

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

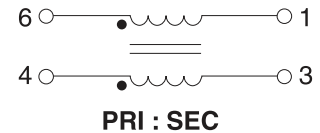
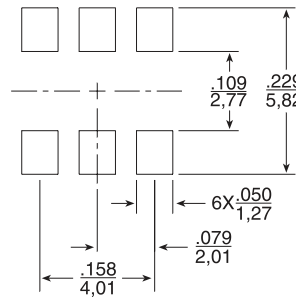
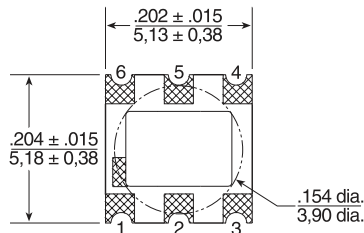
Standard Part Number	RoHS-6 Compliant Part No.	Impedance Ratio ¹ (Pri:Sec ±2%)	Insertion Loss ²			Return Loss			Phase Unbalance (50/1000MHz)	Amplitude Unbalance	
			10MHz (TYP/MAX)	50-750MHz (TYP/MAX)	750-1000MHz (TYP/MAX)	10MHz (TYP/MIN)	50-750MHz (TYP/MIN)	750-1000MHz (TYP/MIN)		(50MHz)	(100-1000MHz)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

Notes: 1. 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).

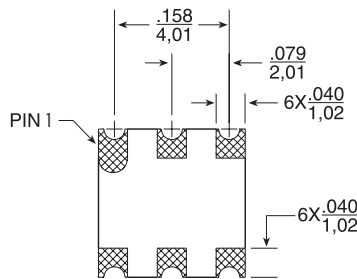
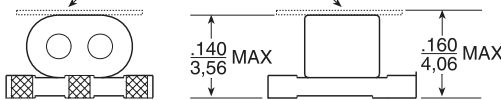
Mechanical

Schematic

CX2024/NL, CX2024A/NL & CX2149/NL



NOTE: CX2024A has optional cover plate



Tape & Reel2000/reel

Tray100/tray

Power Rating30 mA MAX; 0.25 W MAX

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

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

RF Balun Transformers

For Wideband RF Applications

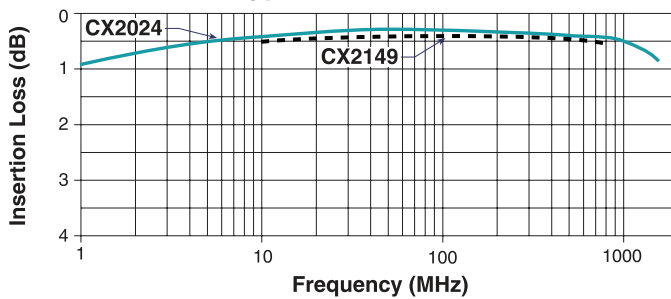
Application Notes

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

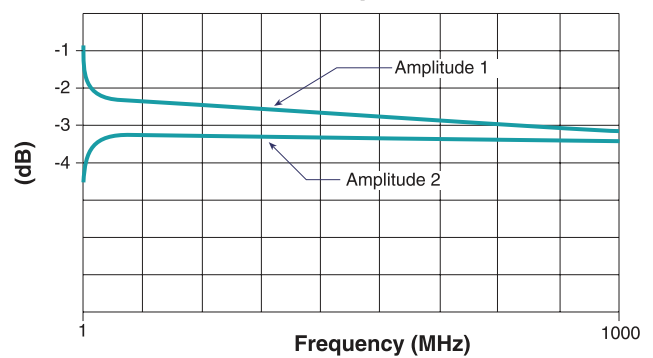
Notes from Tables

- Impedance and turns ratios are specified primary :secondary.
- These transformers are verified to operate from -40°C to $+85^{\circ}\text{C}$. Contact Applications Engineering for performance data.

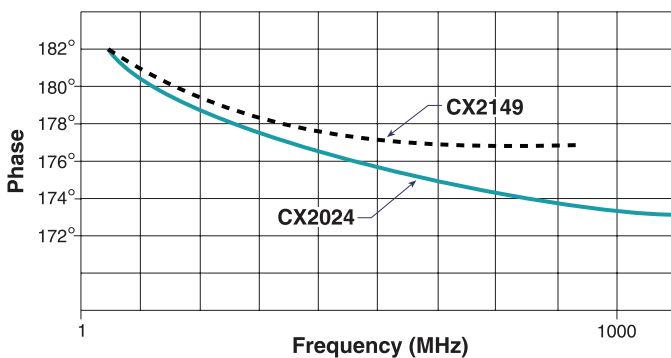
Typical Insertion Loss



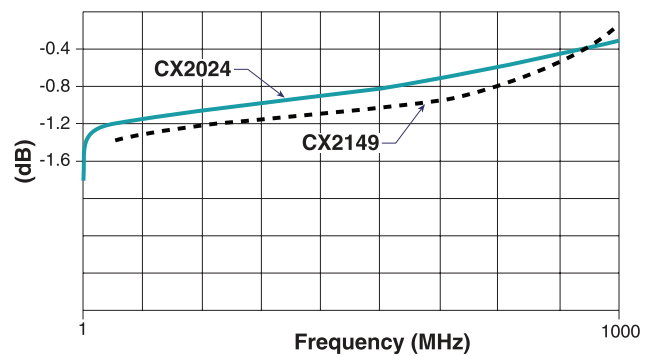
Amplitude



Phase Unbalance



Amplitude Unbalance



For More Information

Pulse Worldwide Headquarters

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

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 78060
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technol-
ogy Bldg.
10th Kejian Road
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 Road
West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

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

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

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

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

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, 2012. Pulse Electronics, Inc. All rights reserved.