



Model 2423 Microwave Radio



Description

The GDI 2423 series millimeter wave radio is a versatile, simple, low cost alternative to leased copper or fiber optic landline circuits.

Due to the cost, response time, or right-of-way constraints with land lines, the high performance synthesized 2423 millimeter wave link affords you a frequency agile low cost radio solution for video applications.

Implementation of the GDI 2423 digital radio will be quicker, easier and more affordable than copper or fiber alternatives.

In addition to the one-way, NTSC or PAL, video capability of the GDI 2423, there are two bi-directional data channels that can be configured for either RS-232 or RS-422 applications with RS-250C medium haul performance.

FEATURES

- * No FCC license required (Part 15 Compliant)
- * Point-to-Point Full Motion Video, PTZ, and Data Link
- * RS-232 or RS-422 Data Interface
- * NEMA Temperature Range
- * Flexible - Two Antennas All Frequencies
- * Two Hour Installation Time
- * Low Maintenance—Simple, Compact & Trouble-Free

Applications

- * Video Surveillance
- * Real time Video, PTZ control and Traffic Controller Data , all on one link
- * Last Mile Solution



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Technical Summary

| | |
|----------------------------|---|
| Frequency Range | 24.0 to 24.25 GHz |
| Standard TX/RX Spacing | 125 MHz |
| RF Channel Bandwidth (min) | 25 MHz |
| Modulation Type | FM |
| Tuning Range | Covers full band with one (1) sets of units |

Transmitter Specifications

| | |
|------------------------------------|--------------------------------------|
| RF Source | Oscillator/Multiplier |
| Guaranteed Power Output | 250 mV/m @ 3 m from transmit antenna |
| Frequency Stability (-37 to +74°C) | +/- 0.001% |

Receiver Specifications

| | |
|------------------------|----------------|
| Type | Superhetrodyne |
| Noise Figure | 6.0 dB Typical |
| Video Threshold | -88 dBm |
| Data Threshold | -82 dBm |
| Maximum Receiver Input | -10 dBm |

Antenna Specifications

| | |
|-------------------------|-----------------|
| Type | Parabolic |
| Diameter | 12.5" (31.8 cm) |
| Polarization | Linear |
| Gain (24.125 GHz) | 33 dB |
| Front to back ratio | 42 dB |
| Beamwidth @ 3 dB points | 3.5 degrees |

Environmental Specifications

| | |
|----------------------------|--------------|
| Ambient Temperature Range | -37 to +74°C |
| Storage and Transportation | -40 to +80°C |
| Humidity | Up to 100% |

Transmission Data

| | |
|--|--------|
| System Gain (for 10 ⁻⁶ BER) | 145 dB |
|--|--------|

Input Voltage Requirements

| | |
|-------------------|---------------|
| Power Input | 93 to 265 VAC |
| Brown-out voltage | 90 VAC |
| Line Frequency | 50/60 Hz |

FCC Information

| | |
|----------------|-------------|
| FCC Identifier | I08SDC-2420 |
| FCC Rules | Part 15 |

Size and Weight

Outdoor Unit (excluding mount)

| Height | Depth | Width | Weight |
|--------|-------|-------|--------|
| 15" | 12" | 15" | 15 lbs |
| 38cm | 30 cm | 38 cm | 7.0 kg |

No Indoor Unit required

Connectors and Cabling

| | |
|---------------------------|----------------------|
| Data Cable | 9 conductor shielded |
| Data Cable Connector | 12 pin (supplied) |
| Video Cable | RG-59U (75 ohm) |
| Video Cable Connector | TNC |
| Power Connection (110VAC) | Six foot cord |

Power Consumption

| | |
|--------------------------|----------|
| Consumption per terminal | 25 W max |
|--------------------------|----------|

Frequencies

The lower half of the band is covered by one unit and the upper half is covered by a second unit. Therefore, to spare all possible frequencies would require two (2) different RF heads.

Specifications subject to change without notice

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