

Product Overview

NB7V52M: D Flip Flop, 1.8 V / 2.5 V Differential, with Reset and CML Outputs

For complete documentation, see the data sheet.

The NB7V52M is a 10GHz differential Data and Clock D flip-flop with a Differential asynchronous Reset. The differential D/Db, CLK/CLKb and R/Rb inputs incorporate internal 50-ohm termination resistors and will accept LVPECL, CML, LVDS logic levels. When Clock transitions from Low to High, Data will be transferred to the differential CML outputs. The differential Clock inputs allow the NB7V52M to also be used as a negative edge triggered device. The 16mA differential CML outputs provide matching internal 50-ohm terminations and produce 400 mV output swings when externally terminated with a 50-ohm resistor to VCC. The NB7V52M is offered in a low profile 3mm x 3mm 16-pin QFN package.

Features

- Maximum Input Clock Frequency > 10GHz Typical
- Random Clock Jitter < 0.8ps RMS
- 30ps Typical Rise and Fall Times
- Differential CML Outputs, 400mV peak-to-peak, typical
- Operating Range: VCC = 1.71V to 2.625V with VEE = 0V
- Internal 50-ohm Input Termination Resistors
- -40C to +85C Ambient Operating Temperature
- Instrumentation

Applications

- Test & Measurement, ATE

End Products

- Instrumentation

Part Electrical Specifications

Product	Compliance	Status	Type	Bits	Input Level	Output Level	V _{CC} Typ (V)	t _{jitter} Typ (ps)	t _{pd} Typ (ns)	t _{su} Min (ns)	t _h Min (ns)	t _{rec} Typ (ns)	t _R & t _F Max (ps)	f _{Toggle} Typ (MHz)	Package Type
NB7V52MMNG	Pb-free	Active	D-Type	1	ECL	CML	1.8	0.2	0.2	0.04	0.05	0.2	50	12000	QFN-16
	Halide free				LVD S		2.5								
					CML										
NB7V52MMNHTBG	Pb-free	Active	D-Type	1	CML	CML	1.8	0.2	0.2	0.04	0.05	0.2	50	12000	QFN-16
	Halide free				LVD S		2.5								
					ECL										
NB7V52MMNTXG	Pb-free	Active	D-Type	1	LVD S	CML	2.5	0.2	0.2	0.04	0.05	0.2	50	12000	QFN-16
	Halide free				CML		1.8								
					ECL										

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