



TRI-STATE® 7 by 9 Character Generators

General Description

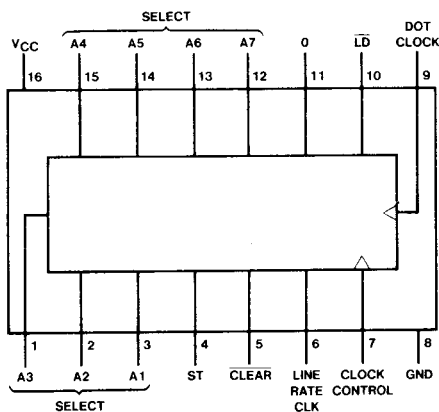
The DM7678/8678 and DM7679/DM8679 are bipolar character generators. A maximum of 64 characters can be displayed in a 7 x 9 dot matrix. Shifted characters can be generated by the on-chip subtractor. On-chip line counter and parallel-in-serial-out shift register reduce package pin-out.

The clear input and the load input are active low. Load is synchronous with the Dot Rate Clock. Both the line rate clock and the dot rate clock are positive triggered. When the strobe input receives a low signal, the character address will be held at the inputs.

Features

- TRI-STATE outputs
- On-chip input latches
- On-chip line counter
- On-chip shift register
- Serial output
- 20 MHz typical clock rate
- Shifted characters

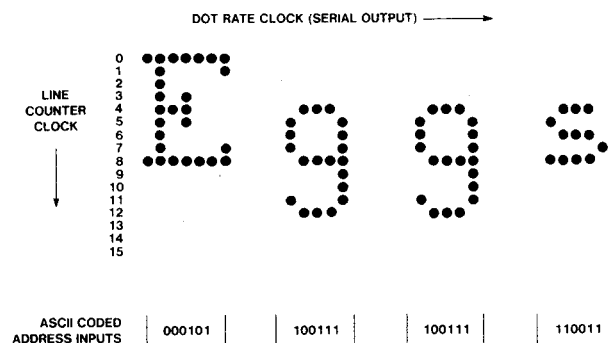
Connection Diagram



7678 (J)
7679 (J)

8678 (J,N)
8679 (J,N)

Character Display Example



Electrical Characteristics Over recommended operating free-air temperature range (unless otherwise noted)

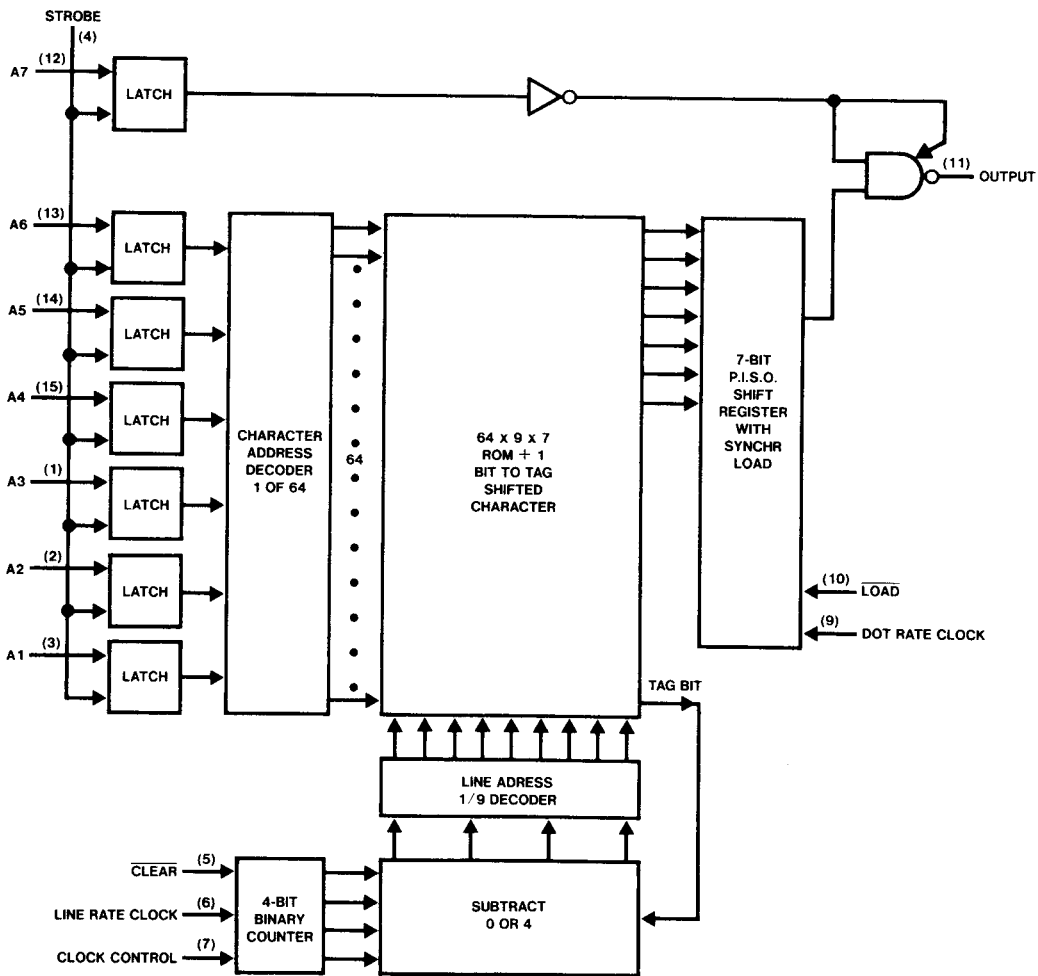
Parameter	Conditions	DM76/86			Units	
		78, 79				
		Min	Typ (1)	Max		
V _{OH}	High Level Output Voltage	V _{CC} = Min, I _{OH} = -2 mA		2.4	V	
V _{OL}	Low Level Output Voltage	V _{CC} = Min, I _{OL} = 16 mA			0.4	V
I _{IH}	High Level Input Current	V _{CC} = Max, V _I = 2.4 V			40	μA
I _{IL}	Low Level Input Current	V _{CC} = Max, V _I = 0.4 V			-0.8	mA
I _{CC}	Supply Current	V _{CC} = Max		100		mA
f _{MAX}	Maximum Clock Frequency	V _{CC} = 5 V, T _A = 25°C		20		MHz

Note 1: All typical values are at V_{CC} = 5 V, T_A = 25°C.



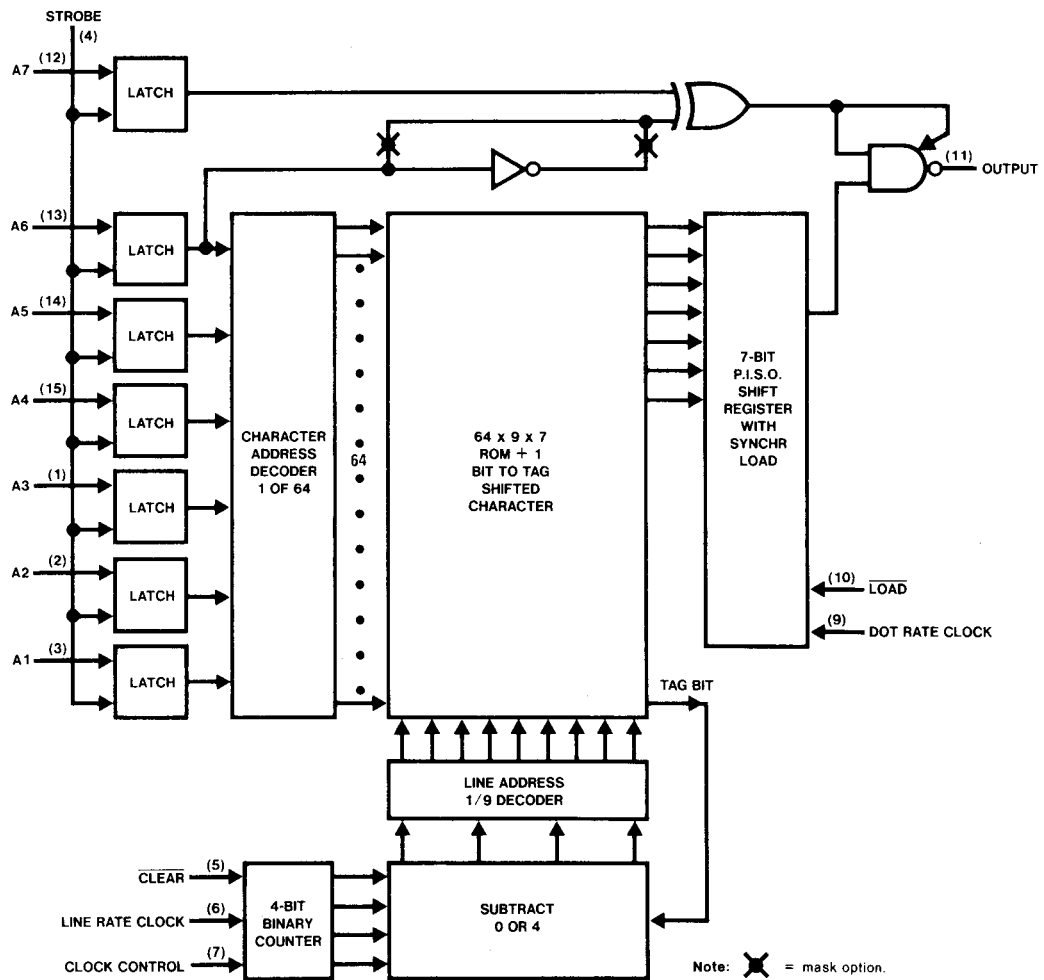
Logic Diagrams

78




Additional Devices
Logic Diagrams (Continued)

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