

# NIC PRODUCT PROFILE

## NPIM\_L Series

### Ultra Small Metal Composite Power Inductors

#### Description:

NPIM\_L surpasses the NPIS\_LP ferrite based power inductors and NPIM\_P metal composite power inductors with the availability of 7 standard sizes. Case sizes ranging from 2.0mm X 1.6mm to 4.0mm X 4.0mm (LxW) each with component heights of 1.0mm and 1.2mm. Inductance values range from 0.24uH ~ 10uH in  $\pm 20\%$  (M) inductance tolerance.

Using an automatic assembly process makes ultra-small sizes possible while still allowing higher current ratings than conventional construction power inductors in the same size. Noise reduction is increased by use of its resin shielding material. An upgrade from standard ferrite based shielded power inductors, metal composite construction [NPIM] provides high saturation current characteristics, increased frequency performance, and higher efficiency.

Combining these two technologies results in a reduced size and increased performance power inductor.

#### Characteristics:

Series	Size	Inductance Range	DCR Range	I <sub>rms</sub> Max	I <sub>sat</sub> Max
NPIM26L	2.0x1.6x1.0	0.24 ~ 10uH	0.028Ω ~ 0.57Ω	4.5A	6.6A
NPIM20L	2.5x2.0x1.0	0.24 ~ 33uH	0.0265Ω ~ 0.44Ω	4.3A	8.1A
NPIM21L	2.5x2.0x1.2	0.24 ~ 10uH	0.0185Ω ~ 0.345Ω	4.8A	7.1A
NPIM31L	3.0x3.0x1.0	0.47 ~ 10uH	0.031Ω ~ 0.45Ω	4.1A	6.7A
NPIM32L	3.0x3.0x1.2	0.33 ~ 10uH	0.018Ω ~ 0.29Ω	6.4A	8.6A
NPIM40L	4.0x4.0x1.0	0.33 ~ 10uH	0.0155Ω ~ 0.325Ω	5.8A	8.7A
NPIM41L	4.0x4.0x1.2	0.33 ~ 10uH	0.013Ω ~ 0.25Ω	7.0A	10.8A



#### Design with QuickKIT

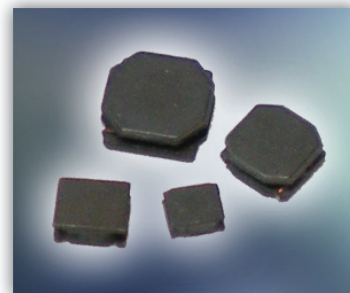
- ◆ Build Kits from NIC Focus Products
- ◆ All in Stock and Ready to Ship - FREE!
- ◆ DesignKITS offer full BoM support

[NICcomp.com/QK-Power](http://NICcomp.com/QK-Power)

#### Search with QuickBUILDER

- ◆ Over 7,500 Inductors to Search
- ◆ Compare up to 5 results Side-By-Side
- ◆ Sort by Price & Series Focus
- ◆ Lifecycle, Upgrades, and Application Focus

[NICcomp.com/QB-Inductors](http://NICcomp.com/QB-Inductors)



#### Links to Know...

Series Pages:

[www.niccomp.com/series/NPIM\\_L](http://www.niccomp.com/series/NPIM_L)

View all Inductor Products:

[www.niccomp.com/inductors](http://www.niccomp.com/inductors)

View all Magnetic Products:

[www.niccomp.com/magnetics](http://www.niccomp.com/magnetics)

#### NPIM\_L Co-Sell Products

- ◆ Hybrid Aluminum E-Caps (NSPE\*)
- ◆ Solid Chip Aluminum E-Caps (NPC, NSP)
- ◆ High CV MLCC's (NMC)
- ◆ Co-Polymer Tantalum Caps (NTP)
- ◆ Current Sensing Resistors (NCS\*)

#### NPIM\_L Series Applications

- ◆ DC-DC Converters
- ◆ LED Drivers
- ◆ Point of Sale equipment
- ◆ GPS devices
- ◆ Wireless Communications
- ◆ Sensors & Controllers
- ◆ Security & Alarm

#### Cross & Replace with NPIM\_L

- ◆ Murata LQH Series
- ◆ Taiyo Yuden MDMK, MAKK Series
- ◆ Toko DFE Series
- ◆ Cynotec PSE Series



NIC Components Corp.



Cross & Replacement Support ... [tpmg@niccomp.com](mailto:tpmg@niccomp.com)