



Coupled Filter Inductors



- For precision filter applications to beyond 10 MHz
- Standard inductance tolerance as low as 5%
- Can be configured as a coupled inductor, common-mode filter, or differential-mode filter
- Superior THD and IMD performance with or without DC bias
- Unmatched energy storage in a 5mm package
- Drop-in upgrades for many competitive designs

Model Selection Table

HiRel P/N ¹	Single Winding		Parallel Windings			Series Windings				Special Features
	Inductance (NOM +/-TOL)	DCR ² (MAX)	Thermal Rating ³	Saturation Rating ⁴	DCR ² (MAX)	Inductance (NOM +/-TOL)	Thermal Rating ³	Saturation Rating ⁴	DCR ² (MAX)	
DTT 27U0B	27 nH +/- 7%	0.74 Ohm	810 mADC	840 mADC	0.37 Ohm	108 nH +/- 7%	405 mADC	420 mADC	1.48 Ohm	
DTT 33U0B	33 nH +/- 5%	0.84 Ohm	760 mADC	770 mADC	0.42 Ohm	132 nH +/- 5%	380 mADC	385 mADC	1.68 Ohm	
DTT 39U0B	39 nH +/- 5%	0.92 Ohm	720 mADC	710 mADC	0.46 Ohm	156 nH +/- 5%	360 mADC	355 mADC	1.84 Ohm	
DTT 50U0B	50 nH +/- 5%	1.61 Ohm	540 mADC	620 mADC	0.81 Ohm	200 nH +/- 5%	270 mADC	310 mADC	3.2 Ohm	Suitable for use with Globespan 7000
DTT 56U0B	56 nH +/- 5%	1.34 Ohm	600 mADC	600 mADC	0.68 Ohm	224 nH +/- 5%	300 mADC	300 mADC	2.7 Ohm	
DTT 68U0B	68 nH +/- 5%	1.88 Ohm	500 mADC	540 mADC	0.94 Ohm	272 nH +/- 5%	250 mADC	270 mADC	3.8 Ohm	
DTT 82U0B	82 nH +/- 5%	2.1 Ohm	480 mADC	490 mADC	1.05 Ohm	328 nH +/- 5%	240 mADC	245 mADC	4.2 Ohm	
DTT 91U0B	91 nH +/- 5%	2.0 Ohm	490 mADC	460 mADC	1.00 Ohm	364 nH +/- 5%	245 mADC	230 mADC	4.0 Ohm	
DTT 95U0B	95.5 nH +/- 5%	2.0 Ohm	490 mADC	450 mADC	1.00 Ohm	382 nH +/- 5%	245 mADC	225 mADC	4.0 Ohm	
DTT 100UB	100 nH +/- 5%	2.0 Ohm	490 mADC	440 mADC	1.00 Ohm	400 nH +/- 5%	245 mADC	220 mADC	4.0 Ohm	
DTT 120UB	120 nH +/- 5%	2.2 Ohm	460 mADC	400 mADC	1.10 Ohm	480 nH +/- 5%	230 mADC	200 mADC	4.4 Ohm	
DTT 133UB	133 nH +/- 5%	2.0 Ohm	490 mADC	330 mADC	1.00 Ohm	532 nH +/- 5%	245 mADC	165 mADC	4.0 Ohm	
DTT 140UB	140 nH +/- 5%	3.4 Ohm	370 mADC	370 mADC	1.70 Ohm	560 nH +/- 5%	185 mADC	185 mADC	6.8 Ohm	
DTT 153UB	153 nH +/- 5%	2.2 Ohm	460 mADC	310 mADC	1.10 Ohm	612 nH +/- 5%	230 mADC	155 mADC	4.4 Ohm	
DTT 170UB	170 nH +/- 5%	4.5 Ohm	320 mADC	340 mADC	2.3 Ohm	680 nH +/- 5%	160 mADC	170 mADC	9.0 Ohm	Suitable for use with Globespan 7000
DTT 205UB	205 nH +/- 5%	5.3 Ohm	300 mADC	310 mADC	2.7 Ohm	820 nH +/- 5%	150 mADC	155 mADC	10.6 Ohm	Suitable for use with Globespan 7000
DTT 220UB	220 nH +/- 5%	4.8 Ohm	310 mADC	260 mADC	2.4 Ohm	880 nH +/- 5%	155 mADC	130 mADC	9.6 Ohm	
DTT 250UB	250 nH +/- 5%	5.0 Ohm	240 mADC	240 mADC	2.5 Ohm	1.00 mH +/- 5%	155 mADC	120 mADC	10.0 Ohm	
DTT 280UB	280 nH +/- 5%	5.3 Ohm	310 mADC	230 mADC	2.7 Ohm	1.08 mH +/- 5%	155 mADC	115 mADC	10.6 Ohm	
DTT 300UB	300 nH +/- 5%	5.7 Ohm	290 mADC	220 mADC	2.9 Ohm	1.20 mH +/- 5%	145 mADC	110 mADC	11.4 Ohm	
DTT 340UB	340 nH +/- 5%	6.0 Ohm	280 mADC	210 mADC	3.0 Ohm	1.36 mH +/- 5%	140 mADC	105 mADC	12.0 Ohm	Suitable for use with Globespan 7000
DTT 390UB	390 nH +/- 5%	8.0 Ohm	240 mADC	190 mADC	4.0 Ohm	1.56 mH +/- 5%	120 mADC	95 mADC	16.0 Ohm	
DTT 452UB	452 nH +/- 5%	8.5 Ohm	230 mADC	180 mADC	4.3 Ohm	1.81 mH +/- 5%	115 mADC	90 mADC	17.0 Ohm	
DTT 470UB	470 nH +/- 5%	8.7 Ohm	230 mADC	180 mADC	4.4 Ohm	1.88 mH +/- 5%	115 mADC	90 mADC	17.6 W	
DTT 510UB	510 nH +/- 5%	9.1 Ohm	230 mADC	170 mADC	4.6 Ohm	2.04 mH +/- 5%	115 mADC	85 mADC	18.1 Ohm	
DTT 560UB	560 nH +/- 5%	9.7 Ohm	220 mADC	160 mADC	4.9 Ohm	2.24 mH +/- 5%	110 mADC	80 mADC	19.4 Ohm	
DTT 680UB	680 nH +/- 5%	10.8 Ohm	210 mADC	140 mADC	5.4 Ohm	2.72 mH +/- 5%	105 mADC	70 mADC	22 Ohm	
DTT 820UB	820 nH +/- 5%	14.6 Ohm	180 mADC	130 mADC	7.3 Ohm	3.28 mH +/- 5%	90 mADC	65 mADC	30 Ohm	
DTT 1K00B	1.0 mH +/- 5%	16.4 Ohm	170 mADC	120 mADC	8.2 Ohm	4.0 mH +/- 5%	85 mADC	60 mADC	33 Ohm	
DTT 1K20B	1.2 mH +/- 10%	10.6 Ohm	210 mADC	80 mADC	5.3 Ohm	4.8 mH +/- 10%	105 mADC	40 mADC	22 Ohm	
DTT 1K50B	1.5 mH +/- 10%	14.7 Ohm	180 mADC	70 mADC	7.4 Ohm	6.0 mH +/- 10%	90 mADC	35 mADC	30 Ohm	
DTT 1K80B	1.8 mH +/- 10%	16.5 Ohm	170 mADC	60 mADC	8.3 Ohm	7.2 mH +/- 10%	85 mADC	30 mADC	33 Ohm	
DTT 2K20B	2.2 mH +/- 10%	23 Ohm	140 mADC	60 mADC	11.5 Ohm	8.8 mH +/- 10%	70 mADC	30 mADC	46 Ohm	
DTT 2K70B	2.7 mH +/- 10%	26 Ohm	130 mADC	50 mADC	13 Ohm	10.8 mH +/- 10%	65 mADC	25 mADC	52 Ohm	

1. Add suffix to part number to indicate desired pinout (suffix "B" is standard).
2. $T_A = 25^\circ\text{C}$.
3. Approximate current required to achieve the Absolute Maximum Temperature Rating at $T_A = 25^\circ\text{C}$.
4. Approximate current required to induce a 10% reduction in initial inductance at $T_A = 25^\circ\text{C}$.

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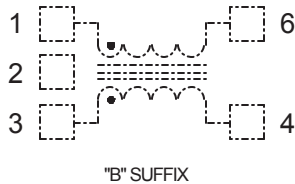
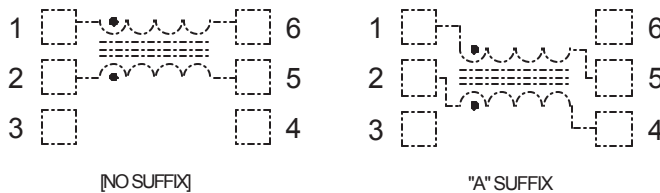
Part Numbering Guide

DTT xxxx y

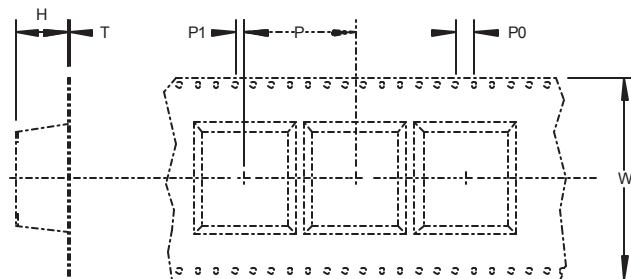
xxxx Inductance code (always 3 numeric and 1 alpha character)

y Pinout option (see below)

Pinout Options



Packaging Specifications



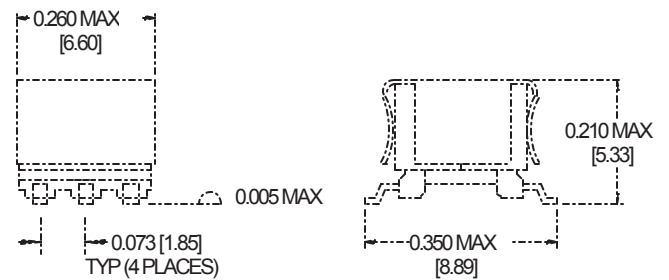
Parameter	Des.	Dimension (inches [mm])
Tape width	W	0.630 [16.0]
Component pitch	P	0.315 [8.0]
Indexing pitch	P ₀	0.157 [4.0]
Index-to-component offset	P ₁	0.079 [2.0]
Pocket height	H	0.213 [5.4]
Tape thickness	T	0.012 [0.3]
Reel overall diameter	OD	13.0 [330]
Reel axle diameter	AD	0.5 [13]
Reel Capacity	Qty	1250 / Reel

Absolute Maximum Ratings (All Models)

Parameter	Conditions	Limit(s)	Units
Dielectric Withstand Voltage	Between windings; 60 sec	500	VDC
Total Power Dissipation ⁵	T _A = 25°C	300	mW
Operating Temperature	Continuous	-40 ~ +85	°C
Storage Temperature	Continuous	-40 ~ +130	°C

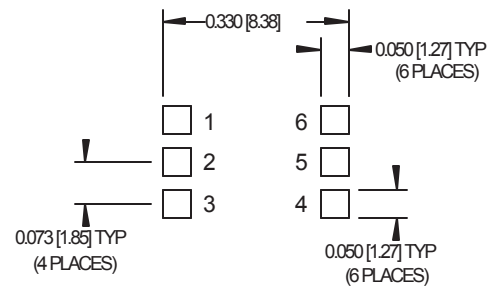
5. Derate at 5 mW / °C above 25°C.

Mechanical Detail



Units are inches [mm].

Tolerance on all dimensions is +/-0.010 [0.25] unless otherwise specified. Specifications are subject to change without notice.



SUGGESTED PAD LAYOUT

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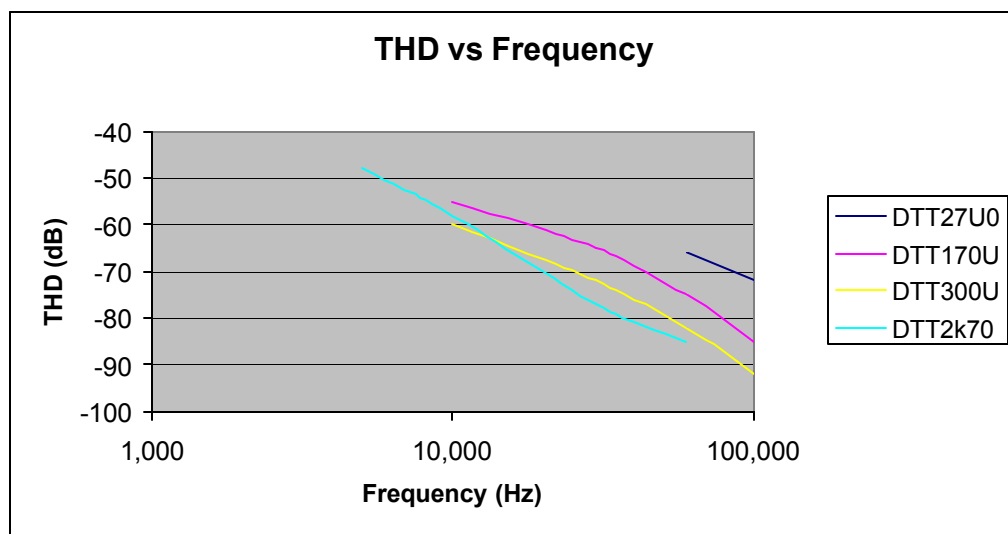
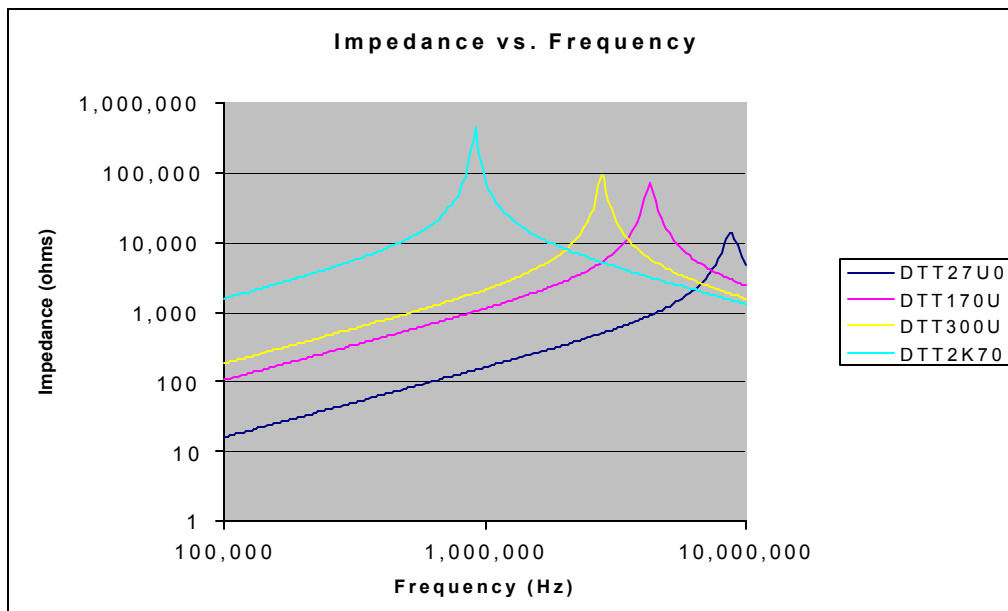
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0 dc Bias 5 Vrms

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