

## Glossary

Jump to letter: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [0-9](#) [See Also](#)

Note: The glossary content is **automatically** used in all wiki pages.

## 1

## A

**A2DP**

Advanced Audio Distribution Profile

**ABI**

Application binary interface. ( In computer software, an application binary interface (ABI) describes the low-level interface between a computer program and the operating system or another program.)

**ACL**

Automatic current limit (LCD power improvement solution)

**ADB**

Android debug bridge (Android specific)

**ADB**

Android debug bridge daemon (Android specific)

**ADC**

Analog-to-digital converter. The process of converting a sampled analog signal to a digital code that represents the amplitude of the original signal sample.

**AES**

Advanced Encryption Standard

**AF**

GPIO alternate function

**AHB**

Advanced High-performance Bus

**AI**

Artificial Intelligence

**AIDL**

Android Interface Definition Language (see <https://developer.android.com/guide/components/aidl>)

**aka**

also known as

**ALSA**

Advanced Linux sound architecture

**AOSP**

Android Open Source Project

**APB**

Advanced Peripheral Bus

**API**

Application programming interface

**APT**

Advanced Package Tool (see <https://wiki.debian.org/Apt>)

**Arm®**

<https://www.arm.com/> (see <https://www.arm.com/company/policies/trademarks/arm-trademark-list/cortex-trademark> )

**ARP**

Protocol used by the Internet Protocol, specifically IPv4, to map IP network addresses to the hardware addresses used by a data link protocol ([https://en.wikipedia.org/wiki/Address\\_Resolution\\_Protocol](https://en.wikipedia.org/wiki/Address_Resolution_Protocol))

**ART**

Android Runtime (see <https://source.android.com/devices/tech/dalvik>)

**ASoC**

ALSA System on Chip

**AVB**

Audio Video Bridging over Ethernet (set of IEEE standards for transporting audio and other real-time content over Ethernet)

**AVD**

Analog Voltage Detector

---

**2****B**

---

**BCC**

BPF compiler collection

**BL1**

Boot Loader stage 1

**BL2**

Boot Loader stage 2

**BL32**

Boot Loader stage 3-2

**BL33**

Boot Loader stage 3-3

**BLE**

Bluetooth Low Energy. Bluetooth LE, marketed as Bluetooth Smart is a wireless personal area network technology designed and marketed by the Bluetooth Special Interest Group aimed at novel applications in the healthcare, fitness, beacons, security, and home entertainment industries.

Compared to Classic Bluetooth, Bluetooth Smart is intended to provide considerably reduced power consumption and cost while maintaining a similar communication range. (source[https://en.wikipedia.org/wiki/Bluetooth\\_Low\\_Energy](https://en.wikipedia.org/wiki/Bluetooth_Low_Energy))

**BoardId**

eval,disco (Generic term used, to complete configuration modules paths depending on used board)

**BOR**

Brownout reset

**BSP**

Board support package

**BSEC**

Boot and Security and OTP control

**BT**

BlueTooth

## 3

## C

**CABC**

Content-Adaptative Backlight Control (LCD power improvement solution)

**CAB**

Content-Adaptative Backlight (LCD power improvement solution)

**CAN**

Controller Area Network (robust bus mainly used for automotive applications)

**CEC**

Consumer Electronics Control (HDMI standard)

**CLUT**

Colour Look-Up Table

**CMSIS**

Cortex Microcontroller Software Interface Standard

**CNN**

Convolutional Neural Network

**configs**

Configuration File System (See <https://en.wikipedia.org/wiki/Configfs> for more details)

**Cortex®****CPL**

Common Public License

**CPU**

Central processing unit

**CRC**

Cyclic redundancy check calculation unit

**CRYP**

Cryptographic processor

**CSG**

Constructive Solid Geometry

**CSI**

Multi Speed Internal oscillator (STM32 clock source)

**CSS**

Cascading Style Sheets (web standard)

**CTS**

Compatibility Test Suite (Android specific) or Clear to send (in UART context)

**CV**

Computer Vision

---

## 4 D

---

**DAC**

Digital-to-analog converter (Electronic circuit that converts a binary number into a continuously varying value.)

**DAI**

Digital Audio Interface

**DAPM**

Dynamic Audio Power Management

**DBI**

Display Bus Interface (MIPI<sup>®</sup> Alliance standard)

**DCMI**

Digital Camera Memory Interface

**DDB**

Device Descriptor Block (MIPI<sup>®</sup> Alliance standard)

**DDC**

Display Data Channel (VESA standard)

**DDR**

Doubledata rate (memory domain)

**debugfs**

Debug File System (See <https://en.wikipedia.org/wiki/Debugfs> for more details)

**devfs**

Device File System (See [https://en.wikipedia.org/wiki/Device\\_file#DEVFS](https://en.wikipedia.org/wiki/Device_file#DEVFS) for more details)

**DES**

Data Encryption Standard

**DFSDM**

Digital Filter for Sigma-Delta Modulator

**DFU**

Device Firmware Upgrade

**DHCP**

Dynamic Host Configuration Protocol (See [https://en.wikipedia.org/wiki/Dynamic\\_Host\\_Configuration\\_Protocol](https://en.wikipedia.org/wiki/Dynamic_Host_Configuration_Protocol) for more details)

**DISCO**

Discovery kit

**DMA**

Direct Memory Access

**DMA2D**

Chrom-Art Accelerator™ controller (STM32 specific)

**DMIC**

Digital microphone

**DPI**

Display Pixel Interface (MIPI<sup>®</sup> Alliance standard)

**DRD**

Dual-Role Device (USB standard defines host and device roles. OTG controllers support both roles and can be called Dual-Role Devices controllers.)

**DRI**

Direct Rendering Infrastructure (Linux framework for allowing direct access to graphics hardware... find more information on official DRI web site <http://dri.freedesktop.org/wiki/FrontPage>)

**DRM**

Direct Rendering Manager (kernel module that gives direct hardware access to DRI clients, find more information on official DRI web site <http://dri.freedesktop.org/wiki/DRM>)

**DRP**

Dual Role Port, an USB port that can operate in host or device mode

**DSI**

Display Serial Interface (MIPI<sup>®</sup> Alliance standard)

**DT**

Device Tree

**DTB**

Device Tree Binary (or Blob)

**DTS**

Device Tree Source (in software context) or Digital Temperature Sensor (in peripheral context)

**DVI**

Digital Visual Interface (Digital Display Working Group)

## 5

## E

**EAL**

Evaluation Assurance Level

**ECC**

Error Correction Capability

**ECC**

Elliptic curve cryptography

**ECDSA**

Elliptic Curve Digital Signature Algorithm

**EDID**

Extended Display Identification Data (HDMI standard)

**EDP**

Embedded Display Port (VESA standard). See <http://www.displayport.org/> for more details

**EEPROM**

Electrically-erasable programmable read-only memory

**EGL**

Khronos Native Platform Graphics Interface (See <http://www.khronos.org/egl/> for more details)

**EHCI**

Enhanced Host Controller Interface

**EMI**

External memory interface

**eMMC**

former spelling for *e*•MMC ('e' in italic)

***e*•MMC**

Embedded Multi-Media Card

**EOT**

End Of Transmission (MIPI<sup>®</sup> Alliance DSI standard)

**eSDK**

Extensible Software development kit

**ETH**

Ethernet

**ETM**

Embedded Trace Macrocell

**ETZPC**

Extended TrustZone Protection Controller

**EVAL**

Evaluation board

**EXTI**

External Interrupt



---

**6****F**

---

**FB**

Frame Buffer (could be the Kernel framebuffer linked to the display, a GPU framebuffer, an imaging framebuffer...)

**FHS**

File Hierarchy Standard defines by Linux Foundation

**Flash**

Flash memory shortened to gain space in titles, tables and block diagrams

**Flash memory**

Flash memories combine high density and cost effectiveness of EPROMs with the electrical erasability of EEPROMs. For this reason, the Flash memory market is one of the most exciting areas of the semiconductor industry today and new applications requiring in system reprogramming, such as cellular telephones, automotive engine management systems, hard disk drives, PC BIOS software for Plug & Play, digital TV, set top boxes, fax and other modems, PC cards and multimedia CD-ROMs, offer the prospect of very high volume demand.

**foo\_driver**

foo\_driver could be any driver that needs to control a GPIO

**FPS**

Frames per second

**FSBL**

First Stage Boot Loader

**FTR**

First Time Right

## 7

## G

**GDB**

GNU debugger, a portable debugger that runs on many Unix-like systems

**GIC**

Generic Interrupt Controller

**GP**

Geometry Processor, used to execute Vertex Shaders (3D IP/IC specific).

**GPIO**

General-Purpose Input/Output (A realization of open ended transmission between devices on an embedded level. These pins available on a processor can be programmed to be used to either accept input or provide output to external devices depending on user desires and applications requirements.)

**GPGPU**

General-Purpose computation on Graphics Processing Units

**GPT**

GUID Partition Table

**GPU**

Graphics Processing Units

**GRALLOC**

GRaphic ALLOCation HAL or library (Android specific)

**GUI**

Graphical User Interface

## 8

## H

**HAL**

Hardware Abstraction Layer

**HDCP**

High-Bandwidth Digital Content Protection (HDMI standard)

**HDMI**

High-Definition Multimedia Interface (HDMI standard)

**HDP**

Hardware Debug Port

**HDR**

High Dynamic Range (HDMI standard)

**HID**

Human Interface Device (for USB, Bluetooth...)

**HIDL**

HAL interface definition language (see <https://source.android.com/devices/architecture/hidl>)

**HMAC**

Hash-based Message Authentication Code

**HPD**

Hot Plug Detect

**HS**

High Speed (MIPI<sup>®</sup> Alliance DSI standard)

**HSEM**

Hardware Semaphore

**HSE**

High Speed External oscillator (STM32 clock source)

**HSI**

High Speed Internal oscillator (STM32 clock source) or High Speed Synchronous Serial Interface (MIPI<sup>®</sup> Alliance standard)

**HSLV**

High Speed Low Voltage pin mode

## 9

## I

**I2C**

Inter-Integrated Circuit (Bi-directional 2-wire bus standard for efficient inter-IC control.)

**I2S**

Integrated Interchip Sound

I2S (without the 2 in superscript) refers to the STMicroelectronics integrated interchip sound IP.

**I420**

fourcc of YUV420 planar pixel format

**IDE**

(Software)Integrated development/design/debugging environment

**IFP**

Image Formatting Pipeline

**IIC**

Inter-Integrated Circuit (Bi-directional 2-wire bus standard for efficient inter-IC control.)

**IIO**

Industrial I/O Linux subsystem

**initramfs**

Initial ramdisk ([https://en.wikipedia.org/wiki/Initial\\_ramdisk](https://en.wikipedia.org/wiki/Initial_ramdisk))

**initrd**

Initial ramdisk ([https://en.wikipedia.org/wiki/Initial\\_ramdisk](https://en.wikipedia.org/wiki/Initial_ramdisk))

**IMU**

Inertial Measurement Unit

**IO**

input/output

**IoT**

Internet of Things

**IPC**

Inter-Processor Communication

**IPCC**

Inter-Processor Communication Controller

**IPP**

Image Preprocessor Pipeline

**ITM**

Instruction Trace Macrocell

**IWDG**

Independent Watchdog

**JIT**

Just-In-Time (Way of working for a given Virtual Machine)

**JNI**

Java Native Interface (for Android)

**JTAG**

debug and test protocol, named from the Joint Test Action Group that developed it

11

K

---

**KMS**

Kernel Mode Setting

## 12

## L

**LBA**

Logical Block Addressing

**LDISC**

Line Discipline

**LED**

Light-emitting diode

**LIN**

Local Interconnect Network

**LDO**

Low-dropout regulator

**LL**

Low layer of STM32Cube

**LP**

Low Power (MIPI<sup>®</sup> Alliance DSI standard)

**LTDC**

LCD TFT Display Controller (STM32 specific)

**LPTIM**

low-power timer (STM32 specific)

**LSE**

Low Speed External oscillator (STM32 clock source)

**LSI**

Low Speed Internal oscillator (STM32 clock source)

## 13

## M

**MAC address**

media access control address ([https://en.wikipedia.org/wiki/MAC\\_address](https://en.wikipedia.org/wiki/MAC_address))

**MCU**

Microcontroller Unit (MCUs have internal flash memory and are intended to operate with a minimum amount of external support ICs. They commonly are a self-contained, system-on-chip (SoC) designs.)

**MD5**

Message Digest 5

**MFD**

Multifunction device

**microSD™;**

eg microSD card ('m' in lowercase whatever its position)

**Micro-AB**

Micro-AB connector/port ('M' in uppercase whatever its position)

**Micro-USB**

eg Micro-USB connector ('M' in uppercase whatever its position)

**MIPI**

Mobile Industry Processor Interface, open membership organization that includes leading companies in the mobile industry that share the objective of defining and promoting open specifications for interfaces inside mobile terminals, see MIPI® Alliance standard web site <https://www.mipi.org>

**MMC**

MultimediaCard

**MMU**

Memory Management Unit. (A hardware device or circuit that supports virtual memory and paging by translating virtual addresses into physical addresses.)

**MPU**

Microprocessor Unit

**MTD**

Memory Technology Device



**NA**

Non Applicable

**NDA**

Non-disclosure agreement

**NFS**

Network File System ([https://en.wikipedia.org/wiki/Network\\_File\\_System](https://en.wikipedia.org/wiki/Network_File_System))

**NN**

Neural Network

**NV12**

fourcc of YUV420 semi-planar pixel format

**NVIC**

Nested Vectored Interrupt Controller

**NVM**

Non Volatile Memory, like a flash memory

**OGL**

Open Graphics Library (See <http://www.opengl.org/> for more details)

**OHCI**

Open Host Controller Interface

**ONFI**

Open NAND Flash interface (The ONFI working group, acronym for Open NAND Flash Interface, was founded in 2005. The group's mission consists in creating a common industry standard for NAND Flash interfaces, to simplify integration of NAND Flash memory into consumer electronics (CE) devices and computing platforms. ST is one of the co-founder companies together with Hynix, Intel, Micron, Phison and Sony.)

**OOM**

Out Of Memory

**OpenCL**

Open Computing Language (See <http://www.opencl.org/> for more details)

**OpenGL**

Open Graphics Library (See <http://www.opengl.org/> for more details)

**OpenGLES**

Open Graphics Library for Embedded System (See <http://www.khronos.org/opengles/> for more details)

**OpenVG**

Open Vector Graphics (See <http://www.khronos.org/openvg/> for more details)

**OPP**

Operating Performance Point (link to voltage and frequency scalings)

**OP-TEE**

Open Portable Trusted Execution Environment

**OS**

Operating System

**OSS**

Open Source Software

**OST**

Open System Trace

**OTG**

USB On-The-Go (Capability/type of USB port, acting primarily as USB device, to also act as USB host. Also known as USB OTG.)

**OTP**

One Time Programmed

## 16

## P

**PCB**

Printed Circuit Board

**PEM**

Privacy Enhanced Mail (File format for storing and sending cryptographic keys, certificates, and other data)

**PLB**

Polygon List Builder (3D IP/IC specific)

**PMIC**

Power Management Integrated Circuit

**PMU**

Power Management Unit (in STPMIC context) or Performance Monitoring Unit (in Arm Cortex-A context)

**POSIX**

Portable Operating System Interface based on uniX ([https://en.wikipedia.org/wiki/POSIX\\_terminal\\_interface](https://en.wikipedia.org/wiki/POSIX_terminal_interface) for more details)

**POT**

Power Of Two (could be linked to Graphics, like in OpenGL textures)

**PP**

Pixel Processor, used to execute Fragment Shaders (3D IP/IC specific)

**procfs**

Process File System (See <https://en.wikipedia.org/wiki/Procfs> for more details)

**PSCI**

Power State Coordination Interface

**PVD**

Programmable Voltage Detector

**PWM**

Pulse Width Modulation



## 18

## R

**RAM**

Random Access Memory (Early computer memories generally had serial access. Memories where any given address can be accessed when desired were then called "random access" to distinguish them from the memories where contents can only be accessed in a fixed order. The term is used today for volatile random-access semiconductor memories.)

**RCC**

Reset and Clock Control

**REGMAP**

Register map (Linux registers map abstraction API)

**RMA**

Return Materials Authorization

**RNG**

Random Number Generator

**ro**

Read Only

**ROM**

Read Only Memory

**RPMsg**

Remote Processor Messaging

**RSE**

Remote System Explorer (Eclipse Perceptive)

**RTC**

Real Time Clock

**RTOS**

Real Time Operating System

**RX**

Receive

## 19

## S

- SAI**  
Serial Audio Interface (Mechanism used to transfer non-buffered audio data between processors and/or audio converters.)
- SCL**  
Serial clock line
- SD**  
Secure digital
- SDA**  
Serial DATA line
- SD card**  
SD memory card (<https://www.sdcard.org>)
- SDIO**  
Secure digital input/output
- SDIO card**  
SDIO is an SD-size card with extended input/output functions
- SDK**  
Software development kit (A programming package that enables a programmer to develop applications for a specific platform.)
- Serdev**  
Serial device bus
- SFR**  
Special Function Registers
- SFI**  
Software Generated Interrupt
- SHA**  
Secure Hash Algorithm
- SiP**  
Silicon Provider
- SLC**  
Single-Level Cell is a kind of NAND flash
- SMC**  
Secure Monitor Call
- SMBus**  
System Management Bus
- SMP**  
symetric multiprocessing
- SOM**  
System-On-Module
- SOT**  
Start Of Transmission (MIPI® Alliance DSI standard)

**S/PDIF**

Sony/Philips Digital Interface Format (Protocol (IEC-60958))

**SP\_min**

Secure Payload minimal

**SPI**

Serial Peripheral Interface

**SPL**

Secondary Program Loader, *Also known as **U-Boot SPL***

**SSBL**

Second Stage Boot Loader

**STGEN**

System Time Generator

**ST-Link**

spelling for older versions of STLink, ST in-circuit debugger and programmer for the STM8 and STM32 microcontroller families

**STLink**

ST in-circuit debugger and programmer for the STM8 and STM32 microcontroller families (See [ST-LINK](#) for more details)

**STM**

System Trace Module

**STM32Series**

stm32mp1

**STP**

System Trace Protocol (MIPI<sup>®</sup> Alliance standard specifying the protocol to carry above system traces)

**SSP**

Secure Secret Provisioning

**SYSCFG**

System Configuration

**sysfs**

System File System (See <https://en.wikipedia.org/wiki/Sysfs> for more details)

**SYSTICK**

System Tick

**SWD**

Serial Wire Debug

**SWIM**

Single Wire Interface Module (debug protocol for STM8 microcontrollers)

## 20

## T

- TA**  
Trusted Application
- TAF**  
Trusted Application Function
- TAMP**  
Tamper
- TBG**  
Test Byte Generator, part of DSI, used to generate - on CPU demand - a stream of byte to the DSI D-PHY. The goal is to perform basic DSI D-PHY lane check
- TCG**  
Trusted Computing Group
- TCM**  
Tightly Coupled Memory
- TDES**  
Triple Data Encryption Standard
- TEE**  
Trusted Execution Environment
- termios**  
terminal input output structure
- TF-A**  
Trusted Firmware for Arm Cortex-A
- TFTP**  
Trivial File Transfer Protocol ([https://en.wikipedia.org/wiki/Trivial\\_File\\_Transfer\\_Protocol](https://en.wikipedia.org/wiki/Trivial_File_Transfer_Protocol))
- TPM**  
Trusted Platform Module
- TrEQ**  
Transducer Equalizer
- TSS**  
TPM Software Stack
- TTY**  
TeleTYpewriter
- TVG**  
Test Video Generator, part of DSI, used to generate a video stream automatically (for verification and validation task)
- TX**  
Transmit
- TZ**  
Trust Zone
- TZC**  
TrustZone address space Controller for DDR



## 21

## U

**UART**

Universal Asynchronous Receiver/Transmitter

**UDC**

USB Device Controller

**UI**

User Interface

**UMS**

User-space Mode Setting

**µClinux**

The letters "µC" are for "microcontroller", the name is pronounced "you-see-Linux" (<http://www.uclinux.org/>)

**UP**

uniprocessor

**U-Boot**

Das U-Boot -- the Universal Boot Loader (see [U-Boot\\_overview](#))

**USART**

Universal Synchronous/Asynchronous Receiver/Transmitter

**USBH**

USB Host (STM32 specific)

**USB Type-A**

USB port or connector

**USB Type-C**

USB port or connector

**UTMI**

USB 2.0 Transceiver Macrocell Interface

**USB On-The-Go**

Capability/type of USB port, acting primarily as USB device, to also act as USB host. Also known as USB OTG.

**UUID**

universally unique identifier ([https://en.wikipedia.org/wiki/Universally\\_unique\\_identifier](https://en.wikipedia.org/wiki/Universally_unique_identifier))

**UVC**

USB Video Class

**V4L2**

Video 4 Linux version 2

**VCP**

Virtual COM Port. ST-Link Console support.

**VESA**

Video Electronics Standards Association

**VFS**

Virtual File System

**VLAN**

Virtual LAN. Network of computers that behave as if they are connected to the same wire even though they may actually be physically located on different segments of a LAN

**VREFBUF**

voltage reference buffer (STM32 specific)

**VTS**

Vendor Test Suite (Android specific)

**Wi-Fi**

technology for wireless local area networking with devices based on the IEEE 802.11 standards

**XIP**

Execute In Place. Method of executing programs directly from long term storage rather than copying it into RAM (linked to NOR Flash).

**XTI**

Protocol specifying a way to define OST frame boundary and to support trace activation using uart channel.

25

Y

---

**YAVTA**

Yet Another V4L2 Test Application (V4L2 standard)



27

0-9

---

28

**See Also**

---



---

#### IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to [www.st.com/trademarks](http://www.st.com/trademarks). All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2023 STMicroelectronics – All rights reserved