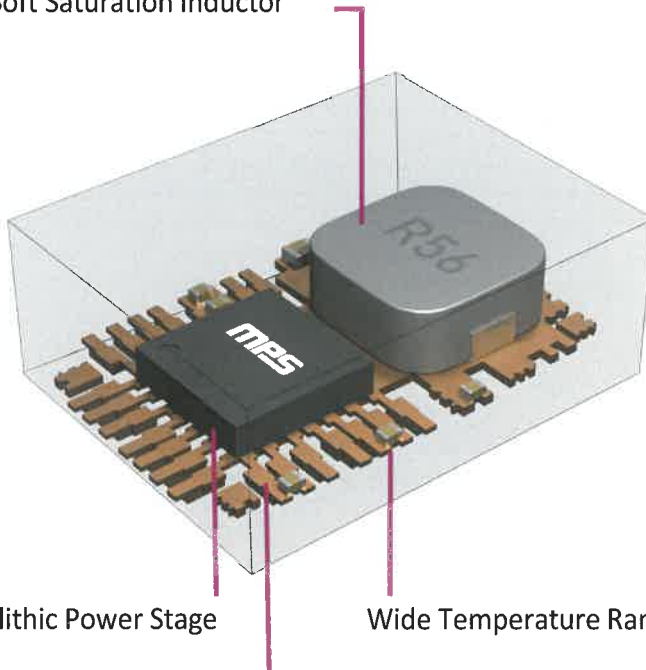


MPS's power modules have a wide V_{IN} and I_{OUT} range with a variety of packages. Our extensive portfolio of DC/DC modules integrate inductors, FETs, compensation, and other passive components into a single package to simplify the design process. Choose what module works best for your design based on our beneficial features.

- ✓ Better EMI Performance
- ✓ Simplified Board Layout
- ✓ Faster Time-to-Market
- ✓ Simplified BOM
- ✓ Minimum External Components
- ✓ Smallest Solution Size
- ✓ Full Qualification as a Complete Power Supply

Customized, Soft Saturation Inductor



Monolithic Power Stage

Wide Temperature Range Passives

Mesh-Connect Packaging Technology

Single-Output Step-Down Power Modules

V_{IN} / I_{OUT}	0.6A	1A	2A	3A	4A	6-8A
>50V		MPM3572 80V, 1A 6x6x2mm		MPM3530 55V, 3A 10x12x4mm		
<45V		MPM3510A 36V, 1.2A 3x5x1.6mm	MPM3520E 36V, 2A 10x10x4mm	MPM3593 36V, 3A 6x8x1.6mm		
	MPM3506A 35V, 0.6A 3x5x1.6mm	MPM3515A ^{AEC} 36V, 1.5A 3x5x1.6mm		MPM3551 ^{AEC} 36V, 3A 4x6x1.6mm	MPM3550E 36V, 5A 12x12x4mm	MPM3596 45V, 3A,3A/6A 10x10x4.4mm
<18V		MPM3612 22V, 1A 3x3x2mm				
	MPM3606 21V, 0.6A 3x5x1.6mm	MPM3610/A 21V, 1A 3x5x1.6mm	MPM3620/A 24V, 2A 3x5x1.6mm	MPM3632S/C 18V, 3A 3x3x1.45mm	MPM3630 18V, 3A 3x5x1.6mm	MPM3650/C 17V, 6A 4x6x1.6mm
<6V		MPM3816C 6V, 1A 2x2.2x1.2mm	MPM3826C 6V, 2A 2x2.2x1.2mm	MPM3836C 6V, 3A 2x2.2x1.2mm	MPM3846C 6V, 4A 2x2.2x1.2mm	MPM3864 7V, 6A 3x3x1.85mm
	MPM3805A ^{AEC} 6V, 0.6A 3x2.5x0.9mm	MPM3814C 6V, 1A 2.5x2.5x1.2mm	MPM3824C 6V, 2A 2.5x2.5x1.2mm	MPM3834C 6V, 3A 2.5x2.5x1.2mm		
	MPM3804 5.5V, 0.6A 2x2x0.9mm	MPM3811 5.5V, 1A 2x2x1.6mm	MPM3822C 6V, 2A 2.5x3.5x1.6mm	MPM3833C 6V, 3A 2.5x3.5x1.6mm	MPM3840 6V, 4A 3x5x1.6mm	MPM3860 6V, 6A 4x6x1.6mm
		MPM3810A ^{AEC} 6V, 1.2A 3x2.5x0.9mm	MPM3820 6V, 2A 3x5x1.6mm	MPM3808/C ^{AEC} 5.5V, 1-3A 3x5x1.6mm		
V_{IN} / I_{OUT}	10A	20A	30A	50A	100A	100A+
<45V	MPM3519 36V, 10A Sync 7x7mm					
<18V	MPM3685 16V, 15A 5x5x2.9	MPM3690-20B 16V, 26A 16x16x5.18	MPM3690-30B 36A 16x16x5.18	MPM3690-50B 50A 16x16x5.18	MPM3695-100 16V, 100A 15x30x5.18	MPM3698/99 Scalable 15x30x5.18
	MPM3683-10 16V, 10A 7x7x4.4	MPM3695-25 16V, 20A 10x12x4	MPM3695-20 16V, 25A 5x6x4.4	MPM3690-50D 50A 16x16x5.18		
	MPM3695-10 16V, 10A 8x8x2mm	MPM3690S-20 25A 5x6x4.4				
		MPM3683-20 16V, 20A 7x7x4.4				

Multiple-Output Step-Down Power Modules

V_{IN} / I_{OUT}	1A	2A	3A	5A	10A+	25A+
<45V			MPM3596 3A, 3A 10x10x4.4mm		MPM3599 12A, 12A 15x30x5.2mm	
<16V			MPM54304 2A, 2A, 3A, 3A 7x7x2mm	MPM54504 4 x 5A 9x15x5.2mm	MPM81204 12A, 12A, 5A, 5A 9x15x5.2mm	MPM82504 4 x 25A 15x30x5.2mm
			MPM54313 3A, 3A, 3A 8x9x2.58mm	MPM54522 6A, 6A 5x6.5x2.76mm	MPM3690-20A 13A, 13A 16x16x5.2mm	MPM3690-50A 25A, 25A 16x16x5.2mm
			MPM54322 3A, 3A 5x5.5x1.86mm	MPM54532 6A, 6A 5x5.5x1.85mm	MPM3690-30A 18A, 18A 9x15x5.2mm	
				MPM54524 4 x 5A 8x8x2.9mm		
<6V	MPM38111 1A, 1A 4x4x1.6mm	MPM38222 2A, 2A 4x4x1.6mm				

Unregulated Step-Down Power Modules

V_{IN} / P_{OUT}	300W	800W
<60V	mEZDA-30-048-048U 54V V_{IN} 5.4V V_{OUT} 27x18x6.1mm	mEZDA-80-048-012U 54V V_{IN} 5.4V V_{OUT} 23x17x9.1mm
		mEZDA-80-048-024U 54V V_{IN} 27.5V V_{OUT} 24x18x9.1mm

Buck-Boost Power Modules

I_{OUT} / V_{OUT}	<22V	<6V
1A	MPM4730 Buck-Boost 3x3x1.85mm	MPM4710 Buck-Boost 2.5x2.5x1.2mm

Visit MonolithicPower.com
for more information.



Partner Reference Designs

Monolithic Power Systems (MPS) offers an extensive portfolio of monolithic power solutions for a wide range of FPGAs using fully integrated power modules, making the design process faster and shortening time-to-market.

MPS has developed an innovative, proprietary process technology that delivers high efficiency, ultra-fast transient response, small size, and low cost. MPS's technology and technical support makes powering FPGAs easier than ever.

See all our partner reference designs



Isolated Power Modules

$V_{ISO(DC)}$ / P_{OUT}	0.25W	0.4W	0.6W	1W
3kV	MID02W0303A-3 3V _{IN} to 3V _{OUT} Regulated	MID04W0503A-3 5V _{IN} to 3V _{OUT} Regulated	MID06W0503A-3 5V _{IN} to 3V _{OUT} Semi-regulated	MID1W0505A-3 5V _{IN} to 5V _{OUT} Semi-regulated
			MID06W0505A-3 5V _{IN} to 5V _{OUT} Regulated	MIE1W0505BGLVH 3V – 5.5V V _{IN} 5V or 3.3V V _{OUT} 2.5kV, Regulated
1.5kV	MID02W0303A-2 3V _{IN} to 3V _{OUT} Regulated	MID04W0503A-2 5V _{IN} to 3V _{OUT} Regulated	MID06W0503A-2 3V _{IN} to 3V _{OUT} Semi-regulated	MID1W0505A-2 5V _{IN} to 5V _{OUT} Semi-regulated
			MID06W0505A-2 5V _{IN} to 5V _{OUT} Regulated	