



Product Overview

NCP133: CMOS Linear Voltage Regulator with Bias Rail, 500 mA Very Low Dropout

For complete documentation, see the data sheet

Product Description

NCP133 is a 500 mA VLDO equipped with NMOS pass transistor and a separate bias supply voltage (VBIAS). The device provides very stable, accurate output voltage with low noise suitable for space constrained, noise sensitive applications. In order to optimize performance for battery operated portable applications, the NCP133 features low IQ consumption. The XDFN6 1.2 mm x 1.2 mm package is optimized for use in space constrained applications.

Features	Benefits
<ul style="list-style-type: none">• Ultra-Low Dropout of Typ. 140mV• Fixed Output Voltage options from 0.8V to 2.1V and Adjustable• 140 mV typical dropout at the full 500 mA load.• Guaranteed Output Current from 0mA to 500mA• 0.5% Typical Output Voltage Accuracy• Output Current in Excess of 500mA• Output Active Discharge option available	<ul style="list-style-type: none">• Allows to save power and operates with very low Vin-Vout voltage.• Excellent choice for low voltage Vcore applications• minimizes the power loss across the regulator• Very good choice for high current applications• Perfect fit for POL applications

Applications	End Products
<ul style="list-style-type: none">• Battery - powered and Portable Equipment	<ul style="list-style-type: none">• Smartphones, Tablets• Cameras, DVRs, Camcorders

Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V _O (V)	I _O Typ (A)	V _I Max (V)	V _{DO} Typ (V)	I _q Typ (mA)	PSRR (dB)	Noise (μV _{rms})	Package Type
NCP133AMX090TCG	Pb-free Halide free	Active	Single	Positive	0.9	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX100TCG	Pb-free Halide free	Active	Single	Positive	1	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX105TCG	Pb-free Halide free	Active	Single	Positive	1.05	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX110TCG	Pb-free Halide free	Active	Single	Positive	1.1	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX115TCG	Pb-free Halide free	Active	Single	Positive	1.15	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX120TCG	Pb-free Halide free	Active	Single	Positive	1.2	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX125TCG	Pb-free Halide free	Active	Single	Positive	1.25	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX130TCG	Pb-free Halide free	Active	Single	Positive	1.3	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.5	5.5	0.14	0.08	80	40	XDFN-6
NCP133AMXADJTCG	Pb-free Halide free	Active	Single	Positive	ADJ	0.5	5.5	0.14	0.08	80	50*V _{out}	XDFN-6
NCP133BMXADJTCG	Pb-free Halide free	Active	Single	Positive	ADJ	0.5	5.5	0.14	0.08	80	50*V _{out}	XDFN-6

For more information please contact your local sales support at www.onsemi.com

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