

A1. Serial peripheral interface (SPI)

Serial transmission system

B. Synchronous communication used in embedded systems

Serial transmission system using master-slave architecture  
C. SLC - Serial Communication Line - determines when a data byte is received

Master-out-slave-in - data out goes from master

Master-in-slave-out - data out goes from slave

A2. a. Inverting amplifier / SS - Slave Select - indicates data sent

b.  $-R_F/R_I$

c.  $-24 \times 10^{-3} / 6 \times 10^{-3}$

$= -4$

d.  $0.2 \times -4 = -0.8 \text{ V p-p}$

e. The pulse would be the inverse of 4  $\mu\text{s}$

was inverted

B. a. non-inverting amplifier

b.  $1 + R_F/R_I$

c.  $1 + 24 \times 10^3 / 6 \times 10^3$

$= 5$

d.  $0.1 \times 5 = 0.5 \text{ V p-p}$

e. The pulse would stay the same only amplitude would change

A3. a. RS232

b. Pair to point-to-point connection

c. It is used to handle / communicate with

Other devices with the same connection such as

a. modem drive or camera, PC, etc.