



TRUTH TABLE

MODE	INPUT			OUTPUT	
	CE	WE	D _{in}	D _{out}	
Write '0'	L	L	L	L	
Write '1'	L	L	H	L	
Read	L	H	φ	Q	
Disabled	H	φ	φ	L	

φ = Don't Care

$P_D = 520$ mW/pkg. typ
Access Times: 12 ns typ

High Speed 256-Bit Random Access Memory

The MCM10152 is a fully decoded 256-bit Random Access Read/Write Memory organized as 256 one bit words. Stored data is selected by means of an eight bit address, consisting of inputs A0 through A7.

The MCM10152 has three active-low chip enable inputs for increased logic flexibility permitting memory expansion up to 2048 words without additional decoding. For larger memories, the upper address words are selected by using one of the CE inputs for enabling 1024 word segments.

The MCM10152 operating mode (all CE inputs low) is controlled by the WE input. With WE low, the chip is in the WRITE mode, the output, D_{out}, is low and the data state present at the data input (pin 13) is stored at the selected address. With the WE high the chip is in the READ mode and the data state at the selected memory location will be presented, noninverted at the data output (pin 15).

Open emitter outputs permit full *wire-ORing* to data buses, with D_{out} low when the chip is disabled.

The device is fully compatible with the MECL 10,000 logic family. It is designed for use in high speed scratch pad, control, cache, and buffer storage applications.