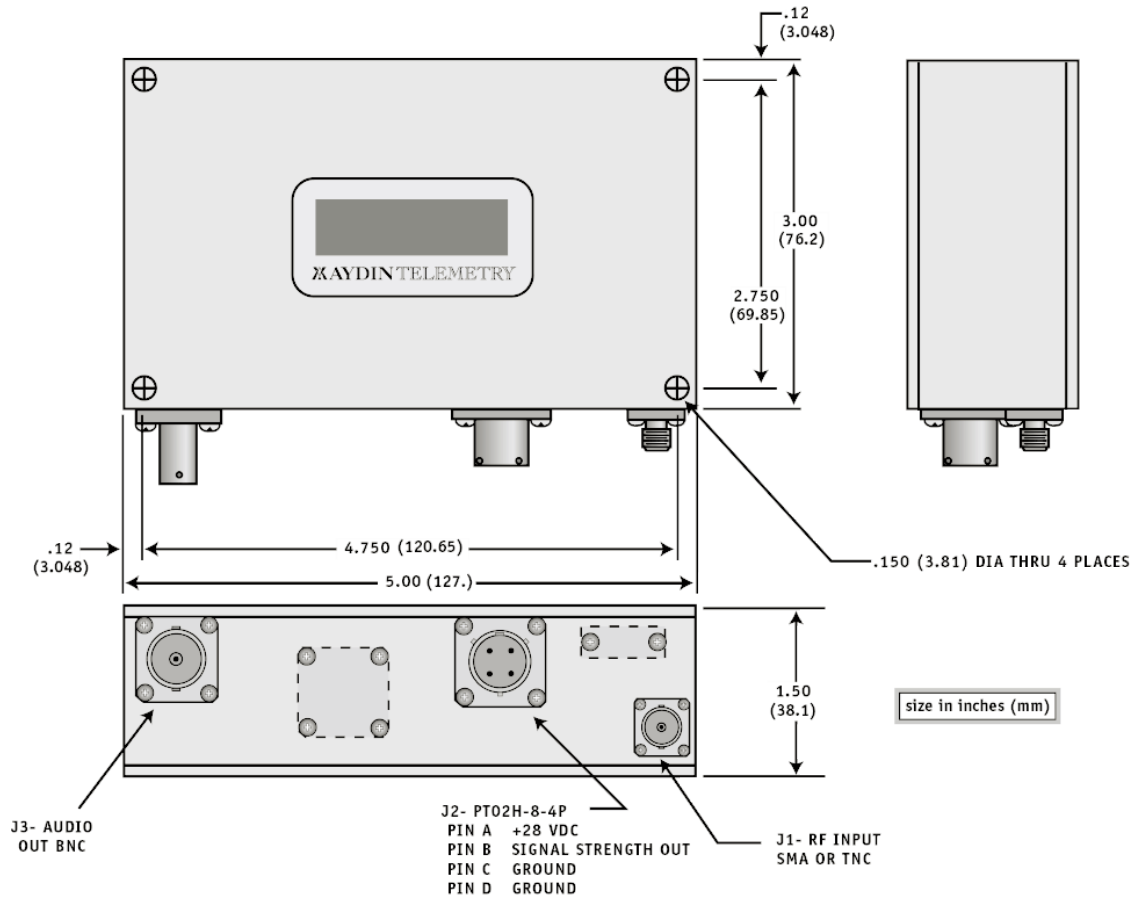


RCC-100 Series

VHF/UHF Command Control Receiver



FEATURES

- Extensive Use of Integrated Circuits
- Minimum Size and Weight
- ±0.005% Frequency Stability
- High Sensitivity

DESCRIPTIONS

The AYDIN TELEMETRY RCC-100 Series VHF Command Control Receivers are solid state FM receivers designed for operation in aerospace environments where size, weight, and power consumption are critical. These units incorporate the most advanced design techniques which rely heavily on the use of integrated circuit technology to enhance the overall performance.

The standard RCC-100 Series receiver performance specifications meet the requirements of the majority of telemetry and command control applications. Numerous modifications may be accommodated and additional features incorporated to meet specific customer requirements.

RCC-100 Series

ELECTRICAL SPECIFICATIONS

INPUT

Frequency Range: RCC-101 200-300 MHz
RCC-102 300-400 MHz
RCC-103 400-550 MHz

Frequency Stability: $\pm 0.005\%$

Input Impedance: 50 ohms nominal

Pre-detect IF BW:

	—3 dB	—60 dB
Dash —1	200KHz	800KHz
—2	400KHz	1600KHz
—3	600KHz	2400KHz
—4	800KHz	3600KHz
—5	1200KHz	4800KHz
—6	2400KHz	9600KHz

(Other Bandwidths Optional)

Sensitivity:

The following levels will produce an output signal to noise ratio of 20 dB min. for a peak deviation of 1/4 IF BW using an external low pass filter at the audio output with a cutoff frequency of 1/4 IF BW.

	<u>RCC-101</u>	<u>RCC-102</u>	<u>RCC-103</u>
Dash —1	-96 dBm	-95 dBm	-94 dBm
—2	-93 dBm	-92 dBm	-91 dBm
—3	-91 dBm	-90 dBm	-89 dBm
—4	-90 dBm	-89 dBm	-88 dBm
—5	-88 dBm	-87 dBm	-86 dBm
—6	-85 dBm	-84 dBm	-83 dBm

VSWR: 2.1 Maximum

Noise Figure: RCC-101 4 dB max
RCC-102 5 dB max
RCC-103 6 dB max

Image Rejection: 60 dB Minimum

Spurious Response Rejection: 60 dB Minimum

Maximum Signal Input: 2 V rms

Dynamic Range: 80 dB Minimum

OUTPUT

Audio Sensitivity: 0.01 V peak/kHz deviation,
4.0 Vp-p max
(option: adjustable sensitivity)

Audio Output Load: 600 ohms nominal

Audio Response: ± 1.5 dB, 100 Hz to 1/4
Predetect IF Bandwidth, min.

ELECTRICAL SPECIFICATIONS (cont.)

OUTPUT (CONT.)

Distortion: 2% max, p-p deviation of 1/4
Pre-detect IF BW

Signal Strength: 0 to 4 Vdc nominal into 10 K
ohm load

POWER

Input Voltage: 24-36 Vdc, reverse polarity
protected

Input Current: 600 mA Maximum

Power/Signal Return: Common to chassis

Overvoltage Protection: +40 Vdc

Reverse Polarity Protection: Yes

ENVIRONMENTAL SPECIFICATIONS

All performance specifications will be met under the following conditions:

Temperature: -40°C to +70°C

Vibration: Sine: 20g, 20 Hz to 2,000 Hz,
3 axis

Shock: 50g peak, 11msec, 3 axis

Acceleration: 100g, 3 axis

Altitude: Unlimited

Relative Humidity: 95% RH

MECHANICAL SPECIFICATIONS

Dimensions: See outline Dwg.

Mounting: #6-32 screw, 4 corners

Weight: 18 ounces/0.5103 kg max

Connectors: PT02-H*-4P

RF Input: TNC 7/16-28 THD, mates
with GRFF 4000-0009

QUALITY CONTROL AND PRODUCT ASSURANCE

The AYDIN TELEMETRY RCC-100 Series Command Control Receivers are manufactured under strict Quality Control procedures in accordance with the requirements of ISO-9001 and MIL-Q-9858A.

Specifications subject to change without notice.

AYDIN TELEMETRY

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