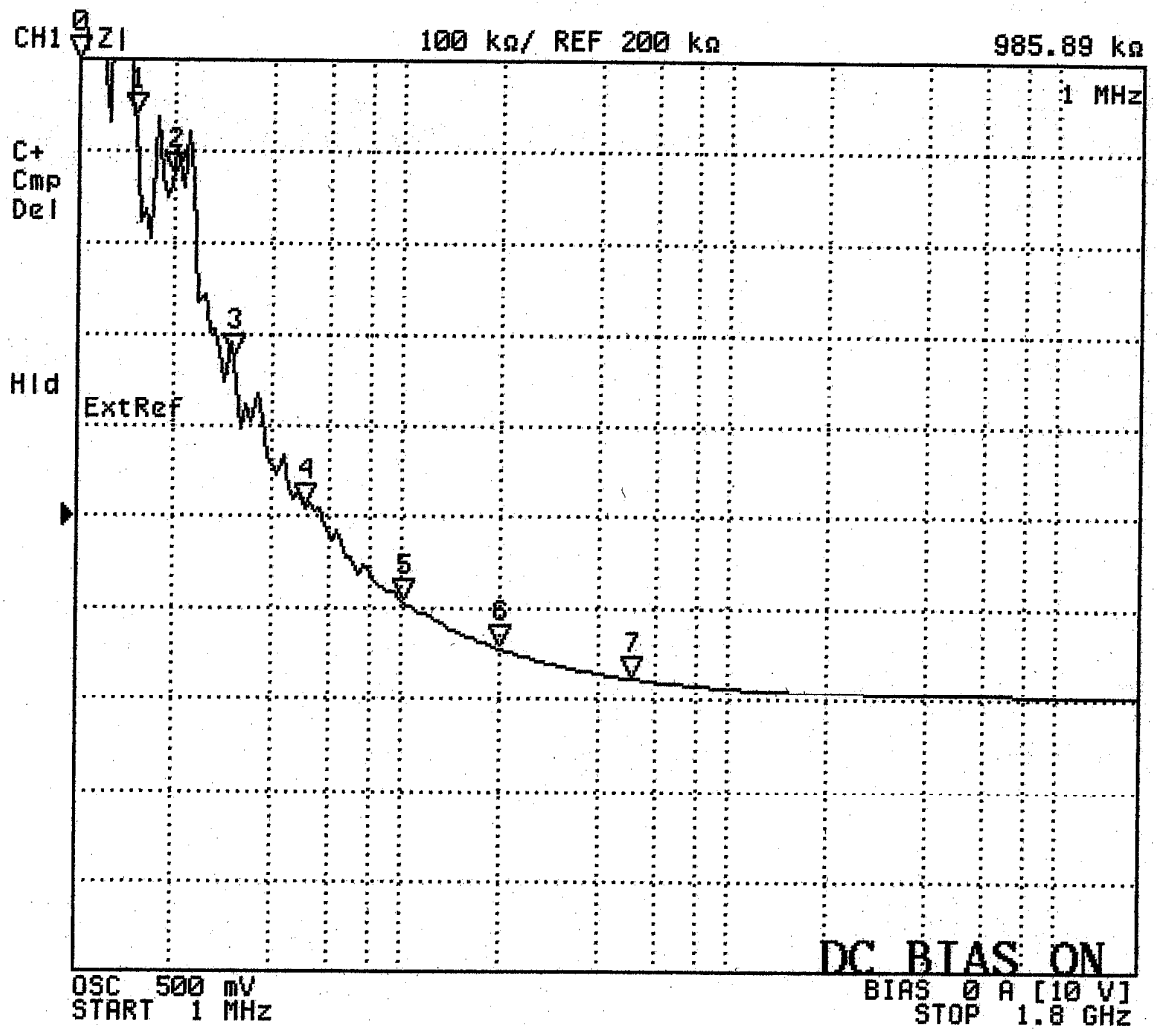
TEST #8

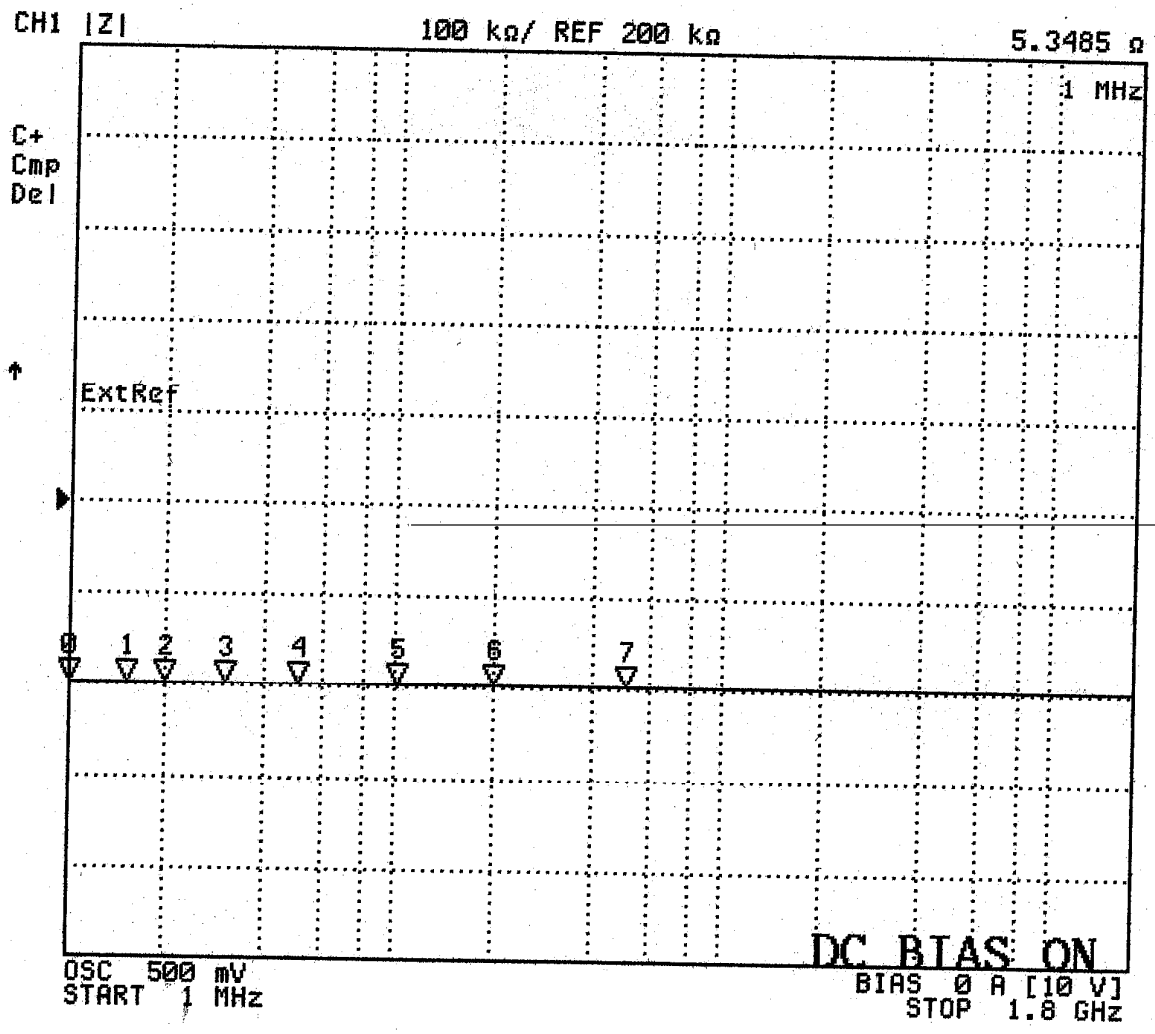
28 JULY 2000 (2)

NOTE: (1) DEV #7
(2) BASELINE @ 28°C
(3) 0A @ 10V
(4) FILE : 0



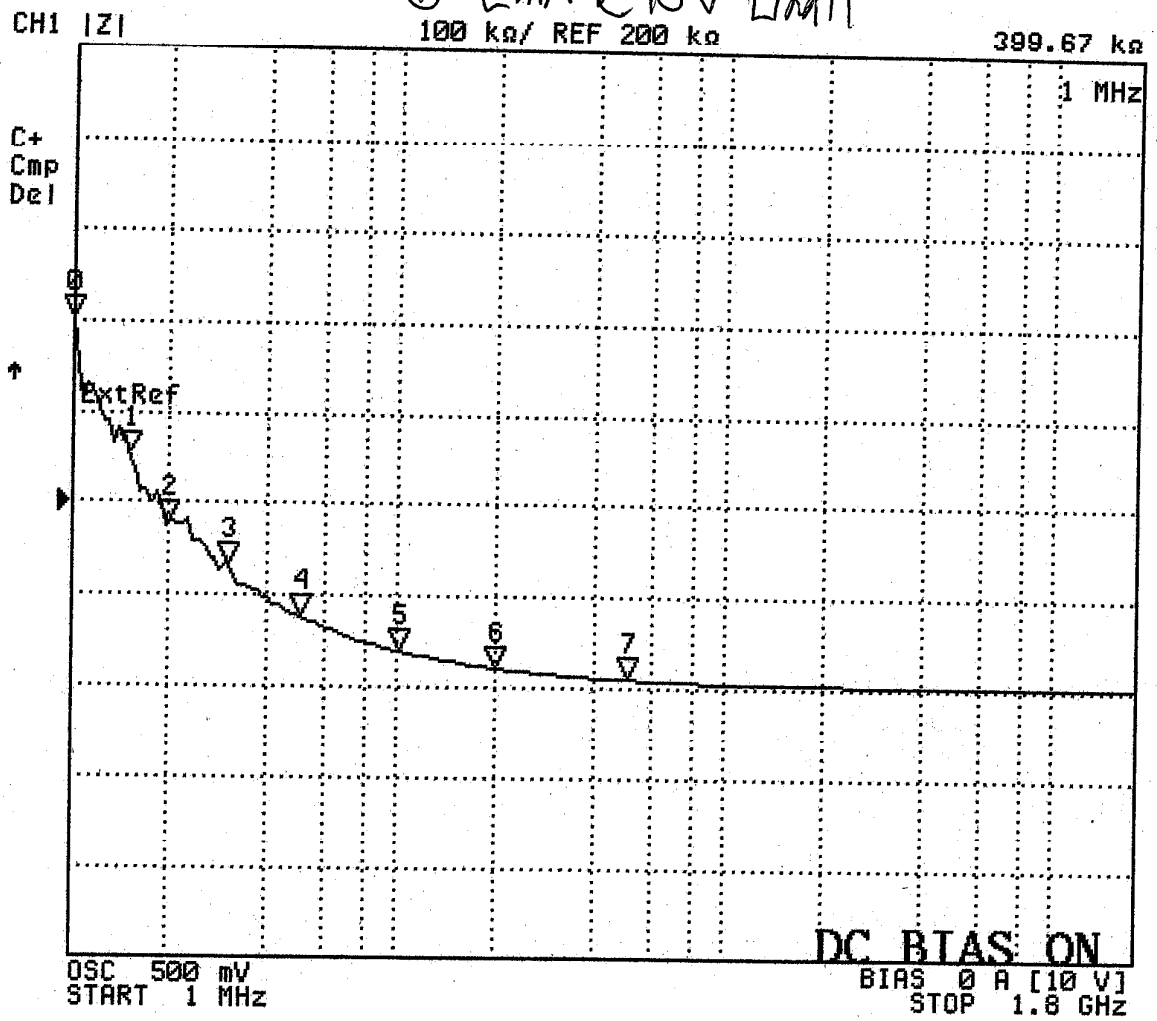
TEST#8 28 JULY 2000 (3)

NOTE: (1) DEV#7
(2) FLAT LINED AT 106°C
(3) 0A @10V
(4) 2mA @ 10V LIMIT



TEST #8 28 JULY 2000 (4)

NOTE: (1) DEV #7
(2) BACK ON (FUNCTIONAL AT 51°C)
(3) 0A @ 10V
(4) 2mA @ 10V LIMIT



25 JULY 2000 (5)

TEST #8

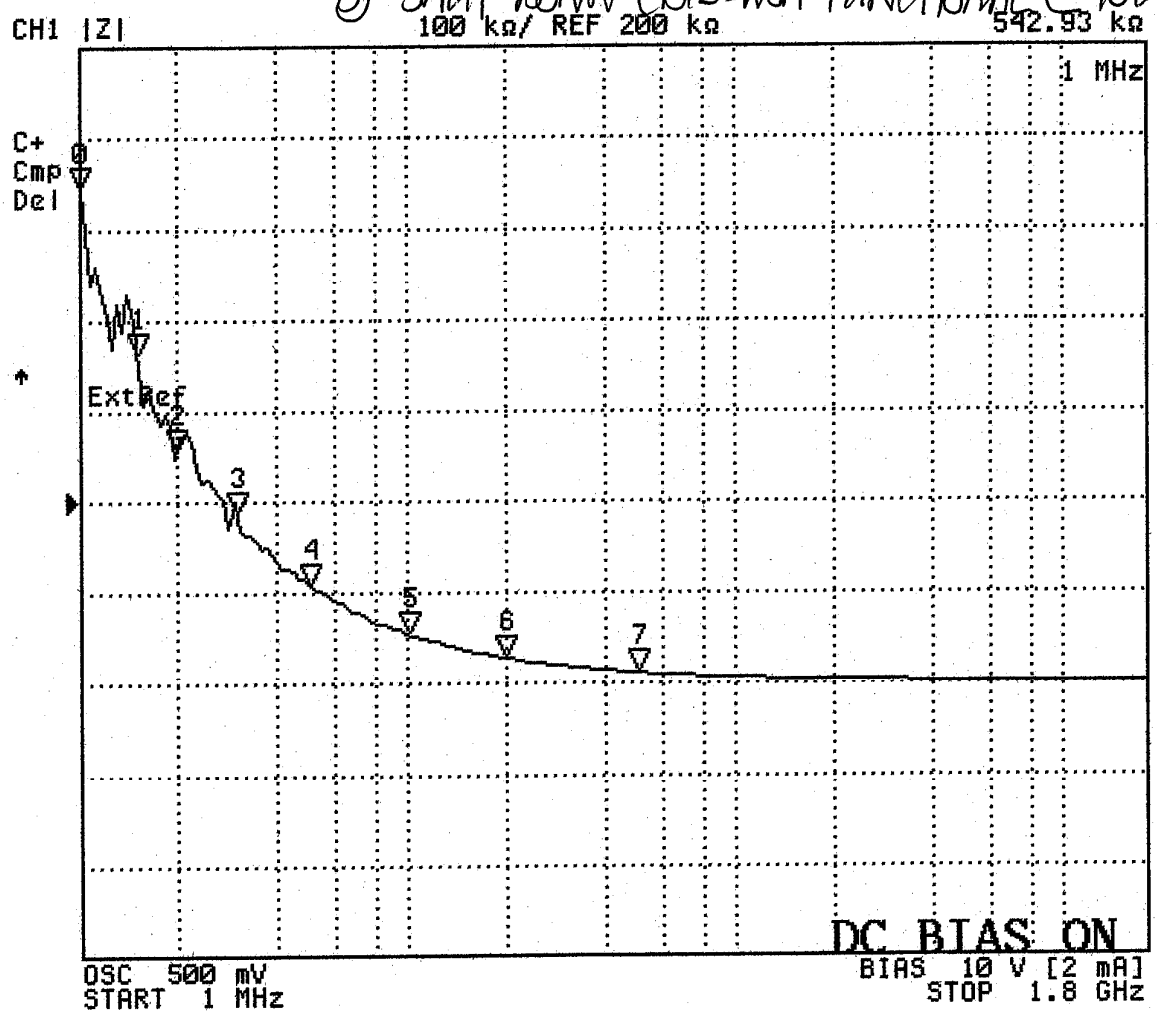
NOTE: (1) DEV #7

(2) FILE: 1

(3) FUNCTIONAL @ 75°C

(4) 2mA @ 10V CURRENT LIMIT.

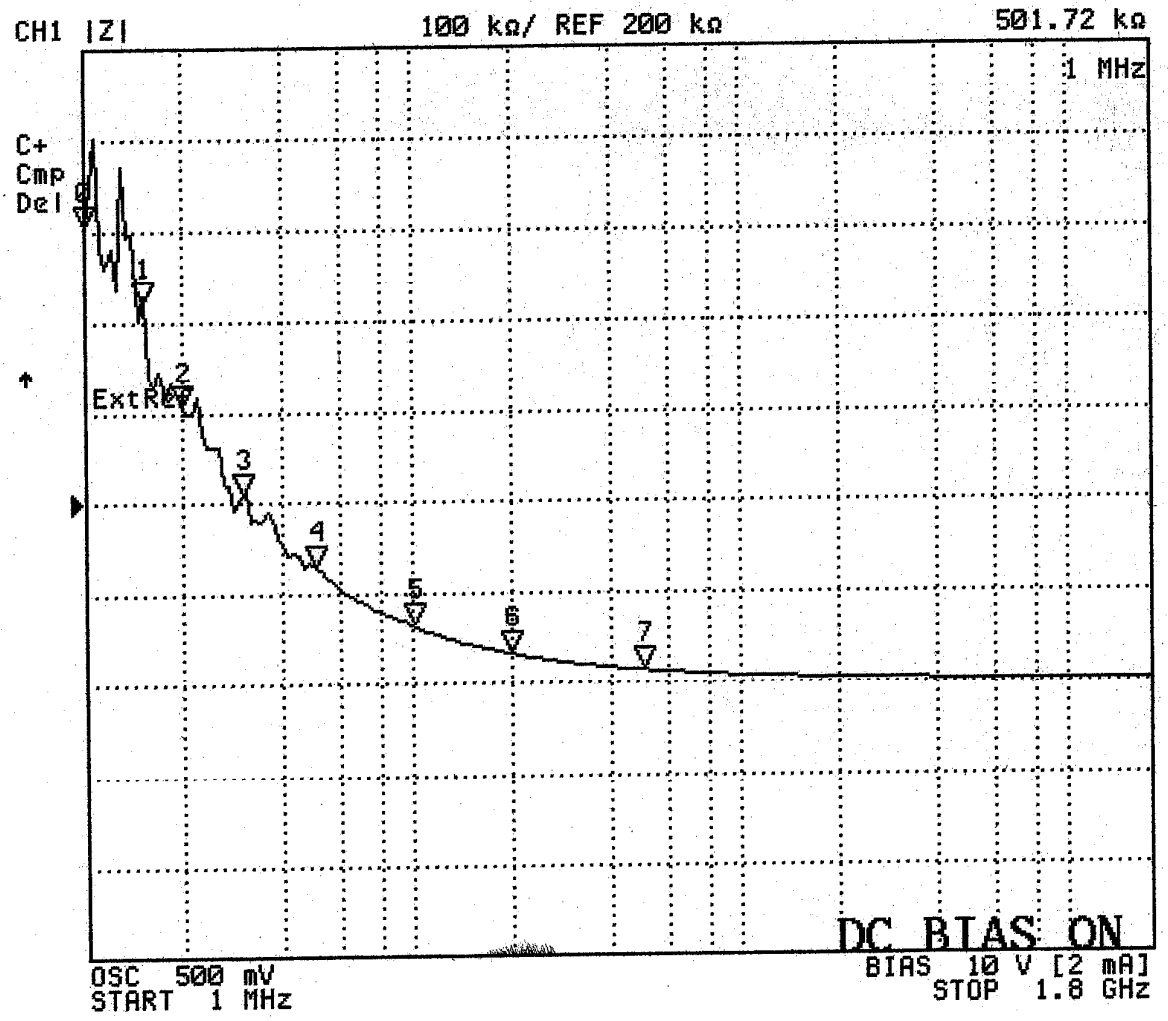
(5) SHUT DOWN (OIS=NOT FUNCTIONAL @ 106°C)



TEST #8

31 JULY 2000 ①

NOTE: ① DEV #7
② FILE: 2
③ MONDAY MORNING, DUT AT 22°C ROOM TEMPERATURE. FUNCTIONS NORMALLY.
④ CURRENT LIMIT 2mA @ 10V

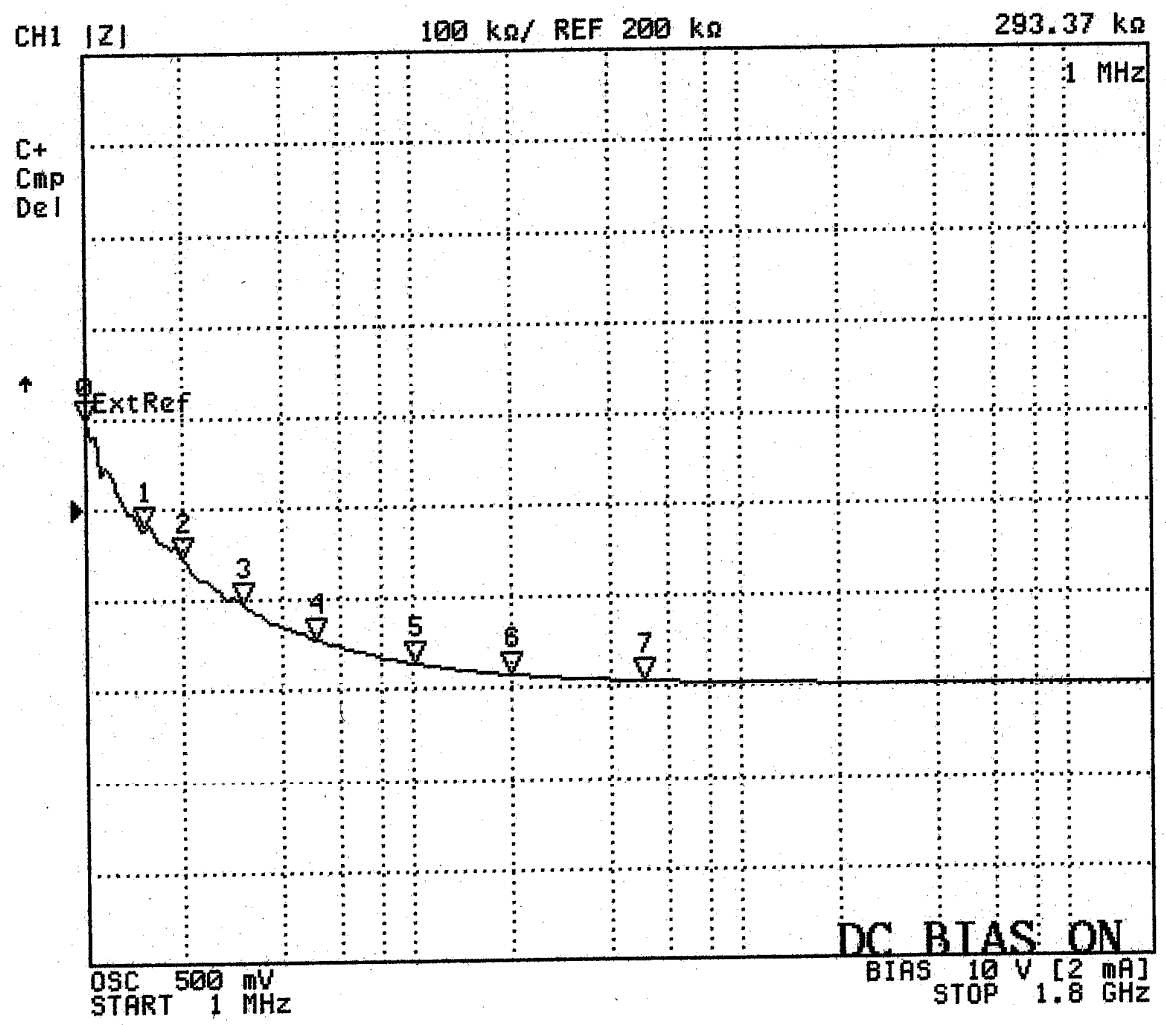


TEST #8 31 JULY 2000 ②

NOTE: ① DUT SOCKET EMPTY. NO CAP IN SOCKET AND TEST FIXTURE REMOVED.

② FILE: 3

③ LOOKS LIKE A CAPACITOR.



TEST #8 31 JULY 2000 (3)

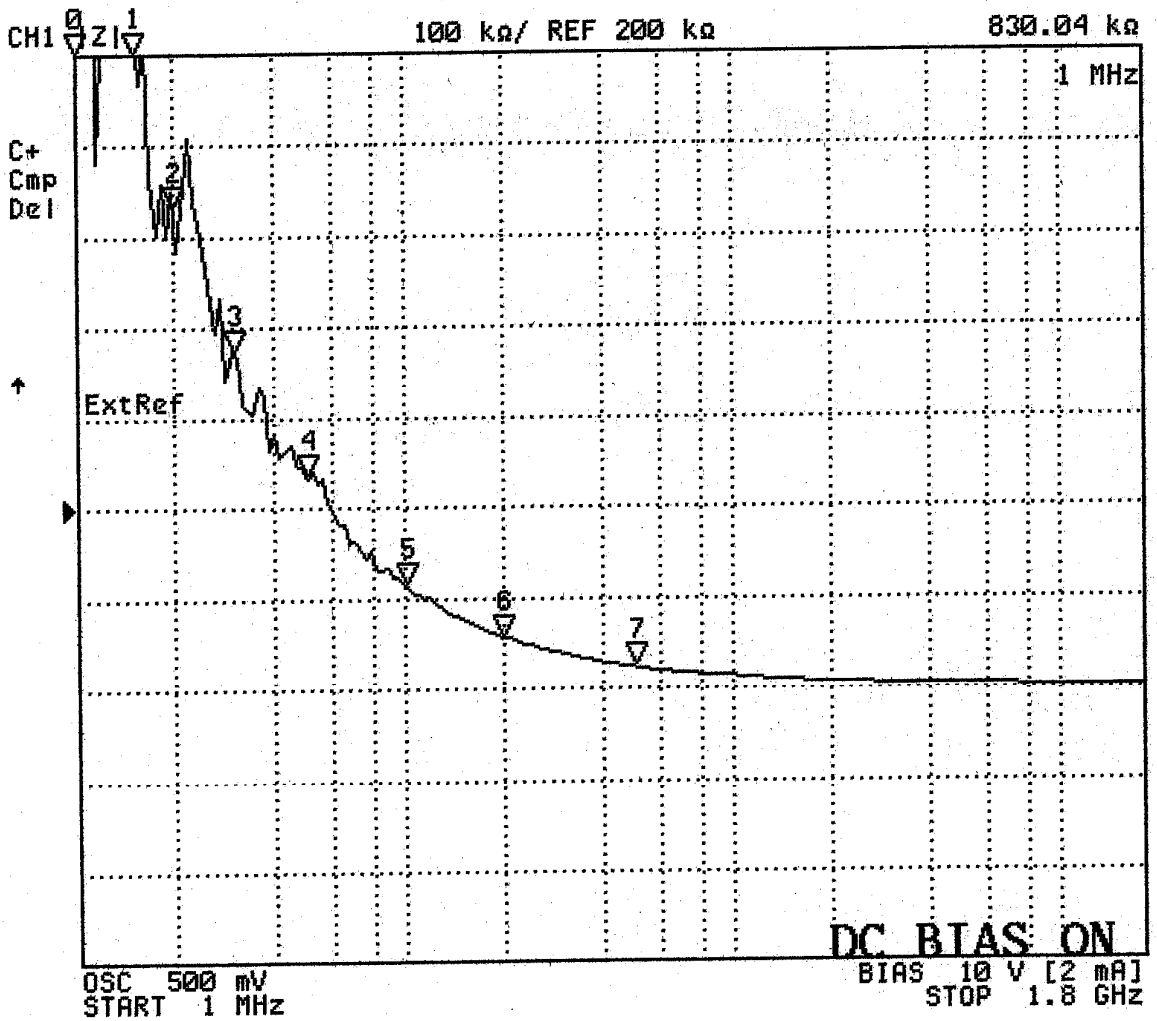
NOTE: (1) CAP #7 RESEATED IN TEST FIXTURE AND TEST FIXTURE RECONNECTED.

(2) LOOKS OK. FUNCTIONS NORMALLY.

(3) FILE: 4

(4) T = 22°C (AMBIENT).

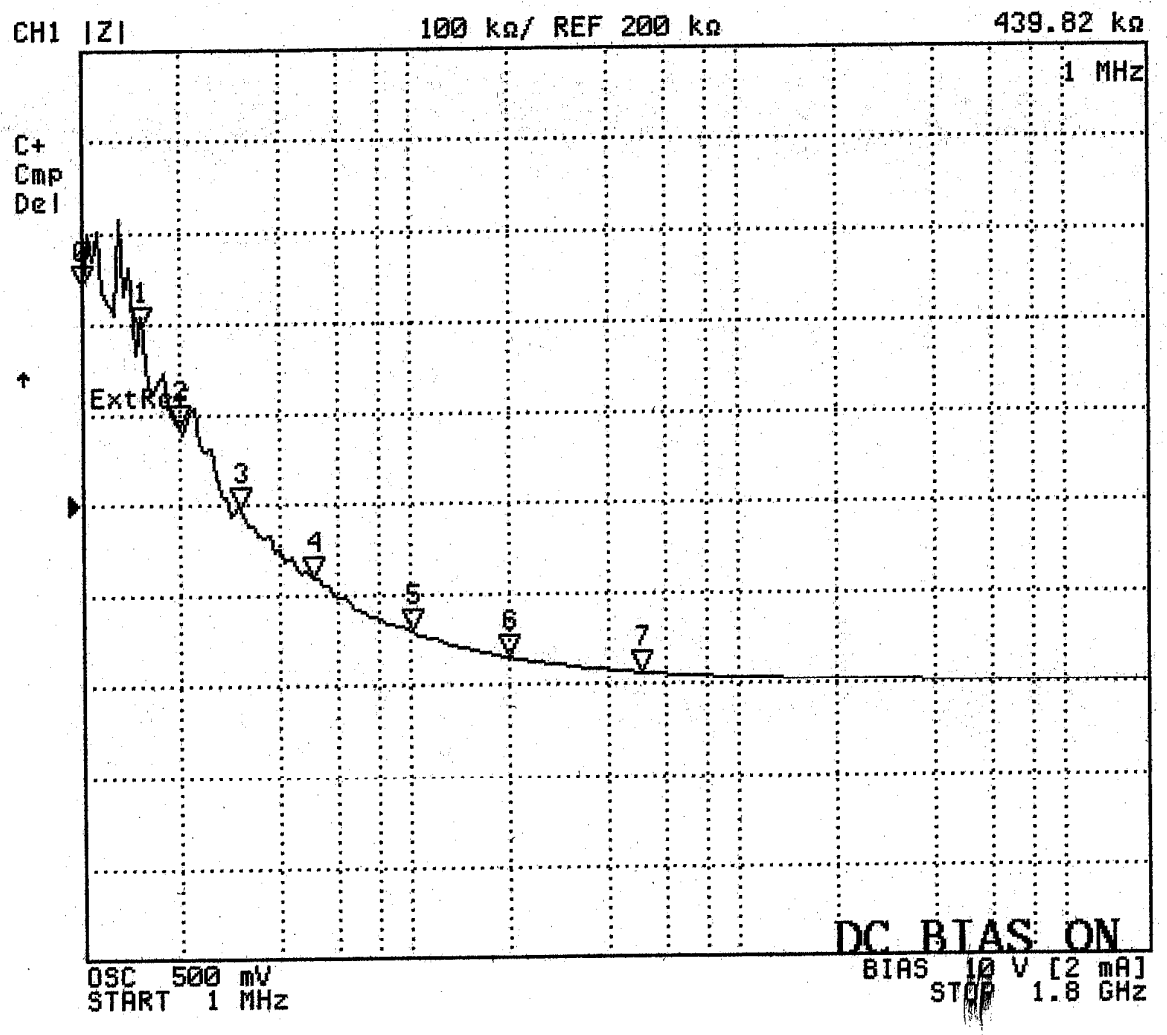
(5) 2mA @ 10V CURRENT LIMIT.



TESTING

31 JULY 2000 (4)

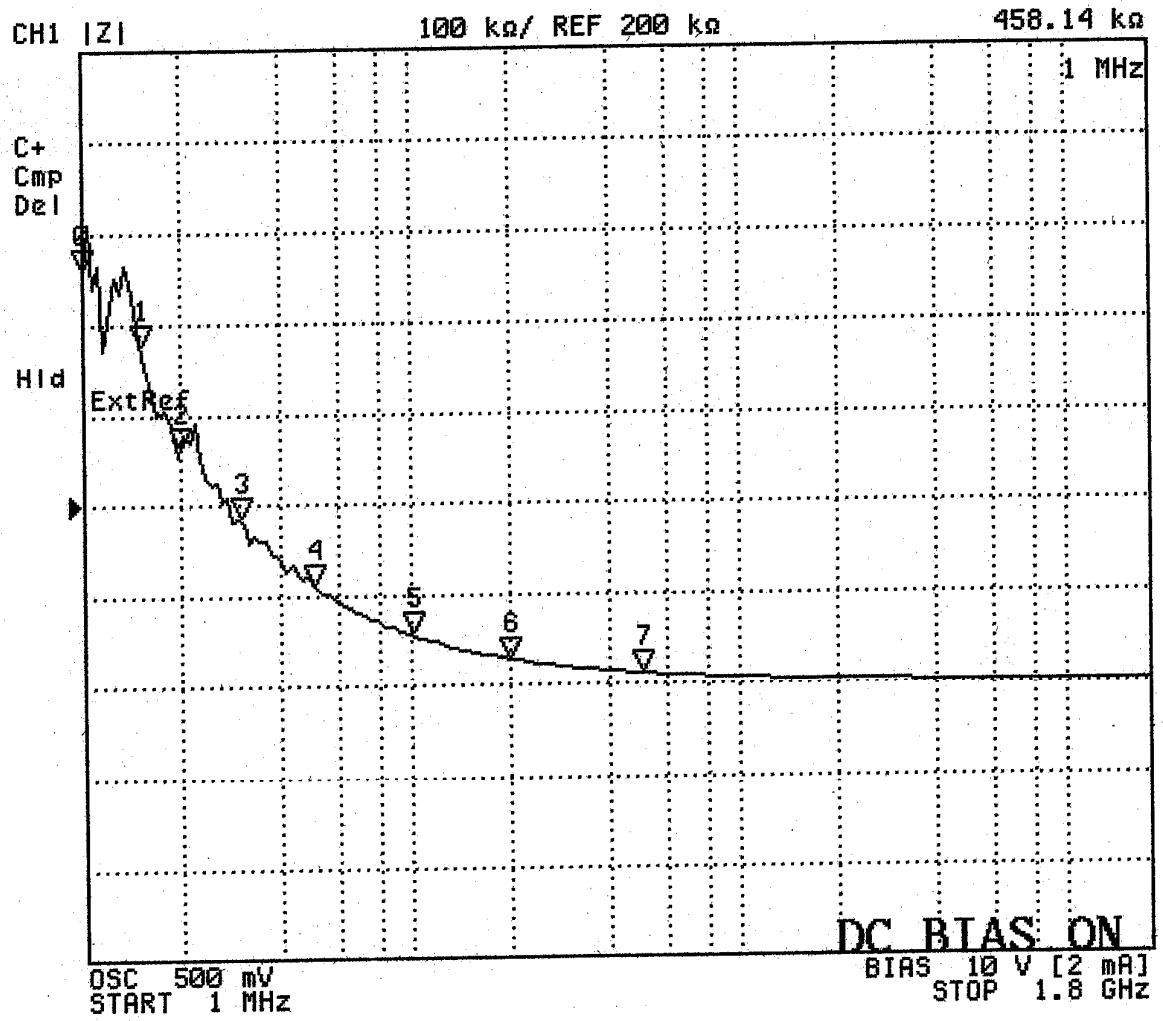
NOTE: ① DEV #7
② SOAK 15 MIN @ 50.C°
③ 2mA @ 10V CURRENT LIMIT
④ IMPEDANCE DECREASING
⑤ FILE: 5



TEST #8

31 JULY 2000 (5)

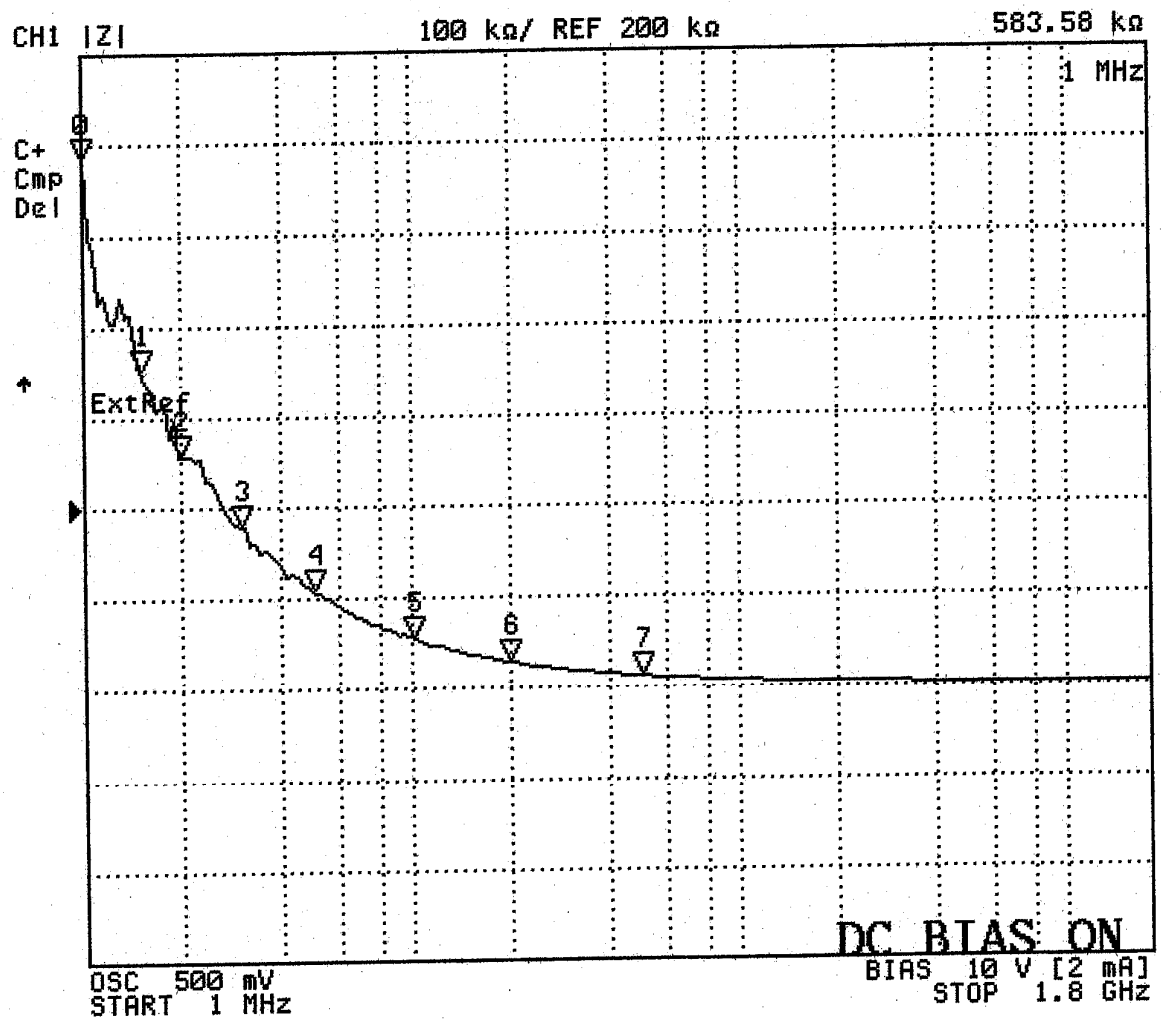
NOTE: ① DEV#7
② SOAK 15 MIN @ 75°C
③ 2mA @ 10V CURRENT LIMIT
④ FILE: 6



TEST #8

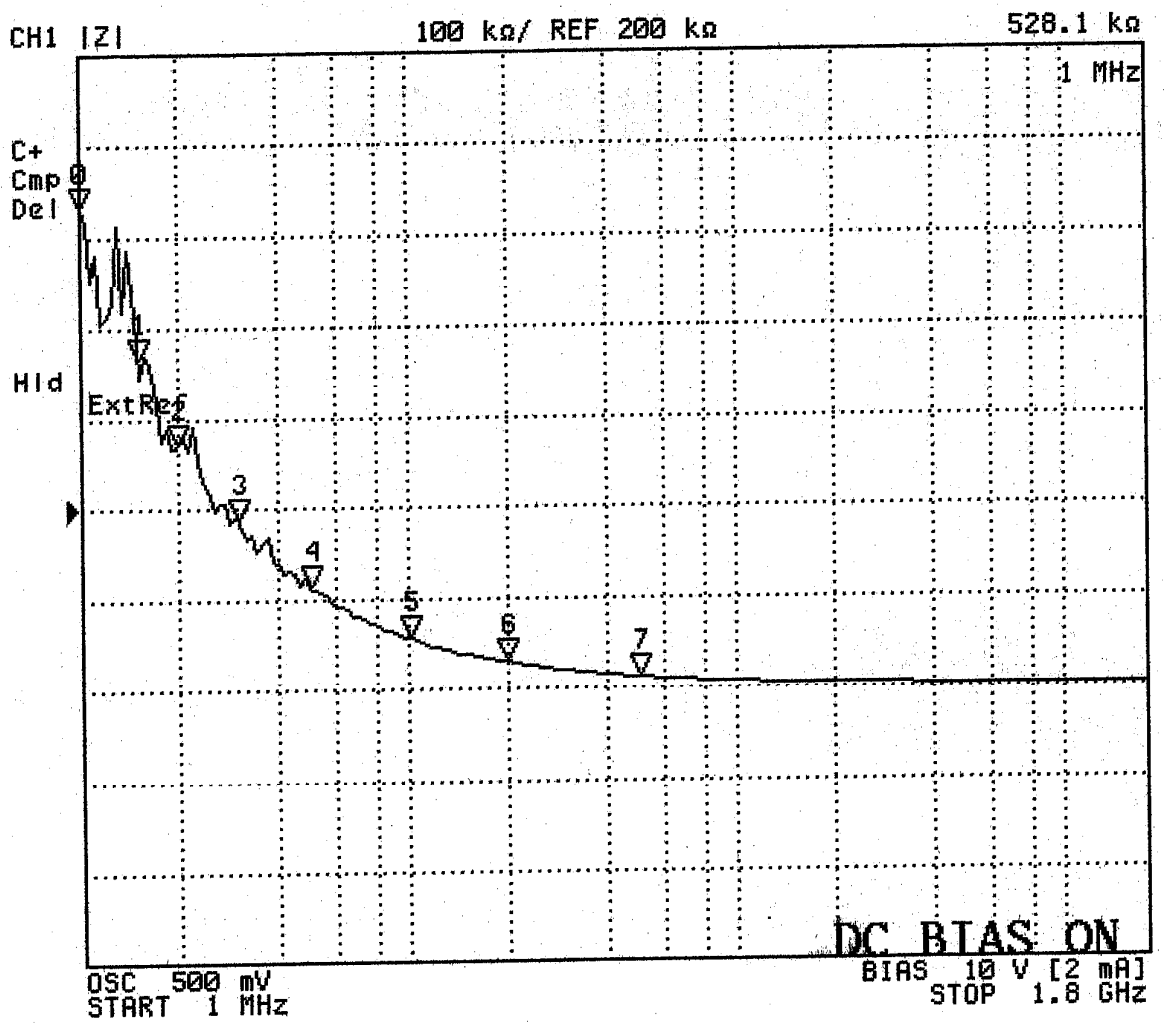
31 JULY 2000 (6)

NOTE: (1) DEV #7
(2) SOAK 15MIN @100°C
(3) 2mA @ 10V CURRENT LIMIT
(4) FILE: 7



TEST #8 31 JULY 2000 (7)

NOTE: ① DEV #7
② SOAK 15 MIN @ 125 °C
③ 2MA @ 10V CURRENT LIMIT
④ FILE: 8



TEST #8

31 JULY 2000

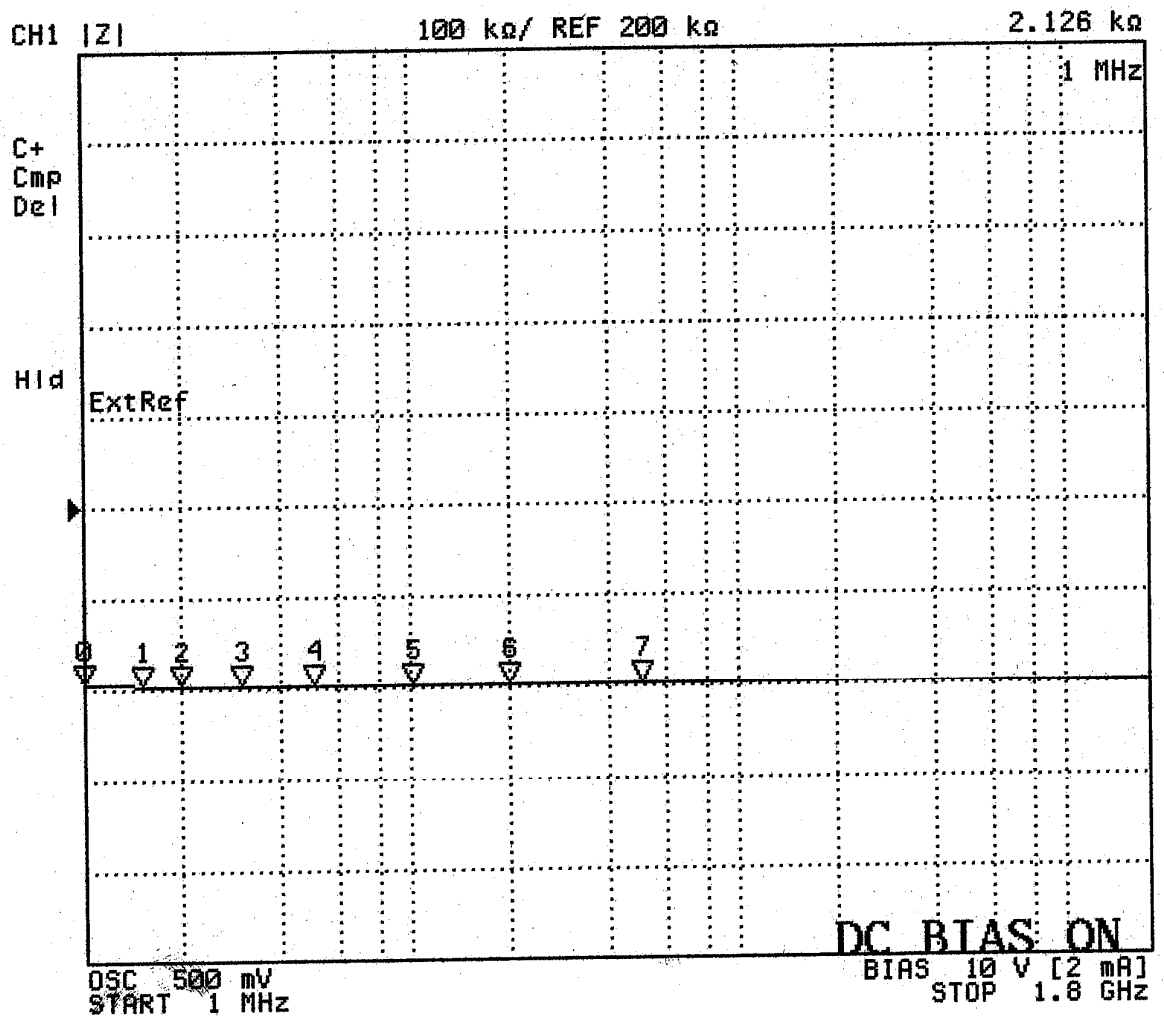
8

NOTE: ① DEV #7

② FLAT LINED AT 84°C DURING COOL DOWN CYCLE.

③ 2mA @ 10V OLTS

④ FILE: 9



31 JULY 2009

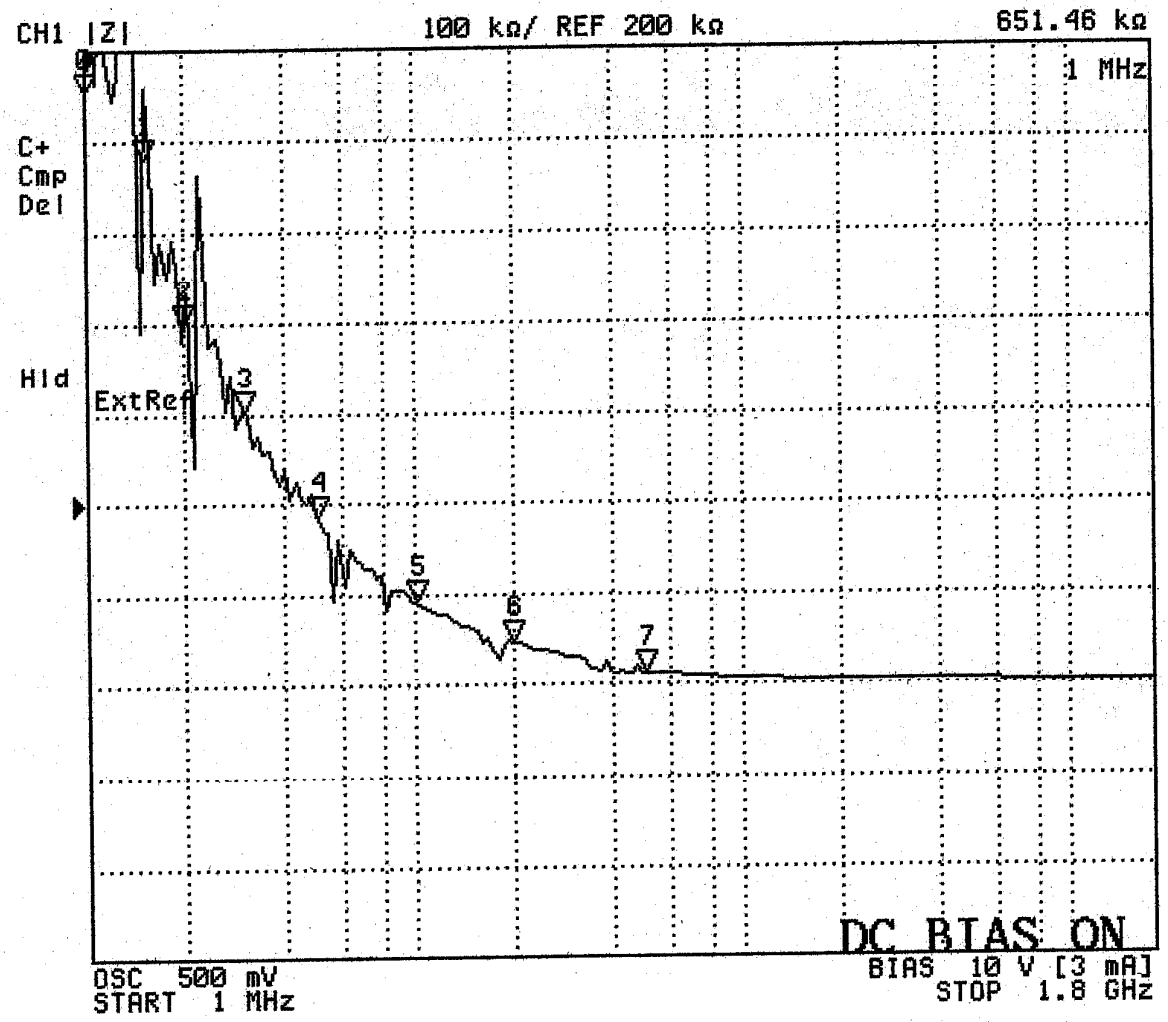
TEST # 8

NOTE: ① DEV #7

② RESET CURRENT LIMIT TO 3mA @ 10 V
REGAINED FUNCTIONALITY.

③ T = 84°C

④ FILE: 10

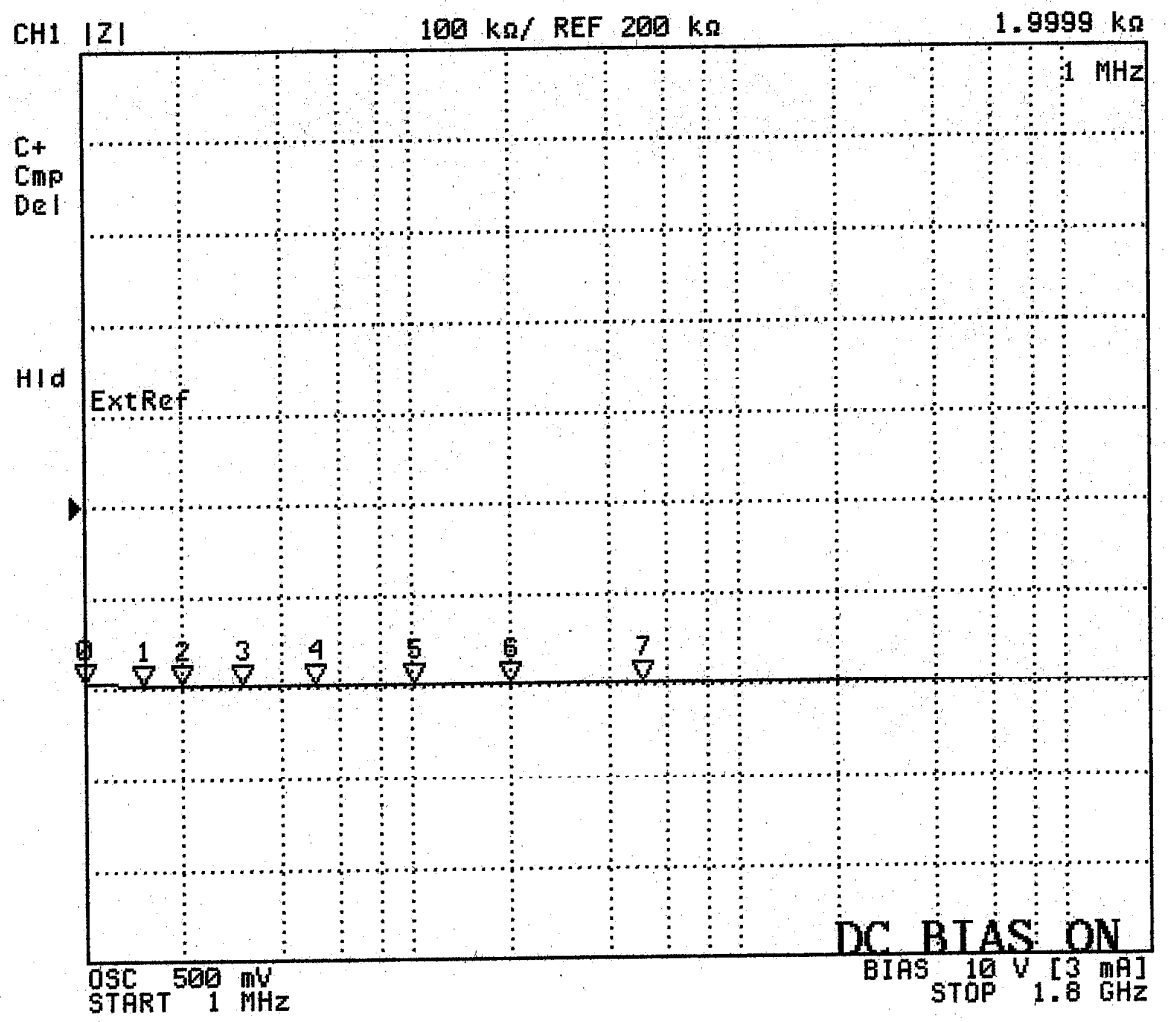


TEST #8 31 JULY 2000 (10)

NOTE: ① DEV #7

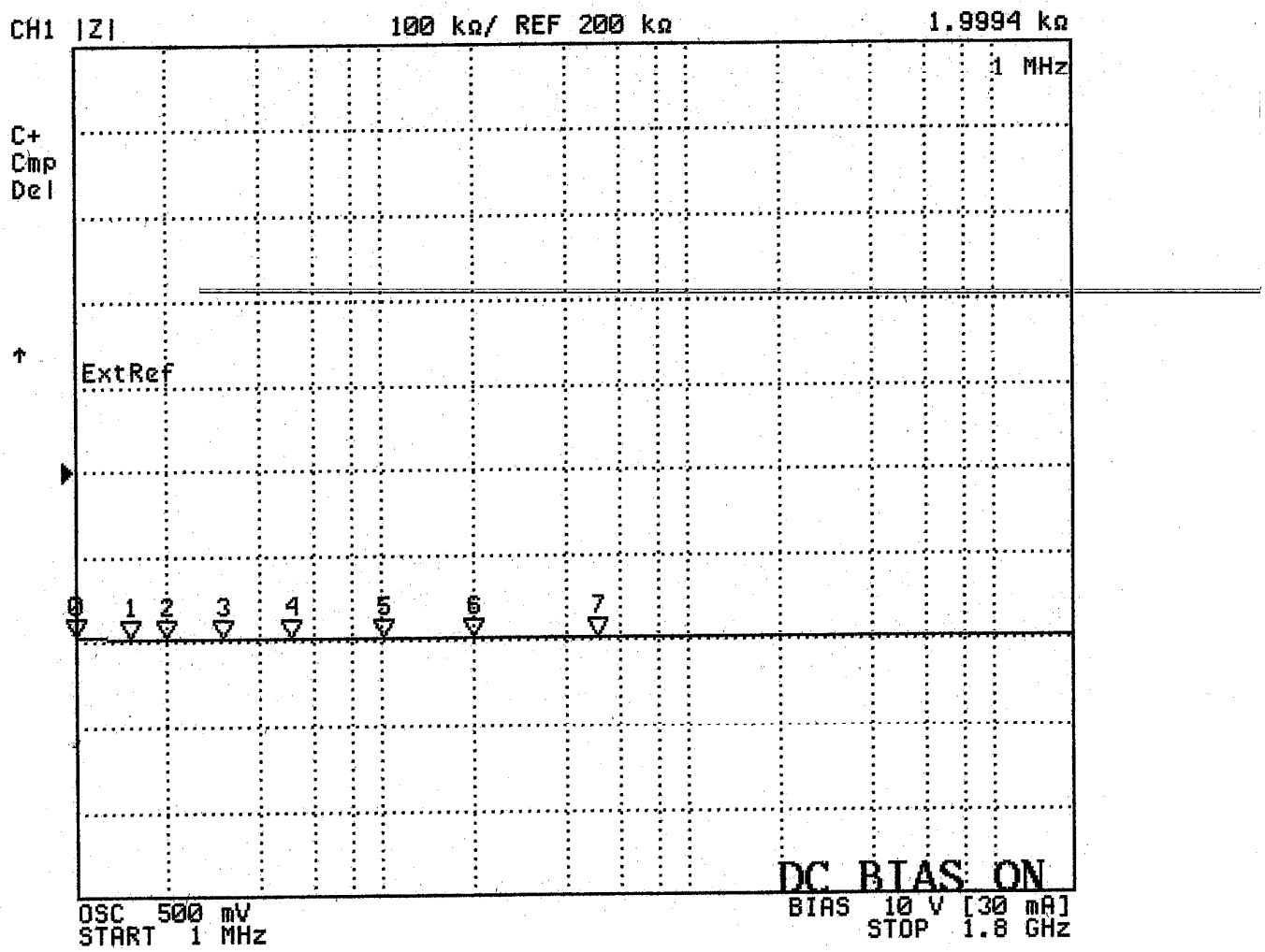
② FLATLINED AT 3mA @ 10V AT T = 108°C

③ FILE: 11



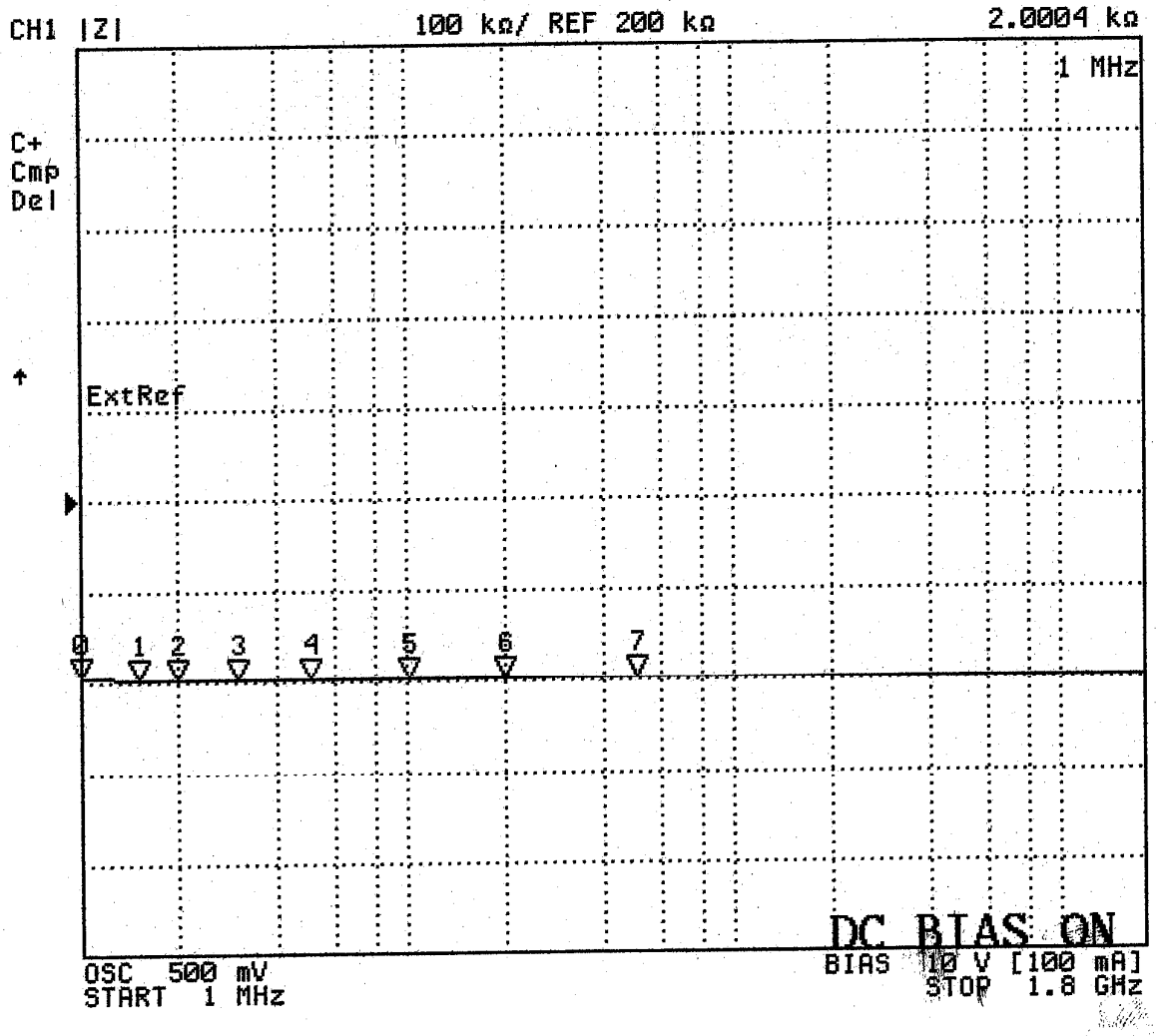
TEST #8 31 JULY 2000 (11)

NOTE: ① DEV #7
② FLATLINE AT 30mA @ 10V AT T= 108°C
③ FILE: 12
④ TIME: 11:20
⑤ SOAK AT 125°C FOR APPROX 30 MIN/ TOTAL.



TEST #8 31 JULY 2000 (12)

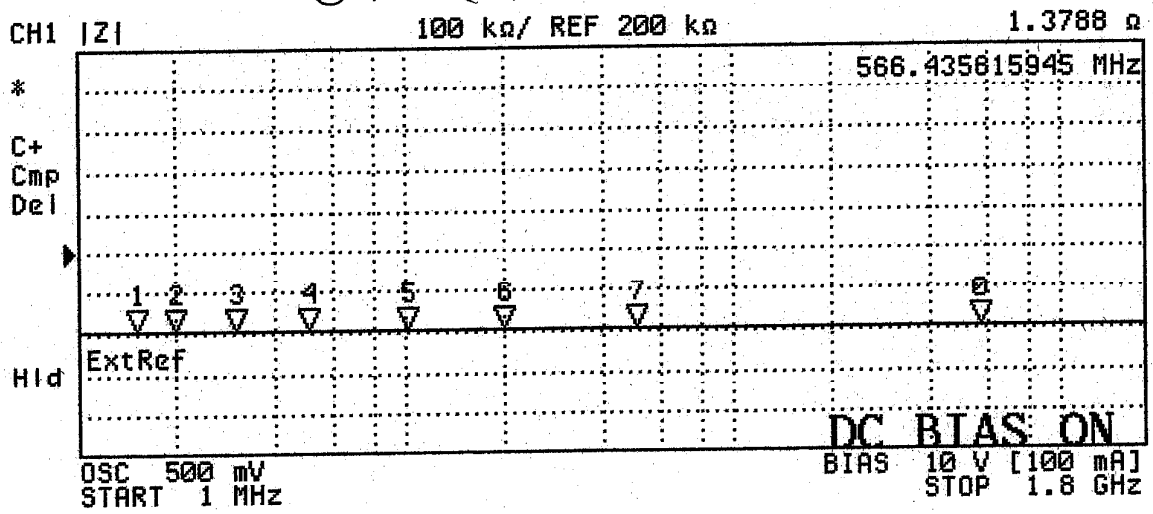
NOTE: ① DEV #7
② FLATLINE AT 100 mA @ 10V; T = 108°C
③ FILE: 13



31 JULY 2000 (13)

TEST #8

NOTE: (1) DEV #7
(2) 100 mA @ 10V
(3) T = 108.5°C
(4) R ≈ 1.4 Ω @ 566 MHz
(5) FILE: 13



N	STIMULUS	VAL
0	566.435615945 MHz	1.3788 Ω
1	1.502533134 MHz	1.3306 kΩ
2	2.00228497 MHz	997.97 Ω
3	3.004082066 MHz	665.05 Ω
4	5.000716093 MHz	399.41 Ω
5	10.010896139 MHz	199.34 Ω
6	20.010394243 MHz	99.462 Ω
7	50.016347219 MHz	39.327 Ω

$V = IR$

$I = \frac{10.0}{1.4} \approx 14\overline{)10000} \approx 7.14A$ AT FAILURE.

715
98
26
14
60
0

TEST #8

31 JULY 2000 (14)

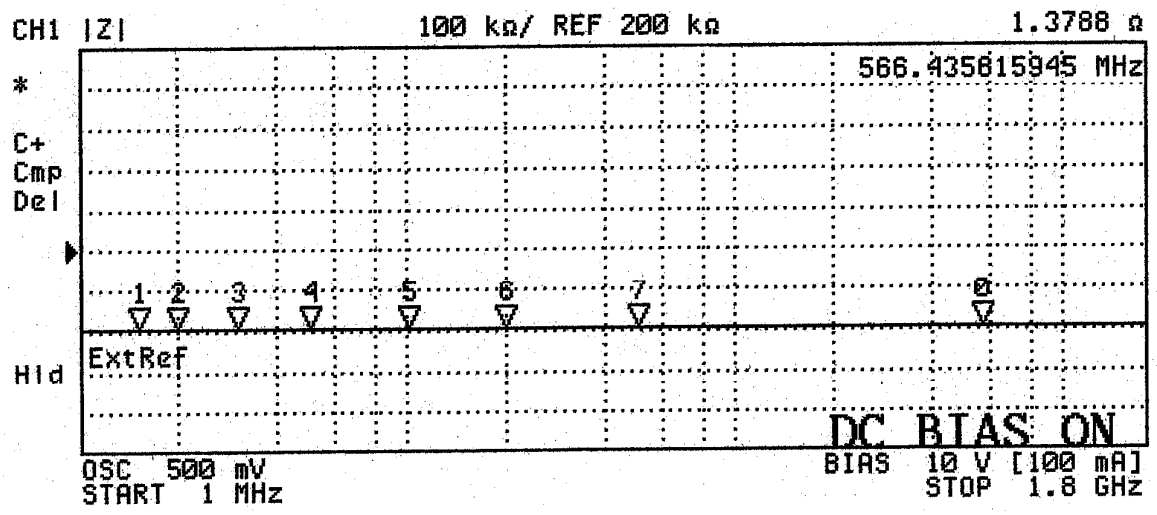
NOTE: ① DEV #7

② MAX CURRENT ≃ $\frac{10V}{1.4\Omega}$ ≃ 7.14 A

③ FILE: 13

④ T = 108 °C

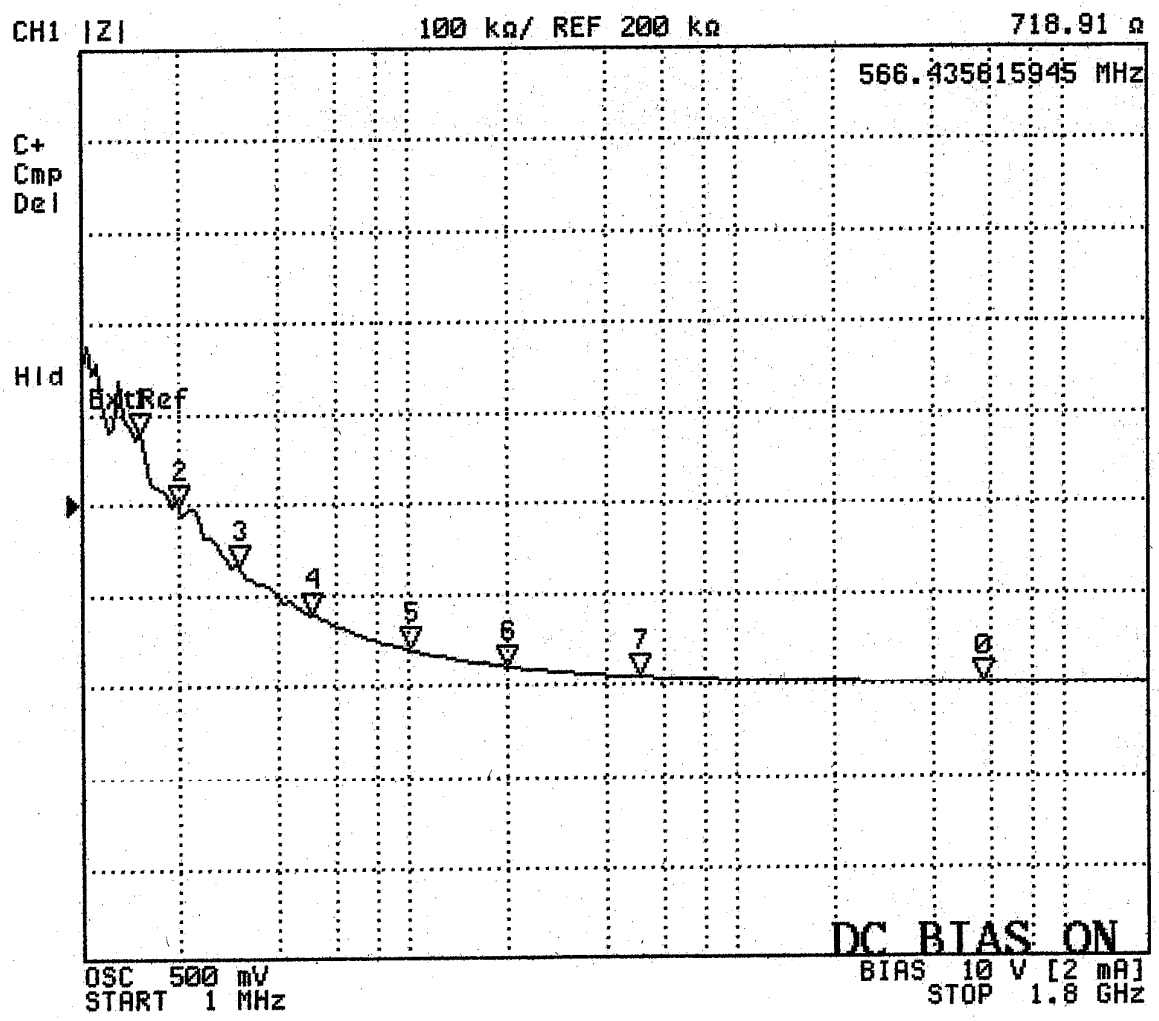
⑤ 100 mA @ 10V CURRENT LIMIT



N	STIMULUS	VAL
0	566.435615945 MHz	1.3788 Ω
1	1.502533134 MHz	1.3306 kΩ
2	2.00228497 MHz	997.97 Ω
3	3.004082066 MHz	665.05 Ω
4	5.000716093 MHz	399.41 Ω
5	10.010896139 MHz	199.34 Ω
6	20.010394243 MHz	99.462 Ω
7	50.016347219 MHz	39.327 Ω

TEST #8 31 JULY 2000 (5)

NOTE: (1) DEV #7
(2) 2mA@10V; T=80.9°C
(3) CAP FUNCTIONAL
(4) FILE: 14



TEST #8

31 JULY 2000

(16)

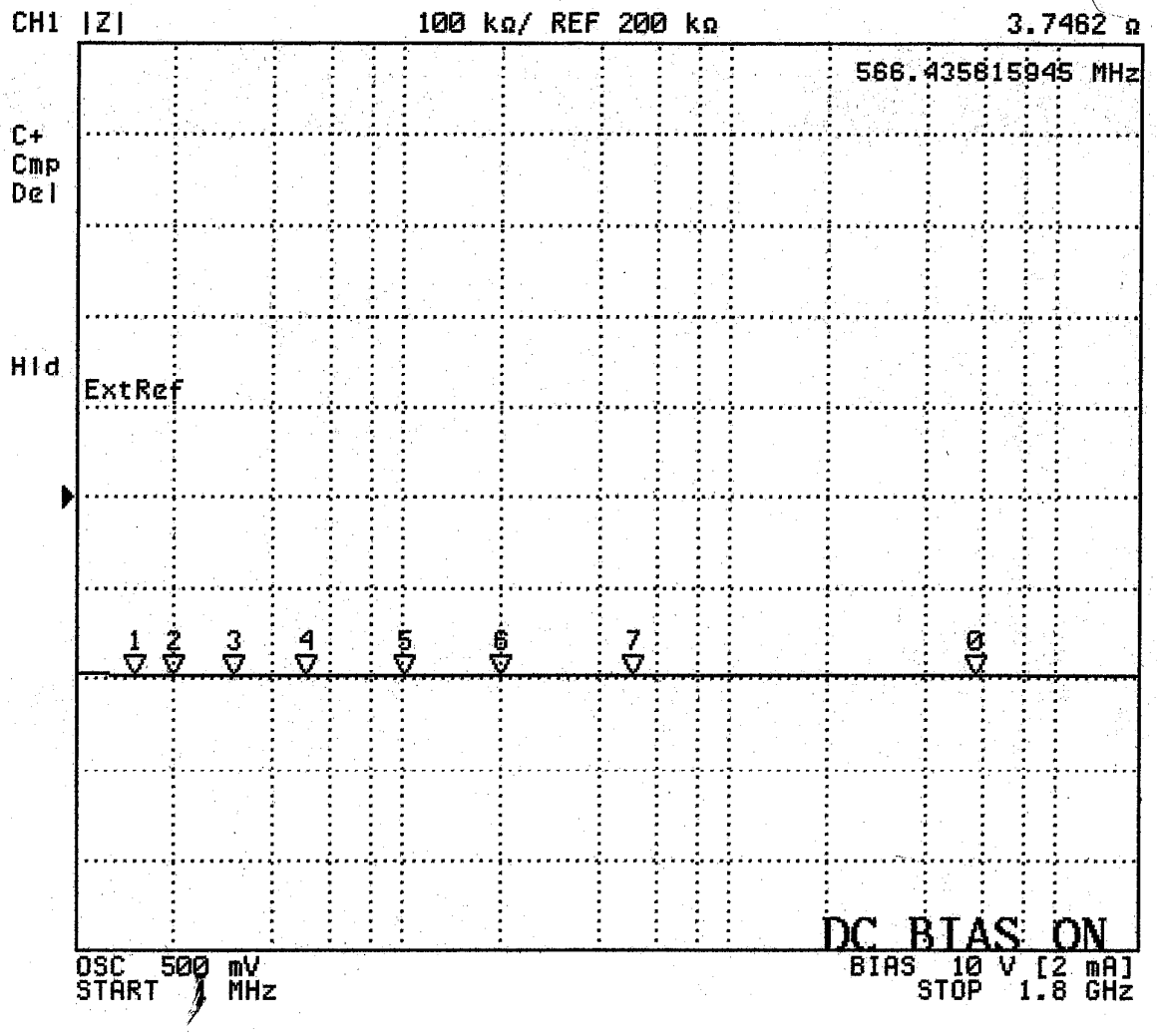
NOTE: ① DEV #7

② [illegible]mA @ 10V ; T = 100°C

③ FILE: 15

④ CAP NOT FUNCTIONAL

⑤ R ≈ 3.7Ω @ 565MHz

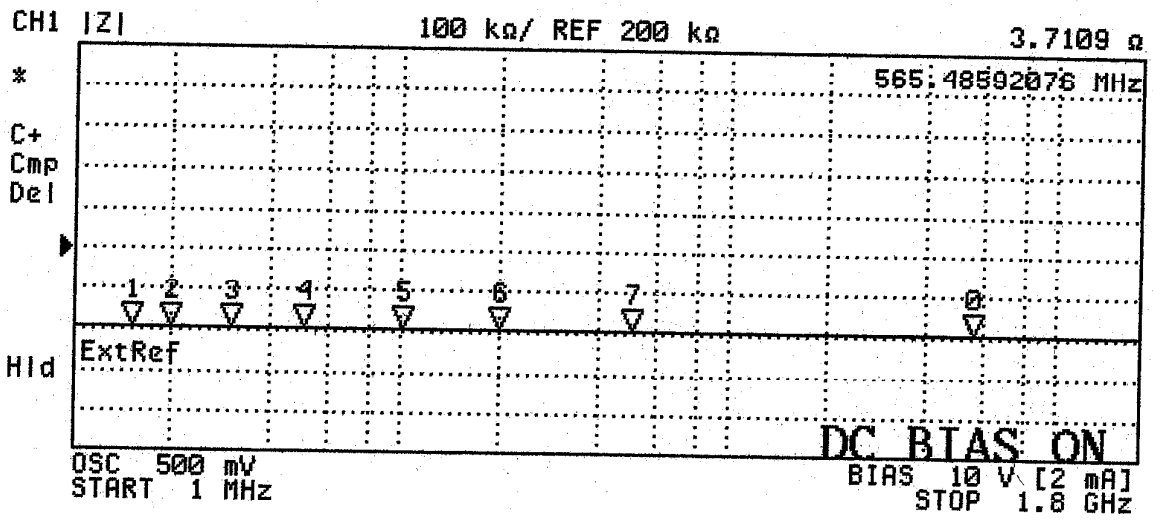


TEST #8

3 JULY 2000

①

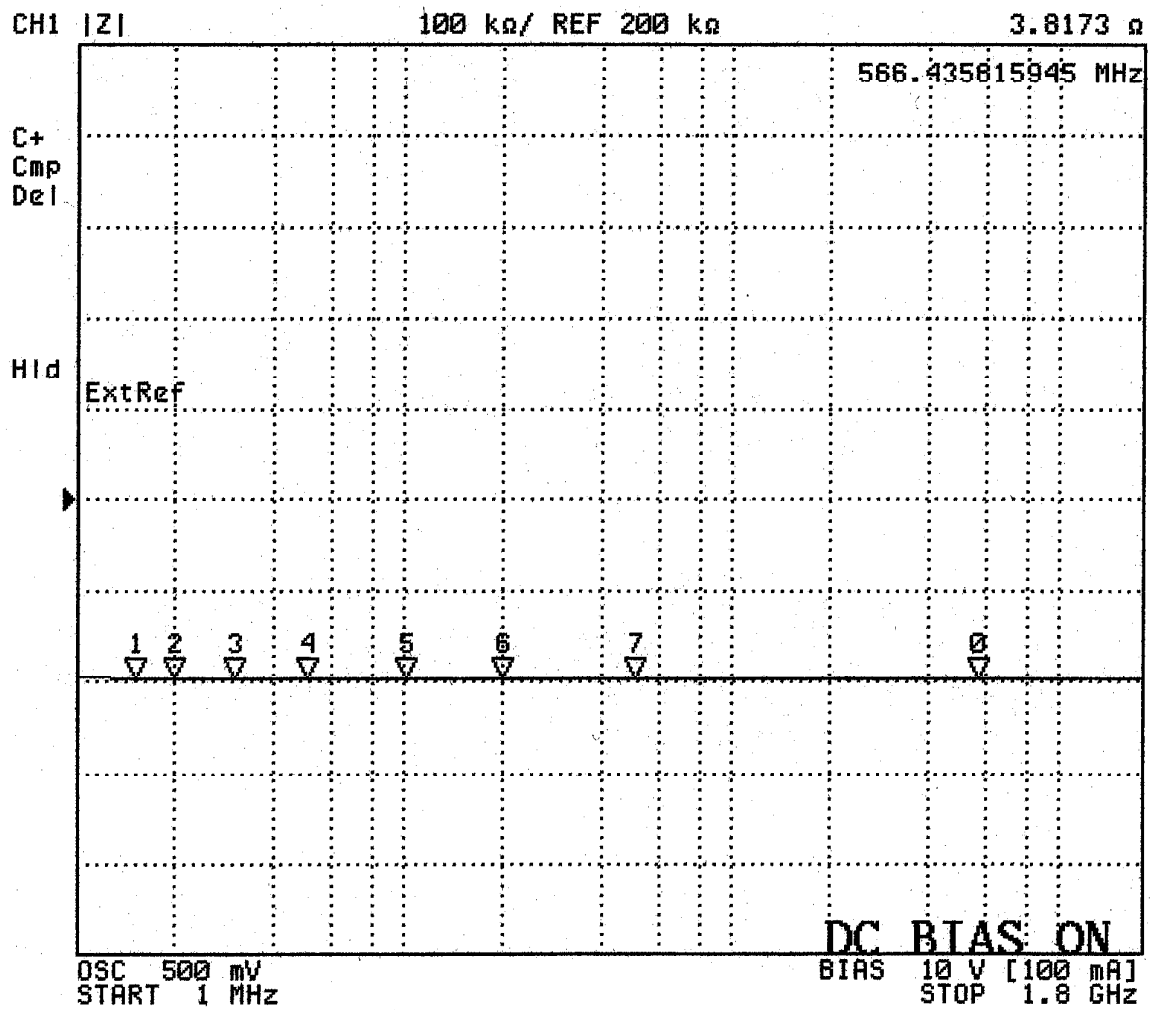
NOTE: ① DEV #7
② FILE: 15



N	STIMULUS	VAL
0	565.48592076 MHz	3.7109 Ω
1	1.502533134 MHz	1.332 kΩ
2	2.00228497 MHz	998.79 Ω
3	3.004082066 MHz	665.69 Ω
4	5.000716093 MHz	399.78 Ω
5	10.010896139 MHz	199.59 Ω
6	20.010394243 MHz	99.678 Ω
7	50.016347219 MHz	39.759 Ω

TEST #8 31 JULY 2000 (18)

NOTE: ① DEV #7
② FILE: 16
③ 100mA @ 10V; T=100°C
④ FLATLINE

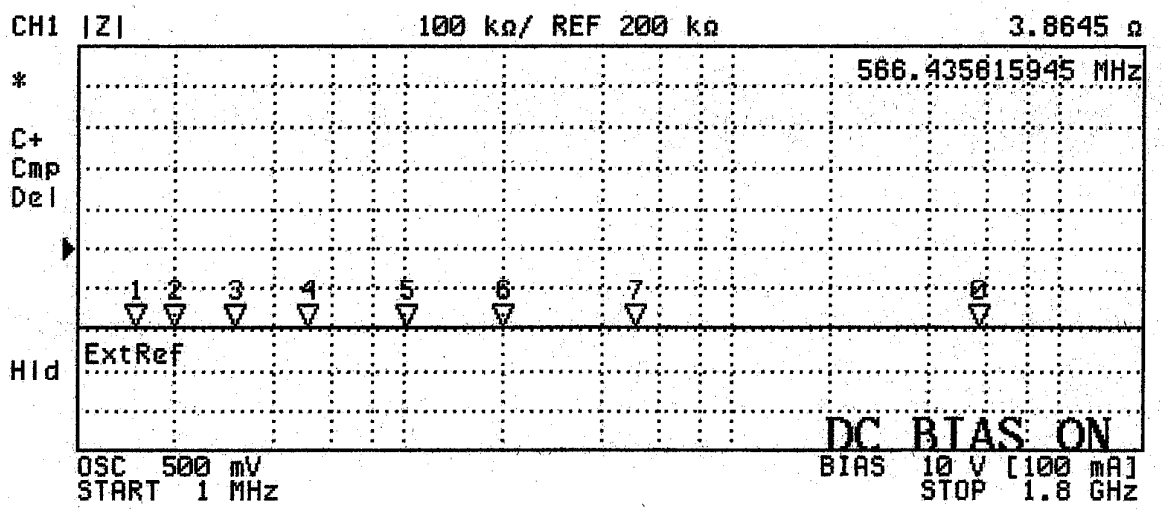


TEST #8

31 JULY 2000

(19)

NOTE: ① DEV #7
② FILE: 16



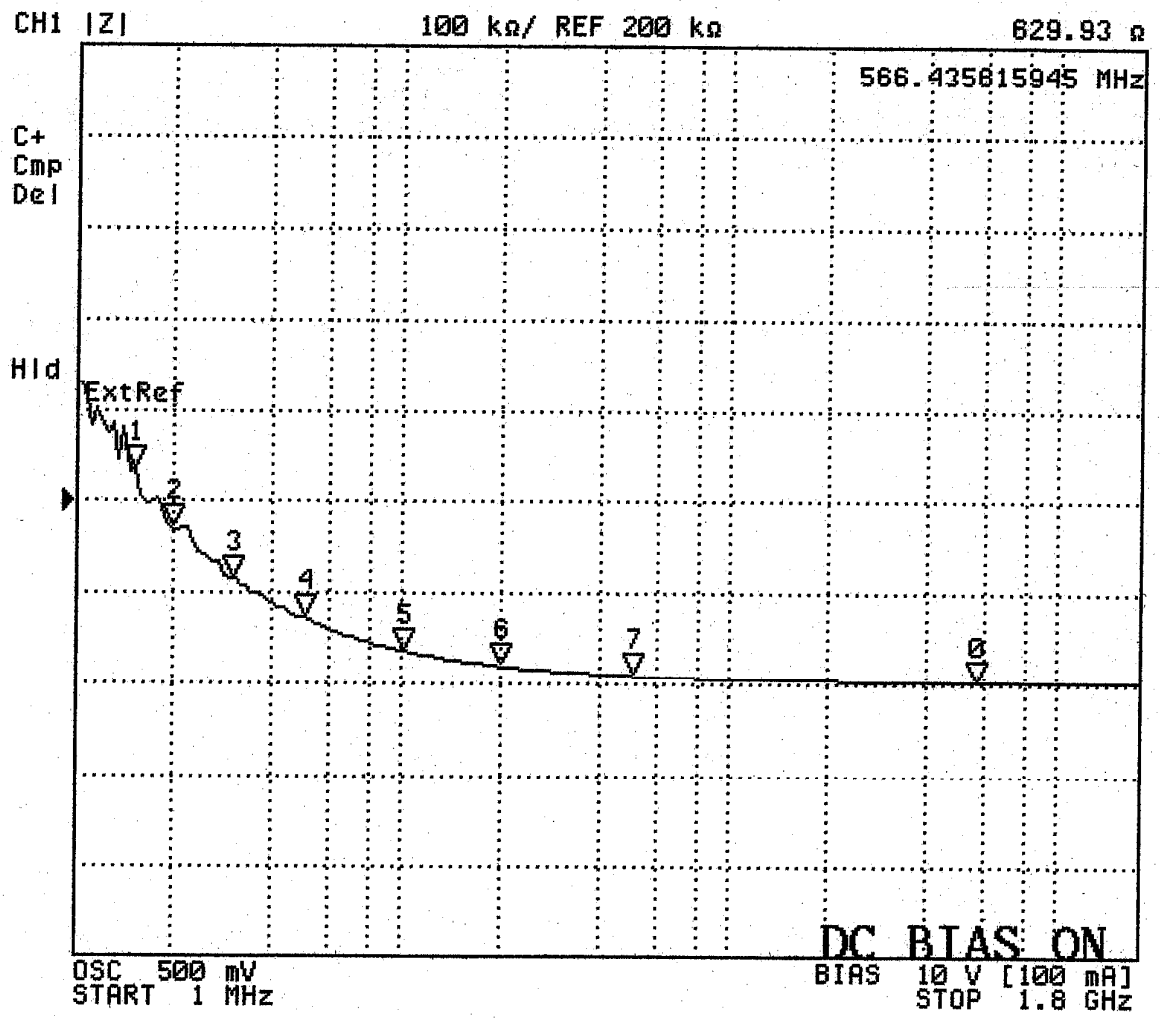
N	STIMULUS	VAL
0	566.435615945 MHz	3.8645 Ω
1	1.502533134 MHz	1.3317 kΩ
2	2.00228497 MHz	998.76 Ω
3	3.004082066 MHz	665.64 Ω
4	5.000716093 MHz	399.76 Ω
5	10.010896139 MHz	199.57 Ω
6	20.010394243 MHz	99.704 Ω
7	50.016347219 MHz	39.798 Ω

TEST #8

31 JULY 2000

(20)

NOTE: ① DEV #7
② FILE: 17
③ 100mA @ 10.0V ; T = 84°C
④ CAP IS FUNCTIONAL



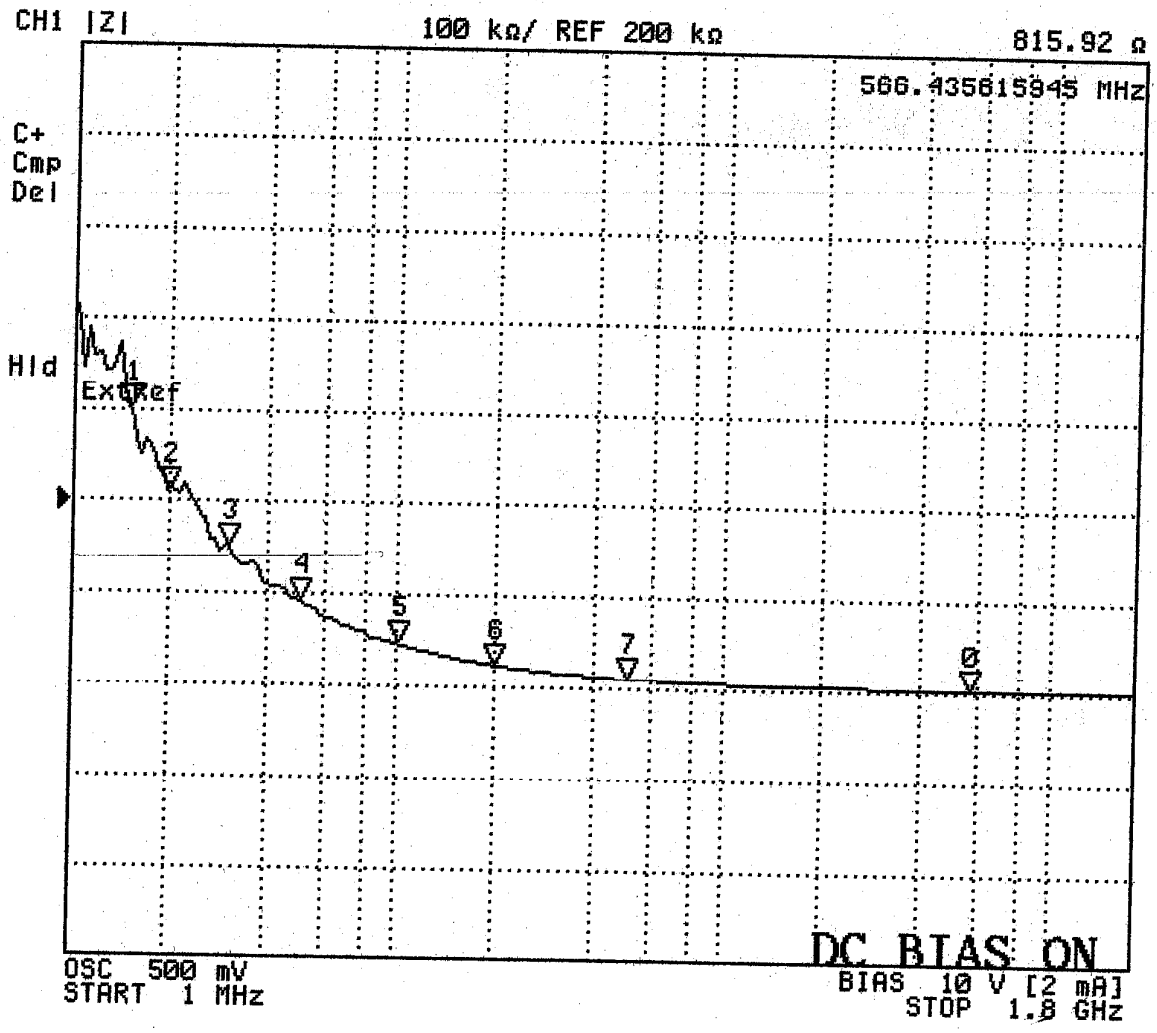
TEST #8 31 JULY 2000 (21)

NOTE: (1) DEV #7

(2) FILE: 18

(3) 2mA @ 10V : T = 84°C

(4) CAP IS FUNCTIONAL

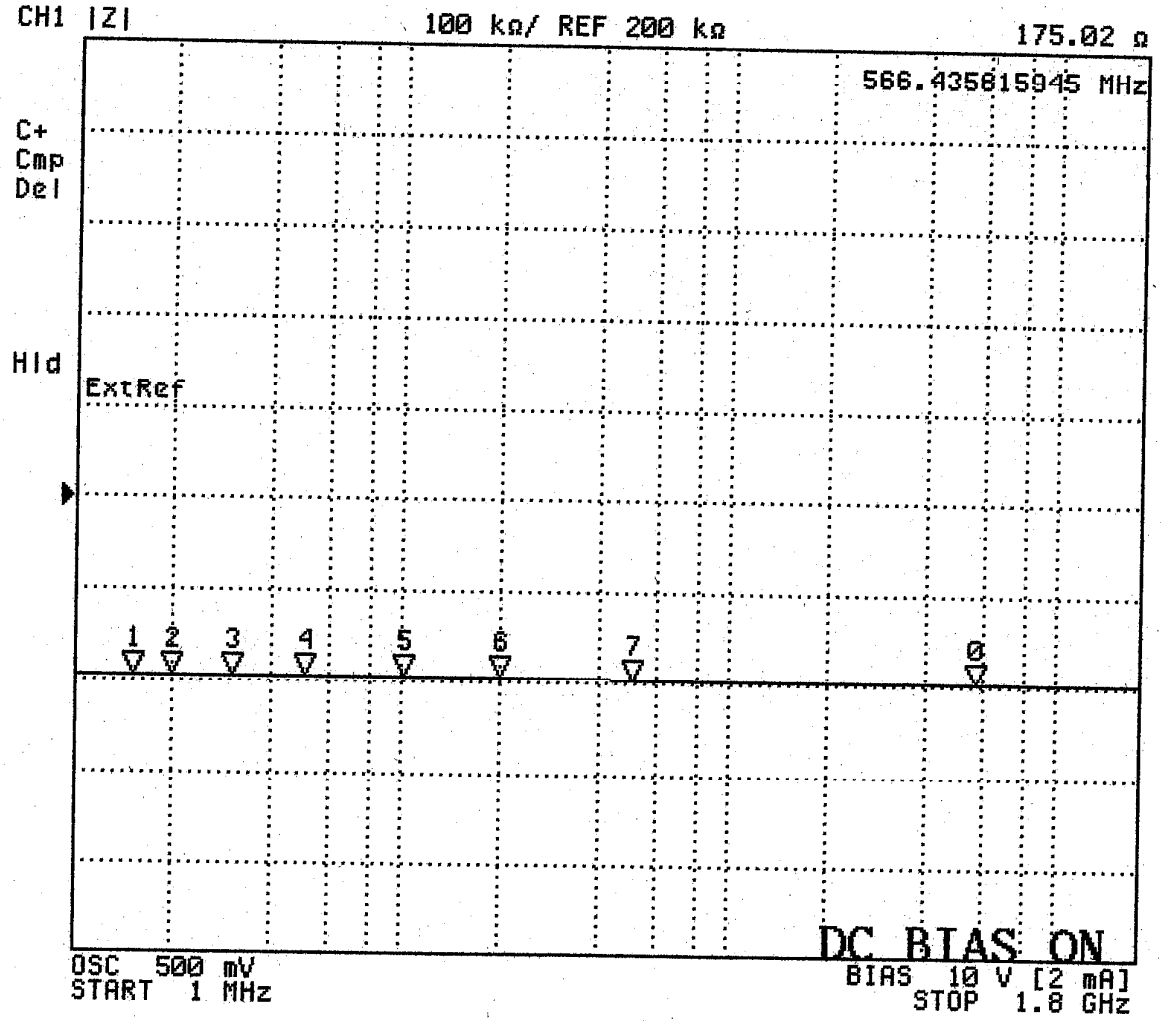


TEST #8

31 JULY 2000

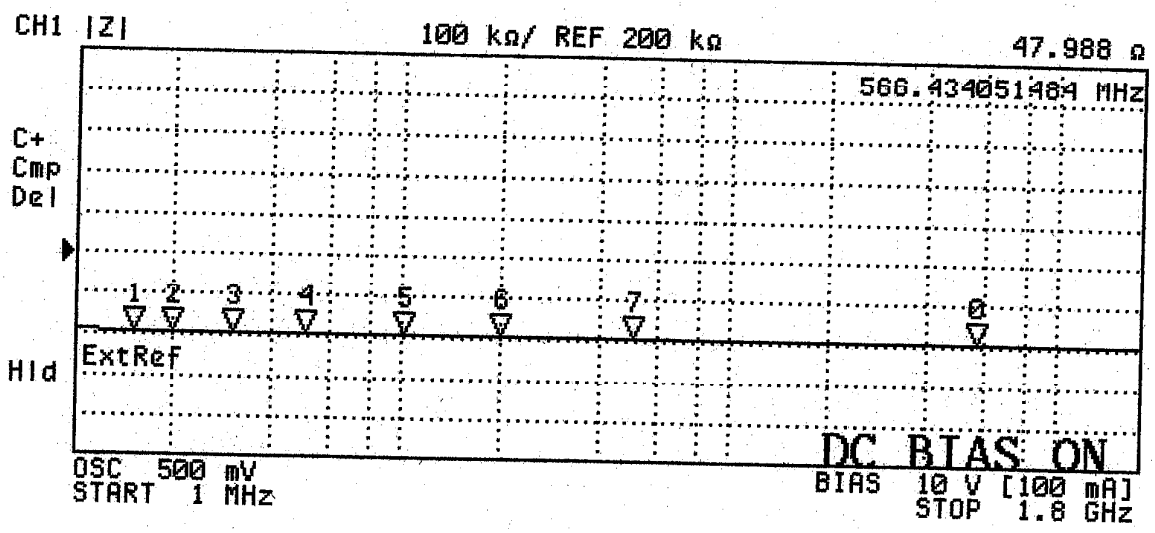
(22)

NOTE: ① DEV #7
② FILE: 19
③ 2mA @ 10 V; T = 95°C
④ CAP IS NONFUNCTIONAL
⑤ D.C. RESISTANCE 49 Ω @ 566 MHz



TEST #8 31 JULY 2000 (23)

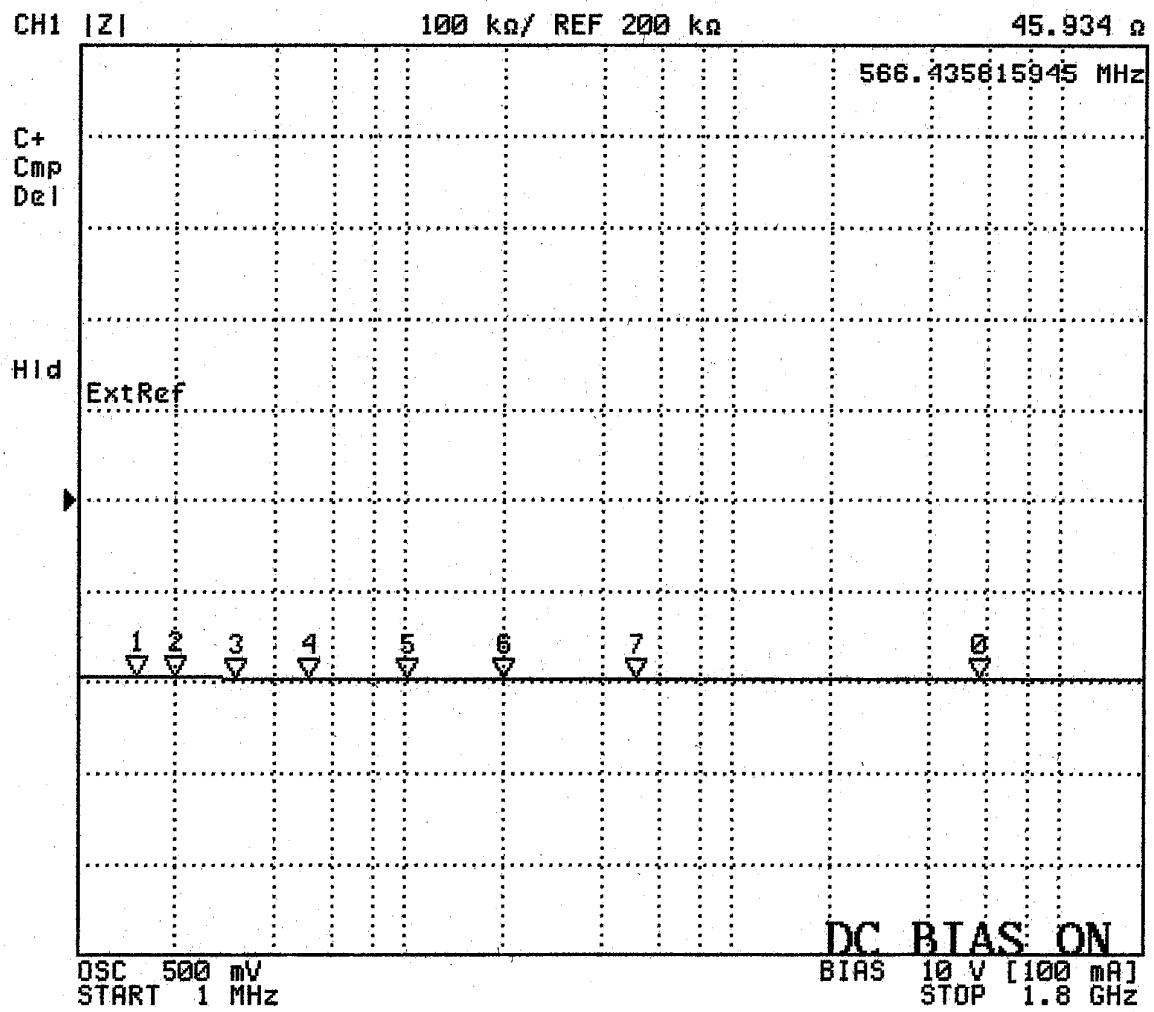
NOTE: ① DEV #7
② FILE: 19
③ 48 Ω @ 566 MHz
④ 2mA @ 10V; T=95°C
⑤ CAP NONFUNCTIONAL



N	STIMULUS	VAL
0	566.434051484 MHz	47.988 Ω
1	1.502533134 MHz	3.2651 kΩ
2	2.00228497 MHz	2.956 kΩ
3	3.004082066 MHz	2.6362 kΩ
4	5.000716093 MHz	2.2601 kΩ
5	10.010896139 MHz	1.6747 kΩ
6	20.010394243 MHz	1.0698 kΩ
7	50.016347219 MHz	490.74 Ω

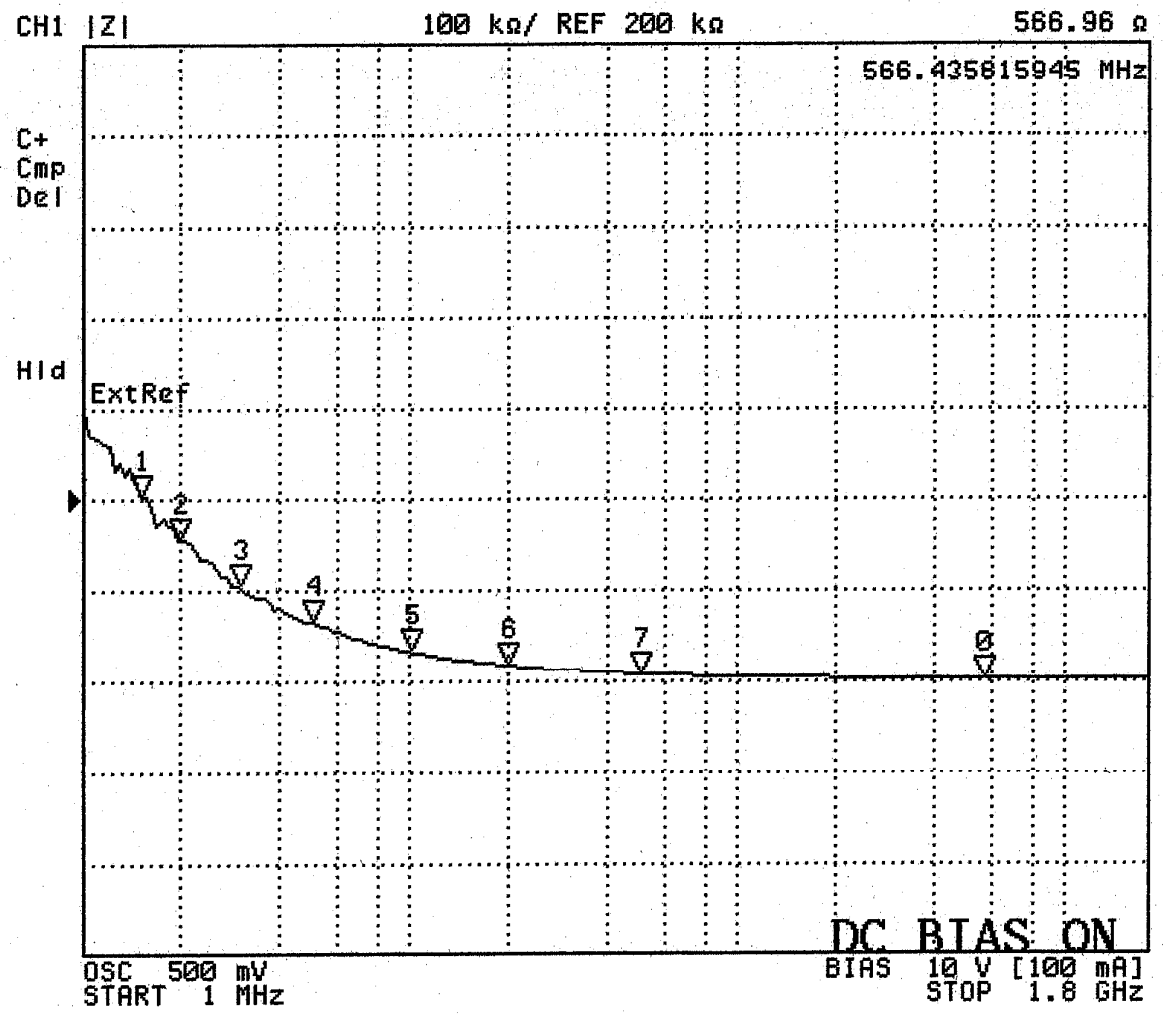
TEST #8 31 JULY 2000 (24)

NOTE: (1) DEV#7
(2) FILE: 20
(3) 100 ma @ 10V; T=95°C
(4) CAP NONFUNCTIONAL



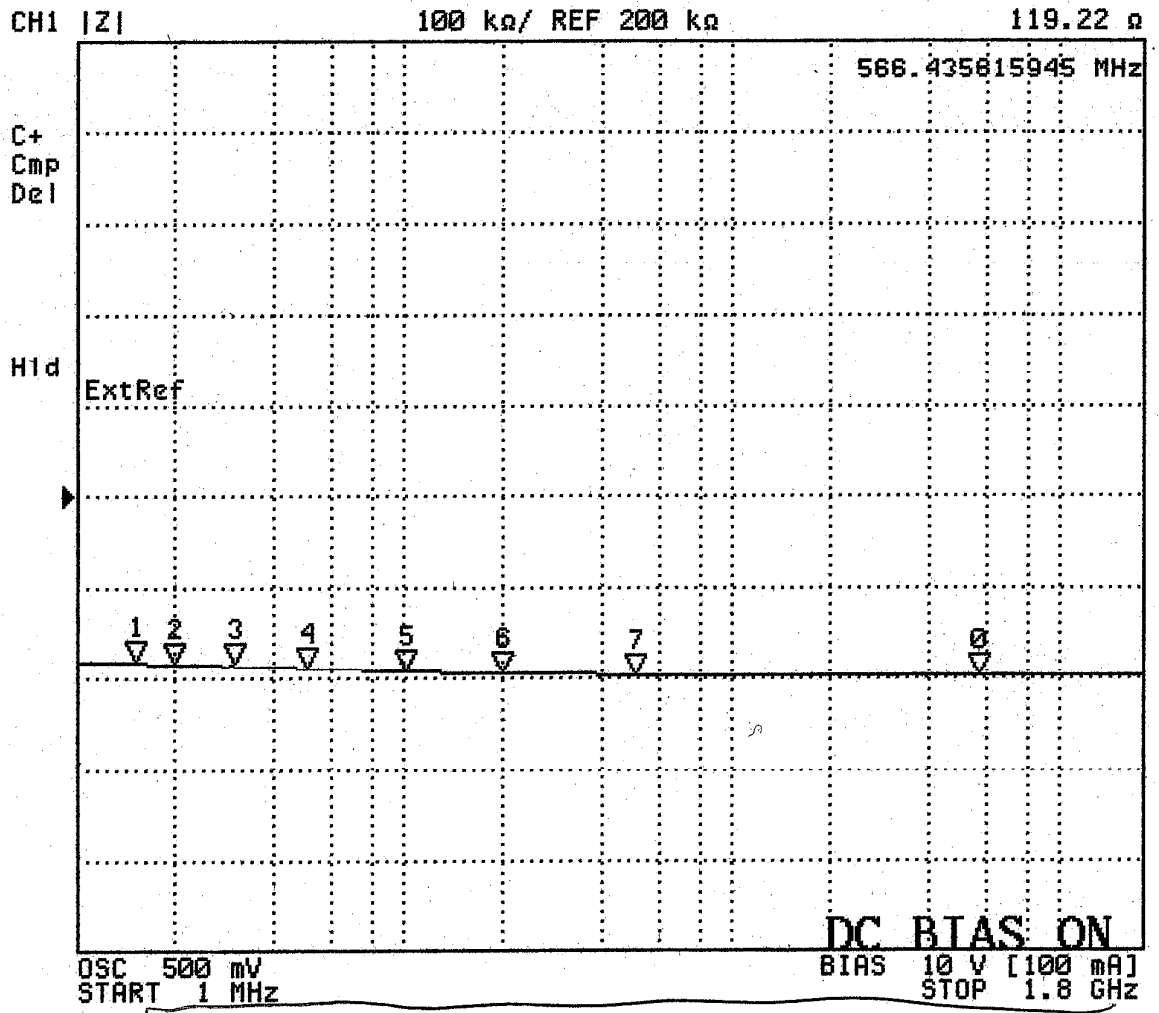
TEST#8 31 JULY 2000 (25)

NOTE: ① DEV#7
② FILE: 21
③ 100 mA @ 10 V; T = 88°C
④ CAP IS FUNCTIONAL
⑤ R ≈ 627 Ω @ 566 MHz @ 88°C



TEST#6 31 JULY 2000 (26)

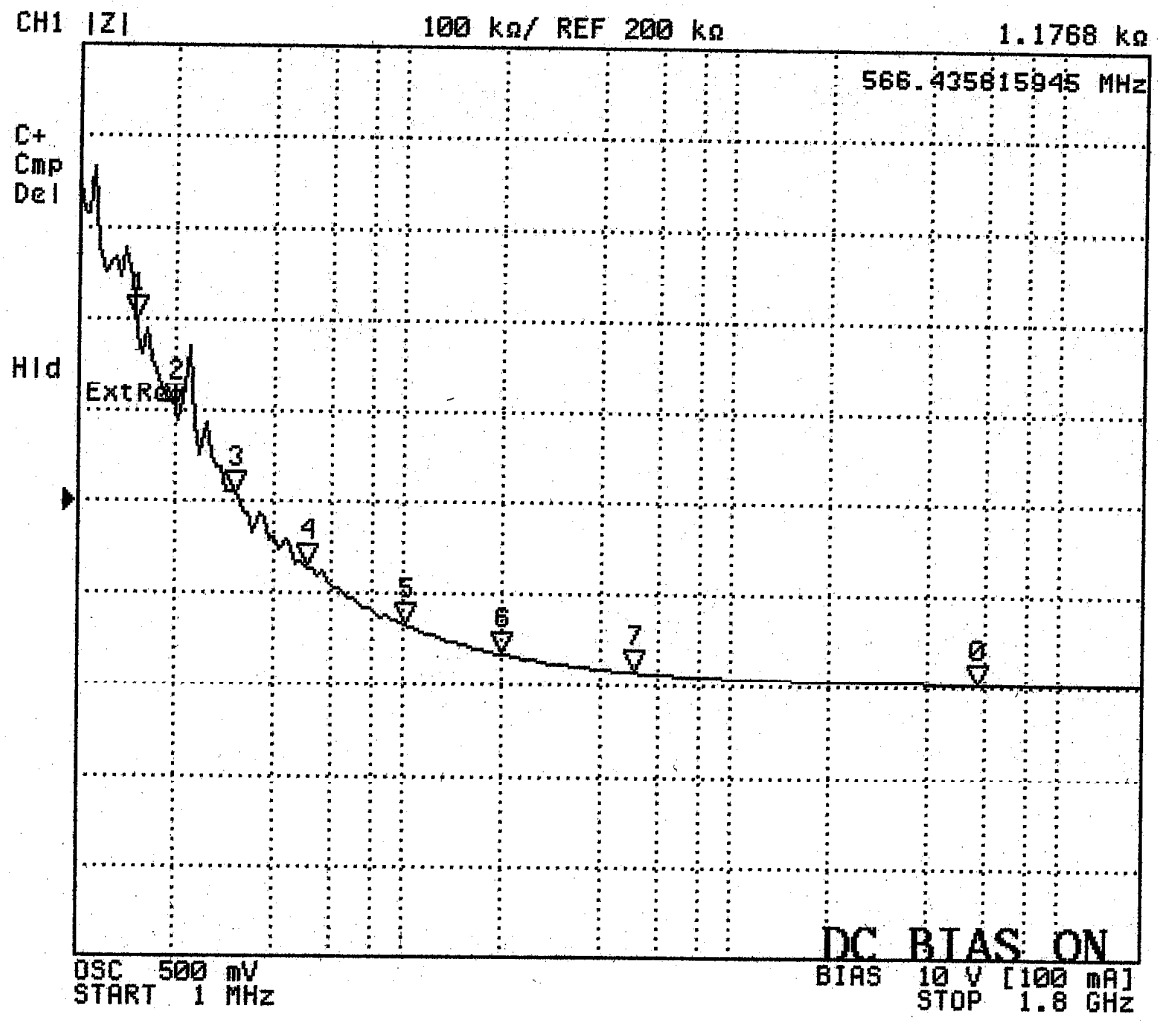
NOTE: (1) DEV#7
(2) FILE: 22 T ≈ 93°C
(3) R ≈ 93 Ω @ 566 MHz
(4) CAP NONFUNCTIONAL



NOTE: 627
93
Δ 534°

107
5) 534
5
034°

Δ R ≈ 107 Ω FROM 88°C TO 93°C

TEST #6 31 JULY 2000

NOTE: (1) DEV #7
(2) FILE: 23 T = 23°C (ROOM TEMP)
(3) END OF TEST
(4) R 21.2 KΩ @ 566 MHz