

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	Pricing (\$/Unit)	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)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCP114AMX075TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.75	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX080TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.8	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX090TAG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.9	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX090TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.9	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX092TAG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.92	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX100TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX105TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.05	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX110TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX110TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX115TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.15	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX120TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX120TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX125TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.25	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX130TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.3	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX135TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.35	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX150TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.3	1.7	5.5	0.365	0.05	75	70	Yes	No	Consumer	UDF N-4

NCP114AMX160TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.6	0.3	1.7	5.5	0.285	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX180TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX180TCG	0.0523	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX185TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.85	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX210TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.1	0.3	1.7	5.5	0.19	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX220TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.2	0.3	1.7	5.5	0.185	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX240TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.4	0.3	1.7	5.5	0.165	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX250TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX250TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX260TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.6	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX270TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.7	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX280TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.8	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX280TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	single	Positive	2.8	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX285TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.85	0.3	1.7	5.5	0.155	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX290TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active													Consumer	UDF N-4
NCP114AMX300TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.3	1.7	5.5	0.145	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX310TBG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.1	0.3	1.7	5.5	0.14	0.05	75	70	Yes	No	Consumer	UDF N-4

NCP114AMX310TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.1	0.3	1.7	5.5	0.14	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX320TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.2	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX330TBG	0.0505	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX330TCG	0.0507	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX345TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.45	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX350TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.5	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114AMX360TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.6	0.3	1.7	5.5	0.13	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114ASN080T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	0.8	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN120T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN120T2G	0.0933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN150T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.3	1.7	5.5	0.38	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN180T1G	0.0633	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	1.7	5.5	0.26	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN180T2G	0.0933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	1.7	5.5	0.26	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN250T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN260T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.6	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN270T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.7	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN280T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.8	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5

NCP114ASN280T2G	0.0933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.8	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN290T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.9	0.3	1.7	5.5	0.17	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN300T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN330T1G	0.0633	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114ASN330T2G	0.0933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5
NCP114BMX100TCG	0.0503	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1	0.3	1.7	5.5		0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114BMX180TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	1.7	5.5	0.245	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114BMX250TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	1.7	5.5	0.16	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114BMX330TCG	0.056	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.135	0.05	75	70	Yes	No	Consumer	UDF N-4
NCP114BSN330T1G	0.0608	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	1.7	5.5	0.15	0.05	75	70	Yes	No	Consumer	TSO P-5 / SOT- 23-5

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