

TXS-700-2 Home Arrest Tag **Operational Description**

The TXS-700-2 Home Arrest Tag is a small unit worn by a monitored offender either on his wrist or on his ankle.

The home arrest Tag is a battery-operated unit. The tag comprises one Printed Circuit Board (PCB) which includes a RF transmitter module with an integral antenna, and a microcontroller, which controls its operation.

The TXS-700-2 has one RF channel. It is 433.92 MHz carrier with FSK modulated data.

The Tag is turned on and off by a probation officer, using an electronic key which is temporarily attached to the tag strap's pins.

While turned-on the Tag transmits a 5mSec identification & status signal and then it stops transmission. As a public life safety equipment the Tag transmits the next signal 18-22 seconds after the last signal transmission – any interruption in the reception of the transmitted signal (which might indicate an escaped offender) may put public life at risk – the central monitoring system sends an immediate alert to the probation officer or to the sheriff in-charge, which should take immediate actions to ensure public safety.

Compliance with FCC 15.231(a)

Section 15.231(a) (1) is not relevant since it deals with manually operated transmitters.

As per section 15.231(a) (2) *“A transmitter activated automatically shall cease transmission within 5 seconds after activation”* - TXS-700-2 ceases transmission about 5 milliseconds after activation, therefore it meets the requirements of this paragraph.

As per section 15.231(a)(3) *“Periodic transmissions at regular predetermined intervals are not permitted”* – TXS-700-2 does not transmit at regular predetermined intervals.

As per section 15.231(a)(4) *“Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition”* – TXS-700-2 is a safety of life intentional radiator, public life might be in danger when an offender escapes home arrest, therefore the transmitter re-starts a signal transmission 18-22 seconds after the last signal transmission (and stops after 5 milliseconds).