



## Pin Configuration

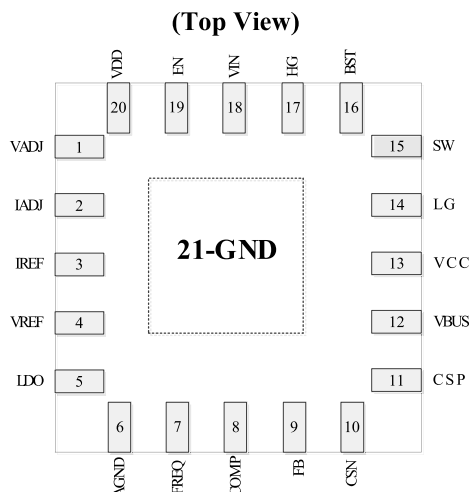


Figure 2. Pin Function (QFN4x4-20L)

## Pin Functions

Pin		Description
Number	Name	
1	VADJ	Connect a 0-2V analog voltage or a PWM signal to program voltage reference on VREF pin. Connect this pin to VDD will force VREF to constant 2.0V.
2	IADJ	Connect a 0-2V analog voltage or a PWM signal to program voltage reference on IREF pin. Connect this pin to VDD will force IREF to 2.0V.
3	IREF	Reference voltage for input and output current limiting loop.
4	VREF	Voltage reference for voltage control loop.
5	LDO	Low quiescent current 5.0V/55mA LDO. Directly powered from VIN pin. LDO can be used as power supply for application processor such as MCU. When EN is low, only this LDO will be active to power MCU and keep low quiescent current for the whole system.
6	AGND	Analog ground
7	FREQ	Connect to GND to set the switching frequency at 150kHz. Connect this pin to VDD to set switching frequency at 300kHz. Connect to a resistor divider between VDD and GND to set frequency to 600kHz and 1.0MHz.
8	COMP	Error Amplifier output.
9	FB	VBUS voltage feedback. Connect a resistor divider between VBUS and GND to FB to program VBUS voltage in battery discharging mode.
10	CSN	He minus input of output current sense.
11	CSP	The positive input of output current sense.
12	VBUS	VBUS voltage
13	VCC	6.6V power supply for high side and low side driver
14	LG	Low side MOSFET driver output.
15	SW	Connect this pin to the Switching point of the power stage.
16	BST	Boost pin for high side MOSFET driver.
17	HG	High side MOSFET driver.
18	VIN	Input voltage.
19	EN	Logic high will enable the converter. Logic low will disable the whole FH56001 except LDO. Only LDO is working to power system MCU when EN is low. EN is pulled high internally by a high value resistor.
20	VDD	5.4V power supply for FH56001 control core.

**Type: DFN4\*4-20L**



- 1) THE LEAD SIDE IS WETTABLE.
- 2) ALL DIMENSIONS ARE IN MILLIMETERS.
- 3) LEAD COPLANARITY SHALL BE 0.08 MILLIMETERS MAX.
- 4) JEDEC REFERENCE IS MO-220.
- 5) DRAWING IS NOT TO SCALE.

## ORDERING INFORMATION

Part Number	Voltage Range	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH56001D20	4.5V ~ 36.0V	<ul style="list-style-type: none"> <li>• Synchronous Buck(Step-down)</li> <li>• 96% Efficiency</li> <li>• VFB Voltage: 2.0V</li> <li>• Vout: ADJ</li> <li>• Switching Frequency: 150kHz/300kHz/600kHz/1.2MHz</li> <li>• Output Current: 10.0A</li> </ul>	-40°C to 125°C	QFN4.0*4.0-20L	FH56001 YY MM LL	4000PCS/Reel

**Note:**

- **FH56001** devices are Pb-free and RoHs compliant.
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**ESD SENSITIVITY CAUTION**

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.



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▲ Update by Aug.2020