

Product Overview

NCP114: LDO Regulator, 300 mA, High PSRR

For complete documentation, see the data sheet.

The NCP114 is 300 mA LDO that provides the engineer with a very stable, accurate voltage with low noise suitable for space constrained, noise sensitive applications. In order to optimize performance for battery operated portable applications, the NCP114 employs the dynamic quiescent current adjustment for very low IQ consumption at no-load.

Features

- Operating Input Voltage Range: 1.7 V to 5.5 V
- Low Dropout: 135 mV Typical at 300 mA
- High PSRR 75dB at 1kHz
- Thermal Shutdown and Current Limit Protections
- Very Low Quiescent Current of Typ. 50 μ A
- Available in uDFN 1.0 x 1.0 mm Package
- +/- 1% typical Vout Accuracy

Applications

- Touchscreen Controller Supply
- Wireless module
- Camera supply module
- MCU and low power FPGA supply

Benefits

- Well suited for battery powered applications
- Supports applications with very low Input to Output Voltage requirements
- Very well suited for space-constrained applications
- Robust design and high reliability
- Highly effective solution at light load conditions
- Very well suited for space-constrained applications
- Precise Vout for power sensitive devices

End Products

- Smartphone
- Tablet
- Portable device
- Wireless handset
- IP Camera

Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V _O (V)	I _O Typ (A)	V _I Min (V)	V _I Max (V)	V _{DO} Typ (V)	I _Q Typ (mA)	PSRR (dB)	Noise (μV _{rms})	Enable	Power Good	Package Type
NCP114AMX075TCG	Pb-free Halide free	Active	Single	Positive	0.75	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX080TCG	Pb-free Halide free	Active	Single	Positive	0.8	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX090TAG	Pb-free Halide free	Product Preview	Single	Positive	0.9	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX090TCG	Pb-free Halide free	Active	Single	Positive	0.9	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX100TCG	Pb-free Halide free	Active	Single	Positive	1	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX105TCG	Pb-free Halide free	Active	Single	Positive	1.05	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX110TBG	Pb-free Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX110TCG	Pb-free Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX115TCG	Pb-free Halide free	Active	Single	Positive	1.15	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX120TBG	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX120TCG	Pb-free Halide free	Active	single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX125TCG	Pb-free Halide free	Active	Single	Positive	1.25	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX130TCG	Pb-free Halide free	Active	Single	Positive	1.3	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX135TCG	Pb-free Halide free	Active	Single	Positive	1.35	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114AMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.365	0.05	75	70	Yes	No	UDFN-4
NCP114AMX160TCG	Pb-free Halide free	Active	Single	Positive	1.6	0.3	1.7	5.5	0.285	0.05	75	70	Yes	No	UDFN-4
NCP114AMX180TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	UDFN-4
NCP114AMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	UDFN-4
NCP114AMX185TCG	Pb-free Halide free	Active	Single	Positive	1.85	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	UDFN-4
NCP114AMX210TCG	Pb-free Halide free	Active	Single	Positive	2.1	0.3	1.7	5.5	0.19	0.05	75	70	Yes	No	UDFN-4
NCP114AMX220TCG	Pb-free Halide free	Active	Single	Positive	2.2	0.3	1.7	5.5	0.185	0.05	75	70	Yes	No	UDFN-4
NCP114AMX240TCG	Pb-free Halide free	Active	Single	Positive	2.4	0.3	1.7	5.5	0.165	0.05	75	70	Yes	No	UDFN-4
NCP114AMX250TBG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	UDFN-4
NCP114AMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	UDFN-4
NCP114AMX260TCG	Pb-free Halide free	Active	Single	Positive	2.6	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4
NCP114AMX270TCG	Pb-free Halide free	Active	Single	Positive	2.7	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4

NCP114AMX280TBG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4
NCP114AMX280TCG	Pb-free Halide free	Active	single	Positive	2.8	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4
NCP114AMX285TCG	Pb-free Halide free	Active	Single	Positive	2.85	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4
NCP114AMX290TCG	Pb-free Halide free	Active													UDFN-4
NCP114AMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.145	0.05	75	70	Yes	No	UDFN-4
NCP114AMX310TBG	Pb-free Halide free	Active	Single	Positive	3.1	0.3	1.7	5.5	0.14	0.05	75	70	Yes	No	UDFN-4
NCP114AMX310TCG	Pb-free Halide free	Active	Single	Positive	3.1	0.3	1.7	5.5	0.14	0.05	75	70	Yes	No	UDFN-4
NCP114AMX320TCG	Pb-free Halide free	Active	Single	Positive	3.2	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	UDFN-4
NCP114AMX330TBG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	UDFN-4
NCP114AMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	UDFN-4
NCP114AMX345TCG	Pb-free Halide free	Active	Single	Positive	3.45	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	UDFN-4
NCP114AMX350TCG	Pb-free Halide free	Active	Single	Positive	3.5	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	UDFN-4
NCP114AMX360TCG	Pb-free Halide free	Active	Single	Positive	3.6	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	UDFN-4
NCP114ASN080T1G	Pb-free Halide free	Active	Single	Positive	0.8	0.3	1.7	5.5		0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN120T1G	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN120T2G	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN150T1G	Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.38	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN150T2G	Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.38	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN180T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.26	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.26	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN250T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN250T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN260T1G	Pb-free Halide free	Active	Single	Positive	2.6	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN270T1G	Pb-free Halide free	Active	Single	Positive	2.7	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN280T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5

NCP114ASN280T2G	<u>Pb-free</u> Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN290T1G	<u>Pb-free</u> Halide free	Active	Single	Positive	2.9	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN300T1G	<u>Pb-free</u> Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN330T1G	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114ASN330T2G	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5
NCP114BMX075TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	0.75	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114BMX100TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114BMX120TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	UDFN-4
NCP114BMX150TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.365	0.05	75	70	Yes	No	UDFN-4
NCP114BMX180TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	UDFN-4
NCP114BMX250TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	UDFN-4
NCP114BMX280TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	UDFN-4
NCP114BMX300TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.145	0.05	75	70	Yes	No	UDFN-4
NCP114BMX330TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	UDFN-4
NCP114BSN330T1G	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	TSOP-5 / SOT-23-5

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