Gigabit Ethernet Switch ECS5520-18X/ECS5520-18T

***Phase 1 Firmware Version 1.2.11.213***

**INTRODUCTION:**

The **ECS5520-18X** is a 16\*10G SFP+ ports plus 2\*40G QSFP+ uplink ports L2+ 10GbE Switch.

The **ECS5520-18T** is a 16\*10G BaseT ports plus 2\*40G QSFP+ uplink ports L2+ 10GbE Switch.

The **ECS5520-18TT** is a 16\*10G BaseT ports plus 2\*40G QSFP+ uplink ports L2+ 10GbE Switch, and Support TPM2.0.

Local Console Management (LCM) allows the user to monitor and configure the ECS5520 Series 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 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:**

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| --- | --- | --- | --- |
| **Status** | **Version No.** | **Type** | **Release Date** |
| RD Testig Version | 2.0.0.0 | EIT Test Version Gitlab:ECS5520\_Phase2 Branch (2019/12/10) | 2019/12/10 |
| Phase2 EIT Testing Version | 1.2.0.201 | EIT Test Version Gitlab:ECS5520\_Phase2 Branch (2019/12/24) | 2019/12/24 |
| Testing | 1.2.1.201 | EIT Test Version Gitlab:ECS5520\_Phase2 Branch (2020/1/17) | 2020/1/17 |
| Testing | 1.2.2.201 | EIT Test Version Gitlab:ECS5520\_Phase2 Branch (2020/1/19) | 2020/1/19 |
| Testing | 1.2.3.202 | EIT Test Version Gitlab:ECS5520\_Phase2 Branch (2020/4/7) | 2020/4/7 |
| Testing | 1.2.4.202 | NTC Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/4/17) | 2020/4/17 |
| Testing | 1.2.5.202 | EIT Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/5/26) | 2020/5/26 |
| Testing | 1.2.6.202 | EIT Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/6/3) | 2020/6/3 |
| Testing | 1.2.7.202 | EIT Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/6/29) | 2020/6/29 |
| Testing | 1.2.8.203 | EIT/NTC Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/7/15) | 2020/7/15 |
| Testing | 1.2.9.204(ECN) | EIT/NTC Test Version  Gitlab:ECS5520\_Phase2 Branch (2020/12/08) | 2020/12/08 |
| Testing | 1.2.10.212(patch) | EIT/NTC Test Version  Gitlab:ECS5520\_Phase2 Branch (2021/5/13) | 2021/5/13 |
| Testing | 1.2.11.213(patch) | EIT/NTC Test Version  Gitlab:ECS5520\_Phase2 Branch (2021/7/22) | 2021/7/22 |

**LOADER:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Status** | **Version No.** | **Type** | **Release Date** |
| Test Version | 0.0.0.4 | Gitlab:ECS5520\_Phase2 Branch (2019/6/14) | 2019/6/14 |
| Test Version | 0.0.1.0 | Gitlab:ECS5520\_Phase2 Branch (2020/1/17) | 2020/1/17 |
| Test Version | 0.0.1.1 | Gitlab:ECS5520\_Phase2 Branch (2020/1/19) | 2020/1/19 |

**HARDware compatibility:**

ALL

**BootPROM compatibility:**

ALL

**Network Management Software Support:**

|  |  |  |
| --- | --- | --- |
| **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:**

Please see the ECS5520\_FeatureSpec\_20200117.XLSX

**Installation and Configuration Notes:**

In general, the ECS5520 Series **Switch** will be shipped to you pre-configured with this version of firmware. If you would like to upgrade an existing ECS5520 Series **Switch,** please follow the TFTP download instructions that are included with your firmware image upgrade kit.

**Firmware Changes and Enhancements:**

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

**Loader V0.0.0.4**

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| --- | --- | --- |
| 1 | N/A | Init |

**Loader V0.0.1.0**

|  |  |  |
| --- | --- | --- |
| 1 | NA | Add TPM driver and measurement function to uboot project;  spi flash adaptations |
| 2 | NA | modify version V0.0.1.0 |

**Loader V0.0.1.1**

|  |  |  |
| --- | --- | --- |
| 1 | NA | Boot config args error, cause to runtmime file system abnormal |
| 2 | NA | modify version V0.0.1.1 |
| 3 | NA | uboot not check boot and bootconfig for tpm |

**Runtime V1.2.0.201, Loader V0.0.0.4**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520-18X-00448 | d3c97e53 | LACP-0150: The load-balance of src-dst-mac is wrong |
| ~~2~~ | ~~ECS5520-18X-00248~~ | ~~c8e069e4, d0148758~~ | ~~Porting ECS5520-18X-00248 FTP:WebUI doesn't support copy public-key to the DUT via FTP~~ |
| 3 | ECS5520-18X-00453 | 7df1e352 | DHCP Snooping: The trust mode display is incorrect setting as… |
| 4 | ECS5520-18X-00145 | 0de8b022 | ND-Snooping:ND Snooping doesn't implement on web and mib.(mib, no web) |
| 5 | ECS5520-18X-00455 | 369e2b20 | ECS5520-18X-00455 ERPS: Aftre show erps vlan-group; DUT halted and reboot itself.(5520 Phase2) |
| 6 | ECS5520-18X-00165 | 16b15cb0 | Mirror-ACL-Based:ACL mirror doesn't implement on WebUI and MIB.(mib, no web) |

**Runtime V1.2.1.201, Loader V0.0.1.0**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-3(Jira) | e2475d88 | IPv6-StaticRoute-0010: only a few packets can be received when set ipv6 static route(ECS5520-18X-00459) |
| 2 | ECS5520EC-4(Jira) | ECS5520EC-3(Jira) | IPv4-StaticRoute-0040: only a few packets can be received when set ipv6 static route(ECS5520-18X-00460) |
| 3 | ECS5520EC-9(Jira) | c571a8d4 | WEB-Auth: When Web authentciate, DUT redirect the URL to the login Web page of DUT.( ECS5520-18X-00462) |
| 4 | ECS5520EC-5(Jira) | ECS5520EC-3(Jira) | ECMP: DUT can NOT forward the packets well(ECS5520-18X-00463) |
| 5 | ECS5520EC-7(Jira) | ad6327f9 | L2SW:flow control can not work(ECS5520-18X-00465) |
| 6 | NA | 53924563 | FTP:WebUI doesn't support copy public-key to the DUT via FTP(ECS5520-18X-00248) |
| 7 | ECS5520EC-8(Jira) | 137bba0a | Web: After change 40G port to 4\*10G, it can't display link status on the top of web page(ECS5520-18X-00186) |
| 8 | ~~ECS5520EC-10(Jira)~~ | ~~ECS5520EC-8(Jira)~~ | ~~Hardware Profile: Led is wrong after set hardware profile portmode 1x40g on port 3 and 16(ECS5520-18X-00382)~~ |
| 9 | ECS5520EC-6(Jira) | 360b28d2 | Support DHCP op82 remote-id "port description" only (without any remote-id prefix)\_v2(ECS5520-18X-00451) |
| 10 | NA | 9d2af4f7 | [NTP server] When the switch reboot and check configuration provision will occur "Fail to set NTP server xxxxx"(ECS5520-18X-00454) |
| 11 | NA | 9976e089 | Add board id is 2 and add new module name ECS5520-18TT(TPM board) |
| 12 | NA | 50b1715b | configure port TX\RX\PPM\phy register value |
| 13 | NA | 0ab9c938 | support cable diag |
| 14 | NA | ad6327f9, fdfbce9d, d5520efc | support led,CapabIlity and nego,speedduplex force to speed 100/10 Mbps |
| 15 | NA | c09a2287 | cpld version information can not read |
| 16 | NA | d5520efc | capabilityrunningconfig display unusal; web style unusal |
| 17 | NA | 2ced8ae, 2ced8ae | update uboot commit id to 9388150(update version 0.0.1.0) |

**Runtime V1.2.2.201, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | NA | 9b5e7994 | update u-boot subproject to 5c7afb6f230218dc0f8a8c0b9089ab78dd274caf(update V0.0.1.1) |
| 2 | NA | 5b72db12 | tpm no work and board id is 2 cause to port init error |

**Runtime V1.2.3.202, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-14 | 59a19121 | Loopback Detection: The port is still down after disable the function |
| 2 | ECS5520EC-20 | 8c80fe9f | IGMP-Filter-0020: no ip range in ip igmp filter.Medium |
| 3 | ECS5520EC-29 | 5f8b5708 | rest api:storm control module not fit 5520 |
| 4 | ECS5520EC-11 | 1f99b898 | [SNTP server] When config "sntp server <hostname>" then reboot the switch will cause hanging up |
| 5 | ECS5520EC-27 | a0a865c4 | rest api: queue specify mac error |
| 6 | ECS5520EC-18 | 41900932 | add cos restapi |
| 7 | ECS5520EC-28 | d6ee9b45 | Rest API: NTP and DHCP Snooping module return error |
| 8 | ECS5520EC-31 | db33eb61 | tmp\_tpm\_kernel add the kernel function of tpm safe chip |
| 9 | ECS5520-18X-00282 | 8d5d657f | 1QVLAN: Failed to ping to DUT as change VLAN status to active from suspend. |
| 10 | ECS5520EC-13 | 037f46fb, ac21084c | DEBUG:ECS5520 phase2 support TPM2.0, need uboot and runtime support TPM2.0 driver and application CLI command |
| 11 | ECS5520EC-34 | fb45326c | when execute reset api mlag ,switch will halt and print error info. |
| 12 | ECS5520EC-17 | e1396ed4 | SDVoE auto configure IGMP snooping and jumbo frame enable. |
| 13 | ECS5520-18X-00461 | 8e5f5681 | ATC-0230: port can not be shutdown when multicast stream speed is above default alarm fire threshold for 301 second |
| 14 | ECS5520EC-30 | 911fb552 | rest api: traffic-segmentation can delete member by sessions id |
| 15 | ECS5520EC-19 | 373ec0e0 | DEBUG:The fan speed does not meet the expected speed and needs to be adjusted |
| 16 | ECS5520EC-36 | ac21084c | port speed monitor cause ping delay |
| 17 | ECS5520EC-38 | 34a51019 | QSFP transceiver breakout can not show infomation |
| 18 | ECS5520EC-39 | 34a51019 | the voltage of port 0-15 needs gain in 10M mode,and the value of register is configured |
| 19 | ECS5520EC-40 | 729b3e5c | rest api: mars can not correct run APIs, need porting from 4510 to 5520 |
| 30 | ~~ECS5520EC-16~~ | ~~2822690c~~ | ~~adaptation: power save function need adapter~~ |
| 31 | ECS5520-18X-00318 | 02e61aa3 | SNMP:The remote engine-id can't be set as ipv6 address. |
| 32 | NA | 2516130e | marvel sdk adaptation update subproject |
| 33 | ECS5520EC-42 | a53c3053 | interface: The port 7 can not normal up after reload |
| 34 | ECS5520EC-43 | 65a042a9 | Temperature: When board id is 2, read temperature error. |

**Runtime V1.2.4.202, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-23 | ab9d6f0c | MLAG: There is no MLAG web page.(ECS5520-18X-00266).&& ECS5520EC-22:RSTP: The Web doesn't support Restricted TCN setting..ECS5520-18X-00215) |
| 2 | ECS5520EC-55 | 8c8367e1 | Web ui: web ui show lbd cause crash, system auto reboot. |
| 3 | ECS5520EC-46 | 5b455690 | L2SW-0180 0190 0200 0680: fail to set port speed-duplex 10f |
| 4 | ECS5520EC-49 | 1f99b898 | IPv6-AddrConfig: Can not configure static neighbor on WebUI. |
| 5 | ECS5520EC-58 | 1bead27c | Capabilites: running configuration miss "no capabiliities 10gfull" |

**Runtime V1.2.5.202, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-50 | 3470b6ea | IPv6-AddrConfig: managed-config-flag and other-config-flag can not be set and show on WebUI. |
| 2 | ECS5520EC-51 | 3470b6ea | IPv6-AddrConfig: ipv6 nd ra suppress can not be set on WebUI. |
| 3 | ECS5520EC-54 | 3470b6ea | IPv6-AddrConfig: Cannot set autoconfig/dhcp via WebUI ~~and~~ SNMP.(Only Webui) |
| 4 | ECS5520EC-85 | 500245ca, 360ac08c | Please remove dying-gasp from help page. |
| 5 | ECS5520EC-82 | 47b69423 | ConfigfileMgmt:Non-existed config could be set to startup. |
| 6 | ECS5520EC-63 | 38c2dee6, b2d2f236 | breakout:Set ports 1-16 to 1\*40G will cause breakout failure and get many failed |
| 7 | ECS5520EC-83 | 7fc767bb | EEE: There is no "show power-save interface ethernet 1/X" to display current status. |
| 8 | ECS5520EC-64 | ca8d42cc | breakout: Port mapping is wrong when breakout port 17 or 18 and packet loss |
| 9 | ECS5520EC-52 | 4c50633c, e1a90a1a | IPv6-AddrConfig: ipv6 nd prefix can not be set on WebUI. |
| 10 | ECS5520EC-69 | 8f739927 | DUT sends IPv6 multicast router solicitation packets when create VLAN |
| 11 | ECS5520EC-89 | 7239922c | DEBUG:Delete device startup not need log |
| 12 | ECS5520EC-67 | c605bae9 | REST API: The REST API will freeze exceed 5 mins when get the routes API. |
| 13 | ECS5520EC-68 | c605bae9, 9aa2e8b3 | REST API: The REST API will response "500 Internal Server Error" when get the NTP API. |
| 14 | ECS5520EC-77 | 56ff0724 | Dynamic Provision: After we enable auto-upgrade and reload this DUT; it cannot get image. |
| 15 | NA | 511fe14c | change SDK subproject to aea4a4b2 for delete deivce no use log |
| 16 | ECS5520EC-61 | ECS5520EC-69 | System: After inject ARP and multicast data, user traffic cannot be forwarded normally. |
| 17 | ECS5520EC-62 | ECS5520EC-69 | System: After we change DHCP-SNP interface setting, DUT reboot itself. |
| 18 | ECS5520EC-65 | ECS5520EC-69 | System: Remove and add DHCP-SNP interface, DUT cannot re-learn HDCP-SNP entry |
| 19 | ECS5520EC-80 | ECS5520EC-69 | System: The multicast traffic recover takes a long time after warm start DUT |
| 20 | ECS5520EC-81 | ECS5520EC-69 | System: After we save running configuration and reload this DUT, all traffic cannot be forwarded normally. |

**Runtime V1.2.6.202, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-59 | f8f673da | cablediag: cablediag cannot be tested or updated |
| 2 | ECS5520EC-71 | 05b00ef3 | [ND Snooping] WebUI doesn't support ND Snooping function |
| 3 | ECS5520EC-94 | f0733dc9 | [DHCP Relay] The ECS5520 series will not add the VLAN tag to the DHCP relay packet |

**Runtime V1.2.7.202, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-10 | 33acfa9d | Hardware Profile: Led is wrong after set hardware profile portmode 1x40g on port 3 and 16(ECS5520-18X-00382) |
| 2 | ECS5520EC-76 | ffd3f3df | DHCP Snooping: DUT doesn't print debug database message as learn new binding entry. |
| 3 | ECS5520EC-95 | 3d6c0010 | Web help page doesn't support ND Snooping. |
| 4 | ECS5520EC-96 | 8a64fab3 | CableDiagnostics: Test Result is wrong if the port is disabled |
| 5 | ECS5520EC-97 | 8a64fab3 | CLI: Please follow CLI spec to reply warning message when user tried to set port 1 to 1x40g |
| 6 | ECS5520EC-98 | d32b7cba | CLI: Suggest to describe "Not supported" instead of "Not support" when show power-savepower-save |
| 7 | ECS5520EC-99 | 8a64fab3 | CableDiagnostics: Disable/enable port could not be refreshed status(1G) |
| 8 | ECS5520EC-101 | 05767505 | ECS5520 update license for last version for phase2 |
| 9 | ECS5520EC-102 | a1be908a | CLI print error message after overnight testing |
| 10 | ECS5520EC-103 | 3d6c0010 | Web: There is no help page for "Cable Test" |
| 11 | ECS5520EC-104 | 01e71a53 | Cable-diagnostics: Please integrate CLI/WebUI about "Type" |
| 12 | ECS5520EC-106 | 3aa7a64d | EEE: Power-save cannot be enabled/disabled from WebUI |

**Runtime V1.2.8.203, Loader V0.0.1.1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-105 | ca3ee531 | cable diagnostics: "Last Updated" is inconsistent when got from CLI/Web/MIB |
| 2 | ECS5520EC-110 | 5449af0f | Mib file does not have cable diag mib nodes |
| 3 | ECS5520EC-84 | a4c2b2e2 | Web: New file could not be updated after HTTP-upload |
| 4 | ECS5520EC-79 | cbf91791 | System: After enable IGMP snooping proxy-reporting, packet loss happened |
| 5 | ECS5520EC-116 | 802351dd | mib file: change the DHCP option82 port description on mib file |
| 6 | ECS5520EC-60 | cbf91791 | System: Inject broadcast ARP packets, DUT cannot forward all DHCP packets to Server. |

**Runtime V1.2.9.204, Loader V0.0.1.1(Formal release for ECN)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-107 | 4322bd9a | EEE:Power-save does not work; |
| 2 | ECS5520EC-41 | 7d681718 | add SDVoE status button to show status out |
| 3 | ECS5520EC-120 | fc276e72 | Power saving add mib file and mib node |

**Runtime V1.2.10.212, Loader V0.0.1.1(Patch)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-122 | 515eaf68 | WebUI: Console/Management port is partial overlapped |
| 2 | ECS5520EC-125(TS) | a00e254b | ECS5520 should support 24 selective QinQ Vlan per port |
| 3 | ECS5520EC-136 | d1ea61a1 | DHCPv6 Relay: After we change destination address to "multicast all" from vlan 1.DUT show exception and rebooting itself. |
| 4 | ECS5520EC-131(TS) | d1ea61a1 | Disable openssl ssl2/ssl3 function for ECS5520 |
| 5 | ECS5520EC-127(TS) | c62eea62 | Maintenance end point(MEP) displays error with command "Console#show erps instance" in ECS5520-18x&ECS5520-18T |
| 6 | ECS5520EC-134(TS) | f556dd09 | Unable to save Sflow configuration |
| 7 | ECS5520EC-137 | 3420279d | porting ECS4130EC-92&ECS4130EC-119 to 5520 |
| 8 | ECS5520EC-25(TS) | 6fef4a00 | Ping fail through MLAG system. |

**Runtime V1.2.11.213, Loader V0.0.1.1(Patch)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ECS5520EC-133 | 0015c020 | [Enhancement]ECS5520 as distribution switch, support vlan range for Selective QinQ |
| 2 | ECS5520EC-143 | 5e5b63ef | When switch lost connect with tacacs+ server can setting config without tacas+ server authorizztion |
| 3 | ECS5520EC-144 | f6b5d240 | Huawei and EC switches can not telnet to each other |
| 4 | ECS5520EC-145 | 58293a73 | Enable QinQ cvid 1-3000 some vlan will not have double-tagged |
| 5 | ECS5520EC-146 | 53d84522 | sflow cancel Timeout |
| 6 | ECS5520EC-142 | 8bdc7966 | System: ping is "request timed-out" after 2 minutes when VLAN100-4094 are joined and spanning is enabled. |
| 7 | ECS5520EC-148 | 0b889560 | ARP table no timeout |
| 8 | ECS5520EC-147 | 2223a8f7 | Mlag shutdown/no shutdown mlag member port, ping faied |

**modifications:**

**Loader V0.0.0.4**

|  |  |
| --- | --- |
|  | Initial Version |

**Runtime V1.2.0.201**

|  |  |
| --- | --- |
|  | Initial Version |

**Work as Designed (wAD) eprs:**

**Known Bugs and Issues:**

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

1. DHCPv6 Relay: DUT show exception as change this muticast destination address to All from VLAN.
2. EEE: Power-save does not work (The result is the same however it's enabled/disabled. (ECS5520EC-107)

**Known RESTRICITIONS AND Limitations:**

|  |  |  |
| --- | --- | --- |
|  | Limitation Type | Description |
| 1 | Board limitation | Does not support Auto-nego on all port, due to this need dedicated/external cpu on board. (Drake or AC3 can support 802.3ap on their XG interfaces, but the criteria is using external CPU and interior processor core will run the firmware to handle AP.) |
| 2 | Chip limitation | Bridge FDB(L2), Multicast and Router IPv4/6 Host entries share the same 64K. |
| 3 | Chip limitation | FDB use hash algorithm to locate needed index for the pkt. It will happen collision in some case. |
| 4 | Chip limitation | Configuration of the length of the hash chain for address loopkups in FDB table to a value different than 0 can result in perfomance degradation. (Table 529: FDB Global Configuration Register. Bit 2:0) |
| 5 | Software limitation | For verify chip can support full multicast entry. The speed of data/control packet which used for igmp snooping learning shall not in line speed. |
| 6 | Chip limitation | EEE (802.3az, Cable Length), it's PHY's functionality. Only support copper front port. |
| 7 | Chip limitation | Broadcast/Multicast/UnknownUnicast Storm Control use the same configuration of rate limit. |
| 8 | Software limitation | Web Authentication only support IPv4 HTTP |
| 9 | Software limitation | Due to Jquery software limitation. The web browser need IE 9+, Chrome 54+, Firefox 52+ or Opera 41+. |
| 10 | Software limitation | Support muintuple vlan tag by software, but have limitation: can not support the packet need linux kernel process, like management features, arp, telnet, ping, tracerout, routing, snmp, ipv6…etc. [ES4627MB-FLF-EC-00889] |
| 11 | Chip limitation | The mirror function will mirror the voice vlan packet which before modified the priority. (Detail in ECS5520-18X-00138) |
| 12 | Chip limitation | Cannot config any value of CIR and CBS in chip. When configuring cir and cbs，you can identify the scope and unit of configuration for cir/cbs according to the cir exception configuration. Following table describes details for this, you can get more skillful cbs configuration by the actual tests. (ECS5520-18X-00119, ECS5520-18X-00120, ECS5520-18X-00177) |
| 13 | Software limitation | web-auth only support http and port 80. (ECS5520-18X-00175) |
| 14 | Hardware limitation | 10G DAC only support 0.2M/1M/3M/5M. 40G DAC only support 1M/3M. |
| 15 | Software limitation | The speed of syncing mac address table is not immediately. The full 64K entries need spend 5.5~6 minutes with appending 60~70% cpu utilization. |
| 16 | Chip limitation | Dynamic QoS Assignment only support configure one acl per port: Marvell support ACL resource are finite, so the upper software limit only support configure one acl per port or per function;when mac-authentication enable Dynamic Qos Assignment base Radius, so also only support configure one acl per port，multiple acls will authentication failure. (ECS5520-18X-00335) |
| 17 | Chip limitation | For Drake chip, it can not bind a policy-map with remark DCSP for yellow or red packet on egress port. (ECS5520-18X-00246) |
| 18 | Chip limitation | For the rate limit of CPU Guard, the implementation in chip is bps. The actual rate is pps\*MTUsize(Default is 1536. 10240 when Jumbo frame enable). (ECS5520-18X-00232) |
| 19 | Phy chip limitation | Due to Phy 3240(port 1~16) do not support close auto negotiation on 1G and 10G, so only force speed and duplex to 100M/10M(full/half)。  （Datasheet 4.6.1 has detail description） |
| 20 | Phy chip limitation | The link flapping is caused by back-pressure and link would be up after back-pressure condition is gone(This Back-pessure only 100M/10M half on ECS5520-18T/18TT) |
| 21 | Phy chip limitation | When test the VCT(cable diagnostic), no matter which speed，must be use CAT6A Cable, and The accuracy is +/-10m;    When use long normal cable couse port down, must also be use CAT6A Cable.  xxxxxx |
| 22 | Chip limitation | ACL rule total is 18K, but TTI and PCL each account for half, due TTI Not used, now all TTI resources are allocated to PCL, and TTI will not work |

**Compliance support:**

|  |  |
| --- | --- |
| **Compliance Level** | **Compliant** |
|  |  |

Known Anomalies: None.

**IEEE Standards Support:**

|  |  |
| --- | --- |
| **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) |
| IEEE  802.1X 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) |
| V-Bridge MIB | V-Bridge MIB | - dot1vProtocol group |
| 3636 | MAU MIB | * dot3IfMauBasicGroup * dot3IfMauAutoNegGroup |

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| 1612 | DNS Reslover MIB | * dnsServConfig * dnsServCounter * dnsServCounterAuthAns * dnsServCounterAuthNoNames * dnsServCounterAuthNoDataResps * dnsServCounterNonAuthDatas * dnsServCounterNonAuthNoDatas * dnsServCounterReferrals * dnsServCounterErrors * dnsServCounterRelNames * dnsServCounterReqRefusals * dnsServCounterReqUnparses * dnsServCounterOtherErrors * dnsServOptCounter * dnsResMIBObjects * dnsResConfig * dnsResCounter * dnsResCache * dnsResCacheStatus * dnsResCacheMaxTTL * dnsResCacheGoodCaches * dnsResCacheBadCaches * dnsResOptCounter |
| 3411 | SNMP FrameWork | * snmpFrameworkMIBObjects |
| 3412 | SNMP MPD MIB | * snmpMPDMIBObjects |
| 3413 | SNMP Target MIB | * snmpTargetObjects |
| 3413 | SNMP Notify MIB | * SnmpNotifyObjects * snmpNotifyTable * usmMIBObjects |
| 3415 | SNMP View-Based ACM MIB | * vacmMIBObjects * Private MIB * switchMgt * portMgt * trunkMgt * lacpMgt * staMgt * tftpMgt * restartMgt * mirrorMgt * igmpSnoopMgt * ipMgt * bcastStormMgt * vlanMgt * priorityMgt * trapDestMgt * qosMgt * securityMgt * sysLogMgt * lineMgt |

**ECS5520 SERIES Private Enterprise MIB Support:**

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| **Title** | Version |
| ECS5520.mib | 202012080000Z |

**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) |

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