How fast will the SPI communication be?

SPI master clocks the slave at 1.25MHz.

Data is shifted out in bytes, one byte takes $8 \cdot \frac{1}{1.25MHz} = 6.4\mu s$

As soon as the transfer is complete, the slave must prepare the next byte before the master resumes clocking.
How do we make sure the slave loads the byte before the master reads it?

Calc how long it takes the slave to realize the transfer is finished and load a new byte. The master must wait at least this long before starting the next transmission.

Or, have the master pull SS high then low again... does this help?
- maybe do this for every 16-bit word?

Time to load byte: use interrupt and load byte as soon as it is triggered. Designate a variable as a buffer. Always read from this variable in the ISR. Hopefully this is faster (and a constant time) as compared with accessing an array in the ISR. In the ISR, after loading the byte into SPDR from the software buffer, load the next byte into the software buffer.

10 MHz oscillator: allow for ~20 instruction cycles: 2μs
$6.4\mu s + 2\mu s = 8.4\mu s$

$8.4\mu s \times 784 \text{ pixels} \times 2 \frac{\text{bytes}}{\text{pixel}} = 13.2ms$