



Product Description

The TQ1303 through TQ1308 are a family of passive power splitters. These devices are used to split one input power into two output powers, with minimal degradation. The input and outputs are matched to 50 ohms and by keeping the 100 ohm resistor off-chip it allows for high power capacity.

P/N	Freq. (MHz)	Amp Bal. (dB)	Phase Deviation (degrees)	I.L. (dB) (max)	Isol. (dB)	VSWR (max)
TQ1303	741 +19	<1 (max)	0° +- 3° (max)	3.5 +-0.5	14 (min)	1.7
TQ1304	967 +13	<1 (max)	0° +-3° (max)	3.5 +-0.5	18 (min)	1.6
TQ1305	1370 +30	<1 (max)	0° +-3° (max)	3.5 +-0.5	20 (min)	1.5
TQ1305	1406 +6	<1 (max)	0° +-3° (max)	3.5 +-0.5	19.5 (min)	1.5
TQ1305	1412 +47.5	<1 (max)	0° +-3° (max)	3.5 +-0.5	18 (min)	1.5
TQ1308	2140 +20	<1 (max)	0° +-3° (max)	3.4 +-0.5	17 (min)	1.7

Note: Min/Max limits are -40 to +85°C case temperatures, unless otherwise specified.

TQ1303-TQ1308

DATA SHEET

0° Power Splitters

Features

- Small size: MLF 2x2
- Less than <3° Phase Deviation
- Excellent Isolation
- Low VSWR
- Less than <1 dB Amplitude Balance

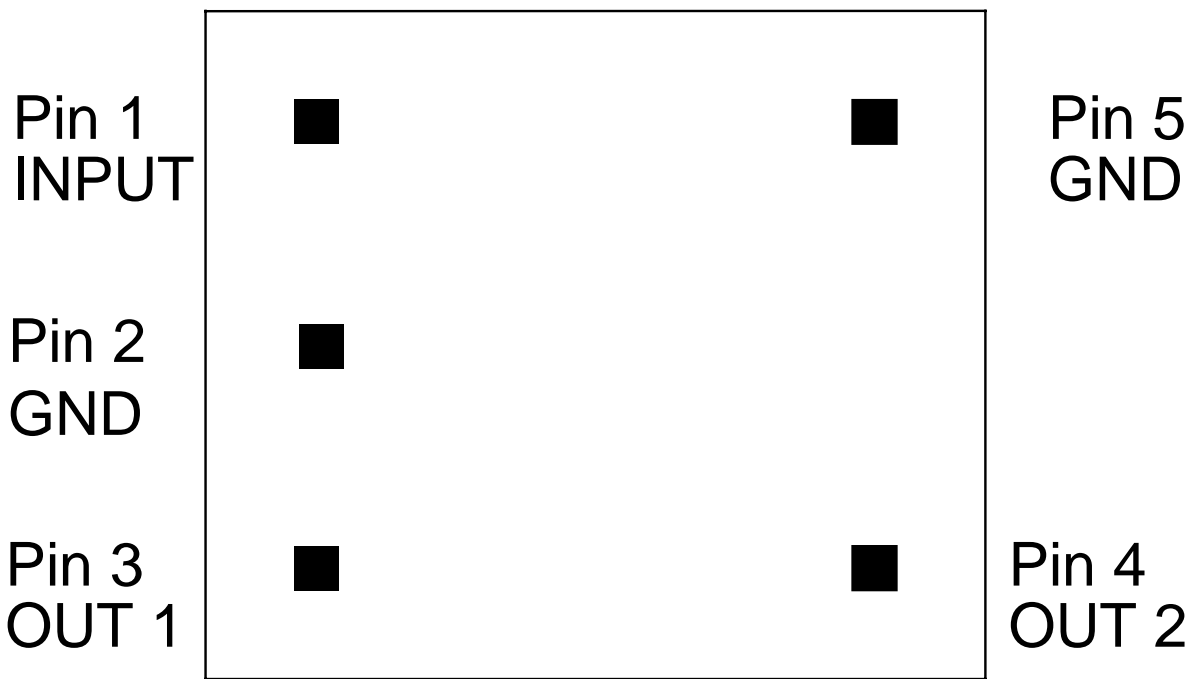
Applications

- Wireless Communications
- Power Sensing/Level Sensing
- Reflectometers
- Amplifier Combining
- General Purpose Apps

Absolute Maximum Ratings

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

Block Diagram: TQ1303-TQ1308



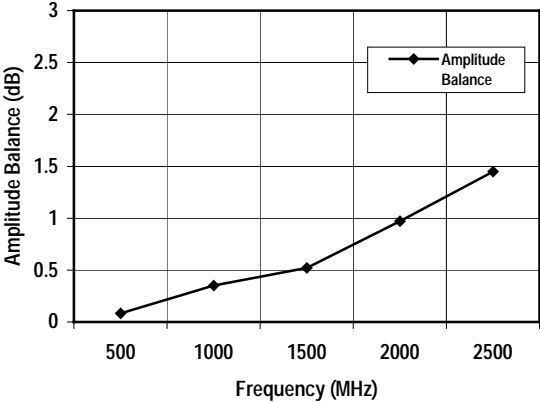
PIN-OUT FUNCTIONAL DESCRIPTION

Pin	Name	Description
1	INPUT	RF Input
2	GND	Ground
3	OUT 1	Output 1 port
4	OUT 2	Output 2 port
5	GND	Ground

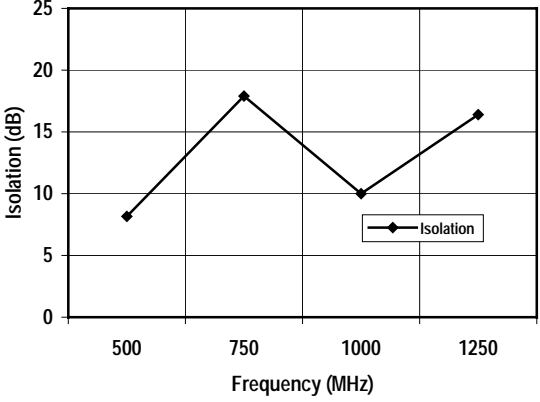
Typical Performance

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

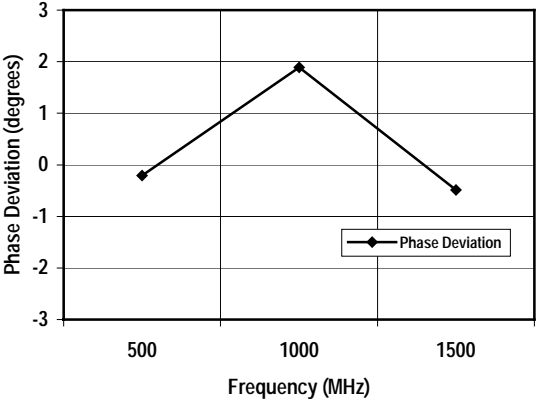
TQ1303 Amplitude Balance



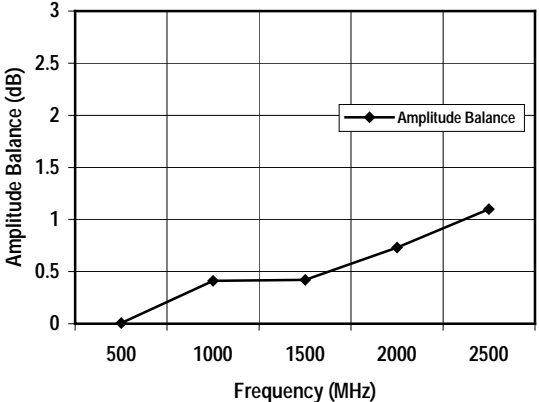
TQ1303 Isolation



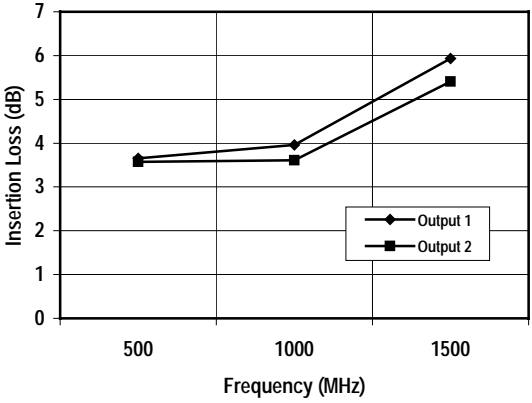
TQ1303 Phase Deviation



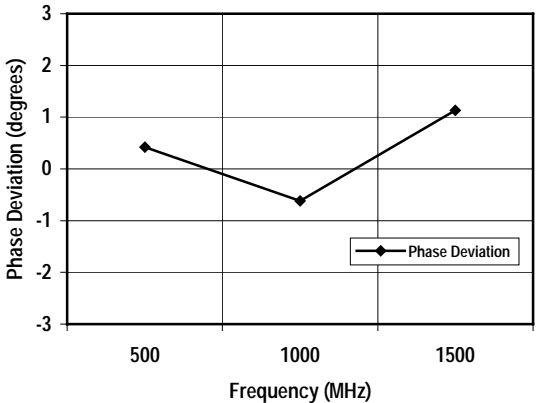
TQ1304 Amplitude Balance



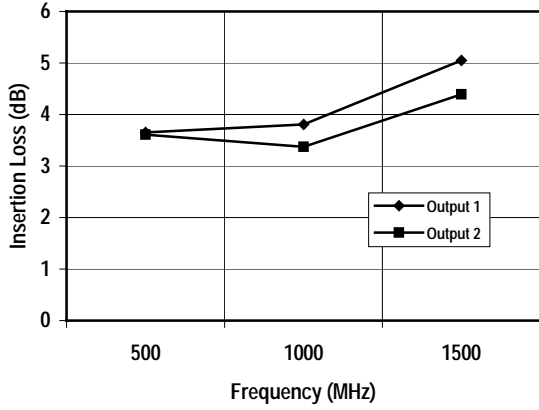
TQ1303 Insertion Loss



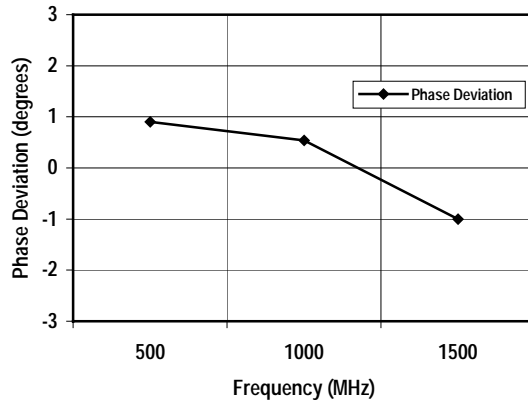
TQ1304 Phase Deviation



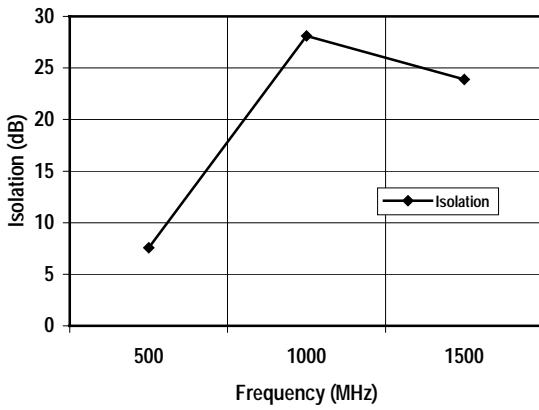
TQ1304 Insertion Loss



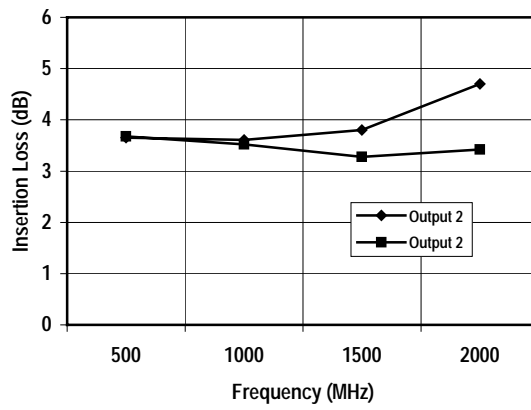
TQ1305 Phase Deviation



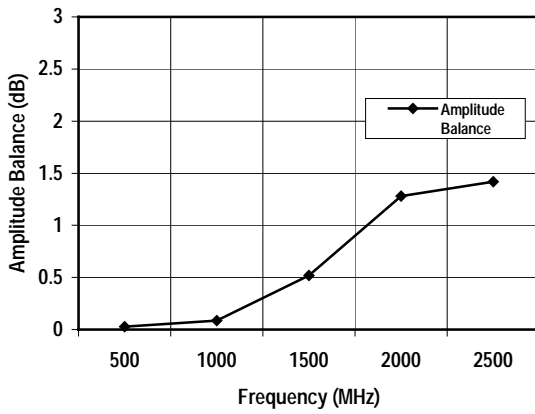
TQ1304 Isolation



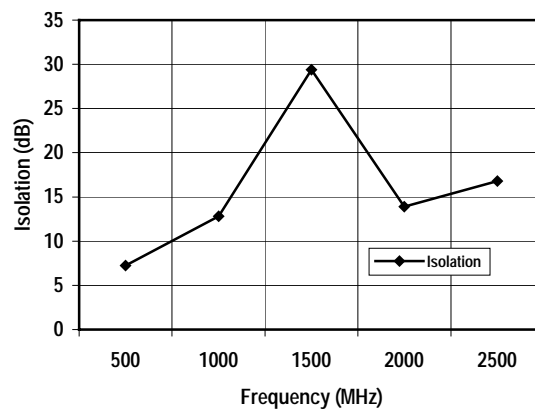
TQ1305 Insertion Loss



TQ1305 Amplitude Balance



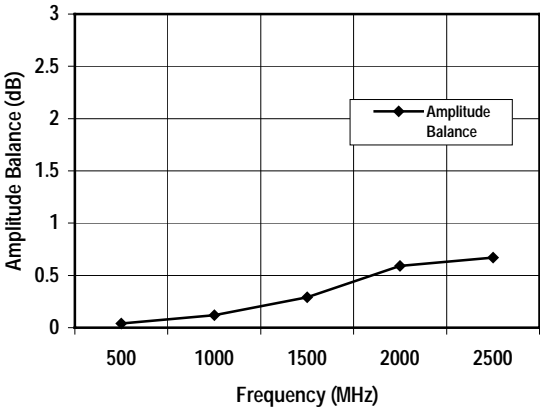
TQ1305 Isolation



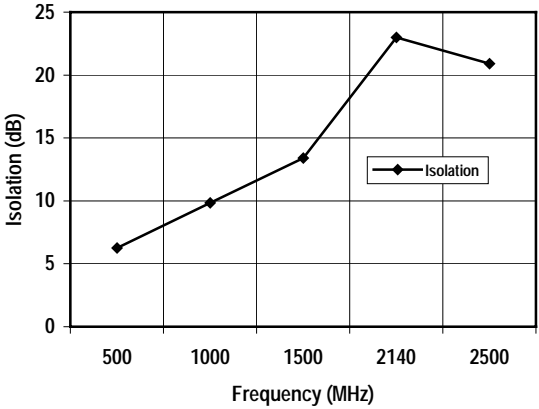
TQ1303-1308

Data Sheet

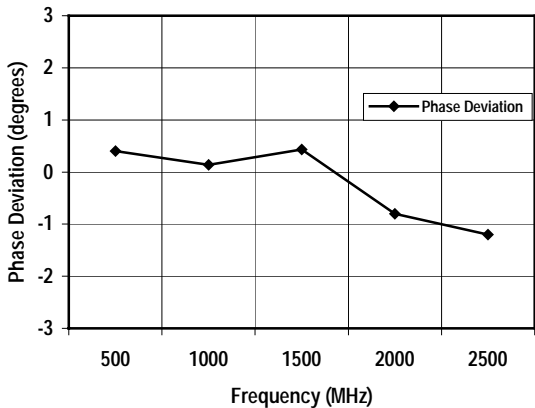
TQ1308 Amplitude Balance



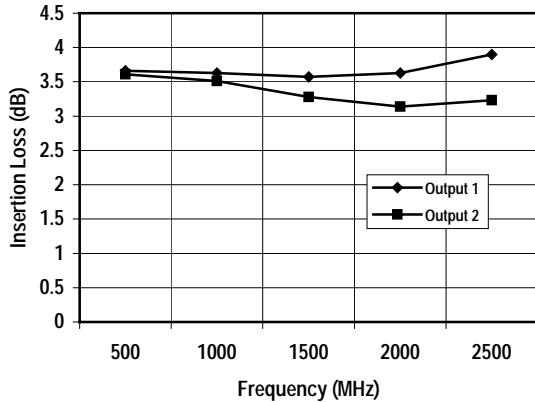
TQ1308 Isolation



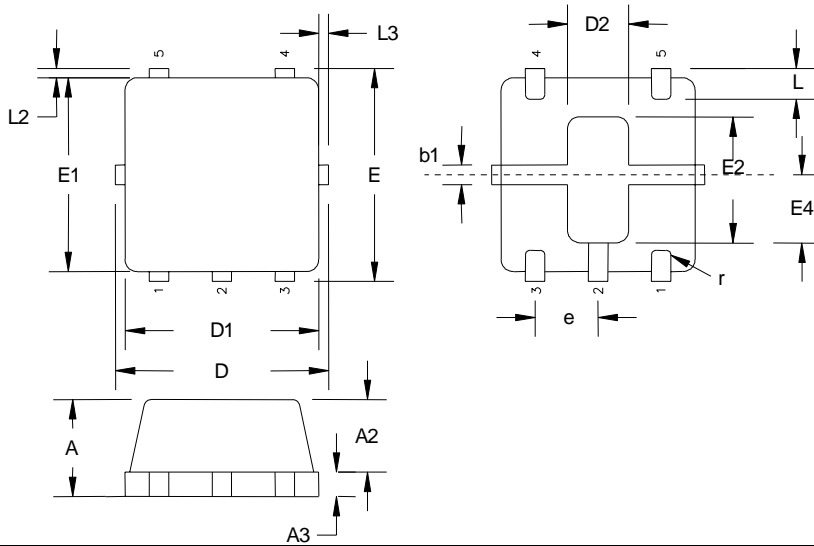
TQ1308 Phase Deviation



TQ1308 Insertion Loss



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

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

Additional Information

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