STATUS BYTE DEFINITIONS

The SR830 reports on its status by means of four status bytes: the Serial Poll Status byte, the Standard Event Status byte, the LIA Status byte, and the Error Status byte.

The status bits are set to 1 when the event or state described in the tables below has occurred or is present.

SERIAL POLL STATUS BYTE

bit	name	usage
0	SCN	No scan in progress (Stop or Done). A Paused scan is considered to be in progress.
1	IFC	No command execution in progress.
2	ERR	An enabled bit in the error status byte has been set.
3	LIA	An enabled bit in the LIA status byte has been set.
4	MAV	The interface output buffer is non-empty.
5	ESB	An enabled bit in the standard status byte has been set.
6	SRQ	SRQ (service request) has occurred.
7	Unused	

The ERR, LIA, and ESB bits are set whenever any bit in both their respective status bytes AND enable registers is set. Use the ✳SRE, ✳ESE, ERRE and LIAE commands to set enable register bits. The ERR, LIA and ESB bits are not cleared until ALL enabled status bits in the Error, LIA and Standard Event status bytes are cleared (by reading the status bytes or using ✳CLS).

Using ✳STB? to read the Serial Poll Status Byte

A bit in the Serial Poll status byte is **NOT** cleared by reading the status byte using ✳STB?. The bit stays set as long as the status condition exists. This is true even for SRQ. SRQ will be set whenever the same bit in the serial poll status byte AND enable register is set. This is independent of whether a serial poll has occurred to clear the service request.

Using SERIAL POLL

Except for SRQ, a bit in the Serial Poll status byte is **NOT** cleared by serial polling the status byte. When reading the status byte using a serial poll, the SRQ bit signals that the SR830 is requesting service. The SRQ bit will be set (1) the first time the SR830 is polled following a service request. The serial poll automatically clears the service request. Subsequent serial polls will return SRQ cleared (0) until another service request occurs. Polling the status byte and reading it with ✳STB? can return different values for SRQ. When polled, SRQ indicates a service request has occurred. When read, SRQ indicates that an enabled status bit is set.