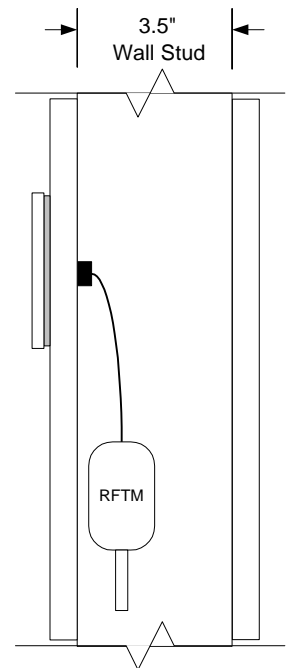


RF Technical Bulletin – RFTM

Location of RFTM module and proximity of the antenna to various surfaces has proven to be challenging at some installations. The discovery of this installation issue has come from job sites where the products performance was good when tested outside the wall plate. Then, when placed inside a wall, system performance was not adequate. This can also be seen where the RFTM module is laid on a bench surface or if you grab the antenna with your hand.

De-Tuning of the antenna: while the RFTM provides great performance range, if it is located where the antenna is within 1 inch of any surface, it may become de-tuned, limiting its operating range. The range will also be affected by placement near any wires (especially line voltage) that may be inside a wall. This “de-tuning” only happens while the antenna is near the unexpected nearby material, removing the material or placing the RFTM in a better location, returns the RFTM to proper operation.

This section drawing shows an RFTM in a wall between the Dry Wall. The distance the RFTM hangs down behind an RF Key Pad is adjustable. This adjustment can be made when installing into the wall. The length of the cable can be up to 100 feet, making an installation very flexible.



- *RULES of THUMB*: When laying out a project, using a wired Key Pad will always deliver the best results. Also, components will cost less and generally operate without interference.
- RFTM is also used in wireless installations of the R2D7 – be sure when completing a wireless RS232 installation you locate the antenna in a vertical orientation. Be sure that the antenna is not touching anything. Do not lay the RFTM on a shelf or any horizontal orientation.
- For best performance, the antenna of the transmitter should be parallel to the antenna of the receiver. Operation will be poor when the antennas “point” at each other.



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Scale:	none