Gali Kit Test Board Instructions for Use

(for testing all kit "K1-Gali" and Gali-X9 models)
(AN-60-013)

Introduction

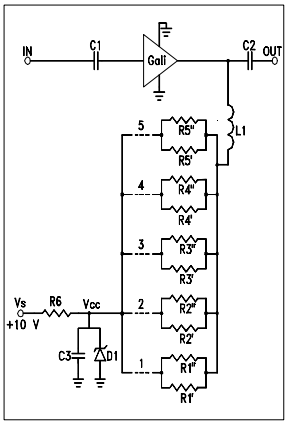
Gali Models are a series of wide band amplifiers. They have different device voltages and currents (refer to catalog spec). The test board has been constructed in such a way as to make it useful for evaluating all the devices by suitable selection of bias resistor. This is done by soldering a jumper wire across one of the dashed-line positions 1 to 5 shown in Fig.1.

The Test Board has the following components:

Component	Value	Function
C1 & C2	39000 pF	DC blocking
L1	MCL Model # ADCH-80A	RF choke
R1	189Ω	Sets bias current for Gali-3,-39
R2	163Ω	Sets bias current for Gali-1,-2, -21,-19,-29
R3	142Ω	Sets bias current for Gali-33
R4	81Ω	Sets bias current for Gali-4,-5,-51,-49,-59
R5	70Ω	Sets bias current for Gali-6
R6	4.75Ω	Protects Zener
D1	Zener, 10V	Protects against excessive supply voltage
C3	0.1 µF	Bypass capacitor By passes noise of supply voltage

Model No.	Short at Position
Gali-1	2
Gali-2	2
Gali-21	2
Gali-3	1
Gali-33	3
Gali-4	4
Gali-5	4
Gali-51	4
Gali-6	5
Gali-19	2
Gali-29	2
Gali-39	1
Gali-49	4
Gali-59	4

Fig 1. *Schematic of the Test Board Gali - TB*



Procedure

Follow these steps to use the Test Board. Figure 2 shows the layout.

1. Solder selected Gali unit onto Test Board.
2. Make DC connection by soldering jumper wire in accordance with the table depending on the selected Gali model. All other positions should be open.
3. Calibrate test setup.
4. First, connect the RF output port of the test board to Network/Spectrum analyzer. Then, apply +10 V DC. Finally, apply RF input to the test board from Network Analyzer.
5. Test Board has Insertion Loss due to the length of its lines, DC blocking capacitors and RF choke as shown below. Add this loss to the measured gain to get actual gain.

Frequency (GHz)	Insertion Loss (dB)
1	0.64
2	1.03
3	1.63
4	1.32
5	1.46
6	1.90
8	3.21

Fig 2*. Layout of the Test Board Gali-TB*