

WV Communications

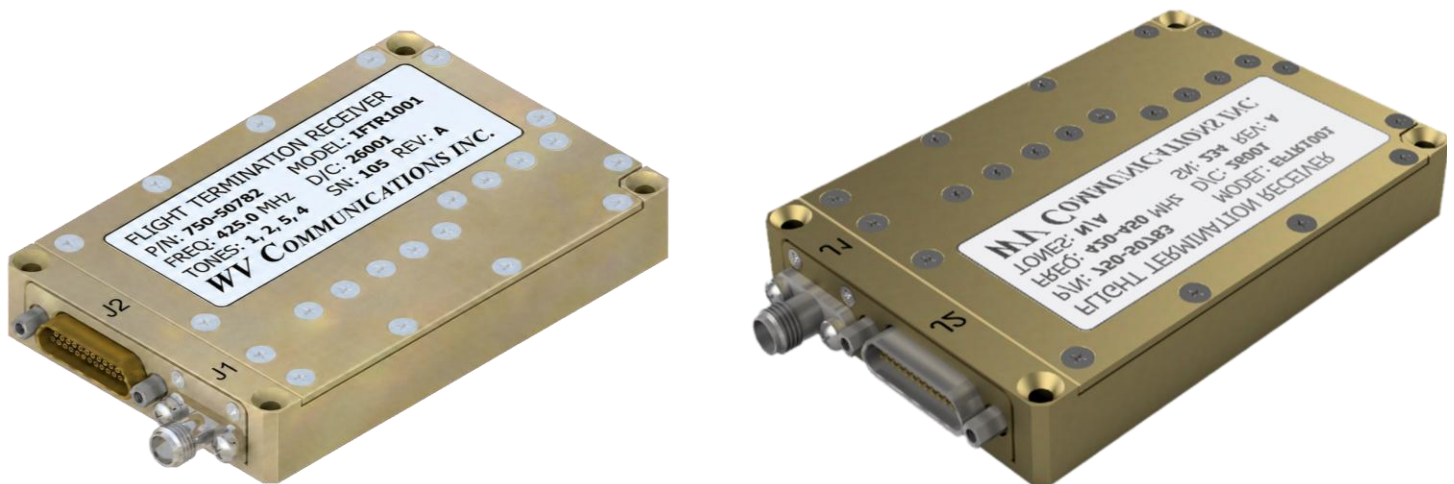


Airborne Flight Termination Receivers

WV Communications has developed IRIG & EFTS airborne flight termination receivers that are compliant to RCC 319-25 and RCC 313-01.

The Model IFTR1001 is an IRIG flight termination receiver that has a frequency range of 420 to 450MHz, a dynamic range of +13 to -107dBm and a sensitivity of -116 to -107dBm. The unit can be programmed with any of the 20 IRIG tones and can be configured with no failsafe, standard failsafe or commanded failsafe.

The Model EFTR1001 is an EFTS flight termination receiver also has a frequency range of 420 to 450MHz, tunable in 100kHz steps. The receiver supports data transfer with Triple Data Encryption Standard (DES) for secure data handling. The unit uses Reed-Solomon FED to recover corrupted telemetry frames over degraded RF links. The Model EFTR1001 also includes Non-Volatile Storage for up to 32 different User Configurations for retention through power cycles.



The Model IFTR1001 and EFTR1001 airborne flight termination receivers operate on a nominal voltage of 22 to 36VDC, drawing approximately 3W of power. The units can operate in a temperature range of -40°C to +85°C. At 3.30-inches long, 2.20-inches wide and 0.50-inches high, and weighing less than 5 ounces, these units can be easily integrated in any platform.

Refer to the unit specifications on the back of this brochure or consult the factory for additional information.

IFTR1001 TECHNICAL SPECIFICATIONS:**RF CHARACTERISTICS:**

FREQUENCY RANGE: 420-450MHz
TUNING ACCURACY: 5 ppm
DEVIATION: 30kHz per tone
INPUT IMPEDANCE: 50Ω Nominal
OUTPUT VSWR: < 2:1
SENSITIVITY: -116 to -107 dBm
DYNAMIC RANGE: -107dBm to +13dBm
REJECTION: > 60dB
TONE DETECTION DURATION: 4-25ms

DC CHARACTERISTICS/PROTECTION:

INPUT VOLTAGE: Nominal +22Vdc to +36Vdc
REVERSE VOLTAGE PROTECTION: +45Vdc
INPUT POWER: 3W Typical

COMMAND OUTPUTS:

MONITOR, OPTIONAL,
& ARM TERMINATE: 2A Each
TERMINATE PULSED: 7.5A for 50ms @ Input Voltage

ENVIRONMENTAL SPECIFICATIONS:

OPERATING TEMPERATURE: -40°C to +85°C

PHYSICAL SPECIFICATIONS:

DIMENSIONS: 3.30 X 2.20 X .50 inches
WEIGHT: 5 ounces maximum
RF INPUT (J1): M39012/60-4002 (per MIL-PRF-39012/60D)
25-PIN I/O (J2): M83513/04-D06C (per MIL-DTL-83513/4K)

GENERAL:

COMPLIANCE: COMPLIES WITH RCC 319-25 AND RCC 313-01
FAILSAFE: No failsafe, standard failsafe, or commanded failsafe
PROGRAMMABLE IRIG TONES: 1-20
NUMBER OF TIME DECODERS: 3 (no Tone D) or 4 (Tone D).

EFTR1001 TECHNICAL SPECIFICATIONS:**KEY FEATURES:**

- Supports data transfer with Triple Data Encryption Standard (TDES) for secure data handling.
- Uses Reed-Solomon FEC to recover corrupted telemetry frames over degraded RF links.
- Includes Non-Volatile Storage for up to 32 different User Configurations for retention through power cycles.

RF CHARACTERISTICS:

FREQUENCY RANGE: 420-450MHz (User selectable)
FREQUENCY STEP: 100kHz
TUNING ACCURACY: 5 ppm
INPUT IMPEDANCE: 50Ω Nominal
OUTPUT VSWR: < 2:1
SENSITIVITY: -116 to -107 dBm
DYNAMIC RANGE: -107dBm to +13dBm
IMAGE REJECTION: > 60dB

DECODING CHARACTERISTICS:

FM DEMODULATION: CP-FSK, Bi-Φ Manchester encoded
DATA RATE: 7200 bits/sec (20 ms per 144-bit frame)
ACQUISITION TIME: 60 ms

OUTPUT FUNCTIONS:

CONFIGURATION STATUS AND
USER DEFINED OUTPUTS: via serial RS-232

COMMAND OUTPUTS:

ARM, MONITOR,
OPTIONAL, TERMINATE: 2A Each
TERMINATE PULSED: 7.5A for 50ms

DC CHARACTERISTICS/PROTECTION:

INPUT VOLTAGE: Nominal +22Vdc to +36Vdc
REVERSE VOLTAGE PROTECTION: +45Vdc
INPUT POWER: 3W Typical

ENVIRONMENTAL SPECIFICATIONS:

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25-PIN I/O (J2): M83513/04-D06C (per MIL-DTL-83513/4K)
9-PIN KEY LOAD (J3): M32139/04-A02TNS (per MIL-DTL-32139/4B)

GENERAL:

COMPLIANCE: COMPLIES WITH RCC 319-25 AND RCC 313-01