

## Product Overview

### MC100EP210S: Clock Driver, 1:5 Differential, Dual LVDS, 2.5 V

For complete documentation, see the data sheet.

The MC100EP210S is a low skew 1-to-5 dual differential driver, designed with LVDS clock distribution in mind. The LVDS or LVPECL input signals are differential and the signal is fanned out to five identical differential LVDS outputs. The EP210S specifically guarantees low output-to-output skew. Optimal design, layout, and processing minimize skew within a device and from device to device. Two internal 50-ohm resistors are provided across the inputs. For LVDS inputs, VTA and VTB pins should be unconnected. For LVPECL inputs, VTA and VTB pins should be connected to the VTT (VCC - 2.0 V) supply. Designers can take advantage of the EP210S performance to distribute low skew LVDS clocks across the backplane or the board. Special considerations are required for differential inputs under No Signal conditions to prevent instability.

### Features

- 20 ps Typical Output-to-Output Skew
- 85 ps Typical Device-to-Device Skew
- 550 ps Typical Propagation Delay
- The 100 Series contains temperature compensation.
- Maximum Frequency > 1 Ghz
- Operating Range: VCC = 2.375 V to 2.625 V with VEE = 0 V
- Internal 50Ω Input Termination Resistors
- LVDS Input/Output Compatible
- Pb-Free Packages are Available

### Applications

- High Performance Logic for test systems and work stations. Clock fan out in routers, switches and other networking applications

### Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V <sub>CC</sub> Typ (V)	t <sub>jitter</sub> RMS Typ (ps)	t <sub>skew(o-g)</sub> Max (ps)	t <sub>pd</sub> Typ (ns)	t <sub>R</sub> & t <sub>F</sub> Max (ps)	f <sub>max</sub> Clock Typ (MHz)	f <sub>max</sub> Data Typ (Mbps)	Package Type
MC100EP210SFAG		Pb-free Halide free	Active	Buffer	2	1:5	CM L ECL LVDS	LVDS	2.5	0.2	25	0.55	200	1000		LQFP-32
MC100EP210SFAR2G		Pb-free Halide free	Active	Buffer	2	1:5	ECL CM L LVDS	LVDS	2.5	0.2	25	0.55	200	1000		LQFP-32
MC100EP210SMNG		Pb-free Halide free	Active	Buffer	2	1:5	ECL LVDS CM L	LVDS	2.5	0.2	25	0.55	200	1000		QFN-32
MC100EP210SMNR4G		Pb-free Halide free	Active	Buffer	2	1:5	LVD S ECL CM L	LVDS	2.5	0.2	25	0.55	200	1000		QFN-32

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