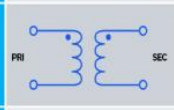
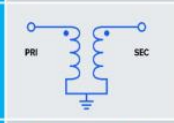
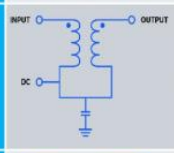
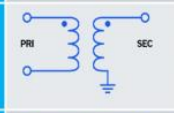
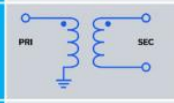
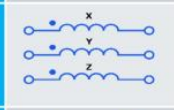
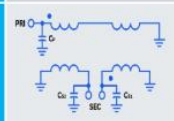
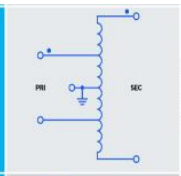
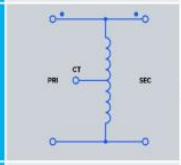
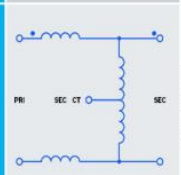
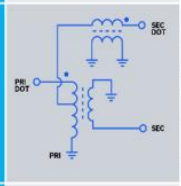
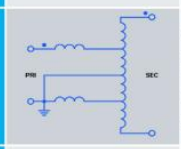
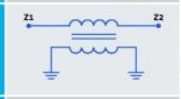
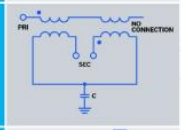
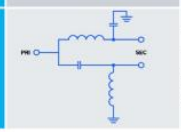
Lexicon of Balun & Transformer Configurations - https://www.gsl.net/va3iul

Config	Schematic	Description	f (MHz)	Impedance Ratio	Unbalance	DC Isolation	Power Handling	Impedance Transforming	Balun	Balanced-to-Balanced
A		DC isolated pri-to-sec. Center tap supports DC bias at sec. Higher Z transfer ratio reduces upper operating freq	0.015 to 1400	1 to 16	Excellent	Yes	Up to 1 W	Yes	Yes	Yes
B		DC isolated pri-to-sec. Center taps support DC bias in both directions	0.004 to 500	1 to 25	Excellent	Yes	Up to 0.25 W	Yes	Yes	Yes
C		DC isolated pri-to-sec. and impedance transformation. No DC bias support	0.01 to 800	1 to 36	Average	Yes	Up to 0.25 W	Yes	Yes	Yes
D		Single-ended to single-ended. Very wideband topology. Step-up more challenging to implement than step down	0.1 to 2500	0.1 to 8	N/A	No	Up to 0.25 W	Yes	No	No
D1		Nonisolated, single-ended to single-ended. Very wideband topology. DC bias support for pri and sec. Step-up more challenging to implement than step-down	DC to 2500	1.5 to 4	N/A	No	Up to 20 W	Yes	No	No
E		DC isolated, balanced to single-ended	0.01 to 500	1	N/A	Yes	Up to 0.25 W	No	Yes	No
E1		DC isolated, single-ended to balanced	5 to 18000	2 to 3	Average	Yes	Up to 80 W	Yes	Yes	No
F		1:1:n ratio, trifilar windings. Can be isolated (as G), nonisolated (as K) and even perform as a 1:4 Config A	0.01 to 200	1 to 2	Good	Yes	Up to 0.25 W	Yes	Yes	Yes
G		1:1 transmission line transformer, wideband, balanced to balanced. LTCC implementations exist	0.5 to 11000	1 to 4	Good	No	Up to 15 W	Yes	Yes	Yes
H		2x Config G in parallel with sec wired in series for a 1:4 Guanella transmission line transformer. 4:1 step-down for f <200 MHz	10 to 4500	0.25 to 4	Good	No	Up to 10 W	Yes	Yes	Yes
J		Single-ended pri to balanced sec. 180 degree phase shift with pri output left open. High freq models, LTCC, MMIC, Marchand balun. Not for f <200 MHz	240 to 24000	1 to 4	Excellent	Yes	Up to 3 W	Yes	Yes	No
J1		Same as J with pri output grounded for lower freq. operation. Single-ended pri to balanced sec. LTCC, MMIC implementations, Marchand balun	240 to 24000	1 to 4	Excellent	Yes	Up to 3 W	Yes	Yes	No
K		Trifilar-wound transmission line transformer with 180 degree phase shift and DC bias support pri and sec. Balanced to balanced or unbalanced to balanced. LTCC, MMIC, microstrip, stripline implementations	0.5 to 8000	1 to 1.5	Excellent	No	Up to 2 W	Yes	Yes	Yes

L		Balanced to balanced autotransformer. Like config D back-to-back	10 to 2200	1.5 to 2	Good	No	Up to 0.25 W	Yes	No	Yes
M		RF choke configuration	0.5 to 8000	1	Good	No	N/A	No	No	No
M1		Configs G and M combined together. Provides high-freq matching with DC bias support	5 to 1800	1 to 1.33	Good	No	Up to 2 W	Yes	No	Yes
N		DC isolated pri to sec, reverse polarity, autotransformer, half of A and D combined, improved matching, uses capacitors, wideband	10 to 3000	2	Good	Yes	Up to 0.4 W	Yes	Yes	No
P		Autotransformer and G combination (output is G). Step-up transformer	10 to 4500	1 to 4	Good	No	Up to 2 W	Yes	No	Yes
P1		G & L together, transmission line transformer input, then step-up. Can do single-ended to balanced (L cannot)	5 to 1600	2	Good	No	Up to 1 W	Yes	Yes	No
Q		Impedance stabilizing isolator. A DC and low freq thru, high freq rejection	DC to 2500	1.5	N/A	No	Up to 2 W	Yes	No	No
R		Same as J except J is grounded and this can supply DC to the sec	223 to 8000	1 to 4	Good	Yes	Up to 3 W	Yes	Yes	No
S		Diplexer, semiconductor, LTCC, suspended substrate stripline implementations	223 to 2500	1 to 2	N/A	No	2 W	Yes	No	No

https://www.qsl.net/va3iul