Table 1 Serial Protocol Comparison

Name	Sync/Async	Type	Duplex	Max Devices	Max Speed (Kbps)	Max Distance Feet
RS-232	async	peer	full	2	20	30
RS-485	async/Differential signal	multi-point	half	32	10,000	4000
I2C	sync	multi-master	half	*	3400	<10
SPI	sync	multi-master	full	*	>1000	<10
CAN	async/Differential signal	multi-master	half	132	1Mb/sec	See Table 2

Table 2 CANBUS Max Length vs Speed Comparison

Can Bus Maximum Length			
Bus Speed	Bus Length (L)	Cable Stub Length (l)	Node Distance (d)
1 Mbit/Sec	40 meters (131 feet)	0.3 meters (1 foot)	40 meters (131.2 feet)
500 kbits/Sec	100 meters (328 feet)	0.3 meters (1 foot)	100 meters (328 feet)
100 kbits/Sec	500 meters (1640 feet)	0.3 meters (1 foot)	500 meters (1640 feet)
50 kbits/Sec	1000 meters (3280 feet)	0.3 meters (1 foot)	1000 meters (3280 feet)

*Depends on capacitance of wire and bitrate.