≤95% (non-Condensing)			
Power Supply		AC 220V±44V/50±5Hz			
Power Consumption		≤25W		≤160W	
Application		Indoor (IP20)		Indoor or Outdoor (IP65)	
Dimensions		330*425*44mm (19"1U)		450*335*180mm	
Weight		8kgs		28kgs	



## P25 BAND-ADJUSTABLE DIGITAL BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04311D

### Product Features

- Digital filtering supports adjustable bandwidth, each band supports 3 sub-bands
- Each sub-band is turned on and off, and gain control is performed separately
- Donor signal monitoring for easy optimization and troubleshooting
- RJ45 Cable for local connection & wireless modem for remote monitoring (optional)
- Intelligent algorithm to prevent UL interference
- Self-control to minimize interference for new rollout base station

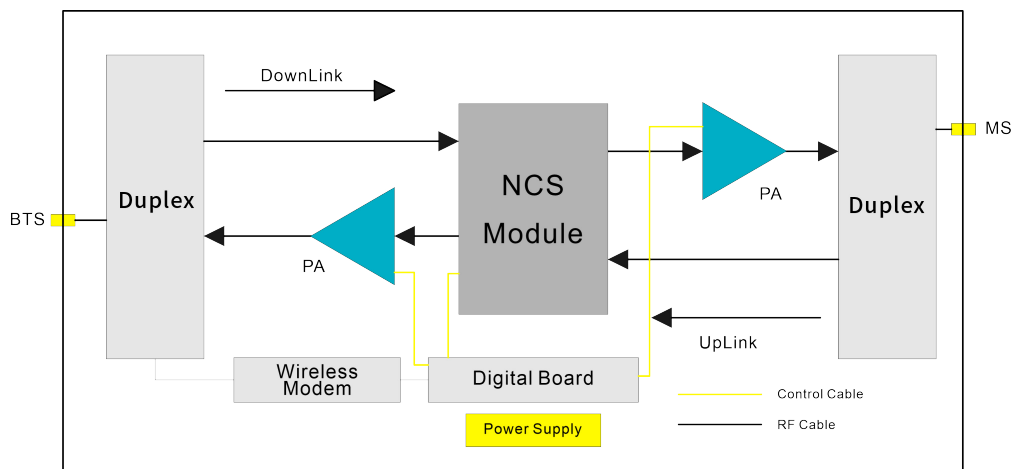


### Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



### Block Diagram





## Technical Specifications

04311D		SYSTEM
Frequency Range	Uplink	380-385MHz (adjustable)
	Downlink	390-395MHz (adjustable)
Number of Sub-bands		1-3
Bandwidth		1/2MHz (adjustable)
Bandwidth	Uplink	27±2dBm
	Downlink	43±2dBm
Maximum Gain		85±3dB
Gain Adjustment Range		0-31dB @ Step of 1dB
Inter-Modulation		≤-45dBc
VSWR		≤1.5
In Band Ripple		≤3dB
Spurious Emission		9kHz-1GHz: ≤-36dBm
		1GHz-12.75GHz: ≤-30dBm
Noise Figure		≤5dB
System Delay		≤7μs
I/O Impedance		50Ω
RF Connector		N-Female
Operation Temperature Range		-25°C ~ + 55°C
Relative Humidity Range		≤95% (non-Condensing)
Power Consumption		≤160W
Power Supply		AC 176-264V,47-63Hz
Application		Indoor or Outdoor (IP65)
Dimensions		410*490*190mm
Weight		≤25kgs



# P25 DIGITAL FIBER OPTIC BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04321D

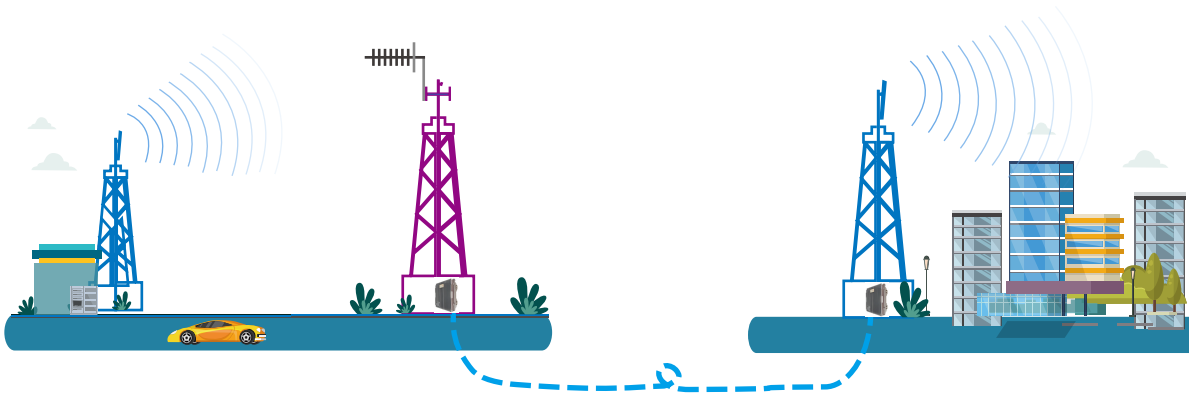
## Product Features

- Digital filtering, bandwidth adjustable
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water, and corroding
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- 1 MU (Master Unit) can support up to 8 RU (Remote Unit) to maximize utilization of fiber optic cable
- Local supervision by TCP/IP, remote by TCP/IP or modem

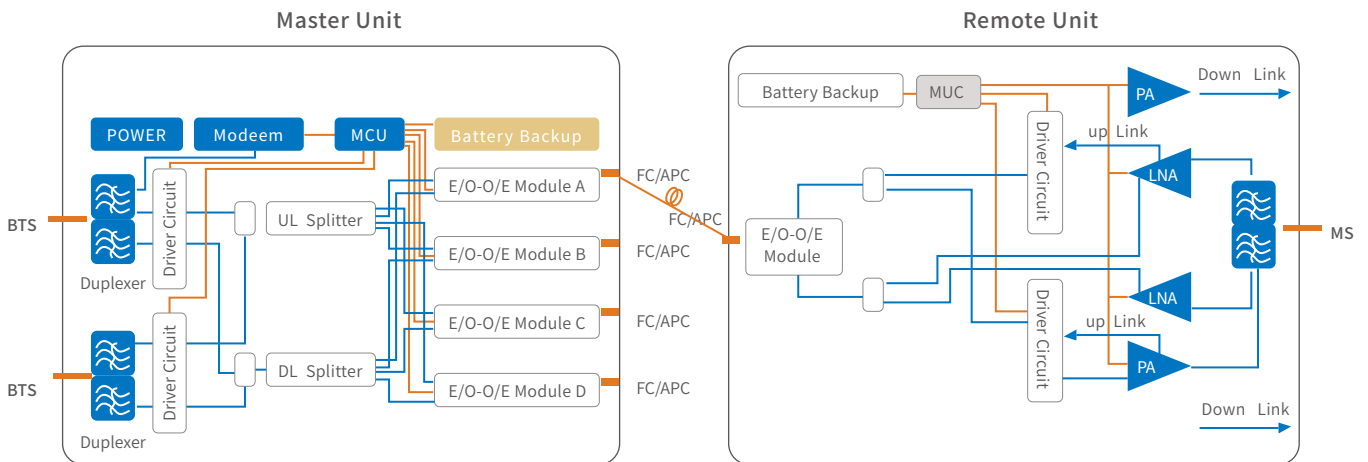


## Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



## Block Diagram





## Technical Specifications

04321D		Master Unit(MU)	Remote Unit (RU)
Frequency Range	Uplink	806-824 MHz (adjustable)	
	Downlink	851-869 MHz (adjustable)	
Maximum Input Power (Non-Destructive)		10dBm	
Transmission Distance		≤20km	
Maximum RF Output Power		-15±2dBm (UL)	43±2dBm (DL)
Maximum Gain (Cable Access)		50±3dB	
Gain Adjustment Range		1-31dB @ step of 1dB	
VSWR		≤1.5	
Noise Figure		≤6dB (Only for Uplink)	
In-band Ripple		≤±3dB	
Spurious Emission		≤-36dBm	
Third-Order Inter-Modulation		≤-45dBc / 30kHz	
System Delay		≤8μs	
I/O Impedance		50Ω	
Connector	RF Connector	1Xn-Female	1xN-Female
	Optic Connector	8X FC/APC	1X LC/UPC
Fiber Optical Type		Single Mode	
Optical Output Power		≥-9dBm	
Optical Receiver Sensitivity		≤-10dBm	
Temperature Range		Operation: -25°C ~ + 55°C	
Relative Humidity Range		≤95% (non-Condensing)	
Power Supply		AC 220V±44V/50±5Hz	
Power Consumption		≤25W	≤160W
Application		Indoor (IP20)	Indoor or Outdoor (IP65)
Dimensions		330*425*44mm (19" 1U)	450*335*180mm
Weight		8kgs	28kgs



## DMR BAND-ADJUSTABLE DIGITAL BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04311D

### Product Features

- Digital filtering supports adjustable bandwidth, each band supports 3 sub-bands
- Each sub-band is turned on and off, and gain control is performed separately
- Donor signal monitoring for easy optimization and troubleshooting
- RJ45 Cable for local connection & wireless modem for remote monitoring (optional)
- Intelligent algorithm to prevent UL interference
- Self-control to minimize interference for new rollout base station



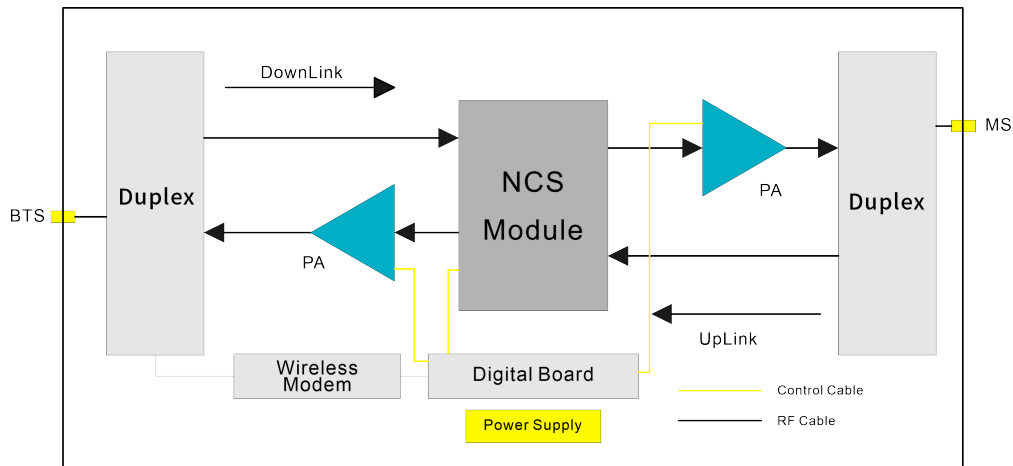
Technical specification is subject to change without prior notice.

### Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



### Block Diagram







## Technical Specifications

04311D		SYSTEM
Power Supply	Uplink	338-340MHz (adjustable)
	Downlink	348-350MHz (adjustable)
Power Supply		1-3
Bandwidth		1/2MHz (adjustable)
Power Supply	Uplink	27±2dBm
	Downlink	43±2dBm
Maximum Gain		85±3dB
Gain Adjustment Range		0-31dB @ Step of 1dB
Inter-Modulation		≤-45dBc
VSWR		≤1.5
In Band Ripple		≤3dB
Spurious Emission		9kHz-1GHz: ≤-36dBm
		1GHz-12.75GHz: ≤-30dBm
Noise Figure		≤5dB
System Delay		≤7μs
I/O Impedance		50Ω
RF Connector		N- Female
Operation Temperature Range		-25°C ~ + 55°C
Relative Humidity Range		≤95% (non-Condensing)
Power Consumption		≤160W
Power Supply		AC 176-264V,47-63Hz
Application		Indoor or Outdoor (IP65)
Dimensions		410*490*190mm
Weight		≤25kgs



# DMR DIGITAL FIBER OPTIC BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 04321D

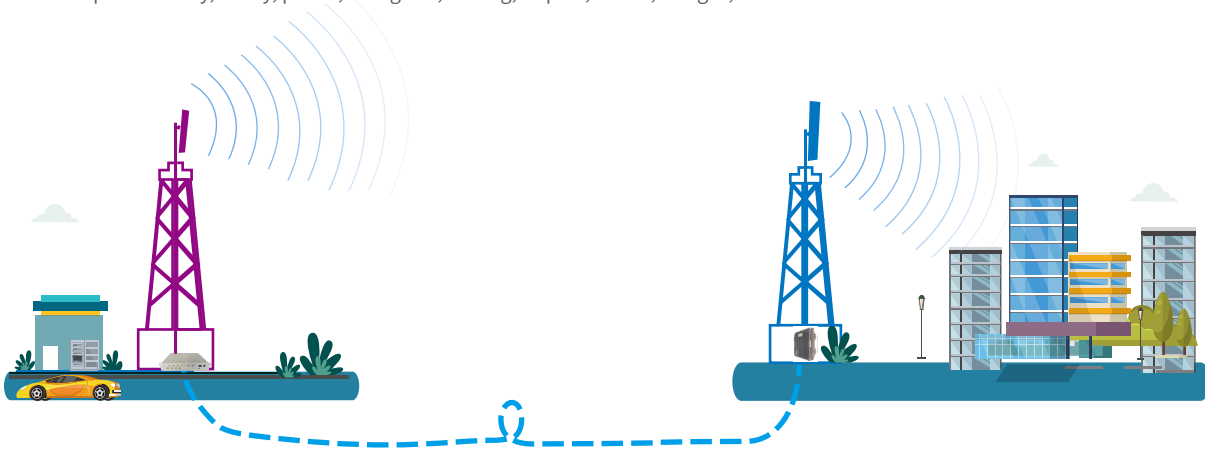
## Product Features

- Digital filtering, bandwidth adjustable
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water, and corroding
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- 1 MU (Master Unit) can support up to 8 RU (Remote Unit) to maximize utilization of fiber optic cable
- Local supervision by TCP/IP, remote by TCP/IP or modem

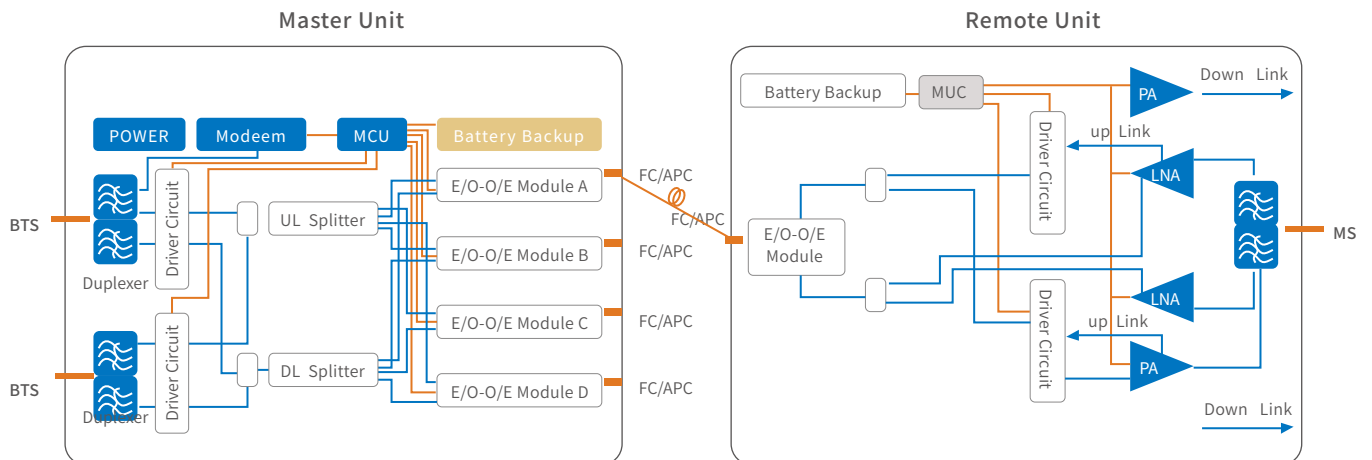


## Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



## Block Diagram





## Technical Specifications

04321D		Master Unit(MU)	Remote Unit (RU)
Frequency Range	Uplink	338-340MHz (adjustable)	
	Downlink	348-350MHz (adjustable)	
Maximum Input Power (Non-Destructive)		10dBm	
Transmission Distance		≤20km	
Maximum RF Output Power		-15±2dBm (UL)	43±2dBm (DL)
Maximum Gain (Cable Access)		50±3dB	
Gain Adjustment Range		1-31dB @ step of 1dB	
VSWR		≤1.5	
Noise Figure		≤6dB (Only for Uplink)	
In-band Ripple		≤±3dB	
Spurious Emission		≤-36dBm	
Third-Order Inter-Modulation		≤-45dBc / 30kHz	
System Delay		≤8μs	
I/O Impedance		50Ω	
Connector	RF Connector	1Xn-Female	1xN-Female
	Optic Connector	8X FC/APC	1X LC/UPC
Fiber Optical Type		Single Mode	
Optical Output Power		≥-9dBm	
Optical Receiver Sensitivity		≤-10dBm	
Temperature Range		Operation: -25°C ~ + 55°C	
Relative Humidity Range		≤95% (non-Condensing)	
Power Supply		AC 220V±44V/50±5Hz	
Power Consumption		≤25W	≤160W
Application		Indoor (IP20)	Indoor or Outdoor (IP65)
Dimensions		330*425*44mm (19" 1U)	450*335*180mm
Weight		8kgs	28kgs



# VHF DIGITAL FIBER OPTIC BDA (BI-DIRECTIONAL AMPLIFIER)

Model: 03321D

## Product Features

- Digital filtering, bandwidth adjustable
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water, and corroding
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- 1 MU (Master Unit) can support up to 8 RU (Remote Unit) to maximize utilization of fiber optic cable
- Local supervision by TCP/IP, remote by TCP/IP or modem

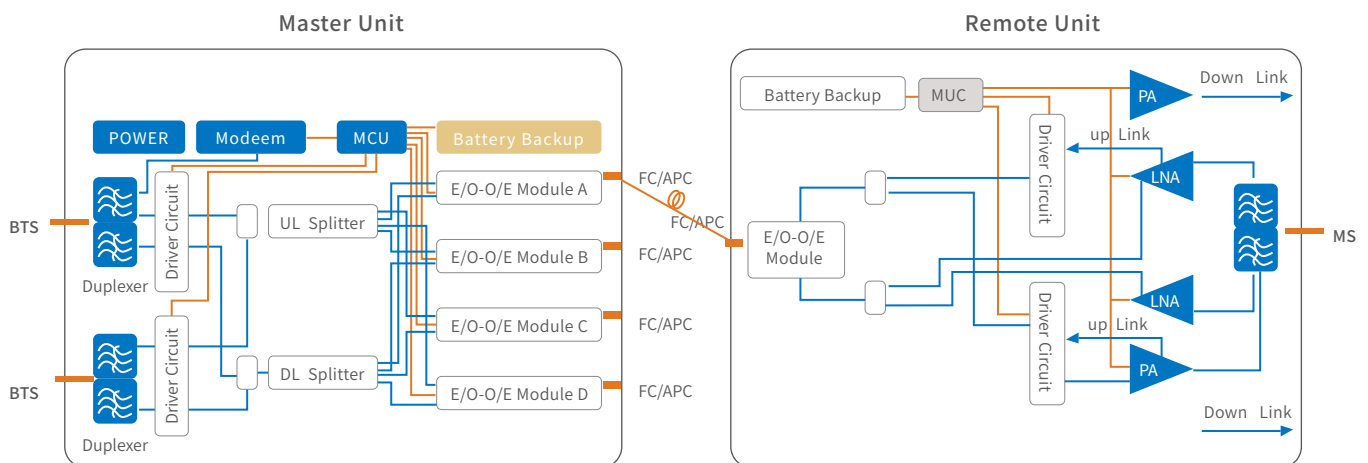


## Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more



## Block Diagram





## Technical Specifications

03321D		Master Unit(MU)	Remote Unit (RU)
Frequency Range	Uplink	151-153MHz (adjustable)	
	Downlink	161-163MHz (adjustable)	
Maximum Input Power (Non-Destructive)		10dBm	
Transmission Distance		≤20km	
Maximum RF Output Power		-10±2dBm (UL)	33±2dBm (DL)
Maximum Gain (Cable Access)		50±2dB	
Gain Adjustment Range		1-25dB @ step of 1dB	
VSWR		≤1.6	
Noise Figure		≤5dB (Only for Uplink)	
In-band Ripple		≤3.5dB	
Spurious Emission		≤-36dBm	
Third-Order Inter-Modulation		≤-45dBc / 30kHz	
System Delay		≤21μs	
I/O Impedance		50Ω	
Connector	RF Connector	1Xn-Female	1xN-Female
	Optic Connector	8X FC/APC	1X LC/UPC
Fiber Optical Type		Single Mode	
Optical Output Power		≥-9dBm	
Optical Receiver Sensitivity		≤-20dBm	
Temperature Range		Operation: -25°C ~ + 55°C	
Relative Humidity Range		≤95% (non-Condensing)	
Power Supply		AC 220V±44V/50±5Hz	
Power Consumption		≤25W	≤160W
Application		Indoor (IP20)	Indoor or Outdoor (IP65)
Dimensions		330*425*44mm (19" 1U)	450*335*180mm
Weight		8kgs	20kgs

## YAGI ANTENNA (400-480)

Model: Y11.04041

### Product Features:

- Applicable in UHF system
- High Gain
- High reliability
- Applied in harsh environment



### Technical Specifications

Electrical		
Frequency Range	400-480MHz	
Polarization	Vertical/Horizontal	
Bandwidth	28MHz	
VSWR	≤1.5	
Gain	11.2dBi	
Half-Power Beam Width	Horizontal	44°
	Vertical	40°
Front/Back Ratio	≥16	
Average Power,Maximum	100W	
Impedance	50Ω	
Grounding	DC Ground	

Mechanical		
Length	1.20m	
Weight (with installation kit)	≤0.8 kg	
Operating Temperature	-30 to +55°C	
Connector	N-Female	

## OMNIDIRECTIONAL CEILING ANTENNA (400-490)

Model: C02.04041

### Product Features:

- Applied in UHF indoor system
- High reliability
- Compact design
- Wideband, low VSWR



### Technical Specifications

Electrical	
Frequency Range	400-490 MHz
Polarization	Vertical
Bandwidth	16MHz
Gain	2.15±1dBi
Horizontal Beam Width	360°
Impedance	50Ω
VSWR	≤2.0
Maximum Power	50W
Lighting Protection	DC Ground
Mechanical	
Connector	N Female
Connector Position	Bottom
Antenna Size	Φ165x94 mm
Weight	250g
RadomeMaterial	ABS
RadomeColor	White
Operating Temperature	-40~60°C
Application	Indoor
Mounting	Fixed with nut



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