

BLOCK DIAGRAM

This document contains UHF radio transmit module description and its block diagram

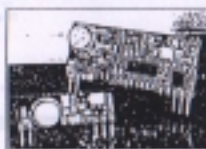
Figure 6. 4th September 1998.

TIME LWP

UHF Radio Telemetry Transceivers Module

UK version:	TEM-418-A/TEM-418-F
Spain version:	TEM-419-A/TEM-419-F

The F134-438-2 and F134-433-2 designs are low power, 100 MHz radio transmitters on a small module. Together with the matching 300W-F134-0 or 300W-F134-2 receiver, a one-way radio data link can be established over a distance up to 100 miles on open ground.



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- PCB mounting, space saving SMD style
- SMD conformal wave band PM illumination
- Low cost, ESD, IR type approved to ISO 9001 specifications IEC 1200
- High data rates, 10Mbps and 10Mbps + F version
- Analog or Digital data burst
- Wide supply range 3.0V to 5.0V

The transmitter modules are most commonly employed in Wireless Security systems. The transmitter is approved to EN50102 specification (ENF 1000) thus enabling the user to submit the finished product for further approvals. The Z80-428-A receiver provides all the outputs necessary to satisfy the requirements of a class-1, 900MHz wireless alarm system. The Z80-428-A is a lower cost receiver ideal for battery powered and hard applications.

The modules are also suitable for general purpose laboratory work and where their small size and high data rates may be used in submerses.

Treated configurations include:

- Scientific and commercial security
- Good point of view on worker protection
- Medical Alert / Phone Call systems
- Kidnap panic attack
- Computer not working
- Search industrial process monitoring
- Data transfer through hazardous environments
- Lighting control, Storage door systems
- Fire alarm
- Picture / video protection, alarm
- Remote medical, Access control

The half dozen...

The T384-4 is designed to work with the matching antenna (J2122-413). With the addition of simple antennas the gain may be used to broaden the data rate to 1000s. The range of the radio link is very variable and depends upon many factors, principally, the type of antenna employed and the operating environment. The 1000s quoted range is a reliable operating distance over open ground using 10W white noise, at both ends of the link at the above ground, flatwater antenna, horizontally or vertically to a building etc. It will reflect the reliable working range down to 20m in each case, in a typical situation today, with the 10W power output antennas will increase the range ten fold in 20m, it is assumed that the module radiations 10, 5W, 0.5W, 0.1W, can be used to increase the reliable working range under the sufficient conditions of use.

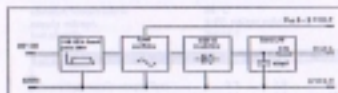


Figure 1: FCM's block diagram

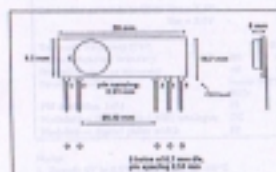


Figure 2: mechanical differences

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|-------|---------|--|
| pin 1 | HF Q103 | This pin should be connected to the ground plane exposed, which the integral antenna induces. It is internally connected to pin 4. |
| pin 2 | HF Q102 | Depends on the integral antenna. Output impedance is 50Ω. |
| pin 3 | Vcc | Positive supply...supply voltage less +0V to -0V may be used. |
| pin 4 | GND | RF connection for the modulation and supply. |
| pin 5 | EN15 IN | Should be driven directly by a CMOS logic device running on the same supply voltage as the module. |