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Technical Note 3-98

Upgrade the ATS¹ Load Pull System using FOCUS "WinPower" Software

Having the right Load-Pull Software Environment is crucial to characterizing, understanding and optimizing the behavior of power transistors. The latest Load Pull Software of FOCUS Microwaves, "WinPower", version 6.0 for Windows® 95/98/NT, is an integrated and easily usable package which allows a vast range of device measurements. "WinPower" can now be employed to upgrade all existing load pull systems from Maury Microwave (ATS®). Because of the similarities of the hardware of the Maury and Focus systems, the implementation is easy: i.e. WinPower's control drivers are modified to position and initialize the ATS® tuners so they can be operated the same way as the CCMT® tuners. System implementation is straightforward and does not require extra training, also because of the "on-line" Help library.

(1) ATSO, Automatic Tuner System, Maury Microwave Corp. P1dB and P-linear Some of the Advantages of using "WinPower": • Continuous high resolution "mouse" tuning to all Tuner impedances (not only calibrated points) • Very fast Tuner Calibration (2 minutes per frequency) • Generic FOCUS TRL Fixture Calibration • Macro File Operation and Editor FOCUS HARMONIC LOAD PULL SYSTEM • Design Window with ±Tolerance • Configurable Tool Box Compression L/P Contours • Automatic Oscillation Detection during L/P • Temperature vs. Parameter Measurements • L/P for Constant Pout, IMD, PAE, ACPR ... • 2D, 3D Contours and Saturation plots... • Integrated Harmonic Tuner Operation * On line Help and Service Manual • Multiple Measurement Lists • User defined "Figure of Merit" Harmonic Load Pull • IV-curves with Auto Bias • S-parameter with Test Fixture Deembedding and Adapter Removal • "HP-VEE" and "LabView" drivers • "WinGPTC" allows full Tuner operation via GPIB **FOCUS** IV curves with Auto Bias • Over 100 fully integrated GPIB Instrument Drivers TRL Cal * requires extra PHT tuners (see TN 2-98) Existing **Existing** WinPower Fundamental and Signal Source Load Power $ATS^{\mathbb{R}}$ Harmonic Load Pull ATS[®] Source DUT Meter Software Tuner Tuner **IBM-PC** Pentium MT986B02B ATS® System Controller **Tuner Controller** Existing GPIB (existing)