

Product Overview

NCP163: LDO Regulator, 250 mA, Ultra-High PSRR, Ultra-Low Noise

For complete documentation, see the data sheet.



The NCP163 is an LDO (Low Dropout Regulator) capable of supplying 250 mA output current. Designed to meet the requirements of RF and analog circuits, the NCP163 device provides low noise, high PSRR, low quiescent current, and very good load/line transients. The device is designed to work with a 1 μ F input and a 1 μ 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), XDFN-4 0.65P, 1 mm x 1 mm and in TSOP5 packages

Similar Products:

	NCP160	NCP161	NCP163	NCP167
Output Current (A)	0.25	0.45	0.25	0.70
PSRR $f=1$ kHz (dB)	98	98	92	85
Dropout Voltage (V)	0.080	0.150	0.080	0.210

Features

- Ultra High PSRR 92dB at 1 kHz, 60dB at 100 kHz
- Ultra Low Output Noise 6.5 μ VRMS
- Ultra Low Quiescent current 12 μ A
- Operating Input Voltage Range 2.2V to 5.5V
- Very Low Dropout 80mV at 250mA
- Available in 0.64mm x 0.64 mm CSP4 0.35P and 1mm x 1mm XDFN4 0.65P Packages
- Available in TSOP5 Package

Applications

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

Benefits

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

End Products

- Cameras and camcoders
- Smartphones
- Tablets
- Wireless Routers

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
NCP163AFCS120T2G	Pb-free Halide free	Active	Single	Positive	1.2	0.25	2.2	5.5		0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS250T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS260T2G	Pb-free Halide free	Active	Single	Positive	2.6	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS270T2G	Pb-free Halide free	Active	Single	Positive	2.7	0.25	2.2	5.5	0.1	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS280T2G	Pb-free Halide free	Active	Single	Positive	2.8	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS285T2G	Pb-free Halide free	Active	Single	Positive	2.85	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS290T2G	Pb-free Halide free	Active	Single	Positive	2.9	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCS2925T2G	Pb-free Halide free	Active	Single	Positive	2.925	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT120T2G	Pb-free Halide free	Active	Single	Positive	1.2	0.25	2.2	5.5		0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT250T2G	Pb-free Halide free	Active	Single	Positive	2.5	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT260T2G	Pb-free Halide free	Active	Single	Positive	2.6	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT270T2G	Pb-free Halide free	Active	Single	Positive	2.7	0.25	2.2	5.5	0.1	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT280T2G	Pb-free Halide free	Active	Single	Positive	2.8	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT285T2G	Pb-free Halide free	Active	Single	Positive	2.85	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT290T2G	Pb-free Halide free	Active	Single	Positive	2.9	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT2925T2G	Pb-free Halide free	Active	Single	Positive	2.925	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT300T2G	Pb-free Halide free	Active	Single	Positive	3	0.25	2.2	5.5	0.09	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AFCT330T2G	Pb-free Halide free	Active	Single	Positive	3.3	0.25	2.2	5.5	0.08	0.012	92	6.5	Yes	No	WLCS P-4
NCP163AMX120TBG	Pb-free Halide free	Active	Single	Positive	1.2	0.25	2.2	5.5		0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX130TBG	Pb-free Halide free	Active	Single	Positive	1.3	0.25	2.2	5.5		0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX150TBG	Pb-free Halide free	Active	Single	Positive	1.5	0.25	2.2	5.5		0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX180TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX1825TBG	Pb-free Halide free	Active	Single	Positive	1.825	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX190TBG	Pb-free Halide free	Active	Single	Positive	1.9	0.25	2.2	5.5	0.175	0.012	92	6.5	Yes	No	XDFN-4

NCP163AMX250TBG	Pb-free Halide free	Active	Single	Positive	2.5	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX260TBG	Pb-free Halide free	Active	Single	Positive	2.6	0.25	2.2	5.5	0.105	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX270TBG	Pb-free Halide free	Active	Single	Positive	2.7	0.25	2.2	5.5	0.1	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX275TBG	Pb-free Halide free	Active	Single	Positive	2.75	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX280TBG	Pb-free Halide free	Active	Single	Positive	2.8	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX285TBG	Pb-free Halide free	Active	Single	Positive	2.85	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX290TBG	Pb-free Halide free	Active	Single	Positive	2.9	0.25	2.2	5.5	0.9	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX300TBG	Pb-free Halide free	Active	Single	Positive	3	0.25	2.2	5.5	0.09	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX330TBG	Pb-free Halide free	Active	Single	Positive	3.3	0.25	2.2	5.5	0.08	0.012	92	6.5	Yes	No	XDFN-4
NCP163AMX500TBG	Pb-free Halide free	Active	Single	Positive	5	0.25	2.2	5.5	0.075	0.012	92	6.5	Yes	No	XDFN-4
NCP163ASN150T1G	Pb-free Halide free	Active	Single	Positive	1.5	0.25	2.2	5.5		0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN180T1G	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN250T1G	Pb-free Halide free	Active	Single	Positive	2.5	0.25	2.2	5.5	0.11	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN270T1G	Pb-free Halide free	Active	Single	Positive	2.7	0.25	2.2	5.5	0.1	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN280T1G	Pb-free Halide free	Active	Single	Positive	2.8	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN300T1G	Pb-free Halide free	Active	Single	Positive	3	0.25	2.2	5.5	0.09	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN330T1G	Pb-free Halide free	Active	Single	Positive	3.3	0.25	2.2	5.5	0.08	0.012	92	6.5	Yes	No	SOT-23-5
NCP163ASN500T1G	Pb-free Halide free	Active	Single	Positive	5	0.25	2.2	5.5	0.075	0.012	92	6.5	Yes	No	SOT-23-5
NCP163BFCS180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	WLCS P-4
NCP163BFCS2925T2G	Pb-free Halide free	Active	Single	Positive	2.925	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163BFCT180T2G	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	WLCS P-4
NCP163BFCT2925T2G	Pb-free Halide free	Active	Single	Positive	2.925	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	WLCS P-4
NCP163BMX180TBG	Pb-free Halide free	Active	Single	Positive	1.8	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	XDFN-4
NCP163BMX1825TBG	Pb-free Halide free	Active	Single	Positive	1.825	0.25	2.2	5.5	0.18	0.012	92	6.5	Yes	No	XDFN-4
NCP163BMX275TBG	Pb-free Halide free	Active	Single	Positive	2.75	0.25	2.2	5.5	0.095	0.012	92	6.5	Yes	No	XDFN-4

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

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