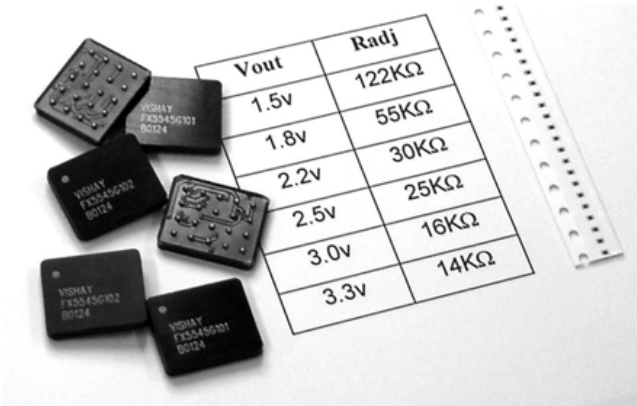


Buck or Boost with High Output Density Power



DESCRIPTION

The DC/DC converter provides fully integrated synchronous Buck or Boost converter solution for the latest one-cell lithium ion cellular phones. Its input voltage is between 2.5V to 6V capable of delivering up to 6A output current. An external resistor according to the formulas respectively, can adjust an output voltage between 0.8V, 0.9V to 1.3V and 1.35V to 4.5V for Buck and 3.3V to 6V for Boost.

*The numbers are for illustration purpose only.

| PRODUCT DESCRIPTION | | | | | | |
|---------------------|------------|----------|-------------------|--------------------|------------------------|------------------|
| TYPE | MOUNTING | TOPOLOGY | INPUT VOLTAGE (V) | OUTPUT VOLTAGE (V) | MAX OUTPUT CURRENT (A) | OUTPUT POWER (W) |
| FX5545G001ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 0.6 | 1.5 |
| FX5545G201ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 1.0 | 3.0 |
| FX5545G005ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 1.5 | 5.0 |
| FX5545G105ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 2.0 | 6.5 |
| FX5545G205ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 2.5 | 8.2 |
| FX5545G305ADJ | BGA or LGA | Buck | 2.7-6.0 | 1.35-4.5* | 3.0 | 10.0 |
| FX5545G008ADJ | BGA or LGA | Buck | 2.5-6.0 | 0.8-4.5* | 3.0 | 10.0 |
| FX5545G018ADJ | BGA or LGA | Buck | 2.5-6.0 | 0.9-1.3 | 3.0 | 3.6 |
| FX5545G108ADJ | BGA or LGA | Buck | 2.5-6.0 | 0.9-4.5* | 4.0 | 15.0 |
| FX5545G011ADJ | BGA or LGA | Buck | 2.5-6.0 | 0.9-4.5* | 6.0 | 27.0 |
| FX5545G002ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 0.3 | 1.5 |
| FX5545G202ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 0.6 | 3.0 |
| FX5545G402ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 1.0 | 5.0 |
| FX5545G006ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 1.5 | 9.0 |
| FX5545G106ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 2.0 | 12.0 |
| FX5545G206ADJ | BGA or LGA | Boost | 2.5-6.0 | 3.3-6.0 | 2.5 | 15.0 |

*Note: For higher output voltage please consult factory at FunctionPAK@Vishay.com

Self Selectable Output Voltage

Vishay

Buck or Boost with High Output Density Power



| R_{EXT}/D_{EXT} SELECTION) | | | | |
|--|----------|--------------------------|---|-------------------------|
| COMPONENT TYPE | TOPOLOGY | REQUESTED OUTPUT VOLTAGE | R _{EXT} DEVICE | D _{EXT} DEVICE |
| FX5545G001ADJ FX5545G201ADJ | Buck | 1.35V - 4.5V | $R_{EXT} [K\Omega] = \frac{28.6}{V_{OUT} - 1.3}$ | N/C |
| FX5545G005ADJ FX5545G105ADJ FX5545G205ADJ FX5545G305ADJ | | 1.35V - 4.5V | $R_{EXT} [K\Omega] = \frac{71.5}{V_{OUT} - 1.3}$ | N/C |
| FX5545G008ADJ | | 0.8V | $R_{EXT} [K\Omega] = \frac{52}{(V_{OUT} - 0.75) V_{OUT}}$ | D2-MCL4448 |
| | | 0.9V - 1.3V | $R_{EXT} [K\Omega] = \frac{66}{(1.2V_{OUT} - 1) V_{OUT}}$ | D2-BAR065V |
| | | 1.35V - 4.5V | $R_{EXT} [K\Omega] = \frac{71.5}{V_{OUT} - 1.3}$ | N/C |
| FX5545G018ADJ | | 0.9V - 1.3V | $R_{EXT} [K\Omega] = \frac{66}{(1.2V_{OUT} - 1) V_{OUT}}$ | N/C |
| FX5545G108ADJ | | 0.9V - 1.3V | $R_{EXT} [K\Omega] = \frac{66}{(1.2V_{OUT} - 1) V_{OUT}}$ | D2-BAR65V |
| | | 1.35V - 4.5V | $R_{EXT} [K\Omega] = \frac{71.5}{V_{OUT} - 1.3}$ | N/C |
| FX5545G011ADJ | | 0.9V - 1.3V | $R_{EXT} [K\Omega] = \frac{66}{(1.2V_{OUT} - 1) V_{OUT}}$ | D2-BAR65V |
| | | 1.35V - 4.5V | $R_{EXT} [K\Omega] = \frac{71.5}{V_{OUT} - 1.3}$ | N/C |
| FX5545G002ADJ FX5545G202ADJ FX5545G402ADJ | Boost | 3.3V - 6.0V | $R_{EXT} [K\Omega] = \frac{28.6}{V_{OUT} - 1.3}$ | N/C |
| FX5545G006ADJ FX5545G106ADJ FX5545G206ADJ | | 3.3V - 6.0V | $R_{EXT} [K\Omega] = \frac{71.5}{V_{OUT} - 1.3}$ | N/C |

| PIN CONFIGURATION | | | | | | | |
|--------------------------|-----------------|-------------------------------|-----------------|-------------------|-----------------|------------|-----------------|
| | | | | | | | |
| For GXX2 | | For GXX1; GXX5; GXX6 and G018 | | For G008 and G108 | | For G011 | |
| PIN | CONNECTION | PIN | CONNECTION | PIN | CONNECTION | PIN | CONNECTION |
| 1 | N/C | 1, 2 | \overline{SD} | 1, 2 | \overline{SD} | 1-4, 6, 7 | GND |
| 2, 6 | \overline{SD} | 3, 7 | SYNC | 3, 7 | SYNC | 5, 9 | Vin |
| 3, 7 | PWM/PSM | 4, 8 | N/C | 4, 8 | Vref | 8 | SYNC |
| 4, 8 | SYNC | 5, 9 | Vin | 5, 9 | Vin | 10, 13 | GND |
| 5, 9 | Vout | 6, 10 | PWM/PSM | 6, 10 | PWM/PSM | 11 | \overline{SD} |
| 10 - 12 | N/C | 11, 12 | N/C | 11, 12 | N/C | 12 | PWM/PSM |
| 13, 17 | GND | 13, 17 | GND | 13, 17 | GND | 15, 16 | GND |
| 14, 18 | N/C | 14, 18 | Vout | 14, 18 | Vout | 14, 17, 18 | Vout |
| 15, 16 | Ext. Resistor | 15, 19 | Ext. Resistor | 15, 19 | Ext. Resistor | 19 | Ext. Resistor |
| 19, 20 | Vin | 16, 20 | GND | 16, 20 | GND | 20 | Vref |