TRACON°

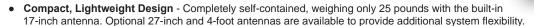
MINCRO**PASS**



RACON MICROPASS® 8500 SERIES 23 GHz Microwave Radio

KEY FEATURES

- High System Gain Reliable performance for distances of up to 15 miles (25km) between antennas.
- Flexible Capacity Various subcarrier configurations available.
- Modular Design Field-changeable solid state modules allow on-site replacement and assure fast, easy maintenance and repair.
- Simple Installation Lightweight antenna unit
 may be installed using everyday hand tools. Built-in alignment meter speeds the
 installation process.



- Full Duplex Operation A single housing contains the integral antenna and complete transmitter and receiver electronics.
- Durable Construction The radio is built with anodized aluminum, coated to MIL specifications.
- Government Authorized Operational in the full 23 GHz band 21.2 GHz to 23.6 GHz. Certified by the FCC (Part 94 and Part 21) and other world communication authorities.
- Status Monitor Options available for local, remote, and dial-up radio status monitoring.

INNOVATIVE DESIGN FOR ENHANCED PERFORMANCE AND RELIABILITY

The Racon Micropass® 8500 Series from **Raymar-Telenetics** is a self-contained microwave radio system that provides short-haul two-way point-to-point transmission of broadcast quality video. Utilizing 23GHz technology, the 8500 series is the high-performance, low-cost solution to your video transmission application. The 8500 Series is designed as a compact self-contained integrated system with antenna and transceiver operating as a single unit. This innovative design speeds installation and eliminates troublesome intermediate connections and providing for improved reliability and greater performance.

VERSATILITY

The radios in the 8500 Series are available in multiple subcarrier configurations, including duplex audio and audio channels. The 8500 Series integrates voice, data, and video into a complete teleconferencing transmission system. These radios are compatible with virtually all camera and monitor systems, and are available in NTSC, PAL, and SECAM configurations. This versatility means that there is an 8500 series radio to match almost every video application.

A REPUTATION FOR QUALITY

The Micropass® reputation for quality, reliability and unmatched price/performance value has made it the choice in thousands of worldwide installations. All Racon Micropass® components are factory tested and calibrated to ensure long-term system reliability and top performance. Raymar-Telenetics also offers a comprehensive program of product and system support. This includes licensing assistance, path engineering, applications engineering and technical analysis support. Talk to your Raymar-Telenetics representative for specific information on how the 8500 Series can be configured to be your complete video communications solution.

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Racon Micropass 8500 Series • 23 GHz Microwave Radio

GENERAL

Modulation: FM

Video System Capabilities: Duplex video broadcast quality

bandwidth 4.2MHz standard subcarrier

options

One Duplex Audio: 15KHz2
Two Duplex Audio: 3KHz3
One Duplex Audio: 3KHz
One Duplex RS422: 19.2Kbps

System Gain:

Radio: 103dB Radio w/17" Antenna: 171dB Radio w/27" Antenna: 179dB Radio w/48" Antenna: 185dB

Frequency Band: 21.2 to 23.6GHz

Common Carrier (Part 21) All channels Business (Part 94) All channels

Equipment Authorization:

FCC Type Number: B2N9CL10050 FCC Type Accepted: Parts 21 and 94 FCC Emission Designator: 33800F9

TRANSMITTER

Power Output:

Minimum: 40mW (+16dBm)
Typical: 65mW (+18dBm)
Maximum: 100mW (+20dBm)

Frequency Stability: Better than ± 0.03% of carrier frequency (-30° to 55°C)

Auto temperature Controlled source

RECEIVER

Type: Superheterodyne
IF Bandwidth: 33 MHz
Threshold: -85 dBm
Noise Figure: 12dB nominal

POWER REQUIREMENTS

Power Consumption: Nominal @ 25°C (77°F)

Power on - 100 Watts Operating - 75 Watts

Input Voltage: 120/240VAC 50/60Hz Input to

24VAC remote transformer (supplied)

Optional: AC/DC Power Supply

MECHANICAL

Diameter: 19 inch (48.26cm)
Depth: 16.25 inch (41.27cm)

Weight: 25 lbs (11kg) per antenna assembly Material: White, all-weather aluminum coated

to MIL C/5541

Shielding: Built-in conducted and radiated RFI

shielding

Mounting Type: Universal hardware for mounting to

3" (7.6cm) to 4.5" (11.5cm) O.D. vertical pipe (±10%)

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)



Manufactured in the USA by RAYMAR-TELENETICS

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AUDIO SUB-CHANNEL INTERFACE

Audio Bandwidth: Model 8505: 15KHz Model 8525: 3KHz

Input Impedance: 600 ohms
Output Impedance: 600 ohms
Input Level: 0dBm
Output Level: 0dBm

Connection: Screw terminal

RS232 SUB-CHANNEL INTERFACE

Data Rate: Up to 19.2 Kbps asynchronous

Connection: 25 pin D Sub miniature

RS422 SUB-CHANNEL INTERFACE

Data Rate: Up to 19.2 Kbps Connection: Screw terminal

ALARMS

Loss of RF AlarmLoss of Subcarrier

INTERFACE

Video: BNC-75 ohm (coax)
Audio: Screw terminal connection
Data: Screw terminal connection

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" (43cm) shrouded
 38dBi
 1.7°

 27" (69cm) shrouded
 42dBi
 1.3°

 48" (122cm) non-shrouded
 46dBi
 0.7°

Polarization: Vertical or horizontal

Alignment: Includes coarse & fine elevation & azimuth adjust

Radome: Standard with 17" and 27"



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.