

Product Description

The TQ1200 through TQ1209 are a family of directional passive couplers. These devices consist of two broadside-coupled transmission lines. The first transmission line connects the input port to the thru port and the second transmission line connects the coupled port to the isolated port.

P/N	Freq (MHz)	IL (dB)	Coup (dB)	Isol (dB)	VSWR (max)	Pow (W)
TQ1200	815.0 ±10.0	0.17 (max.)	20.3 ±2.0 (max.)	27 (min.)	1.4 (max.)	3
TQ1201	836.5 ±12.5	0.17 (max.)	19.9 ±2.0 (max.)	26 (min.)	1.4 (max.)	1
TQ1202	836.5 ±12.5	0.40 (max.)	14.6 ±2.0 (max.)	24 (min.)	1.4 (max.)	1
TQ1203	897.5 ±17.5	0.20 (max.)	19.4 ±2.0 (max.)	25 (min.)	1.4 (max.)	3
TQ1204	1441.0 ±12.0	0.28 (max.)	16.8 ±2.0 (max.)	22 (min.)	1.4 (max.)	1
TQ1205	1880.0 ±30	0.27 (max.)	18.2 ±2.0 (max.)	22 (min.)	1.4 (max.)	1
TQ1206	1880.0 ±30.0	0.29 (max.)	16.5 ±2.0 (max.)	21.0 (min.)	1.4 (max.)	3
TQ1207	1880.0 ±30.0	0.45 (max.)	13.2 ±2.0 (max.)	18 (min.)	1.4 (max.)	1
TQ1208	1950 ±30.0	0.31 (max.)	15.8 ±2.0 (max.)	20.5 (min.)	1.4 (max.)	3
TQ1209	1960 ±30.0	0.37 (max.)	14.0 ±2.0 (max.)	18.7 (min.)	1.4 (max.)	1

Note: Specifications are ambient temperature range from -40°C to 85°C.

TQ1200-TQ1209

DATA SHEET

Couplers

Features

- Small size: MLF 2x2
- Low Insertion Loss
- High Power Capacity
- Excellent Isolation
- Low VSWR

Applications

- Wireless Communications
- Power Sampling/Level Sampling
- General Purpose Apps

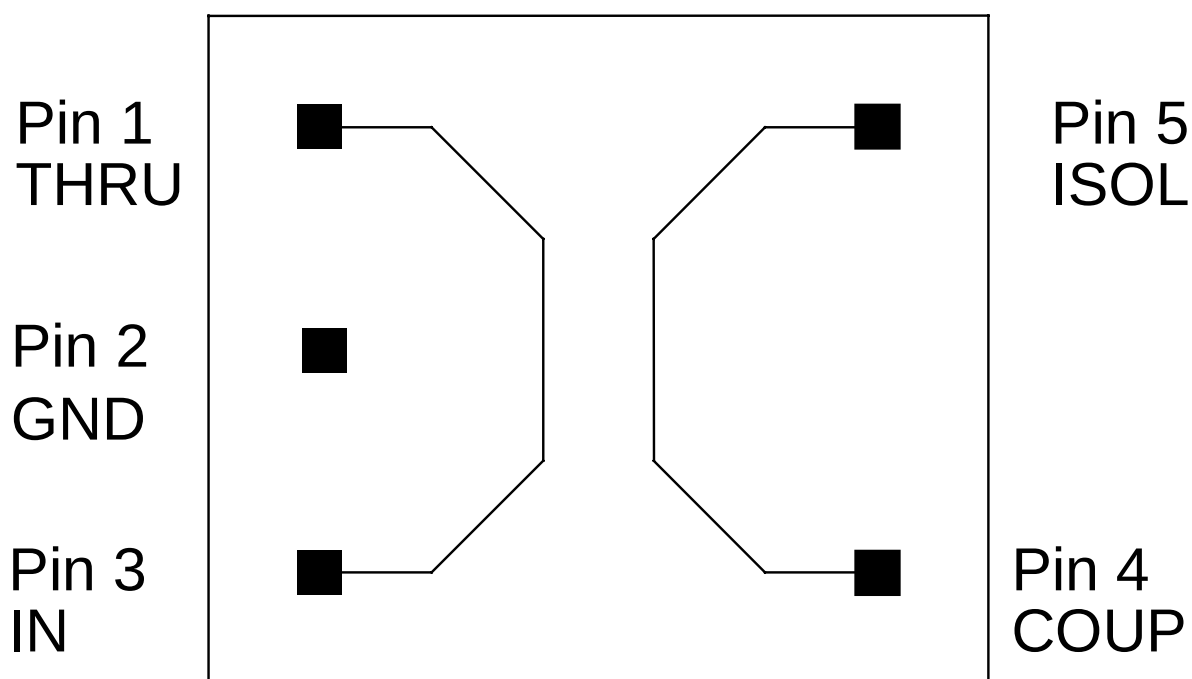
TQ1200-1209

Data Sheet

Absolute Maximum Ratings

Parameter	Value	Units
Operating Temperature	-40 to 85	°C
Storage Temperature	-60 to 150	°C

Block Diagram: 1200-1209



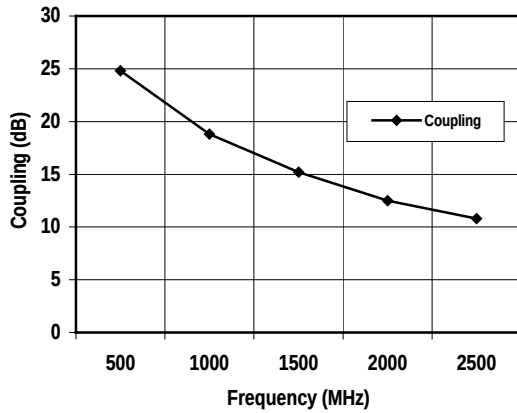
PIN-OUT FUNCTIONAL DESCRIPTION

Pin	Name	Description
1	Thru	Thru port
2	GND	Ground
3	IN	Input port
4	Coup	Coupled port
5	Isol	Isolation port

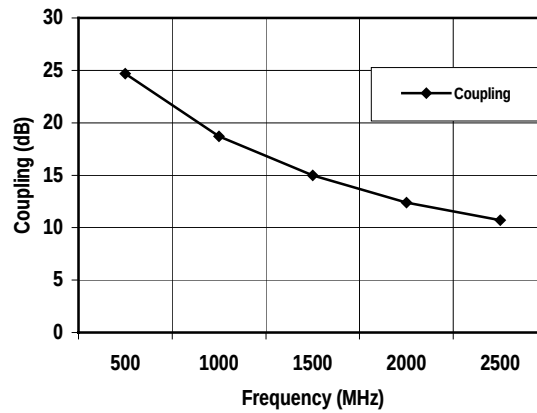
Typical Performance

Test Conditions, unless Otherwise Specified: $T_c = +25^\circ\text{C}$

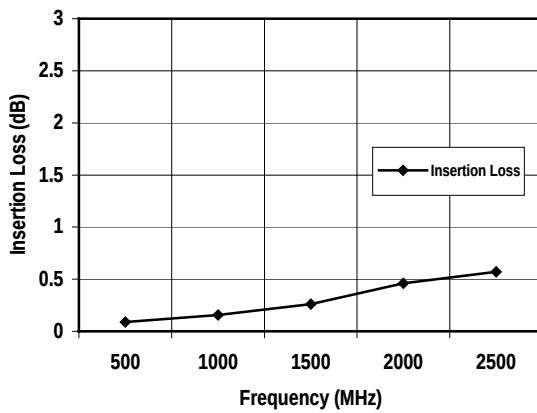
TQ1200 Coupling



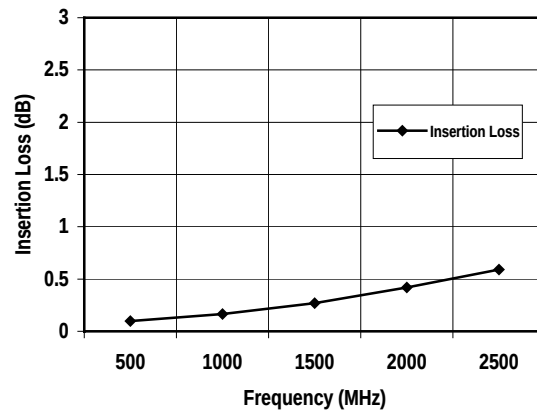
TQ1201 Coupling



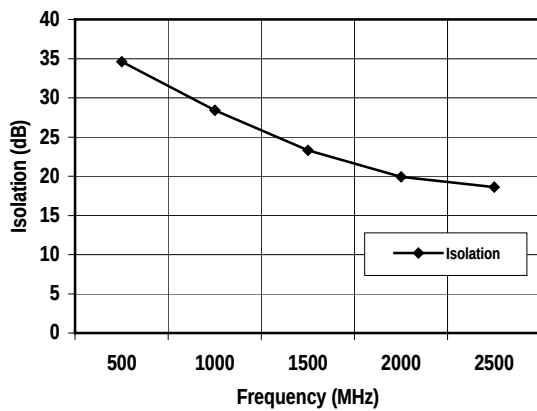
TQ1200 Insertion Loss



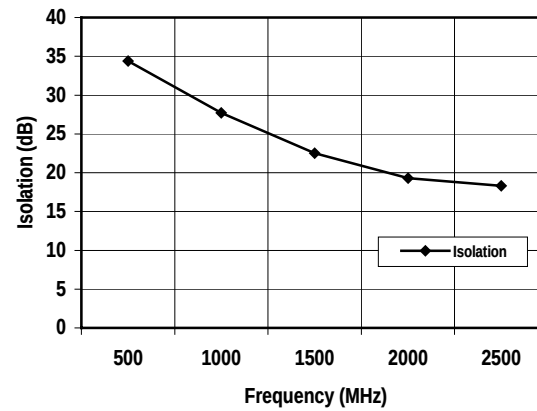
TQ1201 Insertion Loss



TQ1200 Isolation



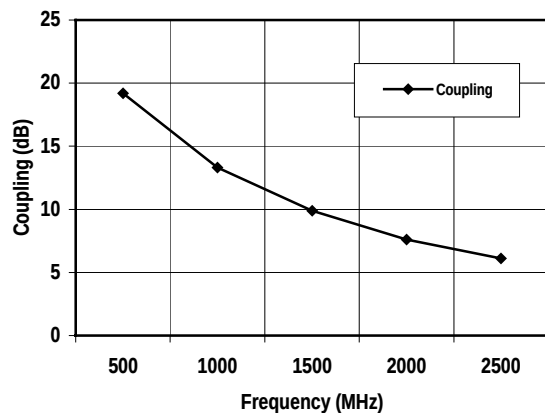
TQ1201 Isolation



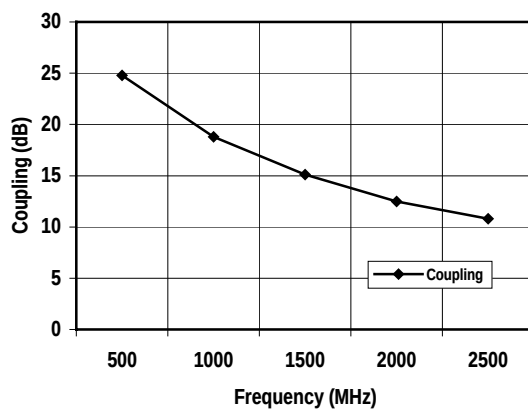
TQ1200-1209

Data Sheet

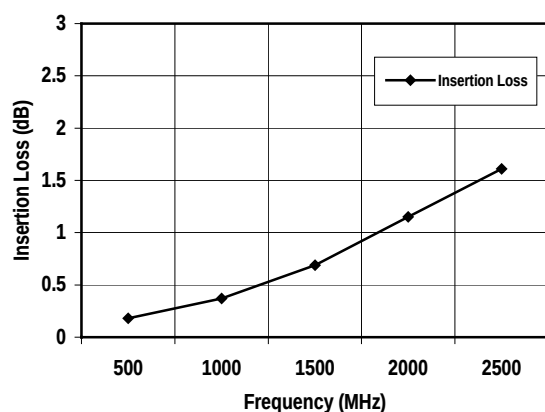
TQ1202 Coupling



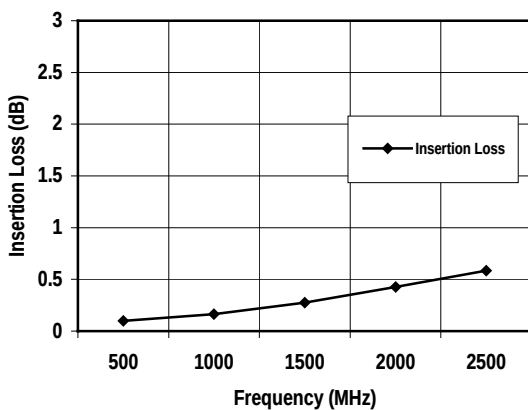
TQ1203 Coupling



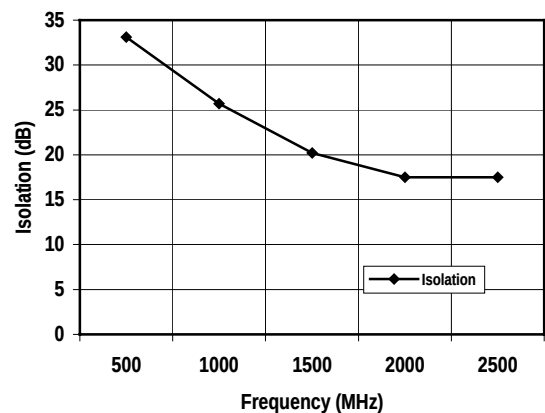
TQ1202 Insertion Loss



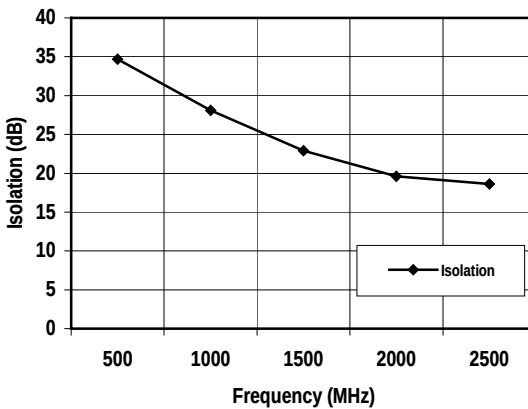
TQ1203 Insertion Loss



TQ1202 Isolation



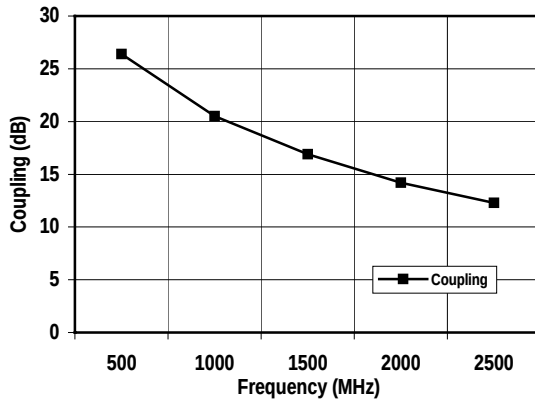
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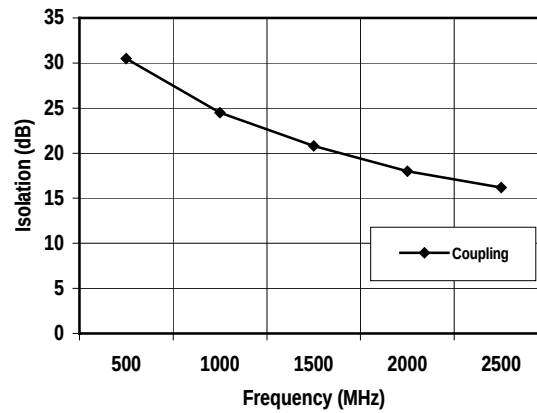
TQ1200-1209

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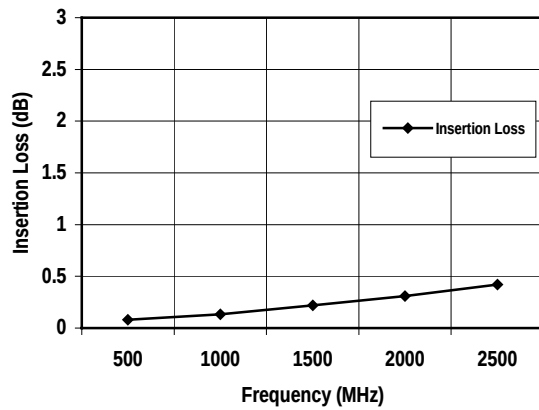
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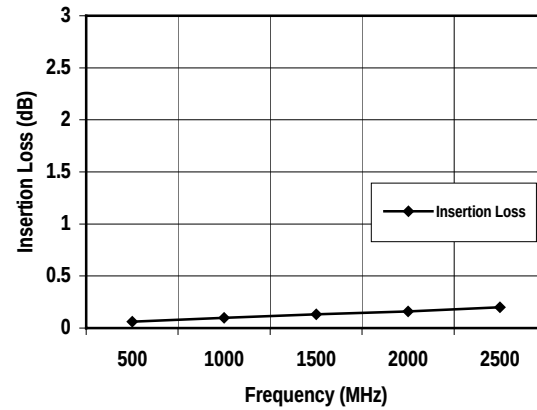
TQ1205 Coupling



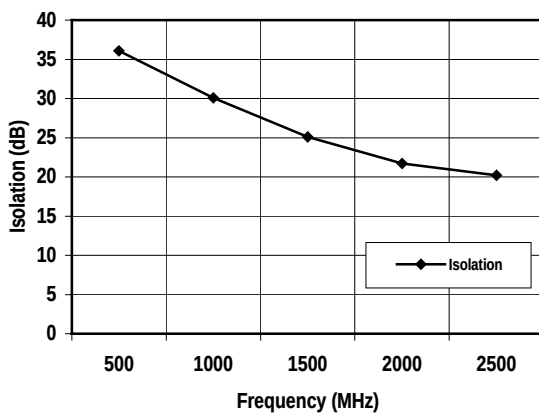
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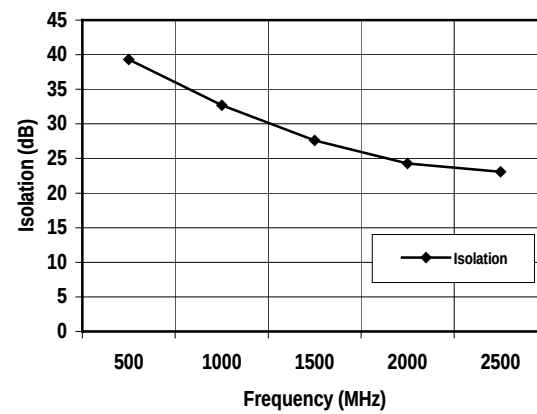
TQ1205 Insertion Loss



TQ1204 Isolation



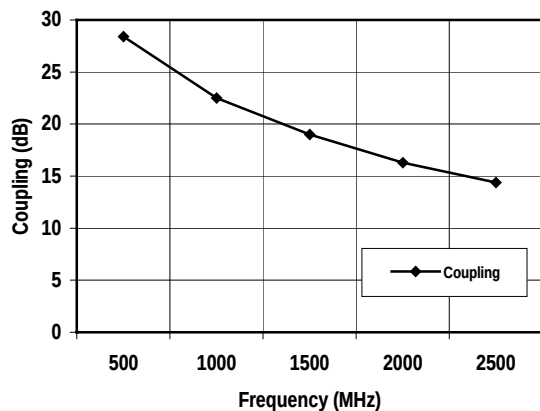
TQ1205 Isolation



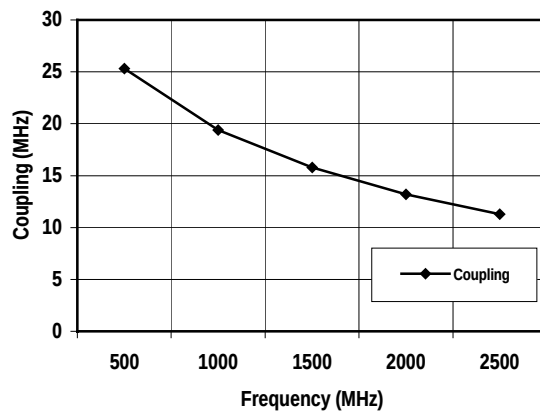
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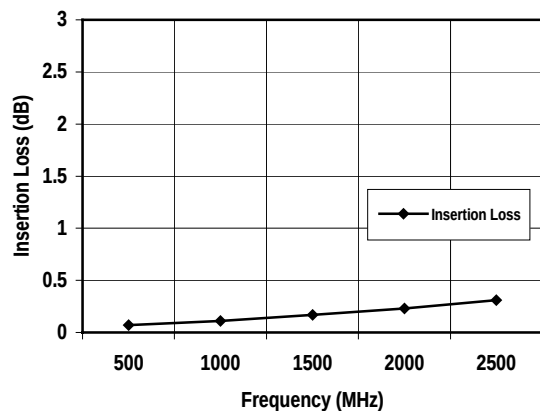
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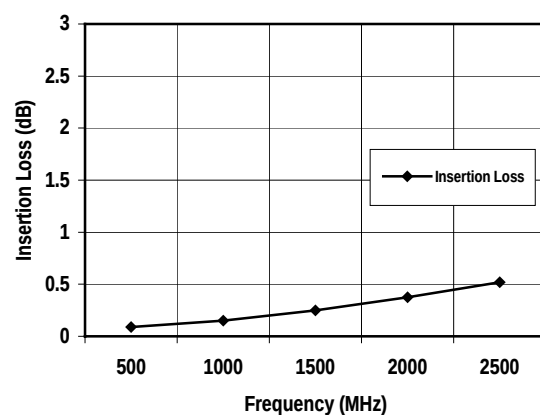
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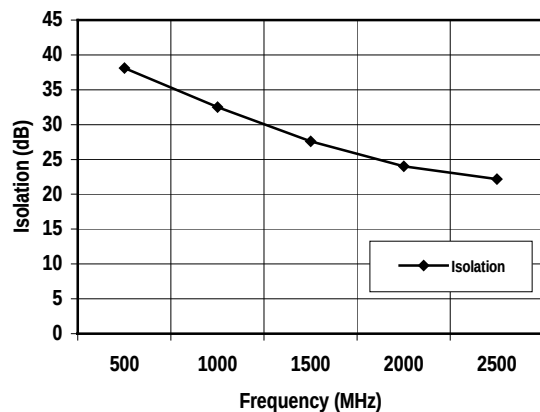
TQ1206 Insertion Loss



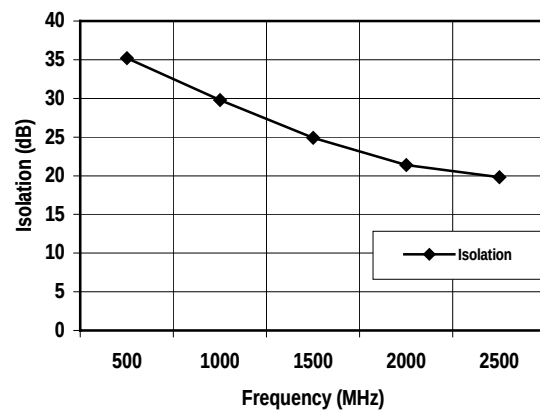
TQ1207 Insertion Loss



TQ1206 Isolation



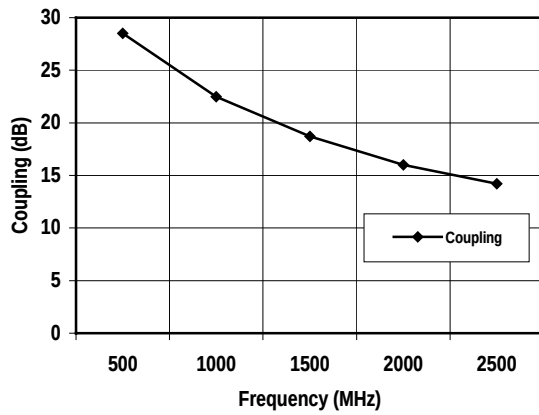
TQ1207 Isolation



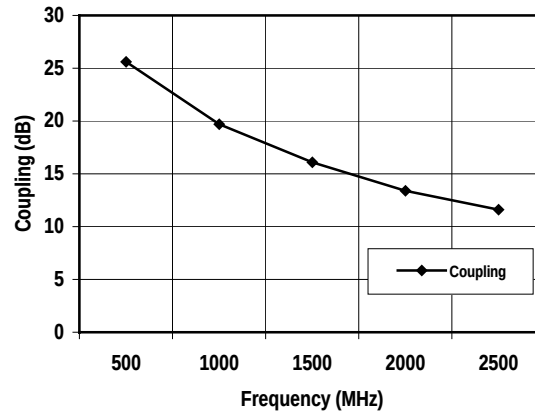
TQ1200-1209

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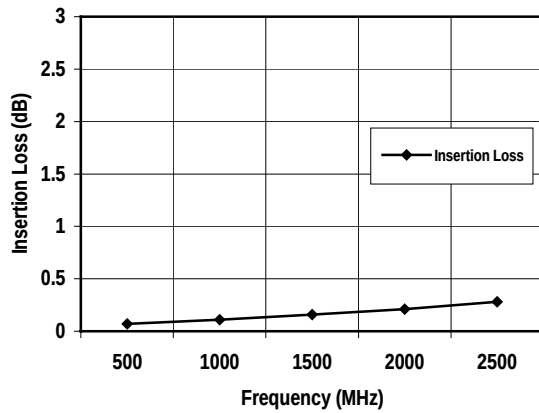
TQ1208 Coupling



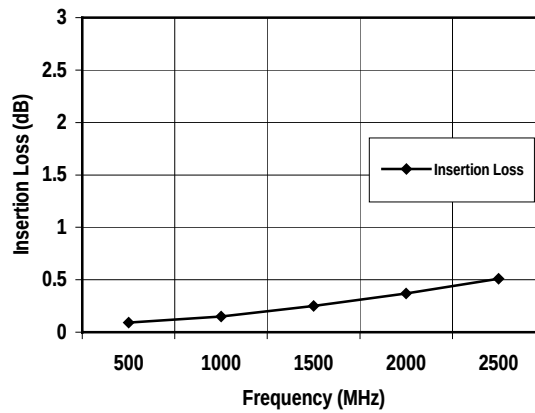
TQ1209 Coupling



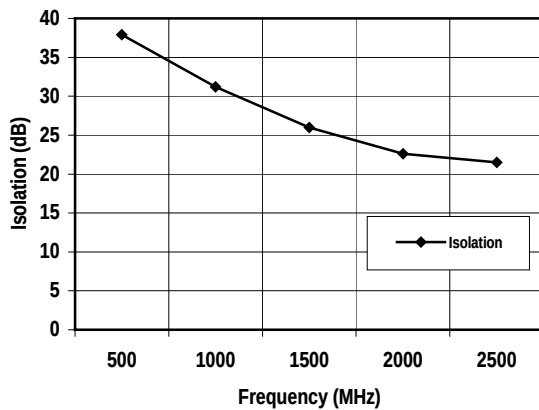
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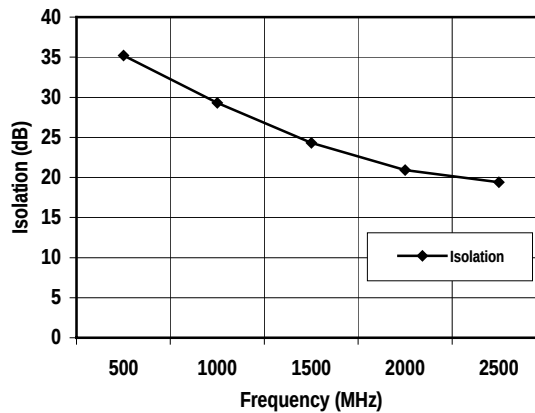
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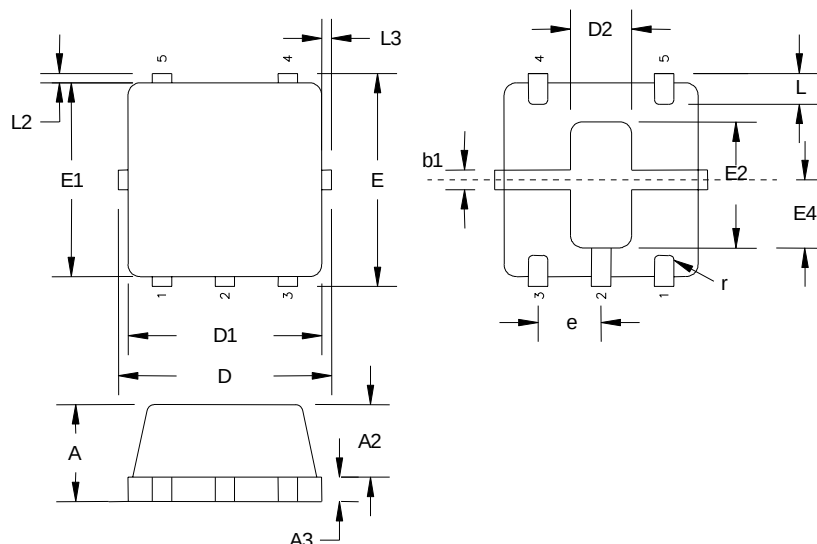


TQ1208 Isolation



TQ1209 Isolation



Package Dimensions:

JEDEC DESIGNATION	DESCRIPTION	METRIC	ENGLISH	NOTE
A	OVERALL HEIGHT	0.90 +/- .10 mm	.035 +/- .004 in	1
A2	PACKAGE BODY HEIGHT	0.70 +/- .05mm	.028 +/- .002 in	1
A3	PACKAGE BASE HEIGHT	0.20 +/- .05mm	.008 +/- .002 in	1
r	LEAD RADIUS	0.075 mm REF	.003 in	1
b	TERMINAL WIDTH	0.23 +/- .05 mm	.009 +/- .002 in	1
D	PACKAGE LENGTH	2.00 mm BSC	.079 in	1
D2	EXPOSED PAD LENGTH	1.324 +/- 0.1 mm	.052 +/- .004 in	1
e	TERMINAL PITCH	0.65 mm BSC	.026 in	1
E	PACKAGE WIDTH	2.00 mm BSC	.079 in	1
E2	EXPOSED PAD WIDTH	0.624 +/- 0.1 mm	.025 +/- .004 in	1
E4	PAD END TO CENTERLINE	0.662 +/- 0.1 mm	.026 +/- .004 in	1
L	TERMINAL LENGTH	0.355 +/- .14 mm	.014 +/- .006 in	1
L2	TERMINAL PAST BODY LENGTH	0.063 mm REF	.03 in	1
L3	TERMINAL PAST BODY WIDTH	0.063 mm REF	.03 in	1

1. Notes: PRIMARY DIMENSIONS ARE IN METRIC MILLIMETERS. THE ENGLISH EQUIVALENTS ARE CALCULATED AND SUBJECT TO ROUNDING ERROR.

Additional Information

For latest specifications, additional product information, worldwide sales and distribution locations, and information about TriQuint:

Web: www.triquint.com

Tel: (503) 615-9000

Email: info_wireless@tqs.com

Fax: (503) 615-8900

For technical questions and additional information on specific applications:

Email: info_wireless@tqs.com

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