






RF BALUN TRANSFORMERS

For Wideband RF Applications



-  Low cost construction
-  Miniature surface mount package
-  Excellent insertion loss
-  Ideal for balanced-to-unbalanced applications
-  Designed for:
 - CATV Distribution/Drop Amplifiers
 - Set Top Boxes
 - Residential Gateways

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

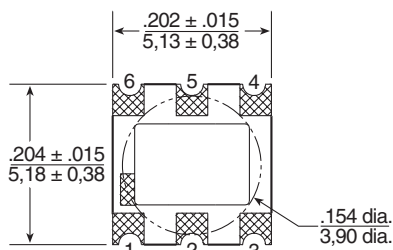
Standard Part Number	RoHS-6 Compliant Part No.	Impedance Ratio ¹ (Pri:Sec ±2%)	Insertion Loss ²			Return Loss			Phase Unbalance (50-1000MHz)	Amplitude Unbalance	
			10MHz (TYP/MAX)	50-750MHz (TYP/MAX)	750-1000MHz (TYP/MAX)	10MHz (TYP/MIN)	50-750MHz (TYP/MIN)	750-1000MHz (TYP/MIN)		(50MHz)	(100-1000MHz)
CX2024	CX2024NL	1:1	0.46/1.00dB	0.37/0.50dB	0.48/0.60dB	>40/20dB	>30/20dB	30/16dB	20° MAX	1.4dB MAX	1.25dB MAX
CX2024A	CX2024ANL	1:1	0.46/1.00dB	0.37/0.50dB	0.48/0.60dB	>40/20dB	>30/20dB	30/16dB	20° MAX	1.4dB MAX	1.25dB MAX
			50MHz (TYP/MAX)	208MHz (TYP/MAX)	870MHz (TYP/MAX)	50MHz (TYP/MIN)	208MHz (TYP/MIN)	870MHz (TYP/MIN)	50-870MHz	50MHz	100-870MHz
CX2149	CX2149NL	1:1	0.40/1.00dB	0.40/1.00dB	0.6/1.0dB	>30/20dB	30/20dB	22/18dB	±4° from 180°	1.4dB MAX	1.3dB MAX

NOTE: Part with cover plate is designated CX2024A. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (ex: CX2024T or CX2024AT).

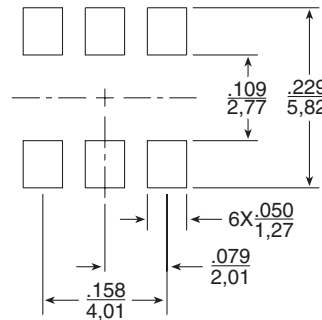
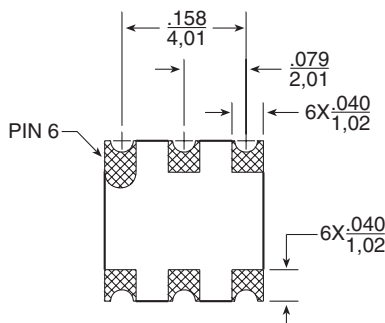
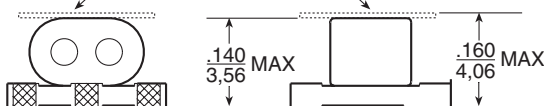
Mechanical

Schematic

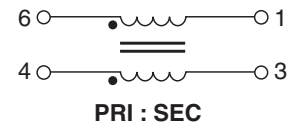
CX2024/NL, CX2024A/NL & CX2149/NL



NOTE: CX2024A has optional cover plate



SUGGESTED PAD LAYOUT



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 ± $\frac{.010}{0,25}$

RF BALUN TRANSFORMERS

For Wideband RF Applications

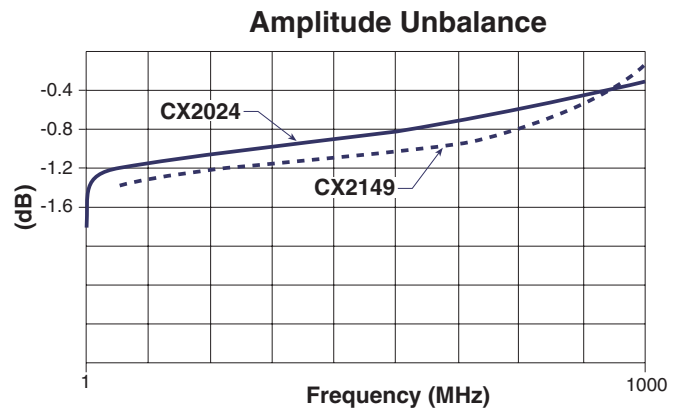
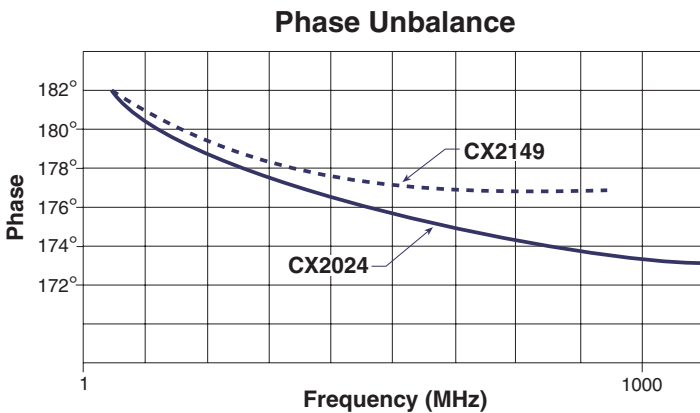
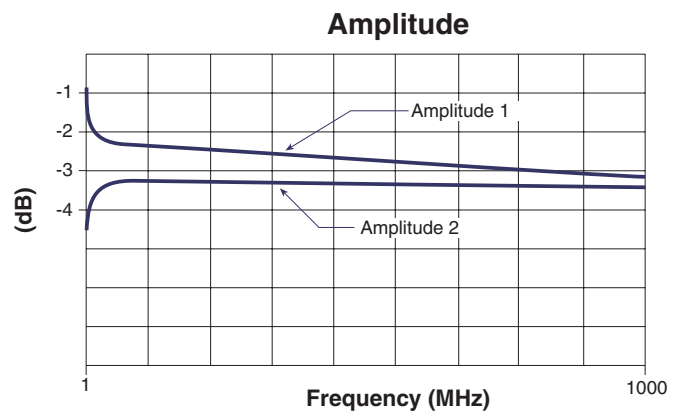
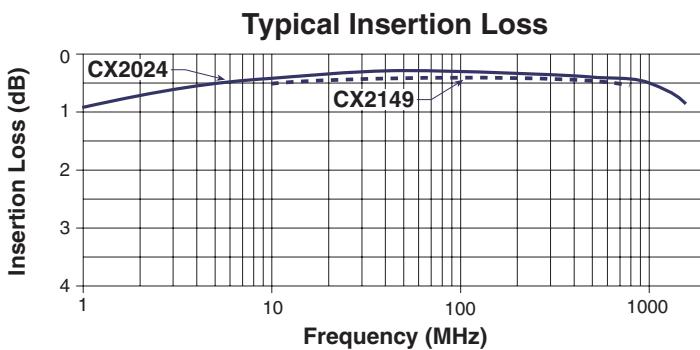


Application Notes

- A. Bandwidth specifications for **CX2024**, **CX2024A** and **CX2149** are for a 75 Ω system.
- B. Materials used in the products are UL94-V0 recognized. Products meet requirements of IEC 695-2-2 (Needle Flame Test).
- C. For additional impedance ratios and frequency ranges, please contact Applications Engineering.
- D. Pick and place operation: smooth upper surface of device allows automatic pick and place.

Notes from Tables

- 1. Impedance and turns ratios are specified primary:secondary.
- 2. These transformers are verified to operate from -40°C to +85°C. Contact Applications Engineering for performance data.



For More Information:

Pulse Worldwide Headquarters	Pulse Northern Europe	Pulse Southern Europe	Pulse China Headquarters	Pulse North China	Pulse South Asia	Pulse North Asia
12220 World Trade Drive San Diego, CA 92128 U.S.A. www.pulseeng.com TEL: 858 674 8100 FAX: 858 674 8262	3 Huxley Road Surrey Research Park Guildford, Surrey GU2 5RE United Kingdom TEL: 44 1483 401700 FAX: 44 1483 401701	Zone Industrielle F-39270 Orgelet France TEL: 33 3 84 35 04 04 FAX: 33 3 84 25 46 41	No. 1 Industrial District Changan, Dongguan China TEL: 86 769 5538070 FAX: 86 769 5538870	Room 1503 XinYin Building No. 888 YiShan Road Shanghai 200233 China TEL: 86 21 54643211/2 FAX: 86 21 54643210	150 Kampong Ampat #07-01/02 KA Centre Singapore 368324 TEL: 65 6287 8998 FAX: 65 6280 0080	No. 26 Kao Ching Road Yang Mei Chen Taoyuan Hsien Taiwan, R. O. C. TEL: 886 3 4641811 FAX: 886 3 4641911

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, 2006. Pulse Engineering, Inc. All rights reserved.

www.pulseeng.com

C217.B (2/06)