RF TRANSFORMERS
Transformers for Wideband RF Applications

Pulse
A TECHNITROL COMPANY

- 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	$\sqrt{1.5:1}$	—	—	1–1000	0.20	D	3–6
CX2044LNL	1.5:1	$\sqrt{1.5:1}$	—	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

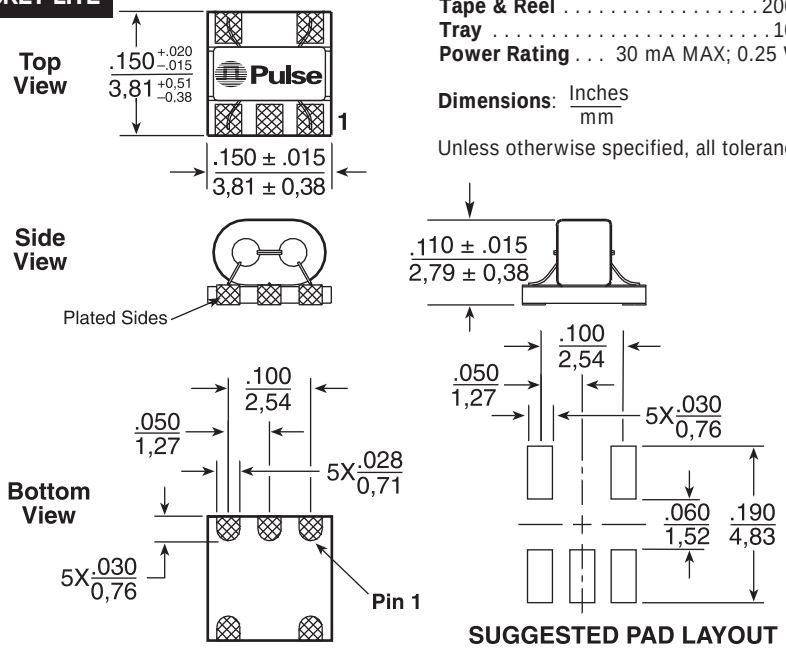
Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

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. CX2041NL**T**, CX2163NL**T**.

Mechanical

RACKET-LITE

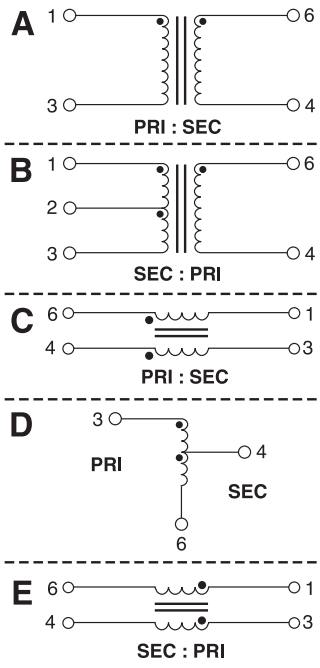


Tape & Reel . . . . . 2000 /reel
Tray . . . . . 100 /tray
Power Rating . . . 30 mA MAX; 0.25 W MAX

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0.25

Schematic



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 **CX2040LN**L 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.

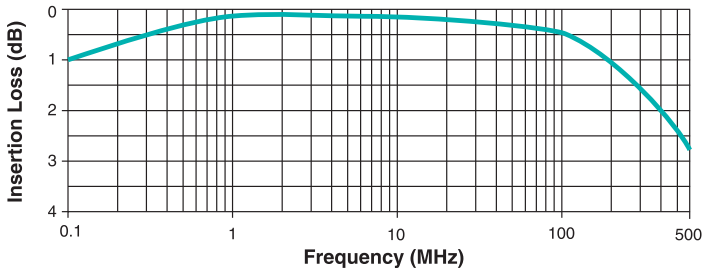
D. For additional impedance ratios and frequency ranges, please contact Pulse Applications Engineering.

E. Pick and place operation: smooth upper surface of device allows automatic pick and place.

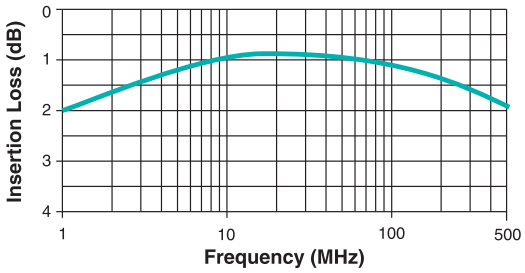
F. For availability of lead-free version of this product, please contact Pulse.

Typical Insertion Loss @ 25ºC

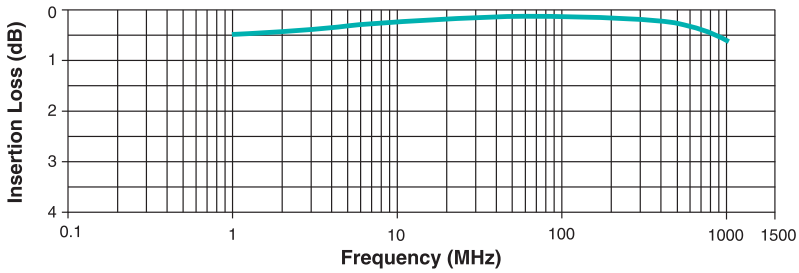
CX2041NL



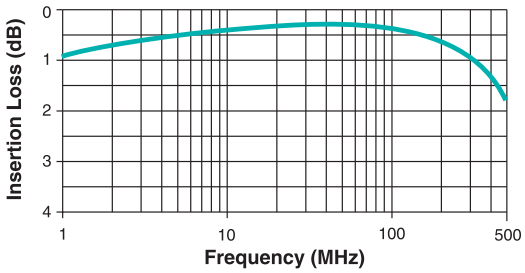
CX2040LNL



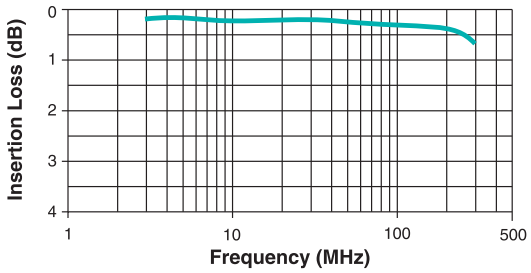
CX2043LNL



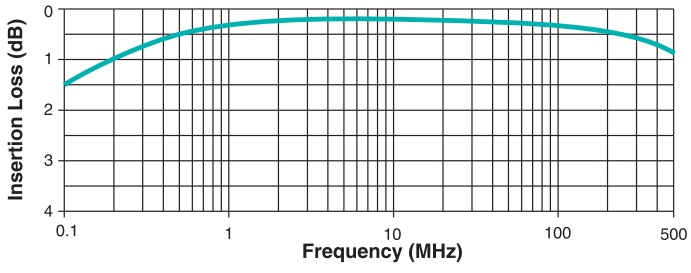
CX2044LNL



CX2045LNL

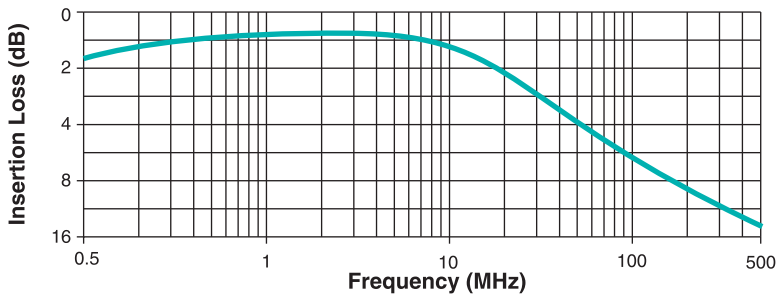


CX2047LNL

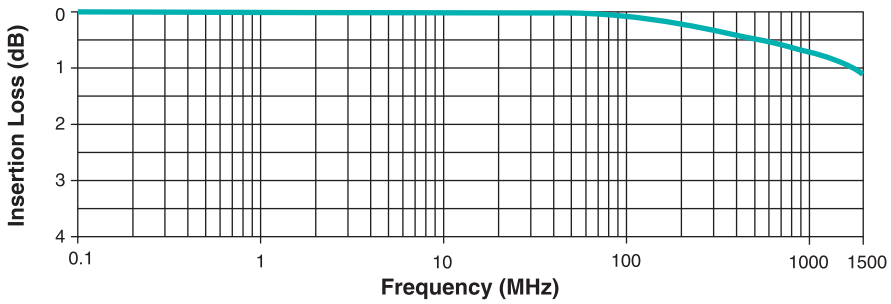


Typical Insertion Loss @ 25°C

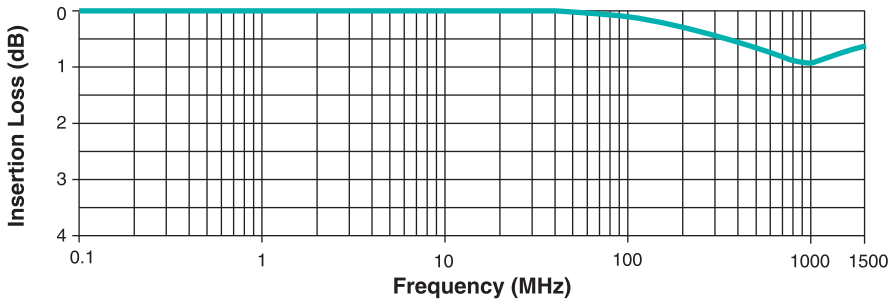
CX2029NL



CX2038LNL



CX2039LNL



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