

Product Overview

NCV8177: LDO Regulator, 500 mA, High PSRR, with Enable

For complete documentation, see the data sheet.

The NCV8177 is CMOS LDO regulator featuring 500 mA output current. The input voltage is as low as 1.6 V and the output voltage can be set from 0.75 V. It provides very stable and accurate voltage with low noise and high Power Supply Rejection Ratio (PSRR) suitable for RF applications. The NCV8177 is suitable for powering RF blocks of automotive infotainment systems and other power sensitive device. Due to low power consumption the NCV8177 offers high efficiency and low thermal dissipation. Small 4-pin XDFN4 1.0 mm x 1.0 mm package makes the device especially suitable for space constrained applications.

Features

- 1.6 V to 5.5 V Operating Input Voltage Range
- Several Fixed Output Voltage Options and others available upon request in range from 0.7 V to 3.6 V
- Low Quiescent Current of Typ. 60 μ A
- Very Low Dropout: 200 mV Typ. at $I_{out} = 0.5$ A (1.8V version)
- High 75 dB at 1 kHz PSRR
- Internal Soft-Start
- $\pm 0.8\%$ Accuracy at Room temperature
- Thermal Shutdown and Current Limit Protections
- Stable with Small 1 μ F Ceramic Capacitors

Benefits

- Suitable for Li-ion battery or post regulation application
- Design Flexibility
- Extended Battery Life
- Extended Battery Range
- Good for noise sensitive circuits
- Limits the In-Rush Current
- High output voltage precision
- Protects product and system from damage
- Saves PCB space and system cost

Applications

- Lights
- Instrument equipment
- Cameras, Camcorders, Sensors

End Products

- Camera
- Camcorder
- Lights

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 _{g Typ} (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCV8177AMTW085TCG	0.18	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	0.85	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW090TCG-A642		AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	0.9	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW110TCG-A642		AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.1	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW120TCG-A642		AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.2	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW180TCG	0.1667	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.5	1.6	5.5	0.2	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW280TCG	0.1667	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.8	0.5	1.6	5.5	0.13	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMTW330TCG	0.1667	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.5	1.6	5.5	0.11	0.06	75	54	Yes	No	Automotive	WDF NW-8
NCV8177AMX075TCG-A642	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	0.75	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177AMX090TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	0.9	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177AMX120TCG-A642	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.2	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177AMX150TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.5	0.5	1.6	5.5	0.295	0.06	75	54	Yes	No	Automotive	XDF N-4

NCV8177AMX180TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.5	1.6	5.5	0.2	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177AMX250TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.5	1.6	5.5	0.13	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177AMX330TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.5	1.6	5.5	0.11	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX075TCG-A642	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	75	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX090TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	0.9	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX120TCG-A642	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.2	0.5	1.6	5.5	-	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX150TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.5	0.5	1.6	5.5	0.295	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX180TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	1.8	0.5	1.6	5.5	0.2	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX250TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	2.5	0.5	1.6	5.5	0.13	0.06	75	54	Yes	No	Automotive	XDF N-4
NCV8177BMX330TCG	0.0968	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	Positive	3.3	0.5	1.6	5.5	0.11	0.06	75	54	Yes	No	Automotive	XDF N-4

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