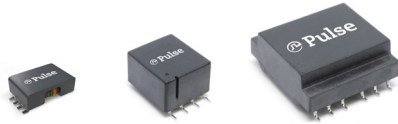


# SMT Power Line Communication (PLC) Transformers

BX615xNL, BM615xNL and BMU6210NL



- ④ Wideband Frequency response 3~30MHz
- ④ Industrial and Automotive Temperature ranges
- ④ Turns ratio supports variety of PLC chipsets
- ④ Designed with IEC-62368 for 250v mains supply
- ④ Automotive options meet AEC-Q200 and can be converted to ISO/IATF16949 and PPAP designs.

Electrical Specifications @ 25°C <sup>8,9</sup>

Part <sup>1,6,7</sup> Number	Turns Ratio +/- 2% N1:N2:N3	OCL <sup>2,3</sup> (uH Min)	DCR (mΩ Max)			Insertion Loss <sup>4</sup> (dB Max)	Insulation Resistance (MΩ Min at 100V)	Leakage <sup>5</sup> Ind (uH Max)	Cww (pF Max)	Hi-Pot (Vac)	AEC-Q200 Qualified	Insulation <sup>6</sup> Class	Clearance (mm Min)	Package Size (mm)
			N1	N2	N3									
BX6150NL	1:2CT:1	12	500	500	500	-	-	-	-	3000	No	Supplementary	-	13.4 x 15.0 x 6.5
BX6152NL <sup>8</sup>	1:1:2	7	250	250	500	-	-	-	-	3000	No	Reinforced	-	10.3 x 14.0 x 7.6
BX6153NL <sup>8</sup>	1:1	7	500	500		-	-	-	25	4000	No	Reinforced	-	10.3 x 14.0 x 7.6
BX6158NL	1:1:1	20	65	65	65	1.2	1	-	-	3000	No	Supplementary	-	10.4 x 15.1 x 7.3
BMU6201NL	1:1:1	5	500	500	500	-	-	0.5	-	500	Yes	Functional	-	5.0 x 8.1 x 3.9
BM6154NL	1:1:1	8	60	60	60	2.25	1	-	-	3000	Yes	Supplementary	7.8	10.6 x 12.4 x 10.0
BM6155NL	1:1:1	28	100	100	100	2	1	-	-	3000	Yes	Supplementary	7.8	10.6 x 12.4 x 10.0

1. Optional T&R packaging can be ordered by adding a T suffix to the part number (ie: BX6150NL becomes BX6150NLT)
2. Inductance spec is for -40°C to 125°C and measured at 100kHz, 100mVrms (BMU6201NL), 500kHz, 100mVrms (BMX6150NL, BX6152NL & BM6153NL), 10kHz, 20mVrms (BM6155NL) and 100kHz, 10mVrms (BM6154NL & BM6158NL).
3. ④ represents special characteristic per IATF16949 for AEC-Q200 qualified parts on parts listed as AEC-Q200 qualified.
4. Insertion Loss measured from 1.5MHz to 30MHz from (1-3) and (2-4) to (8-5) (BM6154NL & BM6155NL) and (1-4) to (5-8) (BM6158NL)
5. Leakage Inductance on BMU6201NL measured on (1-4) with (5-6)&(7-8) shorted at 100kHz, 100mVrms
6. Designed in accordance with EN/UL/IEC63268 (250Vrms working voltage, Material Group 3, Pollution Degree 2, Overvoltage Category 3)
7. Components are compliant to J-STD-002 (Solderability at 245°C reflow profile), J-STD-020 (Level 1, Not Moisture Sensitive) and J-STD-075 (R7, 245C Max through Reflow Solder)
8. Operating Temperature is -40°C to 125°C on all parts except BX6152NL & BX6153NL which are -40°C to 85°C
9. Storage Temperature is -50°C to 150°C on all parts except BM6154NL & BM6155NL which are -50°C to 135°C.

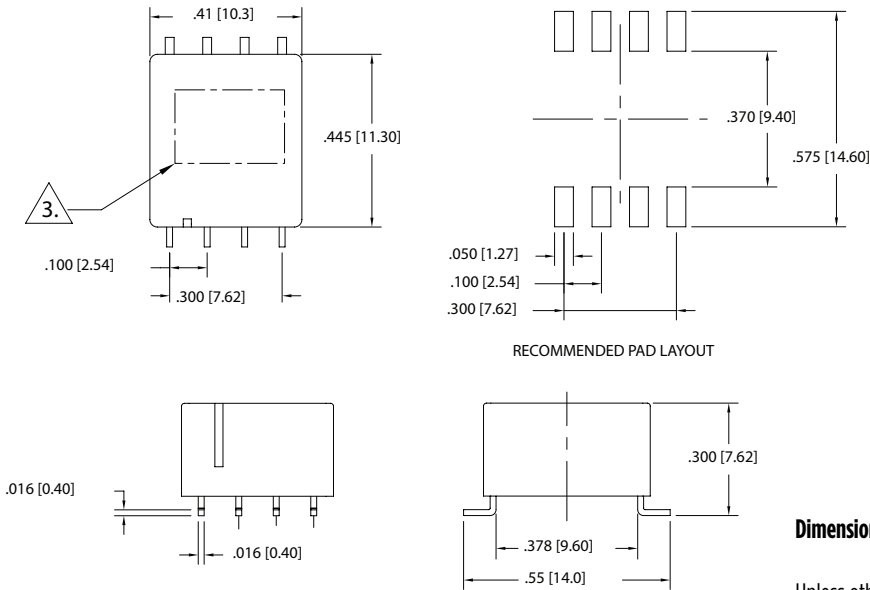
# SMT Power Line Communication (PLC) Transformers

BX615xNL, BM615xNL and BMU6210NL

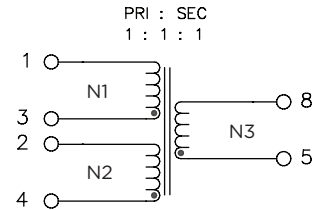
## Mechanical

## Schematic

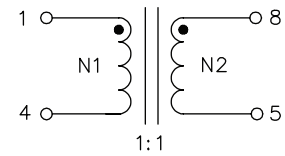
### BX6152NL, BX6153NL



### BX6152NL



### BX6153NL



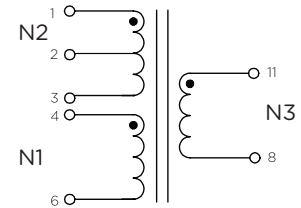
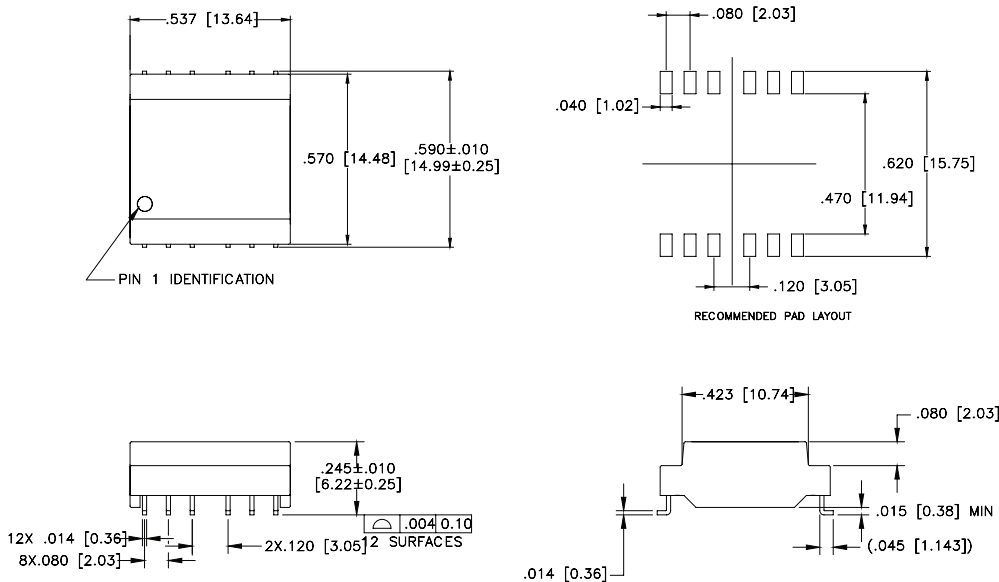
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{0.10}{0.25}$

## Mechanical

## Schematic

### BX6150NL



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{0.10}{0.25}$

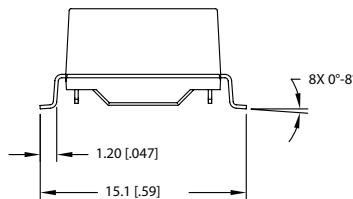
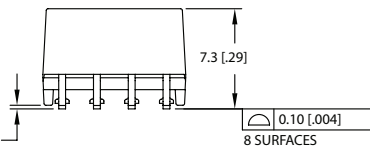
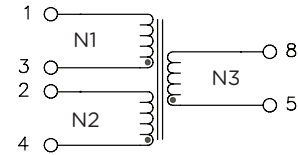
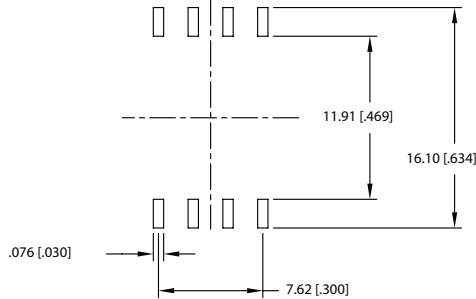
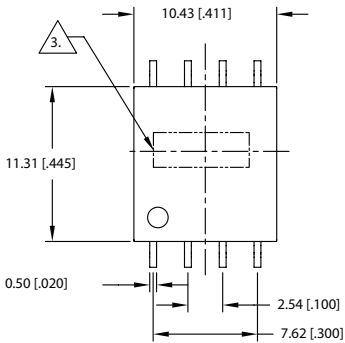
# SMT Power Line Communication (PLC) Transformers

BX615xNL, BM615xNL and BMU6210NL

## Mechanical

## Schematic

### BX6158NL



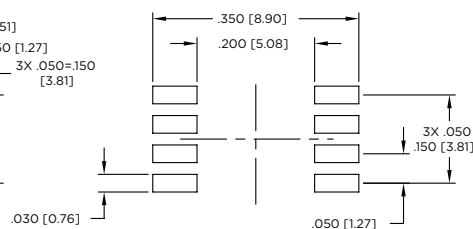
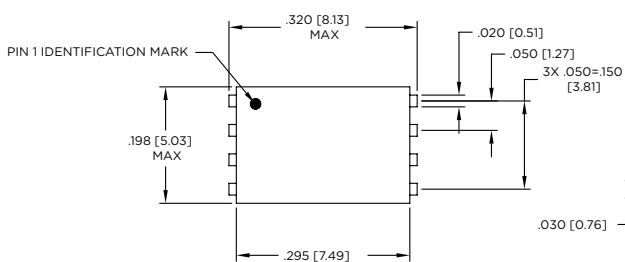
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{0.10}{0.25}$

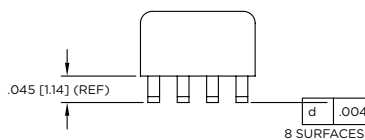
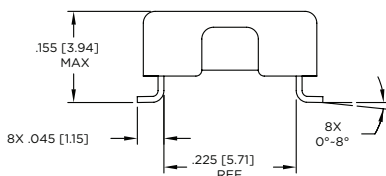
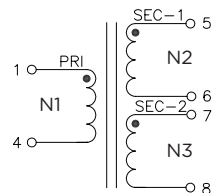
## Mechanical

## Schematic

### BMU6201NL



SUGGESTED LAND PATTERN



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{0.10}{0.25}$

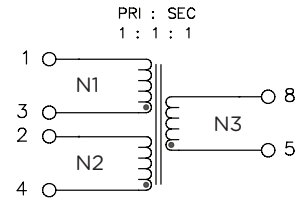
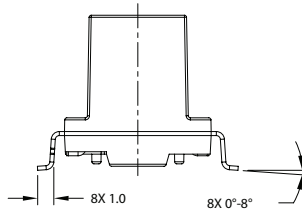
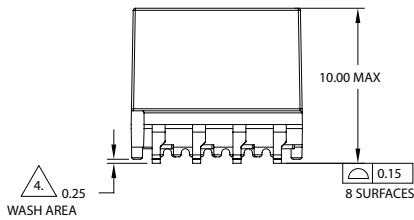
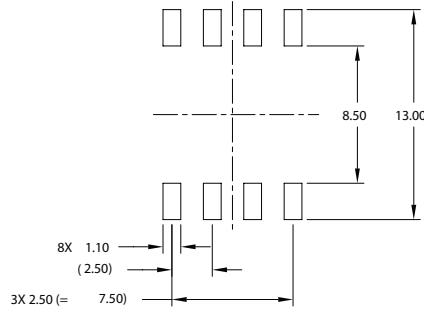
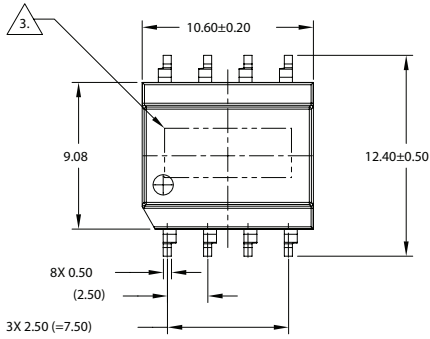
# SMT Power Line Communication (PLC) Transformers

BX615xNL, BM615xNL and BMU6210NL

## Mechanical

## Schematic

### BM6154NL, BM6155NL



**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{0.10}{0.25}$

### For More Information:

Americas - [prodinfonynetworkamericas@pulseelectronics.com](mailto:prodinfonynetworkamericas@pulseelectronics.com) | Europe - [comms-Apps-Europe@pulseelectronics.com](mailto:comms-Apps-Europe@pulseelectronics.com) | Asia - [prodinfonynetworkapac@pulseelectronics.com](mailto:prodinfonynetworkapac@pulseelectronics.com)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2021. Pulse Electronics, Inc. All rights reserved.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Pulse:](#)

[BMU6201NL](#) [BMU6201NLT](#) [BX6150NL](#) [BX6150NLT](#) [BX6152NL](#) [BX6152NLT](#) [BX6153NL](#) [BX6153NLT](#) [BX6158NL](#)  
[BX6158NLT](#) [BM6154NL](#) [BM6154NLT](#) [BM6155NL](#) [BM6155NLT](#)