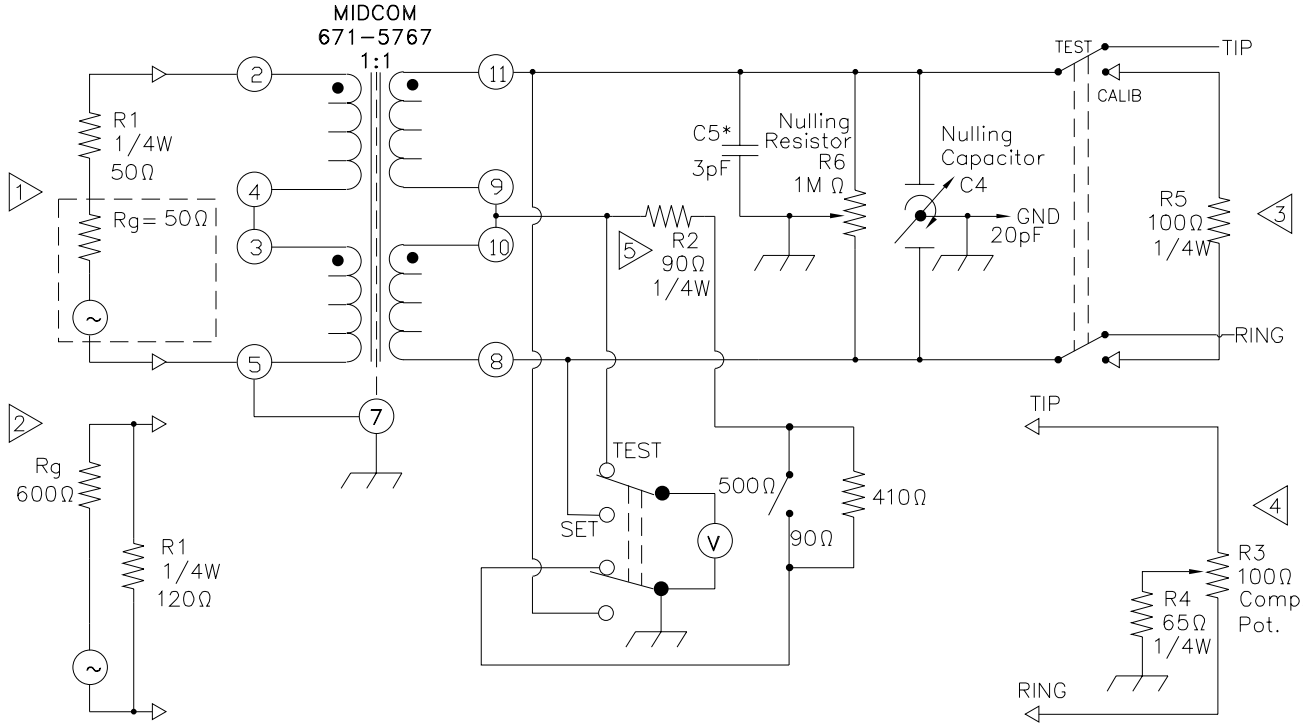
HIGH FREQUENCY TRANSVERSE LONGITUDINAL BALANCE TEST FIXTURE
(FCC Test method)



TRANSVERSE LONGITUDINAL BALANCE = $20 \log_{10} \left[\frac{V'set'}{V'test'}\right]$ = dB

*OPTIONAL. USE IF REQUIRED TO ACHIEVE CALIBRATION

NOTES:

1. If a 50 ohm Function or Tracking Generator is used, R1 + Rg = 100 ohm source resistance.

2. If a 600 ohm function or Tracking Generator is used, R1 in parallel with Rg = 100 ohm source resistance.

3. Calibration Termination: Nulling resistor R6 and Nulling capacitor C4 are used to calibrate the circuit with R5 connected to TIP and RING. Typical calibration nulls are:

200Hz thru 10kHz =	90dB
100kHz =	85dB
1MHz =	70dB
1.554MHz =	60dB
(5.0MHz =	45dB)

4. Unused Ports Termination: This termination should be connected to any unused ports on the EUT. Prior to terminating the unused port, this termination should be connected to TIP and RING of the test fixture and the termination should be nulled by adjusting R3.

5. R_{LONG} is shown as R2 = 90 ohm (also in the termination as 1/4 R3 + R4) for Subrate and Digital Services Ref. may be made to the Petition of the Ameritech Operating Companies for Rulemaking, filed with the Federal Communications Commission, Oct. 26, 1987, to 'correct the error' presently in 68.310(1), reducing R_{LONG} from 500 to 90 ohms making it consistent with the Long. Term. for 12kHz – 6MHz as in 68.308(3)(2). As a practical matter, 90 ohm R_L may be used for ALL Digital Services, via this test circuit, even in the 200Hz to 12kHz range because it is the Z_L found on lines for all Digital Services.

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TOLERANCE (UNLESS OTHERWISE SPECIFIED)
RESISTORS: ±1%
CAPACITORS: ±3%
INDUCTORS: ±3%

UNITS
(UNLESS OTHERWISE SPECIFIED)
RESISTANCE: OHMS
IMPEDANCE: OHMS
INDUCTANCE: HENRIES
CAPACITANCE: MICROFARADS
FREQUENCY: HERTZ
E.M.F.: VOLTS R.M.S.
CURRENT: AMPERES

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AD-671-5767

REV PREL 05

DATE 08/02/94

SHEET 1 OF 1

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