Precision Differential Fanout Buffers Selector Guide

Microsemi's miSmartBuffer™ family provides 3-, 6-, or 10-output programmable fanout buffers with multi-format I/O and per-output dividers. Applications include clock signal fanout, format conversion, frequency division, and skew adjustment in a wide variety of equipment types.

miSmartBuffers

Product	Input Type	Input Freq.	Crystal Driver	Diff Outputs LVPECL/LVDS/HCSL	CMOS Outputs	Output Banks	Divider Value	Per-output Enable	Per-output Phase Adjust	OE Control	Host Bus	Internal Memory	Operating Temp (°C)	Pkg	Pkg Size (mm)
ZL40230	2 Diff/ LVCMOS + Crystal	<1.6 GHz	•	10 LVPECL/LVDS/HCSL	1 LVCMOS	2	1 to 8—for LVCMOS	•	N/A	SW per output/ HW per bank	SPI	N/A	–40 to 85	QFN-48	7 × 7
ZL40235				5 LVPECL/LVDS/HCSL										QFN-40	6 × 6
ZL40240		250 MHz		N/A	10 LVCMOS	1	N/A							QFN-32	5 × 5
ZL40250	3 Diff/ LVCMOS + Crystal	<1 GHz	•	0–6	0–12	6	32-bit	•	•	Per out-put by GPIO	SPI/I2C	ROM	–40 to 85	QFN-56	8 × 8
ZL40251												EEPROM			
ZL40252				0–10	0–20							ROM			
ZL40253												EEPROM			
ZL40255				0–3 400 mV/800 mV CML	0–6	3								QFN-32	5 × 5

miClockBuffers

Product	Input Type	Input Freq.	Crystal Driver	Diff Outputs LVPECL/LVDS/HCSL	CMOS Outputs	Output Banks	Divider Value	OE Control	Operating Temp (°C)	Pkg	Pkg Size (mm)
ZL40231	2 Diff/ LVCMOS + Crystal	<1.6 GHz	•	10 LVPECL/LVDS/HCSL	1LVCMOS	2	1 to 8—for LVCMOS	Per bank	–40 to 85	QFN-48	7 × 7
ZL40234				4 LVPECL/LVDS/HCSL						QFN-32	5 × 5
ZL40241		<200 MHz		N/A	10 LVCMOS	1	N/A				
ZL40260		<1.6 GHz	N/A	10 LVPECL	0			N/A			

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Microsemi's high-performance miClockBuffers deliver industry leading power supply noise rejection performance and low aditive jitter. This preserves signal integrity resulting in high performance while simplifying engineering board design efforts.

LVPECL miClockBuffers

Product	Output Type	Inputs	Outputs	Input Termination	Switching	750 MHz Additive Jitter fs RMS typ	Input Type	Input Coupling	Operating Frequency	Power Supply (V)	Operating Temp (°C)	Pkg	Pkg Size (mm)
ZL40200	LVPECL	1	2	External	N/A	30–40	LVPECL LVDS HCSL CML	DC or AC	Up to 750 MHz	2.5 or 3.3	–40 to 85	QFN-16	3 x 3
ZL40201				Internal									
ZL40202			4	External									
ZL40203				Internal									
ZL40204			6	External								QFN-32	5 x 5
ZL40205				Internal									
ZL40206			8	External									
ZL40207				Internal									
ZL40224		2		External	Simple								
ZL40225				Internal									
ZL40208			6	External	Glitch Free	106–121							
ZL40209				Internal									
ZL40210			8	External									
ZL40211				Internal									

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LVDS miClockBuffers

Product	Output Type	Inputs	Outputs	Input Termination	Switching	750 MHz Additive Jitter fs RMS typ	Input Type	Input Coupling	Operating Frequency	Power Supply (V)	Operating Temp (°C)	Pkg	Pkg Size (mm)
ZL40212	LVDS	1	2	External	N/A	78–138	LVPECL LVDS HCSL CML	DC or AC	Up to 750 MHz	2.5 or 3.3	–40 to 85	QFN-16	3 x 3
ZL40213				Internal									
ZL40214			4	External									
ZL40215				Internal									
ZL40216			6	External								QFN-32	5 x 5
ZL40217				Internal									
ZL40218			8	External									
ZL40219				Internal									
ZL40226		2		External	Simple								
ZL40227				Internal									
ZL40220			6	External	Glitch Free	165–194							
ZL40221				Internal									
ZL40222			8	External									
ZL40223				Internal									

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