

# SUMMARY TEST DATA ON GMDA-S4080-60

CUSTOMER: \_\_\_\_\_  
 SO: \_\_\_\_\_  
 MODEL NO: GMDA-S4080-60  
 SERIAL NO: PL46313/2423

TESTED BY: DA  
 TEMPERATURE: +25°C  
 DATE: 6/7/2024  
 DRAWING NO: 27645260      REV: B1

| TEST ITEM NO: | PARAMETERS                  | SPECIFIED VALUE   | MEASURED VALUE | REMARKS<br>QA/QC<br>PMI<br>QA3 |
|---------------|-----------------------------|---|----------------|--------------------------------|
| 1             | FREQUENCY RANGE             | 4 GHz TO 8 GHz  | 4 GHz TO 8 GHz |                                |
| 2             | TSS                         | -60 dBm Min   | -67 dBm        |                                |
| 3             | INPUT POWER HANDLING        | +23 dBm CW  | PASS           |                                |
| 3             | VIDEO LOG RANGE             | -55 dBm to +5 dBm   | PASS           |                                |
| 4             | VIDEO LOG LINEARITY         | ±1.85 dB Over Temp  | +0.81/ -0.59   |                                |
| 5             | VIDEO LOG SLOPE             | 25 ± 1mV / dB Nom   | 25.4 mV        |                                |
| 6             | VIDEO FREQ FLATNESS         | ±2 dB Max   | ±0.6 dB        |                                |
| 7             | VIDEO RISE TIME             | 30ns Max  | 9.5 ns         |                                |
| 9             | VIDEO FALL TIME             | 80ns Max  | 59.5 ns        |                                |
| 10            | RECOVERY TIME               | 100ns Max   | <100 ns        |                                |
| 11            | VIDEO OUTPUT LOAD IMPEDANCE | 75 Ω  | 75Ω            |                                |
| 12            | INPUT VSWR (50 Ω)           | 2.0:1 Max   | 1.5:1          |                                |
| 13            | DC POWER                    | +11.4 to +15.75V, 460mA<br>Max<br>-11.4 to 15.75V, 150mA<br>Max | +308mA /-48mA  |                                |

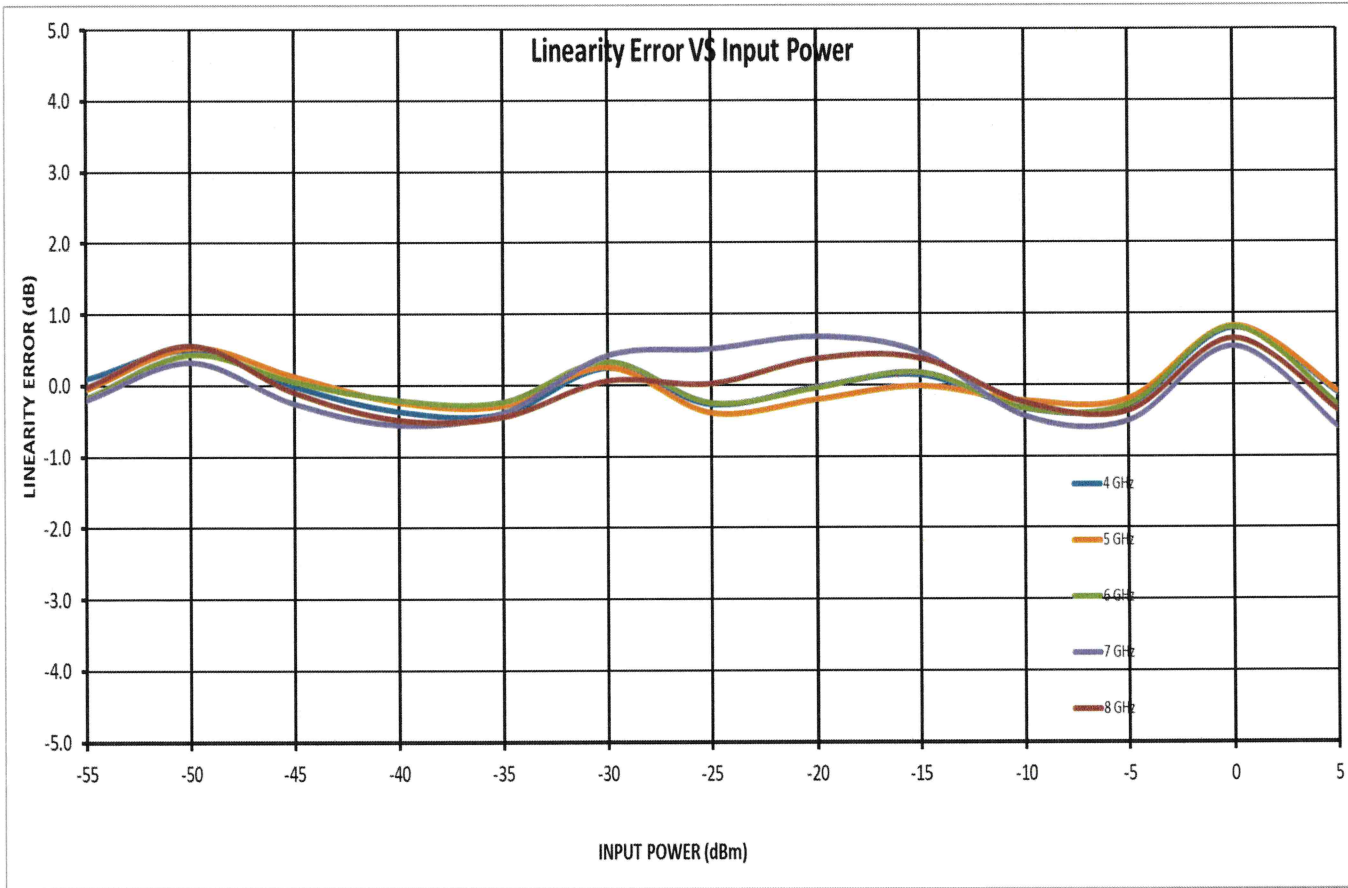
QA/QC Approval: K. Hester

Date: 6-11-24

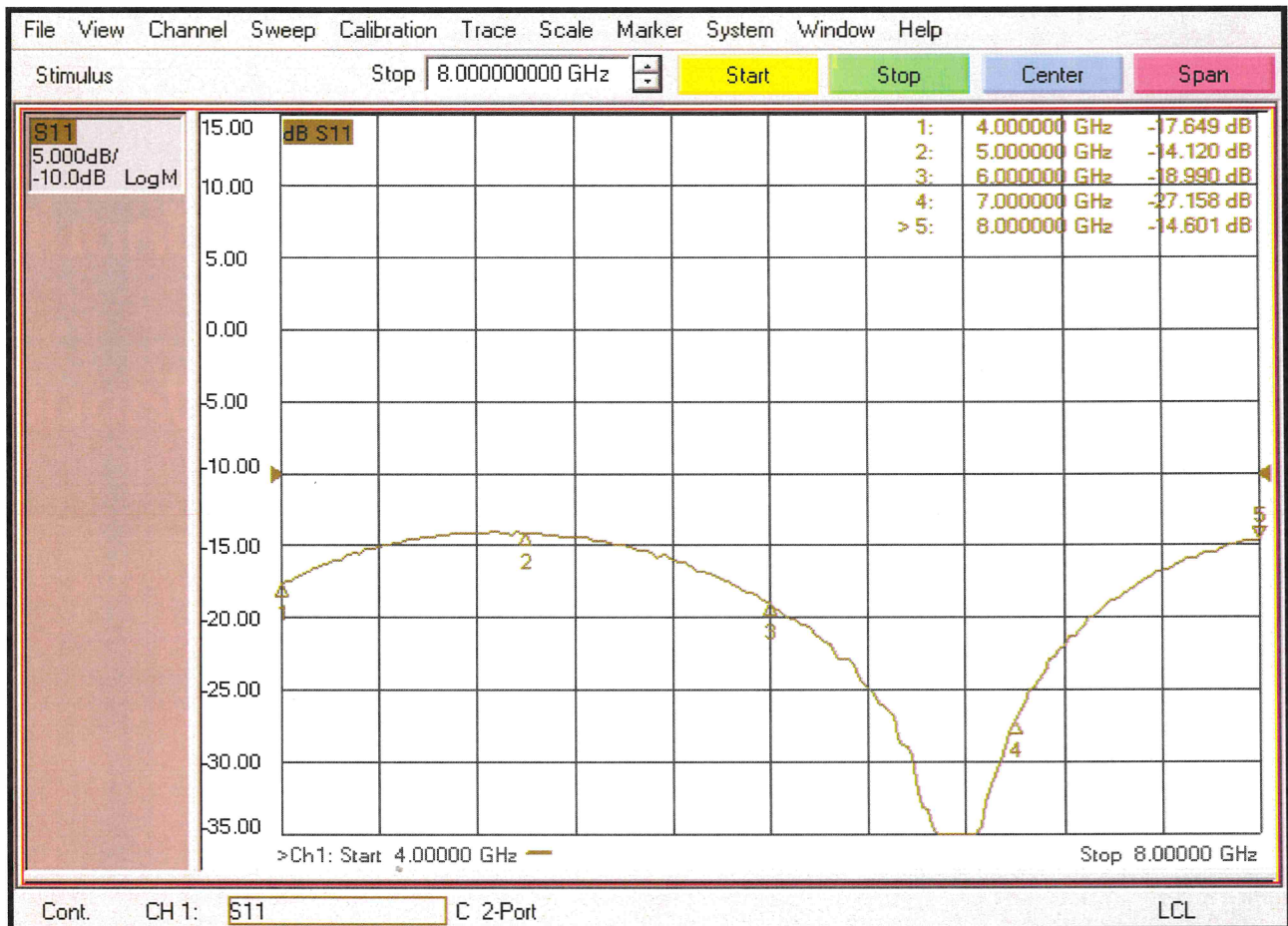
MODEL: GMDA-S4080-60  
SERIAL NO: PL46313  
DATE: 06-05-2024  
TESTED BY: DA  
TEST TEMP: +25°C



| Frequency              |                | -55   | -50  | -45   | -40   | -35   | -30  | -25   | -20   | -15   | -10   | -5    | 0    | 5     | RF Input Power (dBm) |
|------------------------|----------------|-------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|----------------------|
| 4 GHz                  | INTERCEPT (mV) | 288   | 424  | 537   | 654   | 779   | 921  | 1034  | 1166  | 1296  | 1410  | 1537  | 1690 | 1793  | Measured Value (mV)  |
|                        | SLOPE (mV/dB)  | 2     | 13   | 0     | -9    | -10   | 6    | -7    | -1    | 4     | -8    | -7    | 20   | -3    | Error (mV)           |
|                        | LIN. ERR. (dB) | 0.10  | 0.50 | -0.01 | -0.36 | -0.40 | 0.25 | -0.27 | -0.02 | 0.14  | -0.33 | -0.28 | 0.79 | -0.11 | LINEARITY ERROR (dB) |
| 5 GHz                  | INTERCEPT (mV) | 278   | 419  | 535   | 652   | 777   | 917  | 1027  | 1158  | 1289  | 1410  | 1537  | 1689 | 1792  | Measured Value (mV)  |
|                        | SLOPE (mV/dB)  | -1    | 13   | 3     | -6    | -7    | 6    | -10   | -5    | 0     | -6    | -5    | 21   | -3    | Error (mV)           |
|                        | LIN. ERR. (dB) | -0.05 | 0.53 | 0.12  | -0.24 | -0.29 | 0.25 | -0.39 | -0.21 | -0.02 | -0.23 | -0.20 | 0.82 | -0.10 | LINEARITY ERROR (dB) |
| 6 GHz                  | INTERCEPT (mV) | 276   | 418  | 535   | 655   | 781   | 922  | 1034  | 1166  | 1298  | 1412  | 1540  | 1694 | 1793  | Measured Value (mV)  |
|                        | SLOPE (mV/dB)  | -4    | 11   | 1     | -5    | -6    | 8    | -6    | -1    | 4     | -8    | -7    | 20   | -7    | Error (mV)           |
|                        | LIN. ERR. (dB) | -0.17 | 0.43 | 0.05  | -0.21 | -0.24 | 0.33 | -0.25 | -0.04 | 0.17  | -0.33 | -0.27 | 0.81 | -0.29 | LINEARITY ERROR (dB) |
| 7 GHz                  | INTERCEPT (mV) | 272   | 413  | 526   | 646   | 778   | 926  | 1056  | 1188  | 1310  | 1415  | 1541  | 1695 | 1794  | Measured Value (mV)  |
|                        | SLOPE (mV/dB)  | -5    | 8    | -6    | -14   | -10   | 11   | 13    | 17    | 12    | -11   | -13   | 14   | -15   | Error (mV)           |
|                        | LIN. ERR. (dB) | -0.20 | 0.32 | -0.25 | -0.55 | -0.38 | 0.41 | 0.51  | 0.68  | 0.45  | -0.43 | -0.50 | 0.53 | -0.59 | LINEARITY ERROR (dB) |
| 8 GHz                  | INTERCEPT (mV) | 265   | 408  | 519   | 637   | 766   | 907  | 1034  | 1171  | 1299  | 1411  | 1536  | 1690 | 1792  | Measured Value (mV)  |
|                        | SLOPE (mV/dB)  | -1    | 14   | -3    | -13   | -12   | 2    | 1     | 10    | 10    | -6    | -9    | 17   | -9    | Error (mV)           |
|                        | LIN. ERR. (dB) | -0.02 | 0.56 | -0.10 | -0.49 | -0.45 | 0.06 | 0.02  | 0.37  | 0.37  | -0.25 | -0.37 | 0.65 | -0.36 | LINEARITY ERROR (dB) |
| Avg. Slope: 25.4 mV/dB |                | 0.5   | 0.3  | 0.4   | 0.4   | 0.3   | 0.4  | 0.6   | 0.6   | 0.4   | 0.1   | 0.1   | 0.1  | 0     | Flatness dB: ±0.6 dB |

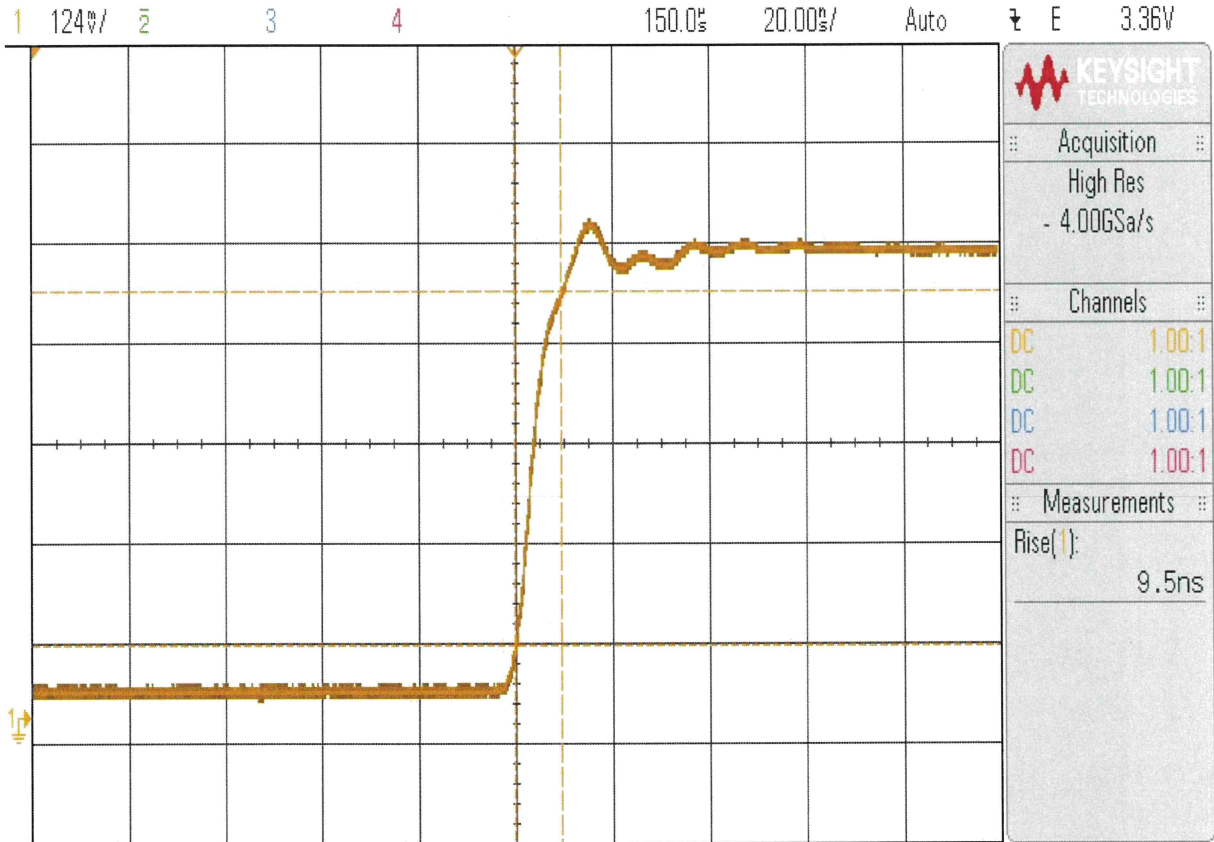


## VSWR 1.5:1



## Rise Time

DSO-X 3024A, MY54490369, Wed Jun 05 13:55:11 2024



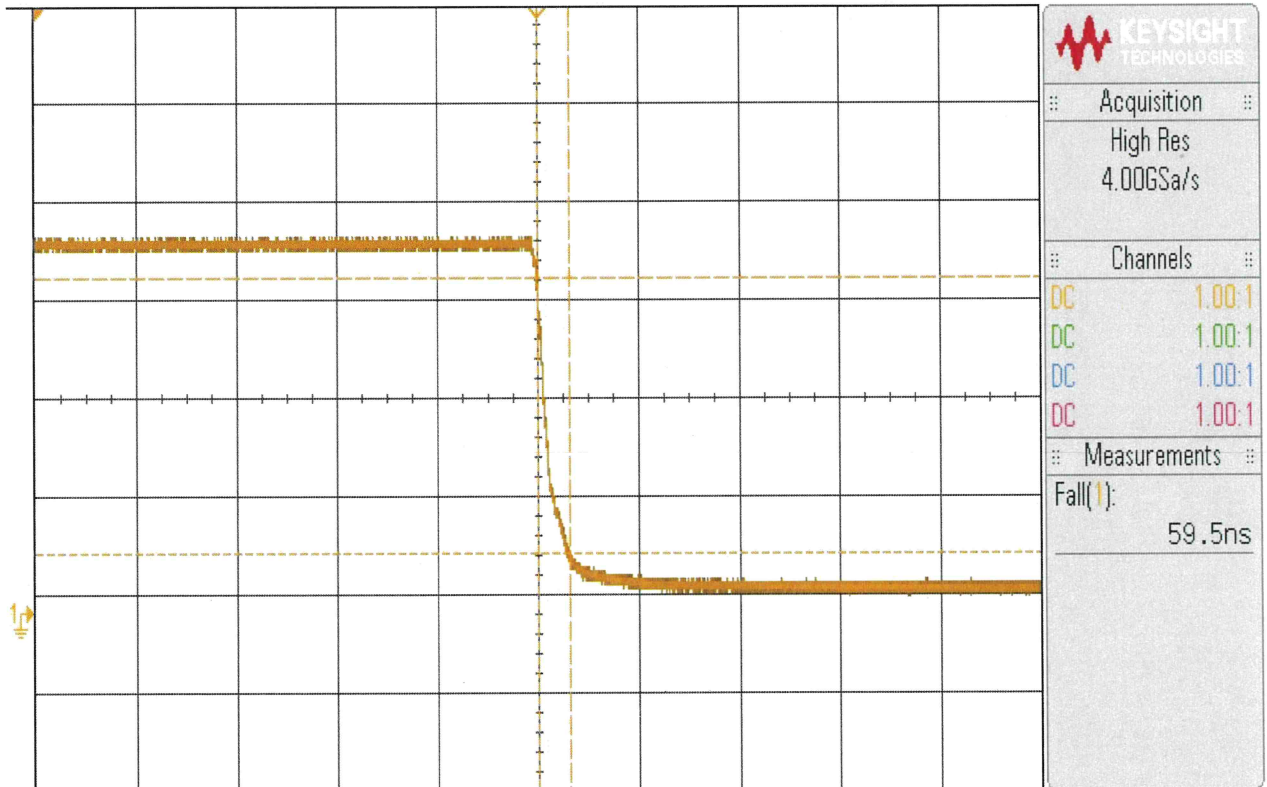
Measurement Menu

Source 1 Type: Rise Add Measurement Settings Clear Meas Statistics

## Fall Time

DSO-X 3024A, MY54490369: Wed Jun 05 13:56:49 2024

1 360V/ 2 3 4 200.0% 200.0% Auto E 3.36V



**KEYSIGHT TECHNOLOGIES**

Acquisition  
High Res  
4.00GSa/s

Channels

|    |        |
|----|--------|
| DC | 1.00:1 |
| DC | 1.00:1 |
| DC | 1.00:1 |
| DC | 1.00:1 |

Measurements

Fall(1):  
59.5ns

Measurement Menu

|        |            |                 |          |            |            |
|--------|------------|-----------------|----------|------------|------------|
| Source | Type: Fall | Add Measurement | Settings | Clear Meas | Statistics |
|--------|------------|-----------------|----------|------------|------------|

## TSS @ -67 dBm

DSO-X 3024A, MY54490369: Wed Jun 05 13:58:18 2024

