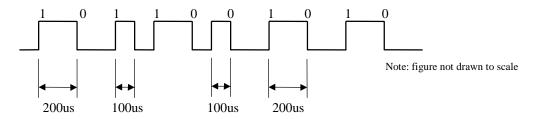


eng/vol1/wireless/gendocs/protocol/RF_5kbps_tx_info.doc

General RF Alarm Devices Information for 5kbps

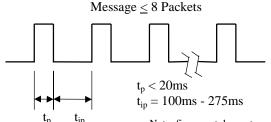
1. Data Modulation

The data is modulated using the Manchester on/off keyed encoding scheme with 50% duty cycle shown below. The on-air format is defined with a '1' bit which is carrier turning on at the bit center and a '0' bit which is carrier turning off at the bit center.



2. Message, Packet and Inter-Packet

A packet consists of all on-air bits that are transmitted to provide the system with the current status of a transmitter. A single message is composed of up to 8 packets of the same data. The time between packets is defined as a pseudo-random time length between 100 milliseconds and 275 milliseconds.



Note: figure not drawn to scale

Note:

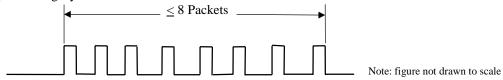
Packet width of \leq 20ms with 50% duty cycle Manchester modulation makes the on-air time \leq 10ms. Therefore, no transmission has more than 10ms of on time out of 100ms.

3. Transmission

A message will be transmitted when a control signal has changed, a system integrity test takes place or the supervisory time has expired.

Control Signal / Recognition Code

A single message, of up to 8 packets, will be transmitted when the control signal changes in a transmitter or a repeater. Up to 8 packets of recognition code will also be transmitted by the repeaters to ensure system integrity.



Supervisory

To verify system integrity, the state of the inputs will be transmitted periodically. These transmissions consist of not more than 4 packets and will occur not less than every 60 minutes.

