

Product Overview

NCP160: LDO Regulator, Ultra-Low Noise and High PSRR, 250 mA

For complete documentation, see the [data sheet](#).

The NCP160 is a linear regulator capable of supplying 250 mA output current. Designed to meet the requirements of RF and analog circuits, the NCP160 device provides low noise, high PSRR, low quiescent current, and very good load/line transients. The device is designed to work with a 1 F input and a 1 F output ceramic capacitor. It is available in two thickness ultra-small 0.35P, 0.65 mm x 0.65 mm Chip Scale Package (CSP) and XDFN-4 0.65P, 1 mm x 1 mm.

Features

- Ultra Low Quiescent current 18 μ A
- Very Low Dropout 80mV@250mA
- Ultra High PSRR 90dB at 1kHz, 20mA
- Ultra Low Output Noise 10 μ V_{RMS}
- Operating Input Voltage Range 1.9V to 5.5V
- Available in CSP4 0.35P package

Applications

- A/D and D/A Converters Power supply
- RF Modules
- Battery Powered Equipment
- Camera module
- Precision Analog Circuits

Benefits

- Improved efficiency during light load conditions
- Low power dissipation at full load
- Excellent for power sensitive device like Wi-Fi module
- Very well suited for noise sensitive application
- Suitable for battery powered device
- Great for space constrains application

End Products

- Smartphones
- Tablets
- Cameras and camcoders
- Wireless Routers

Product	Compliance	Status	Output	Polarit y	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	Packa ge Type
NCP160AFCS180T2G	Pb-free	Active	Single	Positiv e	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS250T2G	Pb-free	Active	Single	Positiv e	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS280T2G	Pb-free	Active	Single	Positiv e	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS285T2G	Pb-free	Active	Single	Positiv e	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS2925T2 G	Pb-free	Active	Single	Positiv e	2.925	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS300T2G	Pb-free	Active	Single	Positiv e	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS320T2G	Pb-free	Active	Single	Positiv e	3.2	0.25	1.9	5.5	0.085	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS330T2G	Pb-free	Active	Single	Positiv e	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS350T2G	Pb-free	Active	Single	Positiv e	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS370T2G	Pb-free	Active	Single	Positiv e	3.7	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS450T2G	Pb-free	Active	Single	Positiv e	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS500T2G	Pb-free	Active	Single	Positiv e	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCS514T2G	Pb-free	Active	Single	Positiv e	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCSCT280T2 G	Pb-free	NEW	Single	Positiv e	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT180T2G	Pb-free	Active	Single	Positiv e	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT250T2G	Pb-free	Active	Single	Positiv e	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT280T2G	Pb-free	Active	Single	Positiv e	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT285T2G	Pb-free	Active	Single	Positiv e	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT300T2G	Pb-free	Active	Single	Positiv e	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT330T2G	Pb-free	Active	Single	Positiv e	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT350T2G	Pb-free	Active	Single	Positiv e	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT450T2G	Pb-free	Active	Single	Positiv e	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT500T2G	Pb-free	Active	Single	Positiv e	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCT514T2G	Pb-free	Active	Single	Positiv e	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCTC180T2 G	Pb-free	Active	Single	Positiv e	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160AFCTC330T2 G	Pb-free	Active	Single	Positiv e	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	WLCS P-4
	Halide free														

NCP160AMX180TBG	Pb-free	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX1825TBG	Pb-free	Active	Single	Positive	1.825	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX250TBG	Pb-free	Active	Single	Positive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX275TBG	Pb-free	Active	Single	Positive	2.75	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX280TBG	Pb-free	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX285TBG	Pb-free	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX290TBG	Pb-free	Active	Single	Positive	2.9	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX300TBG	Pb-free	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX310TBG	Pb-free	Active	Single	Positive	3.1	0.25	1.9	5.5	0.087	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX320TBG	Pb-free	Active	Single	Positive	3.2	0.25	1.9	5.5	0.085	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX330TBG	Pb-free	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX350TBG	Pb-free	Active	Single	Positive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX450TBG	Pb-free	Active	Single	Positive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX500TBG	Pb-free	Active	Single	Positive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160AMX514TBG	Pb-free	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	XDFN-4
	Halide free														
NCP160BFCS180T2G	Pb-free	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS250T2G	Pb-free	Active	Single	Positive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS280T2G	Pb-free	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS285T2G	Pb-free	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS2925T2G	Pb-free	Active	Single	Positive	2.925	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS300T2G	Pb-free	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS330T2G	Pb-free	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS350T2G	Pb-free	Active	Single	Positive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS450T2G	Pb-free	Active	Single	Positive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS500T2G	Pb-free	Active	Single	Positive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCS514T2G	Pb-free	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
	Halide free														
NCP160BFCT180T2G	Pb-free	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	WLCS P-4
	Halide free														

NCP160BFCT210T2G	Pb-free Halide free	Active	Single	Positive	2.1	0.25	1.9	5.5	0.15	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT250T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT280T2G	Pb-free Halide free	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT285T2G	Pb-free Halide free	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT300T2G	Pb-free Halide free	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT330T2G	Pb-free Halide free	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT350T2G	Pb-free Halide free	Active	Single	Positive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT450T2G	Pb-free Halide free	Active	Single	Positive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT500T2G	Pb-free Halide free	Active	Single	Positive	5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	WLCS P-4
NCP160BFCT514T2G	Pb-free Halide free	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	WLCS P-4
NCP160BMX180TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX1825TBG	Pb-free Halide free	Active	Single	Positive	1.825	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX250TBG	Pb-free Halide free	Active	Single	Positive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX275TBG	Pb-free Halide free	Active	Single	Positive	2.75	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX280TBG	Pb-free Halide free	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX285TBG	Pb-free Halide free	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX300TBG	Pb-free Halide free	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX330TBG	Pb-free Halide free	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX350TBG	Pb-free Halide free	Active	Single	Positive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX450TBG	Pb-free Halide free	Active	Single	Positive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX500TBG	Pb-free Halide free	Active	Single	Positive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	XDFN- 4
NCP160BMX514TBG	Pb-free Halide free	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	XDFN- 4

For more information please contact your local sales support at www.onsemi.com.

Created on: 11/6/2017