



PLANAR MONOLITHICS INDUSTRIES  
 7311-G GROVE ROAD, FREDERICK, MD 21704  
 TEL: 301-631-1579 FAX: 301-662-2029  
 URL: WWW.PLANARMONOLITHICS.COM  
 EMAIL: SALES@PLANARMONOLITHICS.COM  
 ISO 9001:2000 CERTIFIED

**SUMMARY TEST DATA ON  
 RECEIVER SUBSYSTEM**

CUSTOMER: \_\_\_\_\_ TESTED BY: B. Baker  
 MODEL NO: RFE-218-70-BB TEMPERATURE: -10 TO + 85 C  
 OPTION NO: JT DATE: 05/11/06  
 SERIAL NO: PM604086 JOB NO: P511046E

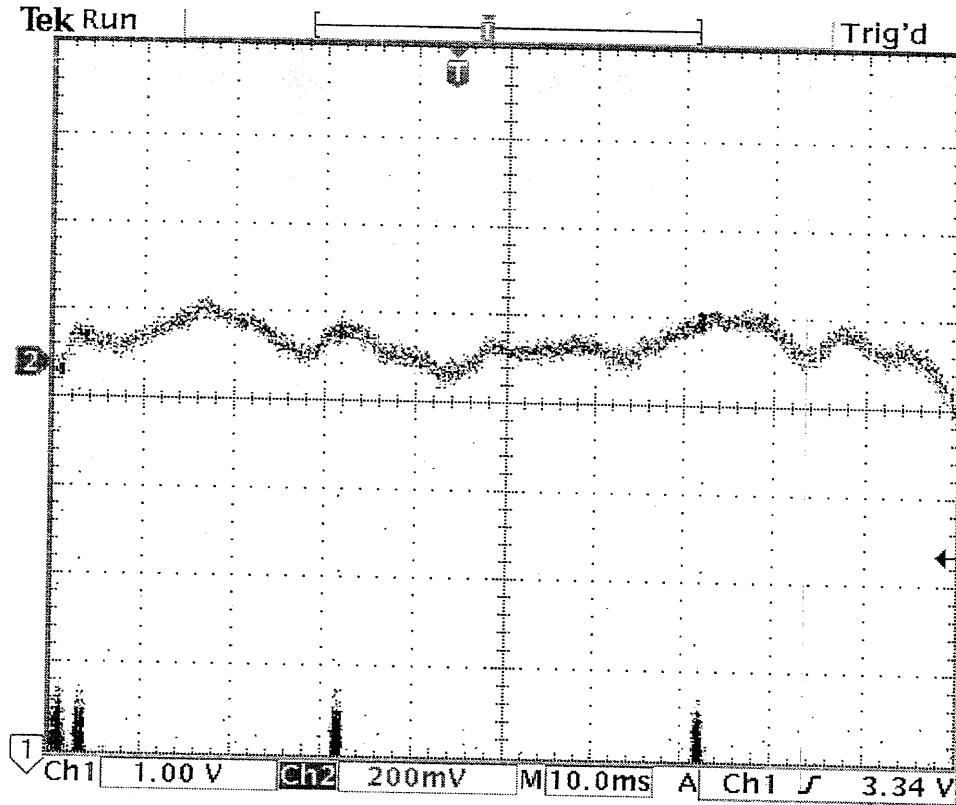
| TEST ITEM NO: | PARAMETERS                            | SPECIFIED VALUE                   | MEASURED VALUE  | Q/A |
|---------------|---------------------------------------|-----------------------------------|-----------------|-----|
| 1             | FREQUENCY                             | 2 TO 18 GHz                       | 2 to 18 GHz     | ✓   |
| 2             | INPUT VSWR IN FREQUENCY RANGE         | 3.0:1 (MAXIMUM)                   | J2: 2.7:1       | ✓   |
|               |                                       |                                   | J3: 2.6:1       |     |
| 3             | FREQUENCY FLATNESS OF DLVA OUTPUTS    | ±3 dB (MAXIMUM)                   | J4: ±2.6 dB     | ✓   |
|               |                                       |                                   | J5: ±3 dB       |     |
| 4             | DYNAMIC RANGE                         | -60 TO +5 dBm (MINIMUM)           | J4: -65to+5dBm  | ✓   |
|               |                                       |                                   | J5: -65to+5dBm  |     |
| 5             | RISE TIME                             | 30 nSec (MAXIMUM)                 | J4: 23 nSec     | ✓   |
|               |                                       |                                   | J5: 23 nSec     |     |
| 6             | RECOVERY TIME                         | 350 nSec MAXIMUM                  | J4: 250 nSec    | ✓   |
|               |                                       |                                   | J5: 100 nSec    |     |
| 7             | LOG SLOPE                             | 50 mV/dB (±10%)                   | J4: 47 to 52 mV | ✓   |
|               |                                       |                                   | J5: 47 to 53 mV |     |
| 8             | LOG LINEARITY                         | ±2.25 dB (MAXIMUM)                | J4: + 2.2 dB    | ✓   |
|               |                                       |                                   | J5: + 1.8 dB    |     |
| 9             | TSS                                   | -63 dBm (MINIMUM)                 | J4: - 65 dBm    | ✓   |
|               |                                       |                                   | J5: -66 dBm     |     |
| 10            | TEMPERATURE STABILITY (-10 TO + 85 C) | ± 2 dB (MAXIMUM)                  | J4: ±1.3 dB     | ✓   |
|               |                                       |                                   | J5: ±1.6 dB     |     |
| 11            | GAIN                                  | +3 dB (TYPICAL)                   | J2-J1: + 3.5 dB | ✓   |
|               |                                       |                                   | J3-J1: + 3 dB   |     |
| 12            | ISOLATION J2 TO J3                    | 24 dB (MINIMUM)                   | > 24 dB         | ✓   |
| 13            | D.C. POWER +9 V                       | 850 mA (MAXIMUM WITH NO RF INPUT) | 750 mA          | ✓   |
| 14            | D.C. POWER -9 V                       | 300 mA (MAXIMUM)                  | 250 mA          | ✓   |

QA/QC APPROVAL: \_\_\_\_\_ **Q4**

DATED: 5/11/06

RFE-218-70-BB S/N: PM604086

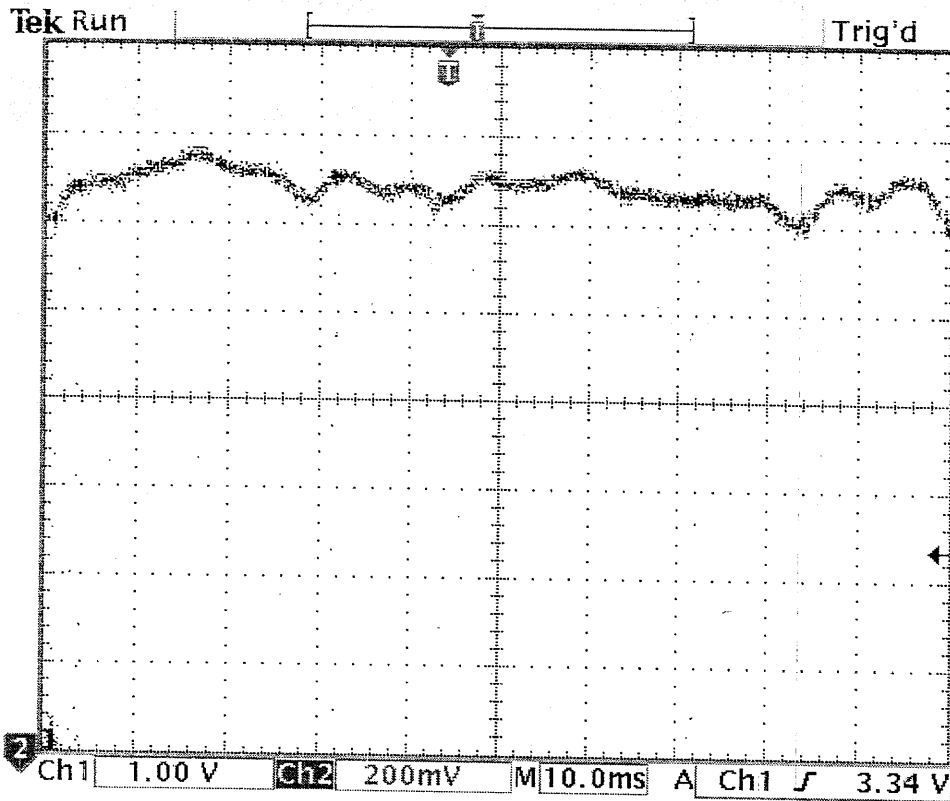
J5 FREQUENCY FLATNESS @ - 50 dBm , + 25 C, 2 TO 18 GHz,  
200 millivolts/div.



9 May 2006  
14:54:06

RFE-218-70-BB S/N: PM604086

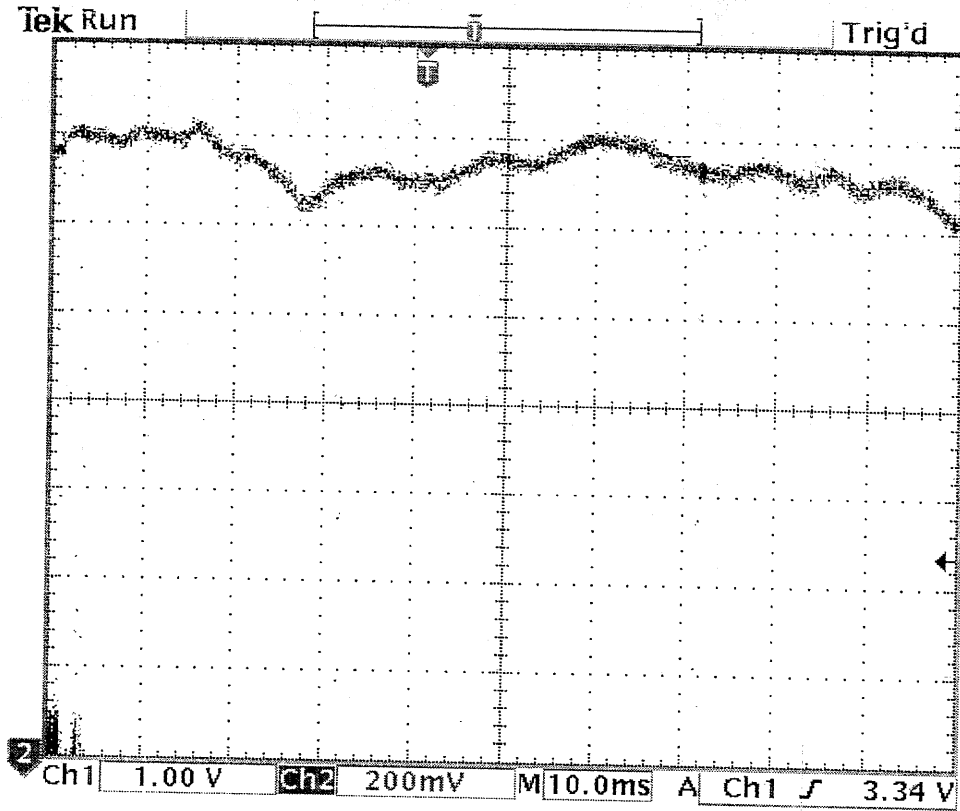
J5 FREQUENCY FLATNESS @ - 20 dBm , + 25 C, 2 TO 18 GHz,  
200 millivolts/div.



9 May 2006  
14:54:51

RFE-218-70-BB S/N: PM604086

J4 FREQUENCY FLATNESS @ - 20 dBm , + 25 C, 2 TO 18 GHz ,  
200 millivolts/div.

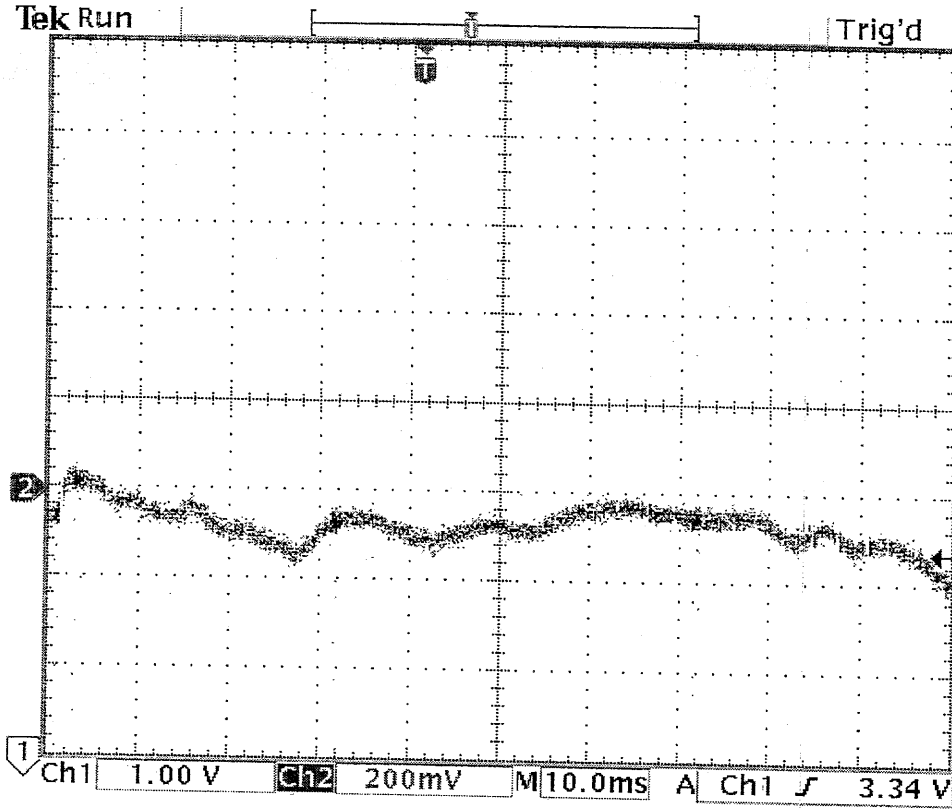


41.20 %

9 May 2006  
14:26:26

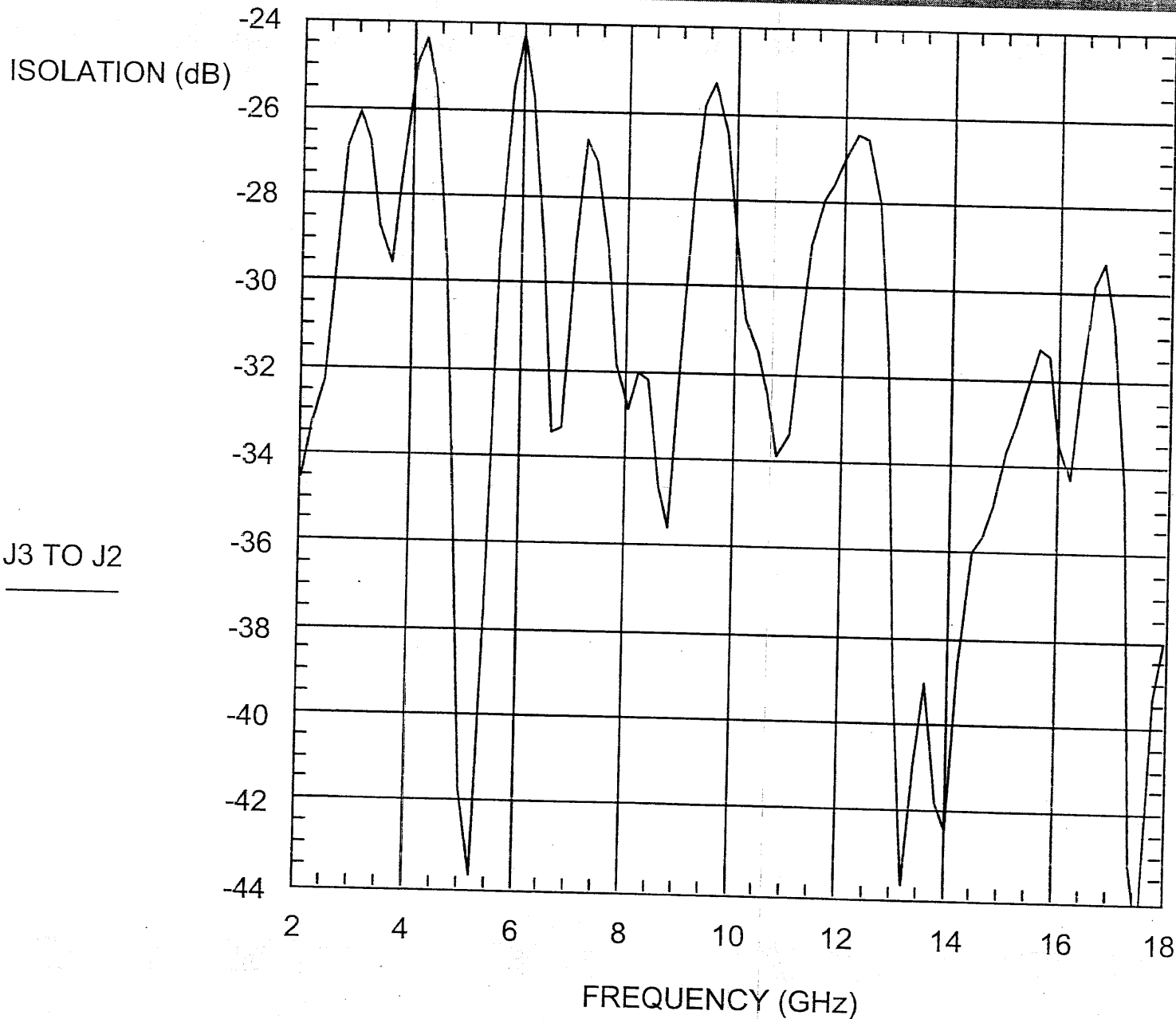
RFE-218-70-BB S/N: PM604086

J4 FREQUENCY FLATNESS @ - 50 dBm , + 25 C, 2 TO 18 GHz ,  
200 millivolts/div.



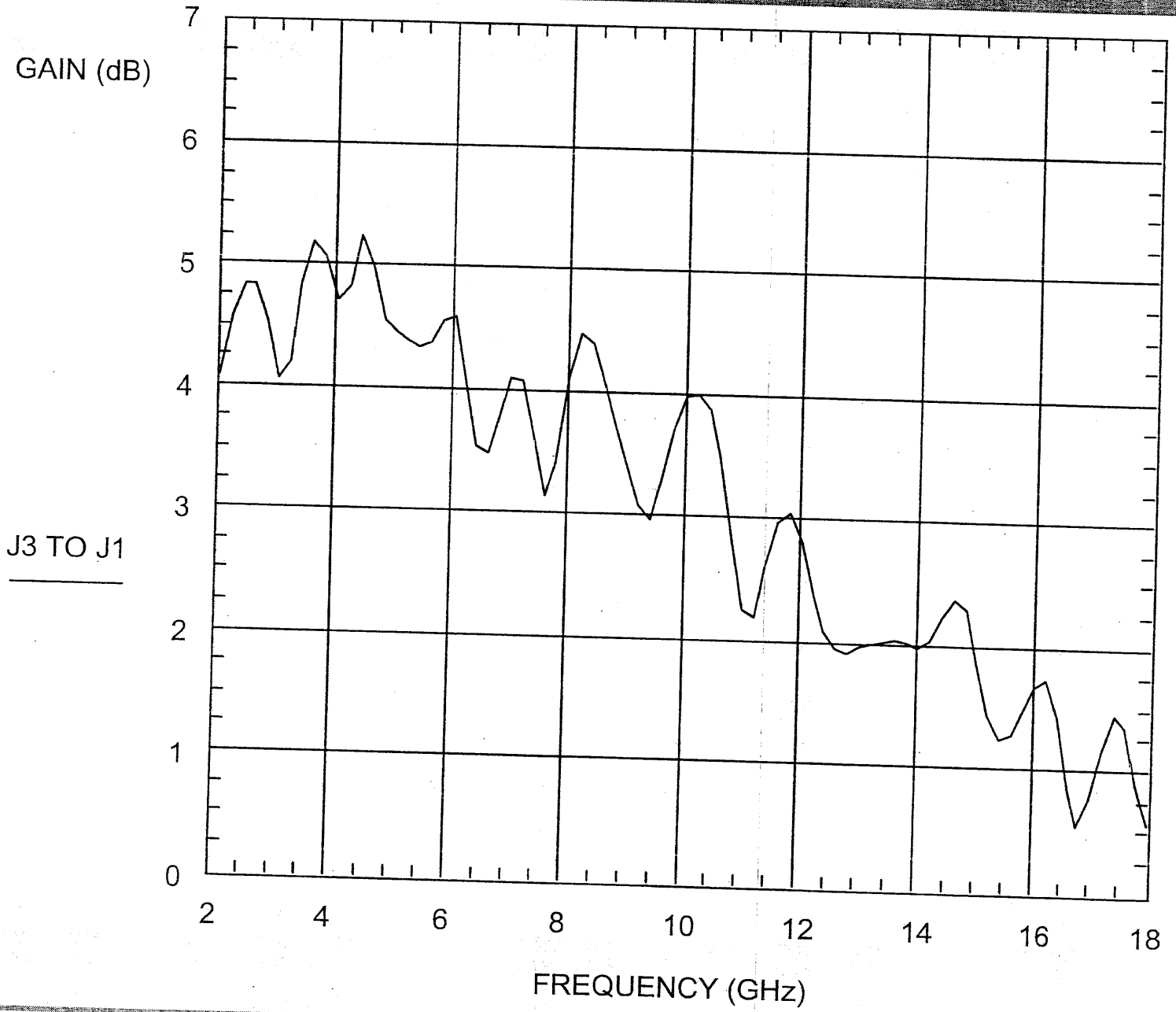
9 May 2006  
14:25:38

RFE-218-70-BB S/N PM604086 J3 TO J2

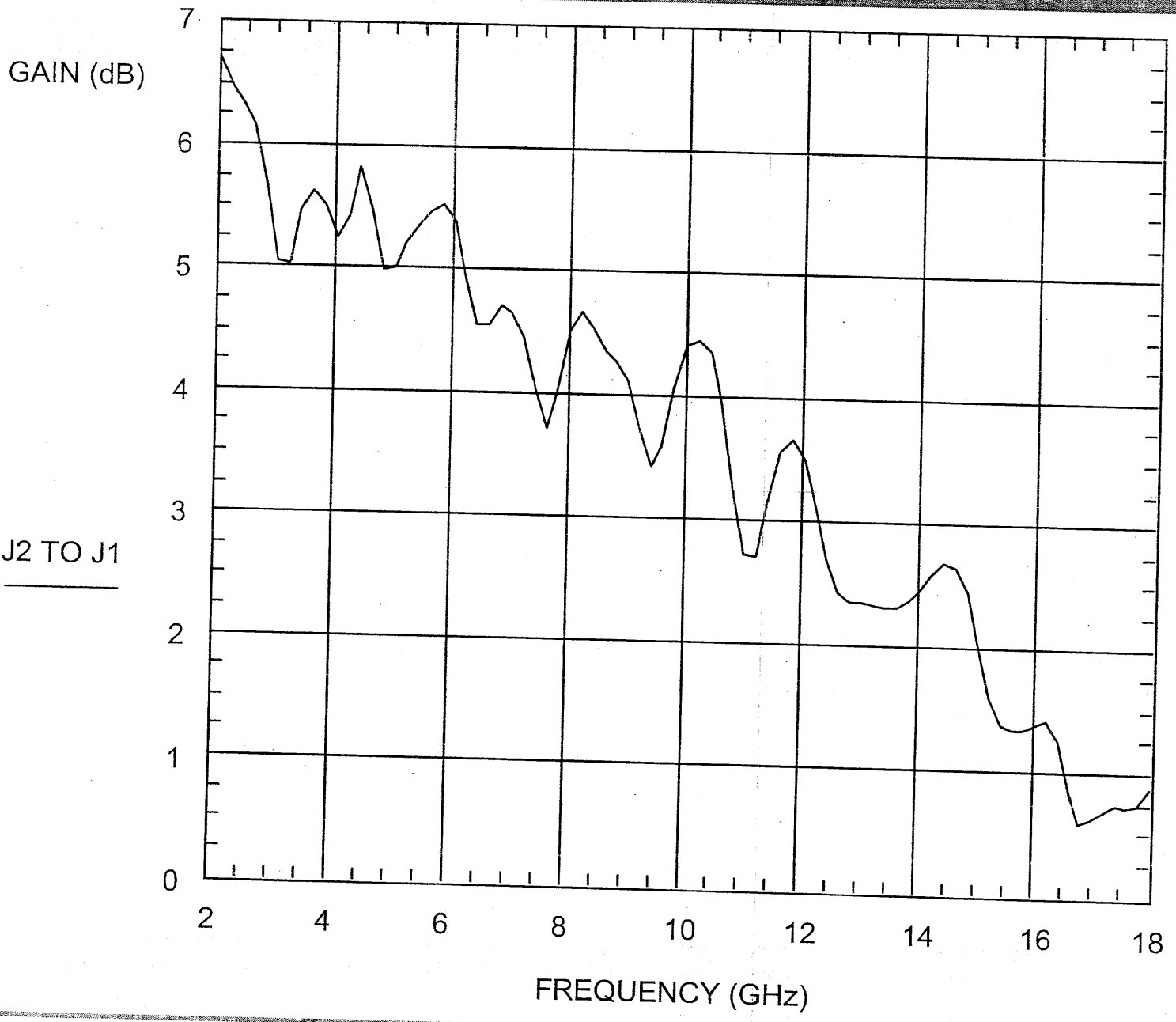


J3 TO J2

RFE-218-70-BB S/N: PM604086 J3 TO J1



RFL-218-70-BB S/N PM604086 J2 TO J1





RFE-218-70-BB

S/N: PM604086

LOG TRANSFER AT J4 OUTPUT VERSUS J2 INPUT

05/10/06 + 25 C



PLANAR MOLYBDENUM INDUSTRIES  
7311-G GROVE ROAD, FREDERICK, MD 21704  
TEL: 301-431-1978 FAX: 301-462-2629  
URL: WWW.PLANARMOLYBDENUM.COM

J2 INPUT POWER (dBm)

|     |     |     |     |     |     |     |     |     |     |     |     |    |   |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|
| -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 50.3 mv/db        |
| INTERCEPT | 3422.6 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 170 | 420 | 680 | 910 | 1160 | 1390 | 1640 | 1860 | 2110 | 2410 | 2660 | 2950 | 3200 | 3450 | 3680 |
| 20  | 18  | 26  | 5   | 3    | -19  | -21  | -52  | -54  | -6   | -7   | -31  | -29  | 27   | 6    |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 49.7 mv/db        |
| INTERCEPT | 3368.9 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 150 | 380 | 640 | 870 | 1130 | 1370 | 1630 | 1890 | 2150 | 2370 | 2610 | 2860 | 3130 | 3370 | 3640 |
| 12  | 7   | 5   | -14 | 2    | -11  | 1    | 12   | 24   | -5   | -13  | -12  | 10   | 1    | 23   |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 50.3 mv/db        |
| INTERCEPT | 3419.3 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 160 | 410 | 670 | 890 | 1150 | 1390 | 1650 | 1910 | 2160 | 2400 | 2670 | 2920 | 3180 | 3420 | 3700 |
| 10  | 8   | 17  | -14 | -6   | -17  | -9   | 0    | -1   | -13  | 6    | 4    | 13   | 2    | 30   |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 48.8 mv/db        |
| INTERCEPT | 3382.9 millivolts |

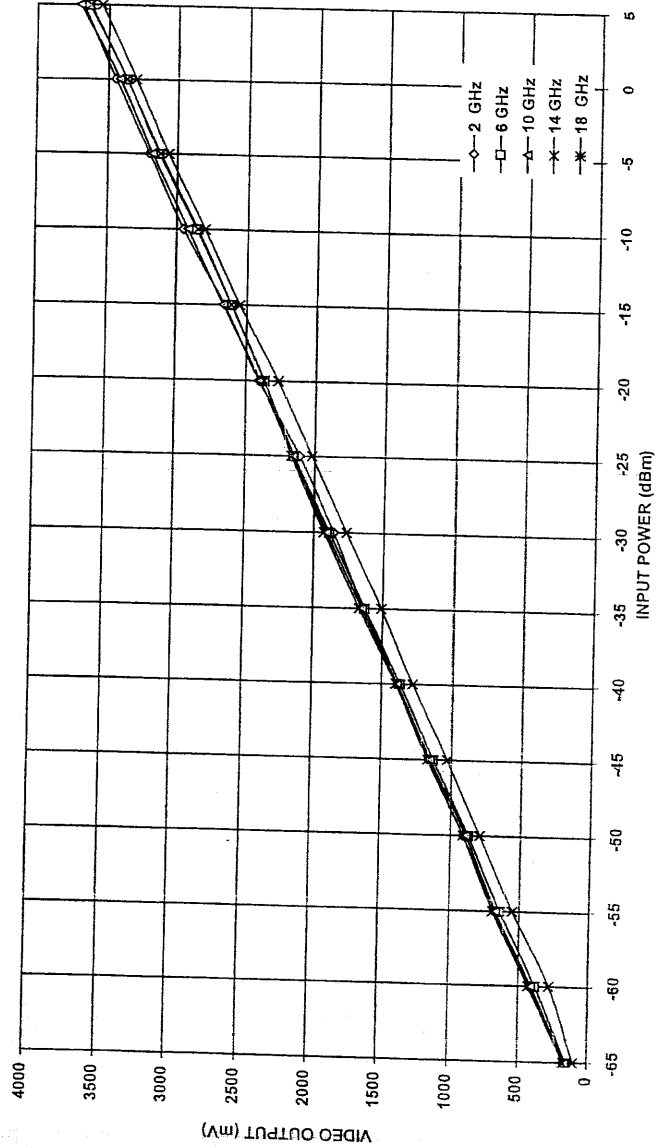
|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 170 | 430 | 690 | 910 | 1170 | 1400 | 1670 | 1930 | 2170 | 2370 | 2610 | 2850 | 3120 | 3370 | 3630 |
| -19 | -3  | 13  | -11 | 5    | -9   | 16   | 32   | 28   | -16  | -20  | -25  | 1    | 7    | 23   |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 49.9 mv/db        |
| INTERCEPT | 3285.4 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 100 | 280 | 550 | 790 | 1030 | 1280 | 1510 | 1770 | 2020 | 2270 | 2550 | 2800 | 3060 | 3300 | 3550 |
| 60  | -9  | 11  | 1   | -8   | -8   | -28  | -17  | -17  | -17  | -14  | 14   | 24   | 15   | 15   |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |



RFE-218-70-BB

S/N: PM604086

LOG TRANSFER AT J4 OUTPUT VERSUS J2 INPUT

05/10/06 -10 C



PLANAR MONOLITHICS INDUSTRIES  
7311-G GROVE ROAD, FREDERICK, MD 21704  
TEL: 301-631-1879 FAX: 301-662-2629  
URL: WWW.PLANARMONOLITHICS.COM

J2 INPUT POWER (dBm)

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 51.0 mV/db        |
| INTERCEPT | 3445.7 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 50.5 mV/db        |
| INTERCEPT | 3390.3 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 51.0 mV/db        |
| INTERCEPT | 3430.3 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 49.4 mV/db        |
| INTERCEPT | 3352.6 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 51.3 mV/db        |
| INTERCEPT | 3338.6 millivolts |

|     |     |     |     |     |     |     |     |     |     |     |     |    |   |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|
| -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 190 | 430 | 660 | 880 | 1130 | 1370 | 1610 | 1840 | 2100 | 2440 | 2670 | 2970 | 3240 | 3490 | 3720 |
| 61  | 46  | 21  | -14 | -19  | -34  | -50  | -75  | -70  | 15   | 10   | 35   | 49   | 44   | 19   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 150 | 380 | 620 | 840 | 1090 | 1330 | 1590 | 1850 | 2140 | 2400 | 2640 | 2890 | 3160 | 3390 | 3670 |
| 45  | 22  | 9   | -23 | -26  | -39  | -32  | -24  | 13   | 20   | 8    | 5    | 22   | 0    | 27   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 170 | 400 | 640 | 860 | 1110 | 1350 | 1610 | 1880 | 2140 | 2420 | 2690 | 2930 | 3200 | 3440 | 3720 |
| 52  | 27  | 12  | -23 | -27  | -42  | -37  | -22  | -16  | 9    | 24   | 9    | 24   | 10   | 35   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 170 | 410 | 650 | 860 | 1110 | 1350 | 1610 | 1870 | 2130 | 2380 | 2610 | 2850 | 3120 | 3360 | 3620 |
| 25  | 19  | 12  | -25 | -22  | -28  | -15  | 2    | 11   | 15   | -2   | -9   | 14   | 7    | 21   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 110 | 290 | 540 | 760 | 1000 | 1240 | 1480 | 1740 | 2000 | 2310 | 2610 | 2870 | 3130 | 3360 | 3620 |
| 108 | 32  | 25  | -12 | -28  | -45  | -62  | -58  | -56  | -2   | 41   | 45   | 48   | 21   | 25   |

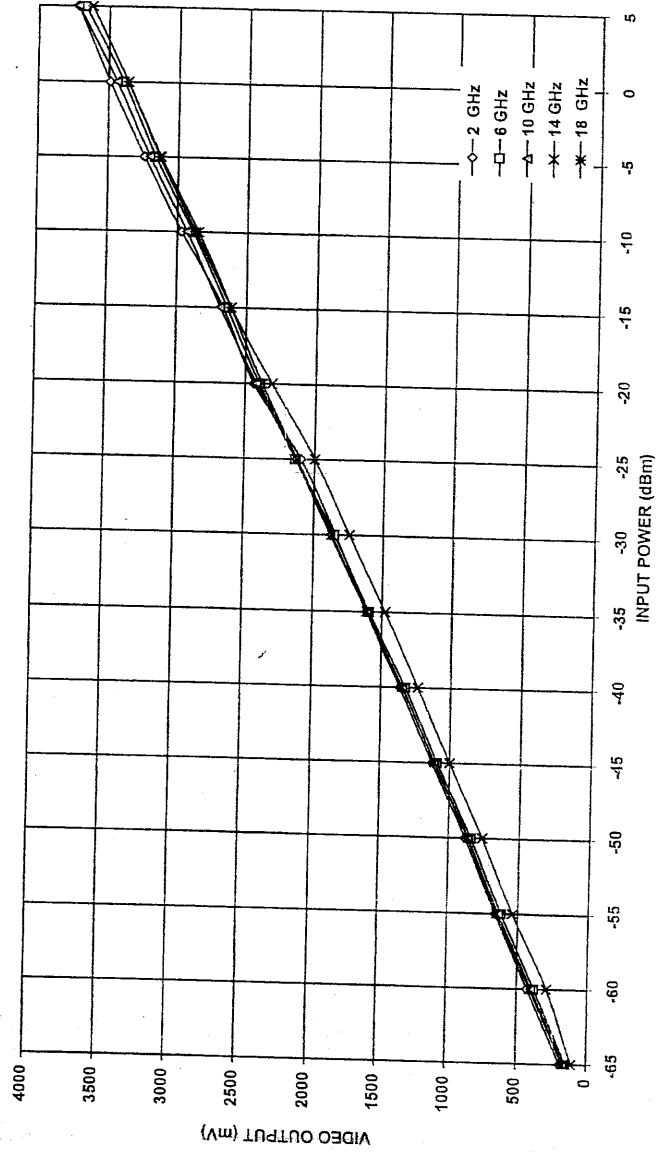
|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |





PLANAR ELECTRONICS INDUSTRIES  
 7314 G GROVE ROAD, FREDERICK, MD 21704  
 TEL: 410-311-1579 FAX: 301-682-2629  
 URL: WWW.PLANARELECTRONICS.COM

J2 INPUT POWER (dBm)

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 48.8 mv/db        |
| INTERCEPT | 3384.6 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 48.3 mv/db        |
| INTERCEPT | 3330.0 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 48.9 mv/db        |
| INTERCEPT | 3374.3 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 47.4 mv/db        |
| INTERCEPT | 3333.1 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 48.4 mv/db        |
| INTERCEPT | 3217.1 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| -65 | -60 | -55 | -50 | -45  | -40  | -35  | -30  | -25  | -20  | -15  | -10  | -5   | 0    | 5    |
| 260 | 460 | 700 | 930 | 1190 | 1420 | 1680 | 1910 | 2120 | 2380 | 2640 | 2930 | 3160 | 3410 | 3630 |
| 46  | 2   | -2  | -16 | 0    | -13  | 3    | -11  | -45  | -29  | -13  | 33   | 19   | 25   | 2    |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 230 | 420 | 660 | 880 | 1140 | 1390 | 1660 | 1940 | 2160 | 2320 | 2570 | 2840 | 3100 | 3340 | 3610 |
| 39  | -13 | -14 | -36 | -17  | 9    | 20   | 59   | 37   | -44  | -36  | -7   | 11   | 10   | 39   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 240 | 430 | 680 | 900 | 1160 | 1400 | 1680 | 1960 | 2180 | 2350 | 2620 | 2880 | 3150 | 3380 | 3660 |
| 41  | -13 | -7  | -31 | -16  | -20  | 16   | 51   | 27   | -47  | -21  | -6   | 20   | 6    | 41   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 270 | 470 | 710 | 930 | 1190 | 1430 | 1710 | 1980 | 2210 | 2340 | 2570 | 2830 | 3110 | 3340 | 3600 |
| 19  | -18 | -15 | -32 | -9   | -7   | 35   | 59   | 62   | -45  | -52  | -29  | 14   | 7    | 30   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 180 | 310 | 550 | 780 | 1010 | 1270 | 1510 | 1790 | 2010 | 2210 | 2480 | 2740 | 3020 | 3240 | 3490 |
| 107 | -4  | -6  | -18 | -30  | -12  | -14  | 24   | 2    | -40  | -11  | 7    | 45   | 23   | 31   |

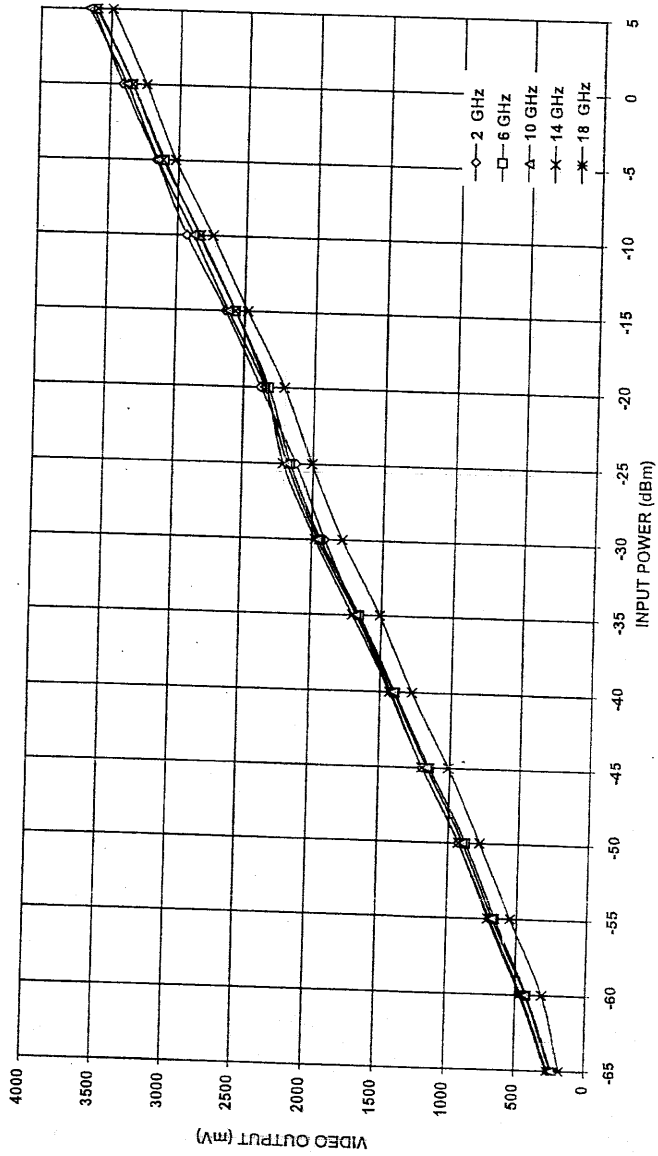
|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |





PLANAR MONOLITHICS INDUSTRIES  
731-G BROVE ROAD, FREDERICK, MD 21704  
TEL: 301-451-1575 FAX: 301-451-2028  
URL: WWW.PLANARMONOLITHICS.COM

J2 INPUT POWER (dBm)

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 50.4 mV/db        |
| INTERCEPT | 3385.7 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 51.0 mV/db        |
| INTERCEPT | 3532.8 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 51.2 mV/db        |
| INTERCEPT | 3529.7 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 48.9 mV/db        |
| INTERCEPT | 3456.9 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 52.2 mV/db        |
| INTERCEPT | 3424.9 millivolts |

|     |     |     |     |     |     |     |     |     |     |     |     |    |   |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|
| -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 100 | 370 | 640 | 870 | 1120 | 1360 | 1620 | 1860 | 2090 | 2390 | 2600 | 2860 | 3170 | 3470 | 3650 |
| -9  | 9   | 27  | 5   | 3    | 9    | -1   | -13  | -35  | 13   | -29  | -22  | 36   | 24   | 12   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 200 | 500 | 750 | 980 | 1230 | 1460 | 1730 | 1990 | 2280 | 2500 | 2750 | 3020 | 3290 | 3550 | 3810 |
| -15 | 30  | 25  | 0   | -5   | -31  | -16  | -11  | 24   | -12  | -17  | -2   | 13   | 17   | 22   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 190 | 490 | 740 | 970 | 1220 | 1460 | 1730 | 1990 | 2230 | 2500 | 2750 | 3020 | 3290 | 3550 | 3810 |
| -13 | 31  | 25  | -1  | -7   | -23  | -8   | -4   | -20  | 6    | -12  | 2    | 16   | 20   | 24   |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 240 | 540 | 780 | 1010 | 1260 | 1500 | 1770 | 2020 | 2240 | 2430 | 2690 | 2960 | 3230 | 3470 | 3740 |
| -37 | 18  | 13  | -1   | 4    | 0    | 25   | 31   | 6    | -49  | -33  | 8    | 18   | 13   | 39   |

|    |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 70 | 310 | 590 | 820 | 1060 | 1300 | 1540 | 1800 | 2080 | 2390 | 2660 | 2930 | 3200 | 3440 | 3680 |
| 37 | 16  | 36  | 4   | -17  | -37  | -58  | -59  | -40  | 9    | 18   | 27   | 36   | 15   | -6   |

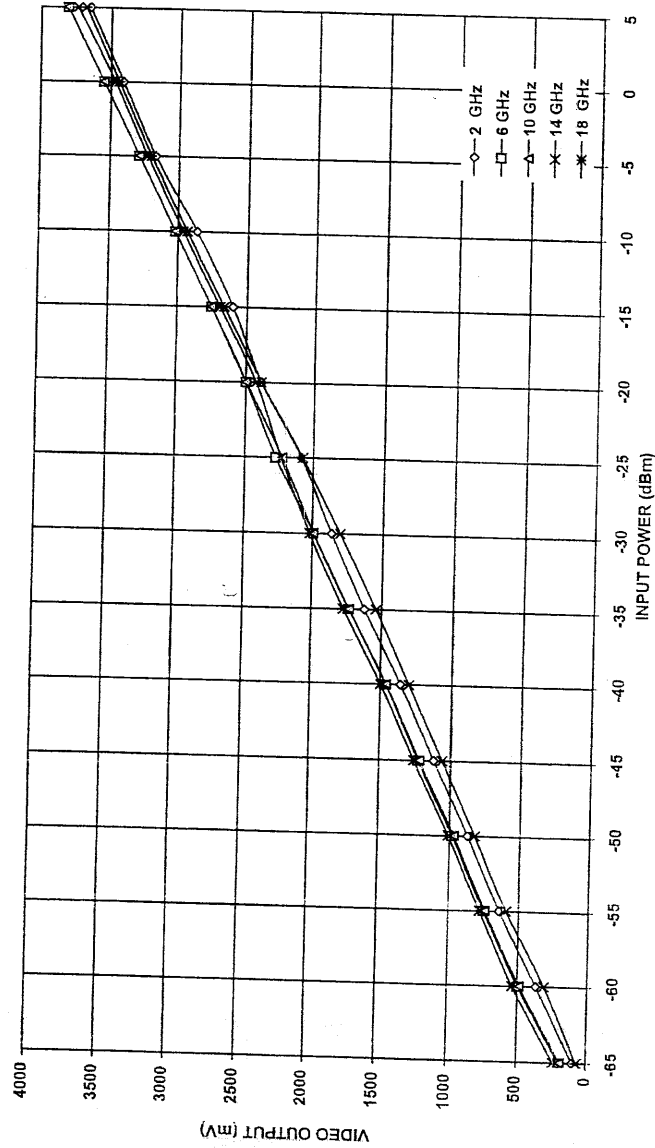
|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

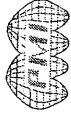
|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |



RFE-218-70-BB  
LOG TRANSFER AT J5 OUTPUT VERSUS J3 INPUT

S/N: PM604086

05/10/06 + 25 C



PLANAR MONOLITHICS INDUSTRIES  
7311 G GROVE ROAD, FREDERICK, MD 21704  
TEL: 301-631-1879 FAX: 301-662-2029  
URL: WWW.PLANARMONOLITHICS.COM

J2 INPUT POWER (dBm)

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 48.5 mV/db        |
| INTERCEPT | 3376.0 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 49.3 mV/db        |
| INTERCEPT | 3507.4 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 49.4 mV/db        |
| INTERCEPT | 3478.9 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 47.2 mV/db        |
| INTERCEPT | 3429.1 millivolts |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 49.9 mV/db        |
| INTERCEPT | 3386.3 millivolts |

|     |     |     |     |     |     |     |     |     |     |     |     |    |   |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|
| -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 260 | 480 | 720 | 940 | 1190 | 1420 | 1670 | 1900 | 2140 | 2390 | 2600 | 2890 | 3180 | 3420 | 3670 |
| 36  | 14  | 11  | 11  | 4    | -16  | -9   | -21  | -24  | -16  | -49  | -1   | 46   | 44   | 52   |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 330 | 570 | 800 | 1020 | 1270 | 1510 | 1770 | 2030 | 2280 | 2490 | 2740 | 3010 | 3280 | 3550 | 3800 |
| 30  | 24  | 7   | -20  | -17  | -23  | -10  | 3    | 6    | -30  | -27  | -4   | 19   | 43   | 46   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 300 | 540 | 770 | 990 | 1240 | 1470 | 1740 | 1990 | 2220 | 2460 | 2740 | 2990 | 3260 | 3520 | 3790 |
| 35  | 27  | 10  | -17 | -14  | -31  | -9   | -6   | -23  | -30  | -17  | 6    | 28   | 41   | 64   |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 360 | 610 | 840 | 1070 | 1310 | 1540 | 1800 | 2040 | 2240 | 2420 | 2680 | 2950 | 3220 | 3470 | 3730 |
| -4  | 10  | 5   | -1   | 3    | -3   | 21   | 26   | -10  | -66  | -42  | -8   | 27   | 41   | 65   |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 230 | 430 | 670 | 880 | 1130 | 1360 | 1600 | 1850 | 2100 | 2370 | 2640 | 2920 | 3180 | 3430 | 3670 |
| 86  | 37  | 27  | -12 | -11  | -31  | -40  | -40  | -39  | -19  | 2    | 33   | 43   | 44   | 34   |

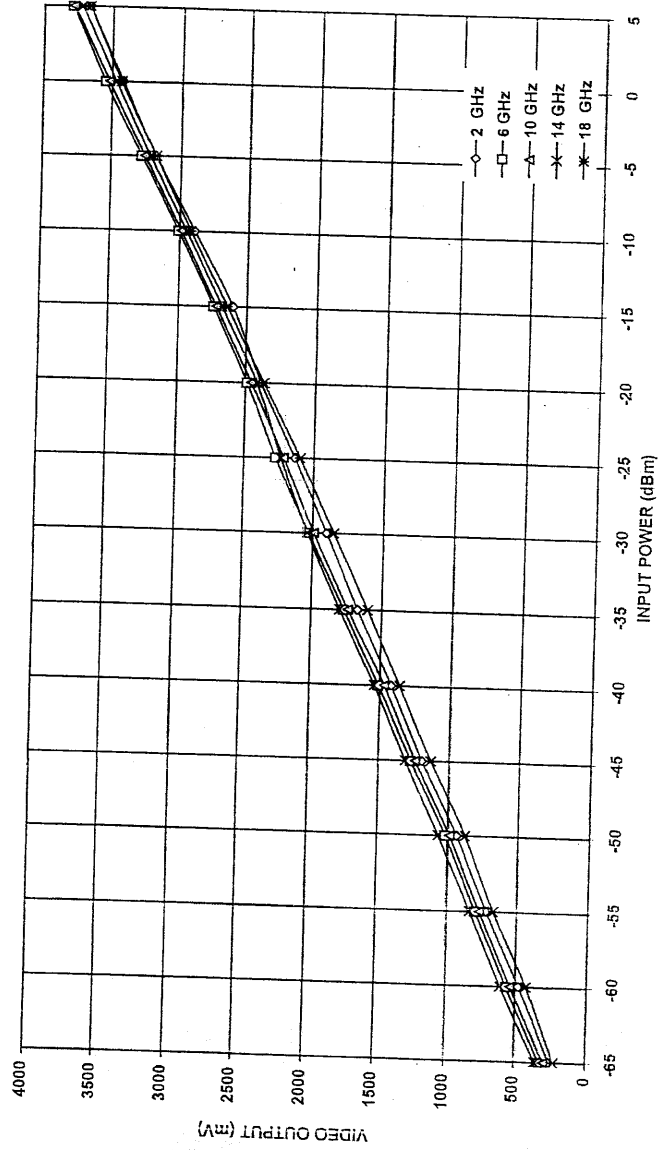
|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |

|                                 |
|---------------------------------|
| J4 OUTPUT (millivolts)          |
| LOG TRANSFER ERROR (millivolts) |



RFE-218-70-BB

S/N: PM604086

LOG TRANSFER AT J5 OUTPUT VERSUS J3 INPUT

05/10/06 + 85 C



PLANAR MONOLITHICS INDUSTRIES  
7514 G GROVE ROAD, FREDERICK, MD 21704  
TEL: 410-411-1079 FAX: 301-662-2629  
URL: WWW.PLANARMONOLITHICS.COM

J2 INPUT POWER (dBm)

|     |     |     |     |     |     |     |     |     |     |     |     |    |   |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|
| -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|

|           |                   |
|-----------|-------------------|
| FREQUENCY | 2 GHz             |
| SLOPE     | 49.2 mV/db        |
| INTERCEPT | 3396.9 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 190 | 410 | 720 | 960 | 1210 | 1440 | 1680 | 1920 | 2160 | 2380 | 2610 | 2900 | 3180 | 3420 | 3660 |
| -10 | -36 | 28  | 22  | 26   | 10   | 4    | 2    | -7   | -33  | -49  | -5   | 29   | 23   | 17   |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 6 GHz             |
| SLOPE     | 49.6 mV/db        |
| INTERCEPT | 3514.3 millivolts |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 250 | 540 | 820 | 1050 | 1300 | 1530 | 1790 | 2040 | 2270 | 2480 | 2740 | 3020 | 3270 | 3540 | 3800 |
| -41 | 1   | 33  | 15   | 17   | -1   | 11   | 13   | -5   | -43  | -31  | 2    | 4    | 26   | 38   |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 10 GHz            |
| SLOPE     | 49.6 mV/db        |
| INTERCEPT | 3467.1 millivolts |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 220 | 470 | 770 | 1000 | 1260 | 1480 | 1740 | 1980 | 2200 | 2430 | 2700 | 2970 | 3230 | 3500 | 3760 |
| -20 | -18 | 34  | 15   | 27   | -1   | 11   | 2    | -26  | -44  | -22  | -1   | 11   | 33   | 45   |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 14 GHz            |
| SLOPE     | 47.3 mV/db        |
| INTERCEPT | 3418.9 millivolts |

|     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 280 | 580 | 860 | 1070 | 1330 | 1540 | 1800 | 2030 | 2210 | 2390 | 2660 | 2940 | 3210 | 3450 | 3720 |
| -64 | -1  | 33  | 16   | 40   | 13   | 37   | 30   | -26  | -83  | -49  | -6   | 28   | 31   | 65   |

|           |                   |
|-----------|-------------------|
| FREQUENCY | 18 GHz            |
| SLOPE     | 50.2 mV/db        |
| INTERCEPT | 3314.0 millivolts |

|     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 140 | 280 | 570 | 830 | 1060 | 1310 | 1530 | 1780 | 2020 | 2270 | 2560 | 2840 | 3100 | 3350 | 3600 |
| -87 | -24 | 15  | 25  | 4    | 3    | -28  | -19  | -40  | -41  | -1   | 28   | 37   | 36   | 35   |

|                                 |  |
|---------------------------------|--|
| J4 OUTPUT (millivolts)          |  |
| LOG TRANSFER ERROR (millivolts) |  |

|                                 |  |
|---------------------------------|--|
| J4 OUTPUT (millivolts)          |  |
| LOG TRANSFER ERROR (millivolts) |  |

|                                 |  |
|---------------------------------|--|
| J4 OUTPUT (millivolts)          |  |
| LOG TRANSFER ERROR (millivolts) |  |

|                                 |  |
|---------------------------------|--|
| J4 OUTPUT (millivolts)          |  |
| LOG TRANSFER ERROR (millivolts) |  |

|                                 |  |
|---------------------------------|--|
| J4 OUTPUT (millivolts)          |  |
| LOG TRANSFER ERROR (millivolts) |  |

