

Product Overview

NCP115: LDO Regulator, 300 mA, Low Iq, High PSRR, High Accuracy

For complete documentation, see the data sheet.

The NCP115 is 300 mA LDO that provides 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 NCP115 employs the dynamic quiescent current adjustment for very low IQ consumption at no-load. The NCP115 is offered in both a small XDFN-4 1 mmx1 mm, 0.4mm Thin package as well as in a standard TSOP5 package.

Features

- Operating Input Voltage Range: 1.7 V to 5.5 V
- Available in Fixed Voltage Options: 0.8 V to 3.6 V
- Low Dropout: 250 mV Typical at 300 mA @ 2.8 V
- High PSRR 70dB at 1kHz
- Thermal Shutdown and Current Limit Protections
- Very Low Quiescent Current of Typ. 50 μ A
- Available in XDFN4 1.0 x 1.0 mm Package
- +/- 1% typical Vout Accuracy @25 °C
- Available in TSOP5 Package

Applications

- Touchscreen Controller Supply
- Wireless module
- Camera supply module
- MCU and low power FPGA supply
- IoT Battery Powered Wireless Sensor Nodes

Benefits

- Well suited for battery powered applications
- Flexibility for wide range of supply needs
- Supports applications with very low Input to Output Voltage requirements
- Well suited for noise sensitive applications
- Robust design and high reliability
- Suitable for battery powered applications
- Very well suited for space-constrained applications
- Precise Vout for power sensitive devices
- Well suited for applications where leaded package is preferred

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
NCP115AMX100TCG	Pb-free Halide free	Active	Single	Positive	1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115AMX105TCG	Pb-free Halide free	Active	Single	Positive	1.05	0.3	1.7	5.5		0.05 0.05	70	60	Yes	No	XDFN-4
NCP115AMX110TBG	Pb-free Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115AMX110TCG	Pb-free Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115AMX120TBG	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5	0.825	0.05	70	60	Yes	No	XDFN-4
NCP115AMX120TCG	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5	0.825	0.05	70	60	Yes	No	XDFN-4
NCP115AMX150TCG	Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.59	0.05	70	60	Yes	No	XDFN-4
NCP115AMX180TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.425	0.05	70	60	Yes	No	XDFN-4
NCP115AMX180TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.425	0.05	70	60	Yes	No	XDFN-4
NCP115AMX250TCG	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.29	0.05	70	60	Yes	No	XDFN-4
NCP115AMX280TBG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.25	0.05	70	60	Yes	No	XDFN-4
NCP115AMX280TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.25	0.05	70	60	Yes	No	XDFN-4
NCP115AMX300TBG	Pb-free Halide free	Product Preview	Single	Positive	3	0.3	1.7	5.5	0.24	0.05	70	60	Yes	No	XDFN-4
NCP115AMX300TCG	Pb-free Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.24	0.05	70	60	Yes	No	XDFN-4
NCP115AMX330TBG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.22	0.05	70	60	Yes	No	XDFN-4
NCP115AMX330TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.22	0.05	70	60	Yes	No	XDFN-4
NCP115ASN120T1G	Pb-free Halide free	Product Preview	Single	Positive	1.2	0.3	1.7	5.5	0.845	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN120T2G	Pb-free Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5	0.845	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN150T1G	Pb-free Halide free	Product Preview	Single	Positive	1.5	0.3	1.7	5.5	0.605	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN150T2G	Pb-free Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.605	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN180T1G	Pb-free Halide free	NEW	Single	Positive	1.8	0.3	1.7	5.5	0.445	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.445	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN250T1G	Pb-free Halide free	Product Preview	Single	Positive	2.5	0.3	1.7	5.5	0.305	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN250T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.305	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115ASN280T2G	Pb-free Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.27	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5

NCP115ASN330T2G	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.235	0.05	70	60	Yes	No	TSOP-5 / SOT-23-5
NCP115CMX100TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115CMX105TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.05	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115CMX110TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115CMX110TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.1	0.3	1.7	5.5		0.05	70	60	Yes	No	XDFN-4
NCP115CMX120TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5	0.825	0.05	70	60	Yes	No	XDFN-4
NCP115CMX120TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.2	0.3	1.7	5.5	0.825	0.05	70	60	Yes	No	XDFN-4
NCP115CMX150TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.59	0.05	70	60	Yes	No	XDFN-4
NCP115CMX150TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.5	0.3	1.7	5.5	0.59	0.05	70	60	Yes	No	XDFN-4
NCP115CMX180TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.425	0.05	70	60	Yes	No	XDFN-4
NCP115CMX180TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	1.8	0.3	1.7	5.5	0.425	0.05	70	60	Yes	No	XDFN-4
NCP115CMX250TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	2.5	0.3	1.7	5.5	0.29	0.05	70	60	Yes	No	XDFN-4
NCP115CMX280TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.25	0.05	70	60	Yes	No	XDFN-4
NCP115CMX280TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	2.8	0.3	1.7	5.5	0.25	0.05	70	60	Yes	No	XDFN-4
NCP115CMX300TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.24	0.05	70	60	Yes	No	XDFN-4
NCP115CMX300TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	3	0.3	1.7	5.5	0.24	0.05	70	60	Yes	No	XDFN-4
NCP115CMX330TBG	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.22	0.05	70	60	Yes	No	XDFN-4
NCP115CMX330TCG	<u>Pb-free</u> Halide free	Active	Single	Positive	3.3	0.3	1.7	5.5	0.22	0.05	70	60	Yes	No	XDFN-4

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