



**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40785/2322

Customer: _____ Tested By: Jim Hopson
 SO No: _____ Temperature: -25°C +25C +85C
 Model No: ERDLVA-218-CW-75MV Date: 05/31/2023
 Serial No: PL40785/2322 Drawing No: 27642440 Rev: A1

| TEST ITEM NO | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | QA QC |
|--------------|-----------------------------------|---|---------------------|----------|
| 1 | Frequency Range: | 2 to 18 GHz | 2 to 18 GHz | PM QA |
| 2 | VSWR: | 2.5:1 MAX @ -20 dBm | 1.43:1 MAX | |
| 3 | Input Power: | 23 dBm Max. | Pass | |
| 4 | VIDEO OUT TSS: | -42 dBm MAX | -43dBm | |
| 5 | VIDEO OUT Dynamic Range: | -40 to +20 dBm | -40 to +20 dBm | |
| 6 | VIDEO OUT Log Slope Fixed: | 75 ± 10mV/dB | 74.9-79.3mV/dB | |
| 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 | 24mV | |
| 9 | VIDEO OUT Rise Time (10% to 90%): | 25 ns MAX | 19.3.0ns | |
| 10 | VIDEO OUT Settling Time: | ±0.5dB within 25ns from 90% | <0.5dB | |

Handwritten signature and date: 5-31-23

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 Email: sales@pmi-rf.com



**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40785/2322

| | | | | |
|----|---|--|---------------------------------|---------|
| 11 | VIDEO OUT Recovery | 500ns MAX | <500ns | PMI Q43 |
| 12 | Video Frequency Flatness: | 3.0 dB p-p MAX @ -20dBm | 1.60dB p-p MAX @ -20dBm | |
| 13 | VIDEO OUT CW Immunity: | CW Immune Power -50 to -10 dBm | Pass | |
| | | CW Attack Time 1500us | <1500us | |
| | | CW Release Time 250us | <50us | |
| 17 | Pulse droop | 1dB Max for 250us pulses | <1dB | |
| 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 | <50mV | |
| 22 | VIDEO OUT Propagation Delay: | 35 ns MAX from RF 10% to 10% video (excluding cable) | <20ns typ | |
| 23 | Power Supply | +12 V @ 250 mA MAX -12 V @ 250 mA MAX | +12 V @ 160 mA -12 V @ 70 mA | |

162
5-31-23



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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 05-30-23
 SERIAL NO: PL40785
 Test Temp: +25C

RF Input Power (dBm)

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

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

| | | | | | | | | | | | | |
|-------|-------|-------|------|------|-------|------|------|------|-------|------|-------|-------|
| 335 | 721 | 1098 | 1487 | 1873 | 2213 | 2628 | 3031 | 3389 | 3727 | 4129 | 4485 | 4881 |
| -12 | -4 | -5 | 6 | 14 | -24 | 13 | 38 | 18 | -22 | 2 | -20 | -2 |
| -0.16 | -0.06 | -0.07 | 0.08 | 0.18 | -0.32 | 0.17 | 0.50 | 0.24 | -0.29 | 0.03 | -0.26 | -0.03 |

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

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|------|------|------|-------|------|------|-------|
| 259 | 612 | 986 | 1390 | 1780 | 2135 | 2564 | 2996 | 3351 | 3699 | 4123 | 4522 | 4889 |
| 31 | -5 | -20 | -5 | -4 | -38 | 2 | 45 | 11 | -30 | 5 | 15 | -7 |
| 0.40 | -0.06 | -0.25 | -0.06 | -0.05 | -0.49 | 0.03 | 0.58 | 0.14 | -0.39 | 0.06 | 0.19 | -0.09 |

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

| | | | | | | | | | | | | |
|-------|------|------|------|------|-------|-------|------|-------|-------|------|------|------|
| 343 | 731 | 1107 | 1496 | 1878 | 2210 | 2606 | 3005 | 3360 | 3705 | 4133 | 4531 | 4900 |
| -4 | 6 | 4 | 15 | 19 | -28 | -10 | 11 | -12 | -45 | 4 | 24 | 15 |
| -0.05 | 0.08 | 0.05 | 0.20 | 0.25 | -0.36 | -0.13 | 0.15 | -0.16 | -0.60 | 0.06 | 0.32 | 0.20 |

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

| | | | | | | | | | | | | |
|------|-------|-------|------|------|-------|-------|------|------|-------|------|------|-------|
| 272 | 635 | 1007 | 1407 | 1793 | 2138 | 2559 | 2989 | 3343 | 3691 | 4110 | 4503 | 4864 |
| 21 | -1 | -15 | 0 | 1 | -39 | -3 | 41 | 10 | -27 | 7 | 15 | -10 |
| 0.27 | -0.02 | -0.19 | 0.00 | 0.01 | -0.51 | -0.04 | 0.54 | 0.13 | -0.35 | 0.09 | 0.19 | -0.12 |

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

| | | | | | | | | | | | | |
|------|-------|-------|------|------|-------|-------|------|-------|-------|-------|------|------|
| 302 | 675 | 1047 | 1452 | 1833 | 2163 | 2564 | 2979 | 3328 | 3674 | 4084 | 4487 | 4853 |
| 4 | -2 | -9 | 17 | 19 | -30 | -8 | 28 | -2 | -36 | -5 | 19 | 6 |
| 0.05 | -0.03 | -0.12 | 0.22 | 0.25 | -0.40 | -0.11 | 0.36 | -0.03 | -0.47 | -0.06 | 0.26 | 0.08 |

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

| | | | | | | | | | | | | |
|------|------|-------|------|------|-------|-------|------|-------|-------|-------|------|------|
| 289 | 660 | 1031 | 1435 | 1817 | 2147 | 2547 | 2962 | 3311 | 3659 | 4065 | 4477 | 4851 |
| 8 | 0 | -9 | 16 | 18 | -31 | -11 | 25 | -6 | -37 | -11 | 22 | 16 |
| 0.11 | 0.00 | -0.12 | 0.21 | 0.24 | -0.41 | -0.14 | 0.33 | -0.08 | -0.49 | -0.14 | 0.29 | 0.21 |

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

| | | | | | | | | | | | | |
|------|-------|-------|------|------|-------|------|------|------|-------|-------|------|-------|
| 262 | 618 | 990 | 1399 | 1783 | 2125 | 2538 | 2966 | 3314 | 3659 | 4058 | 4462 | 4818 |
| 16 | -10 | -20 | 7 | 9 | -31 | 0 | 46 | 12 | -25 | -8 | 15 | -11 |
| 0.21 | -0.13 | -0.26 | 0.09 | 0.12 | -0.40 | 0.00 | 0.61 | 0.16 | -0.32 | -0.10 | 0.19 | -0.15 |

Flatness P-P

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.2 | 1.6 | 1.6 | 1.4 | 1.2 | 1.2 | 1.2 | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Slope Avg(mv/dB)

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 75.6 | 77.8 | 75.6 | 77.0 | 75.8 | 75.9 | 76.4 | 76.3 |
|------|------|------|------|------|------|------|------|

Frequency

2 GHz INTERCEPT (mV) 3371
 SLOPE (mV/dB) 75.6

4.67 GHz INTERCEPT (mV) 3340
 SLOPE (mV/dB) 77.8

7.33 GHz INTERCEPT (mV) 3372
 SLOPE (mV/dB) 75.6

10 GHz INTERCEPT (mV) 3333
 SLOPE (mV/dB) 77.0

12.67 GHz INTERCEPT (mV) 3330
 SLOPE (mV/dB) 75.8

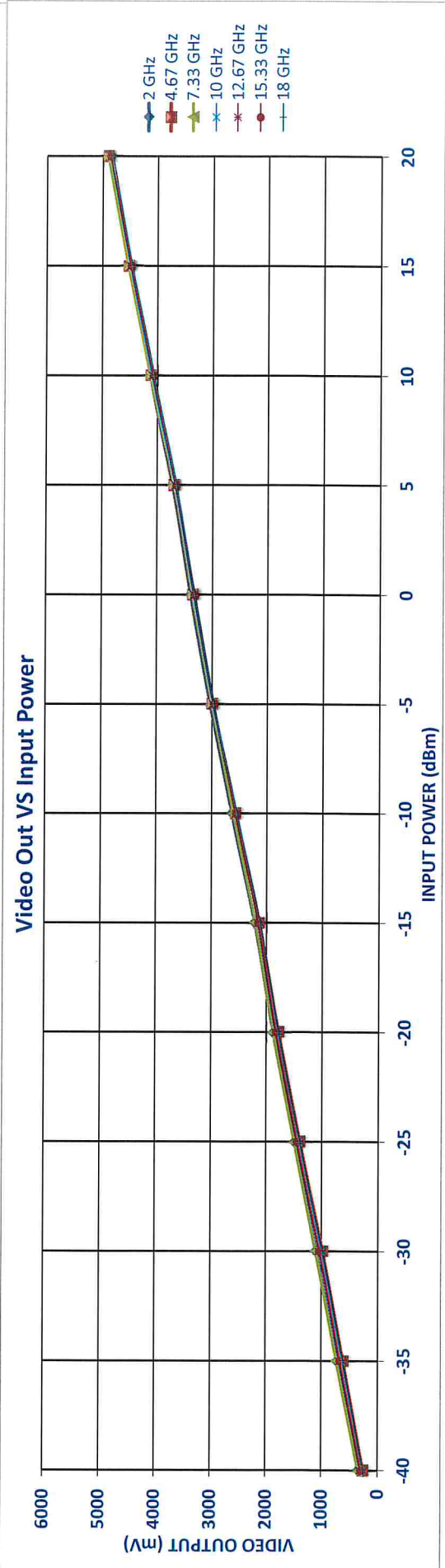
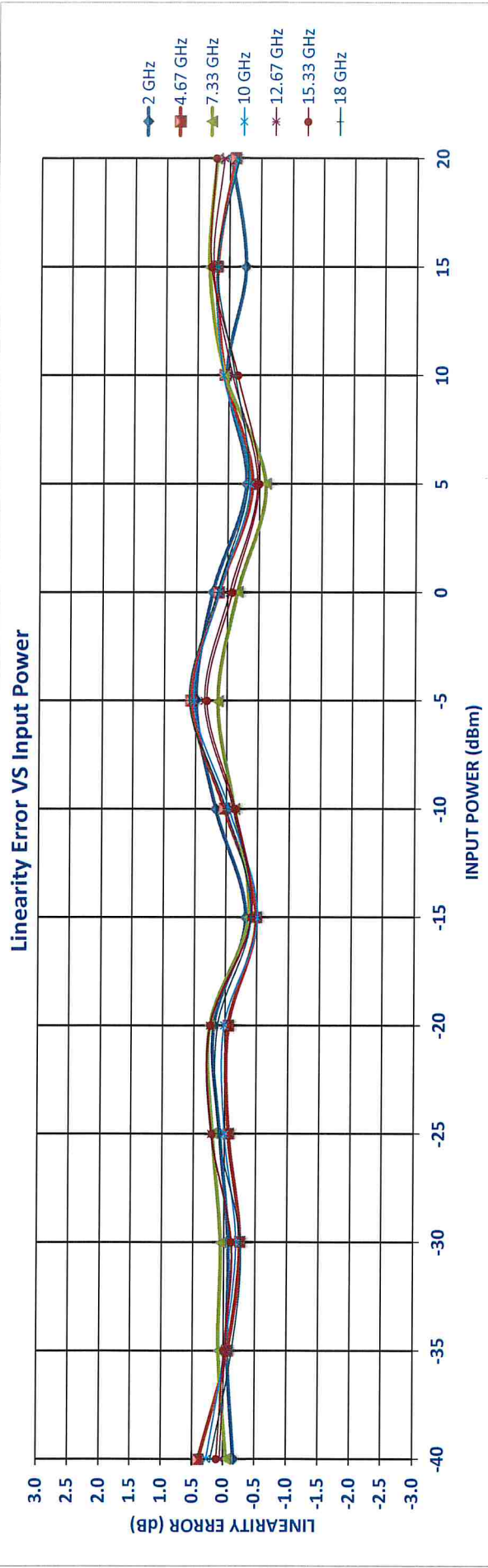
15.33 GHz INTERCEPT (mV) 3317
 SLOPE (mV/dB) 75.9

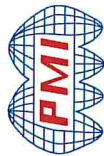
18 GHz INTERCEPT (mV) 3302
 SLOPE (mV/dB) 76.4

Flatness P-P

Slope Avg(mv/dB) 76.3

LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40785
Test Temp: +25C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 05-30-23
 SERIAL NO: PL40785
 Test Temp: +85C

RF Input Power (dBm)

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

| | |
|----------------------|-------|
| Measured Value (mV) | 318 |
| Error (mV) | -9 |
| LINEARITY ERROR (dB) | -0.13 |

| | | | | | | | | | | | | |
|-------|-------|-------|------|------|-------|------|------|------|-------|-------|-------|-------|
| 318 | 695 | 1066 | 1456 | 1840 | 2176 | 2584 | 2989 | 3341 | 3681 | 4069 | 4420 | 4818 |
| -9 | -7 | -10 | 6 | 15 | -23 | 11 | 41 | 19 | -15 | -2 | -25 | -1 |
| -0.13 | -0.09 | -0.13 | 0.08 | 0.20 | -0.31 | 0.14 | 0.55 | 0.25 | -0.20 | -0.02 | -0.33 | -0.02 |

| | |
|----------------------|------|
| Measured Value (mV) | 246 |
| Error (mV) | 37 |
| LINEARITY ERROR (dB) | 0.48 |

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|------|------|------|-------|------|------|-------|
| 246 | 585 | 956 | 1358 | 1745 | 2101 | 2524 | 2961 | 3313 | 3661 | 4069 | 4459 | 4826 |
| 37 | -10 | -24 | -8 | -7 | -37 | 1 | 52 | 18 | -20 | 3 | 7 | -12 |
| 0.48 | -0.12 | -0.32 | -0.11 | -0.09 | -0.47 | 0.01 | 0.67 | 0.23 | -0.25 | 0.03 | 0.09 | -0.15 |

| | |
|----------------------|------|
| Measured Value (mV) | 321 |
| Error (mV) | 0 |
| LINEARITY ERROR (dB) | 0.00 |

| | | | | | | | | | | | | |
|------|------|-------|------|------|-------|-------|------|-------|-------|------|------|------|
| 321 | 699 | 1068 | 1458 | 1840 | 2170 | 2566 | 2968 | 3317 | 3662 | 4074 | 4464 | 4834 |
| 0 | 3 | -3 | 11 | 18 | -27 | -6 | 20 | -6 | -36 | 1 | 15 | 10 |
| 0.00 | 0.04 | -0.05 | 0.15 | 0.24 | -0.36 | -0.09 | 0.27 | -0.08 | -0.48 | 0.01 | 0.21 | 0.14 |

| | |
|----------------------|------|
| Measured Value (mV) | 249 |
| Error (mV) | 31 |
| LINEARITY ERROR (dB) | 0.41 |

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|-------|
| 249 | 592 | 961 | 1361 | 1743 | 2092 | 2508 | 2947 | 3297 | 3646 | 4047 | 4432 | 4793 |
| 31 | -8 | -22 | -4 | -5 | -38 | -5 | 52 | 19 | -15 | 4 | 6 | -15 |
| 0.41 | -0.11 | -0.28 | -0.06 | -0.06 | -0.50 | -0.06 | 0.67 | 0.25 | -0.19 | 0.05 | 0.08 | -0.20 |

| | |
|----------------------|------|
| Measured Value (mV) | 285 |
| Error (mV) | 10 |
| LINEARITY ERROR (dB) | 0.14 |

| | | | | | | | | | | | | |
|------|-------|-------|------|------|-------|-------|------|------|-------|-------|------|------|
| 285 | 644 | 1010 | 1416 | 1794 | 2125 | 2522 | 2939 | 3285 | 3632 | 4027 | 4421 | 4787 |
| 10 | -6 | -16 | 14 | 16 | -29 | -8 | 33 | 3 | -25 | -6 | 12 | 2 |
| 0.14 | -0.09 | -0.22 | 0.18 | 0.21 | -0.38 | -0.10 | 0.44 | 0.05 | -0.34 | -0.08 | 0.16 | 0.03 |

| | |
|----------------------|------|
| Measured Value (mV) | 267 |
| Error (mV) | 17 |
| LINEARITY ERROR (dB) | 0.23 |

| | | | | | | | | | | | | |
|------|-------|-------|------|------|-------|-------|------|------|-------|-------|------|------|
| 267 | 620 | 987 | 1393 | 1771 | 2105 | 2502 | 2922 | 3267 | 3617 | 4008 | 4409 | 4783 |
| 17 | -7 | -17 | 12 | 13 | -30 | -10 | 33 | 1 | -25 | -11 | 13 | 10 |
| 0.23 | -0.09 | -0.22 | 0.16 | 0.18 | -0.39 | -0.13 | 0.44 | 0.02 | -0.34 | -0.15 | 0.17 | 0.13 |

| | |
|----------------------|------|
| Measured Value (mV) | 231 |
| Error (mV) | 33 |
| LINEARITY ERROR (dB) | 0.44 |

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|------|-------|
| 231 | 560 | 930 | 1339 | 1718 | 2070 | 2481 | 2921 | 3268 | 3614 | 3998 | 4391 | 4747 |
| 33 | -18 | -29 | -1 | -3 | -31 | -1 | 58 | 24 | -10 | -7 | 5 | -20 |
| 0.44 | -0.24 | -0.38 | -0.01 | -0.03 | -0.41 | -0.02 | 0.76 | 0.32 | -0.14 | -0.09 | 0.07 | -0.26 |

| | |
|--------------|-----|
| Flatness P-P | 1.2 |
|--------------|-----|

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

| | |
|------------------|------|
| Slope Avg(mv/dB) | 75.8 |
|------------------|------|

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 74.9 | 77.2 | 75.0 | 76.5 | 75.2 | 75.4 | 76.2 | 75.8 |
|------|------|------|------|------|------|------|------|

| | | |
|-------|----------------|------|
| 2 GHz | INTERCEPT (mV) | 3322 |
| | SLOPE (mV/dB) | 74.9 |

| | | |
|----------|----------------|------|
| 4.67 GHz | INTERCEPT (mV) | 3295 |
| | SLOPE (mV/dB) | 77.2 |

| | | |
|----------|----------------|------|
| 7.33 GHz | INTERCEPT (mV) | 3323 |
| | SLOPE (mV/dB) | 75.0 |

| | | |
|--------|----------------|------|
| 10 GHz | INTERCEPT (mV) | 3278 |
| | SLOPE (mV/dB) | 76.5 |

| | | |
|-----------|----------------|------|
| 12.67 GHz | INTERCEPT (mV) | 3282 |
| | SLOPE (mV/dB) | 75.2 |

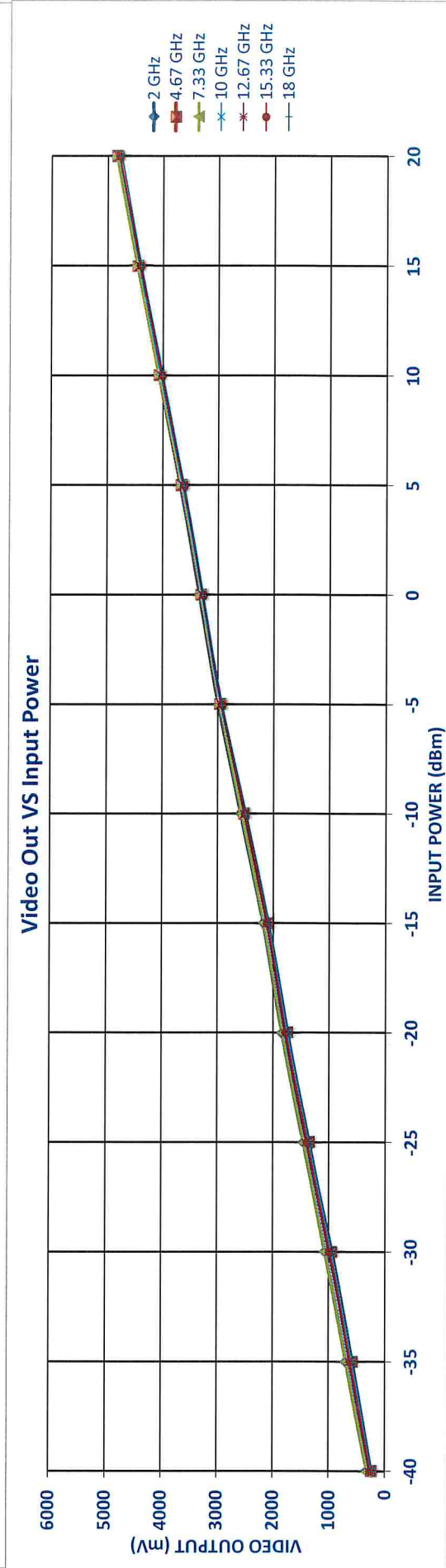
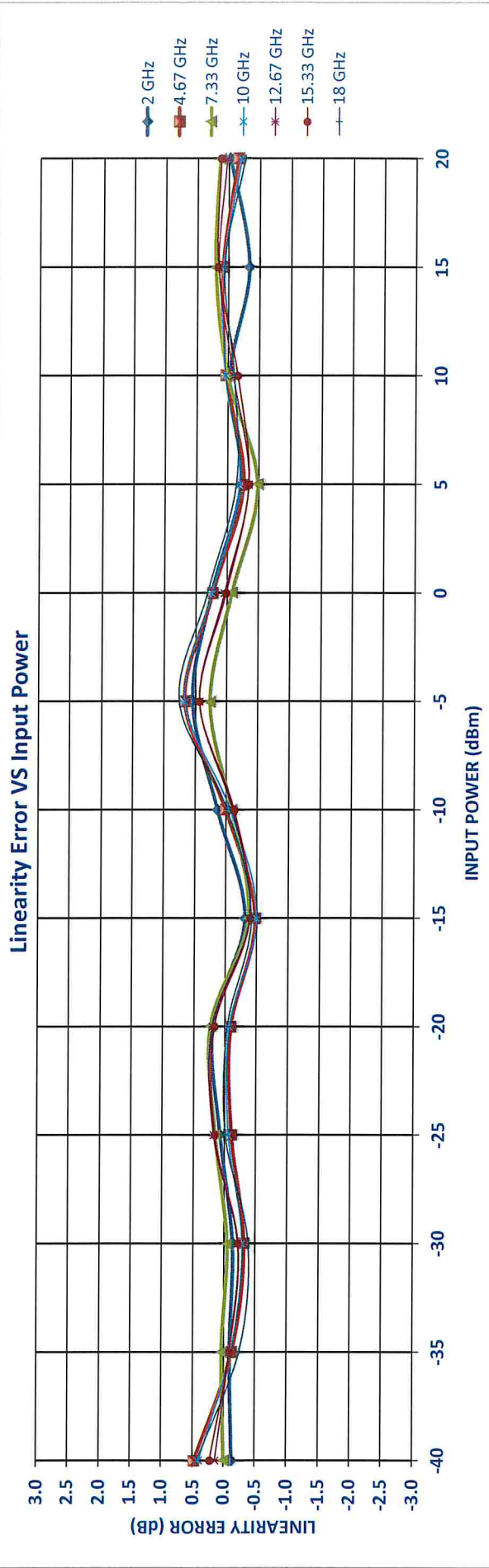
| | | |
|-----------|----------------|------|
| 15.33 GHz | INTERCEPT (mV) | 3266 |
| | SLOPE (mV/dB) | 75.4 |

| | | |
|--------|----------------|------|
| 18 GHz | INTERCEPT (mV) | 3244 |
| | SLOPE (mV/dB) | 76.2 |

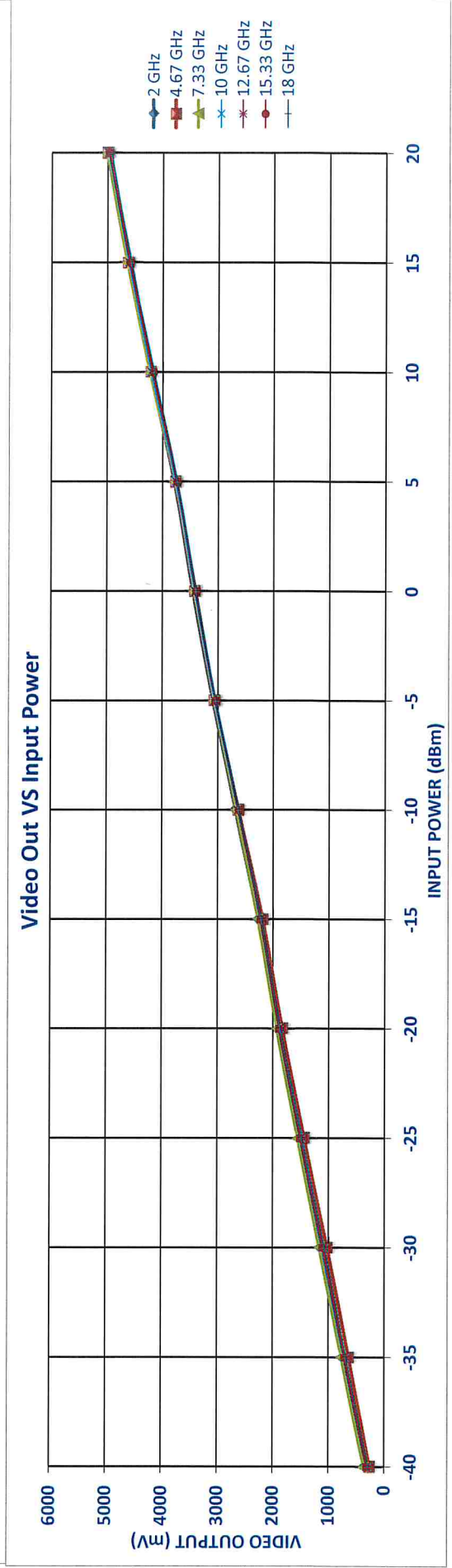
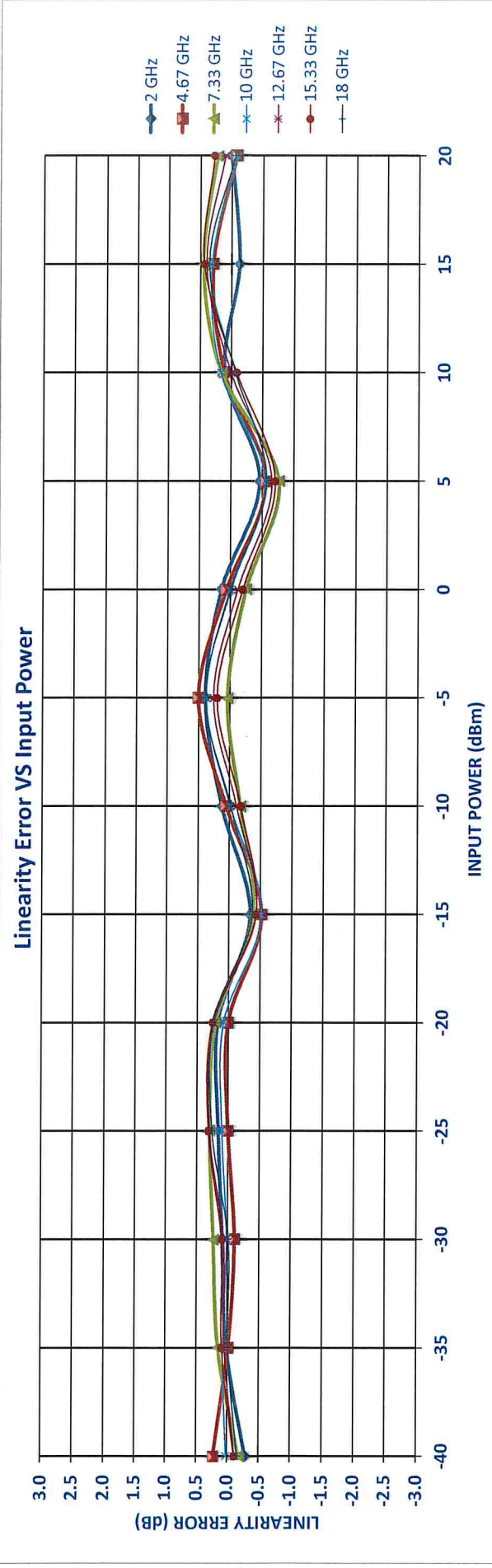
| | |
|--------------|-----|
| Flatness P-P | 1.2 |
|--------------|-----|

| | |
|------------------|------|
| Slope Avg(mv/dB) | 75.8 |
|------------------|------|

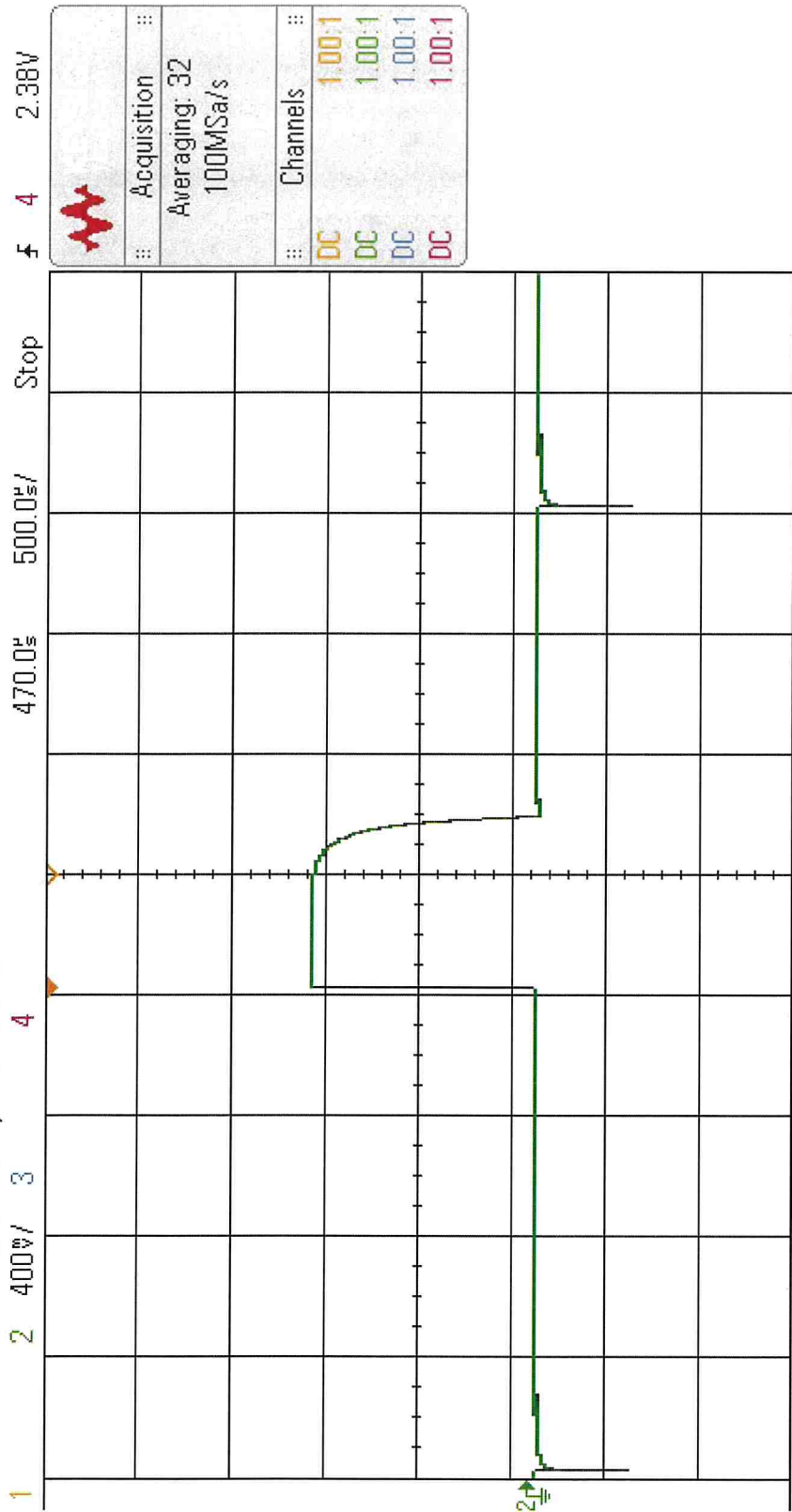
LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40785
Test Temp: +85C



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40785
Test Temp: -25C



DSO-X 3034A, MY52394003, Wed May 31 14:57:34 2023



Save to file = pl40785_attack_recov

Format
BMP (8-bit)

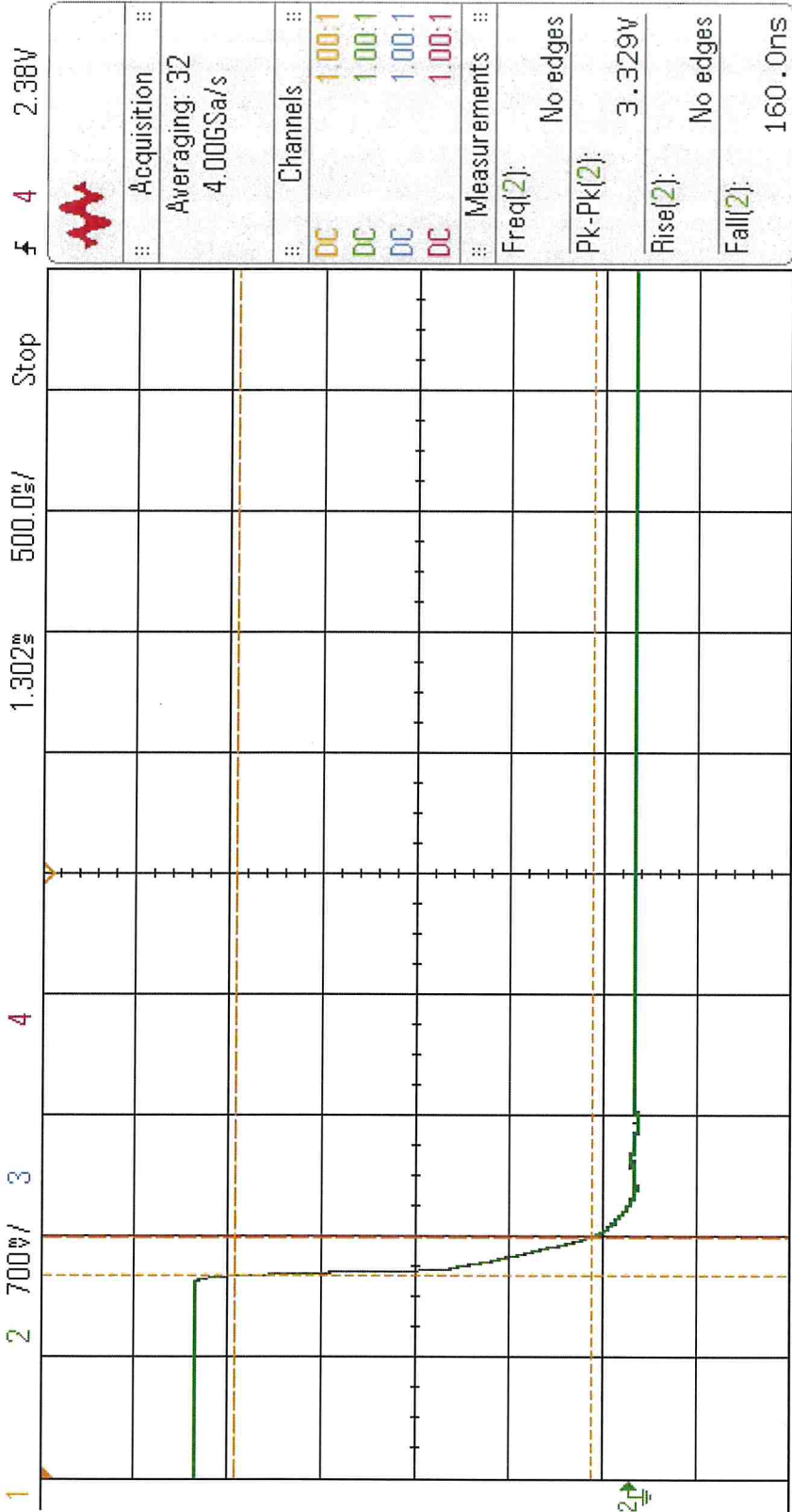
Save to \usb

File Name

Settings

Press to Save

DSO-X 3034A, MY52394003, Wed May 31 14:54:23 2023



Measurement Menu

Source 2

Type: Fall

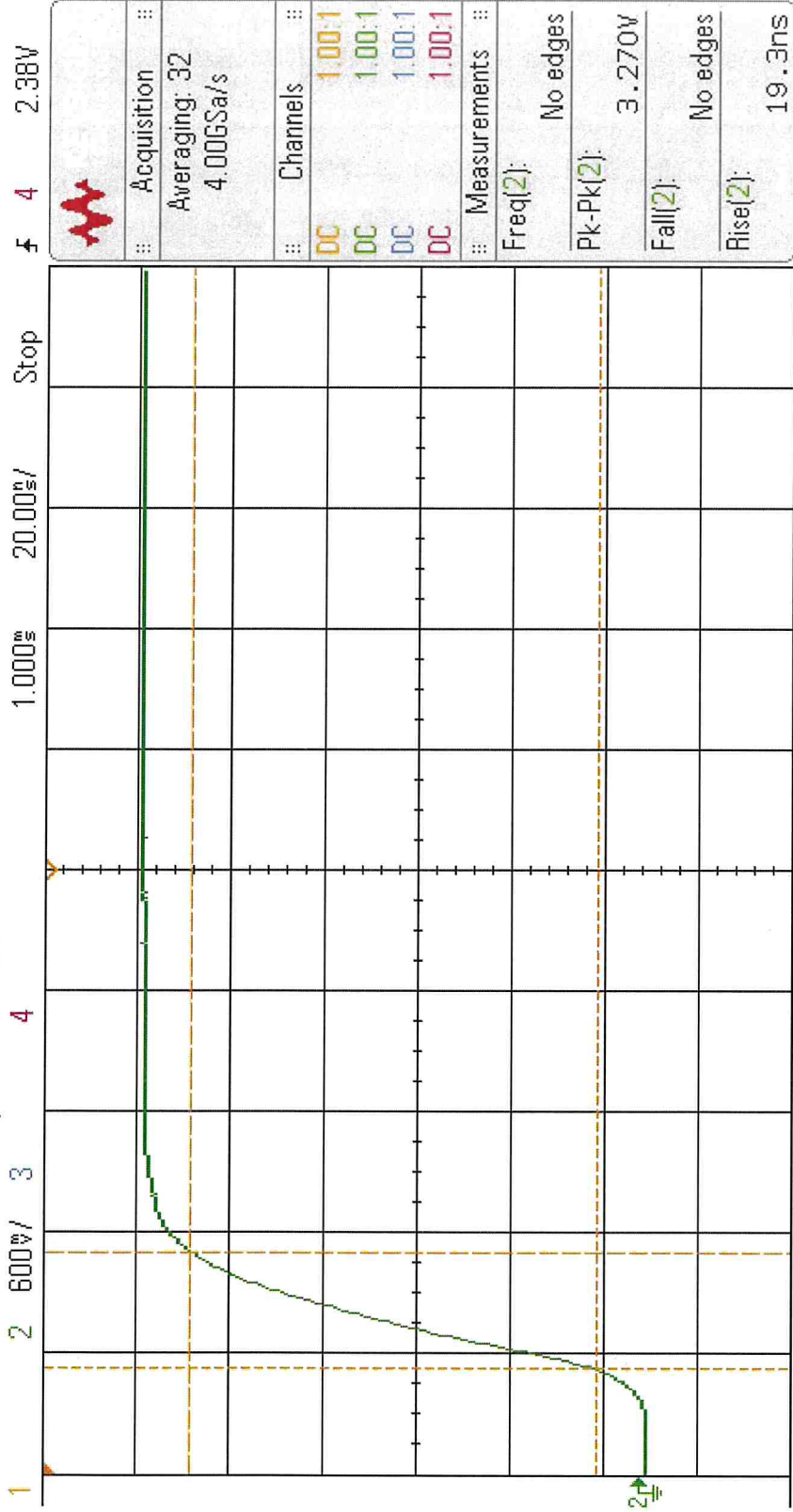
Add Measurement

Settings

Clear Meas

Statistics

DSO-X 3034A, MY52394003: Wed May 31 14:52:32 2023



Measurement Menu

Source 2

Type: Rise

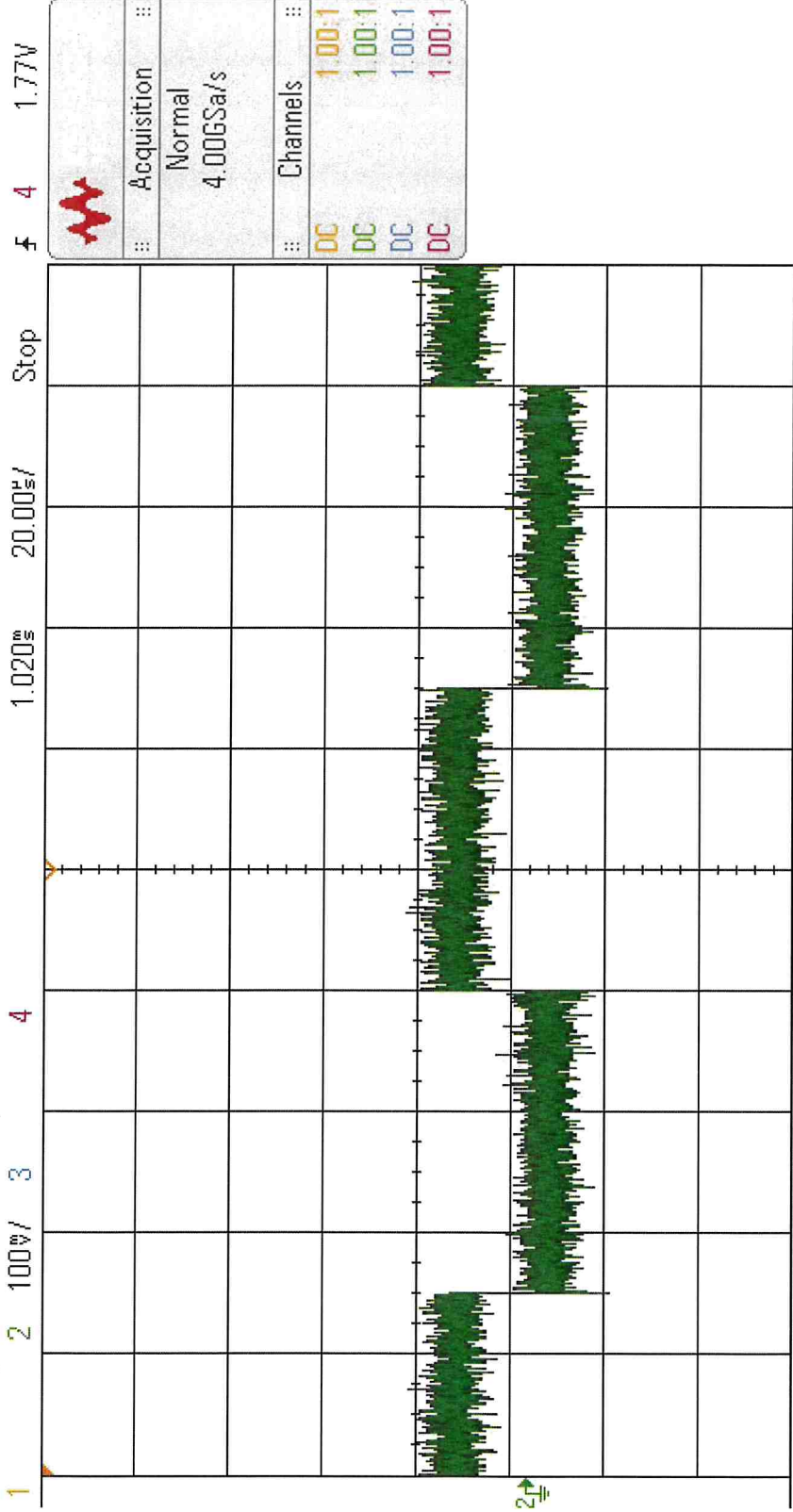
Add Measurement

Settings

Clear Meas

Statistics

DSO-X 3034A, MY52394003, Wed May 31 14:44:54 2023



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

Save to file = [p140785_tss

Format BMP (8-bit)

Save to [usb]

File Name

Settings

Press to Save

Model Number: ERDLVA-2G18G-CW-75MV
Serial Number: PL40785
Date: 6/2/2023

Temperature: +25C

VSWR GRAPH

