

Stay cool, be **MAPI!**



*WE speed up
the future*

The WE-MAPI is the world's smallest metal alloy power inductor. It's efficiency is unmatched. Available from stock. Samples free of charge. For further information please visit:

www.we-online.com/WE-MAPI

Design your DC/DC converter in **REDEXPERT**, the world's most precise software tool to calculate AC losses.

- highest current ratings
- lowest AC losses in class
- incredibly low DCR
- excellent temperature stability
- innovative design
- lowest EMI radiation

The full
WE-MAPI range:

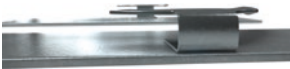


 1.6x1.0 2.0x1.0 2.5x0.6 2.5x0.8 2.5x1.0 2.5x1.2 3.0x1.0 3.0x1.2 3.0x1.5 3.0x2.0 4.0x2.0

WE-MAPI

SMD Metal Alloy Power Inductor

The innovative design



leadframe free design
for best coplanarity



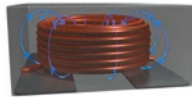
no solder or welding
joints for highest reliability



greatest core utilization
for highest current handling



reduced parasitic capacitances
for lowest AC losses



self-shielding construction
for best EMI performance

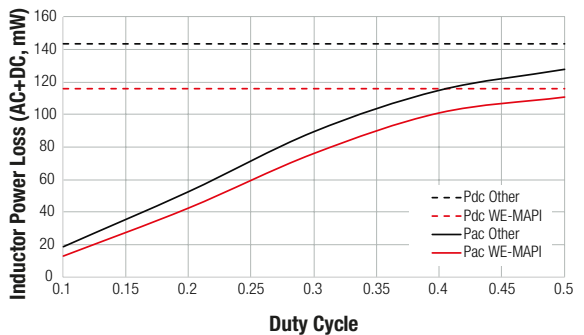
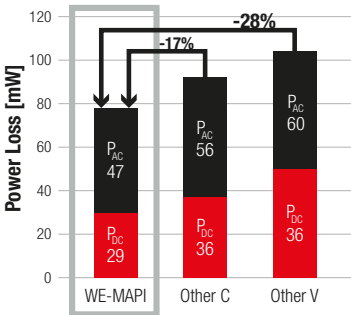


protective coating
for perfect robustness

Lowest AC & DC losses in class

Buck: 24 V to 12 V @ 2 A, 500 kHz, 2.2 μ H

AC & DC Loss @ 500 kHz



Reduce your AC & DC losses by up to 30 % compared to similar sized parts. Determine your real-time AC & DC losses in your application: www.we-online.com/redexpert

REDEXPERT

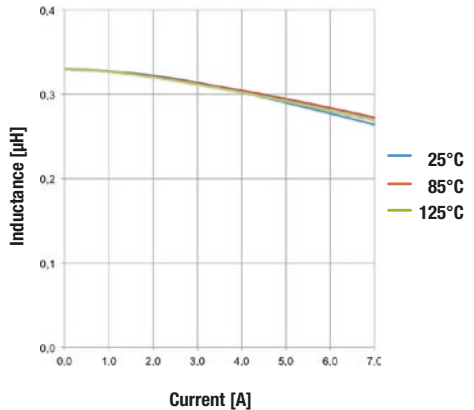
The incredible features

The WE-MAPI serie is designed to meet with the requirements of the latest and of the upcoming ICs. The innovative leadframe pad design with direct wire connection increases significantly the core utilization and therewith the current handling.

The WE-MAPI series incorporates

- highest current ratings
- lowest AC losses in class
- incredibly low DCR
- excellent temperature stability
- innovative design
- lowest EMI radition

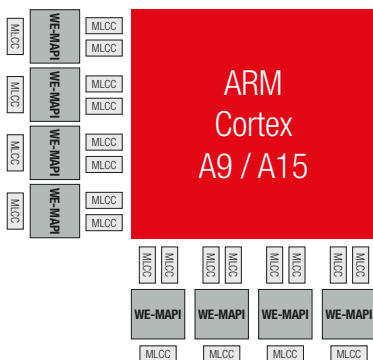
Excellent temperature stability



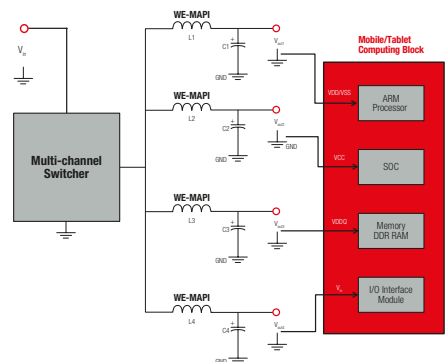
Application

The WE-MAPI is ideal for use in modern equipment due to its small size. They fit perfectly in multiphase DC/DC converters and all other small-sized, high-efficient power supplies. **For in-depth knowledge, please visit www.we-online.com/WE-MAPI**

Multiphase Power Supply for ARM® Cortex® A9 / A15 processor



Example for handheld devices



more than you expect



Products are shown to scale

Product Order Code	WE-MAPI 1610 744 383 130 x	WE-MAPI 2010 744 383 343 0x	WE-MAPI 2506 744 383 210 x	WE-MAPI 2508 744 383 220 x	WE-MAPI 2510 744 383 23x	WE-MAPI 2512 744 383 24x	WE-MAPI 3010 744 383 330 x	WE-MAPI 3012 744 383 340 x	WE-MAPI 3015 744 383 35x	WE-MAPI 3020 744 383 6x	WE-MAPI 4020 744 383 56x																						
Base [mm] Height [mm]	1.6x1.6 1.0			2.0x1.6 1.0			2.5x2.0 0.6			2.5x2.0 0.8			2.5x2.0 1.0			2.5x2.0 1.2			3.0x3.0 1.0			3.0x3.0 1.2			3.0x3.0 1.5			3.0x3.0 2.0			4.0x4.0 2.0		
	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)	$I_{R@40K}$ (A)	$I_{sat@35\%}$ (A)	R_{DC} (Ω)			
0.33 μ H	1.9	4.9	0.065	2.5	5.9	0.040				3.4	6.2	0.029				4.8	11.1	0.019				5.5	8.3	0.014	9.6	12.4	0.006						
0.47 μ H	1.7	4.5	0.077	2.3	5.25	0.049	2.2	3.7	0.076	3.2	5.5	0.037	3.4	6.25	0.030	4.0	9.4	0.022	4.6	5.8	0.02	4.8	8.0	0.018									
0.56 μ H	1.65	4.0	0.09	2.1	5.0	0.056							3.3	6.0	0.037	3.6	8.5	0.029							8.5	10.8	0.007						
0.68 μ H	1.55	3.8	0.101	2.0	4.7	0.065				3.1	4.7	0.046	3.2	5.85	0.045	3.5	7.7	0.036	4.1	8.1	0.025	4.5	6.2	0.022	8.2	9.4	0.0075						
0.82 μ H	1.45	3.6	0.115	1.9	4.2	0.071				2.6	4.25	0.053							3.5	7.0	0.03												
1.0 μ H	1.4	3.4	0.127	1.8	3.9	0.086	1.25	2.5	0.163	2.5	4.0	0.063	2.8	4.9	0.049	2.75	6.6	0.042	2.7	4.5	0.039	4.0	5.0	0.026	7.2	9.0	0.012						
1.2 μ H	1.3	3.2	0.140	1.5	3.8	0.114				1.9	3.8	0.082	2.4	4.5	0.067	2.65	6.0	0.055				3.9	4.75	0.030	5.8	9.0	0.015						
1.5 μ H	0.95	2.7	0.189	1.3	3.0	0.150				1.8	3.5	0.092	2.2	3.7	0.082	2.0	5.7	0.08				3.7	4.5	0.033	5.8	7.8	0.016						
1.8 μ H																									4.6	6.5	0.0245						
2.2 μ H	0.85	2.5	0.337	1.1	2.5	0.225				1.3	2.5	0.147	1.6	2.9	0.123	1.8	5.0	0.10	1.8	3.5	0.094	2.4	4.3	0.067	4.7	6.2	0.029						
3.3 μ H										1.25	2.1	0.220	1.3	2.6	0.226	1.4	4.0	0.156	1.7	3.2	0.114	2.2	4.25	0.099	3.6	5.5	0.0399						
4.7 μ H										0.94	1.75	0.338	1.0	2.1	0.300	1.1	3.8	0.267	1.5	2.8	0.141	1.9	3.9	0.137	2.9	4.7	0.063						
5.6 μ H													0.95	1.75	0.405	1.0	3.0	0.338							2.8	4.6	0.068						
6.8 μ H										0.85	1.55	0.563	0.9	1.6	0.560	0.88	2.7	0.368	1.1	2.4	0.250	1.6	2.85	0.168									
8.2 μ H										0.7	1.45	0.646	0.8	1.5	0.630																		
10.0 μ H										0.6	1.35	0.733	0.7	1.4	0.680				0.85	2.0	0.446	1.2	2.35	0.280									
15.0 μ H																			0.65	1.71	0.720												
22.0 μ H																			0.60	1.60	0.940												
33.0 μ H																			0.50	1.30	1.21												
47.0 μ H																			0.39	1.18	2.09												