

Application Note

AN/164

One-Port Balance Measurement, Longitudinal Conversion Loss (LCL)

1. On the Network Analyzer, set the frequency range and select the Thru (B/R or S21) measurement. Adjust Reference Position to the top of the display if necessary.
2. Connect Network Analyzer Output to J2 of LBB and Input to J1. Insert the Calibration termination to the balanced output terminals of the LBB.
3. Perform a Thru Calibration. Set Reference Level and Marker Offset to 30 dB (See next page). Remove the Calibration termination. You are now ready to test.

NOTE: The above procedure has calibrated out the correction factor. The Network Analyzer can now be read directly as the LCL value.

Procedure for setting 30dB offset (or any other offset) on the HP3577A and HP8753C Network Analyzers:

HP3577A:

1. Press SCALE button.
2. Press REF LEVEL button on the screen.
3. Enter a value of 30dB.

1. Press the MKR button.
2. Press MARKER OFFSET button on the screen.
3. Enter a value of 30dB.
4. Press MKR OFFSET ON button on the screen.

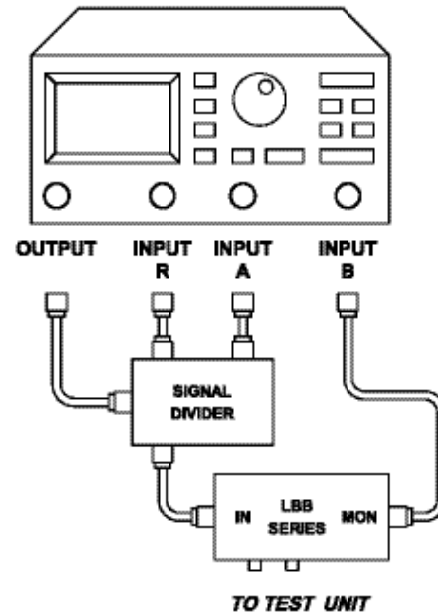
HP8753C:

1. Press SCALE REF button.
2. Press REFERENCE VALUE button on the screen.
3. Enter 30dB.

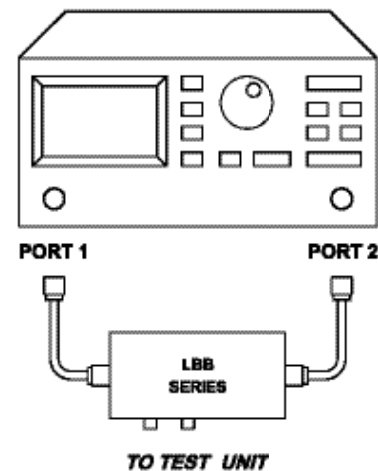
1. Press MKR button
2. Press Δ MODE MENU button on the screen.
3. Press FIXED MKR POSITION on the screen.
4. Press FIXED MKR VALUE on the screen.
5. Enter 30dB. Press RETURN on the screen.
6. Press Δ REF = Δ FIXED MKR on the screen.
7. Press MKR button.

These examples are valid for HP3577A and HP8753C models only. Please consult the manuals of your Network Analyzers on how to setting up offsets (i.e, offsetting Scale, Ref level, Marker)

THRU MEASUREMENT (B/R)



THRU MEASUREMENT (S21 / S12)



	PORT 1	PORT 2
S21	IN	MON
S12	MON	IN



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