

RF TRANSFORMERS

Transformers for Wideband RF Applications



- RoHS peak reflow temperature rating: 245°C
- Miniature surface mount package
- Various impedance ratios available
- Excellent insertion loss
- Ideal for Balanced-to-Unbalanced applications
- Products from 0.05 to 1900 MHz bandwidth

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

RoHS Compliant Part Number	Impedance Ratio ¹ Pri:Sec	Turns Ratio Pri:Sec (±2%)	Bandwidth ^{2,3} (MHz TYP)			Insertion Loss @ Midband (dB TYP)	Schematic	Primary Pins
			3 dB	2 dB	1 dB			
CX2041NL	1:1CT	1:1CT	0.05–450	0.75–300	0.10–200	0.60	B	4–6
CX2040LNL	1:1	1:1	1.5–500	2.5–400	5–350	0.90	A	4–6
CX2043LNL	1.5:1	√1.5:1	—	—	1–1000	0.20	D	3–6
CX2044LNL	1.5:1	√1.5:1	—	1.0–500	5–100	0.20	A	1–3
CX2045LNL	1:2CT	1:1.414CT	—	—	3–300	0.80	B	4–6
CX2047LNL	1:4CT	1:2CT	—	0.5–300	1.5–100	0.24	B	4–6
CX2049LNL	1:8CT	1:2.83CT	.25–500	0.3–400	0.5–200	1.16	B	4–6
CX2029LNL	36:1CT	6:1CT	0.05–21	—	—	0.40	B	4–6
CX2163LNL	1:1	1:1	800–1900	—	900–1400	1.50	E	1–3

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

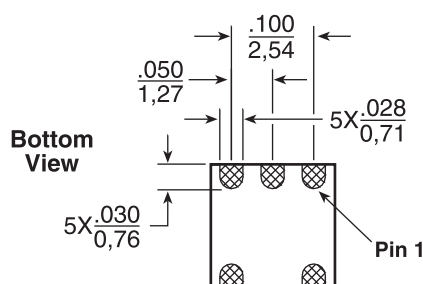
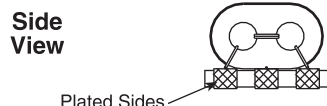
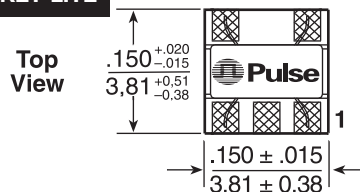
RoHS Compliant Part Number	Impedance Ratio ¹ Pri:Sec	Bandwidth ^{2,3} (MHz TYP)		Schematic	Primary Pins
		2 dB	1 dB		
CX2038LNL	75 Ω:75 Ω	Up to 1500	4.5–1000	C	4–6
CX2039LNL	50 Ω:50 Ω	Up to 1500	4.5–1000	C	4–6

NOTE: Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number, e.g. CX2041NLT, CX2163NLT.

Mechanical

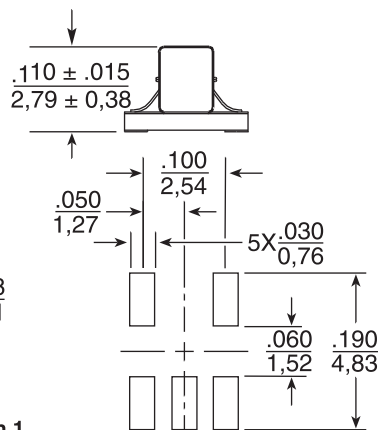
Schematic

RACKET-LITE

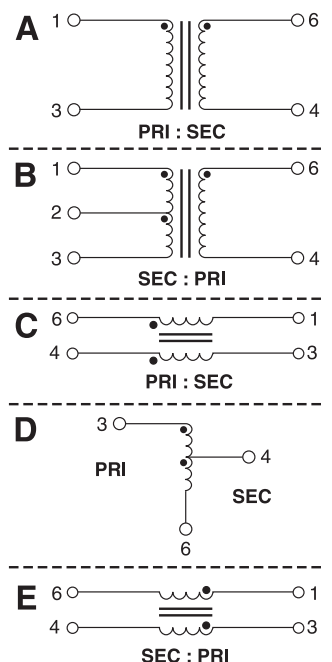


Tape & Reel 2000 /reel
Tray 100 /tray
Power Rating . . . 30 mA MAX; 0.25 W MAX

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$



SUGGESTED PAD LAYOUT



USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 32181071 • China 86 755 33966678 • Taiwan 886 3 4643715

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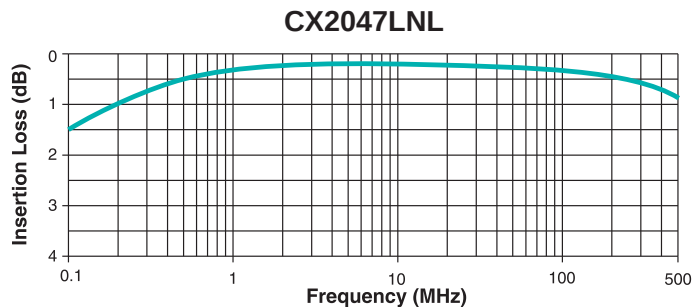
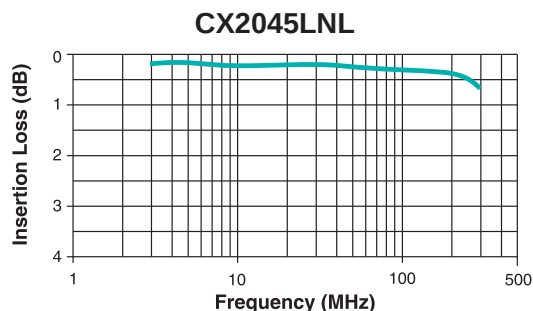
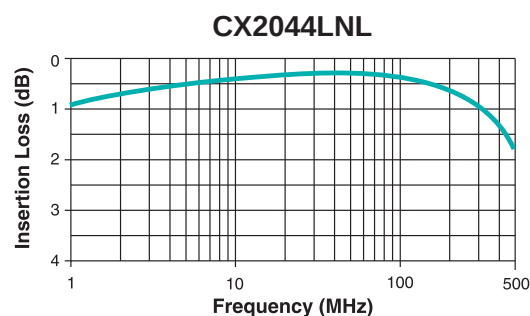
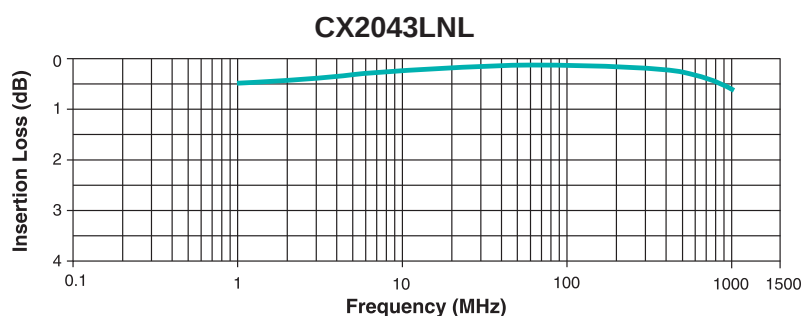
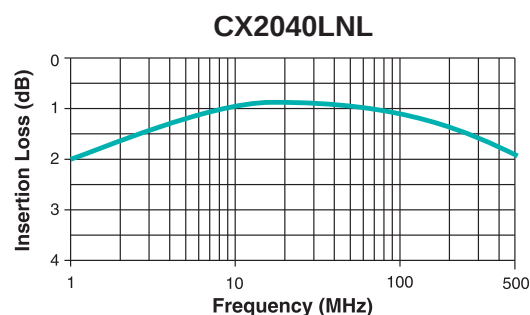
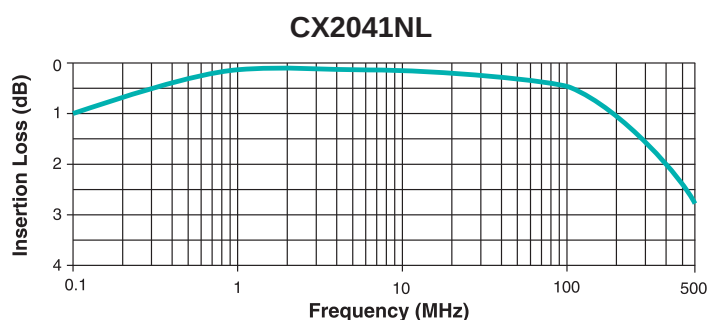
Notes from Tables

1. Impedance and turns ratios are specified primary:secondary.
(CT=Center Tap).
2. Bandwidth is referenced to midband loss.
3. These transformers are verified to operate from -40°C to +85°C.
Contact Pulse Applications Engineering for performance data.

Application Notes

- A. Bandwidth specifications for **CX2040LNL** and **CX2047LNL** are for a 50 Ω system.
- B. Materials used in the products are UL94-V0 recognized. Products meet requirements of IEC 695-2-2 (Needle Flame Test).
- C. **CX2038LNL**, **CX2039LNL**, and **CX2043LNL** transformer configurations do not provide DC isolation between primary and secondary windings.
- D. For additional impedance ratios and frequency ranges, please contact Pulse Applications Engineering.
- E. Pick and place operation: smooth upper surface of device allows automatic pick and place.
- F. For availability of lead-free version of this product, please contact Pulse.

Typical Insertion Loss @ 25°C



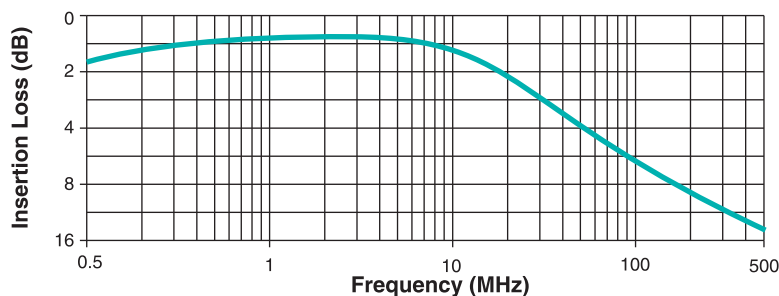
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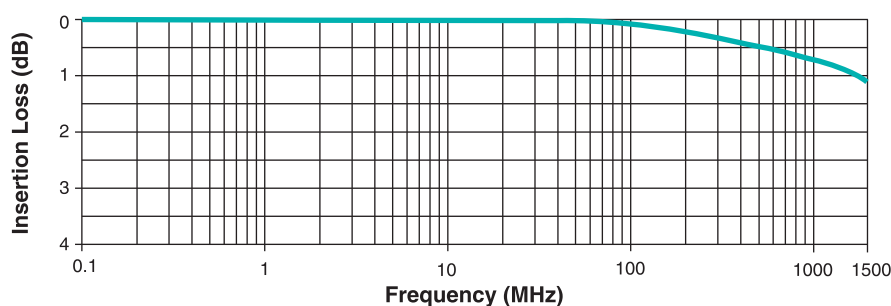


Typical Insertion Loss @ 25°C

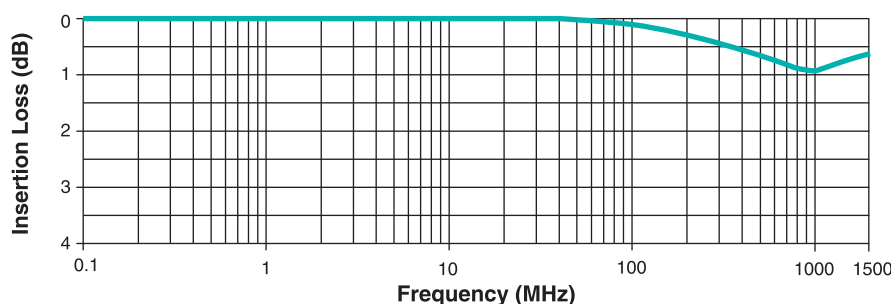
CX2029NL



CX2038LNL



CX2039LNL



For More Information:

Pulse Worldwide Headquarters

12220 World Trade Dr.
San Diego, CA 92128
U.S.A.

www.pulseeng.com

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Zeppelinstrasse 15
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Rd.
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057
Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China

Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Rd. West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

135 Joo Seng Rd.
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

3F, No. 198
Zhongyuan Rd.
Zhongli City
Taoyuan County 320
Taiwan R. O. C.

Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

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