

# AN-119: MAX Range Series FAQ



The MAX Range Series of products from Tehama Wireless provides a very long radio range solution to the submetering market. Having this additional product line provides significant benefits, especially when repeater installation is troublesome. The following list of frequently asked questions (FAQ) to explain how this new product line works.

## **Q: What is the key benefit to the MAX Range products?**

**A:** Longer RF range. Much longer. Open field radio range of a MAX MDT to MAX Repeater has been verified at over 10 miles, which is more than five times the range of our Standard range MDTs. The obvious benefit is that you will need far fewer Repeaters, just two should cover a typical 200 unit property. For smaller multifamily and commercial properties, Repeaters may not even be needed as the MDTs can link directly to the DCAP.

## **Q: What are the similarities of a MAX system compared to our Standard range system?**

**A:** Except for the range, the system is identical to our existing product. It still uses the 900 MHz ISM band so no FCC license is needed. MDTs still communicate through Repeaters or directly to the DCAP like before.

Installation is the same, MDTs are the same familiar size and shape, and the CIT and our new Smartphone App are used exactly the same. Like with our Standard range series, there are various MDT models to choose including single and dual pulse inputs, single and dual Encoded inputs, Run Time, Time of Use options, etc.

## **Q: Can I use MAX MDTs or Repeaters at an existing site that uses our Standard range products?**

**A:** No. The Standard and MAX systems are NOT compatible with each other and cannot be mixed into the same AMR system.

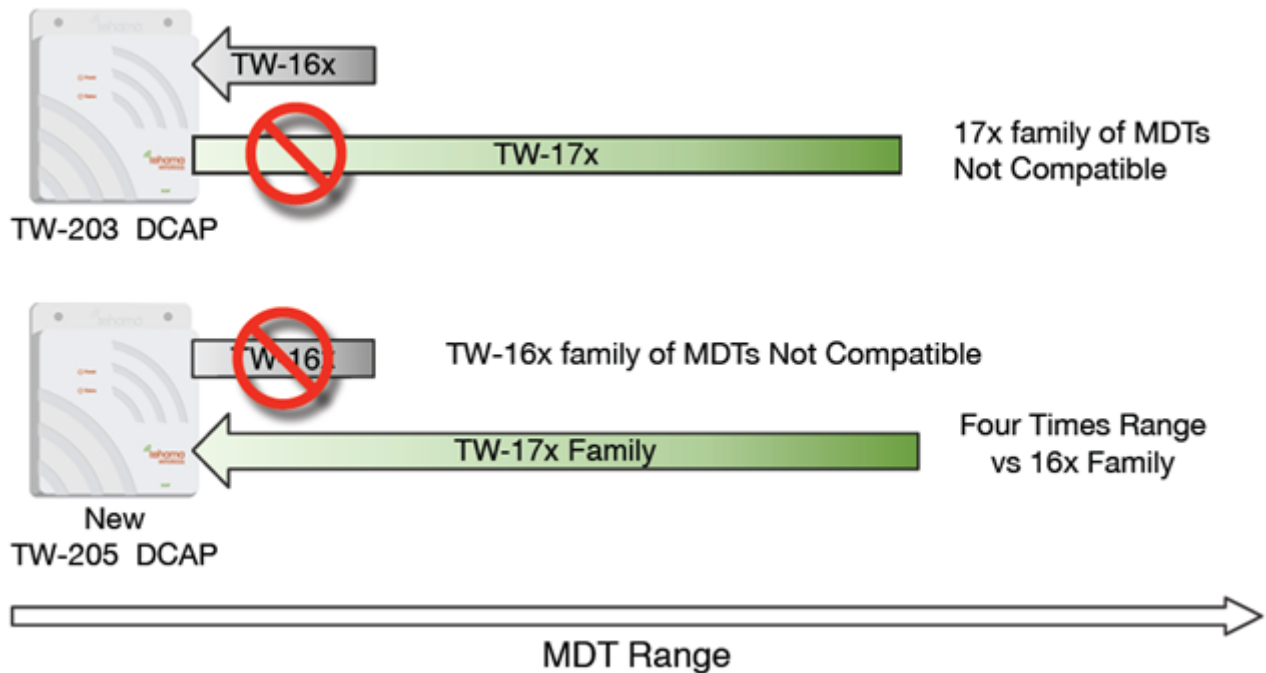
## **Q: Does this mean there are specific MAX Repeaters and a MAX DCAP to go along with the MAX MDTs?**

**A:** Yes, all the products of a MAX system use the different radio and not compatible with any of the Standard range products. Here are the part number differences for the two lines:

Product	Standard Range	MAX Range
DCAP Low Capacity	TW-203X-T-150	TW-205-T-150
Repeater	TW-191X	TW-195
Single Pulse MDT	TW-160B-P	TW-170B-P
Display Encoder MDT	TW-165B-E	TW-175B-E
Outsider® MDT	TW-162	TW-172
Submersible Encoder MDT	TW-167S-E	TW-177S-E

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The following graphic illustrates the compatibility and range of the two systems:



## Q: What types of MDTs models are available in the MAX system?

A: The MAX Range MDT data sheet shows the popular models available.

- Pulse input, single or dual.
- Encoded meter input (Sensus or Neptune), single or dual.
- Display MDT units with integrated LCD display showing the meter reading (California/NTEP Type Approved).
- Time of Use (ToU) interval data with data logging at 15-minute intervals synchronized to the top of the hour.

And others...

## Q: What is the battery life of a MAX MDT?

A: The same five years with two AA alkaline batteries, typical. The submersible MDT provides 10 years as it uses a larger sealed battery.

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## Q: How can I tell a MAX product from a Standard range product?

A: The part number can be used to tell them apart, as shown in the table above. The Serial numbers will also distinguish the family:

Product	Standard Range	MAX Range
DCAP	Begin with F0, F2 or F3	Begin with F4
Repeater	Begin with E0, E2 or E3	Begin with E4

Initially, MAX MDTs came in a darker grey enclosure compared with our Standard range MDTs, or they have a MAX labeling near our printed logo on the case.

## Q: How expensive is a MAX system?

A: For typical sites with hundreds of meter points, the price of an installed system with MDTs, Repeaters and the DCAP is roughly the same as a Standard range system due to the reduction of Repeaters and the labor to install them. At smaller sites a MAX system will be slightly more expensive.

## Q: Can I continue to purchase the Standard range series of products?

A: Absolutely! We have no plans to discontinue the Standard range product line. And we can *guarantee* that we can always sell products compatible with existing Standard range systems as the MAX hardware can be factory configured in the Standard range mode. Therefore, none of your sites or installations will become obsolete, like you may have experience before. The MAX line is simply an enhanced AMR system that allows you to more economically sell into mobile home parks, commercial facilities, and multifamily sites where Repeater power is expensive to add.