



## Product Overview

### NCP705: Voltage Regulator, LDO, Ultra Low Noise, Ultra Low Iq, 500 mA

For complete documentation, see the data sheet

#### Product Description

Noise sensitive RF applications such as Power Amplifiers in satellite radios, infotainment equipment, and precision instrumentation require very clean power supplies. The NCP705 is a 500 mA LDO that provides the engineer with a very stable, accurate voltage with ultra low noise and very high Power Supply Rejection Ratio (PSRR) suitable for RF applications. The device doesn't require any additional noise bypass capacitor to achieve ultra-low noise performance. In order to optimize performance for battery operated portable applications, the NCP705 employs dynamic Iq management for ultra-low quiescent current consumption at light-load conditions and great dynamic performance.

#### Features

- Operating Input Voltage Range
- Available in Fixed Voltage Options
- Ultra-Low Quiescent Current
- Ultra-Low Noise
- Very Low Dropout
- $\pm 2\%$  Accuracy Over Load/Line/Temperature
- High PSRR
- Internal Soft-Start
- Adjustable operation from 0.8V
- Thermal Shutdown and Current Limit Protections

#### Benefits

- 2.5V to 5.5V
- 0.8V to 3.5V Please Contact Factory for Other Voltage Options
- Typ. 13  $\mu$ A
- 12  $\mu$ Vrms from 100 Hz to 100 kHz
- 250 mV typ. at 500 mA Output
- High Accuracy Output Voltage
- 71 dB at 1 kHz
- Limits the Turn-On Inrush Current
- Easy voltage selection according to customer requirements

#### Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V <sub>O</sub> (V)	I <sub>O</sub> Typ (A)	V <sub>I</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>q</sub> Typ (mA)	PSRR (dB)	Noise ( $\mu$ V <sub>rms</sub> )	Package Type
NCP705MT18TCG	Pb-free Halide free	Active	Single	Positive	1.8	0.5	5.5		0.013	71	12	WDFN-6
NCP705MT28TCG	Pb-free Halide free	Active	Single	Positive	2.8	0.5	5.5	0.23	0.013	71	12	WDFN-6
NCP705MT30TCG	Pb-free Halide free	Active	Single	Positive	3	0.5	5.5		0.013	71	12	WDFN-6
NCP705MT33TCG	Pb-free Halide free	Active	Single	Positive	3.3	0.5	5.5		0.013	71	12	WDFN-6
NCP705MTADJTCG	Pb-free Halide free	Active	Single	Positive	Adjustable	0.5	5.5		0.013	71		WDFN-6

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

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