



## EA EPA-Simulator manual

Januar 2025  
© DISPLAY VISIONS GmbH

# Table of Contents

<b>Part I General</b>	<b>2</b>
<b>Part II StartEPA V1.0.exe</b>	<b>3</b>
<b>Part III EPA Simulator</b>	<b>4</b>
1 File .....	4
2 EPA .....	5
3 Help .....	6
<b>Part IV EA 9782-2USB</b>	<b>7</b>
1 Features .....	7
2 9782-2 EMPTY .....	8
3 9782-2 EPA240360 .....	9
4 9782-2 EPA240416 .....	10
5 9782-2 EPA400300 .....	11
6 9782-2 EPA480800 .....	12
<b>Part V Commands/Pictures</b>	<b>13</b>
1 Commands .....	13
2 Font mono_6x8 .....	15
3 Font mono_8x16 .....	16
4 Font ascii _10 .....	17
5 Font ascii _14 .....	18
6 Font Arial_20..60 .....	19
<b>Part VI Troubleshooting</b>	<b>20</b>

# 1 General

## EPA-Simulator "StartEPA.exe"

The program „[StartEPA.exe](#)<sup>[3]</sup>“ simulates all displays from EA EPAXxx series. Display setting will be done via menu [EPA](#)<sup>[5]</sup>. This does mean that with this little program all display types can be simulated. This simulator can be used alone but also together with our Test- and Demoboard [EA 9782-2USB](#)<sup>[7]</sup>.

---

## Test-Board "EA 9782-2USB"

For easy startup, a USB test board [EA 9782-2USB](#)<sup>[7]</sup> is available that can be connected to a PC. All displays from EA EPAXxx series will put into operation in a flash. There is no hardware or software knowledge necessary.

The program „[StartEPA.exe](#)<sup>[3]</sup>“ runs also with a connected [EA 9782-2USB](#)<sup>[7]</sup>. Text and pictures (BMP) can be shown directly on the connected display.

---



Zeppelinstrasse 19, D-82205 Gilching  
Phone +49-8105-778090, Fax +49-8105-778099  
<http://www.lcd-module.de>

## 2 StartEPA V1.0.exe

# EA EPA-Simulator

*StartEPA.exe V1.0*



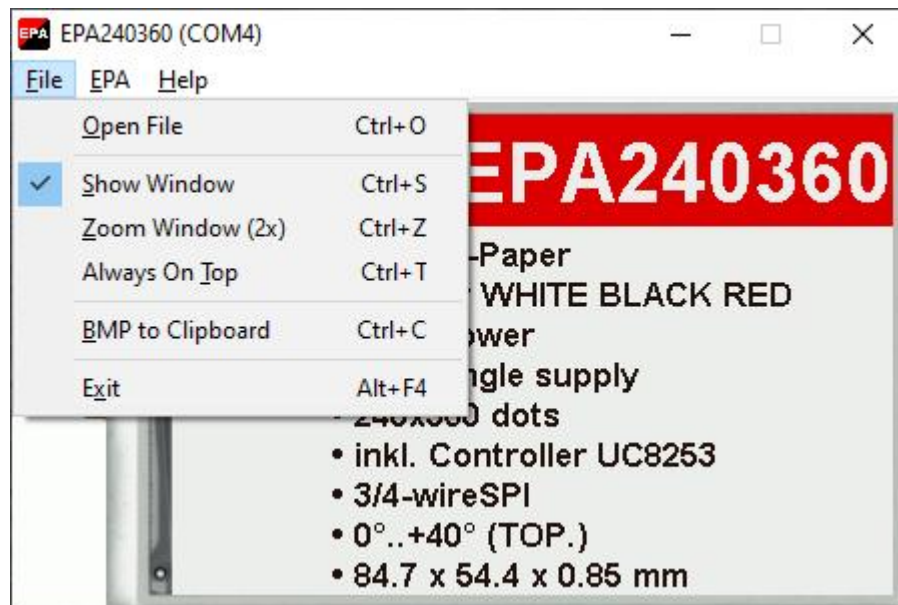
You can download the EPA Simulator Software V1.0 free of charge from our Homepage as a .zip file. After unzip you easily can start our StartEPA Simulator with a double click on the startEPA.exe. It starts up immediately with a windows frame and a tool bar with 3 pull down buttons:

[File](#)<sup>4</sup> [EPA](#)<sup>5</sup> [Help](#)<sup>6</sup>

## 3 EPA Simulator

### 3.1 File

Under the **File** Pull DownButton you can select special functions in four sections:



#### Open File

Open the File-Dialogbox where you can choose a [commandfile](#) <sup>13</sup> (\*.txt) or graphicfile (\*.bmp, \*.png, \*.jpg, \*.gif).

You can also Drag and Drop these files from the Explorer onto the EPA-Simulator Window.

#### Show Window

Shows or hides the frame of the EPA Simulation on the PC screen; When the frame with the menu is hidden you can find the menu with a right mouse click in the display area.

#### Zoom Window (2x)

The Window of the EPA-Simulator can be zoomed twice.

#### Always on Top

The Window of the EPA-Simulator always stays in front of the other software pages, whatever page or other Software you are opening.

#### BMP to Clipboard

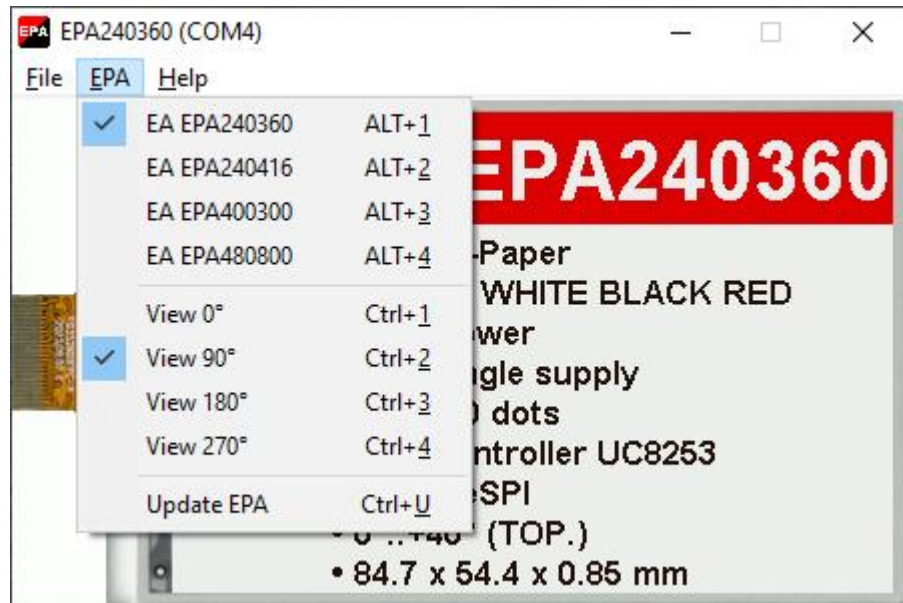
The actual shown EPA is copied as BMP into clipboard.

#### Exit

Stores display organization, options that had been changed in the last session and closes the application;

## 3.2 EPA

Under the EPA Pull Down Button you can select different display organisations in two sections:



**EA EPA240360**  
**EA EPA240416**  
**EA EPA400300**  
**EA EPA480800**

E-Paper 240 by 360 dots 3.52 inch  
 E-Paper 240 by 416 dots 3.7 inch  
 E-Paper 400 by 300 dots 4.2 inch  
 E-Paper 480 by 800 dots 3.97 inch

**View 0°**  
**View 90°**  
**View 180°**  
**View 270°**

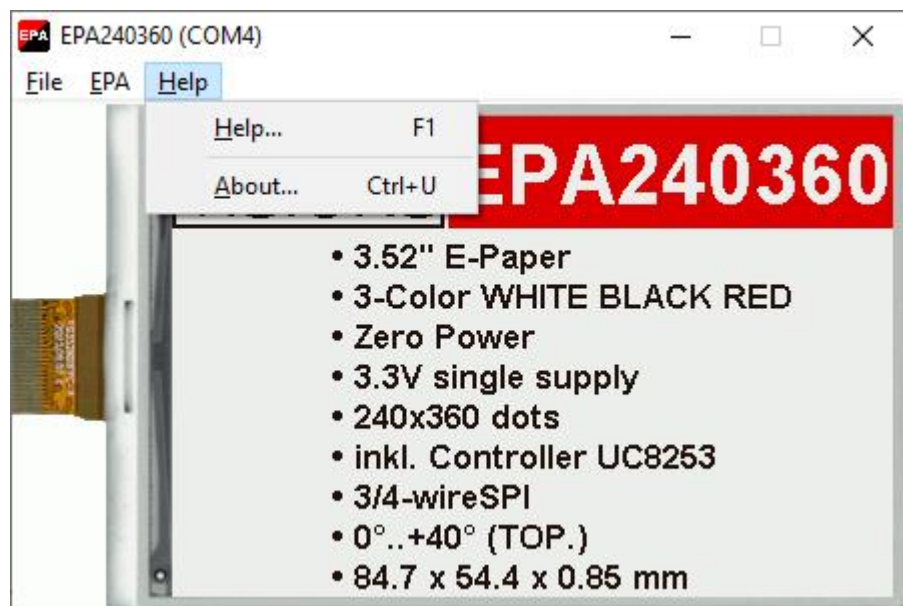
Set the orientation of the EPA display to 0 degree  
 Set the orientation of the EPA display to 90 degree  
 Set the orientation of the EPA display to 180 degree  
 Set the orientation of the EPA display to 270 degree

**Update EPA**

transfer the actual Display content to [9782-2USB](#)<sup>7</sup> and refresh the E-paper

### 3.3 Help

Under the **Help** Pull Down Button you have the choice to select this Help-text or an info box:



#### Help

This click shows you the Help-File;

#### About

This click shows you the software version of the EPA Simulator and whether the USB-Board is successfully connected to the PC;



## 4 EA 9782-2USB

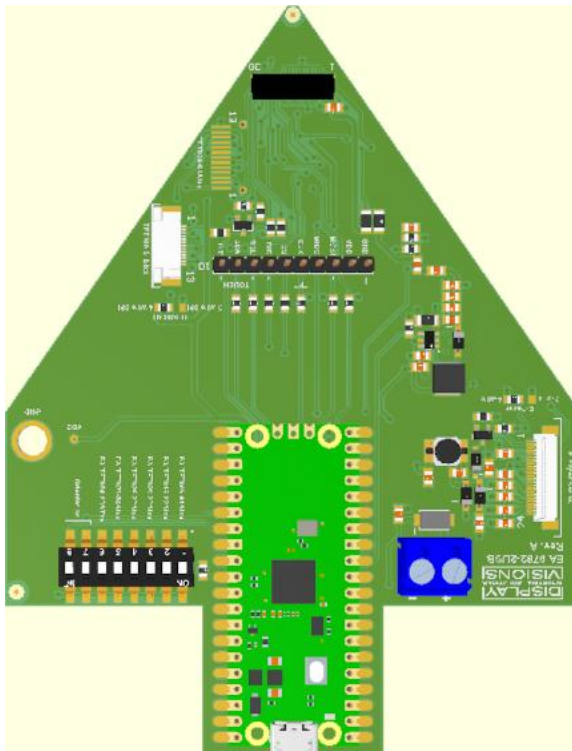
### 4.1 Features

With that test board all displays from EA EPAxxx series will put into operation in a flash. There is no hardware or software knowlegde necessary. The included USB cable performs easily the connection to the PC. Pictures (BMP) can be shown direct on the connected display.

- \* Connection to USB: simple Usage
- \* Good for all EA EPAxxx series
- \* no power supply necessary
- \* with demo-text and demo-pictures
- \* [individual text and pictures](#)<sup>13)</sup> are supported also
- \* inclusive USB cable (1.5m)

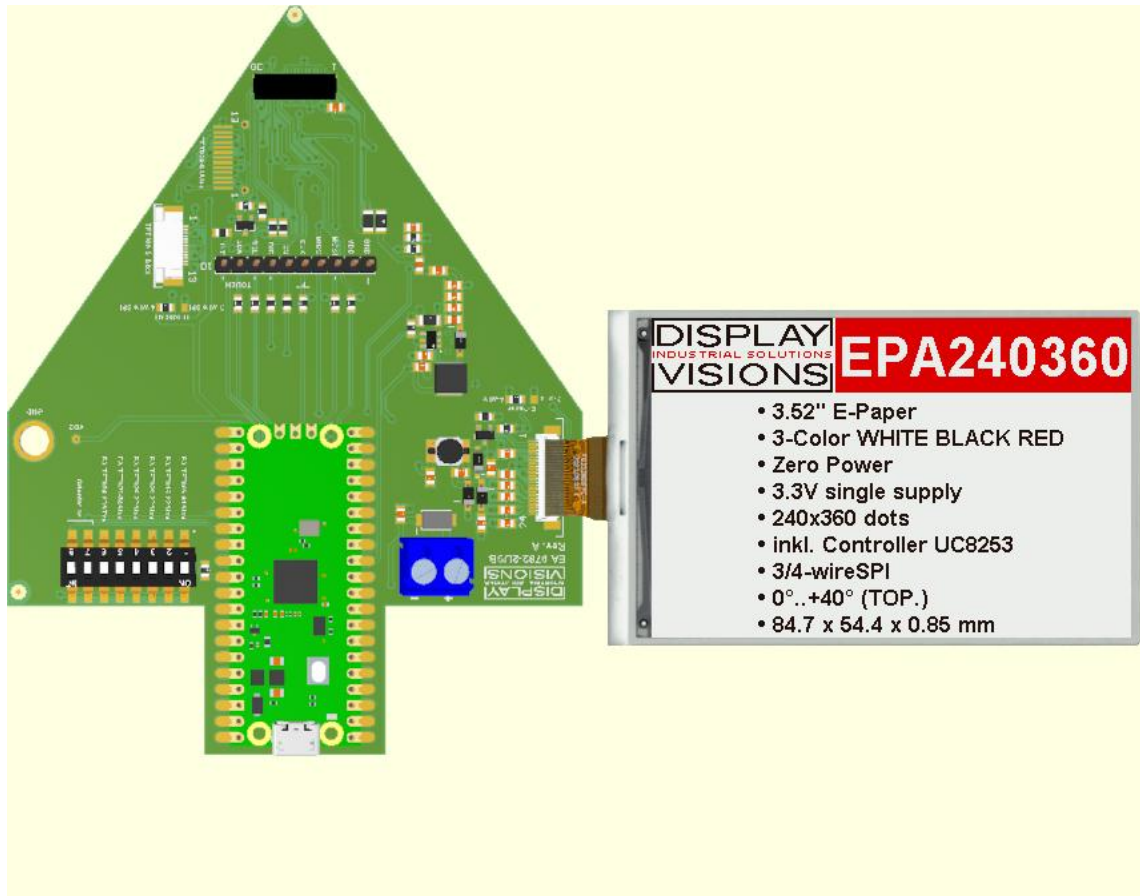


## 4.2 9782-2 EMPTY



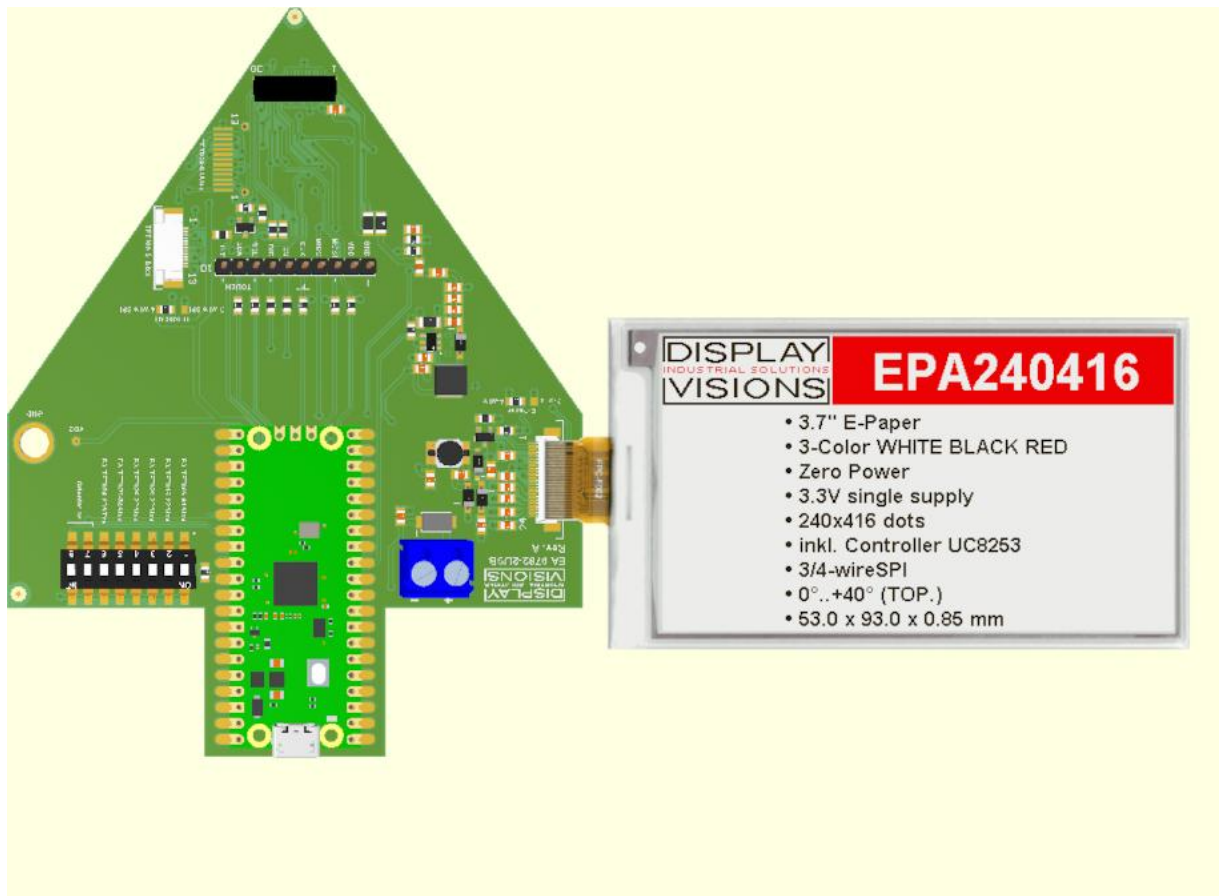
EMPTY - [EPA240360](#)<sup>[9]</sup> - [EPA240416](#)<sup>[10]</sup> - [EPA400300](#)<sup>[11]</sup> - [EPA480800](#)<sup>[12]</sup>

## 4.3 9782-2 EPA240360



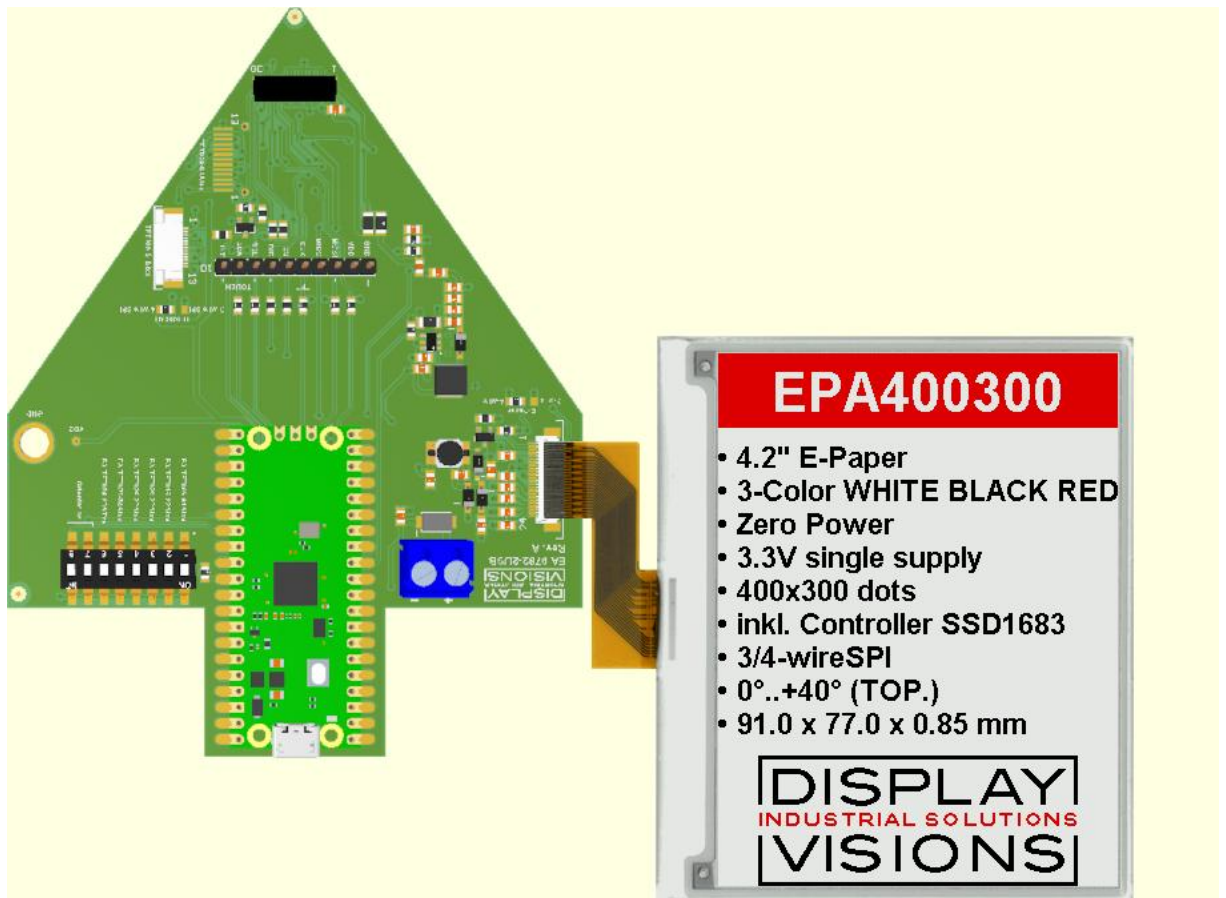
[EMPTY](#)<sup>[8]</sup> - [EPA240360](#) - [EPA240416](#)<sup>[10]</sup> - [EPA400300](#)<sup>[11]</sup> - [EPA480800](#)<sup>[12]</sup>

## 4.4 9782-2 EPA240416



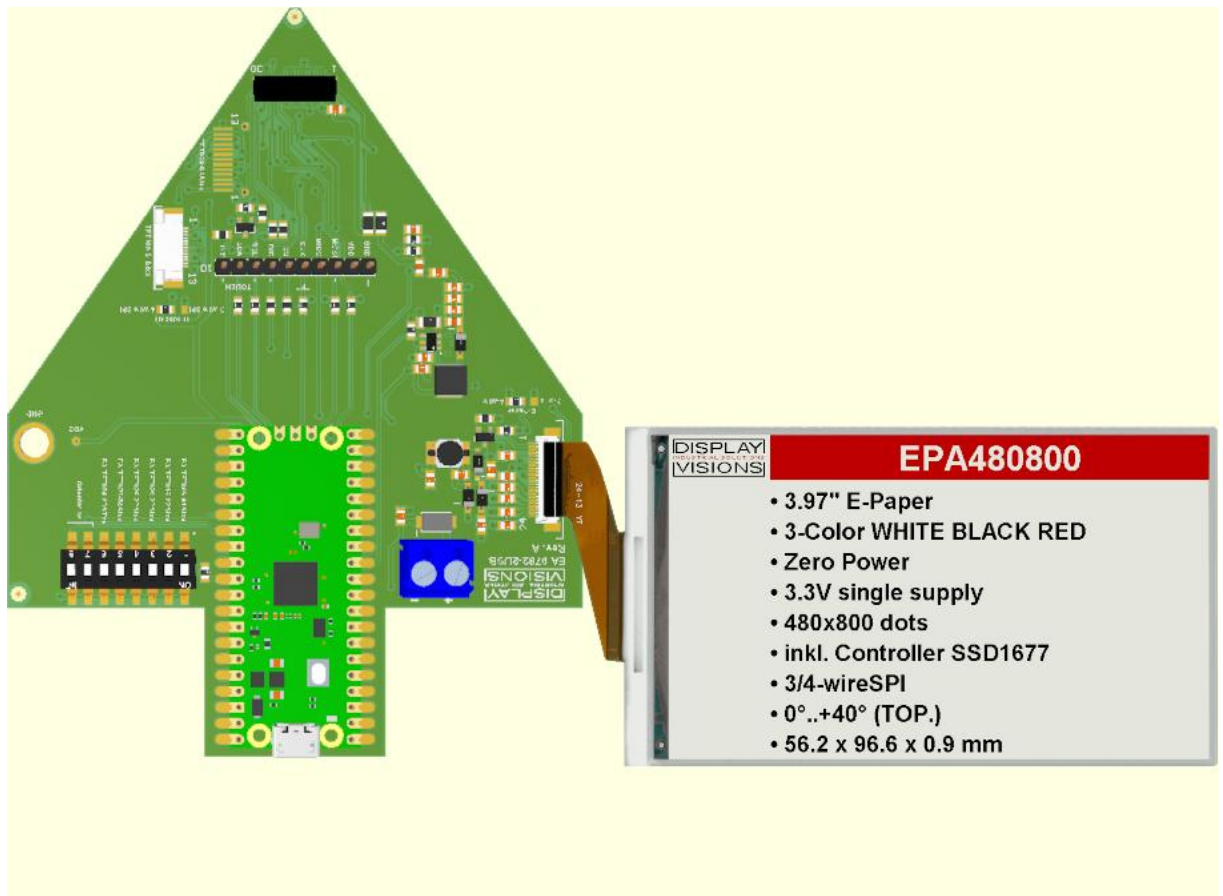
[EMPTY](#)<sup>[8]</sup> - [EPA240360](#)<sup>[9]</sup> - EPA240416 - [EPA400300](#)<sup>[11]</sup> - [EPA480800](#)<sup>[12]</sup>

## 4.5 9782-2 EPA400300



[EMPTY](#)<sup>[8]</sup> - [EPA240360](#)<sup>[9]</sup> - [EPA240416](#)<sup>[10]</sup> - EPA400300 - [EPA480800](#)<sup>[12]</sup>

## 4.6 9782-2 EPA480800



[EMPTY](#)<sup>[8]</sup> - [EPA240360](#)<sup>[9]</sup> - [EPA240416](#)<sup>[10]</sup> - [EPA400300](#)<sup>[11]</sup> - EPA480800

## 5 Commands/Pictures

### 5.1 Commands

### How to bring Text/Pictures to the Display

If you want to show your own text you can change the commandfile (\*.txt) for each display and angle in the folder StartEPA (EPAX\_x.txt) and save it. Immediately the program will take the new file and show your commands in the textfile.

Also you can take a commandfile (\*.txt) or graphicfile (\*.bmp, \*.png, \*.jpg, \*.gif) with the mouse and drop it on the EPA-Simulator Window .

#### Syntax:

comment: begin with ';' SEMICOLON, end -> linefeed LF = 0x0A  
 command: '#', end -> linefeed LF = 0x0A  
 delimiter: SPACE or COMMA or TAB  
 values: dec=123 hex=\$AB bin=%01000010  
 strings: "Text" or 'Text' (\\$xx special Hexcode in string)

#### Commands:

Display Typ	#DT no	Display Typ no = 1,2,3,4 (1= <a href="#">EPA240360</a> <sup>[9]</sup> , 2= <a href="#">EPA240416</a> <sup>[10]</sup> , 3= <a href="#">EPA400300</a> <sup>[11]</sup> , 4= <a href="#">EPA480800</a> <sup>[12]</sup> )
Display Orientation	#DO angle	set Display Orientation, angle = 0,90,180 or 270 degree
Display Update	#DU	Display Update and refresh
Display Clear	#DC	Display Clear (color white)
Display Fill	#DF color	Display Fill with color = 1,2,3 (1=white, 2=black, 3=red)
Fill Area	#FA color, xs,ys,xs,ys	Fill Area xs,ys < xs,ys with color = 1,2,3 (1=white, 2=black, 3=red)
Text Color	#TC colorTxt, colorBgd	set Text Color -> Text,Background: 0,1,2,3 (0=none, 1=white, 2=black, 3=red)
Text Font	#TF fs, zx,zy	set Text Fontsize (8= <a href="#">6x8</a> <sup>[13]</sup> , 16= <a href="#">8x16</a> <sup>[16]</sup> , 10= <a href="#">ascii_10</a> <sup>[17]</sup> , 14= <a href="#">ascii_14</a> <sup>[18]</sup> , 20,22,24,26,32,40,48,60= <a href="#">Arial_20..60</a> <sup>[19]</sup> ) and zoom zx,zy (1..4)
Text Place	#TP x,y,"text"	Text Place at position x,y
Text Start	#TS xs,ys, h	set global Text Start coordinates xs,ys and h (lineheight)
Text Line	#TL "text"	place Text Line at global position (#TS); after textplace ys=ys+h
place BitMap	#BM x,y,BMdata..	place Bitmap at position x,y BMdata=binary data from *.BMP File
place BitMap (startEPA.exe)	#BM x,y,"filename"	only for "startEPA.exe", filename = *.bmp, *.png, *.jpg, *.gif The Image will be converted and resized

**Example** (EPA240360\_90.txt):





## 5.2 Font mono\_6x8

mono\_6x8 is a monospaced font

+ Lower Upper	\$0 (0)	\$1 (1)	\$2 (2)	\$3 (3)	\$4 (4)	\$5 (5)	\$6 (6)	\$7 (7)	\$8 (8)	\$9 (9)	\$A (10)	\$B (11)	\$C (12)	\$D (13)	\$E (14)	\$F (15)
\$20 (dez: 32)		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
\$30 (dez: 48)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
\$40 (dez: 64)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
\$50 (dez: 80)	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
\$60 (dez: 96)	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
\$70 (dez: 112)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
\$80 (dez: 128)																
\$90 (dez: 144)																
\$A0 (dez: 160)											ä					
\$B0 (dez: 176)	ö															
\$C0 (dez: 192)				Ä	Å	Æ	Ç	É								
\$D0 (dez: 208)		Ñ					Ö					Ü				ß
\$E0 (dez: 224)	À	Á	Â		Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
\$F0 (dez: 240)		Ā	ō	ó	ô		ö			û	ü	Ů	Ű			ÿ



### 5.3 Font mono\_8x16

mono\_8x16 is a monospaced font

+ Lower Upper	\$0 (0)	\$1 (1)	\$2 (2)	\$3 (3)	\$4 (4)	\$5 (5)	\$6 (6)	\$7 (7)	\$8 (8)	\$9 (9)	\$A (10)	\$B (11)	\$C (12)	\$D (13)	\$E (14)	\$F (15)
\$00 (dez: 0)	N L	S O H	S T x	E T x	E O T	E N O	A O K	E L	B S	H T	L F	V T	F F	C R	S O	S I
\$10 (dez: 16)	D L E	D C 1	D C 2	D C 3	D C 4	N O K	S V N	E T B	C N	E M	S U B	E S C	F S	G S	R S	U S
\$20 (dez: 32)		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
\$30 (dez: 48)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
\$40 (dez: 64)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
\$50 (dez: 80)	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
\$60 (dez: 96)	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
\$70 (dez: 112)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	D L
\$80 (dez: 128)	% <sub>1</sub>	% <sub>2</sub>	B H	N H	L D	N E L	S A	E A	H S	H J	U S	F D	F U	R I	S 2	S 3
\$90 (dez: 144)	D S	P 1	P 2	S S	C H	M W	S A	E A	S S	% <sub>3</sub>	S I	C I	S T	O C	F M	A C
\$A0 (dez: 160)		i	¢	£	¤	¥	¦	§	¨	©	ª	«	¬		®	¯
\$B0 (dez: 176)	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	⅓	¿
\$C0 (dez: 192)	À	Á	Â	Ã	Ä	Å	Æ	Ç	É	È	Ê	Ë	Ì	Í	Î	Ï
\$D0 (dez: 208)	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
\$E0 (dez: 224)	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
\$F0 (dez: 240)	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

## 5.4 Font ascii\_10

ascii\_10 is a proportional font

+ Lower Upper	\$0 (0)	\$1 (1)	\$2 (2)	\$3 (3)	\$4 (4)	\$5 (5)	\$6 (6)	\$7 (7)	\$8 (8)	\$9 (9)	\$A (10)	\$B (11)	\$C (12)	\$D (13)	\$E (14)	\$F (15)
\$20 (dez. 32)		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
\$30 (dez. 48)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
\$40 (dez. 64)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
\$50 (dez. 80)	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
\$60 (dez. 96)	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
\$70 (dez. 112)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
\$80 (dez. 128)																
\$90 (dez. 144)																
\$A0 (dez. 160)											ä					
\$B0 (dez. 176)	°															
\$C0 (dez. 192)					Ä	Å	Æ	Ç	É							
\$D0 (dez. 208)		Ñ					Ö						Ü			ß
\$E0 (dez. 224)	à	á	â		ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
\$F0 (dez. 240)		ñ	ò	ó	ô		ö			ù	ú	û	ü			ÿ

## 5.5 Font ascii\_14

ascii\_14 is a proportional font

<div>+ Lower</div> <div>Upper</div>	\$0 (0)	\$1 (1)	\$2 (2)	\$3 (3)	\$4 (4)	\$5 (5)	\$6 (6)	\$7 (7)	\$8 (8)	\$9 (9)	\$A (10)	\$B (11)	\$C (12)	\$D (13)	\$E (14)	\$F (15)
\$20 (dez: 32)		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
\$30 (dez: 48)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
\$40 (dez: 64)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
\$50 (dez: 80)	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
\$60 (dez: 96)	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
\$70 (dez: 112)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
\$80 (dez: 128)																
\$90 (dez: 144)																
\$A0 (dez: 160)											ä					
\$B0 (dez: 176)	°															
\$C0 (dez: 192)					Ä	Å	Æ	Ç	É							
\$D0 (dez: 208)		Ñ					Ö						Ü			ß
\$E0 (dez: 224)	à	á	â		ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
\$F0 (dez: 240)		ñ	ò	ó	ô		ö			ù	ú	û	ü			ÿ

## 5.6 Font Arial\_20..60

Arial is available in 8 sizes 20, 22, 24, 26, 32, 40, 48 and 60 dots

+ Lower Upper	\$0 (0)	\$1 (1)	\$2 (2)	\$3 (3)	\$4 (4)	\$5 (5)	\$6 (6)	\$7 (7)	\$8 (8)	\$9 (9)	\$A (10)	\$B (11)	\$C (12)	\$D (13)	\$E (14)	\$F (15)
\$20 (dez: 32)		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
\$30 (dez: 48)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
\$40 (dez: 64)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
\$50 (dez: 80)	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
\$60 (dez: 96)	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
\$70 (dez: 112)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
\$80 (dez: 128)	€	•	‰	≤	≥	≈	≠	≡	Ω							
\$90 (dez: 144)	←	↑	→	↓	↔	↕	◀	▲	▶	▼	○	●	□	■		
\$A0 (dez: 160)		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯
\$B0 (dez: 176)	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
\$C0 (dez: 192)	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
\$D0 (dez: 208)	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
\$E0 (dez: 224)	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
\$F0 (dez: 240)	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

## 6 Troubleshooting

### No Demo appears on the display plugged to the EA 9782-2USB

Please click in the menu [Help](#)<sup>[6]</sup> the button About;  
menu EPA -> Update EPA  
The display may be damaged;

### "Board: not connected" please check:

Is the USB-cable plugged in well on both sides;  
Is the USB driver installed on the PC;  
The test board [EA 9782-2USB](#)<sup>[7]</sup> may be damaged;

### Nothing is seen on the display:

The display pins are not correct plugged in;  
The display may be damaged;