Actual version of this manual is always available on website under link:

English:
www.muzgaudio.com/manuals/V32_Manual_EN.pdf
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MuzgAUDIO

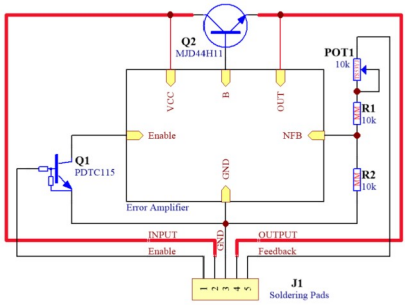
Uncompromising quality at an affordable price

Voltage Regulator V3.2
Instalation Manual/Datasheet V1.1

Thanks for choosing my product. I have made every effort to ensure that you are satisfied.

1. Description:

V3.2 is a series regulator based on discrete components. Thanks to usage of negative feedback and high PSRR, V3.2 provides stable and clean output voltage no matter of output current change and input voltage fluctuations. Is based on V3.1 regulator with improved PSRR, temperature stability and enable functionality.



Diag1: Block Diagram

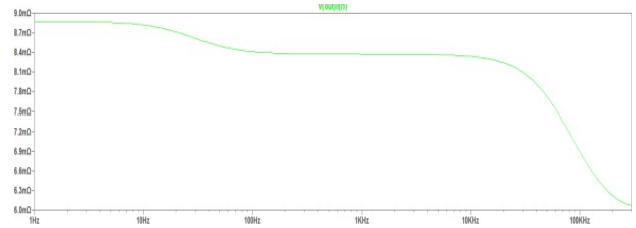
8. Quality:

Every regulator is checked against malfunction or exceeding parameters in two steps:
1. First voltage regulation range is tested if not exceed 3.3 – 5.2V region.
2. In second test every regulator is tested in condition: 8V input voltage; 5V output voltage; 1500mA load.

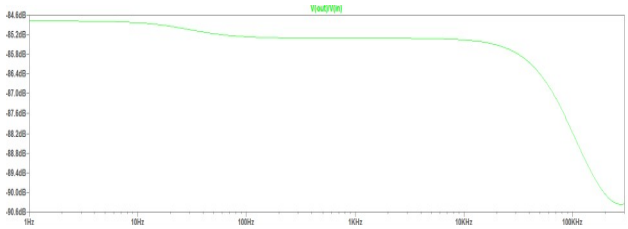
Result of both test are writen on back side of your regulator so if it looks like below:

3,3-5,5V
OK!

It means that your regulator passes all test and is ready for installation.



Diag 2: Output Impedance

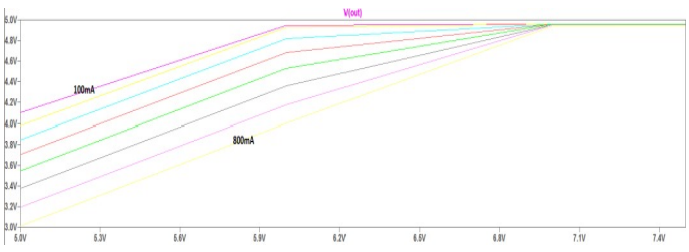


Diag 3: PSRR

Table of Contents

2. Parameters:

Parameter	Value
Input Voltage Range	5V ÷ 15V
Output Voltage Range	3.3V ÷ 5.2V
Output Voltage Tolerance	5%
Output Current	Max. 1500mA
Dropout Voltage	I=100mA; 1,5V
	I=500mA; 2V
Power Dissipation	Max 200mW without heatsink
	Max 1W with heatsink
Output Voltage Noise, BW=10Hz - 100kHz	12nV/√Hz
PSRR	>85dB
Output Impedance	<10mΩ
Quiescent Current	<20mA when EN=1
	<1uA when EN=0



Diag 4: Minimal dropout voltage required for ensure regulation.

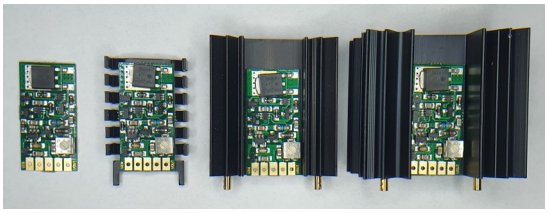
9. Warranty:

1. Every regulator is covered by unlimited in time warranty, no matter who contributed to the damage.
2. Regulator will be repaired and sended back to customer.
3. Cutomer must cover shipping costs in both side.
4. Mechanical damage of PCB is not covered by warranty.
5. Due to the fact, that regulator is intended to be used in DIY market and this require specialist knownledge and skills manufacturer is not liable for damages caused during instalation.

All specs and parameters subject to change without prior notice.

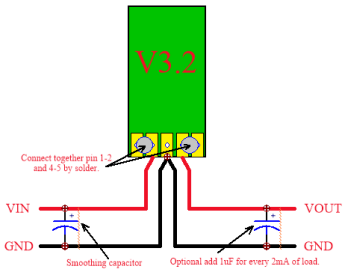
7. Mechanical mount:

V3.2 regulator could be mounted in many ways. PCB mount is done via special footprint on PCB or in place of original 78XX regulators.
To extend heat dissipation possibilities external aluminium/copper heatsink could be mounted. Regulator is designed to fit into standard TO220 heatsink like SK104, SK129, FK218. You can also use metal part of your device as heatsink. Regulator should be sticked by thermal conductive tape like 3M 8810.

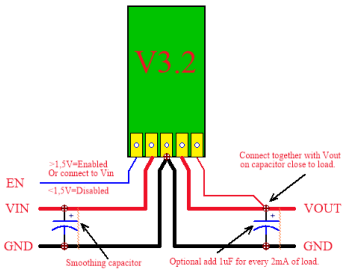


4. Electrical connection:

V3.2 regulator could be connected in two ways:
1. As classic 3-pin regulator by connecting pin 1 with 2 and 4 with 5 together. Created in this way regulator has only 3-pin like classic 78XX standard.
2. As 5-pin regulator with possibility to disable it and provide external connection of Feadback pin.



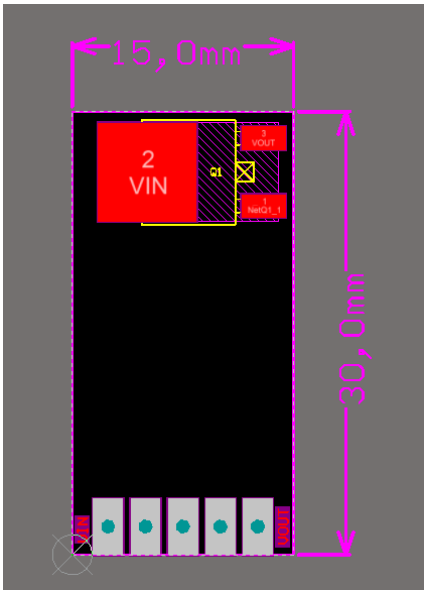
Diag 4: 3-pin connection



Diag 5: 5-pin connection

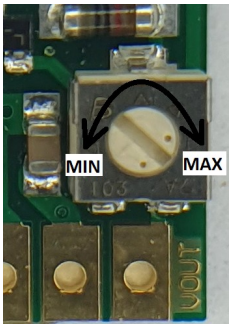
Altium footprint and symbols are available!

5. Dimensions:

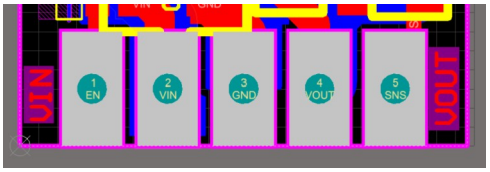


6. Output voltage settings:

By default all regulators are set to 5V! Take care before installation because if your aplication requires 3,3V, connecting regulators without any change may cause damage in your circuit. You can easily change output voltage to 3,3V by turning build in potentiometer to minimum (maximal left position). Precise regulation should be done in circuit on load condition.



3. Pinout:



Pin	Function
1	Enable pin of regulator. >1,5V will enable regulator <1V caused shout down
2	Power input voltage
3	Ground
4	Power output voltage
5	Negative feedback. **Must be connected to pin 4!**