

Flight Termination Receiver/Decoder Model HFTR130-1

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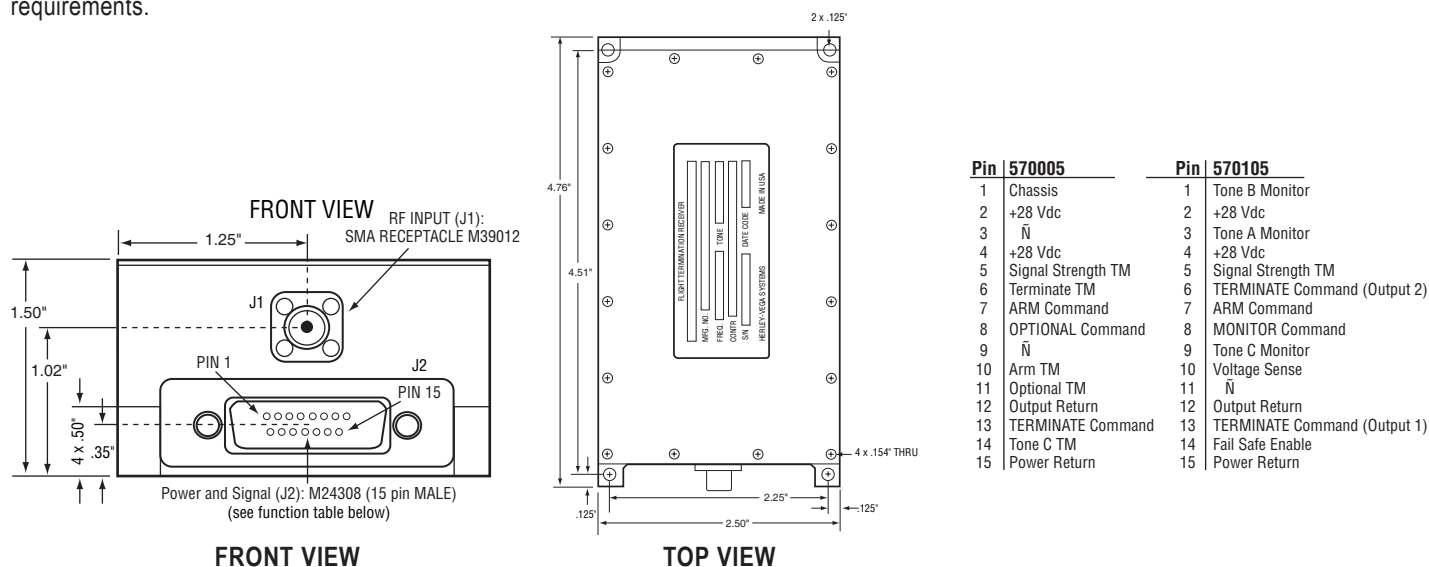


FEATURES:

- Covers full 406 to 450 MHz band.
- 3 Decoder Channels.
- All solid-state design.
- Over 3 Amp dc, 10 Amp pulsed output current capability.
- High sensitivity receiver.
- Small, less than 17 cubic inches
- Lightweight, less than 17 ounces (482 grms).
- No RF/IF tuning elements.
- Standard range safety logic.
- Reverse polarity power protection.

The HFTR130-1 Flight Termination Receiver/Decoder is a three (3) channel unit designed for missile and target applications. This unit is compact, and desirable for usage where size and weight are important considerations. The HFTR130-1 is a single-conversion receiver, with phase-locked loop tone decoders and advanced phase lock loop local oscillator. It is designed to the requirements of both RCC313-94 and RCC319-92 documents.

The design of the HFTR130-1 employs the latest in devices, circuitry, and modern production processes to provide a reliable product with extremely long operating life. This unit is intended for programs and applications with stringent environmental, EMI, and reliability requirements.



Typical Outline - does not show all features - not to be used for generation of control drawings. For detailed outline drawing of a specific part number please contact Herley Industries, Inc.

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Flight Termination, Receiver/Decoder - *Model HFTR130-1*

Versions: This product is available in several versions. Call to discuss other variations, or your particular requirements.

Product Numbers:

X: Tone Combinations, Y: Frequency, (see table below).

P/N 570005-XYZ JSOW Configuration

P/N 570105-XYZ AMRAAM Configuration.

ELECTRICAL

FREQUENCY RANGE: 406 to 450 MHz
(factory preset to customer specified frequency, 425 MHz standard)

IMPEDANCE: 50 ohms nominal

VSWR: Less than 2:1

REVERSE POLARITY PROTECTION: Built-in

INPUT VOLTAGE: +22 to +36 Vdc

INPUT CURRENT: 210 mA max. at 22 Vdc, 140 mA max. at 36 Vdc

OUTPUT CURRENTS:
ARM, MONITOR, OPTIONAL: 1 Amp dc, 5 Amp 10 msec pulse;
TERMINATE: 3 Amp dc, 10 Amp 10 msec pulse

OUTPUT LEAKAGE CURRENT: 50 microAmps maximum

RFI/EMI: Meets MIL-STD-461C for antenna, power and signal leads for category A1a receivers. Tests, CE03, CE06, CE07, CS01, CS02, CS03, CS04, CS05, CS06, RE02, RS02, and RS03

PHYSICAL

SIZE: 4.7 x 2.5 x 1.5 inches (11.9 x 6.4 x 3.8 cms), less connectors

VOLUME: 17 cubic inches

WEIGHT: 17 ounces (482 grms) maximum

ANTENNA CONNECTOR (J1): RF input SMA, MIL-C-39012

POWER AND SIGNAL CONNECTOR (J2): 15-pin Male, D-shell, MIL-C-24308

ENVIRONMENTAL

VIBRATION RANDOM: 0.1 g²/Hz (12 g's rms) standard

TEMPERATURE, OPERATING: -40°C to +71°C standard

TEMPERATURE, STORAGE: -62°C to +95°C

SHOCK: 100 g's, 11 msec, and 1100g, 0.5 msec, half-sine

ALTITUDE: Unlimited

HUMIDITY: 95%

ACCELERATION: 100 g's

RECEIVER

DESIGN: Single conversion superheterodyne

SENSITIVITY: 1 μ V (-107 dBm)

FREQUENCY BAND: 406 to 450 MHz

FREQUENCY TUNING: Synthesized local oscillator settable in 0.5 MHz steps

FREQUENCY STABILITY: 0.0025%

TUNING ACCURACY: 0.005%

DYNAMIC RANGE: -107 dBm to +13 dBm

OPERATING BANDWIDTH: \pm 45 kHz minimum

IF BANDWIDTH: 3 dB @ \pm 90 kHz minimum

SELECTIVITY: 60 dB @ \pm 180 kHz maximum

IMAGE REJECTION: Greater than 60 dB

RESPONSE TIME: 15 msec. nominal, 25 msec maximum

CAPTURE RATIO: Less than 0.8

AM REJECTION: 100%

FREQUENCY DEVIATION: \pm 30 kHz per tone, nominal

TELEMETRY OUTPUTS: Signal strength, tone monitors

COMMAND OUTPUTS: 4 solid-state outputs

DECODER

NUMBER OF CHANNELS: 3

SIMULTANEOUS USABLE TONES: 3

TONE CHANNEL BANDWIDTH: \pm 1% minimum at 2 dB

ADJACENT CHANNEL REJECTION: Greater than 40 dB

DECODER THRESHOLD DEVIATION: \pm 14 kHz, nominal

OPTIONS

OPERATING TEMPERATURE TO -54°C AND +95°C

VIBRATION TO 32 g's RMS WITH VARIOUS G²/HZ PROFILES

LOSS OF TONE A AND/OR VOLTAGE FAILSAFE

AUDIO OUTPUT

RELAY OUTPUTS

POWER AND/OR SIGNAL RETURNS ISOLATED FROM CHASSIS

PART NUMBER DEFINITIONS:

X (TONES)	Y FREQUENCY (MHZ)
1 - 1-2-5	A - 406.5
2 - 1-2-4	B - 409
3 - 1-2-3	C - 412
4 - 3-7-6	D - 416.5
5 - 4-9-8	E - 421
6 - 1-2-6	F - 423
7 - 1-2-7	G - 424
8 - 1-8-9	H - 425
9 - 1-4-5	J - 426
	K - 428

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