

RACON MICROPASS® 5000 SERIES

Microwave Video Transmission

21.2 - 23.6 GHz Licensed Radio

RACON®
MICROPASS®



KEY FEATURES

- Simple Installation - Lightweight installed using common hand tools built-in coarse and fine alignment.
- Field Changeable Modules - Modular design provides flexibility, repairability, and upgradeability.
- Quality Video - Meets broadcast black and white or color picture requirements.
- Tested Compatibility - Compatible with virtually all CCTV cameras, monitors, and control systems.
- High Fade Margin - Ensures quality video, control and data signals over 10 miles.
- High Performance Antenna - Increased reliability during inclement weather and other adverse conditions.
- Unique Duplex Subcarrier Capability - Accommodates audio, RS232, RS422, RS485, Manchester, and Bi-phase formats.
- Multiple Duplex Subchannels - Audio, data, or data and audio channels.

THE WIRELESS VIDEO COMMUNICATIONS SOLUTION

The **Raymar-Telenetics** Racon Micropass® systems are the wireless video communications leader. The easily installed self-contained system offers simultaneous video with up to two, two-way channels for camera control, access control, telemetry, intercom audio or data transmission.

Easy to use and reliable, Racon Micropass® is the solution for CCTV and other video systems that require dependable video and for voice/data transmission. The 5000 Series is designed as a compact, self-contained integrated system with both the antenna and transceiver operating as a single unit. This innovative design speeds installation and eliminates trouble-some intermediate connections, providing improved reliability and greater performance.

All Racon Micropass® communications products are built in the USA to exacting standards. Factory tested for a 72-hour "burn-in" period at elevated temperatures, Racon Micropass® products are ruggedly built to withstand outdoor environmental extremes. Their built-in microwave source/mixer heaters assure frequency stability and reliability. Hundreds of companies and government agencies worldwide trust their critical video transmissions to Racon Micropass® systems. Racon Micropass® is the video/CCTV point-to-point communications solution.

SELECT YOUR SOLUTION

- Real-time security video/audio assessment
- Distance learning transmission downlink distributes educational programming to branch facilities
- Studio to transmitter link for TV or FM radio broadcast
- CCTV transmission for transportation control applications

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Racon Micropass® 5000 Series • Microwave Video Transmission

GENERAL

Modulation:	FM
Deviation:	± 6 MHz
System Gain:	
Radio w/17" Antenna:	171dB
Radio w/27" Antenna:	179dB
Radio w/48" Antenna:	185dB
Radio w/72" Antenna:	195dB
Frequency Band:	21.2 to 23.6GHz
Common Carrier (Part 21)	All channels
Business (Part 94)	All channels
Channel Capacity:	
1 Video channel plus up to two full duplex audio/data/control subchannels (see above)	
Equipment Authorization:	
FCC Type Number:	B2N9CL10050
FCC Type Accepted:	Parts 21 and 94
FCC Emission Designator:	33800F9

TRANSMITTER

RF Source:	Solid State Gunn diode in environmental oven
Power Output:	
Minimum:	40mW (+16dBm)
Typical:	65mW (+18dBm)
Maximum:	100mW (+20dBm)
Frequency Stability:	Better than ± 0.03% of carrier (-30° to 55°C)

RECEIVER

Type:	Superheterodyne
IF Bandwidth:	30 MHz
Threshold:	-77 dBm
Video Signal to Noise Ratio:	< 37 db
Local Oscillator:	Solid State Gunn diode in environmental oven

POWER REQUIREMENTS

Power Consumption:	Nominal @ 25°C (77°F) Power on - 75 Watts Operating - 50 Watts
Input Voltage:	120/220/240VAC 50/60Hz Input to 24VAC remote transformer (supplied)

ENVIRONMENTAL

Temperature Range:	
Operating:	-30°C to 55°C (-22°F to 131°F)
Storage:	-40°C to +60°C (-40°F to 140°F)

MECHANICAL

Diameter:	19 inch (48.26cm)
Depth:	16.25 inch (41.27cm)
Weight:	25 lbs (11kg) per antenna assembly (Rx or Tx)
Material:	White, all-weather aluminum coated to MIL C 5541 with stainless steel hardware
Shielding:	Built-in conducted and radiated RFI shielding
Mounting Type:	Attachment to 3.5" (8.9cm) or 4.5" (11.5cm) O.D. vertical pipe. (± 10%)

ALARMS

Loss of RF Alarm
Loss of Subcarrier

REQUIRED OPTIONS

Power Supply Type:	220VAC Power 240VAC Power -48VDC Power ± 24 VDC Power
Noise Figure:	22dB Nominal

VIDEO INTERFACE

Video Bandwidth:	(see options)
Input Impedance:	75 ohms
Output Impedance:	75 ohms
Input Level:	1 Vp-p into 75 ohms
Connectors:	BNC

AUDIO SUB-CHANNEL INTERFACE

Audio Bandwidth:	15KHz - Model 5004, 5005, 5006 3KHz - All other models
Input Impedance:	600 ohms
Output Impedance:	600 ohms
Input Level:	0.0 dBm
Output Level:	0.0 dBm
Connection:	Screw terminal

RS232 SUB-CHANNEL INTERFACE

Data Rate:	Up to 19.2 Kbps
Connection:	25 pin D Sub miniature

RS422 SUB-CHANNEL INTERFACE

Data Rate:	Up to 19.2 Kbps
Connection:	Screw terminal

BURLE® RS485 INTERFACE

Connection:	Screw terminal
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BURLE® BI PHASE INTERFACE

Connection:	Screw terminal
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AMERICAN DYNAMICS® MANCHESTER INTERFACE

Connection:	Screw terminal
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ANTENNA

Size: Standard integrated shrouded 17inch (43cm) inside diameter. Optional integrated shrouded: 27" (69cm) or Optional external 48" (122cm), and 72" (1.8m) available.

Diameter	Gain	Beamwidth (3dB)
17"	38dBi	1.7°
27"	42dBi	1.3°
48"	46dBi	0.7°
72"	72dBi	0.5°

Polarization:	Vertical or horizontal
Alignment:	Includes coarse & fine elevation & azimuth adjustment
Radome:	Standard with 17" and 27"
Video Bandwidth:	NTSC (4.2 MHz) (standard) PAL (6MHz) SECAM (6 MHz) Wide Band (8 MHz)



WARRANTY

Raymar-Telenetics manufactured products are warranted against defects in hardware material and workmanship under normal use for one (1) year from date of original retail purchase. Defective product will be repaired or replaced, determination to be made by Raymar-Telenetics, at no charge. Repaired or replaced products are warranted for 90 days or for original warranty period, whichever is longer. Warranty extends to original end-user only.



Manufactured in the USA by RAYMAR-TELENETICS

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