Subject: cone breakup cures
Posted by lon on Mon, 09 May 2005 18:38:56 GMT
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I am very pleased with a sample build I have of an MLTL(Mass Loaded Transmission Line) as given by the designerwho goes by the handle of GM. I get some cone breakup when listening to an over the airFM signal. If I change from stereo to mono the noise goesaway. What is the answer to this? The details are: FE127e in the MLTL w/no stuffing or internaldamping at all.

Subject: Re: cone breakup cures
Posted by robertG on Wed, 11 May 2005 23:13:18 GMT
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Why do you think it's cone breakup? Sounds more like a tuner problem... Do you have similar prob. with other source (CD, tape)?

Subject: Re: cone breakup cures
Posted by lon on Fri, 13 May 2005 19:08:44 GMT
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Erm, I don't think so.So you're saying ot could be the source?Never had the problem on tv. Or cd that I recall. So thatwould explain why flipping to mono cured the problem?What would cause that at a broadcast source?

Subject: Re: cone breakup cures
Posted by colinhester on Mon, 16 May 2005 12:54:42 GMT
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Do all FM stations exhibit this distortion? I was wondering if you're hearing slight multipath distortion. Does changing the position of your antenna help this problem?.....Colin

Subject: Re: cone breakup cures
Posted by lon on Mon, 16 May 2005 13:00:36 GMT
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It's a mystery. My antenna is a straight wire, shielded and indoors.So antenna tuning is not an option. :-/

Subject: Re: cone breakup cures
Posted by colinhester on Mon, 16 May 2005 13:24:25 GMT
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Does this happen on all stations? What tuner are you using?.....Colin

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Subject: Re: cone breakup cures
Posted by GM on Mon, 16 May 2005 14:14:00 GMT
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Greets!Apparently you can tune a straight wire antenna by adding resistance. Playing around one day I found that terminating a piece of coax I'm using as a TV antenna with a 75 ohm load and then adding R to suit helped quite a bit. I'm sure there's formulas to calc the required resistance for each frequency or BW, but I don't know them. FWIW, 5m ohms works for most of my local TV stations, though I have to fine tune it by moving the coax around since horizontal/vertical orientation affects it. With the other stations, just attaching the 75 ohm termination to a good ground is sufficient.Attaching the shield at the open end to a good ground helps too, or at least it does with my TV. I couldn't tell any difference when I had it attached at the TV's input, but haven't delved into why it would make any difference since the antenna is only ~6.6ft long. Mine is a huge old metal drafting table/desk 'L' unit, but you can just run a 10 ga solid copper wire from an outdoor grounding rod or in-door cold water pipe. After seeing how superior an OTA HD TV broadcast is compared to what the local satellite or cable service offers, I think it's time I learned about antenna design..... HTH, GM
