

## USER REPORT

# FM500: A Hot Standby Transmitter

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**ST. LOUIS** I grew up in the radio business when a 500 W FM transmitter was about the size of your average Kelvinator, and weighed twice as much, so I guess I can be forgiven for being in love with the FM500, a 500 W FM linear amplifier made by PTEK, of San Jose, Calif.

I bought my first FM500 as a backup amplifier for my FM station in Laramie, Wyo. The transmitter site is high. In fact, it is so high, the only way to get closer to God is to die. For the six to seven months a year when the site is snowbound, I needed a cheap, absolutely reliable standby transmitter that required no tuning, no air conditioning, no anything, except AC power. That perfectly describes the FM500.

This little 500 W power pack is very neat. External connections? Two N con-

The FM500 is built solidly, and I say this as someone who tried to lift it into

plugged it in. It came right up without a hiccup.



The FM500 from PTEK is a good bet for a backup transmitter.

nectors, an AC plug and a terminal strip for remote control. Plug in an antenna and a 10 W exciter (PTEK also makes one of those, but that's another article), turn on the juice, crank the front panel gain control for the RF out that you want and away you go.

the rack alone a couple of times (emphasis on *tried*). The power supply is beefy, and is well-regulated. No offense to the Wyoming Rural Electric Co-op, but their power wanders around like a lost dog. Even so, the supply voltage on the FM500 is rock-solid.

### Slow roast

Airflow is provided through a front-panel muffin fan that I like because it is easy to check. How many times have you

### Wish list

I suppose all of us have our wish lists about equipment, and I am no exception, but on the FM500, it is fairly short. A 110/220V selector would be great. The 220 was immediately available in that old transmitter, but 110 had to be rigged up. As for the front-panel meter, it should be bracketed onto the panel instead of sticky-taped on. Finally, the general fault LED is a bit ambiguous. Adding two or three more LEDs and making the fault indications more specific would be nice. But, like I said, it's a short list.

All in all, this is a nice piece of gear, and at less than \$3,500 list, almost any station can afford one as an emergency backup transmitter (coupled with an exciter, of course), or a replacement for a cantankerous IPA in an older main transmitter.

PTEK also sells a combiner; with this, two 500s can be paralleled to make 1 kW. The FM500 is small enough to be carted from site to site, for those stations that are part of a duopoly, and of course, it is broadband and needs no tuning.

Five hundred affordable, reliable watts in a very small box. As a standby, this transmitter is very hot.

For more information, contact PTEK in California at (888) 411-5174; fax (408) 448-5951 or circle Reader Service 207.

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### Fault logic

The front panel also has a multimeter, for reading forward and reflected power, as well as output stage voltage and current. Also, there are several fault lights: Underdrive, General Fault, and a remote off indicator. The fault logic cuts off the amplifier during a fault condition, so it would be hard to cook the output transistors.

The RF section is self-contained on a massive heat sink, which disconnects easily from the chassis, making for simple replacement if a failure occurs. As an engineer, I am embarrassed that I cannot recite from memory the component layout, but the truth is, in two years, the top has been off that unit exactly once, to install a factory mod.

gone around to the back of a piece of equipment, noticed the muffin fan had quit and silently wondered exactly how long that piece of gear had been slowly roasting itself to death?

While I am not exactly Victor Kiam, (who liked his shave so much he bought the company), I liked my FM500 so much that I bought a second one. This one went to one of our stations in Corpus Christi, Texas. We had an old but serviceable 10 kW transmitter, but the driver stage was shot. I called PTEK. Two days later, I plugged in an FM500 and we were back in business.

My partners were delighted, because the FM500 cost a fraction of a new (or even used) 10 kW transmitter. As a side note to this purchase, the overnight carrier that delivered the FM500 absolutely, positively dropped it — hard enough to jar the front-panel meter out of its housing and bend the chassis mounted output connector. Still, we didn't have time to ship it back, so I took my chances and

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