

# NCP2820FCT1G

Data Sheet

Special Purpose Audio Amplifiers 2.65W Mono Class D Audio Ind. Temp

Manufacturers ON Semiconductor, LLC

Package/Case PDIP8

Product Type Special Purpose Audio Amplifiers

RoHS Rohs

Lifecycle Images are for reference only

Please submit RFQ for NCP2820FCT1G or Email to us: sales@ovaga.com We will contact you in 12 hours.



# **General Description**

The NCP2820 is a cost-effective mono Class-D audio power amplifier capable of delivering 2.65W of continuous average power to 4 Ohm Bridge Tied Load from a 5V supply. Under the same conditions, the output power stage can provide 1.4W to a 8 Ohm BTL load with less than 1% THD+N. For cellular handsets or PDAs, it offers sapce and cost savings because no output filter is required when using inductive transducers. With more than 90% efficiency and very low shutdown current it increases the lifetime of your battery and drastically lowers the junction temperature. The NCP2820 processes analog inputs with a pulse width modulation technique that lowers output noise and THD when compared to a conventional sigma-delta modulator. The device allows independent gain while summing signals from various audio sources. Thus, in cellular handsets, the earpiece, the loudspeaker and even the melody ringer can be driven with a single NCP2820. Due to its low 42uV noise floor, A-weighted, a clean listening is guaranteed no matter the load sensitivity.

**Features** Application

Optimized PWM Output Stage: Filterless Capability

Efficiency up to 90% and Low 2.5mA Typical Quiescent Current

Large Output Power Capability: 1.4W with  $8\Omega$  Load and THD+N<1%

Wide Supply Voltage Range: 2.5-5.5V Operating Voltage

High Performance, THD+N of>

Excellent PSRR (-65dB): No Need for Voltage Regulation

Surface Mounted Package 9-Pin Flip-Chip CSP (SnPb and Pb-Free)

Fully Differential Design. Eliminates Two Input Coupling Capacitors

Very Fast Turn On/Off Times with Advanced Rising and Falling Gain Technique

External Gain Configuration Capability

Internally Generated 250kHz Switching Frequency

Short Circuit Protection Circuitry

Pop & Click Noise Protection Circuitry

## **Related Products**



NCV33202VDR2G

ON Semiconductor, LLC SOIC-8



NCV33074ADTBR2G

ON Semiconductor, LLC TSSOP-14



### NCV7351D1ER2G

ON Semiconductor, LLC





#### NCV33274ADTBR2G

ON Semiconductor, LLC

TSSOP-14



NCP2820MUTBG

ON Semiconductor, LLC UDFN-8

**ONSEMI** 



NCV2001SN2T1G

ON Semiconductor, LLC TSOP-5



### NCV33272ADR2G

ON Semiconductor, LLC SOIC-8



#### NCS20072DTBR2G

ON Semiconductor, LLC

TSSOP-8