



Summary Data
For
ERDLVA-OR5G2G-CW-75MV-93

Customer: _____ Tested By: Jim Hopson
 SO No. _____ Temperature: -25C, 25C, 85C
 Model No: ERDLVA-OR5G2G-CW-75MV-93 Date 4/30/2024
 Serial No: PL45751/2418 Drawing No: 27643280 Rev: A1

| TEST ITEM NO | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | QA QC |
|--------------|-------------------------------------|---|---------------------|------------|
| 1 | Frequency Range: | 0.5 to 2.0 GHz | 0.5 to 2.0 GHz | PMI QA3 |
| 2 | VSWR: | 2.5:1 MAX @ -20 dBm | 1.83:1 | |
| 3 | Input Power: | 23 dBm Max. | Pass | |
| 4 | VIDEO OUT TSS: | -42 dBm MAX | -45 dBm MAX | |
| 5 | VIDEO OUT Dynamic Range: | -40 to +20 dBm | -40 to +20 dBm | |
| 6 | VIDEO OUT Log Slope Fixed: | 75 ± 10mV/dB | 75.7 mv | |
| 7 | VIDEO OUT Log Linearity: | ±1.0 dB MAX @25C +1.5 dB MAX @ Over Temperature | See attached Graphs | |
| 8 | VIDEO OUT DC Offset: | 0 to 125 mV @25C | 30 mv | |
| 9 | VIDEO OUT Rise Time (10% to 90%): | 25 ns MAX | 14.8 | |
| 10 | VIDEO OUT Settling Time: | ±0.5dB within 25ns from 90% | < 25 ns | |
| 11 | VIDEO OUT Recovery Time: | 500ns MAX | 400 ns | |
| 12 | VIDEO OUT Video Frequency Flatness: | 3.0 dB p-p MAX @ -20dBm | 1.4 db | |

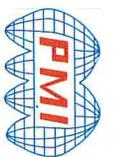


**Summary Data
For
ERDLVA-OR5G2G-CW-75MV-93**

| | | | | |
|----|---|--|---------------------------------|------------|
| | | CW Immune Power -50 to -10 dBm | Pass | PMI QA3 |
| 13 | VIDEO OUT CW Immunity: | CW Attack Time 1500us MAX | 1300 us | |
| | | CW Release Time 250us | <100 us | |
| | | | | |
| 17 | Pulse droop | 1dB Max for 250us pulses | <1 dB | |
| 18 | VIDEO OUT Pulse Response, input Signal: | 100 ns to 300 us | 100 ns to 300 us | |
| 19 | VIDEO LOAD Impedance: | 93 ±1 Ω | 93Ω | |
| 21 | VIDEO OUT Noise Level (RMS): | 102 mV max | 13.3 | |
| 22 | VIDEO OUT Propagation Delay: | 35 ns MAX from RF 10% to 10% video (excluding cable) | <35 ns | |
| 23 | Power Supply | +12 V @ 250 mA MAX -12 V @ 250 mA MAX | +12 V @ 170 ma -12 V @ 70 ma | |

QA/QC Approval: *K. Luter*

Date: 4-30-24



PLANAR MONOLITHICS INDUSTRIES
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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-0R5G2G-CW-75MV-93V
 TESTED BY: Jim Hopson
 DATE: 04-28-24
 SERIAL NO: PL45751
 Test Temp: +25C

30 mv

Frequency

| | | |
|---------|----------------|------|
| 0.5 GHz | INTERCEPT (mV) | 3295 |
| | SLOPE (mV/dB) | 76.4 |

| | | | | | | | | | | | | |
|------|------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|------|
| -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |
| 256 | 628 | 992 | 1375 | 1764 | 2128 | 2546 | 2936 | 3293 | 3657 | 4039 | 4425 | 4866 |
| 18 | 7 | -11 | -10 | -3 | -21 | 15 | 23 | -2 | -21 | -21 | -17 | 42 |
| 0.23 | 0.10 | -0.14 | -0.13 | -0.04 | -0.28 | 0.19 | 0.30 | -0.03 | -0.27 | -0.27 | -0.22 | 0.55 |

| | |
|----------------------|--|
| Measured Value (mV) | |
| Error (mV) | |
| LINEARITY ERROR (dB) | |

| | | |
|----------|----------------|------|
| 1.25 GHz | INTERCEPT (mV) | 3381 |
| | SLOPE (mV/dB) | 75.9 |

| | | | | | | | | | | | | |
|------|------|------|-------|------|-------|-------|-------|------|------|------|-------|-------|
| 347 | 745 | 1114 | 1482 | 1868 | 2203 | 2586 | 2983 | 3403 | 3805 | 4166 | 4500 | 4887 |
| 1 | 20 | 9 | -2 | 4 | -40 | -36 | -19 | 22 | 45 | 26 | -19 | -11 |
| 0.01 | 0.26 | 0.12 | -0.03 | 0.06 | -0.53 | -0.48 | -0.24 | 0.29 | 0.59 | 0.35 | -0.25 | -0.15 |

| | |
|----------------------|--|
| Measured Value (mV) | |
| Error (mV) | |
| LINEARITY ERROR (dB) | |

| | | |
|-------|----------------|------|
| 2 GHz | INTERCEPT (mV) | 3314 |
| | SLOPE (mV/dB) | 74.9 |

| | | | | | | | | | | | | |
|-------|------|-------|-------|------|-------|-------|------|------|------|------|-------|-------|
| 304 | 698 | 1062 | 1436 | 1824 | 2168 | 2564 | 2950 | 3330 | 3732 | 4097 | 4408 | 4770 |
| -14 | 6 | -5 | -5 | 8 | -22 | -1 | 11 | 16 | 44 | 34 | -30 | -42 |
| -0.18 | 0.08 | -0.06 | -0.07 | 0.11 | -0.30 | -0.01 | 0.14 | 0.21 | 0.58 | 0.45 | -0.40 | -0.56 |

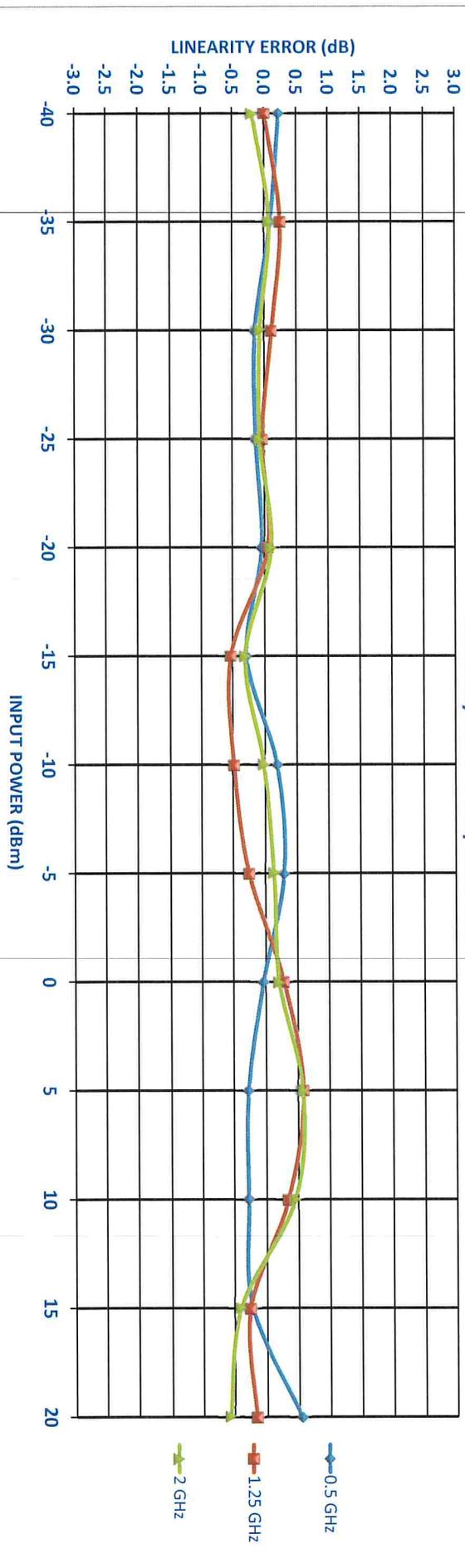
| | |
|----------------------|--|
| Measured Value (mV) | |
| Error (mV) | |
| LINEARITY ERROR (dB) | |

Flatness P-P

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.2 | 1.6 | 1.6 | 1.4 | 1.4 | 1.0 | 0.6 | 0.6 | 1.4 | 2.0 | 1.6 | 1.2 | 1.6 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

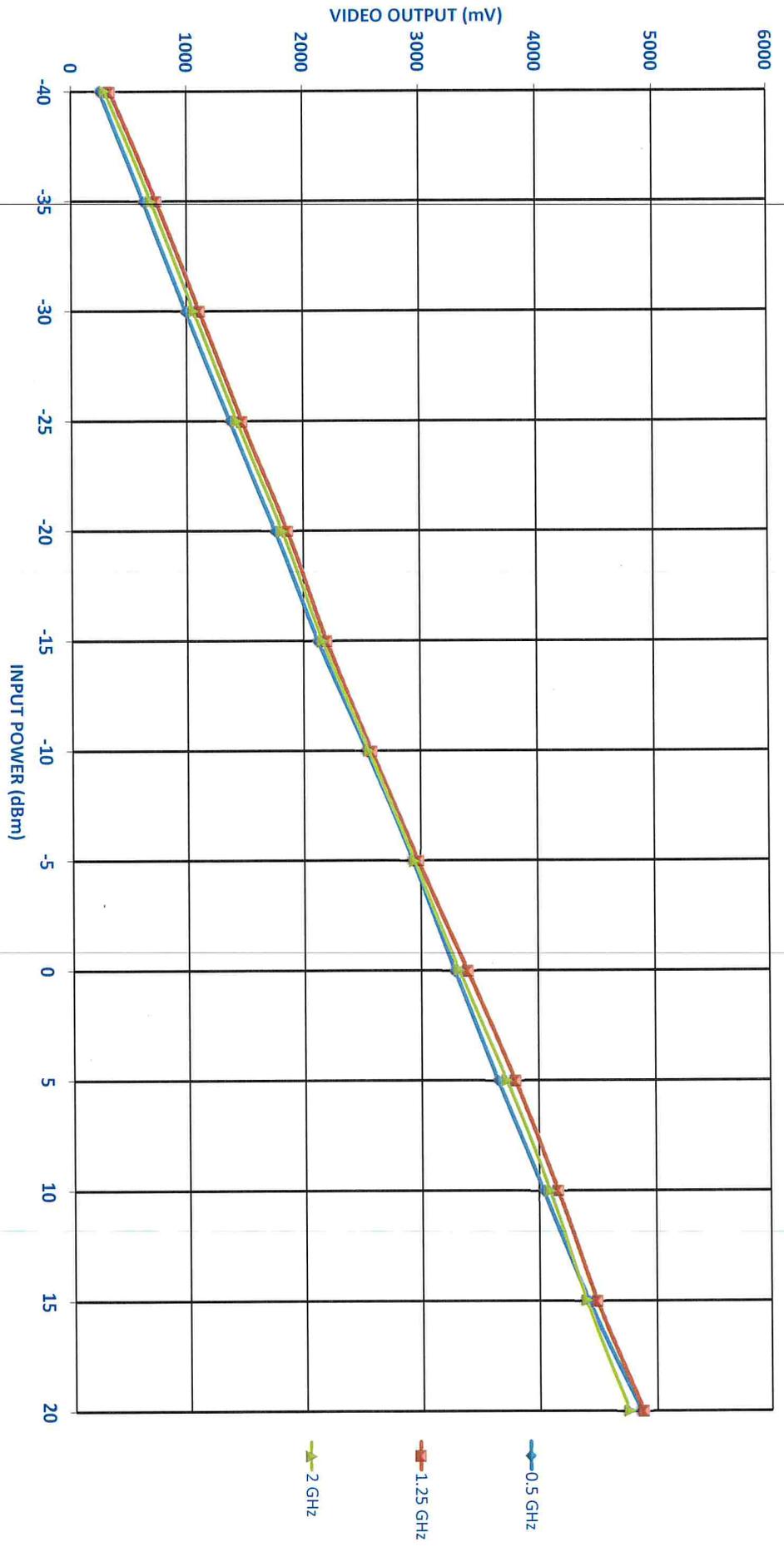
Slope Avg(mv/dB) 75.7

Linearity Error VS Input Power



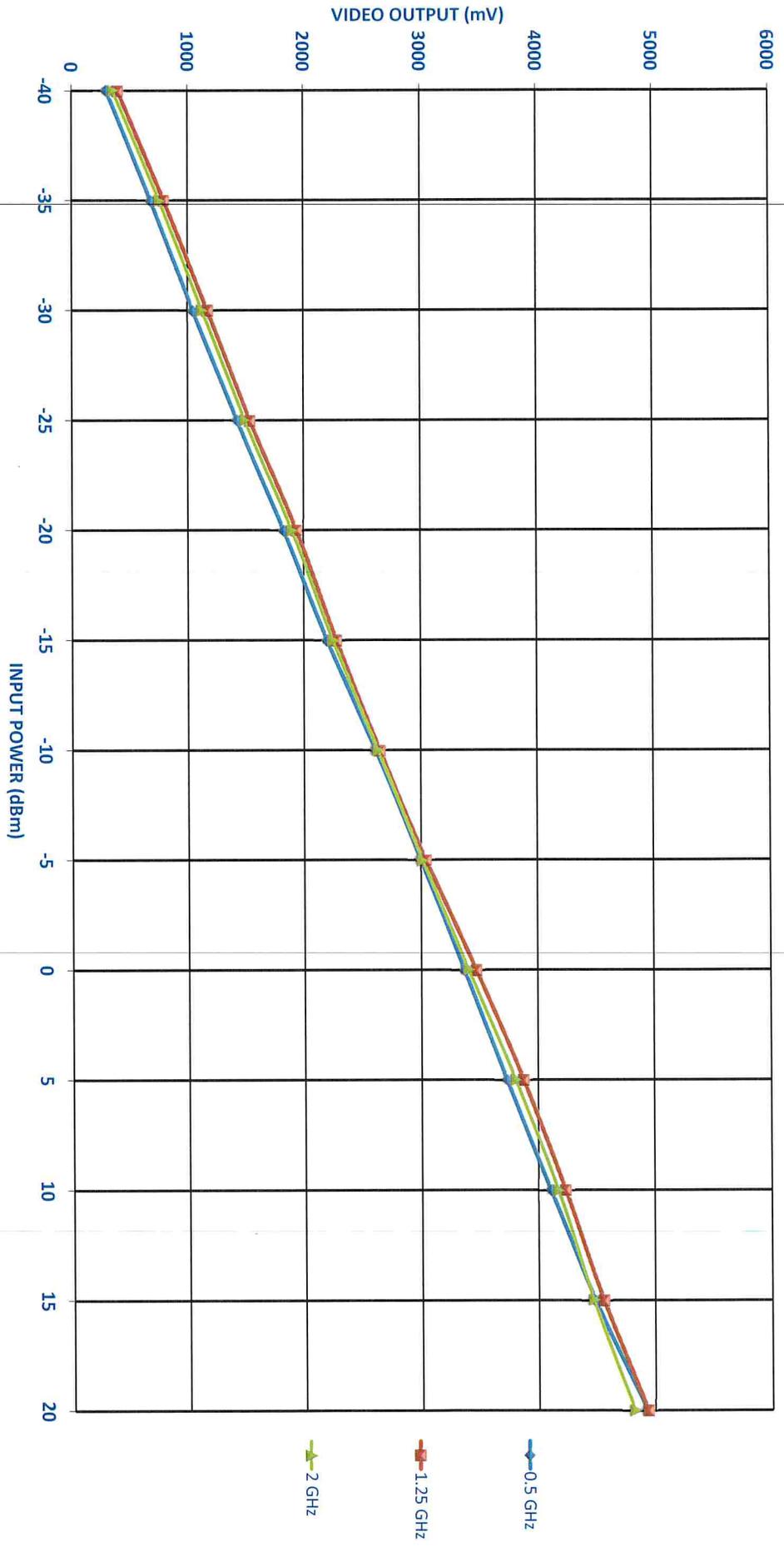
LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-0R5G2G-CW-75MV-93V
SERIAL NO: PL45751
Test Temp: +25C

Video Out VS Input Power



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-0R5G2G-CW-75MV-93V
SERIAL NO: PL45751
Test Temp: -25C

Video Out VS Input Power





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-0R5G2G-CW-75MV-93V
 TESTED BY: Jim Hopson
 DATE: 04-28-24
 SERIAL NO: PL45751
 Test Temp: +85C

Frequency

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|----|---|---|----|----|----|
| -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |
|-----|-----|-----|-----|-----|-----|-----|----|---|---|----|----|----|

| | | |
|---------|----------------|------|
| 0.5 GHz | INTERCEPT (mV) | 3142 |
| | SLOPE (mV/dB) | 75.7 |

| | | | | | | | | | | | | |
|------|-------|------|------|------|-------|------|------|-------|-------|-------|-------|------|
| 119 | 485 | 875 | 1259 | 1634 | 1989 | 2388 | 2780 | 3129 | 3494 | 3882 | 4268 | 4697 |
| 6 | -7 | 5 | 10 | 7 | -17 | 3 | 17 | -13 | -26 | -17 | -9 | 41 |
| 0.08 | -0.09 | 0.06 | 0.13 | 0.09 | -0.22 | 0.05 | 0.22 | -0.17 | -0.35 | -0.22 | -0.12 | 0.54 |

| | |
|----------------------|------|
| Measured Value (mV) | 4697 |
| Error (mV) | 41 |
| LINEARITY ERROR (dB) | 0.54 |

| | | |
|----------|----------------|------|
| 1.25 GHz | INTERCEPT (mV) | 3237 |
| | SLOPE (mV/dB) | 75.7 |

| | | | | | | | | | | | | |
|-------|------|------|------|------|-------|-------|-------|------|------|------|-------|-------|
| 191 | 608 | 981 | 1356 | 1733 | 2059 | 2443 | 2843 | 3246 | 3645 | 4018 | 4356 | 4751 |
| -16 | 22 | 17 | 13 | 11 | -42 | -36 | -15 | 9 | 30 | 24 | -17 | 0 |
| -0.21 | 0.29 | 0.22 | 0.17 | 0.15 | -0.55 | -0.48 | -0.20 | 0.12 | 0.39 | 0.32 | -0.22 | -0.01 |

| | |
|----------------------|-------|
| Measured Value (mV) | 4751 |
| Error (mV) | 0 |
| LINEARITY ERROR (dB) | -0.01 |

| | | |
|-------|----------------|------|
| 2 GHz | INTERCEPT (mV) | 3167 |
| | SLOPE (mV/dB) | 74.8 |

| | | | | | | | | | | | | |
|-------|------|------|------|------|-------|-------|------|------|------|------|-------|-------|
| 149 | 551 | 928 | 1307 | 1685 | 2021 | 2413 | 2806 | 3173 | 3572 | 3947 | 4264 | 4628 |
| -26 | 2 | 5 | 10 | 14 | -24 | -6 | 13 | 6 | 31 | 32 | -25 | -35 |
| -0.34 | 0.03 | 0.07 | 0.14 | 0.19 | -0.32 | -0.08 | 0.18 | 0.08 | 0.42 | 0.43 | -0.33 | -0.47 |

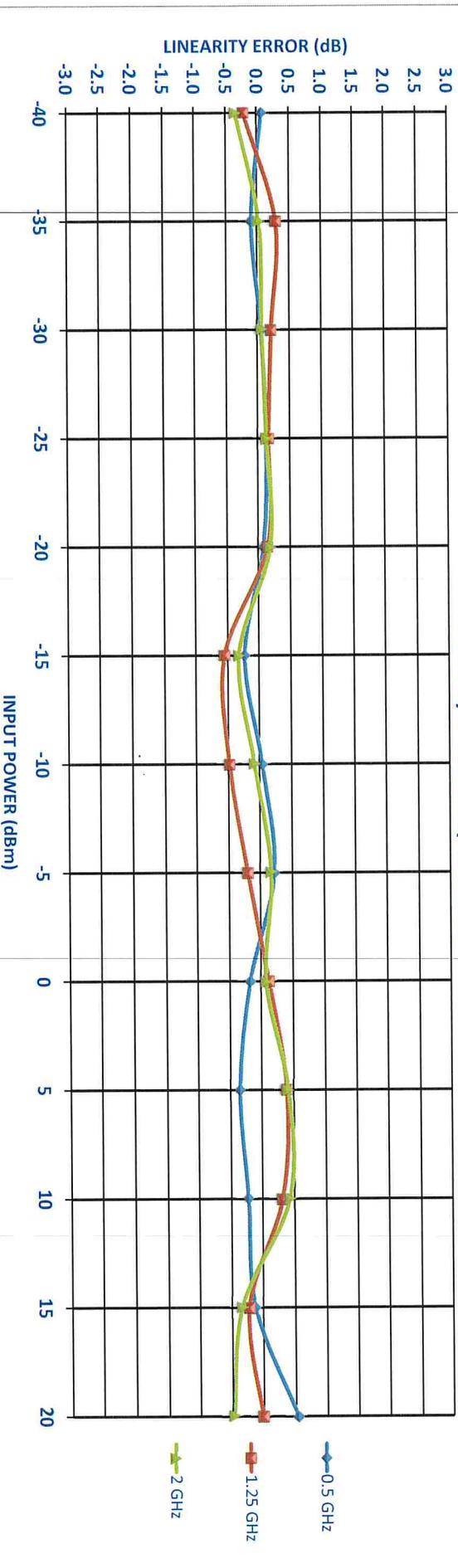
| | |
|----------------------|-------|
| Measured Value (mV) | 4628 |
| Error (mV) | -35 |
| LINEARITY ERROR (dB) | -0.47 |

Flatness P-P

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.0 | 1.6 | 1.4 | 1.2 | 1.2 | 1.4 | 1.0 | 0.8 | 0.8 | 1.6 | 2.0 | 1.8 | 1.2 | 1.6 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

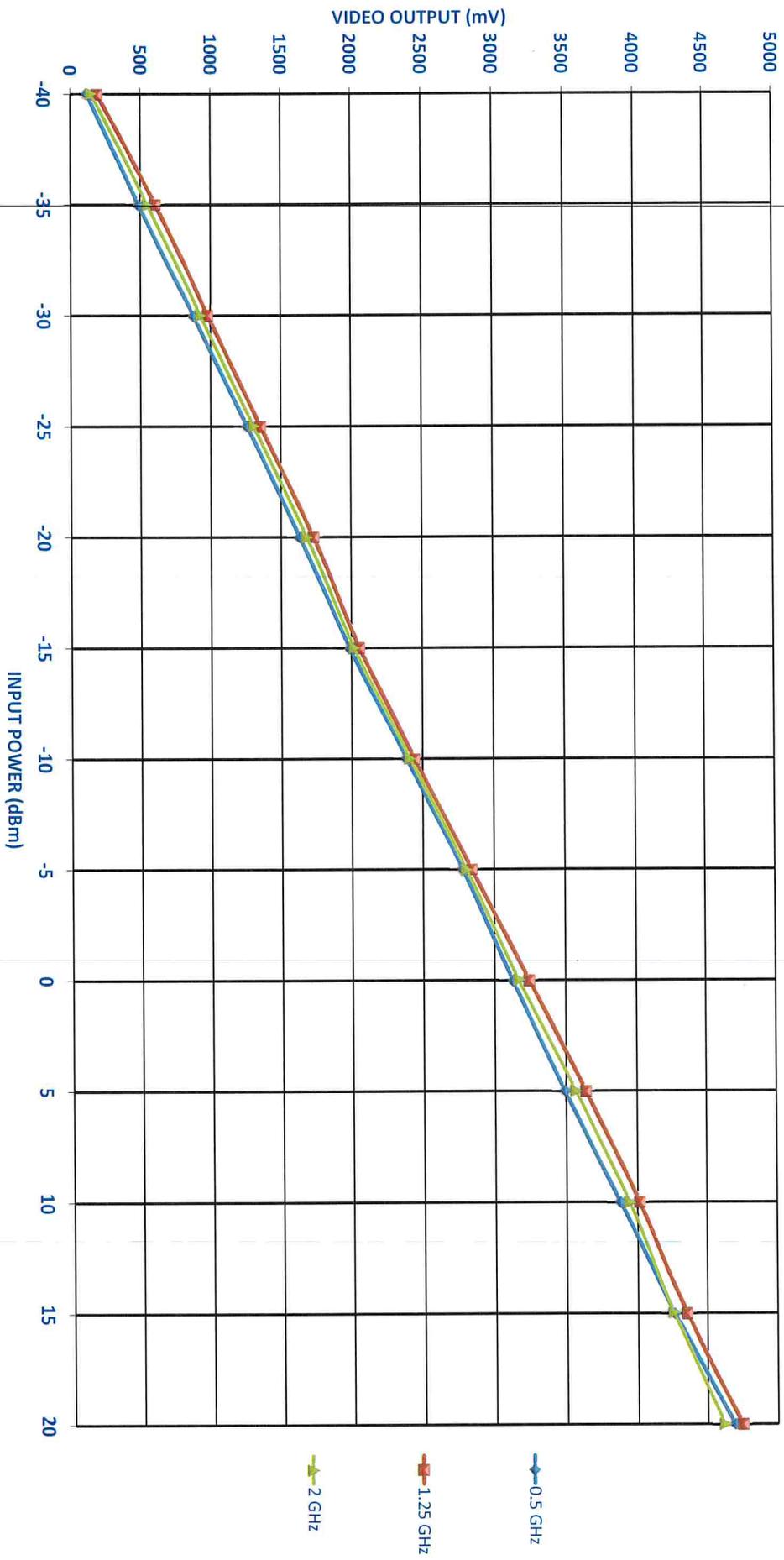
Slope Avg(mv/dB) 75.4

Linearity Error VS Input Power



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-0R5G2G-CW-75MV-93V
SERIAL NO: PL45751
Test Temp: +85C

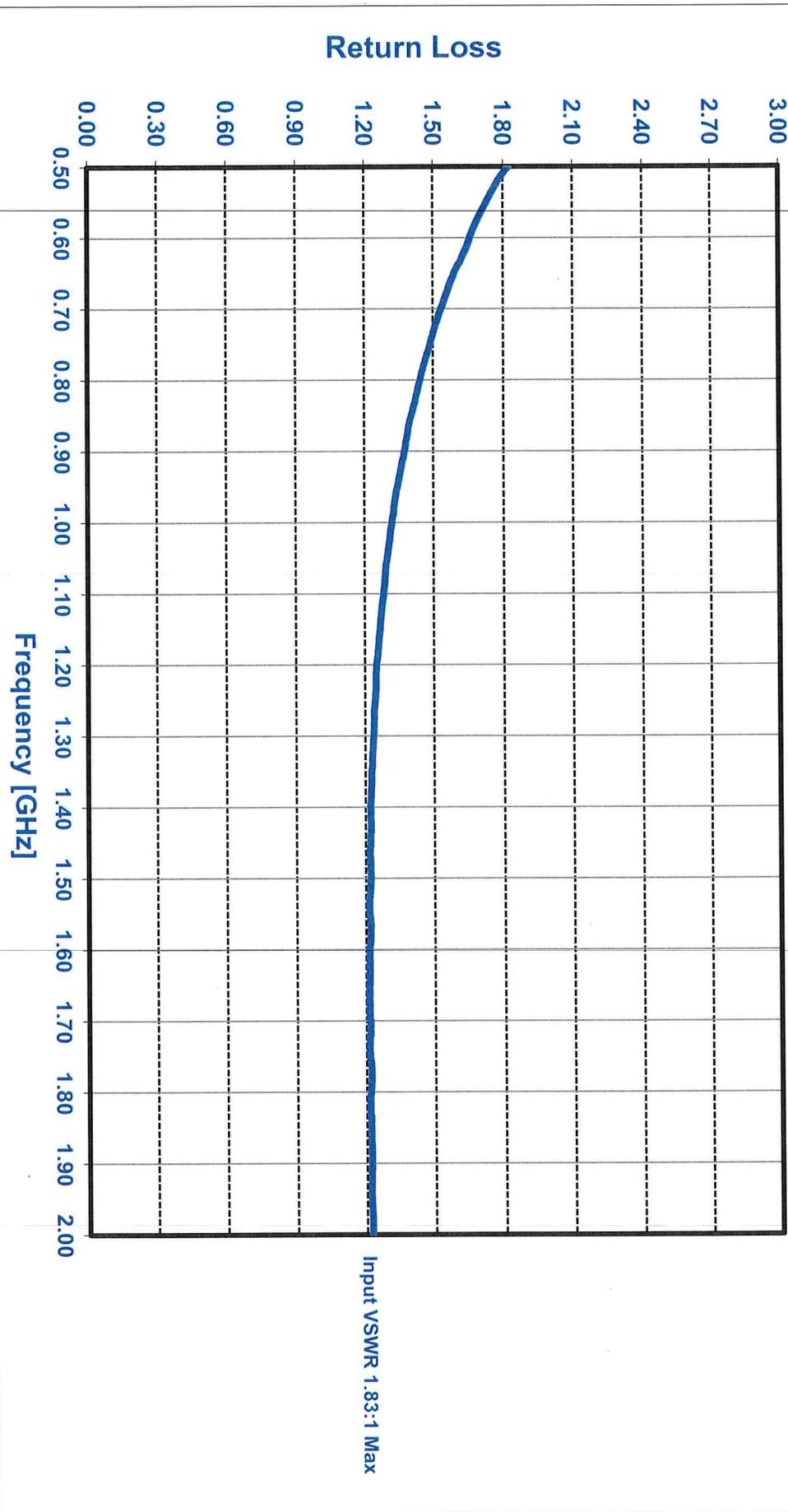
Video Out VS Input Power



Model Number: ERDLVA-OR5G2G-CW-75MV-93
Serial Number: PL45751

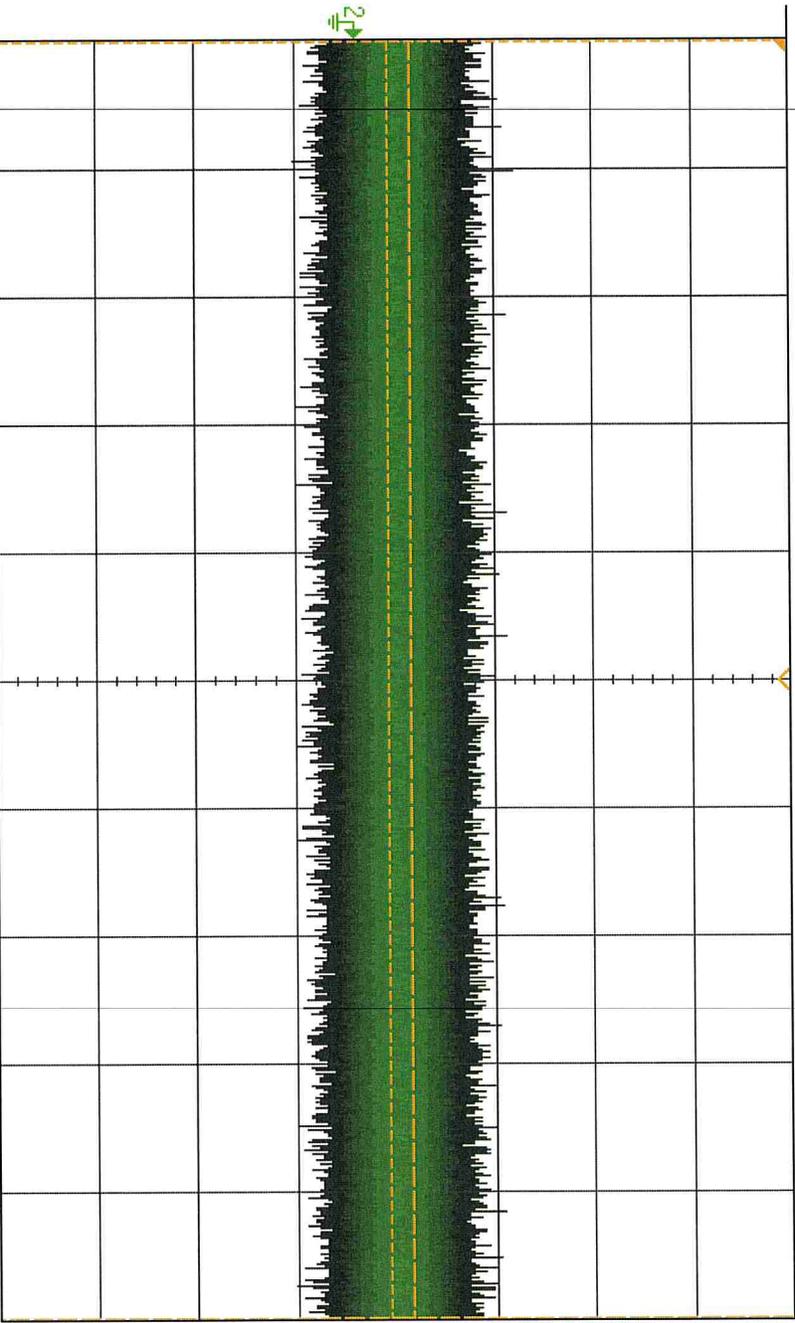
Temperature: +25C

VSWR Graph



PL 45751
RMS noise

DSO-X 30B4A, MW52394003: Mon Apr 29 13:03:37 2024
 1 2 60V/ 3 4 1.051μs 200.0ns/ Auto 4 3.40V



Acquire Menu
 Acq Mode Normal

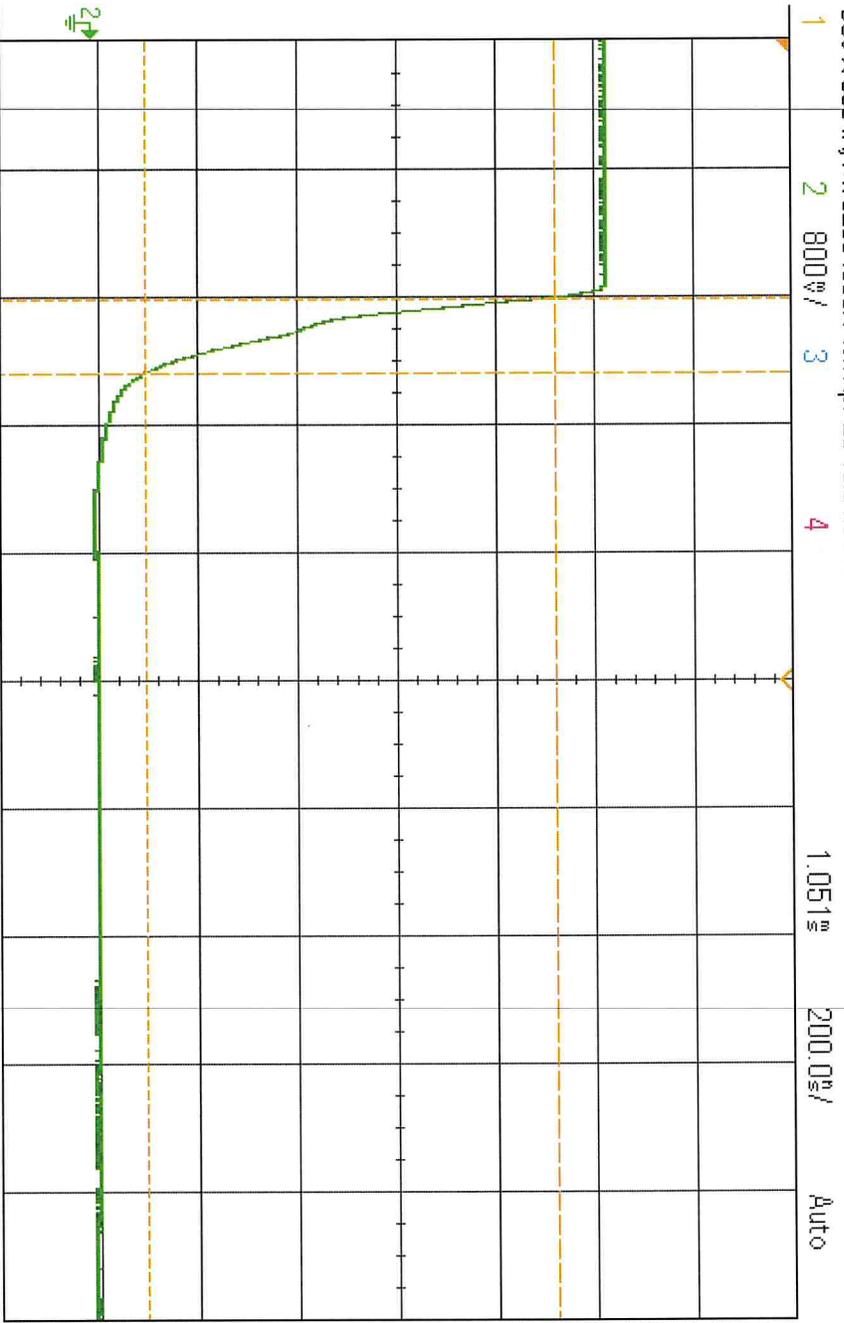
Avgs 64

Segmented

| | |
|---|-----------|
|  Acquisition Normal 1.00GSa/s | |
| Channels | 4 |
| DC | 1.00:1 |
| Measurements | |
| Fall[3]: | No signal |
| Rise[2]: | <93ns |
| AC RMS - FS[2]: | 13.27mV |

PL45751
Recovery/Fall

DSO-X 3034A, MW52394003, Mon Apr 29 13:01:33 2024



4 3.40V

Acquisition
Averaging: B4
4.00GSa/s

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

| Measurements | |
|--------------|-----------|
| Fall(3): | No signal |
| Rise(2): | No edges |
| Fall(2): | 116.3ns |

Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

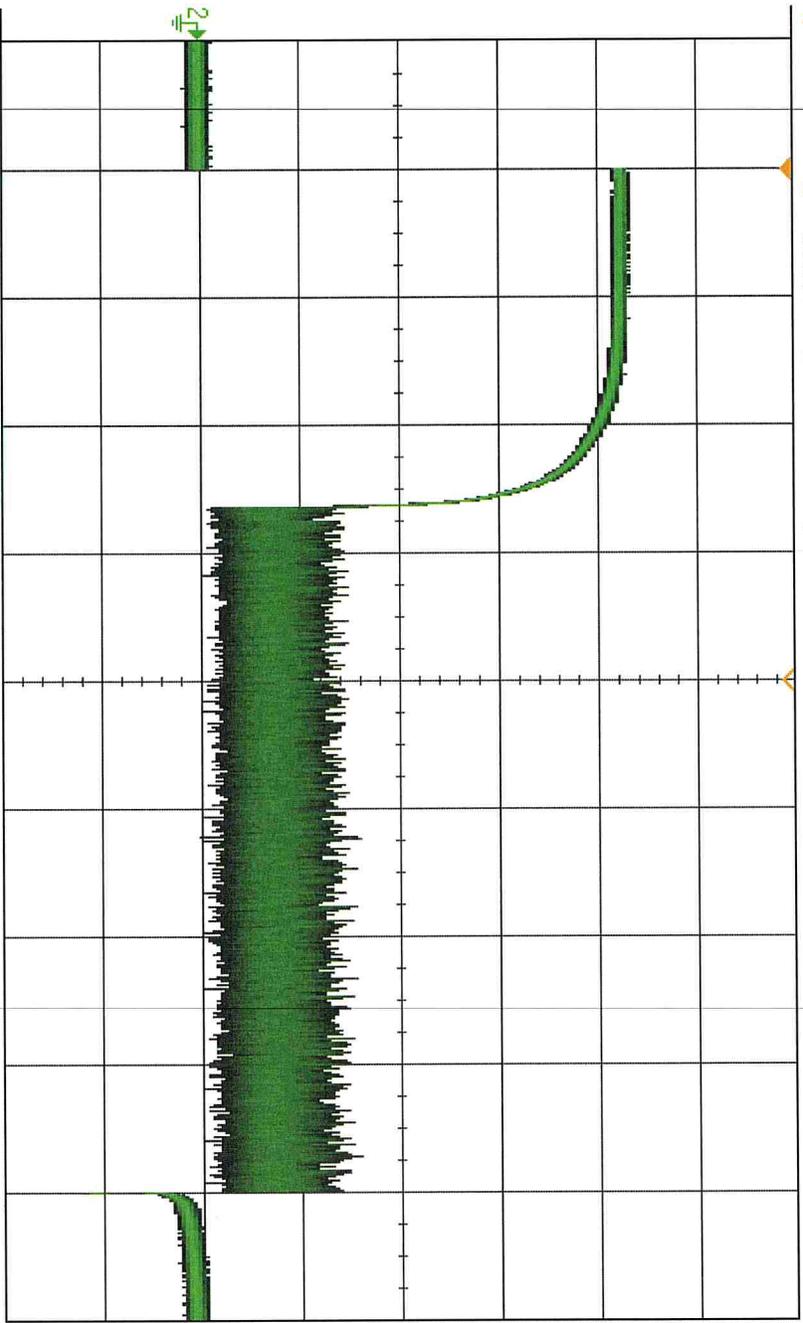
Clear Meas

Statistics

CW Immune @ -10dbm
PL45751

DSO-X 30B4A, MW52394003, Mon Apr 29 13:08:31 2024

1 2 600% / 3 4 2.000ms 500.0ns / Auto f 4 3.40V



| | | |
|-------------|--------|---|
| Acquisition | : | : |
| Normal | : | : |
| 400MSa/s | : | : |
| Channels | : | : |
| DC | 1.00:1 | : |

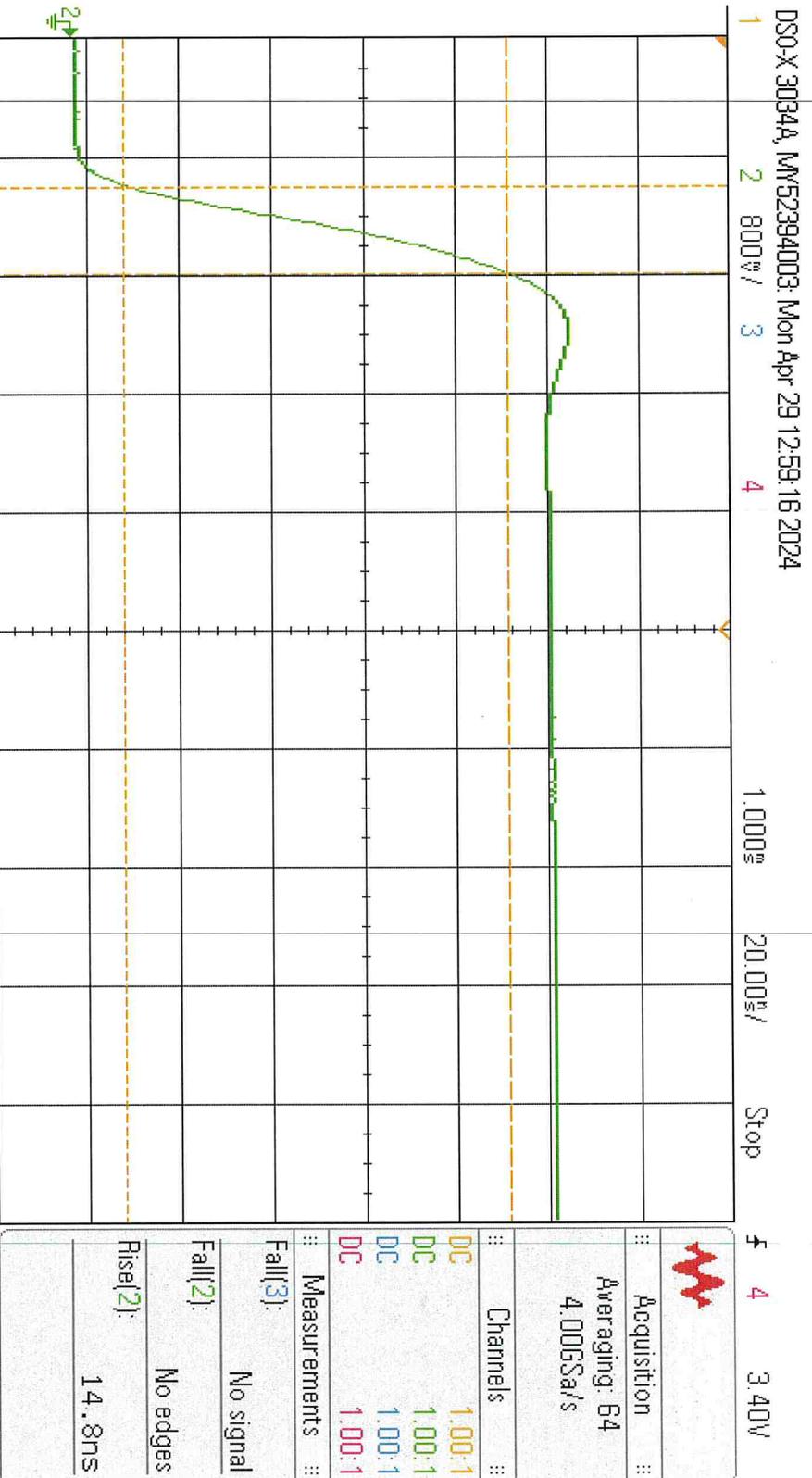
Save to file = PL45751_cw_Immune

Spell p Enter

Delete Character Increment

Press to Save

PL45751
Settle / Rise Time



Measurement Menu

Source 2

Type: Rise

Add Measurement

Settings

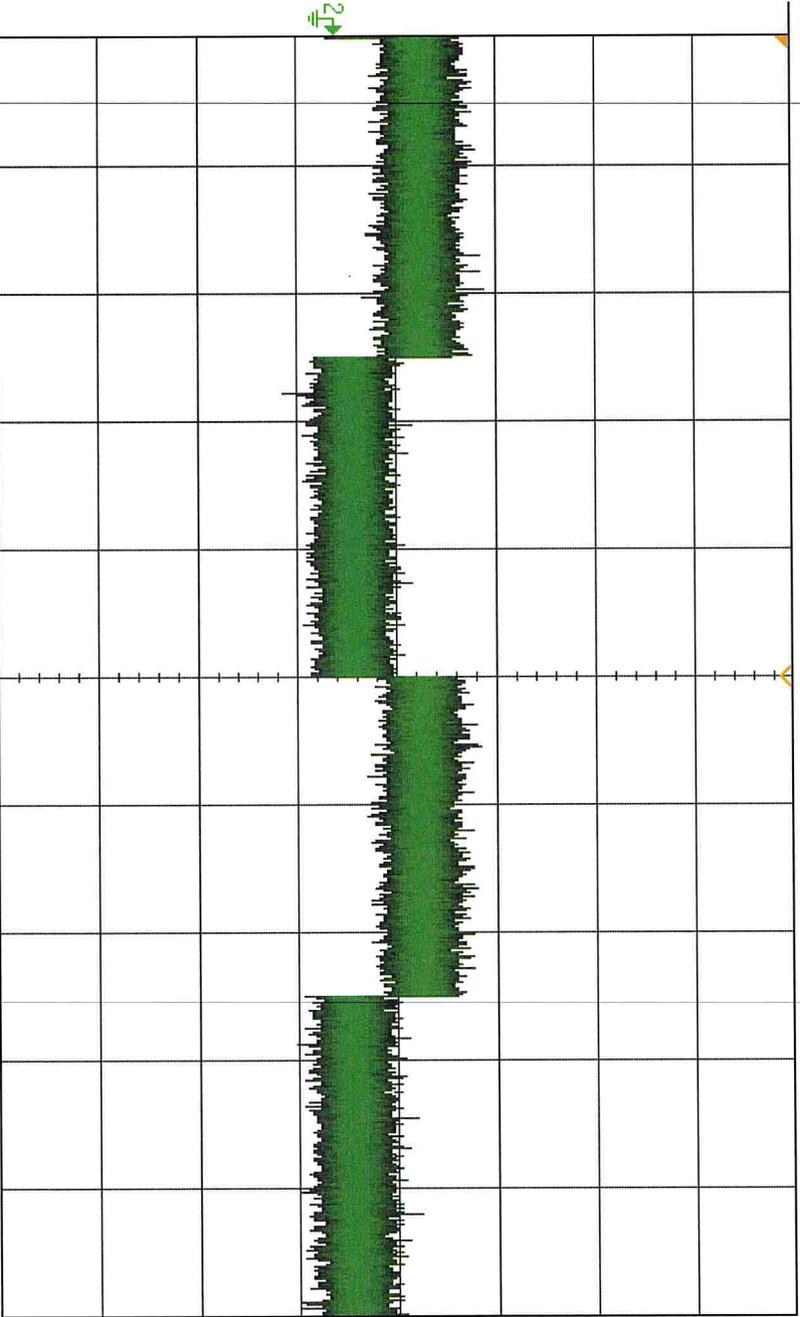
Clear Meas

Statistics

PL45751
TSS -45dbm

DSO-X 3034A, MY62394003, Mon Apr 29 15:30:16 2024

1 2 100% / 3 4 2.000ms 20.00ns / Auto 5 4 1.80V



| | | |
|-------------|--------|---|
| Acquisition | : | : |
| Normal | : | : |
| 4.00GSa/s | : | : |
| Channels | : | : |
| DC | 1.00:1 | : |

Acquire Menu

Acq Mode Normal

Avgs 84

Segmented