
Application Note

AN_0028

Video/Data Transmission Guidelines

Video

1. 75 Ω coaxial cable
2. RG59/U 1,000 ft (300 meters) maximum
3. RG6/U 1,500 ft (450 meters) maximum
4. RG11/U 2,000 ft (600 meters) maximum
5. 1 Vpp, neg sync, 2:1 interlace
6. United States format: EIA RS-170 (B&W)
 NTSC (Color)
 4.2 MHz bandwidth
 525 lines/frame
 60 fields/sec
 3.58 MHz color burst
7. European format: CCIR (B&W)
 PAL (Color)
 5.0 MHz B/W
 625 lines/frame
 50 fields/sec
 4.43 MHz color burst

RS-232

1. 3-wire, shielded, 18 AWG (Belden 8770 or equivalent)
2. 1,000 ft (300 meters) max hardware at 1200 baud (>1,000 ft or baud rates >1200 requires line drivers or short/long haul modems)
3. Asynchronous, unbalanced, 300, 1200, 4800, or 9600 baud communication with 8 data bits, 1 stop bit, and no parity
4. AD1676B keyboard is simplex (Transmit and Ground, 1200 baud only)
5. AD2078A, AD2079, and ADTT keyboards are duplex (Receive, Transmit, and Ground)

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Sensormatic Technical Services

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01/02 RevB

Manchester

1. Twisted, shielded pair, 18 AWG (Belden 8760 or equivalent)
2. 5,000 ft (1,500 meters) maximum
3. Asynchronous, 31 KHz, 1 Vpp, NRZ data with continuous clock signal
4. 120 Ω terminated, balanced, AC coupled
5. 3 daisy chained units maximum on any one control line

High Speed Data

1. Treat similar to video for transmission (75 Ω coax)
2. 125 Kbaud, 1 Vpp, (+0.5V to -0.5V)
3. Do not clamp to ground (Use with AD1422CS621 for fiber that clamps to ground)

Sensormatic RS-422

1. Two twisted, shielded pair, 22 AWG (Belden 9406)
2. 3,000 ft maximum (915 meters)
3. Asynchronous, balanced, differential, duplex, 4800 baud
4. 10 daisy chained units on any one control line

SensorNet 485

1. One twisted, unshielded pair, 22 AWG (Belden 8442 (88442 for plenum) or equivalent)
2. 3,300 ft maximum (1 Kilometer)
3. 120 Ω terminated, balanced, differential, AC coupled, half-duplex, 230 Kbps
4. 32 daisy chained units on any one control line (4 branches with 8 units each acceptable)

Alternate Cable for SensorNet 485

1. One twisted, shielded pair, 18 AWG (Belden 8760 or equivalent)
2. 2,500 ft maximum (750 meters)
3. 32 daisy chained units on any one control line (4 branches with 8 units each acceptable)

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