

## 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  $\mu$ 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 <sub>o</sub> (V)	I <sub>o Typ</sub> (A)	V <sub>i Min</sub> (V)	V <sub>i Max</sub> (V)	V <sub>Do Typ</sub> (V)	I <sub>q Typ</sub> (mA)	PSR R (dB)	Noise (μV <sub>rms</sub> )	Enable	Power Good	Application	Package Type
NCP114AMX075TCG	0.0387	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	0.0387	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	0.0387	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	0.0387	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		Pb-free Halide free non AEC-Q and PPAP	Product Preview														UDF N-4
NCP114AMX100TCG	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0433	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0387	Pb-free Halide free non AEC-Q and PPAP	Active													Consumer	UDF N-4
NCP114AMX300TCG	0.0387	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	0.0387	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	0.0387	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	0.0387	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	0.0407	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	0.0396	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	0.0387	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	0.0387	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	0.0387	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	0.048	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	0.048	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	0.048	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
NCP114ASN150T2G	0.0933	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	0.0448	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	0.048	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
NCP114ASN250T2G	0.0933	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	0.048	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	0.048	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	0.0533	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	0.048	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	0.048	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	0.0455	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
NCP114BMX075TCG	0.0387	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
NCP114BMX100TCG	0.0439	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
NCP114BMX120TCG	0.0439	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
NCP114BMX150TCG	0.0439	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
NCP114BMX180TCG	0.0387	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	0.0387	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
NCP114BMX280TCG	0.0387	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
NCP114BMX300TCG	0.0439	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
NCP114BMX330TCG	0.0387	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	0.048	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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