Fast Ethernet Switch ES3528M/ES3552M[-V1]

***Firmware Version 1.4.8.0***

**INTRODUCTION:**

The ES3528M/ES3552M[-V1] is a cost effective managed L2/L4 Fast Ethernet Standalone Switch. ES3528M[-V1] contains 24 Ethernet/Fast Ethernet ports (1-24) and 4 Combo-Giga ports\* (25-28). ES3552M[-V1] contains 48 Ethernet/Fast Ethernet ports (1-48) and 4 Combo-Giga ports\* (49-52).

The base hardware is a 1U height, 19” rack mountable metal enclosure. The switch can be managed either by in-band management via the network station remotely or out-of-band management via the console port (RS232) locally. An imbedded Web agent also provides management capability to any computer on the network via common HTTP browsers such as Netscape Navigator (Version 6.2 or above) or Microsoft’s Internet Explorer (Version 5.0 or above).

Local Console Management (LCM) allows the user to monitor and configure the ES3528M/ES3552M[-V1] from a VT-type terminal. LCM can be used to configure features such as SNMP community names and access rights, Port Enable/Disable, firmware downloads, and Device IP address as well as most other parameters. LCM can also provide statistical and diagnostic information about the entire device or an individual port.

Management of the switch is password protected; the same password is used for LCM and for the Web browser interface. Prior to accessing the Management Module via a network connection, a valid IP address, subnet mask, and in some cases a default gateway must be configured using an out-of-band connection or the BootP/DHCP protocol. The management option provides SNMP, RMON (4 groups: 1,2,3,9), and Web management for system control and statistical monitoring.

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| **It is recommended that one thoroughly review this release notes prior to the installation or upgrade of this product.** |

**Firmware Specification:**

Note :

1. Phase3 image will be obsoleted after Phase 4.2 released. Since the phase4 image is backward compatible with Phase3 image, so only Phase4 image will be supported in the future. Please be aware that Phase4 image is single image for both PoE and non-PoE devices.
2. If your are running Phase3 image on PoE boxes, you will need to load your PoE box with a converting image

First before you load the Phase4 released image. Otherwise the upgrade to Phase4 image will fail on PoE boxes. Please ask the converting image from Technical Support. The upgrade process is just like regular image upgrade.

1. “G.8032, 802.1x supplicant and non-STP loopback detection” are the new added functions. The Web pages of both functions are not available in this release, only CLI/SNMP are supported in this release.
2. If any of the devices are running a Phase3 image (version number of 1.3.x.x) will be upgrade to this Phase4 released image. The device will need to load 1.4.4.0 first, then the device could be upgraded from 1.4.4.0 to this released. If the device tried to upgrade from Phase3 to this one directly without loading 1.4.4.0 first, then the upgrading will fail.
3. Loader has updated version of 1.0.4.0. The new version of loader fixed the problem of backdoor passwd is not encrypted (ES3528MO-FLF-38-00800).

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| **Firmware** | **Version** | **File Name** |
| Loader | 1.0.4.0 | ES3528\_52M\_loader\_V1.0.4.0.bin |
| Diagnostics | 1.2.1.2 | ES3528\_52M\_diag\_V1.2.1.2.bix |
| Software | 1.4.8.0 | ES3528\_52M\_opcode\_V1.4.8.0.bix |

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| **Status** | **Version No.** | **Type** | **Release Date** |
| **Phase 4.8** |  |  |  |
|  **Current** | **1.4.8.0** | QA | **2010/08/04** |
|  **Cancelled** | **1.4.7.1** |  NTC | **2010/07/19** |
|  **Cancelled** | **1.4.7.0** |  NTC | **2010/07/28** |
| **Phase 4.4** |  |  |  |
|  **Current Version** | **1.4.6.4** |  Patch  | **2010/06/18** |
|  **Cancelled** | **1.4.6.3** |  Dummy (label mistake) | **2010/06/14** |
|  | **1.4.6.2** |  Patch | **2010/06/03** |
|  | **1.4.6.1** |  Patch | **2010/05/20** |
|  | **1.4.6.0** |  Formal  | **2010/05/18** |
| **Phase 4.3** |  |  |  |
| Cancelled |  1.4.5.1 |  NTC | 2010/05/11 |
| cancelled | 1.4.5.0 |  NTC | 2010/05/07 |
| **Phase 4.2**  |  **1.4.4.0** |  QA | **2010/03/09** |
|  **Current Version**  |  **1.4.3.4** |  **NTC** | **2010/03/02** |
|  **Cancelled** |  **1.4.3.3** |  **NTC** | **2010/03/02** |
|  **Cancelled** |  **1.4.3.2** |  **NTC** | **2010/02/24** |
|  **Cancelled** |  **1.4.3.1** |  **NTC** | **2010/02/10** |
|  **Cancelled** |  **1.4.3.0** |  **NTC** |  **2001002/08** |
|  **Cancelled** |
| **Phase 4.1** | 1.4.2.1 | QA | 2009/07/17 |
| Current Version | 1.4.2.0 | QA | 2009/06/11 |
| Cancelled |
| **Phase 4.0** | 1.4.1.1 | Formal/ECN | 2009/06/05 |
| Current Version | *1.4.1.0* | *Formal/ECN* | *2009/05/20* |
| *Cancelled* | 1.4.0.6 | NTC | 2009/05/11 |
| Current Version | *1.4.0.5* | *NTC* | *2009/04/29* |
| *Cancelled* | *1.4.0.4* | *NTC* | *2009/04/27* |
| *Cancelled* | 1.4.0.3 | NTC | 2009/04/15 |
| *Cancelled* | *1.4.0.2* | *Test/CNS* | *2009/03/12* |
| *Cancelled* | *1.4.0.1* | *NTC* | *2009/03/04* |
| *Cancelled* | *1.4.0.0* | *NTC* | *2009/01/20* |
| *First Version* |  |  |  |

**HARDware compatibility:**

ALL

**BootPROM compatibility:**

ALL

**Network Management Software Support:**

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| **NMS Platform** | **Version No.** | **Module No.** |
| TBD |   |   |

If you install this image, you may not have control of all of the latest features of this product until the next version(s) of network management software. Please review the software release notes for your specific network management platform for details.

**SUPPORTED FUNCTIONALITY:**

| **Category** | **Feature** | **Support** | **Priority** |
| --- | --- | --- | --- |
| **Monitor Environment** | Power Status | Yes | RTS |
| Layer 2 Features |  |
| Link Aggregation | 802.3ad with LACP | Yes1) Total 8 Trunks (including Cisco EtherChannel Like trunks 2) 2~8 port/trunk FE 3) 4 port/trunk GE | RTS |
| Cisco EtherChannel Linked | Yes1) Total 8 Trunks (including Cisco EtherChannel Like trunks 2) 2~8 port/trunk FE 3) 4 port/trunk GE | RTS |
| Unicast / Multicast traffic Balance over Trunking port | Yes |  |
| VLAN | IEEE 802.1Q – Tag-based | Yes | RTS |
| IEEE 802.1Q – Port-based | Yes (256 VLANs) | RTS |
| Private VLAN | YES (Community)(isolated PVLAN, Phase 3) | RTS |
| GVRP | Yes | RTS |
| 802.1v – Protocol | Yes |  |
| voice VLAN | Yes |  |
| MAC-based VLAN | YES (Phase 3) |  |
| IP-subnet VLAN | YES (Phase 3) |  |
| VLAN trunking | YES (Phase 3) |  |
| **4K (4092) VLANs** | **YES (Phase 4.1)** |  |
| Spanning Tree | IEEE 802.1D | Yes | RTS |
| IEEE 802.1s | Yes (8 instances) | RTS |
| IEEE 802.1w | Yes |  |
| Spanning Tree Fast Fording | Yes |  |
| Loop back detection | YES (Phase 3) |  |
| Auto edge port | YES (Phase 3) |  |
| BPDU filter/guard | YES (Phase 3) |  |
| Root guard | YES (Phase 3) |  |
| BroadCast Storm Control |  | YES ( bit/sec )1) per port rate control2) range: 64K bits/sec - 100M bits/sec3) resolution: 64K bits/sec4) Broadcast, B+M, B+M+DLF |  |
| IGMP Snooping | IGMPSnooping v1/v2 support | Yes (256 groups) |  |
| IGMP v1/v2 querier support | Yes |  |
| IGMP Immediate Leave | Yes |  |
| IGMP Filtering and throttling | Yes |  |
| IGMP snooping Leave Proxy | Yes |  |
| IGMP v3 snooping | Yes |  |
| MVR |  | Yes (groups - admin: 1024, active: 255) |  |
| Jumbo Frame | 10K (only supported in Giga) | Yes |  |
| QinQ |  | Yes |  |
| **Selective QinQ** |  | **YES (Phase 4.0)** |  |
| **EAPS** |  | **YES (Phase 4.1)** |  |
| QoS Features |  |
| Number of priority queue |  | Yes (4 queues/port) | RTS |
| Scheduling for priority queue | WRR Priority scheduling | YESFixed WRR weight 1:2:4:8(no way to change) |  |
| Strict Priority scheduling | YESOnce Strict Priority is selected, WRR can not work |  |
| Hybrid(WRR + Strict) Priority scheduling | No |  |
| COS | 802.1p based COS | Yes (per system) |  |
| IP TOS Precedence based COS | No |  |
| IP DSCP based COS | DSCP only (per system) |  |
| TCP/UDP Port based COS | No |  |
| Rate Limiting | Ingress | YES1) Per Port-based2) FE:- 64K bits/sec ~ 100Mbits/sec- Resolution 64K bits/sec3) GE:- 64K bits/sec ~ 1000Mbits/sec- Resolution 64K bits/sec |  |
| Egress | YES1) Per Port-based2) FE:- 64K bits/sec ~ 100Mbits/sec- Resolution 64K bits/sec3) GE:- 64K bits/sec ~ 1000Mbits/sec- Resolution 64K bits/sec |  |
| DiffServ |  | Yes |  |
| Security Features |  |
| Static/Dynamic Port Security (MAC-based) |  | YES1) Per system: Total 1024 MAC2) Auto-learned support | RTS |
| 802.1x | Port-Based | YES1) Support Single host mode2) Single host mode: - Per port 1 MAC |  |
| MAC-based  | YES (Phase 3) |  |
| **Supplicant Support** | **Yes (Phase4.3)**1) support Win XP2) support Win 2000 w/ SP43) support Win 95/98 w/ AEGIS |  |
| VLAN assignment | Yes |  |
| Guest VLAN | Yes |  |
| QoS assignment (w/o ACL profile) | YES (Phase 3) |  |
| EAPOL frames pass-through | YES (Phase 3.1) |  |
| QoS assignment w/ ACL profile | YES (Phase 3.1) |  |
| ACL | Number of rules | Mixed mode: 1024 rulesExtended mode: 500 rules(per system) (Phase 3) |  |
| L2/L3/L4 | YES1) L2 SA/DA MAC, VLAN based2) L3 IP SA/DA, subnet based3) L4 TCP/UDP port4) IPv6 (Phase 3) |  |
| **Time Range** | **YES (Phase 4.1)** |  |
| RADIUS authentication |  | YES1) Encryption: MD52) Multiple RADIUS Server: 5 servers |  |
| RADIUS authorization and accounting |  | Yes |  |
| TACACS+ authentication |  | YES1) Encryption: MD52) Single Server |  |
| TACACS+ authorization and accounting |  | Yes |  |
| TACACS+ 3.0 | Support Cisco ACS 3.0 server | Yes |  |
| MAC Based authentication |  | YES |  |
| HTTPS and SSL (Secured Web) |  | YESSupport cipher:1) AES128-cbc2) 3ES-cbc3) Blowfish-cbc |  |
| SSH V1/V2.0 (Secured Telnet session) |  | YESSupport cipher:1) AES128-cbc2) 3ES-cbc3) Blowfish-cbc |  |
| User name password authentication | Local authentication | YESCisco-like (5 User/Password) |  |
| Remote authentication via RADIUS/TACACS+ | YESCisco-like |  |
| Management Interface Access Filtering | SNMP | Yes |  |
| WEB | Yes |  |
| Telnet | Yes |  |
| Instruction lock (link detection) |  | YES (Phase 3) |  |
| MAC filter |  | YES (Phase 3) |  |
| **PPPoE Intermediate Agent** |  | **YES (Phase 4.1)** |  |
| Management Features |  |
| Cisco Like CLI |  | Yes | RTS |
|  | CLI filtering and terminal setting | YES (Phase 3) |  |
| Web Based Management |  | Yes | RTS |
| Telnet |  | Yes (8 sessions) | RTS |
| Software Download | TFTP | Yes (opcode/diag/loader, Phase 3) | RTS |
| Xmodem | Yes | RTS |
| Diag support TFTP download | YES (Phase 3) |  |
| FTP | YES (Phase 3) |  |
| HTTP | YES (Phase 3) |  |
| Auto Upgrade | TFTP | YES (Phase 3) |  |
| Dual Image |  | Yes | RTS |
| Configuration Download | TFTP | Yes (multiple copies) | RTS |
| SNMP | V1 | Yes1) 5 SNMP community string2) 5 trap receivers | RTS |
| V2c | Yes1) 5 SNMP community string2) 5 trap receivers | RTS |
| V3 | Yes | RTS |
| RMON | RMON1(1,2,3,9 group) | Yes1) Statistic:- Total 24 entries- Per port 1 entry2) Histroy:- Total 48 entries- Per port 2 entries3) Alarm : 48 entries4) Event : 24 entries(Note: RMON configure will not be saved to Flash) | RTS |
| BOOTP | Client | Yes | RTS |
| Relay | No | RTS |
| DHCP | Client | Yes | RTS |
| Relay | No | RTS |
| Snooping | Yes | RTS |
| Option 82 Relay | Yes | RTS |
| Server | No | RTS |
| dynamic provision (option 66,67) | YES (Phase 3) |  |
| **Relay Option 82** | **YES (Phase 4.0)** |  |
| IP Source Guard |  | Yes | RTS |
| Port Mirroring |  | Yes (1Dst to manySrc mirroring) | RTS |
| Event/Error Log | Local Flash | Yes1) 512 entries2) 256Kbyte Flash | RTS |
| Remote server via System Log (RFC 3164) | Yes1) Cisco-like2) Support up to 5 servers | RTS |
| SMTP | Yes | RTS |
| DNS | Client | No | RTS |
| Proxy | No | RTS |
| Remote Ping |  | Yes | RTS |
| SNTP |  | Yes1) Support 3 Servers2) User configurable | RTS |
| NTP |  | Yes |  |
| IP Clustering |  | Yes (36 members) | RTS |
| LLDP(802.1ab, Link Layer Discovery Protocol) |  | Yes |  |
| UPnP |  | Yes |  |
| Banner |  | Yes |  |
| WEB authentication |  | Yes |  |
| sFlow |  | YES (Phase 3) |  |
| Dynamic ARP inspection (DAI) |  | YES (Phase 3) |  |
| VLAN mirror |  | YES (Phase 3) |  |
| MAC based mirror |  | YES (Phase 3) |  |
| ATC |  | YES (Phase 3) |  |
| Delay reload |  | YES (Phase 3) |  |
| CLI “show debug” |  | YES (Phase 3) |  |
| CLI “show tech” |  | YES (Phase 3) |  |
| CLI “show interfaces brief” |  | YES (Phase 3) |  |
| Cable Diagnostics /TDR |  | YES (Phase 3.2) |  |
| Port Utilization (kbits/sec, Pkts/sec, % Util in recent 300secs) |  | YES (Phase 3.2) |  |
| **MO/MO-PoE universal opcode** |  | **YES (Phase 4.0)** |  |
| **Support new Marvell 88E6097, as well as existing 88E6095** |  | **YES (Phase 4.0)** |  |
| **G.8032** |  | **YES (phase4.3)** |  |
| **Non-STP Loopback Detection** |  | **YES (Phase4.8)** |  |

**Installation and Configuration Notes:**

In general, the ES3528M/ES3552M[-V1] **Switch** will be shipped to you pre-configured with this version of firmware. If you would like to upgrade an existing ES3528M/ES3552M[-V1] **Switch,** please follow the TFTP download instructions that are included with your firmware image upgrade kit.

To download new firmware form a TFTP server, enter the IP address of the TFTP server, select “opcode” as the file type, then enter the source and destination file names. When the file has finished downloading, set the new file to start up the system, and then restart the switch. To start the new firmware, enter the “reload” command or reboot the system.

**CLI commands:**

Console#*copy tftp file*

TFTP server IP address: *192.168.1.23*

Choose file type:

1. config: 2. opcode: 4. diag: 5. loader: <1,2,4,5>: *2*

Source file name: *opcode.bix*

Destination file name: *opcode.bix*

\Write to flash programming.

Programming flash started.

Success.

Console#*config*

Console(config)#*boot system opcode:opcode.bix*

Console(config)#*exit*

Console#*reload*

**Firmware Changes and Enhancements:**

**The following Known Issues have been fixed in this release of firmware.**

**Runtime V 1.4.8.0; Diag V 1.2.1.1; Loader V1.0.4.0**

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| --- | --- |
| ES3552MO-FLF-38-00486 | How to manage the LLDP via SNMP for ES3528M |
| ES3552MO-FLF-38-00524 | ProtocolVLAN:the members of protocol-vlan didn't receive packet when inject ip frame with vid=0. |
| ES3552MO-FLF-38-00565 | Date&time not saved during reboot |
| ES3552MO-FLF-38-00567 | Web: It doesn't provide "PoE" help page. |
| ES3552MO-FLF-38-00568 | PoE:Maximum power allocation range is not correct on web. |
| ES3552MO-FLF-38-00569 | Web :Edit classes on policy-map page without checking the check box, it will not show any pop-up message like "Remove Policy" |
| ES3552MO-FLF-38-00570 | ES3528M: DHCP Snooping – false bindings are shown on port 1 |
| ES3552MO-FLF-38-00575 | no permit/deny (MAC ACL) - missing [cos cos bitmask] option |
| ES3552MO-FLF-38-00577 | corrections to grammar in "show ip igmp snooping" |
| ES3552MO-FLF-38-00578 | correction to spelling convention in "show mvr" |
| ES3552MO-FLF-38-00580 | correction to grammar in "show mvr interface" |
| ES3552MO-FLF-38-00581 | giga-phy-mode command errors |
| ES3552MO-FLF-38-00582 | corrections to spelling convention in "show lldp config" output |
| ES3552MO-FLF-38-00584 | corrections to grammar in web ui - show lldp info remote device details |
| ES3552MO-FLF-38-00585 | ES3528M latest FW |
| ES3552MO-FLF-38-00586 | DAI crash after 30 minites or 1 hours |
| ES3552MO-FLF-38-00587 | DAI validation parameters on ES3528M priority low |
| ES3552MO-FLF-38-00588 | IGMPSNP:It should be able to create 64 static multicast group. not 16. |
| ES3552MO-FLF-38-00590 | output modifier added for command of" show interface brief" |
| ES3552MO-FLF-38-00592 | SFP in ports 28 on ES3528MO has ifType is wrong in sFlow counter packets. |
| ES3552MO-FLF-38-00593 | ES3528M, ES3526XAv2 - OID for viewing "show mac-address-table count" |
| ES3552MO-FLF-38-00594 | add CLI command to stop sending trap |
| ES3552MO-FLF-38-00595 | ES3528M: Copy startup-config running-config will cause skipping of opcode auto upgrade |
| ES3552MO-FLF-38-00596 | ES3528M-SFP-38 after create vlan 311 and copy startup,it will stop after reboot |
| ES3552MO-FLF-38-00597 | corrections to grammar/formatting in web ui |
| ES3552MO-FLF-38-00598 | BOOTP packet is blocked when DHCP snooping enable |
| ES3552MO-FLF-38-00599 | ES3528M DAI web management |
| ES3552MO-FLF-38-00600 | BOOTP packet is blocked when DHCP snooping enable |
| ES3552MO-FLF-38-00601 | ES3528M network-access RADIUS authorisation bug |
| ES3552MO-FLF-38-00602 | "BPDU tunneling" feature on Phase 4 firmware(v1.4.4.0) did not implemented completely as mentioned in spec. |
| ES3552MO-FLF-38-00603 | SSL and Port security causing web management problems and STP instability |
| ES3552MO-FLF-38-00604 | DNS: After replace the hostname setting, DUT can not show the correct configure. |
| ES3552MO-FLF-38-00605 | dot1qstaticunicaststatus and dot1qstaticunicastallowedtogoto will dispaer |
| ES3552MO-FLF-38-00573 | EAPS port just only 28 ports in port 52 switch. |

**Runtime V 1.4.6.4 ; Diag V1.2.1.1; Loader V1.0.4.0**

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| ***Patch*** |
| ES3528MO-FLF-38-00619 | Port Lock |
| ES3528MO 1-FLF-38-00021 | 224.0.0.x can't be flood on vlan |

**Runtime V 1.4.6.2; Diag V 1.2.1.1; Loader V1.0.4.0**

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| ES3552MO-FLF-17-00060 | Makefile path error |

**Runtime V 1.4.6.1; Diag V1.2.1.1;Loader V1.0.4.0**

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| --- | --- |
| ES3552MO-FLF-38-00735 | ES3528M: NTP has 24h offset |
| ES3552MO-FLF-38-00570 | ES3528M: DHCP Snooping – false bindings are shown on port 1 |
| ES3528MO-FLF-17-00064 | add Mac address info in the Trap message of port security when there is MAC violation |
| ES3528MO-FLF-38-00839 | can't login with default username/passwd |
| ES3528MO-FLF-38-00784 | ES3528M: Copy startup-config running-config will cause skipping of opcode auto upgrade |

**Runtime V 1.4.6.0; Diag V1.2.1.1; Loader V1.0.4.0**

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| ***QA*** |
| ES3552MO-FLF-38-00486 | How to manage the LLDP via SNMP for ES3528M |
| ES3552MO-FLF-38-00519 | L2PT:Can't find L2PT function via mib browser. |
| ES3552MO-FLF-38-00525 | RadiusAcc:The total session should be 4 , not 8 when opening by using telnet and SSH at the same time |
| ES3552MO-FLF-38-00531 | diffserv:The packet forwarding ratio doesn't correspond to the cos. |
| ES3552MO-FLF-38-00538 | ES3528M: help with diagnosis of management freezing |
| ES3552MO-FLF-38-00540 | ES3552M do not Telnet access. Display "memPartAlloc: block too big" message From console. |
| ES3552MO-FLF-38-00542 | 轉寄: Why why ith the status of Option82 is Disable ? |
| ES3552MO-FLF-38-00543 | Trunk:Create a static trunk,commmand "sh run" ,it displays "lacp" word in running config. |
| ES3552MO-FLF-38-00544 | PoE Web pages are gone |
| ES3552MO-FLF-38-00545 | Enable igmp snooping on specify vlan, unknown multicast data is still flood |
| ES3552MO-FLF-38-00546 | "no ip http secure-server" command will cause switch to reboot automatically |
| ES3552MO-FLF-38-00547 | backdoor passwd should be encrypted |
| ES3552MO-FLF-38-00550 | description of vlan display incorrect while create mst instance |
| ES3552MO-FLF-38-00552 | vlantrunk:vlantrunk config on lacp will be lost after DUT reload |
| ES3552MO-FLF-38-00554 | Rate limit configuration will casue the error message "Failed to join egress list on ethernet 1/1" during provision |
| ES3552MO-FLF-38-00556 | ifType of SFP ports 28 on sFlow counter packets is not correct in ES3528MO |
| ES3552MO-FLF-37-00557 | [ES3528M] Unknown unicast storm control |
| ES3552Mo-FLF-38-00558 | PPPoE should not replace the tag if the packets came from a trusted port |
| ES3552MO-FLF-38-00559 | ES3528M - IF-MIB::ifDescr is empty |
| ES3552MO-FLF-38-00560 | Port link status will not be up after run TDR diagnostics test. |
| ES3552MO-FLF-38-00561 | [ES3528MO-PoE] The ifOperStatus of networkAccessPortLinkDetectionTrap is always up. |
| ES3552MO-FLF-38-00562 | miss the command of " show ip igmp snooping groups" on Phase4 image |
| ES3552MO-FLF-38-00563 | ES3528M cableDiag question |
| ES3552MO-FLF-38-00564 | Suspended Vlan 4093 will become active after reload the device |
| ES3552MO-FLF-38-00565 | Date&time not saved during reboot |
| ES3552MO-FLF-38-00566 | certain 'name-server' command doesn't apply on ES3528M priority low |
| ES3528MO 1-FLF-38-00016 | ES3528M reboots on FW 1.4.4.0 priority medium |
| ES3528MO 1-FLF-38-00015 | Suspended Vlan 4093 will become active after reload the deviceES3528MF-PoE-FLF-38- |
| ES3528MF-PoE-FLF-38-00007 | The NTP config didn't supported ntp server "version" and "poll" in 1.3.7.4 and 1.4.4.0 |

**Runtime V1.4.4.0; Diag V1.2.1.1; Loader V1.0.3.0**

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| ***QA*** |
| ES3552MO-FLF-38-00538 | ES3528M: help with diagnosis of management freezing |
| **ES3552MO-FLF-38-00530** | GVRP:DUT didn't learn mac-address and the port didn't register to the vlan dynamically when injecting joinin  |
| ES3552MO-FLF-38-00529 | DHCPDynamicProvision:DUT didn't succeed to download configuration file when The TFTP server use domain-name |
| ES3552MO-FLF-38-00518 | L2PT:It doesn't provide command "show l2protocol-tunnel" to display Layer 2 Protocol Tunneling configuration |
| ES3552MO-FLF-38-00517 | L2PT:Can't find L2PT function on web. |
| ES3552MO-FLF-38-00516 | PortSecurity: ports can be configured so that both LACP and portsec are enabled |
| ES3552MO-FLF-38-00507 | rootguard:the lacp stp state will continue change,discarding-> learning->discarding |
| ES3552MO-FLF-38-00505 | SSL: the generate RSA public key contains too many ZEROs |
| ES3552MO-FLF-38-00503 | ES3528M: Rate-limiting is not working after a reboot of the switch |
| ES3552MO-FLF-38-00502 | 802.1Q trunk with arp inspection does not work. |
| ES3552MO-FLF-38-00501 | MVR doesn't work on trunk port. |
| ES3552MO-FLF-38-00495 | can't delete vlan4093 from port of ES3528M |
| ES3552MO-FLF-38-00491 | “Agent Remote ID" field filled with zeros if management ip address set other than VLAN 1 by using Option82 DHCP snooping. |
| ES3552MO-FLF-38-00490 | Multicast traffic flood on MVR source port even there are no multicast request from multicast clients |
| ES3528MO-FLF-38-00763 | When using SNMP to copy running-config to ftp, some problem occured. |
| ES3528MO-FLF-38-00744 | Device will lose management interface when heavy loading |
| ES3528MO-FLF-38-00768 | ES3528M lldp bug |
| ES3552MO-FLF-38-00479 | ES3552MO SFP port can't link on port 50 and 51. |
| ES3552MO-FLF-38-00476 | DUT show an exception error when copy running-config to startup-config continuously. |
| ES3552MO-FLF-38-00475 | ES3528/52MO[-PoE]\_V1.3.7.3 dynamic QoS problem |
| ES3552MO-FLF-38-00467 | DynamicQoSAssignment:The IPV6-ACL of DQA can't work. |
| ES3552MO-FLF-38-00466 | DynamicQoSAssignment:The MAC-ACL of DQA can't work. |
| ES3552MO-FLF-38-00465 | 802.1x:the port can't be changed port-control mode when port-control mode is in auto. |
| ES3552MO-FLF-38-00464 | IPConfiguration:The original existed ip will be lost when configured special ip parameters in WEB/CLI. |
| ES3552MO-FLF-38-00445 | SNTP:The value of sysTimeZone is empty when It is timezone-predefined mode in MIB |
| ES3552MO-FLF-38-00440 | LoginBanner:Use wizard mode to set parameters, user can't change characters before click enter button. |
| ES3552MO-FLF-38-00409 | The system time can not be updated after contact with NTP Server. |
| ES3528MO-FLF-38-00773 | [Enhancement] BPDU tunneling |
| ES3528MO-FLF-38-00771 | ES3528M - strange record appears, when I have untagged vlan on pregoing interface |
| ES3528MO-FLF-38-00769 | [ES3528M\_1.3.7.10] Enable/Disable DAI by Web occur error message |
| ES3528MO-FLF-38-00766 | [Enhancement] New feature: MAC notification trap |
| ES3528MO-FLF-38-00765 | Rate limit configuration will casue the error message "Failed to join egress list on ethernet 1/1" during provision |
| ES3528MO-FLF-38-00762 | Multicast traffic flood on MVR source port even there are no multicast request from multicast clients |
| ES3528MO-FLF-38-00759 | “Agent Remote ID" field filled with zeros if management ip address set other than VLAN 1 by using Option82 |
| ES3528MO-FLF-38-00758 | [ES3528MO] The ifOperStatus of networkAccessPortLinkDetectionTrap is always up. |
| ES3528MO-FLF-38-00701 | [ES3528MO\_V1.3.7.4] No service policy problem |
| ES3528MO-FLF-38-00704 | [ES3528MO\_V1.3.7.4] Debug port-security message... |
| ES3528MO-FLF-38-00720 | [ES3528MO\_V1.3.7.4] Debug telnet does not work |
| ES3528MO-FLF-38-00721 | [ES3528MO\_V1.3.7.4] DHCP snnoping trap problem |
| ES3528MO-FLF-38-00722 | [ES3528MO\_V1.3.7.4] ATC traps prooblem |
| ES3528MO-FLF-38-00733 | MR2228N no ip igmp snooping problem |
| ES3528MO-FLF-38-00675 | Loading time of Web Authentication page needs more than 5 minutes |
| ES3528MO-FLF-38-00726 | There is no way to enable port which was disabled by ATC |
| ES3528MO-FLF-38-00730 | MIB: While trying to find OIDs for 802.1x security management, Couldn't find following configurations OIDs |
| ES3528MO-FLF-38-00729 | MIB: Protocol vlan mib not working |
| ES3528MO-FLF-38-00728 | MIB: Issue while setting the port capabilities. |
| ES3528MO-FLF-38-00727 | MIB: Strom Control(broadcast, multicast, Unknown Unicast) is inconsistent, while setting and reading the |
| ES3528MO-FLF-38-00714 | Value of storm control packets rate is inconsistent while reading the values via SNMP |
| ES3528MO-FLF-17-00062 | switch manager error |
| ES3528MO-FLF-17-00060 | auto negotiation |
| ES3528MO-FLF-38-00758 | [ES3528MO] The ifOperStatus of networkAccessPortLinkDetectionTrap is always up. |

**Runtime V1.4.2.1; Diag V1.2.1.1; Loader V1.0.3.0**

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| ***QA*** |
| ES3528MO 1-FLF-17-00122 | TimeACL: Can't bind any ACLs to a port with time range. |
| ES3528MO 1-FLF-17-00118 | DHCPL2Relay: CLI and WebGUI succeeds to configure DHCP relay server in "subnet broadcast IP address" (a.b.c.255/24) or "subnet IP address" (a.b.c.0/24). |
| ES3528MO 1-FLF-17-00115 | EAPS: MAC address learning does not work if any control packets are not received. |
| ES3528MO 1-FLF-17-00113 | EAPS: Global state is disabled on the CLI. |
| ES3528MO 1-FLF-17-00111ES3528MO 1-FLF-17-00108 | As unknown VLAN tagged traffic rate incomes higher, console response becomes slower and finally stops responding |
| ES3528MO 1-FLF-17-00107 | Once 4K VLANs are created, MAC address learning stops. |
| ES3528MO 1-FLF-17-00103 | Dot1X: The operation-mode in ‘multi-host’ works same as ‘single-host’ mode. |
| ES3528MO 1-FLF-17-00102 | CLI “sh dot1x interface” does not provide max-count on a port in 1X multi-host mode. |
| ES3528MO 1-FLF-17-00067 | BannerConfig: the backspace keystroke does not work on the "banner configure" command. |
| ***RD*** |
| ES3552MO-FLF-38-00474 | STP loopback detection records logging messages and sends traps that are disabled at default. |

***Runtime V1.4.2.0; Diag V1.2.1.1; Loader V1.0.3.0***

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| ***QA*** |
| ES3528MO 1-FLF-17-00099ES3552MO-FLF-38-00444 | 802.1x: It should allow X+1 mac entries to pass when the maximum count is configured X. |
| ES3528MO 1-FLF-17-00098ES3552MO-FLF-38-00465 | 802.1X port-control mode can’t be set to ‘force-authorized’ or ‘force-unauthorized’ when the CLI command is typed in upper-case letters. |
| ES3528MO 1-FLF-17-00094ES3552MO-FLF-38-00429 | NTP: The packets always carry version 3 even the NTP server version is set to 1. (Removed the “ntp server *<ip\_addr>* version *{1 | 2 | 3}*” command) |
| ***RD*** |
| ES3528MO 1-FLF-17-00089 | FR: EAPOL forwarding/transparent(New CLI command: “Console(config)#[no] dot1x eapol-pass-through”. Default: Disabled) |
| ES3528MO 1-FLF-17-00088 | (Enhance) VLAN trunking on FE ports (Ever GE ports only) |
| ES3528MO 1-FLF-17-00087 | (Enhance) Support up to 4K (4092) VLANs |
| ES3528MO 1-FLF-17-00086 | FR: EAPS |
| ES3528MO 1-FLF-17-00081 | FR: Time-based ACL |
| ES3528MO 1-FLF-17-00080 | FR: PPPoE Intermediate Agent |
| ES3528MO 1-FLF-17-00076 | (Enhance) Individual traffic controls for Rate-limiting, Broadcast, Multicast, and UnknownUnicast storms. |
| ES3552MO-FLF-38-00400 | FR: DHCP Relay Option 82 |

**Runtime V1.4.1.1; Diag V1.2.1.1; Loader V1.0.3.0**

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| ***QA*** |
| ES3528MO 1-FLF-17-00072 | Cluster: Console display an error message in “"aborted http\_relay\_action …” when WebGUI attempts to connect to a non-existing member |
| ES3528MO 1-FLF-17-00069 | Candidates (Members to be) should not get on the Member droplist on the right-top of browser window. (There should be active members only.) |
| ***RD*** |
| ES3528MO 1-FLF-17-00091 | (Enhance) Need new identifiers for the 28/52MO 1 devices, and unify system description and model name - "Edge-Core FE L2 Switch ES3528M-V1". |
| *ES3528MO 1-FLF-17-00076* | *(Enhance) Individual traffic controls for Rate-limiting, Broadcast, Multicast, and UnknownUnicast storms. (Not work in v1.4.1.1)* |
| ES3528MO-FLF-38-00650 | [DevDrv,PHY] ComboG ports might not be able to link up by chance. |

**Runtime V1.4.1.0 (Re-conversion of V1.4.0.6 for ECN), Diag V1.2.1.0; Loader V1.0.3.0**

**Runtime V1.4.0.6; Diag V1.2.1.0; Loader V1.0.3.0**

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| ES3528MO 1-FLF-17-00082 | DHCP dynamic provision does not work when on DHCP server user configures 'String' format for the IP address of TFTP server (option 66). |
| ES3528MO 1-FLF-17-00078 | The measured rates on TCP traffic become totally inaccurate while input rate-limiting values are larger than 6144 kbps. |
| ES3552MO-PoE-FLF-17-00020 | ‘calendar set' incorrectly works when it attempts to set Feb 29th of a year. (V1.4.0.5 only) |
| ES3528MO-FLF-17-00055 | (DCR) ‘sfp-preferred-auto’: Auto switching 1000T/SFP port type of a comboG port by link status, fiber then copper. (Current design: fixed SFP once module inserted) |

***Runtime V1.4.0.5; Diag V1.2.1.0; Loader V1.0.3.0***

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| ES3552MO-FLF-38-00413 | Setting system time, ex. " Console#calender set" and " Console(config)#clock summer-time", allows invalid Feb 29th in a non-leap year. |

***Runtime V1.4.0.4; Diag V1.2.1.0; Loader V1.0.3.0***

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| ES3528MO 1-FLF-17-00074 | Traffic controls for Rate-limit, Broadcast, Multicast, and UnknownUnicast storms do not work while the limiting value is \*small\*, ex. 64 kbps. |
| ES3528MO 1-FLF-17-00073 | IP Cluster: It fails to block a 2nd trial attempt to set the commander’s cluster IP pool on the same subnet as its management IP, and following ‘rcommand’ will fail. |
| ES3552MO-PoE-FLF-17-00014 | WebGUI: The ‘Telnet’ hyperlink on home page can’t connect to a telnet session after the telnet port number is moved out of the default value: 23. |
| ES3552MO-PoE-FLF-17-00006 | FlowCtrl: Sending multiple-port pair traffic with FC enabled ports will cause several severe problems. |
| ES3528MO-FLF-38-00629 | 802.1x supplicant’s MAC address will not be removed even though it fails re-authentication, ex. client disconnected or station move. |

**Runtime V1.4.0.3; Diag V1.2.1.0; Loader V1.0.3.0**

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| ES3528MO 1-FLF-17-00040, -00042 | PortSecurity: After the security action is invoked, the continual incoming traffic with instruction MAC addresses will cause system lockup, say console no response. |
| ES3528MO 1-FLF-17-00038 | L2SWPERF:Some ports(2,10,18) will happen packet loss (100%) – Marvell Opal+ port lockup |
| ES3552MO-PoE-FLF-17-00006 | FlowCtrl: Sending multiple-port pair traffic with FC enabled ports will cause several severe problems |

***(Cancelled) Runtime V1.4.0.1***

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| ES3528MO 1-FLF-17-00032 | DHCP: The extra “ip dhcp client-identifier" (option 61 Client ID) makes it confusing with "ip dhcp client class-id” (option 60 Vendor Class ID). |
| ES3528MO 1-FLF-17-00024 | 802.1X: It fails to set port control mode. |
| ES3528MO 1-FLF-17-00013 | After “no ip address” is issued to remove the management IP address, the last port member on that VLAN fails to leave. |

**Runtime V1.4.0.0**

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| ES3528MO 1-FLF-17-00002 | (Enhance) "show version" displays the information of "Chip Device ID" with ‘88E6097’ or ‘88E6095’. |
| ES3528MO 1-FLF-17-00001 | (Enhance) Support new Marvell 88E6097 (Opal+), as well as existing 88E6095 (Opal), chips |
| ES3552MO-FLF-38-00391 | (Enhance) MO/MO-PoE universal opcode |

**Runtime V1.3.2.2**

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| ***Customer*** |
| ES3552MO-FLF-38-00396 | (Enhance) DHCPSNP: log/trap for the mac address of a rouge server, together with the receive port. *(only logs in this version)* |
| ES3552MO-FLF-38-00394 | Cracked syslog message for "topology change, ID=……". |
| ES3552MO-FLF-38-00392 | (Enhance) To save the startup configuration file for that being downloaded by dynamic provision (via DHCP option 66,67). |
| ES3552MO-FLF-38-00372 | (Enahce) Enlarge DHCPSNP binding entries per port up to 16 |
| ES3528MO-FLF-38-00613 | (Enhance) Support up to 8 telnet sessions |
| ES3528MO-FLF-38-00612 | 802.1ad QinQ: The switch fails to transmit ARP or IP packets to dot1q-tunnel uplink ports (“switchport dot1q-tunnel mode uplink”). |
| ES3528MO-FLF-38-00610 | PVlan: After configuring uplink and/or downlink ports, running-config gives the last port# incremented by 1 unexpectedly. |
| ***NTC*** |
| ES3552MO-FLF-38-00384 | Can't learn MAC address up to the 8K L2 table size after reloading the switch system. (256 L2 entries are occupied by BPDU\_MAC(01-80-c2-00-00-00) + VLAN\_ID[0..255].). |
| ES3552MO-FLF-38-00383 | Disabling MAC aging has no effect. |
| ES3552MO-FLF-38-00378 | WebGUI pops up an error message in "Data Invalid" when an attempt to change the spanning tree mode from STP/RSTP to MSTP. |
| ES3552MO-FLF-38-00377 | IP cluster members, of which IDs are equal to or larger than 10, are not accessible via WebGUI. |
| ES3552MO-FLF-38-00376 | NTP: When a NTP is added following the client is enabled, it needs to wait 600 seconds for polling request being sent out. |
| ***RD*** |
| ES3552MO-FLF-38-00397 | (Enhance) Update web help to fit new features in ver1.3 (phaseIII). |
| ES3552MO-FLF-38-00393 | "show interfaces brief", Status :- {Up | Down | Disabled}, instead of {Linkup | Linkdown | Disabled}. |
| ES3552MO-FLF-38-00390 | With any SFP modules inserted, console displays "0x3df98a8 (tExcTask): 316 messages from interrupt level lost" while booting till "Enter Master mode". |
| ***Known Issue*** |
| ES3552MO-FLF-38-00395 | DNS: Domain name is not supported on ping out. |

**(ES3528M) Runtime V1.3.2.1**

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| ES3528MO-FLF-38-00607 | [CQ855] SW Reset Chip |
| ES3528MO-FLF-38-00608 | RSTP ‘message\_age’ incorrect incremental by 2, instead of 1 according to 802.1D-2004. |
| ES3552MO-FLF-38-00372 | (Enahce) Enlarge DHCPSNP binding entries per port up to 16. |

**(ES3528M) Runtime V1.3.2.0**

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| ES3552MO-FLF-38-00365 | New Feature: DNS client |
| ES3552MO-FLF-38-00363 | New Feature: Logging messages and traps for user authentication, Login Success or Failure, via Console or Telnet |
| ES3552MO-FLF-38-00360 | New Feature: "show interfaces brief", to display the summary of all ethernet/trunk interfaces. |
| ES3552MO-FLF-38-00359 | New Feature: “clear ip igmp snooping groups dynamic”, to delete dynamic IGMP/MVR multicast groups. |

**Runtime V1.3.0.2**

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| ES3528MO-FLF-17-00041 | Customization based on ES3528MO-38 V1.3.0.2 of PhaseIII |

**modifications:**

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**Known Bugs and Issues:**

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Any other problems than those listed above should be reported to our Technical Support Staff.

**Known RESTRICITIONS AND Limitations:**

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**IEEE Standards Support:**

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| **Standard** | **Title** |
| IEEE 802.1D | Transparent Bridging Specifications (ISO/IEC 10038) |
| IEEE 802.1p | Traffic Class Expediting and Dynamic Multicast Filtering |
| IEEE 802.1Q | Virtual Bridged Local Area Networks |
| IEEE 802.1w | Rapid Spanning Tree |
| IEEE 802.2 | Local Area Networks, Logical Link Control (LLC) |
| IEEE 802.3 | CSMA/CD 9 (ISO/IEC 8802-3) |
| IEEE 802.3I | 10Base-T (ISO/IEC 8802-3, clause 14) |
| IEEE 802.3u | 100Base-TX (ISO/IEC 8802-3, clause 25) |
| IEEE 802.3x | Flow Control |
| IEEE 802.3z | 1000Base-SX, 1000Base-LX |
| IEEE 802.3ab | 1000Base-TX |
| IEEE 802.3ac | VLAN Tag |
| IEEE 802.3ad | Link Aggregation |
| IEEE 802.1X | Port-based Network Access Control |

**IETF Standards MIB Support:**

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| **RFC No.** | Title | **Groups Supported** |
| 1907 | SNMPv2-MIB (MIB II) | - system group ( 1-9)- snmp group (1-6, 8-22, 24-32) |
| 2011 | IP-MIB (MIB-II) | - ip group (1-20, 22-23)- icmp group (1-26) |
| 2012 | TCP-MIB (MIB-II) | - tcp group (1-15) (tcpConnTable only support read.) |
| 2013 | UDP-MIB (MIB-II) | - udp group (1-5) |
| IEEE802.1X MIB | IEEE8021-PAE-MIB | - dot1xPaeSystem (1-2)- dot1xPaeAuthenticator (1-3) (not support per-port timer setting) |
| 1493 | Bridge MIB | - dot1dBase group (1-4)- dot1dStp group (1-15)- dot1dTp group (1-4)- dot1dStatic group (1) |
| 2863 | Interfaces Evolution MIB (IF-MIB) | - interface group (1-2) (ifadminStatus not support set to 3(testing))- ifXTable group (1)- ifStackTable group (1) (support read-only) |
| 2819 | RMON MIB | - statistics group (1)- history group (1-2)- alarm group (1)- event group (1-2) |
| 2618 | RADIUS MIB | - radiusAuthClientMIB (1) |
| 2665 | Etherlike MIB | - dot3StatsTable group (1-19) |
| 2737 | Entity MIB | - entityPhysical group (1-16) (support read-only) |
| 2674 | P-bridge | - dot1dExtBase group (1-4)- dot1dPriority group (1,3)- dot1dGarp group (1) |
| 2674 | Q-bridge | - dot1qBase group (1-5)- dot1qTp group (1-2)- dot1qStatic group(1)- dot1qVlan (1-5) (9-10) |

**ES3526XA Private Enterprise MIB Support:**

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| **Title** | Version |
| es3552m\_52m-poe.mib | 200907170000Z |

**SNMP Trap Support:**

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| **RFC No.** | **Title** |
| RFC 1215 | ColdStart (v1)warmStart (v1)linkDown (v1)linkUp (v1)authenticationFailure (v1) |
| Rfc 1907 | coldStart (v2c)warmStart (v2c)authenticationFailure (v2c) |
| Rfc 2863 | linkDown (v2c)linkUp (v2c) |
| RFC 1493 | newRoot (v1)topologyChange (v1) |
| Rfc 1757 | risingAlarm (v1)fallingAlarm (v1) |
| RFC 2819 | risingAlarm (v2c)fallingAlarm (v2c) |

**Customer Support:**

By Phone:

By Email:

By Web:

By Fax: