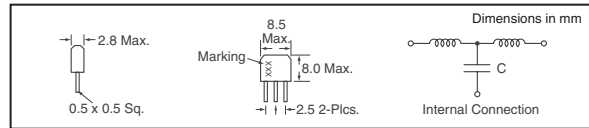


## EMI Filters (For Electromagnetic Interference)



**Applications:** • Communication equipment, cordless phones, automotive phones • Digital audio and video equipment  
• Electronic automotive equipment such as engine controls, panels and audio systems • Electronic musical instruments and other digital devices  
**Specifications:** • Rated Current: 5A • Rated Voltage: 50VDC • DCR: 0.05Ω Maximum  
• Insulation Resistance: 10GΩ Minimum @ 50VDC • HI-Pot: 125VDC • Operating Temperature: -25°C - 85°C

Capacitance ±20% (pF)	25dB AH. Frequency (MHz)	15dB AH. Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape and Box Pricing 2,000		J.W. Miller Part No.
				10	100		1	100	
22	800	220 - 800	M9936CT-ND	.48	.43	M9936TB-ND	142.50/M	EM1220T-RC	
47	550 - 700	350 - 800	M9938CT-ND	.48	.43	M9938TB-ND	142.50/M	EM1470T-RC	
100	350 - 500	200 - 800	M9941CT-ND	.48	.43	M9941TB-ND	142.50/M	EM1101T-RC	
220	200 - 350	100 - 800	M9939CT-ND	.48	.43	M9939TB-ND	142.50/M	EM1221T-RC	
270	200 - 300	80 - 800	M9940CT-ND	.48	.43	M9940TB-ND	142.50/M	EM1271T-RC	
470	120 - 300	50 - 800	M9937CT-ND	.48	.43	M9937TB-ND	142.50/M	EM1471T-RC	
1,000	70 - 200	30 - 800	M9934CT-ND	.48	.43	M9934TB-ND	142.50/M	EM1102T-RC	
2,200	45 - 200	20 - 800	M9942CT-ND	.48	.43	M9942TB-ND	142.50/M	EM1222T-RC	
10,000	15 - 200	6 - 800	M9935CT-ND†	.48	.43	M9935TB-ND†	142.50/M	EM1103T-RC	

† Capacitance Tolerance: -20%, +80%



## RF Wide Band Balun Transformers

The Pulse balun transformer offers an excellent insertion loss device in a low cost SMT format. The RF Baluns are ideal for balanced to unbalanced applications and have been designed for applications such as CATV Distribution/Drop Amplifiers, Set Top Boxes and Home Gateways.

Operating Temperature: -40°C - 85°C

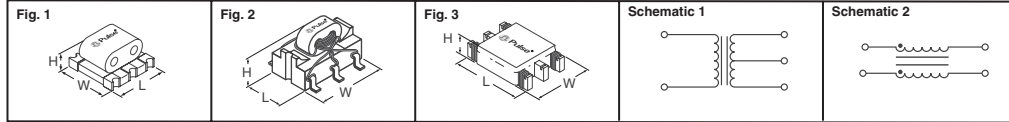


Fig.	Schematic	Impedance Ratio (+/-2%) Primary:Secondary	Turns Ratio (+/-2%) Primary:Secondary	Bandwidth (MHz Typ.) Midband Loss	Insertion Loss (dB Typ.)	Dimensions - Inches			Digi-Key Part No.	Price Each			Pulse Part No.
						L	W	H		1	100	500	
1	2	1:1	1:1	10 - 1000	0.4	0.202 ±0.015	0.204 ±0.015	0.14 Max.	553-1050-ND	1.80	1.12	.82	CX2024
		1:2CT†	1:1.4CT†	3 - 300	0.8	0.15 ±0.015	0.15 ±0.015	0.11 ±0.015	553-1052-ND	2.04	1.27	.93	CX2045L
2	2	1:1	1:1	2.3 - 2700	0.2	0.169 ±0.004	0.209 ±0.004	0.118 ±0.018/-0.012	553-1051-ND	2.04	1.27	.93	CX2156
		1:1CT†	1:1CT†	5 - 200	0.3	0.272 Max.	0.272 Max.	0.173 Max.	553-1053-ND	1.84	1.14	.84	CX2147
3	1	1:4CT†	1:2CT†	5 - 165	0.6	0.36 Max.	0.265 Max.	0.098 Max.	553-1054-ND	2.44	1.59	1.22	CX2032

† CT indicates Center Tap

## TOKO Balun Transformers

Toko's high quality balun (balanced/unbalanced) transformers are precisely wound around a double ferrite core. Toko's baluns are ideally suited for designing double balanced mixers, directional couplers, signal splitters, signal distributors, and impedance matching circuits.

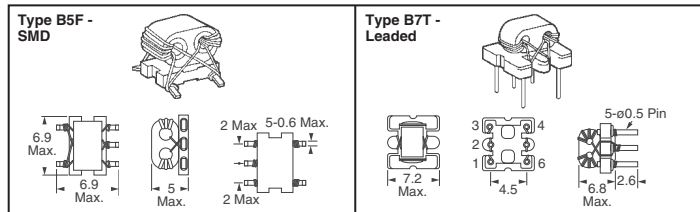
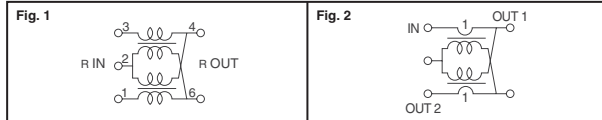
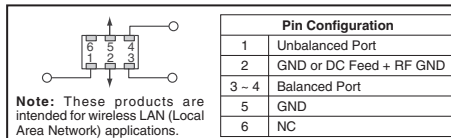


Fig.	Winding	Operating Frequency Range	Insertion Loss	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel Pricing 1,000		Toko Part No.
<b>Type B5F - Surface Mount</b>											
1	n = 1	50MHz - 400MHz	10dB Maximum	TKS2514CT-ND	2.89	2.58	1.87	TKS2514TR-ND	1610.00	458DB-1012	
<b>Type B7T - Leaded</b>											
2	n = 6	6MHz - 600MHz	IN to OUT-1 0.8dB Maximum; IN to OUT-2 15dB - 17dB	TK2516-ND	5.55	4.35	2.59	—	—	456PS-1011	

## TDK RF Balun Transformers HHM Series - Surface Mount

Dimensions in mm



Note: These products are intended for wireless LAN (Local Area Network) applications.

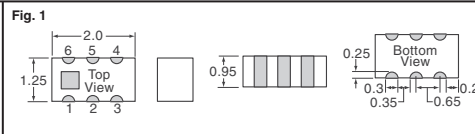


Fig.	Application	Operating Frequency (GHz)	Impedance In/Out (Ω)	Insertion Loss-Max. (dB)	Difference of Phase (Deg.)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel Pricing		TDK Part No.
							1	100	1000		Qty.	Pricing	
1	Bluetooth and IEEE802.11b/g	2.4 - 2.5	50/50	1.2	180 ± 10	445-1233-1-ND	1.06	.80	.54	445-1233-2-ND	2,000	329.00/M	HHM1517
	Bluetooth and IEEE802.11b/g	2.4 - 2.5	50/100	1.0	180 ± 10	445-1234-1-ND	2.05	1.54	1.03	445-1234-2-ND	2,000	635.19/M	HHM1520
	Bluetooth and IEEE802.11b/g	2.4 - 2.5	50/200	1.0	180 ± 10	445-1229-1-ND	2.05	1.54	1.03	445-1229-2-ND	2,000	635.19/M	HHM1521
	Wideband-LAN	4.9 - 5.95	50/100	1.0	180 ± 10	445-1231-1-ND	2.05	1.54	1.03	445-1231-2-ND	2,000	635.19/M	HHM1570B1
	Wideband-LAN	5.15 - 5.875	50/100	1.0	180 ± 10	445-1230-1-ND	2.05	1.54	1.03	445-1230-2-ND	2,000	635.19/M	HHM1562B
	Bluetooth	2.3 - 2.5	50/75	1.0	180 ± 10	445-3249-1-ND	2.25	1.92	1.58	445-3249-2-ND	2,000	675.00/M	HHM1541E1
2	UWB	3.1 - 4.9	50/100	1.0	180 ± 10	445-3250-1-ND	2.25	1.92	1.58	445-3250-2-ND	2,000	675.00/M	HHM1583B1
	UWB	3.1 - 4.9	50/100	1.0	180 ± 15	445-3386-1-ND†	2.25	1.92	1.58	445-3386-2-ND†	2,000	675.00/M	HHM1596A1
	UWB	3.0 - 8.0	50/100	1.5	180 ± 20	445-3387-1-ND	2.25	1.92	1.58	445-3387-2-ND	2,000	675.00/M	HHM1595A1
	Bluetooth and IEEE802.11b/g	2.4 - 2.5	50/100	1.2	180 ± 10	445-1232-1-ND	2.05	1.54	1.03	445-1232-2-ND	2,000	635.19/M	HHM1711D1
	Bluetooth and IEEE802.11b/g	2.4 - 2.5	50/50	1.2	180 ± 10	445-3246-1-ND	2.25	1.92	1.58	445-3246-2-ND	4,000	653.00/M	HHM-1710D1
	Wideband-LAN	4.9 - 5.95	50/100	1.0	180 ± 10	445-3247-1-ND	2.25	1.92	1.58	445-3247-2-ND	4,000	653.00/M	HHM1732B1
	Wideband-LAN	4.9 - 5.95	50/200	1.2	180 ± 10	445-3248-1-ND	2.25	1.92	1.58	445-3248-2-ND	4,000	653.00/M	HHM1752A2

† Pin Configuration — Pin1 NC, Pin 6 Unbalanced Port

More Product Available Online: [www.digkey.com](http://www.digkey.com)