



**ISCOM 1005M(A)**

**User Manual**

**RAISECOM TECHNOLOGIES**

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# 1. Cautions



**Please read the following notice carefully before installing and using the device, Raisecom shall not be responsible for any loss that caused by violating safety notice.**



**ISCOM1005M(A) is integrated device that has precise elements, please avoid violent shakes and impacts, and do not disassemble or maintain the device yourself. If it is required, please do it under the guide of our technical staff following in the steps of anti static. Please contact us if there is any need.**



**There must be grounding protection for the sake of safety; do not disassemble the device yourself, we regard it as you waiver your rights of repair guarantee.**

## 2. ISCOM 1005M(A) Overview

ISCOM 1005M(A) is 5-port Ethernet switch complied with 802.1Q VLAN and supports Console local management and traffic, bandwidth management.

### 2.1 Package

- 1 unit ISCOM 1005M(A)
- 1 piece DC 5V power cord
- 1 piece CBL-RS232-DB9F/RJ45-A-2m connection cable

## 3. Parameters

### 3.1 Features:

- 5x10/100Mbps RJ45 interface
- It supports MDI or MDI-X
- It supports CONSOLE local management
- Bi-directional Nx32Kbps bandwidth management
- It supports flow control
- It supports PORT VLAN and TAG VLAN
- It supports broadcast filtering

## 3.2 Specifications:

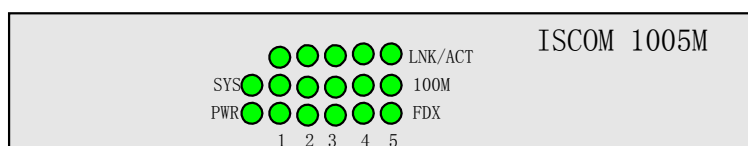
Protocols : IEEE802.3 10Base-T,IEEE 802.3u 100Base-TX IEEE802.3x  
 Cables: 10Mbps:3,4,5 CAT twisted pairs. 100Mbps:CAT5 Twisted pair;  
 Number: 5xRJ45  
 VLAN: supports port-VLAN and TAG VLAN  
 Panel: PWR,SYS,LNK/ACT,100M,FDX  
 Dimension: 139.5Wmm x 77Dmm x 28Hmm  
 Store and forward: full wire speed  
 MAC table:1K  
 Buffer:64K  
 Certification: CE MARK

## 3.3 Environment and power:

Environment Temp: 0 ~ 50 centigrade  
 Humidity: 5% ~ 95%  
 Power consumption: < 5W  
 Power: 100-240VAC, 50-60Hz

## 4. Mechanical structure and indicators

LEDs provide all of information and status of interface of Ethernet switch.



PWR	Fixed on	Power is on
SYS	Flashing	The system is active
LNK / ACT	Fixed on	Link is ok
	Flashing	Data traffic is working
100M	Fixed on	100Mbps
	Off	10Mbps

FDX	Fixed on	Full duplex
	Off	Half duplex
	Flashing	The data traffic is conflicting when half duplex

## 5. How to manage ISCOM 1005M(A)

### 5.1 Manual overview

#### [1] Overview

- Configure the mode of system and interface
- Configure bi-directional bandwidth
- Configure PORT VLAN or TAG VLAN
- Filter broadcast packets

#### [2]management

- ISCOM 1005M(A) supports console management. If configuration is finished, CONSLE interface also works as 5<sup>th</sup> service interface.

#### Local craft terminal

Ethernet switch can be managed via VT100 terminal or computer workstation through CONSLE cable.

ISCOM 1005M(A)'s default setting as [bits per second: 9600, data bits: 8, Parity: 0, stop bits: 1, flow control: None], VT100 type terminal.

#### Log on ISCOM 1005M(A)

Default password is 1234.

## 5.2 Configure ISCOM 1005M(A)

### 5.2.1 Log on

Input "1234" at first time. Then management screen will available.

P.S: the command is only available for lowercase. Press "ESC" to return main manual

```

Copyright 1999-2005 Raisecom, Inc. All rights reserved.
Enter Password: ****

RaiseCom Controller Software
Copyright(c) 2004-2005 by Raisecom Science & Technology CO., LTD.
Product Name: ISCOM1005M
Software RaiseCom Controller. Version 1.0.20051223
HardWare ISCOM1005M Version Rev.A.1

== Main Menu ==
1. Port Setup
2. Port VLAN Setup
3. 802.1Q VLAN Setup
4. Password Setup
5. Advanced Setup
6. Restore Default
7. Reset System
8. Exit
Select?

```

连接的 0:00:35 自动检测 9600 8-N-1 SCROLL CAPS NUM 捕 打印

Choose the item through numeric key on this interface.

### 5.2.2 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
Auto       E       E       E       E       E
Speed      1       1       1       1       1
Duplex     F       F       F       F       F
Flow-C     E       E       E       E       E
Ingress    3200   3200   3200   3200   3200   (*32k)
Egress     3200   3200   3200   3200   3200   (*32k)
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.

2. Download Ingress、upload Egress bandwidth management N x 32Kbps, N is configurable. Select “y” to save; “n” not to save.

3. Press “q” to quit and return main manual

P.S: when auto negotiation is enabled, the status and working mode only depend on the device located on the other end. Manually configuration is disabled.

## 5.2.3 Port VLAN Setting

P.S: when Port VLAN group is created, 802.1Q VLAN group must be removed firstly.

Select “2” to access Port VLAN setting interface.

```
Select? 2
The Port VLAN setting(v = At VLAN group)
          PortNo
VLAN ID  1  2  3  4  5
   0     v  v  v  v  v
   1     v  v  v  v  v
   2     v  v  v  v  v
   3     v  v  v  v  v
   4     v  v  v  v  v
Please Press any key... .
=== Port VLAN Menu ===
1. Uplink-Port VLAN Setup
2. Port Base VLAN Setup
3. Remove All Vlan
4. Exit
Select? _
```

Select “1”: system will ask user to assign uplink port and other ports will be isolated each other automatically. And each port VLAN includes uplink port.



```

Select? 1
== Uplink-Port VLAN Mode Setup ==
m=Modify,q=Quit?m
Which uplink port no:(1-5,q)?1^
== Uplink-Port VLAN Mode Setup ==
m=Modify,q=Quit?q
Save&Update? (Y/N)y
The Port VLAN setting(v = At VLAN group)
      PortNo
VLAN ID  1  2  3  4  5
      0  v  v  v  v  v
      1  v  v
      2  v      v
      3  v      v
      4  v      v
Please Press any key... ..

```

Select “2”: the system will ask user to manually configure each VLAN according the specific requirement.

Select “3”: remove all of the VLAN

## 5.2.4 TAG VLAN setting

P.S: before creating 802.1Q VLAN group, Port VLAN must be removed firstly.

Select “3” to access TAG VLAN interface

```

Select? 3
=== 802.1Q VLAN Menu ===
1. Create New VLAN
2. Modify current VLAN
3. Delete current VLAN
4. TAG&PVID Setup
5. Exit
Select?

```

select “1” to create VLAN domain. This device only supports 0~15 VLAN domain.

VLAN ID 1~4094

P.S: Can not configure same ID VLAN domain.

```

Select? 1
= Create New VLAN Operation ==
-----
The 802.1Q VLAN setting(v=At VLAN group)(GroupNo:0~15)(VLANID:1~4094)
-----
GroupNo  VLANID    1  2    PortNo
          3  4  5
802.1Q VLAN Group is no exist!
m=Modify,q=Quit?

```

```

Please Input New VLANGroup's ID(1~4094): 1
Please add membership Port(1~5,q): 1
Please add membership Port(1~5,q): 2
Please add membership Port(1~5,q): q
= Create New VLAN Operation ==
-----
The 802.1Q VLAN setting(v=At VLAN group)(GroupNo:0~15)(VLANID:1~4094)
-----
GroupNo  VLANID    1  2    PortNo
          3  4  5
   0         1    v  v
m=Modify,q=Quit?

```

select “2” to modify VLAN domain. Input “m” to access the dialog interface to modify VLAN domain and select GroupNo: “1” (only 0~15 VLAN Group. Select the GroupNo, not VLANID. Now try to select GroupNo.1) and select Add or Remove Port and select Port No. Input “q” to save configuration

```

Select? 2
= Modify Current VLAN Operation ==
-----
The 802.1Q VLAN Setting(v=At VLAN Group)(GroupNo:0~15)(VLANID:1~4094)
-----
GroupNo  VLANID    1  2    PortNo
          3  4  5
   0         1    v  v
   1        100    v  v  v
m=Modify,q=Quit?m
Please Select Current VLAN GroupNo(0~15): 1
a=Add,r=Remove,q?a
The 802.1Q VLAN Group Add Which Port NO:(1-5,q)?2
The 802.1Q VLAN Group Add Which Port NO:(1-5,q)?

```

Select “3” to delete the created VLAN domain and input “m” to access the dialog for deleting VLAN. Select GroupNo. Select “q” to save configuration and exit.

```

Select? 3
= Delete Current VLAN Operation ==
-----
The 802.1Q VLAN Setting(v=At VLAN Group)(GroupNo:0~15)(VLANID:1~4094)
-----
GroupNo  VLANID   1   2   PortNo
          1       v   v   3   4   5
          1      100   v   v   v
m=Modify,q=Quit?m
Please Select Current VLAN GroupNo(0~15):

```

Select “4” to configure the tag of port. “TAGGED PORT” can not be connected to “UNTAGGED PORT” of the subscriber.

```

Select? 4
PVID Setting (T=tagged port,U=Untagged port)
Port      1   2   3   4   5
Tag:      U   U   U   U   U
PVID:     1   1   1   1   1
m=Modify,q=Quit?

```

## 5.2.5 Modify password

Choose “4-Password Setup” to modify the password.

```

Select? 4
=== Password Modify ===
m=Modify,q=Quit?m
Please Press into New Password:****
Please Press Password Again:****
Success modify

```

## 5.2.6 Advanced setting

Choose “5” to access “Advanced Setup”.

```
Select? 5
== Advance Setup ==
Broadcast Storming Funtion: (E=Enable,D=Disable)
Broadcast Storming: D
Broadcast Storming Threshold: 0
m=Modify,q=Quit?
```

If the function of filtering broadcast storm is available, these broadcast packets will be disregarded with 50ms when broadcast packets is over threshold. The customer can configure 3 types for threshold (based on port)

- 1: 10% for all of interfaces;
- 2: 20% for all of interfaces;
- 3: 30% for all of interfaces.

## 5.2.7 Restore default setting

Select “6. Restore Default” in main manual to restore default setting.

## 5.2.8 Reset system

Select “7. Reset System” in main manual to reset Ethernet switch

## 5.2.9 Exit

Select “8. Exit” to return log in interface.

## 6. Troubleshooting

### 6.1 How to resolve the link LED off

The possible reasons as followings:

- 1.the power supply is off
- 2.the type of the cable is not right
- 3.the interface of Ethernet switch is trouble

### 6.2 Q&A

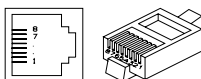
1. Computer A can access computer B through Ethernet switch. However, computer A can not access computer C.

- ✓ 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.

## Appendix A

- Standard straight line
- Cross over line

### A. Sketch map for cables



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
<b>Standard cross over line</b>						
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	brown		8	N/A	brown

## B. Cable types and function

HUB to HUB(or SWITCH)	10Mbps	Cross over, CAT3,4,5
HUB to HUB(or SWITCH)	100Mbps	Cross over, CAT5
HUB to Server or workstation	10Mbps	Straight line, CAT3,4,5
HUB to Server or workstation	100Mbps	Straight line, CAT5
HUB to print server	10Mbps	Straight line, CAT3,4,5
HUB to print server	100Mbps	Straight line, CAT5

## C. CBL-RS232-DB9F/RJ45-A-2m

CONSOLE			DB9
Pin #	Pairs #		Pin #
1	RX+	White-green	1
		-----	unavailable

---

2	RX-	Green	-----	2	RXD
3	TX+	White- orange	-----	3	TXD
4	RXD	Blue	-----	4	unavailable
5	GND	White blue	-----	5	GND
6	TX-	Orange	-----	6	unavailable
7	GND	White-bro wn	-----	7	unavailable
8	TXD	Brown	-----	8	unavailable
			-----	9	unavailable