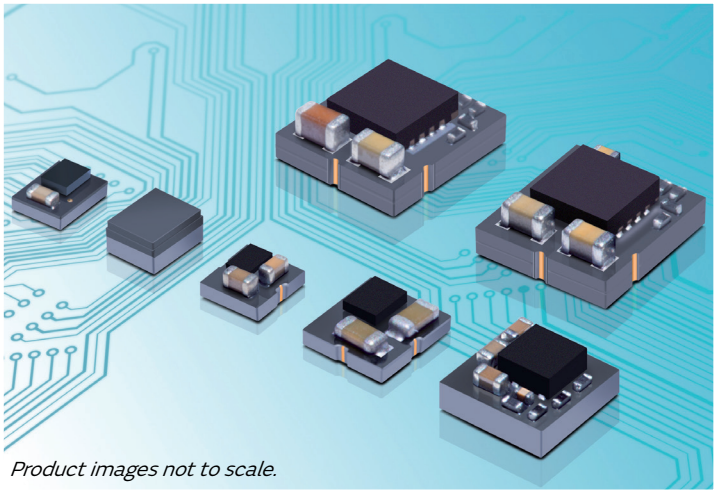
Product Brief

LXDC Series

µDCDC Converters



Product images not to scale.

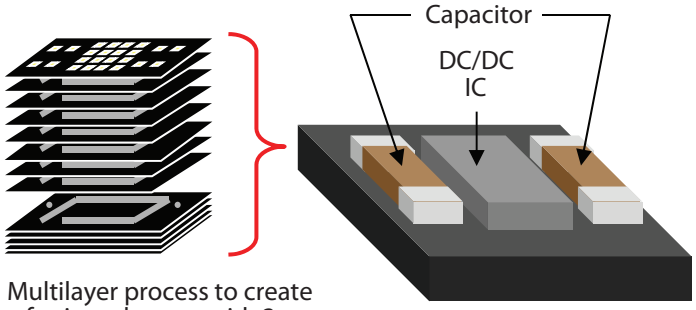
Features

- *Low EMI noise and small footprint due to **inductor-embedded ferrite substrate***
- *High efficiency using synchronous rectifier technology and PFM/PWM auto-select function (forced mode available on some models)*
- *Input voltage range: 2.3–5.5V & 4–14V (55F series)*
- *Load currents available are 600mA, 1A, 1.5A and 3A*
- *Fixed output voltage & adjustable voltage type (see product line-up table on page two)*
- *Switching frequency: 3MHz to 6MHz*
- *Operating temperature range: -40 to +85°C (105°C for 2XQ)*

Applications

- *Any device currently using discrete DC/DC circuits where downsizing and space savings are required*
- *Cellular phones, PDAs, mobile internet devices*
- *Digital cameras, ebooks, tablets, W-LAN, BT*
- *Portable game consoles, music players, etc.*
- *Base station, 12V AC/DC adaptor input devices*

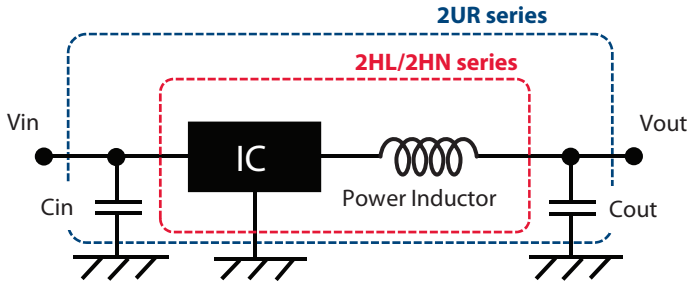
Structure



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.

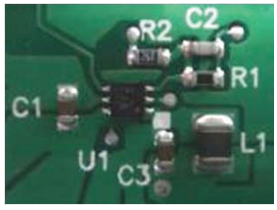
Application Circuit



Note: See page two for circuits specific to each series.

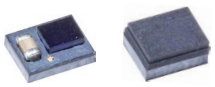
Downsizing Advantage

Discrete Solution



Footprint
35–60mm²

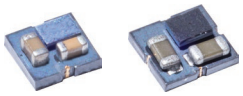
2HL or 2HN
Series (0.6A)



2HL 2HN

10mm²
(including two external capactors)

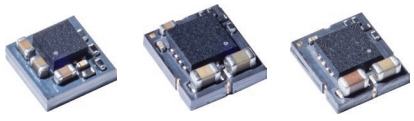
2UR Series (0.6A)
2XQ Series (1.5A)



2UR 2XQ

6-10mm²

44A Series (0.7A) -Boost
55K Series (3A)
55F Series (14V input, 1.5A)



44A 55K 55F

16–28mm²

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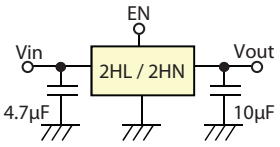
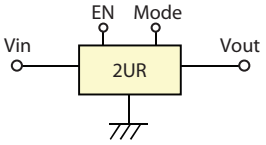
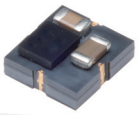
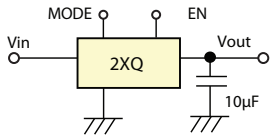
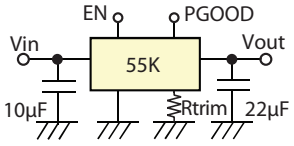
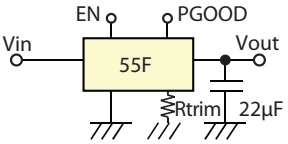
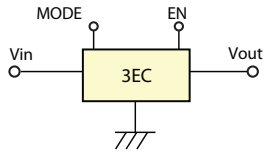
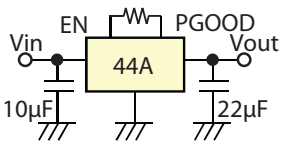
Product Line-Up

Type	Load Current	Series	W x L x T (mm)	Application Circuit	Part Number	Input Voltage (V)	Output Voltage (V)	Max. Iout (mA)	Switch. Freq.	Pkg. (pcs/reel)
Buck	≤0.6A	2HL	2.5×2.0×1.1 		LXDC2HL10A-080	2.3-5.5	1.0	600	3MHz	3000
					LXDC2HL12A-050		1.2			
					LXDC2HL13A-082		1.3			
					LXDC2HL1DA-087	2.35-5.5	1.35			
					LXDC2HL15A-051	2.5-5.5	1.5			
					LXDC2HL18A-052	2.8-5.5	1.8			
					LXDC2HL25A-053	3.5-5.5	2.5	500		
					LXDC2HL28A-243		2.8	450		
					LXDC2HL30A-054	3.7-5.5	3.0	400		
					LXDC2HL33A-055	3.8-5.5	3.3	300		
		2HN	2.5×2.0×1.2  (w/resin coating)		LXDC2HN10A-132	2.3-5.5	1.0	600	3MHz	3000
					LXDC2HN12A-099		1.2			
					LXDC2HN13A-236		1.3			
					LXDC2HN1DA-133	2.35-5.5	1.35			
					LXDC2HN15A-126	2.5-5.5	1.5			
					LXDC2HN18A-097	2.8-5.5	1.8			
					LXDC2HN25A-134	3.5-5.5	2.5	500		
					LXDC2HN28A-235		2.8	450		
					LXDC2HN30A-135	3.7-5.5	3.0	400		
					LXDC2HN33A-136	3.8-5.5	3.3	300		
		2UR	2.5×2.3×1.2 		LXDC2UR12A-118	2.3-5.5	1.2	600	6MHz	3000
					LXDC2UR15A-119	2.5-5.5	1.5			
					LXDC2UR18A-120	2.8-5.5	1.8			
					LXDC2UR30A-143	3.7-5.5	3.0			
					LXDC2UR33A-122	3.8-5.5	3.3			
	≤1.5A	2XQ	2.6×2.8×1.14 		LXDC2XQ10A-251	2.7-5.5	1.0	1.5A	3MHz	3000
					LXDC2XQ11A-298		1.2			
					LXDC2XQ12A-252		1.35			
					LXDC2XQ1DA-299		1.5			
					LXDC2XQ18A-253		1.8			
					LXDC2XQ25A-300		2.5	800mA		
					LXDC2XQ33A-254		3.0			
	≤3A	55K	5.7×5.0×2.1 		LXDC55KAAA-205	2.7-5.5	0.8-3.6 Set by trim resistor	3000	3MHz	1000
	≤1.5A	55F	5.7×5.0×2.1 		LXDC55FAAA-203	4.0-14.0	0.8-5.3 Set by trim resistor	1500	2.5MHz	1000
Buck/ Boost	≤1A Buck Mode/ ≤800mA Boost Mode	3EC	3.5×3.2×1.3 		LXDC3ECAAD-202	2.5-5.5	3.2-3.4V Set at factory	≤1A Buck Mode/ ≤800mA Boost Mode	6MHz	1000
Boost	≤0.7A	44A	4.0×4.0×2.0 		LXDC44AAAC-169	2.7-5.5	5.0	700	3.3MHz	1000

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