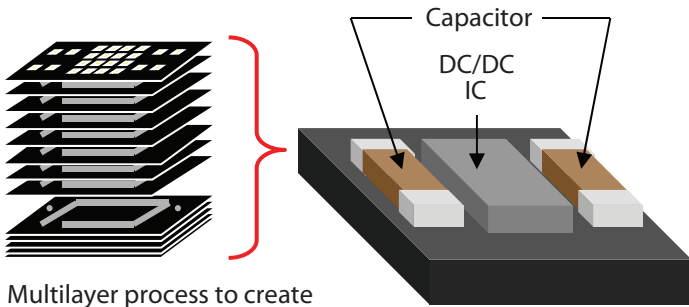
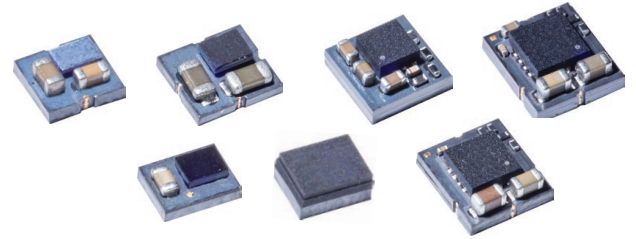


New Power Module

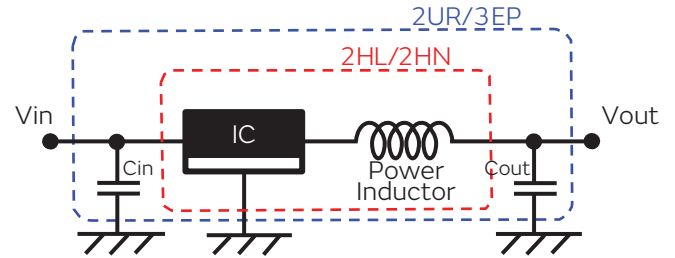
Smaller Size and Lower Noise



Multilayer process to create a ferrite substrate with 3-dimensional circuits and embedded power inductor

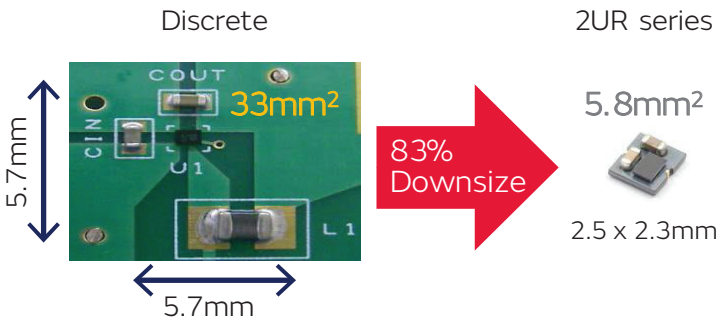
I/O via holes through the ferrite substrate act as ferrite beads and reduce conductive noise.

Application Circuit



Comparison

Discrete vs μDCDC



Advantages

- Smaller size
- Lower noise
- Reduced design hours

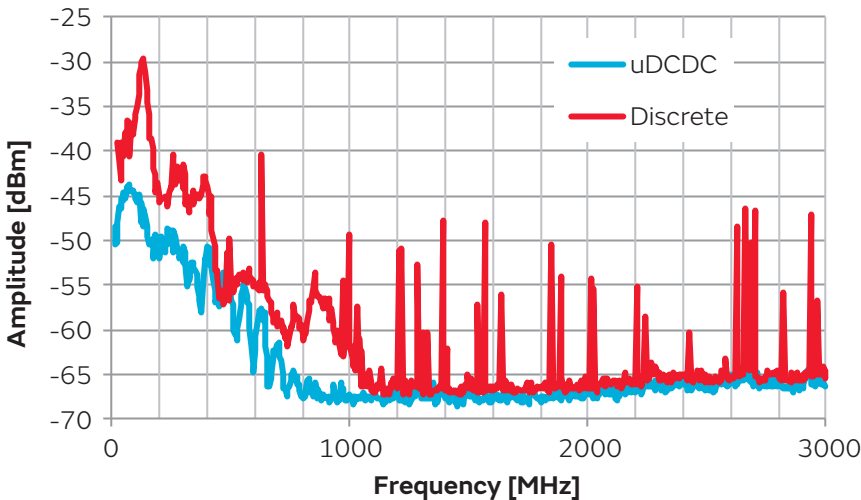
Use Case Examples

- Wearables
- Digital cameras
- Security cameras
- Headsets
- Mobile communication units
- SSD – Solid State Drives
- OTMs – Optical Transceiver Modules
- Servers or routers

Applications

- Bluetooth® / Bluetooth® Low Energy
- WiFi™
- NFC
- GPS
- Camera
- Display
- Sensors

Measurement result of near magnetic field



Type	Load Current	Series	L x W x T (mm)	Input Voltage (V)	Output Voltage (V)	Features
Buck	< 0.6A	 2HL-A	2.5 x 2.0 x 1.1	2.3 to 5.5 V	0.8 to 4.0 V	Small footprint, <600mA.
	< 0.6A	 2HL-F	2.5 x 2.0 x 1.2	2.3 to 5.5 V	0.8 to 4.0 V	Small footprint, <600mA. For high temperature type
	<0.3A	 2HL-G	2.5 x 2.0 x 1.0	2.3 to 5.5 V	0.8 to 4.0 V	Small footprint, <600mA High EFF at light load.
	< 0.6A	 2HN-A	2.5 x 2.0 x 1.2	2.3 to 5.5 V	0.8 to 4.0 V	Resin mold type for 2HL-A.
	< 0.6A	 2HN-F	2.5 x 2.0 x 1.3	2.3 to 5.5 V	0.8 to 4.0 V	Resin mold type for 2HL-F.
	< 0.6A	 2UR-A	2.5 x 2.3 x 1.2	2.7 to 5.5 V	1.2 to 3.3 V	Small footprint, <600mA, External capacitance unnecessary.
	< 1.5A	 2XQ	2.8 x 2.6 x 1.14	2.5 to 5.5 V	1.0 to 3.3 V	Small footprint, <1.5A.
	< 3.0A	 55K	5.7 x 5.0 x 2.1	2.7 to 5.5 V	0.8 to 3.6 V Set by trim resistor	Output voltage can be adjusted by external resistor, <3A
	< 1.5A	 55F	5.7 x 5.0 x 2.1	4.0 to 14.0 V	0.8 to 5.3 V Set by trim resistor	Output voltage can be adjusted by external resistor, 12V _{in} , <1.5A
Buck (2 ch)	< 0.6A	 32D	3.2 x 2.5 x 1.2	2.3 to 5.5 V	0.8 to 4.0 V	Resin mold type. 2ch of 2HN-A.
Boost	< 0.7A	 44A	4.0 x 4.0 x 2.0	2.7 to 5.5 V	5.0 to 6.0 V	<700mA
Buck-Boost	< 1.2A	 2SC	2.9 x 2.8 x 1.15	2.8 to 5.0 V	3.3 V	Small footprint, <1.2A

Product images not to scale.