

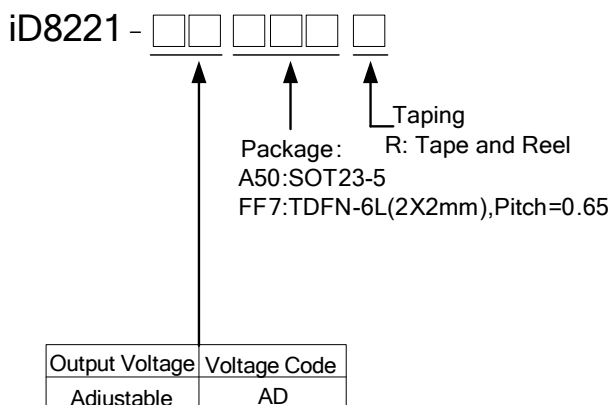
1.2MHZ ,600mA, High Efficiency Step-Down DC/DC Converter 1.2uA Ultra-Low Quiescent Current

General Description

The iD8221 is a high-efficiency, DC-to-DC step-down switching regulator, capable of delivering up to 600mA of output current. The devices operate from an input voltage range of 2.6V to 7.0V making the iD8221 ideal for low voltage power conversions. Running at a fixed frequency of 1.2MHz allows the use of small inductance value and low DCR inductors, thereby achieving higher efficiencies. Other external components, such as ceramic input and output caps, can also be small due to higher switching frequency, while maintaining exceptional low noise output voltages. Built-in EMI reduction circuitry makes this converter ideal power supply for RF applications. Internal soft-start control circuitry reduces inrush current. Short-circuit and thermal-overload protection improves design reliability.

iD8221 is housed in a tiny SOT-23-5 and TDFN-6L package.

Ordering Information



Applications

- Battery-Powered Equipment
- IoT application
- WLAN Communication
- Portable Communication Devices

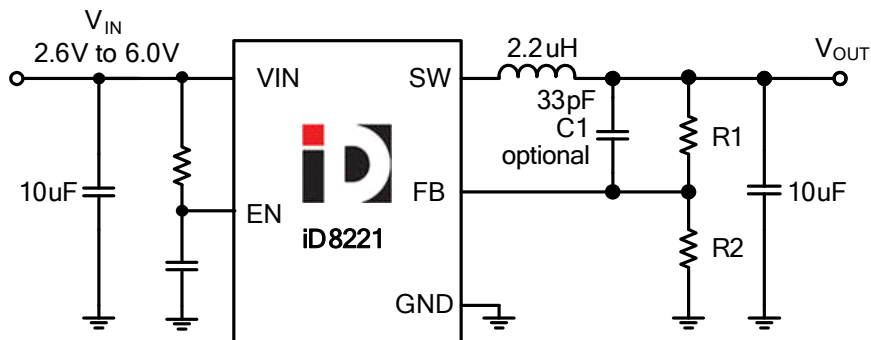
Features

- Ultra low Quiescent Current 1.2uA
- 2.6V to 7.0V Input Voltage Range
- Up to 600mA Max Output Current
- Fixed 1.2MHz Switching Frequency
- Light Load Operation
- Internal Compensation
- RoHS Compliant and Halogen Free
- Tiny SOT-23-5, and TDFN-6L Package

Marking Information

For marking information, please contact our sales representative directly or through distributor around your location.

Typical Application Circuit (Adjustable Operation)



Absolute Maximum Ratings (Note 1)

V_{IN} , SW, OUT, EN Voltage	-0.3V to 7.5 V
EN Input Voltage	0V to V_{IN}
Thermal Resistance, θ_{JA}	
(T)SOT-23-5	190°C/W
TDFN-6L	160°C/W
Thermal Resistance, θ_{JC}	
(T)SOT-23-5	90°C/W
TDFN-6L	45°C/W
Lead Temperature	260°C
Storage Temperature	-55°C to 150°C
ESD HBM	2KV
ESD MM	200V

Recommended Operating Conditions

Input Voltage V_{IN}	2.6V to 7.0V
Junction Temperature	-40°C to 125°C
Ambient Operating Temperature	-40°C to 85°C