Appendix A. Explanation of System Check Data

Because 1640 MHz is not a commonly used frequency band, QUALCOMM's E-field dosimetric probes were not calibrated for measurements in that band. For expediency, the probe manufacturer, Schmid & Partner AG, provided modeled numerical approximations for the Conversion Factor in the 1640 MHz band for the probe used. In addition to Conversion Factor, the probe also has two parameters that affect SAR calculation that compensate for anisotropic E-field boundary effects, and are a function of the probe's physical dimensions. Per Schmid & Partner, these boundary effects parameters, Alpha and Delta, cannot be approximated when numerically approximated Conversion Factors are used, and therefore must be set to Alpha=0 and Delta=1. Because of this, the system calculated SAR, while erring on the conservative side, beyond the target value +10% limit for System Check scans as specified in the standard.

Subsequently, the probe was sent to the manufacturer for calibration, and the 1640 MHz band was added to the calibration table for the probe. Once the new calibration file was completed and obtained from Schmid & Partner, it was installed into the original System Check scan files and SAR was recalculated and shown to be well within the ±10% of target value as required. Because the physical probe was not altered since the test program was performed, the recalculated values are much more accurate than the values generated at the time of testing.

Figures A-1, A-3, A-5 and A-7 show screen shots of the System Check files using numerical approximation parameters. Figures A-2, A-4, A-6 and A-8 show screen shots of the same System Check files after installing the new probe calibration file.

Figure A-1 Screen shot of 11 July System Check file using numerically approximated probe parameters

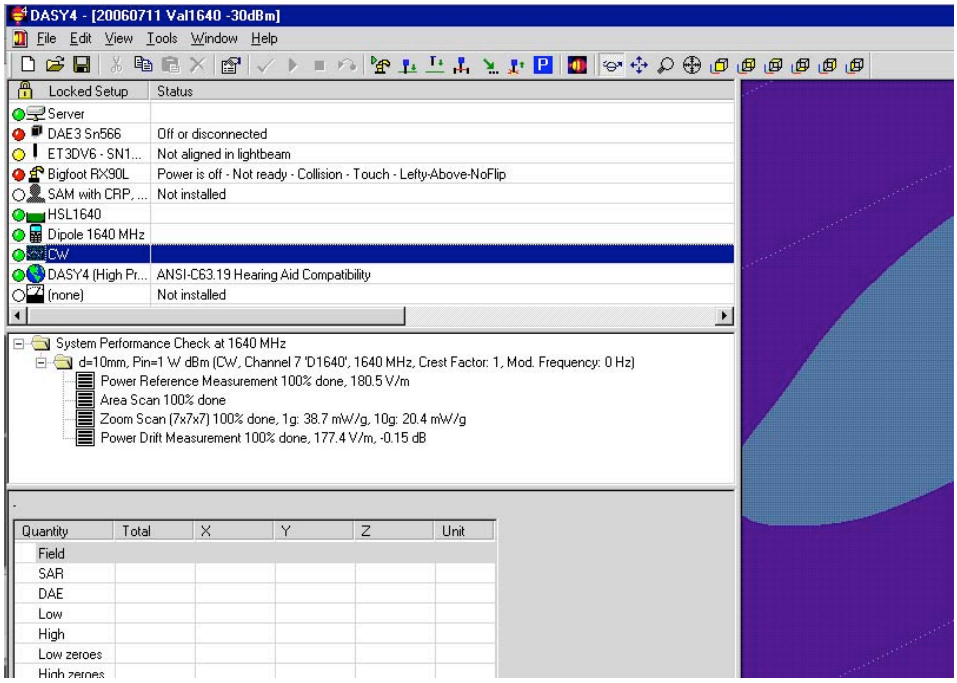


Figure A-2 Screen shot of 11 July System Check file using calibrated probe parameters

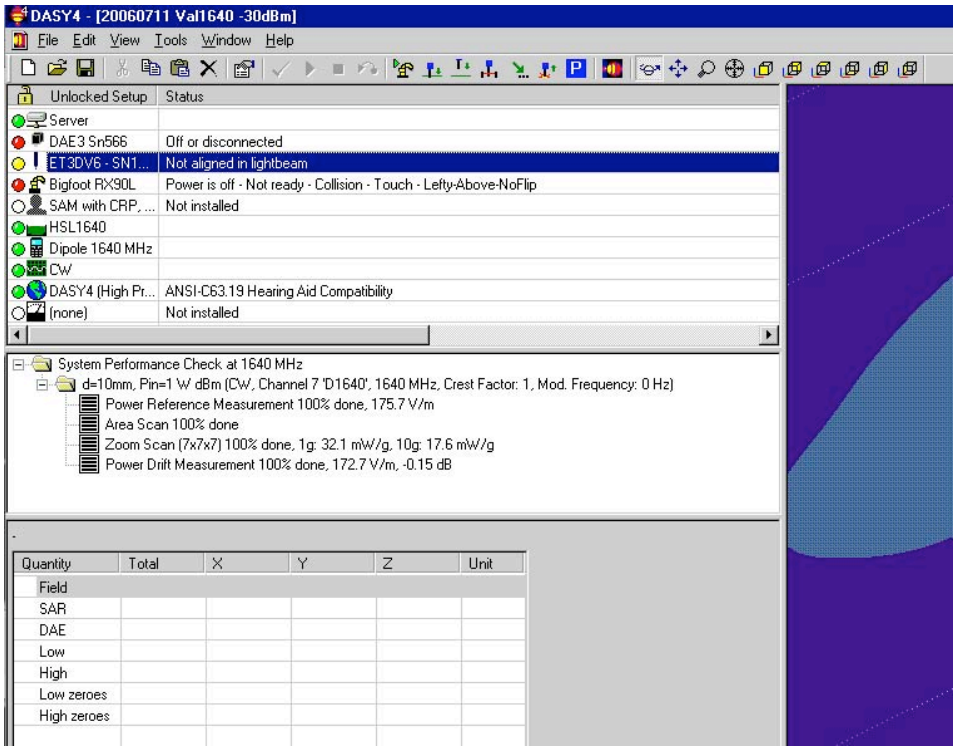


Figure A-3 Screen shot of 12 July System Check file using numerically approximated probe parameters

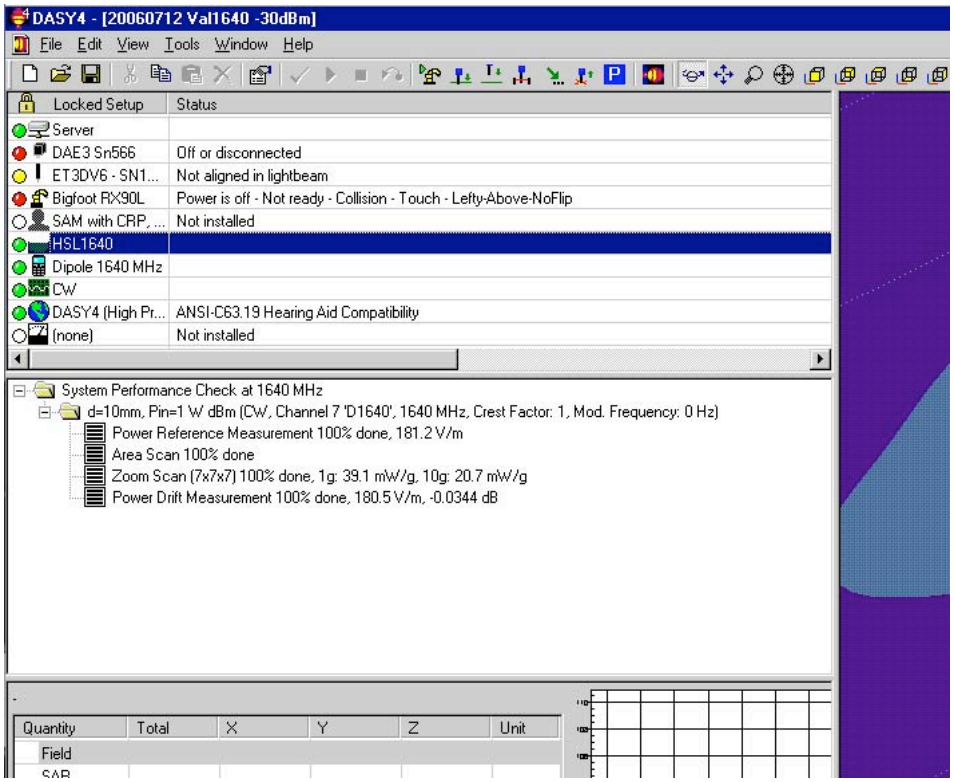


Figure A-4 Screen shot of 12 July System Check file using calibrated probe parameters

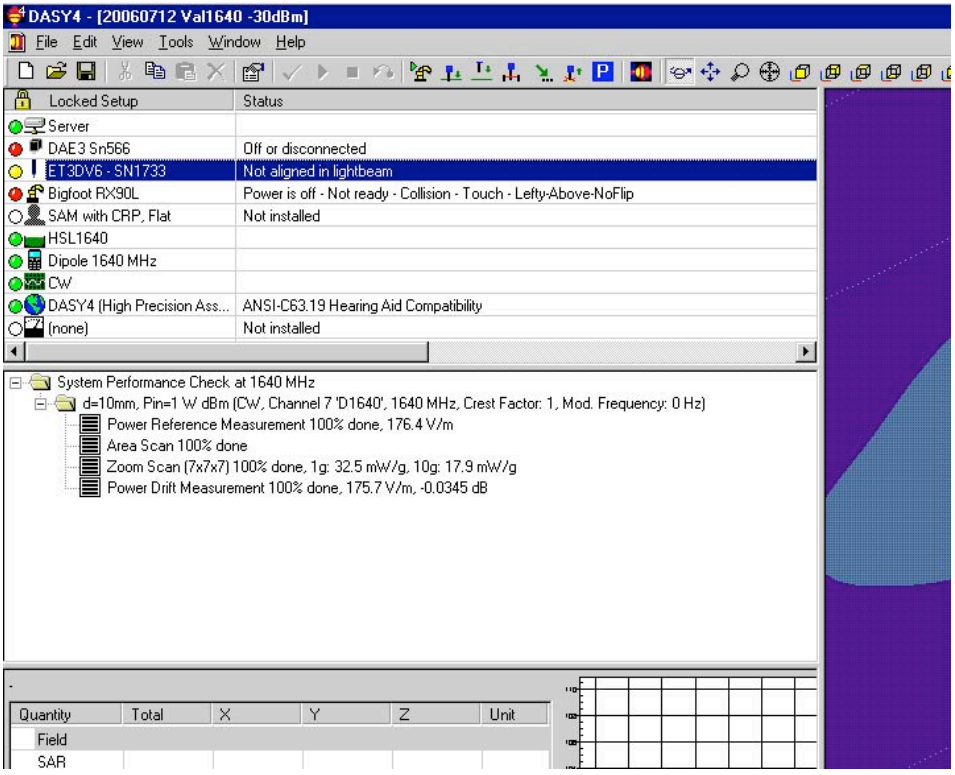


Figure A-5 Screen shot of 13 July System Check file using numerically approximated probe parameters

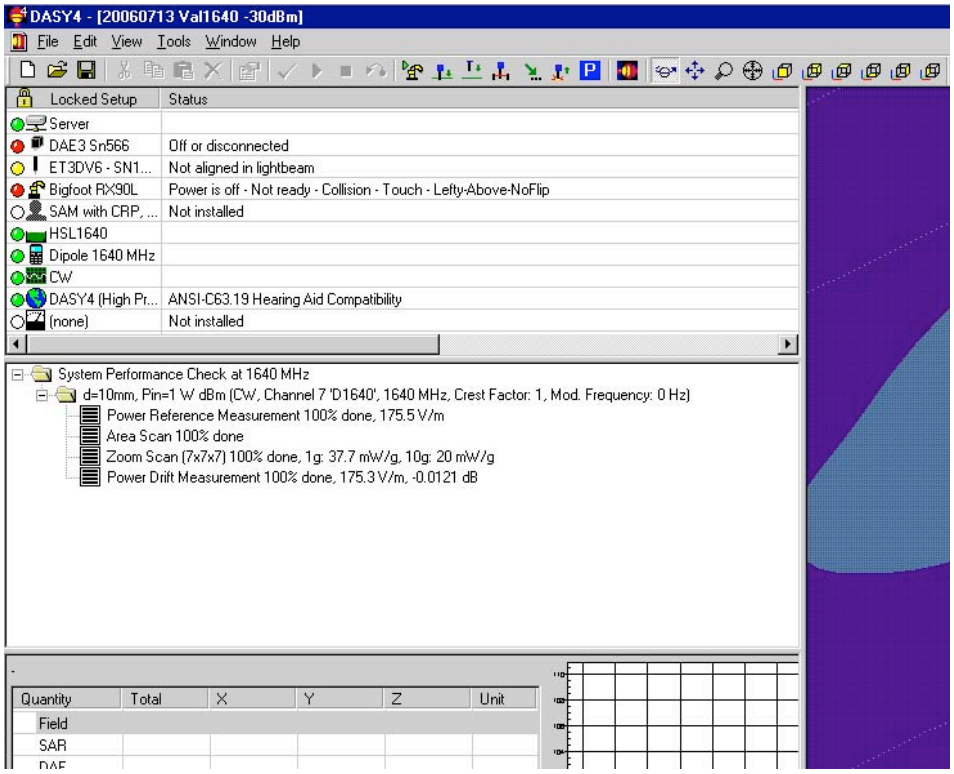


Figure A-6 Screen shot of 13 July System Check file using calibrated probe parameters

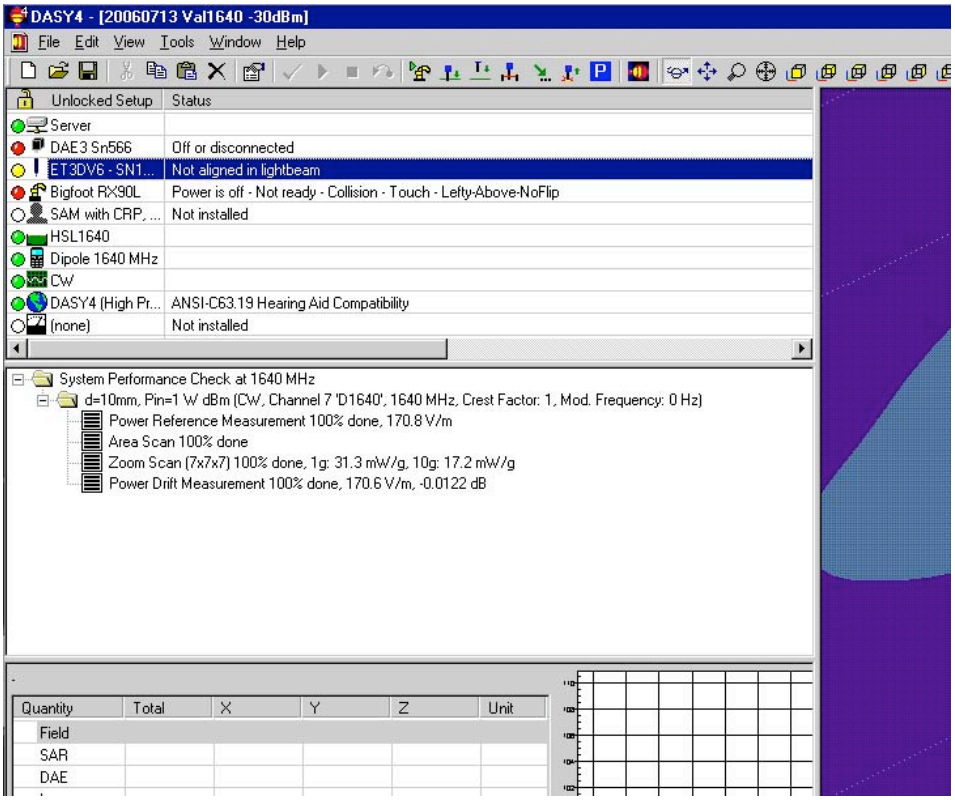


Figure A-7 Screen shot of 14 July System Check file using numerically approximated probe parameters

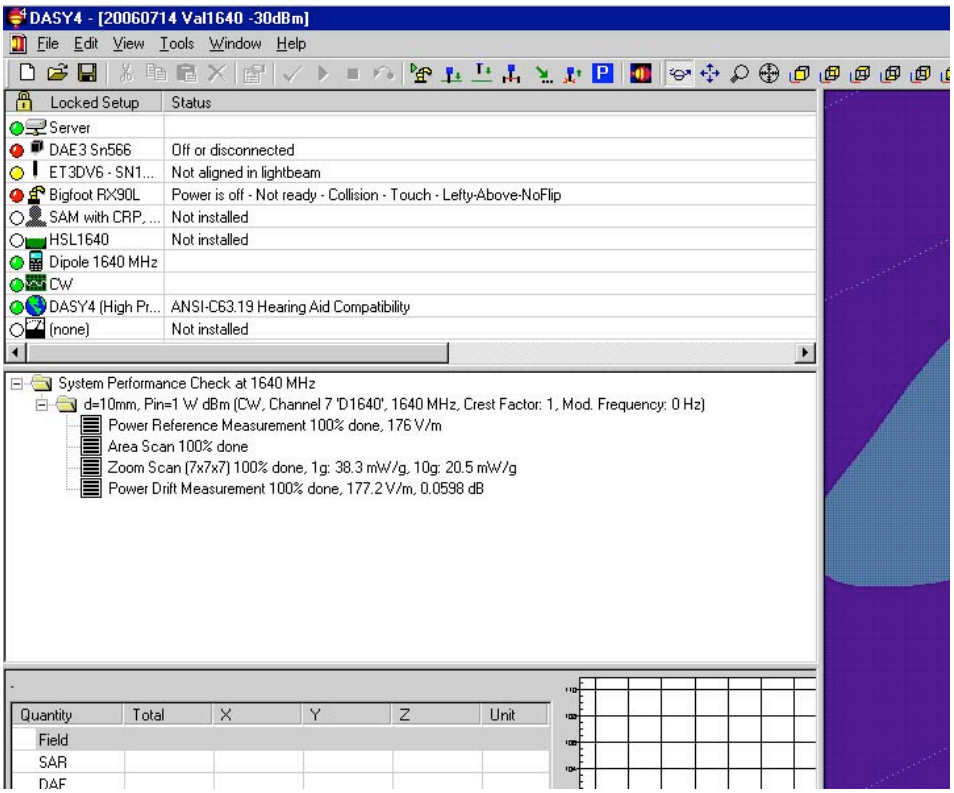
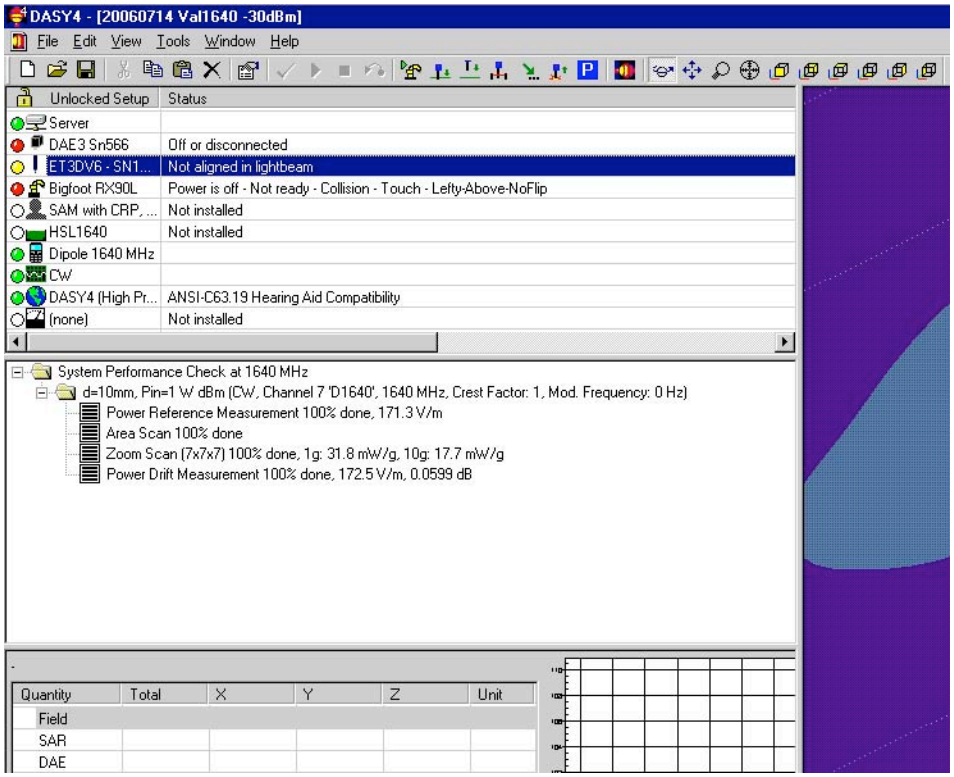


Figure A-6 Screen shot of 14 July System Check file using calibrated probe parameters



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