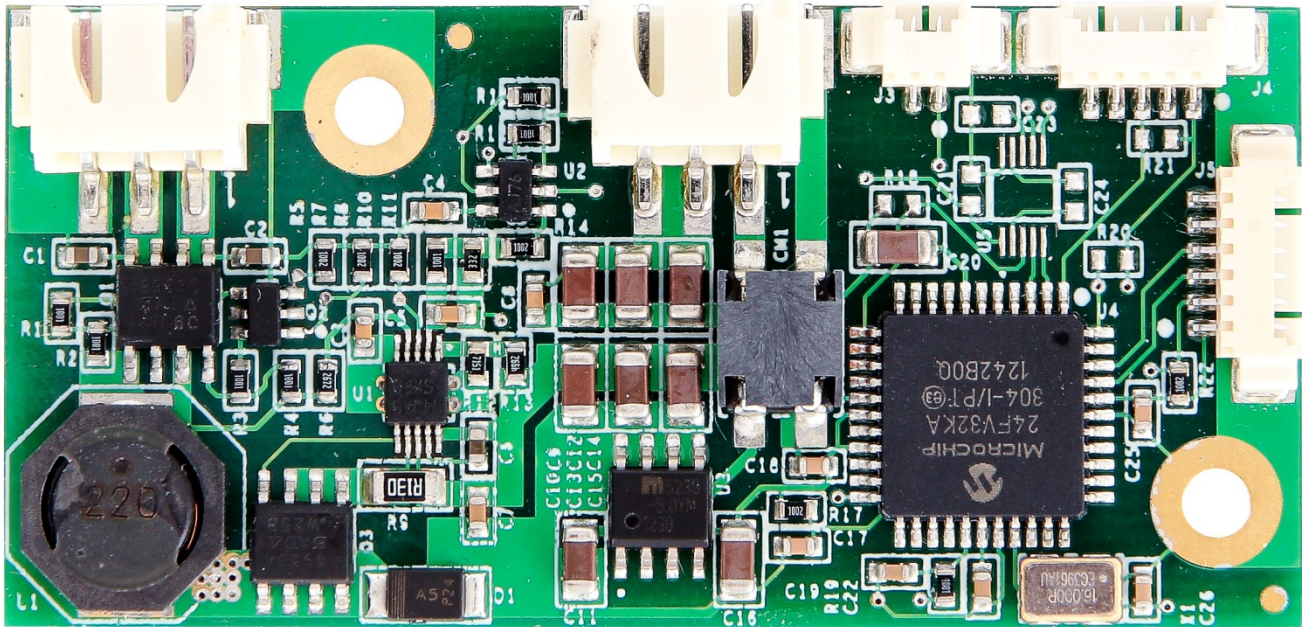


DAY/NVIS LED DRIVER		
Document Number: 999-0421-231		Page 1 of 3
Document Name: 999-0421-231.docx		
Revision: -	Author: Brian Snow	Date: 1/31/13



Overview

The 21-231-A is a dual channel LED driver intended for DAY (high brightness)/NVIS backlights in LCD displays. The LED driver utilizes a constant current buck controller with DAY and NVIS channel current levels that can be set to independently in firmware. The 21-231-A features a thermistor sensor input to monitor LED rail temperature prevent overheating. Brightness levels are controlled via a simple yet reliable analog input and two logic signals to control enable and DAY/NVIS selection.

Electrical Characteristics

Absolute Maximum Ratings				
Parameter	Symbol	Minimum	Maximum	Units
Input Voltage	V _{in}	-0.3	30.0	VDC
Input Pin	V _{ip}	-0.3	5.0	VDC
V _{ref} Output Current	I _{ref}	-	1.0	mA
Operating Temperature	T _{op}	-40	85	°C

DAY/NVIS LED DRIVER

 Document Number: **999-0421-231**

 Page **2** of **3**

 Document Name: **999-0421-231.docx**

Revision: -

Author: Brian Snow

Date: 1/31/13

Electrical Characteristics

Parameter	Condition	Symbol	Minimum	Typical	Maximum	Units
Input Voltage	Normal Operation	Vin	12.0	-	28.0	VDC
Input Current	Vin = 12V	lin	-	1.5	-	ADC
	Vin = 24V	lin	-	1.5	-	ADC
LED Output Voltage		Vled	-	-	Vin - 2	VDC
LED Output Current	Max Brightness	Iled	-	-	1.5	ADC

Connector Information

Connector J1 - LED OUT
JST/S3B-XH-SM4-TB (mates with JST/XHP-3)

Pin	Description	Notes
1	DAY ANODE	(Vin - 2V), 1.5A MAX
2	NVIS ANODE	(Vin - 2V), 1.5A MAX
3	GND	

Connector J2 - POWER IN
JST/S3B-XH-SM4-TB (mates with JST/XHP-3)

Pin	Description	Notes
1	Vin	+12VDC to +24VDC, 0.75A MAX
2	GND	
3	GND	

Connector J3 - THERMISTOR IN
Molex/053261-0271 (mates with Molex/51021-0200)

Pin	Description	Notes
1	THERMISTOR	0VDC to +5VDC analog input
2	GND	

DAY/NVIS LED DRIVER		
Document Number: 999-0421-231		Page 3 of 3
Document Name: 999-0421-231.docx		
Revision: -	Author: Brian Snow	Date: 1/31/13

Connector J4 - BACKLIGHT CONTROL		
Molex/053261-0571 (mates with Molex/51021-0500)		
Pin	Description	Notes
1	Vref	Connected to internal VCC (+5VDC)
2	ENABLE	+5VDC-Enabled, 0VDC-Dissabled, Internally pulled up with 10kΩ resistor
3	DAY/NVIS	+5VDC-DAY, 0VDC-NVIS, Internally pulled up with 10kΩ resistor
4	Ain	0VDC to +5VDC analog input, 0VDC-0% brightness, +5VDC-100% brightness
5	GND	

Connector J5 - RESERVED		
Molex/053261-0671 (mates with Molex/51021-0600)		
Pin	Description	Notes
1	Vref	Connected to internal VCC (+5VDC)
2	RESERVED	
3	RESERVED	
4	RESERVED	
5	RESERVED	
6	GND	

Specifications subject to change without notice or obligation.