



ISCOM 1016M (A)

User Manual

Raisecom Technology

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1、 ISCOM 1016M(A)

ISCOM 1016M(A) is an Ethernet switch with VLAN and QoS. It can provide 24X10/100Mbps RJ45 interfaces and support Local craft terminal management through Console. For simplifying the configuration, it can be configured as NO VLAN and Concentration VLAN mode. If it is configured as Concentration VLAN mode, every port is independent VLAN and supports flow control and rate-limit controlfor uploading. ISCOM 1016M(A) is your best choice for connection of SME.

1.1Package

- 1 unit ISCOM 1016M(A)
- 1 AC power supply cable
- 1 RS232 connectivity cable
- 2 screw for bracket used on cabinet

2、 Deploying

2.1 ISCOM 1016M(A) on desktop

1. ISCOM 1016M(A) is put on desktop
2. ISCOM 1016M(A) is connected to network

2.2 ISCOM 1016M(A) on cabinet

ISCOM 1016M(A) can be installed on the EIA 19” cabinet using the screws and brackets in the package.

3、 Configuring and managing ISCOM 1016M(A)

3.1 introduction of manual

[1] Introduction

ISCOM 1016M(A) provides friendly GUI and manual interface which include the functions as following:

- Configure the parameters of system and ports
- Configure VLAN
- Configure packet filtering
- Configure bandwidth for upload

[2]Method for management

- ISCOM 1016M(A) is managed by CONSOLE.

Local Craft Terminal management

ISCOM 1016M(A) default setting for console [bits per second: 9600, data bits: 8, parity: 0, stop bits: 1, flow control: None], VT100 type terminal.

Log in ISCOM 1016M(A)

When ISCOM 1016M(A) is logged in at first time, the system will ask password which is 1234 as default. It can be modified when logged in.

3.2 How to manage ISCOM 1016M(A)

ISCOM 1016M(A) provides an interface driven by manual.

3.2.1 Log in

The prompt as following on the screen:

Default password is “1234”. Note: Command is available with lowercase. Press “ESC” to return to main manual.

```

Copyright 1999-2004 Raisecom, Inc. All rights reserved.
Enter Password: ****

ISCOM1024M Controller V2.0
== Main Menu ==
1. Port Setup
2. VLAN Setup
3. Password Setup
4. Advanced Setup
5. Restore Default
6. Trunk Setup
7. Reset System
8. Exit
Select? _

```

连接的 0:00:39 VT100 9600 8-N-1 SCROLL CAPS NUM 捕 打印

Under this interface, the option is chosen by number key.

3.2.2 PORT SETUP

Choose “1” to enter the screen as following in the main manual.

```

Select? 1

-----
=== Port Setup ===
-----
(1=100M,0=10M,F=Full,H=Half,E=Enable,D=Disable)
Port No   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4
Admin     E E E E E E E E E E E E E E E E E E E E E E E E E E
Auto      E E E E E E E E E E E E E E E E E E E E E E E E E E
Speed     1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Duplex    F F F F F F F F F F F F F F F F F F F F F F F F F F
flow-C    E E E E E E E E E E E E E E E E E E E E E E E E E E
m=Modify,q=Quit?_

```

1. Modify setting

Press “m” to modify the setting including: Admin(e: open, d: close)、Auto(e: auto negotiation, d: non auto negotiation)、speed (1: 100M, 0: 10M)、Duplex(f: full, h: half)、flow-C(e: enable flow control, d: disable flow control). After

modification, press “y” to save, press “n” not to save.

- press “q” to quit this manual and return to main manual.

3.2.3 VLAN setting

Under this manual, press “2” to enter VLAN manual as following:

```

=== VLAN Menu ===
1. Uplink-Port VLAN Setup
2. Port Base VLAN Setup
3. TAG&PVID Setup
4. Remove All Vlan
5. Exit
Select?

```

Under this manual, choose “1” to configure VLAN mode to suit to multiple residential customer building. (Note: under this mode, every port to customer can not be communicated. However, all of them can communicate with uplink port to access upper level device. This mode is usually used on the broadband access for multi-tenant) the system will ask to assign the specific uplink port, then the system will generate automatically VLAN for every port to access the customer and these VLAN on the ports can be included in the uplink port. As following:

```

Select? 1
== Uplink-Port VLAN Mode Setup ==
m=Modify,q=Quit?m
  Which uplink port no:(1-24,q)?24
== Uplink-Port VLAN Mode Setup ==
m=Modify,q=Quit?q
Save&Update? (Y/N)

```

Choose “2” to configure VLAN based on port. the system will ask manually configuration for VLAN on port according to the requirement.

```

Select? 2
m=Modify,q=Quit?m
  Which group no:(0-23,q)?0
a=Add,r=Remove,q?_

```

Choose “3” to configure tag for VLAN. Tag(u: untag, t: tag) is the configuration for the status of port and belonging of VLAN ID PVID(0-23). “TAGGED PORT” can not connect to “UNTAGGED PORT”, as following:

```
Select? 3
```

```
-----
PVID Setting (T=tagged port,U=Untagged port)
-----
```

```
Port 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Tag: U U U U U U U U U U U U U U U U U U U U U U U U
PVID:0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
m=Modify,q=Quit?_
```

Choose “4” to remove all of VLAN tag.

3.2.4 Modify password

Choose “3-Password Setup” to modify the password.

```
Select? 3
```

```
== Password Modefy ==
m=Modify,q=Quit?m
Please Press into New Password:****
Please Press Password Again:****
Success modify new password!
```

User can configure new password.

3.2.5 Advanced setting

Choose “4” to access “Advanced Setup”.

```
Select? 4
```

```
== Advance Setting Manu ==
1. Port Locking
2. Broadcast Storm Filter
3. Cos Setup
4. Rate-limit Control
5. Exit
Select?
```

1. Port Locking

Under this manual, choose “1” to enter port locking. This function can allow only one customer to use specific port of Ethernet switch.

```

== Advance Setting Manu ==
1. Port Locking
2. Broadcast Storm Filter
3. Cos Setup
4. Rate-limit Control
5. Exit
Select? 1

-----
Port Locking Setup: (E=Enable,D=Disable)
-----
Port No:  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Locking:  D D D D D D D D D D D D D D D D D D D D D D D D
m=Modify,q=Quit?

```

Locking(e: enable, d: disable). “Switching Aging” is open at default setting. When the current customer’s MAC ID is aged out, another MAC ID will become this “sole” customer.

2. Broadcast storm filtering

Choose “2”, if broadcast storm filtering is enable, these broadcast storm packet will be given up within 50ms when the broadcast packet is over threshold. The customer can set 3 thresholds values based on all ports.

- 1: 10% for all ports;
- 2: 20% for all ports;
- 3: 40% for all ports;

```

== Advance Setting Manu ==
1. Port Locking
2. Broadcast Storm Filter
3. Cos Setup
4. Rate-limit Control
5. Exit
Select? 2

-----
Broadcast Storming Funtion: (E=Enable,D=Disable)
-----
Broadcast Storming: D
Broadcast Storming Threshold: 0
m=Modify,q=Quit?_

```

3. COS

Choose “3”, this function can set 4 queues for customers.

```

== Advance Setting Manu ==
1. Port Locking
2. Broadcast Storm Filter
3. Cos Setup
4. Rate-limit Control
5. Exit
Select? 3

=== CoS Menu ===
1. Global
2. VLAN/TOS Priority Map
3. Exit
Select?

```

Under this manual, choose “1”. Global: Switch supports COS based port.

PORT PRIORITY(e: enable, d: disable): if the setting is enable, all of packet receiving from this port will be forwarded as a specific priority. VLAN tag and TOS will be disregarded.

PORT QUEUE(1: high, 0: low): if “PORT PRIORITY” is enable, the receiving packet from this port will be set.

```

=== CoS Menu ===
1. Global
2. VLAN/TOS Priority Map
3. Exit
Select? 1

-----
Global Setting: (E=Enable,D=Disable)
-----
Port No:      1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
TOS Priority: D D D D D D D D D D D D D D D D D D D D D D D D
Port Priority: D D D D D D D D D D D D D D D D D D D D D D D D
Port Queue:   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
m=Modify,q=Quit?_

```

Choose “2”, VLAN/TOS Priority Map

TOS PRIORITY: if it is enable, TOS priority information will be deal more in advanced than VLAN tag; otherwise, VLAN will be deal more in advanced than TOS priority.

VLAN/TOS Priority: VLAN/TOS Priority value can be set into 2 transmitting queues.

Totally, 8 different VLAN and TOS Priority value can be set and these values can be dispatched to 2 transmitting queues of each port.

```

=== CoS Menu ===
1. Global
2. VLAN/TOS Priority Map
3. Exit
Select? 2
-----
Mapped priority of value (TOS/VLAN)
-----
Value (TOS/VLAN):      0  1  2  3  4  5  6  7
VLAN Priority Queue:    0  0  0  0  0  0  0  0
TOS Priority Queue:    0  0  0  0  0  0  0  0
m=Modify,q=Quit?

```

3. Rate-limit Control

Choose “4”, this function can set the rate for upload and support 9 level rate (64K,128K,256K,512K,1M,4M,10M,20M,和 No Limit)

```

== Advance Setting Manu ==
1. Port Locking
2. Broadcast Storm Filter
3. Cos Setup
4. Rate-limit Control
5. Exit
Select? 4
-----
Rate_limit Control: (NO Limit=No rate-limit)
-----
Port No:  rate-limit;      Port No:  rate-limit
Port 1:   NO Limit        Port 2:   NO Limit
Port 3:   NO Limit        Port 4:   NO Limit
Port 5:   NO Limit        Port 6:   NO Limit
Port 7:   NO Limit        Port 8:   NO Limit
Port 9:   NO Limit        Port 10:  NO Limit
Port 11:  NO Limit        Port 12:  NO Limit
Port 13:  NO Limit        Port 14:  NO Limit
Port 15:  NO Limit        Port 16:  NO Limit
Port 17:  NO Limit        Port 18:  NO Limit
Port 19:  NO Limit        Port 20:  NO Limit
Port 21:  NO Limit        Port 22:  NO Limit
Port 23:  NO Limit        Port 24:  NO Limit
m=Modify,q=Quit?

```

3.2.6 Restore Default

Choose “5. Restore Default” to restore the Ethernet switch to exit factory configuration.

3.2.7 Reset Syetem

Choose “7. Reset System” to reset Ethernet switch.

3.2.8 Exit

Choose “8. Exit” to exit interface of configuration to return log interface.

4. LED Description

LED	status	description
PWR	On	Power on
SYS	blinking	Switch can be configured
LNK / ACT	On	Link status is OK
	Blinking	Packet is transmitted or received
	Green	Speed is 100Mbps
	Yellow	Speed is 10Mbps

5. Troubleshooting

5.1 How to resolve link LED off

The possible reasons are following:

- the power supply is off
- the type of cable is not right one
- physical interface of switch has some problem

6.2 Q & A

1. Computer A can access computer B through Ethernet switch. However, computer A can not access computer C.

- ✓ Computer A and computer C are maybe not in the same VLAN. Please check the VLAN configuration through console port.
- ✓ The network has some problem including Computer C. please check LED LNK/ACT of computer C and try to connect other device using this interface.
- ✓ Please check the NIC configuration of computer C.

7. Specifications

A. Features and specifications

- 24 x 10/100Mbps RJ45 interfaces
- Support MDI or MDI-X
- Support CONSOLE
- Support flow control
- Support rate-limit for uploading
- Support VLAN
- Support QoS

Complied standard: IEEE802.3 10Base-T,IEEE 802.3u 100Base-TX

Support VLAN based on ports up to 24

Dimension: 440Wmm x 120Dmm x 43.6Hmm

Store and forward: wire-speed

Mac table: 4K

Buffer for packet: 128K

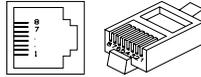
Environment temp : 0 — 5 0 centigrade degree

Humidity: 5% ~ 95%

Power consumption: < 15W

Power supply: 160-240VAC, 50-60Hz

B. Cable



Standard straight line						
HUB / Switch				NIC		
Pin#		#		Pin #		#
1	RX+	white-green	-----	1	RX+	white-green
2	RX-	green	-----	2	RX-	green
3	TX+	white-orange	-----	3	TX+	white-orange
4	N/A	blue	-----	4	N/A	blue
5	N/A	white-blue	-----	5	N/A	white-blue
6	TX-	orange	-----	6	TX-	orange
7	N/A	white-brown	-----	7	N/A	white-brown
8	N/A	brown	-----	8	N/A	brown
Standard cross over line						
Hub /switch				NIC		
Pin #		#		Pin#		#
1	RX+	white-green	---- ----	1	RX+	white-orange
2	RX-	Green	---- ----	2	RX-	orange
3	TX+	white-orange	---- ----	3	TX+	white-green
4	N/A	blue		4	N/A	blue
5	N/A	white-blue		5	N/A	white-blue
6	TX-	orange	---- ----	6	TX-	Green
7	N/A	white-brown		7	N/A	white-brown
8	N/A	brow		8	N/A	brown