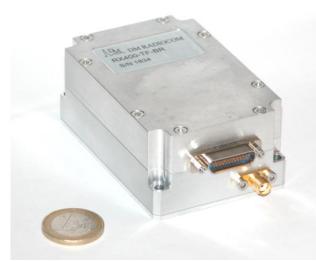


FLIGHT TERMINATION RECEIVER / DECODER Ref <u>RX400-TF-BR</u>



Release .1

The RX400-TF-BR is a miniature state-of-the-art Flight Termination Receiver/Decoder. Its small size (10.0 cubic inches) and light weight are consistent with the requirements of today's missile programs requiring smaller and lighter-weight components. This is accomplished by use of modern hybrid technology and packaging techniques while retaining the highly reliable functional and environmental integrity of previous designs.

KEY FEATURES

•Small Size & Weight.

- Up to 6 Channels Command Logic. (factory setting)
- •RCC-319-92 Compliant(3 Channels).
- •RCC-208-85 Compliant(6 Channels).
- •No Failsafe operation.
- •Ideally suited for missile programs.

•Heritage receiver/decoder on european missile programs.

COMMAND SEQUENCE

Sequence	Tones ON	Command Output
Tone C ON	С	Monitor
Tone B ON	B,C	Monitor, Optional
Tone A ON	<i>A,B,C</i>	Monitor, Optional, Arm
Tone B OFF	A,C	Monitor, Arm
Tone C OFF	A	Arm
Tone B ON	A,B	Arm, Terminate

Tones selected: A=1 (7500 Hz), B=2 (8460 Hz) and C=5 (12140 Hz).

Other combinations of IRIG tone channels are also available for the specified command functions.

COMMAND OUTPUTS

• Output Drive Capability (28V logic level) :

• Terminate command:

0.6A max. continuous with 2V max. voltage drop, 2A max. for 10msec with 4.0V max. voltage drop. •All Other Commands:

0.6A max. continuous with 2V max. voltage drop. •Max Leakage Current:

50µA(all command outputs).

SPECIFICATIONS

•Receiver / Command Decoder.

- Frequency: UHF (factory setting TBD at PO level).
- •Operating Temperature: -40°C to +71°C.
- •Accuracy: ±0.005%.

•Input Impedance: 50 Ohms nominal with a max. VSWR of 2:1.

•Dynamic Range: -105 to +13 dBm.

• Typical Threshold Sensitivity: -110 dBm with standard modulation of ±30 kHz per tone.

Modulation: demodulates up to 3 simultaneous tones at 30kHz nominal peak frequency deviation.
Operating Bandwidth: ±45 kHz.

•IF Bandwidth: 180 kHz for the 3 dB response (±90kHz).

• Spurious Response: 50 dB over the band of 10MHz to 1.0 GHz.

• Signal Strength: 0 to 5V (from Signal Strength Return) for RF input power -95 to +13dBm. The slope is positive and does not change direction over the RF signal dynamic range. Signal strength output is paired with Signal Strength Return. Signal Strength Return should not be connected to DC Return or Case.

•Command Response Time: The response time, after application of modulation to any command output, is less than 25 ms.

•Decoder Deviation.

• Sensitivity: command outputs are obtained from carrier deviations between 27 kHz and 33 kHz peak per tone; Tone decoder threshold settings are between 10 kHz and 18 kHz peak.

• Input Voltage: all requirements are satisfied with an input voltage range of 24 to 32 Vdc.

• Input Current 150 mA maximum in standby and command mode operation (excluding sink current to loads/command outputs).

The Specifications are subjected to change without notice. Call for the latest revision.

I^D_M

• Reverse Polarity Protection: no damage or permanent deterioration of performance from indefinite application of reversed input power polarity.

POWER & CONNECTOR

M83513/04-D07N (Mate: M83513/03-D01N) 1 +28 Vdc 2 Reserved 3 DC Return 4 DC Return 5 DC Return 6 DC Return 7 Reserved 8 Terminate Command 9 Reserved 10 Optional Command 11 Reserved 12 Tone Monitor C 13 Case and Signal Ground

ENVIRONMENTAL CONDITIONS

(Qualification tests levels) • Qualification Temperature: -40°C to +71°C. • Humidity: 0 to 97%, relative. • Shock: 20 g's half-sine, 11 mS; 80 g's. half-sine, 0.5mS. • Random Vibration: 12 g's rms, 3 axes.

DIMENSIONS

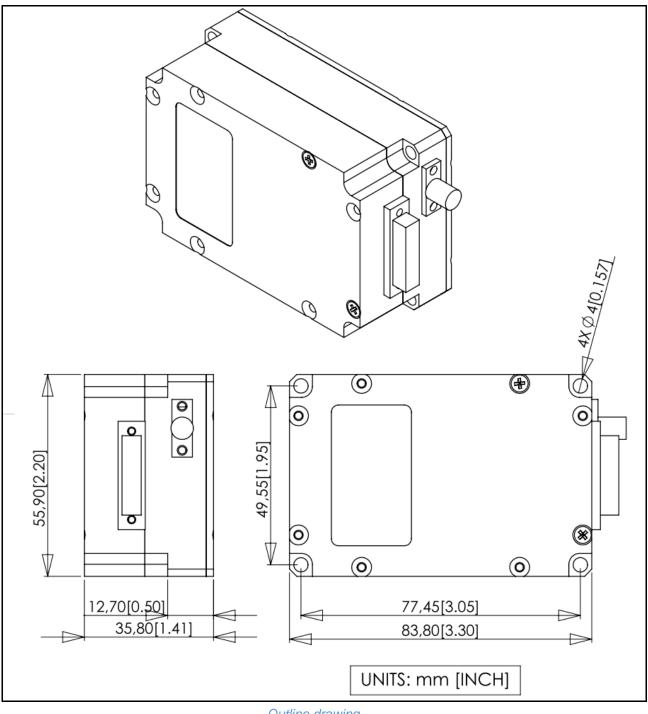
Dimensions: see outline drawing. Weight: 9.4 ounces (264g) 14 +28Vdc
15 Reserved
16 Tone Monitor B
17 Tone Monitor A
18 DC Return
19 Reserved
20 Terminate Command
21 Reserved
22 Monitor Command
23 Arm Command
24 Signal Strength
25 Signal Strength Return

ISOLATION

- between Case and DC return: > 1Mohms
- between Case and Command outputs: > 1Mohms
- between Case and Signal Strength: > 1Mohms

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Outline drawing

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