

# Microwave

## MODEL 2420

24.0-24.25 GHz  
MILLIMETER WAVE  
RADIO LINK

- ▲ Point-to-Multipoint Audio Data Link
- ▲ 4-Wire or 2-Wire Audio Interface FSK Compatible
- ▲ FCC Licensing = None  
Part 15 Compliant
- ▲ NEMA Temperature Range
- ▲ Two Hour Installation Time
- ▲ Flexible – Two Antennas All Frequencies
- ▲ Low Cost – Fast Payback
- ▲ Low Maintenance – Simple, Compact & Trouble-Free
- ▲ Audio Interface Multiple Channels
- ▲ 2 Year Warranty



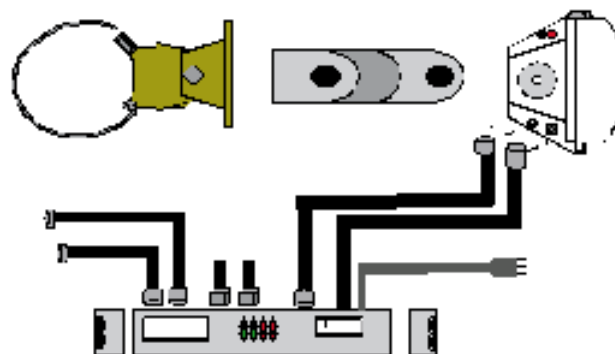
The GDI 2420 series millimeter wave radio is a versatile, simple, low cost alternative to a land-line audio circuit.

If your requirements are for 4-wire or 2-wire FSK Point to multipoint communication the Model 2420 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 2420 audio radio to be quicker, easier and more affordable.

### Applications

- Point-to-multipoint communication
- Audio connection to extend hardwire communications
- Bridge existing hardwire



## Technical Summary

Frequency Range	24.0 to 24.25 GHz
Standard TX/RX Spacing	125 MHz
RF Channel Bandwidth (minimum)	5 MHz
Modulation type	FM
Transmission Configuration	Audio
Audio Interface Bandwidth	700 Hz to 20 KHz
Audio Interface Response	0 to -55dBm
Frequency Channels	16 Pairs

## Transmitter Characteristics

RF Source	Oscillator/Multiplier
Guaranteed power output	250 mV/m @ 3 m from transmit antenna
Frequency Stability (-37 to +74 C)	+/- 0.0005%

## Receiver Characteristics

Type	Superhetrodyne
Noise Figure	6.2 dB Typical
Threshold	- 86 dBm
Maximum Receiver Input	- 10 dBm

## Antenna Characteristics

Type	Parabolic
Diameter	12.5 Inches (31.8 Cm)
Polarization	Linear
Front to back ratio	40 dB
Beamwidth @ 3 dB points	3.5 Degrees

## Environmental Characteristics

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

## Transmission Data

System Gain	137 dB
Total Thru-put Delay (unit to unit)	0.80 Micro/s max

## Input Voltage Requirements

Power Input	120 VAC $\pm$ 10%
Brown-out voltage	90 VAC
Line frequency	50/60 Hz

## FCC Information

FCC Identifier	I08SDC-2423
FCC Rules	Part 15
Frequency range	24.0 to 24.25 GHz
Frequency tolerance	+/- 0.0005%
FCC Maximum power output	250 mV/m @ 3 m from transmit antenna

## Size and Weight

### OUTDOOR UNIT (EXCLUDING MOUNT)

Height	Depth	Width	Weight
15"	12"	15"	10 pounds
38 cm	30 cm	38 cm	4.6 kg

### Indoor Unit

Height	Depth	Width	Weight
1.75"	8.75"	16.75"	3.7 lbs
4.5cm	22.25 cm	42.5 cm	4.6 kg

## CONNECTORS AND CABLING

Cable	Belden 9773
Connector Antenna	Amp 7 pin CMC 208945-5
Connector Interface	Phoenix 4 Pin and Phoenix 6 Pin
Water Resistant Strain Relief	Glenair
Power connection (110 VAC)	Six foot power cord with 3 prong plug

## POWER CONSUMPTION

Outdoor TX/RX	12 Watts Maximum per link
Indoor Unit	3 Watts Maximum

## POWER SUPPLY OPTIONS

230 VAC
48 VDC
24 VDC, for Solar

[www.arcelect.com](http://www.arcelect.com)