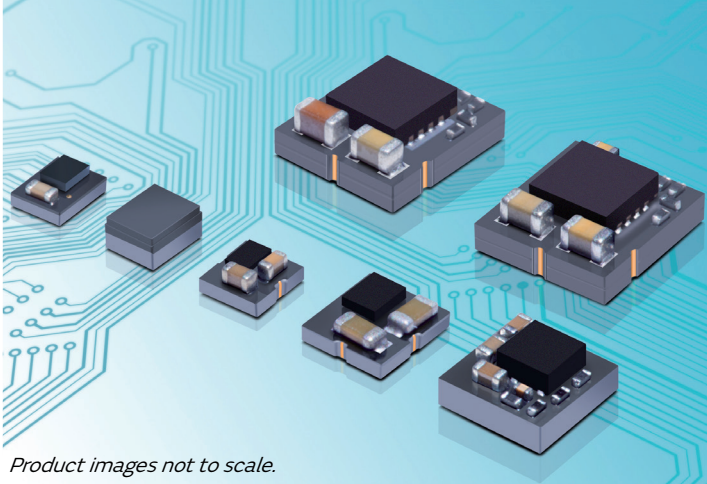


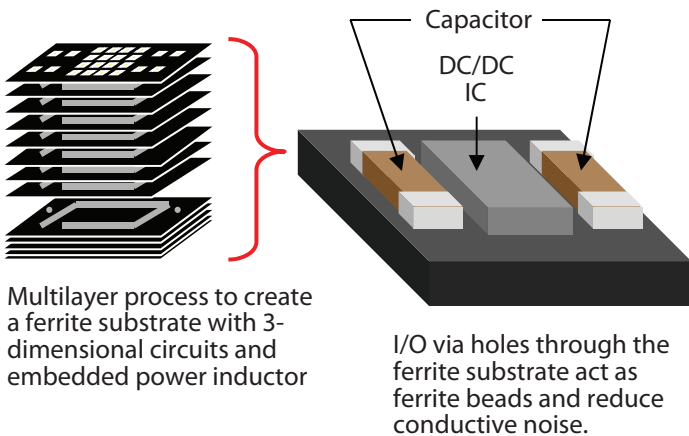
# LXDC Series

## $\mu$ DCDC Converters



Product images not to scale.

### Structure



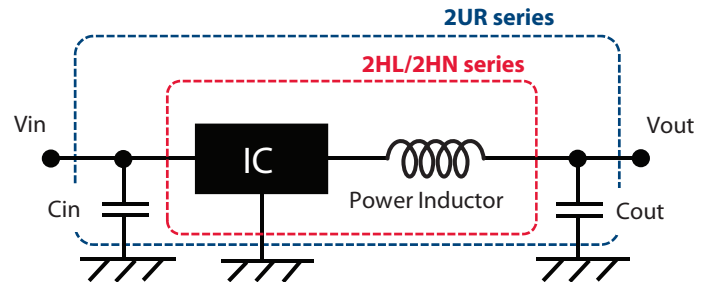
### Features

- 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

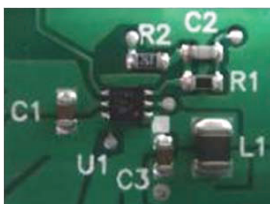
### Application Circuit



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

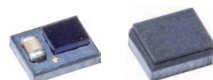
### Downsizing Advantage

#### Discrete Solution



Footprint  
35–60mm<sup>2</sup>

#### 2HL or 2HN Series (0.6A)



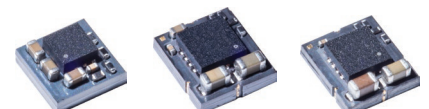
2HL 2HN  
10mm<sup>2</sup>  
(including two external capacitors)

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



6–10mm<sup>2</sup>

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



16–28mm<sup>2</sup>

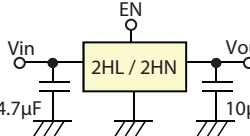
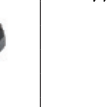
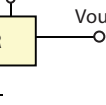
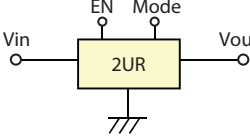
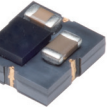
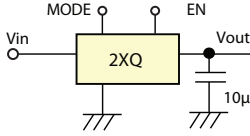
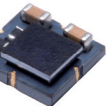
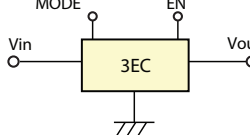
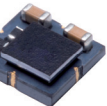
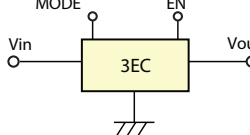
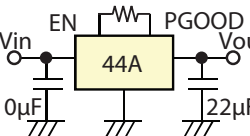
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# LXDC Series

## μDCDC Converters

### 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                                                                                |    |    | 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 |                                                                                     | 2.5                                                                                 |                                     |               |                 | 500  |      |      |
|                |                                     |                                                                                    |                                                                                     |                                                                                     | LXDC2HL28A-243 | 3.5-5.5                                                                             | 2.8                                                                                 |                                     |               |                 | 450  |      |      |
|                |                                     |                                                                                    |                                                                                     |                                                                                     | LXDC2HL30A-054 | 3.7-5.5                                                                             | 3.0                                                                                 |                                     |               |                 | 400  |      |      |
|                |                                     | 2HN                                                                                |    | (w/resin coating)                                                                   | LXDC2HL33A-055 | 3.8-5.5                                                                             | 3.3                                                                                 | 300                                 |               |                 |      |      |      |
|                |                                     |                                                                                    |                                                                                     |                                                                                     | 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  |      |      |
|                | 2UR                                 |  |   | LXDC2HN30A-135                                                                      | 3.7-5.5        | 3.0                                                                                 | 400                                                                                 |                                     |               |                 |      |      |      |
|                |                                     |                                                                                    |                                                                                     | LXDC2HN33A-136                                                                      | 3.8-5.5        | 3.3                                                                                 | 300                                                                                 |                                     |               |                 |      |      |      |
|                |                                     |                                                                                    |                                                                                     | 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            |  |  | 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                                                                                |                                                                                     |                                                                                     |                |                                                                                     |                                                                                     |                                     |               |                 |      |      |      |
| Buck/<br>Boost | ≤1A Buck Mode/<br>≤800mA Boost Mode | 3EC                                                                                |  |  | LXDC2XQ33A-254 | 2.7-5.5                                                                             | 3.0                                                                                 | 800mA                               |               |                 |      |      |      |
|                |                                     |                                                                                    |                                                                                     |                                                                                     | LXDC55KAAA-205 |                                                                                     | 0.8-3.6<br>Set by trim resistor                                                     | 3000                                | 3MHz          | 1000            |      |      |      |
| Buck/<br>Boost | ≤1A Buck Mode/<br>≤800mA Boost Mode | 3EC                                                                                |  |  | LXDC55FAAA-203 | 4.0-14.0                                                                            | 0.8-5.3<br>Set by trim resistor                                                     | 1500                                | 2.5MHz        | 1000            |      |      |      |
|                |                                     |                                                                                    |                                                                                     |                                                                                     | LXDC3ECAAD-202 | 2.5-5.5                                                                             | 3.2-3.4V<br>Set at factory                                                          | ≤1A Buck Mode/<br>≤800mA Boost Mode | 6MHz          | 1000            |      |      |      |
| Boost          | ≤0.7A                               | 44A                                                                                |  |  | LXDC44AAAC-169 | 2.7-5.5                                                                             | 5.0                                                                                 | 700                                 | 3.3MHz        | 1000            |      |      |      |

Contents subject to change without notice. Product images not to scale.

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