LIFO STACK MEMORY (32x8)　　　　　　　　　　　　　8X355

FEATURES

- **32 bytes of storage**
- **Cascadable LIFO operation**
- **Dedicated port address**
- **Fast select feature for use with extended microcode**
- **Three state TTL outputs**
- **Single 5 volt power supply**
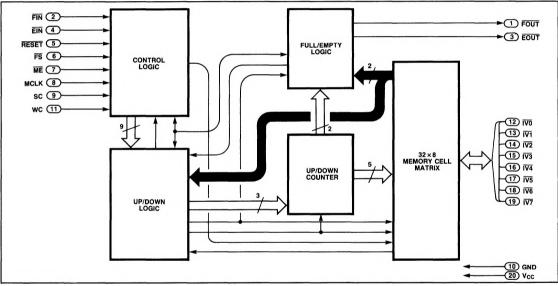- **0.3 inch, slim line package**

PRODUCT DESCRIPTION

The 8X355 is a Last In/First Out stack memory designed to be compatible with 8X305-based systems. In addition to a 32-byte storage capacity, the 8X355 contains the necessary logic to allow cascaded operation.

The LIFO stack may be addressed using either conventional 8X305 techniques, i.e., $\overline{IV}$ bus select, or, in systems where extremely high performance is required, extended microcode can be implemented. A single enabling address is employed so that once enabled, a stack of 8X355s can accept an uninterrupted stream of data. By omitting the need for address select cycles prior to each data access, the LIFO stack delivers a much higher performance than conventional memories; this feature is particularly valuable for saving internal registers during interrupt servicing.

ORDERING INFORMATION

Contact Local Sales Representative

BLOCK DIAGRAM

TYPICAL CASCADED CONFIGURATION

		INPUT				RESULTING OUTPUT				COMMENTS
		EIN	FIN	EOUT	FOUT	EOUT	FOUT	PUSH	POP	
#1		X	X	L	L	Not possible				Empty and full status
		L	L	L	H	Update	H	Yes	No	Top of data stack at top of #1
		L	L	H	L	H	Update	No	Yes	Top of data stack at top of #2
#2		L	L	H	H	Update	Update	Yes	Yes	Top of data stack within #2
		X	H	X	X	L	H	No	No	Top of data stack below #2
#3		H	L	X	H	Not defined				Top of data stack moves from bottom to top
		H	L	H	L	H	L	No	No	Top of data stack above #2

Notes.
Status signals and Push/Pop operations reference stack chip #2
X = don't care