Telenetics

Microwave

MODEL 2323 MICROWAVE VIDEO, PTZ & DATA LINK

- Frequencies Crystal Controlled (Synthesized)
- ▲ NEMA Temperature Range
- ▲ Two Hour Installation Time
- ▲ Flexible Two Antennas All Frequencies
- 🔺 Low Cost Fast Payback
- ▲ Low Maintenance Simple, Compact & Trouble-Free
- Full Motion Video Medium Haul Performance
- ▲ Dual Full Duplex Data Channels
- ▲ 2 Year Warranty



The GDI 2323 series millimeter wave radio is a versatile, simple, low cost alternative to a land-line video circuit.

If your requirements are for simplex or duplex video for NTSC or PAL with two full duplex data channels, the Model 2323 millimeter wave radio link affords you a low cost radio solution.

Constraints due to cost, response time or right-of-way that you may have with land line implementation you may find the Model 2323 video radio to be quicker, easier and more affordable.

Applications

- Point to point surveillance
- \cdot $\,$ Video interconnection between several sites
- \cdot $% \left({{\rm{Last}}} \right)$ Last mile connections
- Fiber Optics to Microwave
- Twisted Pair Video Drivers to Microwave
- Video Loop Detectors to Microwave





Technical Summary

| Frequency Range | 21.2 to 23.6 GHz |
|--------------------------------------|---|
| Standard TX/RX Spacing | 1200 MHz |
| Allocated Channel Bandwidth | 50 MHz |
| Actual Occupied Bandwidth | Approximately 25 MHz |
| Modulation type | 2 Level FSK (FM) |
| Transmission Configuration 2323-S | Simplex Video, dual duplex control channels |
| Transmission Configuration 2323-D | Duplex Video, dual duplex control channels |
| Control Channels are | RS422 Standard RS232 or RS485 Available |

Transmitter Characteristics

| RF Source | Oscillator/Multiplier/ Amplifier Type |
|---------------------------------------|--|
| Guaranteed power output | + 17 dBm (minimum) |
| Power Control Option | 7 steps down from max power out |
| Frequency Stability (-34 to +74 C) | +/- 0.001% |
| Tuning Range | 4 Frequency Sets Allowed |

Receiver Characteristics

| Type (Dual Conversion Superhetrodyne) | 2500 & 70 MHz |
|---|----------------|
| Noise Figure | 5.5 dB Typical |
| Video Threshold for 45 dB S/N Ratio | - 80 dBm |
| Sub Carrier Threshold Camera to Monitor | - 80 dBm |
| Sub Carrier Threshold Monitor to Camera | - 83 dBm |
| Maximum Receiver Input (Damage will Occur at +5 dBm) | - 15 dBm |

Antenna Characteristics

| Туре | Parabolic |
|-------------------------|-----------------------|
| Diameter | 12.5 Inches (31.8 cm) |
| Polarization | Linear |
| Gain (22.4 GHz) | 35 dB |
| Front to back ratio | 42 dB |
| Beamwidth @ 3 dB points | 3.2 Degrees |

Environmental Characteristics

| Ambient Temperature Range | - 34 to +74 Degrees C |
|----------------------------|------------------------|
| Storage and Transportation | - 40 to + 80 Degrees C |
| lumidity | Up to 100% |

Indoor UnitHumidity
(Non-Condensing)Ambient Temperature Range0 to +50 Degrees CStorage and Transportation- 40 to + 80 Degrees CHumidityUp to 95% AT +50° C

| Input Vo | ltage Requ | uirements | | |
|---|------------------|--------------------------------------|---------------------|--|
| Power Input | | 93 TO 265 \ | /AC +/- 10% | |
| Brown-out vol | tage | 90 VAC | | |
| Line frequency | у | 50/60 Hz | | |
| Power C | onsumptic | n | | |
| Total Power R | equired | 50 Watts Ma (2 units) | aximum per link | |
| FCC Info | rmation | | | |
| Emission Desig | gnator | 25MOF8W | | |
| FCC rules par | t number | 101 | 101 | |
| Frequency rang | ge | 21.2 to 23. | 21.2 to 23.6 GHz | |
| Frequency tole | erance | +/- 0.001% | +/- 0.001% | |
| FCC Maximum p | ower output | 0.10 watts | 0.10 watts | |
| Size and | Weight | | | |
| Height | Depth | Width | Weight | |
| 15" | 12" | 15" | 10 pounds | |
| 38 cm | 30 cm | 38 cm | 4.6 kg | |
| Indoor interfa | ace Unit | 19" Rack 2RU | I mounting (3.5" H) | |
| Custome | er Connect | ors & Cab | ling | |
| Control cablin | ng RS422 | 2 shielded # 22AWG | Twisted Pair, | |
| RS422 Connect | ors | DB9 | | |
| Video cable | | RG 59/U (75 | ō ohm) | |
| Video cable c | onnectors | BNC | | |
| Power connect | ion | Six foot po prong plug | ower cord with 3 | |
| Antenna | to Interfa | ce | | |
| | | 50 ohm (Bel | den 9914) | |
| Coax | | 00 01111 (Del | | |
| Coax Coax connector | rs | N-TYPE | | |
| Coax Coax connector Power Cable | rs | N-TYPE 3 TWISTED F | PAIR 18AWG | |
| Coax Coax connector Power Cable Power Connecto | rs or Antenna | N-TYPE 3 TWISTED P AMP 7 Pin (| PAIR 18AWG | |

48 VDC or 24 VDC, for Solar Units are set to specified frequencies with switch. Spares: 1 Unit required for A channels, 1 unit required for B channels

| Frequencies ¹ | A Antenna | B Antenna |
|---------------------------------|-----------|-----------|
| CHANNEL | Transmit | Transmit |
| D | 21.825 | 23.025 |
| Т | 21.875 | 23.075 |
| G | 21.925 | 23.125 |
| E | 21.975 | 23.175 |

¹ 12 inch antenna limits use to these frequencies

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