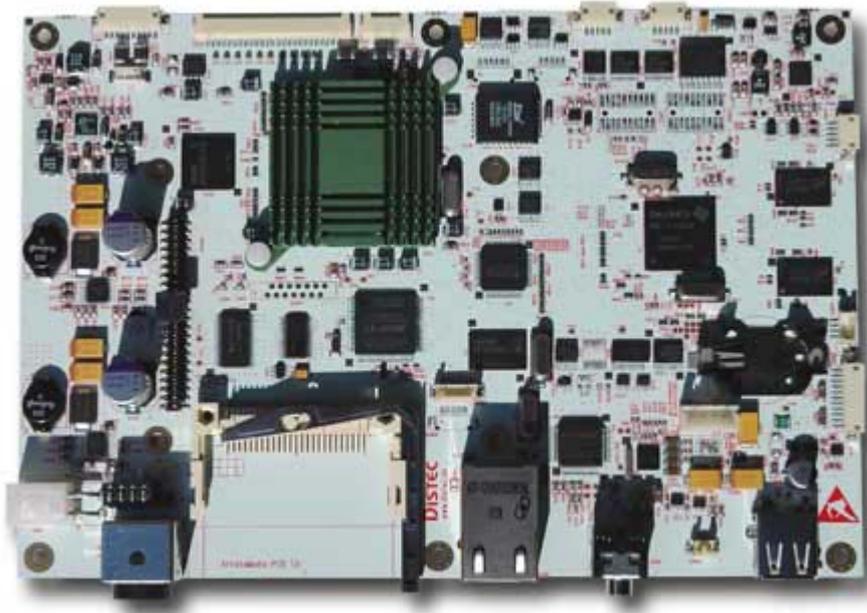




FAQs

Artista Media



2011-03-17

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General product philosophy: The ArtistaMEDIA has not been developed to compete with consumer oriented media players mainly imported from Far East. The ArtistaMEDIA represents a sophisticated, universal and flexible hardware basis for an almost unlimited range of digital signage system solutions. The close interaction between you and our development team makes these solutions realizable. The hardware as well as the software is developed in-house. The SW-compatibility with our Artista family is one of the strategic basics.

A) Questions concerning the Hardware

1 Is the layout optimized for EMC?

Our designs are based on the EMC guide lines EN61000-6-2 and EN61000-6-3. However an important influence on the EMC quality is caused by the grounding of the enclosure. If necessary this could be optimized by an application oriented LVDS signal design (Modulation).

2 How long is the basic boot time of the ArtistaMEDIA after power-on?

approx. 1.5 minutes between power-on and running video

3 How fast is it possible to switch between different content on the compact flash?

Test configuration: ArtistaMEDIA/19" TFT/Selection via Motion Sensor

Result: less than 2 seconds

Customer comment as of 2nd of October, 2009: "Looks good! It appears that the load time on the second movie is less than 2 seconds... Outstanding!!!"

BUT: There will be no "black screen", because the last picture is frozen up to the start of the next video.

4 What is the max. power consumption of the ArtistaMEDIA without TFT and inverter?

typ. 5 W, max. 6 W resp. 0.5 A ($V_{cc} = +12V$)

5 What max. currents for V_{cc} and backlight are supported by the ArtistaMEDIA?

Panel $V_{cc} = +3.3 V \Rightarrow 2.6 A$

Panel $V_{cc} = +5 V \Rightarrow 2.6 A$

Panel $V_{cc} = +12 V \Rightarrow 1.5 A$

Backlight $V_{cc} = +12V \Rightarrow 3.5 A$

6 Is it possible to drive the ArtistaMEDIA with Vcc = +24V

No; Vcc = +12 V (Tolerance +- 0.6 V)

7 Is there a local storage media on the ArtistaMEDIA available?

For the local storage of the video content (different to streaming) a local storage media on ArtistaMEDIA is necessary. Either a CompactFlash (currently available up to 32 GB) or a 2.5" IDE HardDisk (up to 320 GB) can be used.

8 Is there a special quality request for the used CompactFlash card?

Yes; for the perfect playback of stored video contents (no judder) a fast CF is necessary. Our tests and approvals have been done with the SanDisk series "Extreme III". The CF is driven under the Multiword DMA-Mode 2.

9 Is it possible to read an unformatted CompactFlash with ArtistaMEDIA?

No, the CF has to be formatted in "ext3" format; but it is of course possible to format the CF via our Web-Interface.

10 How to calculate the necessary memory volume for the local memory (CF or HD)?

MPEG-2 video and audio needs - depending on the expected quality - a data rate of app. 10 MBit/sec. This means up to 75 Mbytes of storage for 1 min. of video content is required.

11 Is it possible to synchronize several ArtistaMEDIA units perfectly via an external trigger signal?

currently not; due to components tolerances and signal delays up to 30 ms backfill can happen; On a project base it is possible under defined operating conditions. Please ask marketing for details.

12 Is it possible to drive Full HD TFTs directly on the ArtistaMEDIA?

Yes; based on the implemented Genesis scaler (equal to Prisma II) all resolutions up to 1920 x 1200 can be directly supported.

It is possible to connect 4:3 aspect ratio - or 16:9 aspect ratio TFTs. It is also possible to play videos with the aspect ratios 4:3 or 16:9. If the aspect ratio of the TFT and the video format are identical, then the screen is fully filled. If there is a miss match between the aspect ratio of the TFT and the aspect ratio of the video format, then there is a black area either on the left and right (16:9 aspect ratio) or on the top and bottom (4:3 aspect ratio). This keeps the aspect ratio between screen and video format.

For volume projects and smaller resolutions up to XGA it is however possible to realize a customized ArtistaMEDIA without this scaler for cost optimization.

13 Is it possible to use the ArtistaMEDIA with a PWM (pulse width modulated) controlled CCFL inverter?

No; without hardware change only an analogue control voltage of 0V....+5V is available

14 What functionality is supplied for the brightness control of the CCFL inverter?

The ArtistaMEDIA supplies the same inverter interface as known from all other Distec products: 12 V Vcc, enable signal (0V / 5V) and control voltage (0V ... 5V).

B) Questions concerning User-Software

Current FW Rev.: 2.10.0

15 Which operating systems are supported?

- Windows 7 all versions (tested on Windows 7 Ultimate)
- Windows XP all versions (tested on Windows XP Professional SP3)

For further information please see the Release Notes.

Software and documents are available on the [Distec homepage](#).

16 What versions of user software are currently available?

- Web-Interface, which is identically with the ArtistaNET, for configuration of the terminals, firmware update and upload-management via FTP-server.
- ArtistaControlCenter ACC for refreshing of the video content via network; with ACC it is possible to mix within a system ArtistaNET (static slide shows) and ArtistaMEDIA (MPEG video files + static slide shows mixed).

17 What possibilities of content update are available?

There are 4 possibilities for updating the content via Internet/Ethernet/Wireless:

wide area networks should have comparable, stable quality of local network

1) Update via Artista Control Centre --> push technology

2) Automatic update with pull functionality (ArtistaMEDIA proves in a defined time the content availability via a ftp-server – path) --> pull technology

3) Implementation of the ArtistaMEDIA into a 3rd party user SW via our Software Development Kit (from Rev. 4.4 on)

4) Local update via USB stick

The update is done in the background; the old content is continued; after the finalization of update the new content will be played and the old content is deleted.

18 What happens with the locally stored files during the upload of new video files?

From FW Rev. 2.2.0 on before an upload is started the existing playlist will be compared with the new playlist. To optimize the data transfer rate the upload will be done only for new files (files not requested any more will be deleted).

With SDK Rev. 4.4 the backward compatibility to older FW Rev. status is given.

19 Is it possible to optimize the compression of data transfer / upload content?

The file size is depending on the length, but especially the used bit-rate is important. There are 2 possibilities for improvement:

- variable bit-rate instead of fixed bit-rate
- decrease of the maximum bit-rate

20 Is it possible to implement RSS Newsfeed ("life News") supplied by News companies as e.g. dpa, Reuters, CNN, Turk CNN or others?

Yes; we are offering a SW module which allows to implement "life ticker" information (slides) into the playlist.

21 How is RSS Newsfeed executed with ArtistaMEDIA?

It needs to be defined how often the news block shall be updated (e.g. once every 30 minutes) and what content shall be executed (e.g. 2 new messages politics, 1 message sports, 1 message economy).

Our RSS service is then connecting to the RSS feed of the news company according to the defined time and selected content for download. The ArtistaMEDIA then updates the content via pull technology (from a FTP server).

22 What has to be considered by using the ACC?

From ACC Rev. 2.6. on it is possible to generate an (almost) unlimited, time-controlled play schedule of MPEG-2 files; the audio intensity can be controlled for every file separately.

The video editing (e.g. fading between clips) has to be done on a PC during content creation, not on the ArtistaMEDIA.

23 Is the ArtistaMEDIA already supported by the Artista SDK WIN (Software Development Kit)?

Yes; latest release SDK V5.0.0 (also includes ArtistaUSB and -NET).

Rev. V5.0.0 is using the Artista WIN NetBus driver V3.0, which works perfectly, but need a centralized server.

For the next revision of the SDK the upgrade for decentralized server structures is planned.

24 Is a SDK available?

No, ArtistaMEDIA isn't supported by our SDK. Due to very flexible and powerful FTP Pull and Push technology there is no need for SDK support.

25 Is SMIL supported?

No. SMIL (pronounced "smile") stands for "Synchronized Multimedia Integration Language" and defines scheduling ("Synchronized"), video, audio, images, text ("Multimedia"), multi-zone screen layout ("Integration") in an XML-based text file format ("Language"). This software can be used for setting up play lists. However implementing this software into our controller board would lead to an unprofitable amount of costs. Besides, we are using our own 'lightweight' play list which leads to an optimal performance of the Artista MEDIA.

C) Questions concerning Firmware

Current FW Rev.: 2.8.1

26 What Audio-/Video-Codexs are currently supported?

The ArtistaMEDIA currently supports AVI files containing MPEG-2 video- and MPEG-1 audio streams and from Firmware version 2.8.1 on MPEG-4 AVC Baseline profile up to Level 3.0 videos (*.mp4) with H.264 video and AAC audio streams (48kHz sample rate).

Video:

MPEG-2 MP@ML / H264

480p (720x480 @ 29,97 fps NTSC; interlaced and progressive)

576p (720x576 @ 25 fps PAL; interlaced and progressive)

720p (1280x720; interlaced and progressive) --> will be supported on ArtistaMEDIA II

1080p (1920x1080) --> will be supported on ArtistaMEDIA II

480p and 576p will be detected automatically.

MPEG-2: tested up to 9200 kbit / s (CBR and VBR)

MPEG-4 AVC: tested up to 4600 kbit / s (CBR and VBR)

Audio:

AVI: MPEG-1 Layer 2

MPEG4: AAC

27 Is it possible to play other video standards than MPEG-2 AVIs on the ArtistaMEDIA?

Other video files (e.g. ASF, AC3, DIVx5, MP4, WMV9) have to be converted into MPEG-2 AVIs or MPEG-4 videos on a PC. There are several conversion software tools available (e.g. Avidemux <http://avidemux.org> , TMPGEnc 4.0 XPress <http://tmpgenc.pegasys-inc.com/en/index.html> or Prism <http://www.nchsoftware.com>, which converts between mpg, mpeg, wmv, 3gp, divX, mpeg1, mpeg2, mpeg4, mp4, mov, asf, vob, H.264, RM, ogm, Xvid and many other formats.

FW releases under consideration: *.mpeg (MPEG-2) and MPEG-4 (Quicktime, DivX, Xvid)

28 Is there a protocol for all activities resp. events?

For all events log-files will be generated, which include every content-update as well as the corresponding playlist.

29 Is Flash or HTML/Browser supported?

No; flash and HTML/Browser are typical applications for ClientPC technology (e.g. min. 1.8 GHz DualCore for Flash)

30 Is it possible to autonomously download files from the internet with the ArtistaMEDIA?

With a customized ACC you can upload your playlist to a FTP server. Updates of the playlist can then be downloaded periodically by the ArtistaMEDIA from the FTP server (or Windows drive).

31 Is it possible to create a slide show?

Yes – with ArtistaMEDIA firmware version 2.6.0 and greater it is possible to create mixed playlists containing movies and still images, too. To do this, ArtistaControlCenter (ACC) V2.8.0 or newer is required.

ArtistaMEDIA now supports AIB files with **native panel resolution** without the need to render them into a movie or to scale them which provides excellent viewing experience.

For older firmware versions the following approach is possible:

With a time investment of roughly 30 minutes and with using e.g. TMPGEnc 4.0 XPress it is possible to create a slide show with still images. Any stand time and many fading effects are possible. This show has to be converted into the AVI-format.

For a perfect picture quality we recommend to produce the video in "progressive mode" (full pictures), not in "interlaced mode" (half pictures). Picture material in the same aspect ration as the TFT itself is also improving the quality.

32 Is MPEG-4 supported?

Yes – from Firmware Version 2.8.1 on MPEG4 AVC (video: H264, audio AAC) is supported.

33 Is JPEG or MJPEG (Motion JPEG) supported?

JPEG and MJPEG is currently not in our focus (only for custom projects).

But: You can import any kind of bitmap formats via our software package ACC.

34 Is it possible to play High-Definition Videos (HD) on ArtistaMEDIA?

No; intended for 2011 with availability of the next generation of decoder chips (ArtistaMEDIA II).

35 Is it possible to update the firmware after the installation?

Yes; possible via the web-interface.

36 Is it possible for the ArtistaMEDIA to realize a power management (e.g. brightness control) via the network?

Yes; as an option for project implementation in a local area there is a Command Line Tool, which is activated via the WIN Scheduler. For this purpose the WIN NETBUS driver has to be installed. Functions: brightness control, Switch on/off via timer functionality.

37 What additional features are planned for the product migration?

- Support of further Audio- und Video formats
- ArtistaMEDIA used as Streaming Client
- User-Interaction via Infrared, Keypad or Touch
- Support of real High-Definition (HD) Video content
- playback of static slides (slide show instead of video- streams)
 - synchronization for multi-display applications

38 What Software adjustments are necessary to implement a new TFT resolution?

Depending on the project and the complexity is it necessary to implement the new resolution within following Artista – SW – products:

- Firmware (always)

39 Is it possible to automatically supply every ArtistaMEDIA within the network with a defined IP address (DHCP)?

From Firmware version 2.8.1 on DHCP is supported.

Important: already installed systems can be easily upgraded to DHCP.

D) Touch functionalities

Assumption: touch is used for direct communication with the ArtistaMEDIA, e.g. to select content out of a playlist.

The following touch-functionalities are available on request:

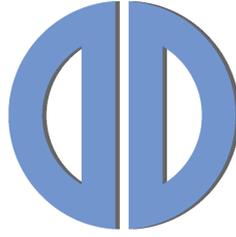
- touch ctrl. for resistive analogue touches
- connection of other touch technologies via USB-interface (important: sufficient Linux driver by touch company)

All touch functionalities will be project-oriented implemented in the board firmware.

E) What customized solutions are possible?

- Implementation of the customer logo, which is shown at the booting process for a few seconds
- Customized connectors or dimensions
- Customized FW- or SW-functionalities
- Customized switching technologies for selection of different contents (e.g. motion sensor, external button etc.)
- Energy management via brightness sensor or proximity sensor
- Video overlay of e.g. of POS-terminal user interface on MPEG-video via trigger signal of drawer
- Generating of slide show (e.g. jpgs from customer)
- touchscreen function

Our company network supports you worldwide with offices in Germany, Great Britain, Turkey and the USA.
For more information please contact:



DATA DISPLAY GROUP

A **FORTEC** GROUP MEMBER

Distec GmbH

Augsburger Str. 2b
82110 Germering
Germany

Phone: +49 (0)89 / 89 43 63-0
Fax: +49 (0)89 / 89 43 63-131
E-Mail: info@datadisplay-group.de
Internet: www.datadisplay-group.de

Display Technology Ltd.

5 The Oaks Business Village
Revenge Road, Lordswood
Chatham, Kent, ME5 8LF
United Kingdom
Phone: +44 (0)1634 / 67 27 55
Fax: +44 (0)1634 / 67 27 54
E-Mail: info@displaytechnology.co.uk
Internet: www.datadisplay-group.com

Sales Partner:

DATA DISPLAY BİLİŞİM TEKNOLOJİLERİ İÇ VE DIŞ TİCARET LİMİTED ŞİRKETİ

Barbaros Mh. Ak Zambak Sk. A Blok D:143
34376 Ataşehir / Istanbul
Turkey
Phone: +90 (0)216 / 688 04 68
Fax: +90 (0)216 / 688 04 69
E-Mail: info@data-display.com.tr
Internet: www.data-display.com.tr

FORTEC Elektronik AG

Lechwiesenstr. 9
86899 Landsberg am Lech
Germany

Phone: +49 (0)8191 / 911 72-0
Fax: +49 (0)8191 / 217 70
E-Mail: sales@fortecag.de
Internet: www.fortecag.de

Apollo Display Technologies, Corp.

87 Raynor Avenue,
Unit 1 Ronkonkoma,
NY 11779
United States of America
Phone: +1 631 / 580-43 60
Fax: +1 631 / 580-43 70
E-Mail: info@apolloDisplays.com
Internet: www.apolloDisplays.com