

## Notes from the July 12 Teleconference of P1696, SCOPS

### Attending:

Bob Graham  
Mike McTigue  
Bill Hagerup  
Larry Jacobs  
Nick Paulter  
Travis Ellis

Nick started by suggesting we move forward by first identifying performance parameters, then develop one or more test methods, and finally generate supplementary documentation. There was general agreement that this would be a good way to proceed.

Next we discussed Mike's 061219 paper "Design Considerations for a High Frequency Probe Test Fixture" focusing on grounding considerations. Mike will expand on this paper by including a test method.

We then talked about the pros and cons of using single-ended and differential input test fixtures for calibrating differential probes. Everyone pretty much agreed that, if possible, differential-input test fixtures give the best results, but sometimes the person conducting the measurements may not be able to use this type of fixture (usually due to the availability of the proper test equipment). We should therefore include both methods (single-ended and differential) for testing differential probes. Larry volunteered to write a method for using 4-port measurement techniques to measure differential probes.

Since so much work is being done on probe impedance measurements, it was suggested that we complete this topic before moving on to the next.

### Current assignments:

Mike: Finish the paper on the physical characteristics of probe test fixtures  
Finish comparison of characterizing probes on single-ended and differential test fixtures

Bill: Develop methods using S11 and S21 for probe impedance measurements

Larry: Develop a method for characterizing differential probes using 4-port measurement techniques

Nick: Add example data to your S11 vs. S21 comparison paper

Bob: Work on getting information added to the P1696 web site.

Another teleconference was scheduled for September 5<sup>th</sup> at the same time (8:00 am Pacific; 9:00 am Mountain; 10:00 am Central; 11:00 am Eastern; 15:00 UTC)  
Phone number: (865) 297-1126, Participant Code 328765.