



**Integrated Device Technology**

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Differences between the ZSPM1005  
and ZSPM1000 PWM controllers

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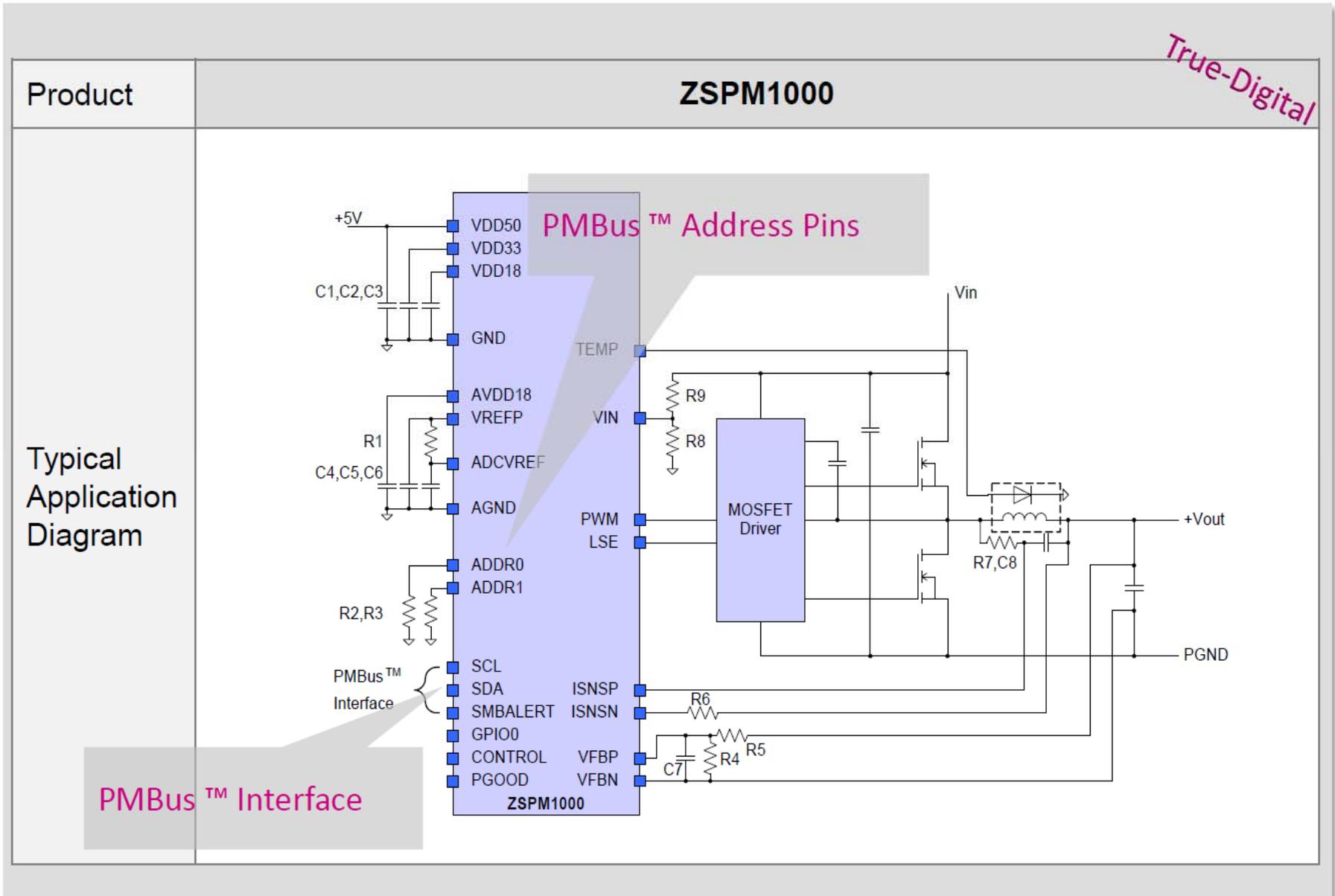
# Feature Comparison ZSPM1000 versus ZSPM1005

Product	ZSPM1000	ZSPM1005
Description	True-digital PWM Controller	“Hybrid” PWM Controller
Control Loop	Fully digital	Fully digital
Step-Response Performance	Best-in-Class	Best-in-Class
Pink Power Designer™ Programmability	Yes, full flexibility during design	Yes, full flexibility during design
Monitoring	Yes, via PMBus™	During development only
Configurability in Application	Yes, on-the-fly via PMBus™ Commands	2-pin configuration using resistors (VOUT, Compensation)
Package	24-pin, QFN 4x4 mm	24-pin, QFN 4x4 mm
When to use which controller product?	When you look for best step-performance, improved density and system cost, while requiring <b>monitoring</b>	When you look for best step-performance, improved density and system cost, while <b>not requiring monitoring</b>

True-Digital

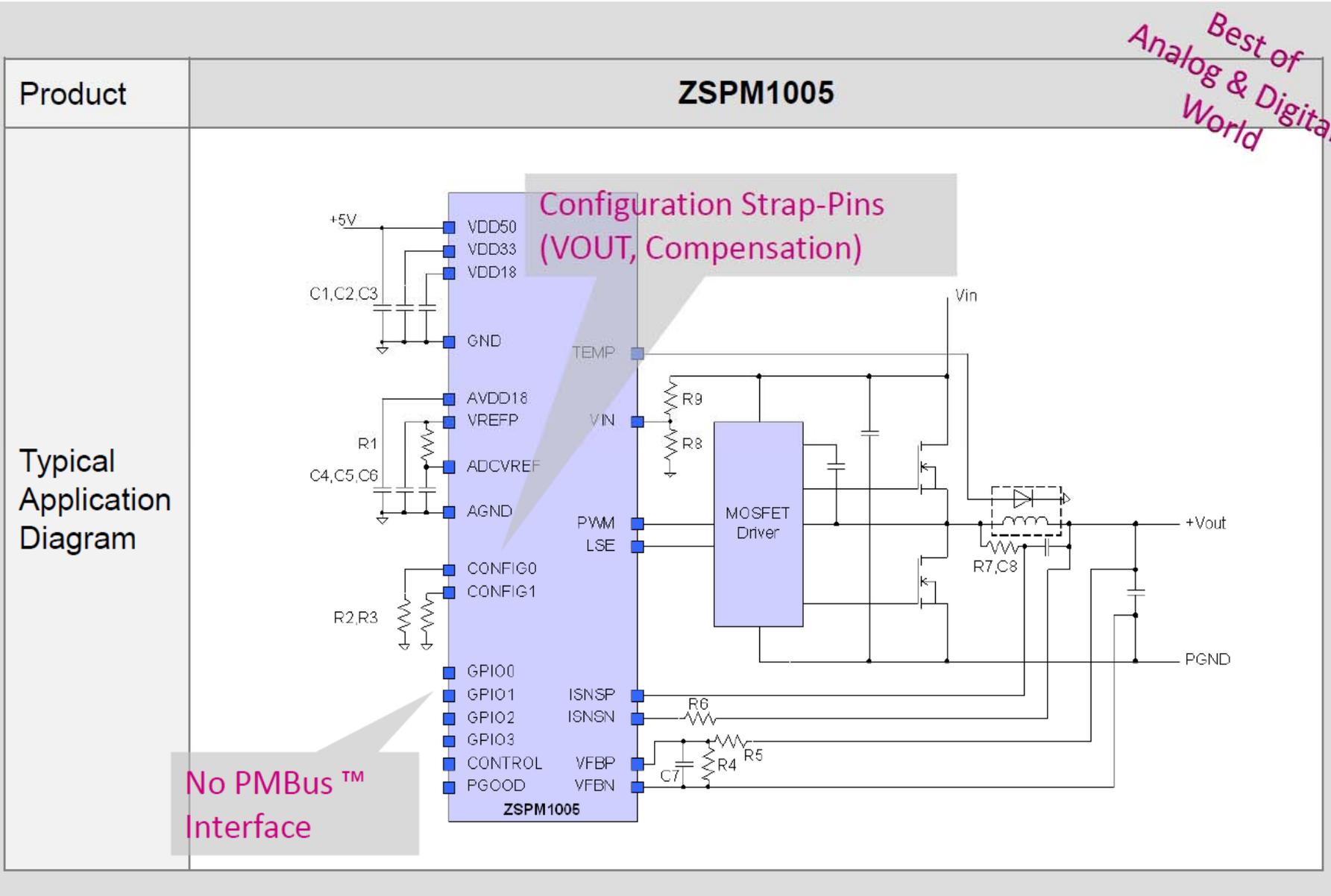
Best of Analog & Digital World

# Application Diagram Comparison



# Application Diagram Comparison

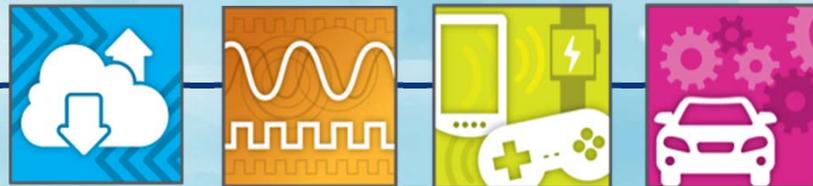
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# Feature-Benefit-List (ZSPM100x)

Feature	System Implication	Benefit	ZSPM1000	ZSPM1005
<ul style="list-style-type: none"> <li>• True-Sample™ Technology</li> <li>• State-Law™ Control</li> <li>• Sub-Cycle Response™</li> </ul>	Best-in-class step-response, reduced output caps, improved robustness	40%-50% cost and size reduction in end user product	X	X
True-Digital Control Loop	High flexibility due to programmability	Improved Time-to-Market	X	X
Hardware /Firmware Implementation	Increased density	Most compact single-phase controller solution available	X	X
Pink-Power Designer™	Programming, Status Monitoring, Debugging	Ease of use and Time-to-Market	X	X
Digital Communication	System Level Integration, on-the-fly changes via PMBus™ commands	30%-50% energy efficiency improvement on system level, thermal management benefits	X	-
2-Pin Strap-Option	Configurability of VOUT and Compensation	Flexibility and performance from digital world, usage in application from analog world	-	X
Family Concept	ZSPM1000 and ZSPM1005 are pin-to-pin compatible	Enable platform designs	X	X

# Thank You



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