



**Tested By: Jim Hopson**

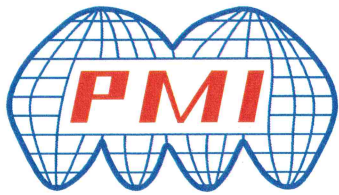
**Temperature: 0°C TO +85°C**

**Date 8/20/2024**

**Drawing No: 27637972**

Rev: A1

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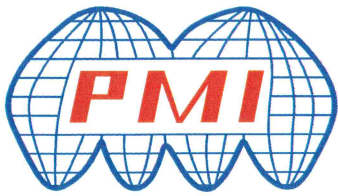
**Summary Data**  
**For**  
**EWDM-6G18G-65-70MV-1**

|    |                                   |                                              |                           |            |
|----|-----------------------------------|----------------------------------------------|---------------------------|------------|
| 13 | SW Linear Gain                    | +7 dB MIN, 15 dB MAX                         | 13.2 dB MIN / 14.5 dB MAX | PMI<br>QA3 |
| 14 | SW Frequency Flatness:            | ±1.5 dB MAX                                  | ±0.7 dB                   |            |
| 15 | SW 1 dB Compression Point:        | +3 dBm MIN                                   | 4.5 dBm                   |            |
| 16 | SW Saturated Power:               | +9 dBm MAX                                   | 5.7 dBm                   |            |
| 17 | SW Second Harmonic:               | -9 dBc MIN                                   | -28.83 dBc                |            |
| 18 | SW Third Harmonic:                | -12 dBc MIN                                  | -46.66 dBc                |            |
| 19 | VIDEO OUT TSS:                    | -71 dBm MAX                                  | -71 dBm                   |            |
| 20 | VIDEO OUT Dynamic Range:          | -65 to 0 dBm                                 | -65 to 0 dBm              |            |
| 21 | VIDEO OUT Log Slope Fixed:        | 70 ± 3mV/dB                                  | 71 mV/dB                  |            |
| 22 | VIDEO OUT Log Linearity:          | ±1.0 dB MAX @12 GHZ                          | +0.25 / -0.27 dB          |            |
| 23 | VIDEO OUT Log Accuracy:           | ±2.0 dB MAX                                  | +0.95 / -1.07 dB          |            |
| 24 | VIDEO OUT Absolute Log Accuracy:  | ±2.25 dB MAX                                 | +1.8 / -1.86 dB           |            |
| 25 | VIDEO OUT DC Offset:              | 0 ±70 mV (RF Input Terminated & DC Power On) | 0.24 mV                   |            |
| 26 | VIDEO OUT Rise Time (10% to 90%): | 25 ns TYP 28 ns MAX                          | 26.8 ns                   |            |
| 27 | VIDEO OUT Fall Time (90% to 10%): | 300 ns MAX                                   | 170.6 ns                  |            |
| 28 | VIDEO OUT Settling Time:          | 50 ns With in ±70 mV of final value, MAX     | 40 ns typ                 |            |



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|    |                                                                 |                                                                                                                        |                  |         |
|----|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------|---------|
| 29 | VIDEO OUT Recovery Time:                                        | 0.5 us MAX to within 1 dB of baseline                                                                                  | < 0.5 us         | PMI QA3 |
| 30 | VIDEO OUT Video Frequency Flatness:                             | ±1.75 dB MAX                                                                                                           | ±0.89 dB         |         |
| 31 | VIDEO OUT CW Immunity:                                          | A. CW Immune Power TSS to -40 dBm Baseline Shift: 200 mV MAX                                                           | 125 mV TYP       |         |
|    |                                                                 | B. Pulse Peak Amplitude Loss; 2 dB MAX                                                                                 | 1.7 dB TYP       |         |
|    |                                                                 | CW Immunity Time at CW = -40 dBm, ≤ 3 ms                                                                               | 1.6 ms           |         |
|    |                                                                 | CW Recovery Time at CW = -40 dBm, ≤ 50 us                                                                              | 40 us TYP        |         |
| 32 | VIDEO OUT Pulse Response, input Signal:                         | 100 ns to 300 us                                                                                                       | 100 ns to 300 us |         |
| 33 | VIDEO OUT Impedance:                                            | 75 ±1 Ω                                                                                                                | 75 Ω             |         |
| 34 | VIDEO driver capability                                         | 150 ft RG11 into 75 ohm load                                                                                           | PASS             |         |
| 35 | Pulse density capability                                        | 10% duty cycle 100 ns, 70% duty cycle 300 us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline | PASS             |         |
| 36 | VIDEO OUT Noise Level (Vp-p):                                   | 160 mV TYP                                                                                                             | 122mV            |         |
| 37 | Droop of the Output Video Pulse: @ -65 dBm & 300 us pulse width | 70mV (1 dB) MAX                                                                                                        | 45 mV TYP        |         |



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**For**  
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|    |                                          |                                           |                                  |            |
|----|------------------------------------------|-------------------------------------------|----------------------------------|------------|
| 38 | VIDEO OUT<br>Propagation Delay:          | 50 ns MAX (excluding cable)               | 33 ns                            | PMI<br>QA3 |
| 39 | Power Supply                             | +15 V @ 1000 mA MAX<br>-15 V @ 500 mA MAX | +15 V @ 620 mA<br>-15 V @ 140 mA |            |
| 40 | Power Supply Ripple<br>From DC to 10 MHz | 100 mV MAX                                | PASS                             |            |

QA/QC Approval:

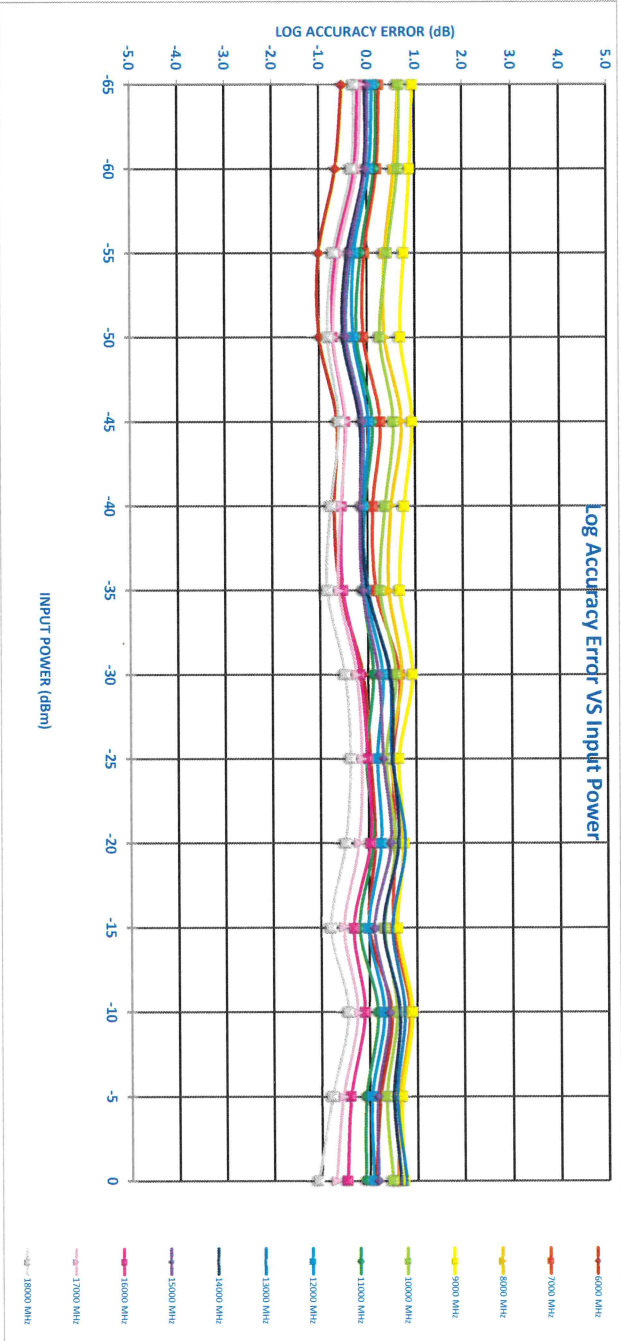
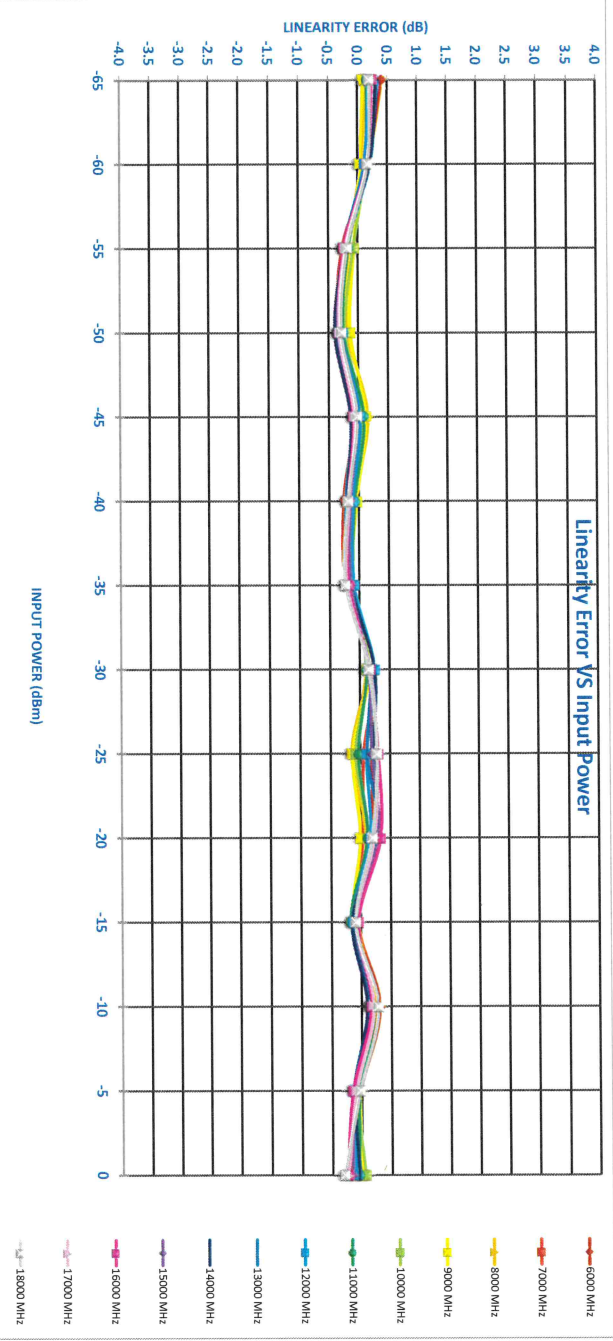
K. Lute

Date:

8.21.24



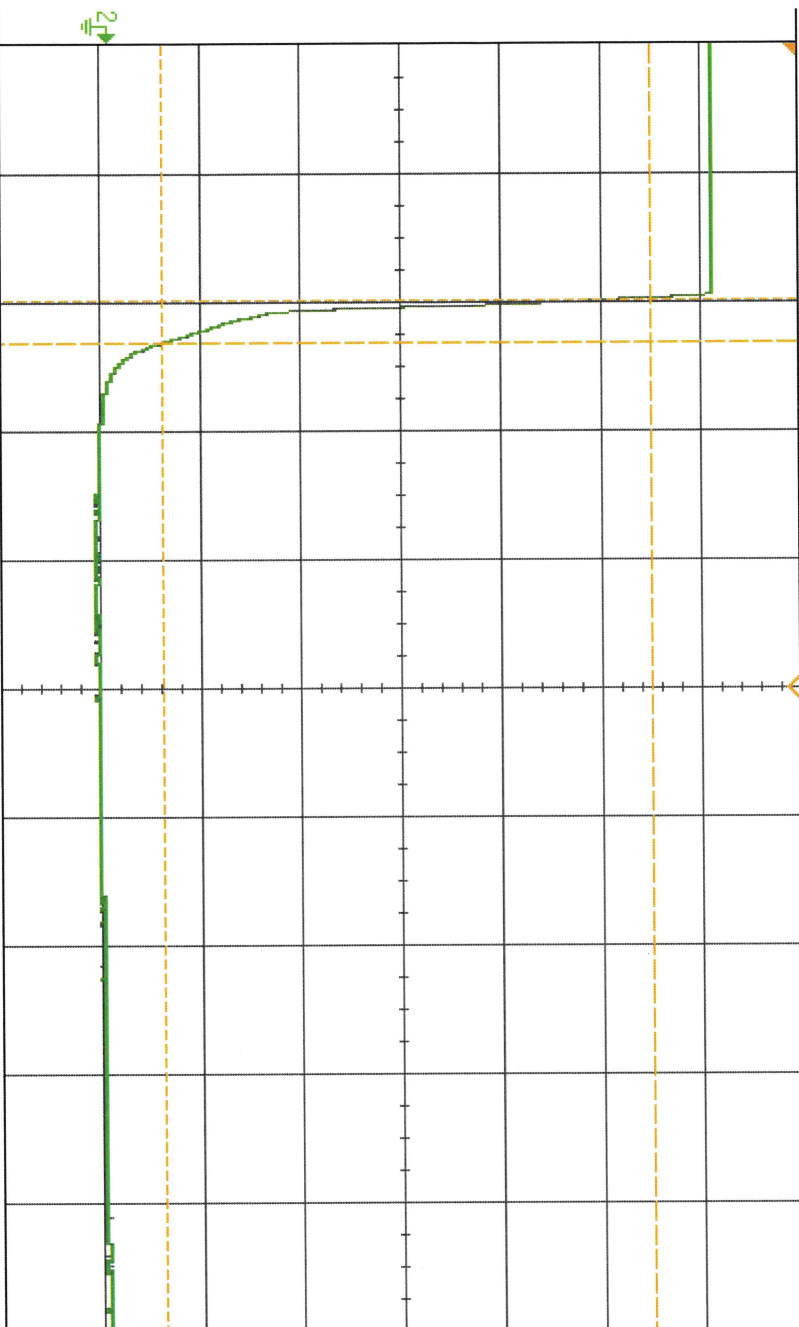
PL40918  
25°C



PL40918  
Recovery  
w 100ps P 300ps

DSO-X 3034A, MW52394003: Mon Aug 19 14:53:41 2024

1 2 700% / 3 4 4.002s 500.0ns / Auto f E 2.20V



Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

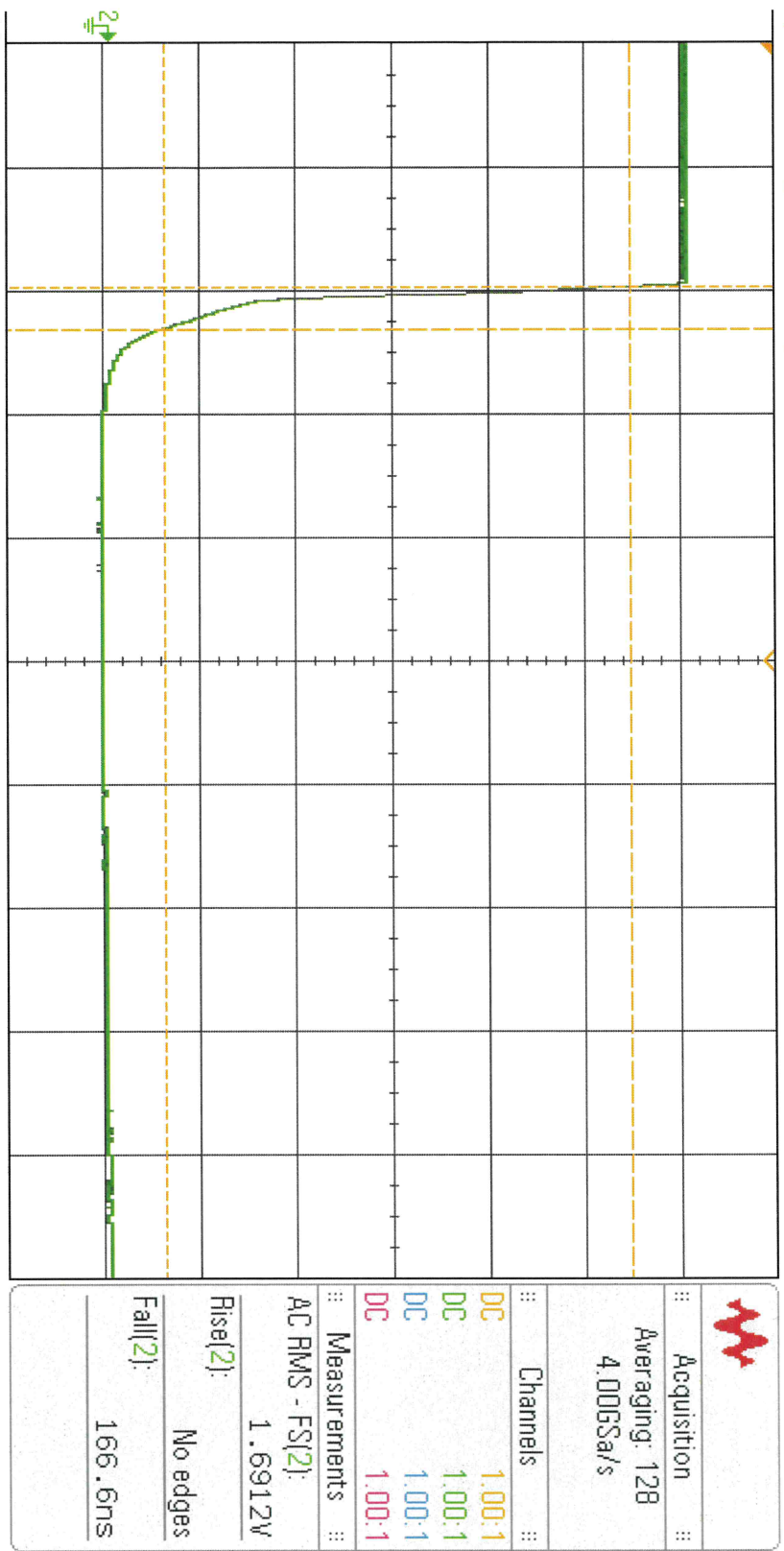
Statistics

|                 |        |
|-----------------|--------|
| Acquisition     |        |
| Averaging: 128  |        |
| 4.006Sa/s       |        |
| Channels        |        |
| DC              | 1.00:1 |
| DC              | 1.00:1 |
| DC              | 1.00:1 |
| DC              | 1.00:1 |
| Measurements    |        |
| AC RMS - FS(2): |        |
| 1.7082V         |        |
| Rise(2):        |        |
| No edges        |        |
| Fall(2):        |        |
| 170.6ns         |        |

PL40918  
Recovery  
w 10ps P 50ps

DSO-X 3034A, MW52394003 Mon Aug 19 14:54:46 2024

1 2 700V / 3 4 4.012s 500.0s / Auto f E 2.20V



Measurement Menu

Source 2

Type: Fall

Add Measurement

Settings

Clear Meas

Statistics