

First i would like to thank Rich Melitz for his comment (#73) on cleaning up EIT measurement, it looks like a real plus.

The proposed response in the data base does not directly address the requested change. The comment does not address what interference signal to use and a swept sinusoid is not appropriate for 20 minute long test, unless we can find satisfactory way of sweeping, and specifying the sweep, it during the 20 minute test. Perhaps some broad band interfering signal could be used but we would have to figure out how to specify it.

The proposed response is a compromise between the existing specification and what the comment asks for: measure BER_m for only the EIT voltage at each frequency and base the pass or fail on whether BER_m is less than BER_s .

At the same time the proposed response addresses an issue not directly covered in the comment: a requirement that all measurements meet some BER specification can only be met if the actual BER is considerably better than the value specified, and the margin will depend on how the measurement is made. For instance, if BER is measured over some time interval which should produce 1 error at the specified BER, and the actual BER is 10x better than the desired value, about 1 of every 100 measurements will show 2 errors and be out of spec. If the time interval is increased until 10 errors are expected, about 1 of every 100 measurements will show 11 or more errors and be out of spec if the actual BER is 2.2x better than the desired value. This will discourage testers from testing a large number of points and make the significance of measurements depend on the time interval used.

Taking the average BER for a large number of measurements, as the proposed response specifies, effectively improves the accuracy of the measurements and does not penalize the tester who uses many points. This is valid if interference at all frequencies cause the same amount of stress. If some range of frequencies cause significantly more stress than average there more of the BER measurements will be out of spec in that range and the, "no more than 2 adjacent measurements" part of the spec will come into play and reject the part.