

Inductance Measurement Results - GeckoMAGNETICS

In this white paper the comparison of selected inductors' measured inductance to the inductance of the corresponding GeckoMAGNETICS models is shown. For the comparison of loss measurements to simulated losses and temperatures, please see our previous white paper from March 2015.

ETD Core with 3 air gaps

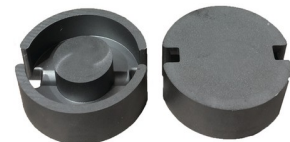
EPCOS ETD 49/25/16, N87, $N = 49$
 $d = 1.0 \text{ mm}$, $l_g = 1.08 \text{ mm}$



Calculated Inductance (μH)	Measured Inductance (μH)	Rel. Error [%]
447	458	2.40

P-Core with 3 air gaps

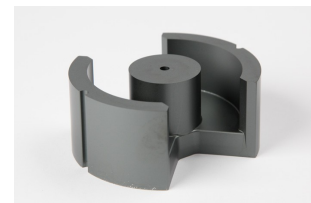
EPCOS P 30x19, N87, $N = 10$
 $d = 1.0 \text{ mm}$, $l_g = 0.5 \text{ mm}$



Calculated Inductance (μH)	Measured Inductance (μH)	Rel. Error [%]
28.07	25.3	10.95

PM Core with 3 air gaps

EPCOS PM 50/39, N87, $N = 38$
 $d = 1.0 \text{ mm}$, $l_g = 0.37 \text{ mm}$



Calculated Inductance (μH)	Measured Inductance (μH)	Rel. Error [%]
909	850	6.94

PM Core with 1 air gap

EPCOS PM 50/39, N27, $N = 38$
 $d = 1.0 \text{ mm}$, $l_g = 2 \text{ mm}$



Calculated Inductance (μH)	Measured Inductance (μH)	Rel. Error [%]
376	358	5.03

Many more measurements with different core shapes have been conducted. Please ask us if you are interested in measurement data for a particular core shape or application.