

Datasheet

IF426-00

IF426-00 Interface AA035AE01

ZU-02-426

Version 1.1

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Table of Contents

1	Revision History	3
2	Absolut Maximum Ratings	4
3	Electrical Specification	4
4	Mechanical Specification.....	5
5	Connectors.....	5
5.1	Input Connectors.....	5
5.2	Output Connectors.....	6

preliminary

1 Revision History

Date	Rev.No.	Description	Page
27.02.2019	0.1	First Draft	All
04.09.2019	1.0	CN5 and description added	4
24.09.2019	1.1	CN1 pinning corrected	5

preliminary

2 Absolut Maximum Ratings

Item	Symbol	Min.	Max	Unit	Note
Supply Voltage	V_{DD}	-0.3	7.0	VDC	
Supply Voltage	V_{BLU}	10.8	13.2	VDC	
Control Voltages	$V_{ON/OFF}, V_{PWM}$		5.25	V	
Storage Temperature	T_{st}	-30	80	°C	
Operating Temperature	T_{op}	-20	70	°C	

3 Electrical Specification

LVDS

Item	Symbol	Min.	Typ.	Max	Unit	Note
Supply Voltage	V_{DD}	4.75	5.0	5.25	VDC	
Current	I_{DD}		120	160	mA	
Input Power	P_{DD}		0.6	0.84	W	

BLU

Item	Symbol	Min.	Typ.	Max	Unit	Note
Source Voltage	V_{BLU}	11.5	12V	12.5	V	
Source Current	I_{BLU}		0.06		A	LED 3CH
Source Power	P_{BLU}		0.72		W	
Efficiency			88		%	
PWM dimming	PWM	100Hz	180Hz	1000Hz	f	
PWM duty cycle	PWM_{duty}	0.3%		100%	%	2
Min. On Level voltage	$V_{ON/OFF}, V_{PWM}$	2.4		5.0	V	1
Max. Off Level voltage	$V_{ON/OFF}, V_{PWM}$	-0.3		0.8	V	1

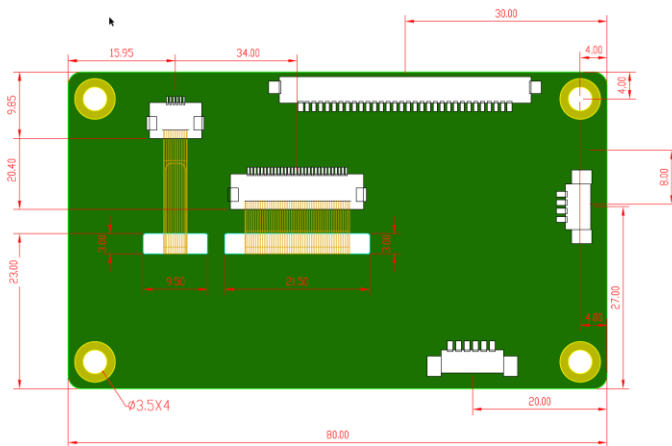
Note(1) PWM Mode

Note(2) PWM Duty min depends on PWM frequency

Fpwm(Hz)	Dmin(%)	Dmax(%)
100<F≤200	0.30	100
200<F≤500	0.75	100
500<F≤1K	1.50	100
1K<F≤2K	3.00	100
2K<F≤5K	7.50	100
5K<F≤10K	15.00	100
10K<F≤13K	19.00	100
13K<F≤20K	30.00	100

4 Mechanical Specification

Item	Description	Note
Length	80 mm	± 0.2mm
Width	47 mm	± 0.2 mm
Height (top side)	3.8mm	± 0.2 mm(L1)
Height (PCB)	1.6mm	± 0.1 mm
Height (Bottom)	0	No Components On Bottom Side



5 Connectors

CON	Description	Type	Manufacturer
CN1	Input LVDS Connector	FI-X30SSLA-HF	JAE
CN2	Input Backlight connector	53261-0671	Molex
CN3	Output LVDS Connector	05002HR-H30J05	Yeonho
CN4	Output Backlight Connector	05003HR-H06ED	Yeonho
CN5	SPI Connector	12505WS-12P	Yeonho

5.1 Input Connectors

CN1 LVDS input connector

Pin	Signal	Description	Pin	Signal	Description
1	NC	Not Connected	17	R0-	
2	NC	Not Connected	18	GND	Ground
3	GND	Ground	19	STBYB	
4	R3+		20	NC	Not Connected
5	R3-		21	NC	Not Connected
6	GND	Ground	22	NC	Not Connected
7	R2+		23	NC	Not Connected
8	R2-		24	NC	Not Connected
9	GND	Ground	25	NC	Not Connected
10	RCLK+		26	V _{DD}	
11	RCLK-		27	V _{DD}	
12	GND	Ground	28	GND	Ground
13	R1+		29	NC	Not Connected
14	R1-		30	NC	Not Connected
15	GND	Ground	31	NC	Not Connected
16	R0+		32	NC	Not Connected

CN2 BLU input connector

Pin	Signal	Description
1	V _{BLU}	BLU Supply Voltage
2	V _{BLU}	BLU Supply Voltage
3	GND	Ground
4	GND	Ground
5	ON/OFF	BLU On/Off
6	PWM	BLU PWM

CN5 SPI input connector

Pin	Signal	Description
1	RSTB	Reset (H:Normal, L:Reset)
2	SCL	SPI Clock
3	SDA	SPI Data (I/O)
4	CSB	SPI Chip Select

(See datasheet AA035AE01 from Jun 21, 2018 for SPI data description)

5.2 Output Connectors

CN3 LVDS output connector

Pin	Signal	Description	Pin	Signal	Description
1	GND	Ground	16	Link0+	LVDS Link0
2	CSB	SPI Chip Select	17	Link0-	LVDS Link0
3	SDA	SPI Data (I/O)	18	GND	Ground
4	GND	Ground	19	CLKIN+	LVDS Clock
5	SCL	SPI Clock	20	CLKIN-	LVDS Clock
6	GND	Ground	21	GND	Ground
7	Link3+	LVDS Link3	22	STBYB	Stand-by Control (H:Normal, L:Standby)
8	Link3-	LVDS Link3	23	RSTB	Reset (H:Normal, L:Reset)
9	GND	Ground	24	GND	Ground
10	Link2+	LVDS Link2	25	GND	Ground
11	Link2-	LVDS Link2	26	V _{DD}	Digital Power Supply 2.5 V
12	GND	Ground	27	V _{DD}	Digital Power Supply 2.5 V
13	Link1+	LVDS Link1	28	V _{CC}	Analog Power Supply 3.2V
14	Link1-	LVDS Link1	29	V _{CC}	Analog Power Supply 3.2V
15	GND	Ground	30	V _{CC}	Analog Power Supply 3.2V

CN4 BLU output connector

Pin	Signal	Description
1	LED CA1	LED cathode 1
2	LED AN1	LED anode 1
3	LED AN2	LED anode 2
4	LED CA2	LED cathode 2
5	LED CA3	LED cathode 3
6	LED AN3	LED anode 3

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