

Product name: Wireless Solution

Trade name: RF iLink

Model no.: AS-AP515923DPK-W,

AS-AP515914DPK-W,

AS-AP515918DPK-W

user's manual

MiniOS

User Manual

V1.3.9RC77



User Name:admin
Password:password

User Name

Password

The default setting for User Name and Password are admin and password.

The default IP is 10.10.10.10



Information

Status

MAP

System

Wireless

Management

Logout

Information

General Information

Device Name	DEVICE012FB4
Device Uptime	00:04:06
Firmware Version	MiniOS v1.3.9RC53
Firmware Build Time	May 9 2018 17:07:18
Product Key	KXJRN-K7ZJJ-KRARI-CBDAX
License	Level S (p1)
Hardware Version	G7
CPU	560 MHz AR9342

Network Information

IP Address	192.168.5.204
Subnet Mask	255.255.255.0
Gateway Address	0.0.0.0

DHCP Server

DHCP Server	Disabled
IP Pool Starting Address	10.10.10.20
IP Pool Size	50

Wireless Network

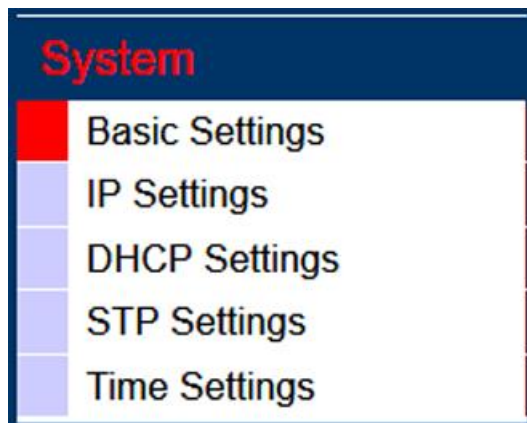
MAC Address	00:22:c3:01:2f:b4
Frequency Band	5725.000 MHz~5850.000 MHz
Operation Mode	Base Station
Network Name	Wireless_02
Frame Schedule Policy	As soon as possible
Channel Bandwidth	20MHz
Channel Frequency	5755.000MHz
Coverage Range	1 Km

Wired Network

MAC Address	00:22:c3:01:2f:b5
Speed	10.0 Mbps

Information Page:

User can see the General, DHCP Server, MESH, Wireless and
Wired Network information



System>Basic Setting

System > Basic Setting

The setup has been applied.

Device Settings

Device Name:

VLAN(802.1Q): ☐ Enable ☒ Disable

Management VLAN ID (1-4094):

Ethernet 1

Data Rate: ▾

Ethernet 2

Data Rate: ▾

GPS Coordinates

☒ Obtain current position from GPS

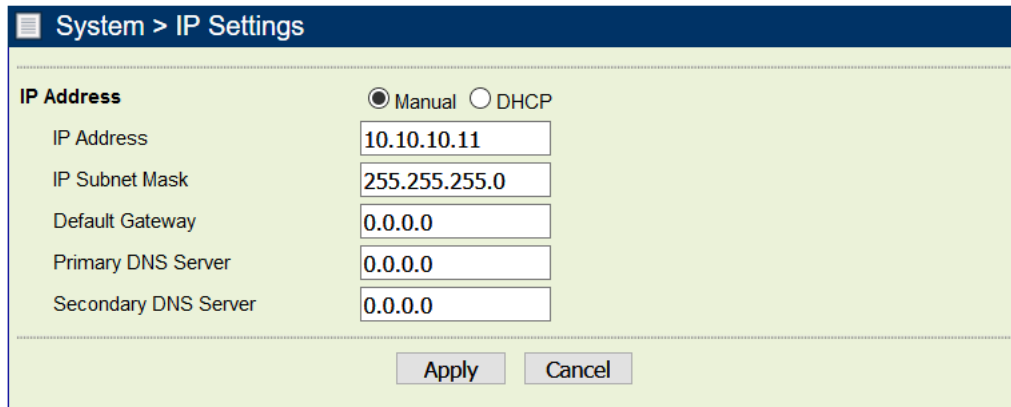
Latitude: ▾ [°] ['] ^{''}

Longitude: ▾ [°] ['] ^{''}

Altitude: m

User can change the device name enable or disable VLAN, and obtain current position from GPS.

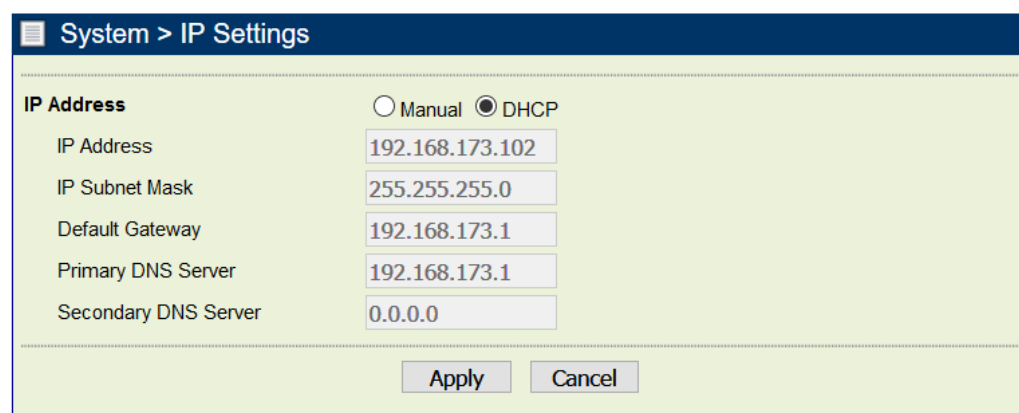
System>IP Settings



The screenshot shows the 'System > IP Settings' window. At the top, there is a title bar with a menu icon and the text 'System > IP Settings'. Below the title bar, the 'IP Address' section is visible. It has two radio buttons: 'Manual' (which is selected) and 'DHCP'. Below the radio buttons, there are five text input fields: 'IP Address' (containing '10.10.10.11'), 'IP Subnet Mask' (containing '255.255.255.0'), 'Default Gateway' (containing '0.0.0.0'), 'Primary DNS Server' (containing '0.0.0.0'), and 'Secondary DNS Server' (containing '0.0.0.0'). At the bottom of the window, there are two buttons: 'Apply' and 'Cancel'.

System > IP Settings	
IP Address ☒ Manual ☐ DHCP	
IP Address	10.10.10.11
IP Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
Primary DNS Server	0.0.0.0
Secondary DNS Server	0.0.0.0
Apply Cancel	

The current IP Address is set to 10.10.10.11. Or just get the IP address from DHCP Server.



The screenshot shows the 'System > IP Settings' window. At the top, there is a title bar with a menu icon and the text 'System > IP Settings'. Below the title bar, the 'IP Address' section is visible. It has two radio buttons: 'Manual' and 'DHCP' (which is selected). Below the radio buttons, there are five text input fields: 'IP Address' (containing '192.168.173.102'), 'IP Subnet Mask' (containing '255.255.255.0'), 'Default Gateway' (containing '192.168.173.1'), 'Primary DNS Server' (containing '192.168.173.1'), and 'Secondary DNS Server' (containing '0.0.0.0'). At the bottom of the window, there are two buttons: 'Apply' and 'Cancel'.

System > IP Settings	
IP Address ☐ Manual ☒ DHCP	
IP Address	192.168.173.102
IP Subnet Mask	255.255.255.0
Default Gateway	192.168.173.1
Primary DNS Server	192.168.173.1
Secondary DNS Server	0.0.0.0
Apply Cancel	

System>DHCP Settings

The screenshot shows the 'System > DHCP Settings' window. It has a title bar with a menu icon and the text 'System > DHCP Settings'. The main area is divided into two sections: 'DHCP Server' and 'Static DHCP'. The 'DHCP Server' section contains radio buttons for 'Enable' and 'Disable' (selected), a text field for 'IP Pool Starting Address' (10.10.10.20), a text field for 'IP Pool Size' (50), a dropdown for 'Lease Time' (1 day), and two pairs of dropdown and text fields for 'Primary DNS Server' (None, 8.8.8.8) and 'Secondary DNS Server' (None, 8.8.4.4). The 'Static DHCP' section has a table with headers 'Index', 'MAC Address', and 'IP Address'. Below the table, there are text fields for 'MAC' (00:00:00:00:00:00) and 'IP' (0.0.0.0), followed by an 'Add' button. At the bottom are 'Apply' and 'Cancel' buttons.

Index	MAC Address	IP Address
-------	-------------	------------

MAC: 00:00:00:00:00:00 IP: 0.0.0.0 Add

Apply Cancel

Currently this device is set to Base Station and obtains the IP from another DHCP Server; The DHCP Server for this device was in disable status.

System>STP Settings (Spanning Tree Protocol)

The screenshot shows the 'System > STP Settings' window. It has a title bar with a menu icon and the text 'System > STP Settings'. The main area is divided into two sections: 'Bridge Function' and 'Spanning Tree Protocol (STP)'. The 'Bridge Function' section has a text field for 'Ageing Time (2-300)' (15) and the unit 'seconds'. The 'Spanning Tree Protocol (STP)' section contains radio buttons for 'Enable' and 'Disable' (selected), and four text fields for 'Bridge Priority (0-65535)' (32768), 'Hello Time (1-10)' (2) seconds, 'Max Age (6-40)' (20) seconds, and 'Forward Delay (4-30)' (15) seconds. At the bottom are 'Apply' and 'Cancel' buttons.

Bridge Function

Ageing Time (2-300) 15 seconds

Spanning Tree Protocol (STP)

Bridge Priority (0-65535) 32768

Hello Time (1-10) 2 seconds

Max Age (6-40) 20 seconds

Forward Delay (4-30) 15 seconds

Apply Cancel

System>Time Settings

System > Time Settings

Current Time

Current TimeWed 2018/12/05 09:04:07

Time Zone(GMT-08:00) Pacific Time (US & Canada); Tijuana

☐ Adjust for Daylight Saving Time

GPS Time Setting

☒ Synchronize time with GPS

Internet Time Setting

☐ Synchronize with an Internet time server

Time Server128.138.141.172

Time Server Port123

Apply

Cancel

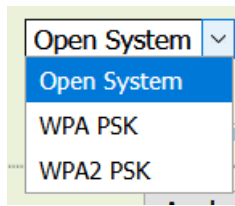
1. Base Station:

Wireless Bridge Parameters	
Operating Mode	Base Station
Wireless Network Name	Wireless
Broadcast Wireless Network Name	Enabled
Beacon Interval Time (40~1000)	100 ms
Maximum Association Stations (1~128)	128
Frame Schedule Policy	As soon as possible

The SSID for this Wireless Network is “Wireless” and the SSID is set in Broadcast enable status.

Basic Parameters	
RF Bandwidth	20MHz
Channel / Frequency	5755.000MHz
TX Power	max
Robust Mode	☐ Enable ☒ Disable

1.1 Wireless 1 > Security Settings(TKIP,AES)



Wireless 1 > Security Settings

Network Authentication WPA PSK ▾

Data Encryption TKIP ▾

WPA Pre-shared Key (PSK)

Isolate Connected CPEs ☒ Enable ☐ Disable

Apply Cancel

Wireless 1 > Security Settings

Network Authentication WPA2 PSK ▾

Data Encryption AES ▾

WPA Pre-shared Key (PSK)

Isolate Connected CPEs ☒ Enable ☐ Disable

Apply Cancel

1.2 Wireless 1 > Access Control

Add or delete Allow or delete MAC Address.

Wireless 2 > Access Control

Access Control Mode: Turn Off

Available Devices

☐ MAC Address

☐ 00:22:c3:01:21:e1

Other Devices

Add

Delete

Allow Listed Devices

☐ MAC Address

Allow Listed Devices

☐ MAC Address

Deny Listed Devices

☐ MAC Address

2. CPE: (Customer Premise Equipment) is either to connect a Base Station or Bridge AP Radio mode. (Ex. To connect Base Station)

Wireless 1 > Radio Settings

MAC Address 00:22:c3:01:21:e0

Radio Frequency (RF) ☒ Enable ☐ Disable

Select Wireless Profile Profile1

Wireless Bridge Parameters

Operating Mode CPE

Wireless Network Name Wireless

☒ Only Base Station 00:22:c3:01:22:20 Site Survey

Frame Schedule Policy As soon as possible

Basic Parameters

RF Bandwidth 20MHz

TX Power max

Robust Mode ☐ Enable ☒ Disable

Select CPE mode to connect a Base Station

Read the following instructions to make a Point to Point AP Bridge connection.

3 Point 1 (Point-to-Point)

Wireless 1 > Radio Settings

MAC Address 00:22:c3:01:22:20

Radio Frequency (RF) ☒ Enable ☐ Disable

Select Wireless Profile Profile1 Change Name

Wireless Bridge Parameters

Operating Mode Bridge (Point-to-point) ▾

Remote MAC Address 00:22:c3:01:21:e0 ▾

Frame Schedule Policy As soon as possible ▾

Key the remote MAC Address

Type the remote site MAC Address

3.1 Point 2 (Point-to-Point)

Wireless 1 > Radio Settings

MAC Address 00:22:c3:01:21:e0

Radio Frequency (RF) ☒ Enable ☐ Disable

Select Wireless Profile Profile1 ▾

Wireless Bridge Parameters

Operating Mode Bridge (Point-to-point) ▾

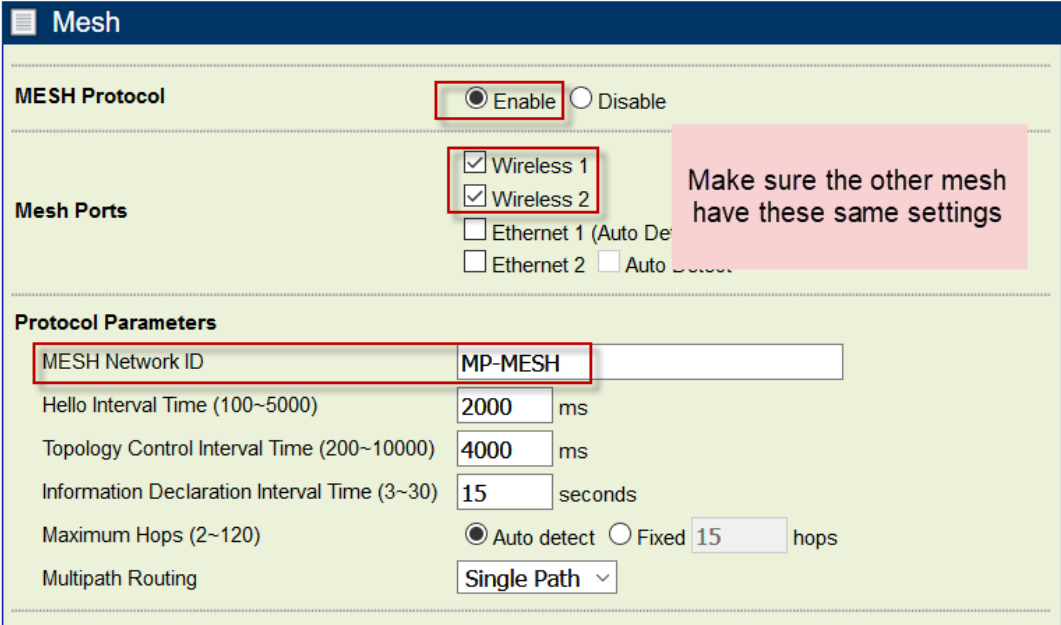
Remote MAC Address 00:22:c3:01:22:20 ▾

Frame Schedule Policy As soon as possible ▾

Key the remote MAC Address

Read the following instructions to make a MESH (Peer to Peer) connection.

1. MESH



The screenshot shows the 'Mesh' configuration page. It has three main sections: 'MESH Protocol', 'Mesh Ports', and 'Protocol Parameters'. In the 'MESH Protocol' section, the 'Enable' radio button is selected and highlighted with a red box. In the 'Mesh Ports' section, the checkboxes for 'Wireless 1' and 'Wireless 2' are checked and highlighted with a red box. A pink callout box with the text 'Make sure the other mesh have these same settings' points to these checkboxes. In the 'Protocol Parameters' section, the 'MESH Network ID' is set to 'MP-MESH' and is highlighted with a red box. Other parameters include 'Hello Interval Time' (2000 ms), 'Topology Control Interval Time' (4000 ms), 'Information Declaration Interval Time' (15 seconds), 'Maximum Hops' (set to 'Auto detect'), and 'Multipath Routing' (set to 'Single Path').

Mesh	
MESH Protocol	☒ Enable ☐ Disable
Mesh Ports	☒ Wireless 1
	☒ Wireless 2
	☐ Ethernet 1 (Auto Detect)
	☐ Ethernet 2 ☐ Auto Detect
Protocol Parameters	
MESH Network ID	MP-MESH
Hello Interval Time (100~5000)	2000 ms
Topology Control Interval Time (200~10000)	4000 ms
Information Declaration Interval Time (3~30)	15 seconds
Maximum Hops (2~120)	☒ Auto detect ☐ Fixed 15 hops
Multipath Routing	Single Path

2. Wireless 1 > Radio Settings

Check unstructured peer-to-peer model

Wireless 1 > Radio Settings

MAC Address 00:22:c3:01:22:20

Radio Frequency (RF) ☒ Enable ☐ Disable

Select Wireless Profile

Wireless Bridge Parameters

Operating Mode

Topology Hybrid Model

Wireless Network Name

Basic Parameters

RF Bandwidth

Channel / Frequency

TX Power

Robust Mode ☐ Enable ☒ Disable

Wireless Bridge Parameters

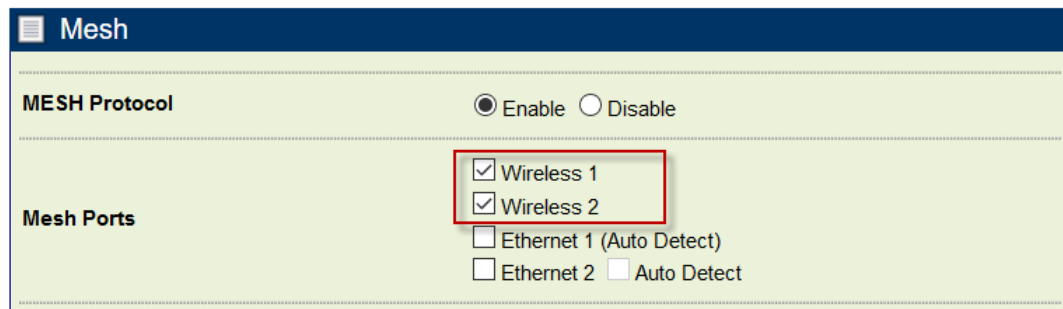
Operating Mode

Topology Hybrid Model

Wireless Network Name

Must be the same settings

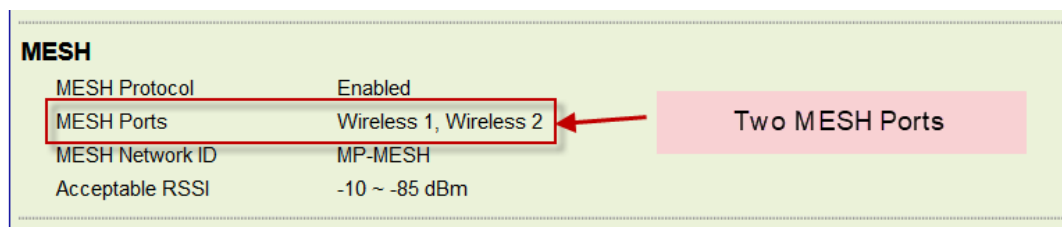
You also can enable both Wireless 1 and Wireless 2 Mesh Ports



The screenshot shows the 'Mesh' configuration page. Under 'MESH Protocol', the 'Enable' radio button is selected. Under 'Mesh Ports', the checkboxes for 'Wireless 1' and 'Wireless 2' are checked and highlighted with a red box. The checkboxes for 'Ethernet 1 (Auto Detect)' and 'Ethernet 2' are unchecked.

Mesh	
MESH Protocol	☒ Enable ☐ Disable
Mesh Ports	☒ Wireless 1
	☒ Wireless 2
	☐ Ethernet 1 (Auto Detect)
	☐ Ethernet 2 ☐ Auto Detect

See the information

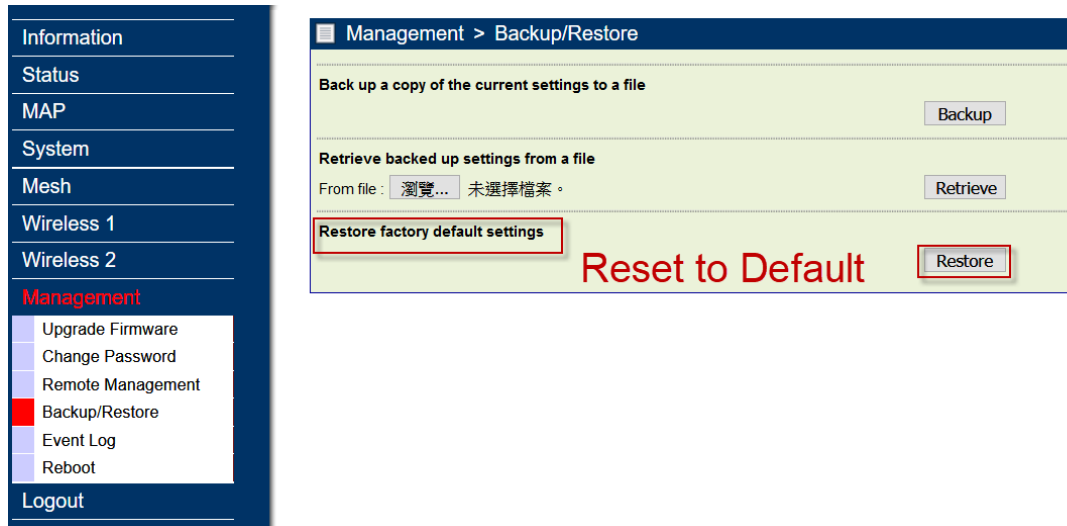


The screenshot shows the 'MESH' status page. A red box highlights the 'MESH Ports' row, which shows 'Wireless 1, Wireless 2'. A red arrow points from this box to a pink box labeled 'Two MESH Ports'.

MESH	
MESH Protocol	Enabled
MESH Ports	Wireless 1, Wireless 2
MESH Network ID	MP-MESH
Acceptable RSSI	-10 ~ -85 dBm

Restore to default settings: Go to Management >

Backup/Restore



The system will take about 40 seconds to restore factory default settings

System configuration has been changed, you have to login again.

Please wait 36 seconds for system rebooting...

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- . Reorient or relocate the receiving antenna
- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

「低功率電波輻射性電機管理辦法」第十二條：

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

「低功率電波輻射性電機管理辦法」第十四條：

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

應避免影響附近雷達系統之操作。

高增益指向性天線只得應用於固定式點對點系統。

Federal Communication Commission Interference Statement

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