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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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Test Procedure for the NCP729FC285GEVB Evaluation Board

Test Setup 1:



Figure 1. Test setup for the measurements of basic regulation characteristics

Required Equipment:

2 x Voltmeters 2 x Ampere meters DC Power Supply – Max. 5.5V Electronic Load



Test Procedure for the Measurement of Line Regulation parameter using Test Setup 1:

- 1. Connect the test setup as shown on Figure 1,
- 2. Set the electronic load for the required load current e.g. $I_{OUT} = 10 \text{mA}$,
- 3. Apply the required minimum input voltage e.g. $V_{IN_{MIN}} = V_{OUT_{NOM}} + 0.3 V^{(1)}$,
- 4. Note the output voltage reading V_{OUT1} indicated by VOTLMETER2,
- 5. Apply the required maximum input voltage e.g. $V_{IN_MAX} = V_{OUT_NOM} + 1.3V^{(1)}$,
- 6. Note the output voltage reading V_{OUT2} indicated by VOTLMETER2,
- 7. Calculate the Line Regulation parameter as:

 $Reg_{LINE} = (V_{OUT2} - V_{OUT1}) / (V_{IN_MAX} - V_{IN_MIN}) [V/V]$

8. Turn off the electronic load. Turn off the input power supply,

9. End of the test.

Test Procedure for the Measurement of Load Regulation parameter using Test Setup 1:

- 1. Connect the test setup as shown on Figure 1,
- 2. Set the electronic load for the required minimum output current e.g. $I_{OUT_{MIN}} = 1 \text{ mA}$,
- 3. Apply the desired input voltage e.g. $V_{IN} = V_{OUT_NOM} + 0.3 V^{(1)}$,
- 4. Note the output voltage reading V_{OUT1} indicated by VOTLMETER2,
- 5. Set the electronic load for the required maximum output current e.g. $I_{OUT_MAX} = 150 \text{mA}$,
- 6. Note the output voltage reading V_{OUT2} indicated by VOTLMETER2,
- 7. Calculate the Load Regulation parameter as:

 $Reg_{LOAD} = (V_{OUT2} - V_{OUT1}) / (I_{OUT_MAX} - I_{OUT_MIN}) [V/A]$

- 8. Turn off the electronic load. Turn off the input power supply,
- 9. End of the test.

(1) V_{OUT_NOM} is the nominal output voltage level of the regulator. NCP729 operating V_{IN} must be in the range $2.0V \le V_{IN} \le 5.5V$