



**SUMMARY TEST DATA
ON
SDLVA-1G20G-58-12-SFF**

PL29625/2032

Customer: _____
 SO No: _____
 Model No: SDLVA-1G20G-58-12-SFF
 Serial No: PL29625/2032

Tested By: Simon K. Sign: *SK*
 QA/QC By: Arthur Z. Sign: *AZ*
 Temperature: +25°C
 Date: 08/06/2020
 Drawing No: 27612160 Rev: A3

| TEST ITEM | PARAMETERS | SPECIFIED VALUE | TEST MEASUREMENT | TEST RESULT | QA QC |
|-----------|-----------------------------|---|------------------|-----------------------------|------------|
| 1 | Frequency Range | 1 GHz – 20 GHz | 1 GHz – 20 GHz | Pass | PMI QA3 |
| 2 | Frequency Flatness | ±2.0 dB Typ | See Plot | ±0.65 dB | |
| 3 | Log Linearity | ±1.0 dB Typ (-50 to 0 dBm) | See Plot | ±1.4 dB Max ± 0.9 dB Avg | |
| 4 | Log Linearity Over Temp | ±1.0 dB Typ. (-50 to 0 dBm @ -55°C to +85°C) | By Design | Pass | |
| 5 | Logging Range | -54 to +5 dBm | By Design | Pass | |
| 6 | Input VSWR | 3.0:1 Typ | See Plot | 3.34:1 | |
| 7 | Log Video Output Voltage | 0.9 V to 1.5V Typ | See Plot | 1.0 to 1.7 V | |
| 8 | Log Video Output Slope | 14 mV / dB Typ | See Plot | 14.4 mV | |
| 9 | Log Video Output Rise Time | 5 ns Typ (Pin = -20 dBm @ 10% to 90%) | See Plot | 6.2 ns | |
| 10 | Log Video Output Fall Time | 20 ns Typ (Pin = -20 dBm @ 90% to 10%) | See Plot | 14 ns | |
| 11 | Log Video Recovery Time | 28 ns Typ (Pin = -50 dBm to 0 dBm) | See Plot | Pass | |
| 12 | Log Video Propagation Delay | 14 ns Typ | By Design | Pass | |
| 13 | TSS | -60 dBm Typ | See Plot | -57 dBm | ↓ |
| 14 | Power Supply | +12V @ 100mA Typ | 93 mA | Pass | PMI QA3 |

QA/QC Approval: *Arthur Zimmerman*

Date: 8-7-2020



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Transfer @ 25C – Data

| Frequency | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | RF Input Power (dBm) | |
|------------------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|----------------------|----------------------------|
| 1000 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 980 | 1031 | 1102 | 1179 | 1257 | 1337 | 1413 | 1492 | 1568 | 1651 | 1718 | 1.4 | |
| | 21 | -4 | -9 | -8 | -6 | -2 | -2 | 1 | 1 | 8 | 0 | | |
| | 1.36 | -0.28 | -0.60 | -0.53 | -0.40 | -0.13 | -0.12 | 0.08 | 0.09 | 0.56 | -0.03 | | |
| 4800 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 975 | 1023 | 1096 | 1176 | 1254 | 1332 | 1407 | 1485 | 1562 | 1643 | 1711 | 1.4 | |
| | 21 | -7 | -10 | -6 | -3 | -1 | -2 | 0 | 2 | 7 | -1 | | |
| | 1.35 | -0.48 | -0.66 | -0.37 | -0.22 | -0.07 | -0.12 | 0.03 | 0.12 | 0.46 | -0.05 | | |
| 8600 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 980 | 1032 | 1107 | 1181 | 1256 | 1332 | 1403 | 1480 | 1553 | 1633 | 1700 | 1.0 | |
| | 15 | -6 | -5 | -4 | -3 | 0 | -3 | 1 | 0 | 6 | 0 | | |
| | 1.03 | -0.43 | -0.33 | -0.30 | -0.20 | -0.03 | -0.20 | 0.03 | 0.00 | 0.44 | 0.00 | | |
| 12400 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 994 | 1053 | 1128 | 1200 | 1271 | 1342 | 1409 | 1480 | 1550 | 1626 | 1681 | 0.6 | |
| | 4 | -7 | -2 | 0 | 1 | 3 | 0 | 1 | 1 | 7 | -8 | | |
| | 0.30 | -0.48 | -0.12 | 0.03 | 0.10 | 0.18 | -0.03 | 0.05 | 0.06 | 0.49 | -0.58 | | |
| 16200 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 988 | 1044 | 1119 | 1189 | 1256 | 1327 | 1391 | 1458 | 1527 | 1597 | 1671 | 0.5 | |
| | 6 | -7 | 0 | 2 | 0 | 3 | -2 | -3 | -2 | -1 | 5 | | |
| | 0.42 | -0.49 | -0.01 | 0.11 | 0.01 | 0.20 | -0.12 | -0.22 | -0.18 | -0.06 | 0.35 | | |
| 20000 MHz | INTERCEPT (mV) | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | | | | | | | | | | | | Error (mV) |
| | 1003 | 1063 | 1137 | 1205 | 1271 | 1345 | 1403 | 1470 | 1542 | 1612 | 1694 | 0.8 | |
| | 5 | -4 | 2 | 1 | -1 | 5 | -6 | -7 | -4 | -2 | 11 | | |
| | 0.35 | -0.27 | 0.14 | 0.10 | -0.07 | 0.33 | -0.43 | -0.54 | -0.27 | -0.16 | 0.83 | | |
| Average Slope (mV/dB) | | | | | | | | | | | Flatness = ± 0.65 | | |
| | 1 | 1.4 | 1.5 | 1 | 0.6 | 0.6 | 0.8 | 1.2 | 1.5 | 1.9 | 1.7 | | |



LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-1G20G-58-12-SFF
TESTED BY: Simon K.
DATE: 08/06/2020
SERIAL NO: PL29625

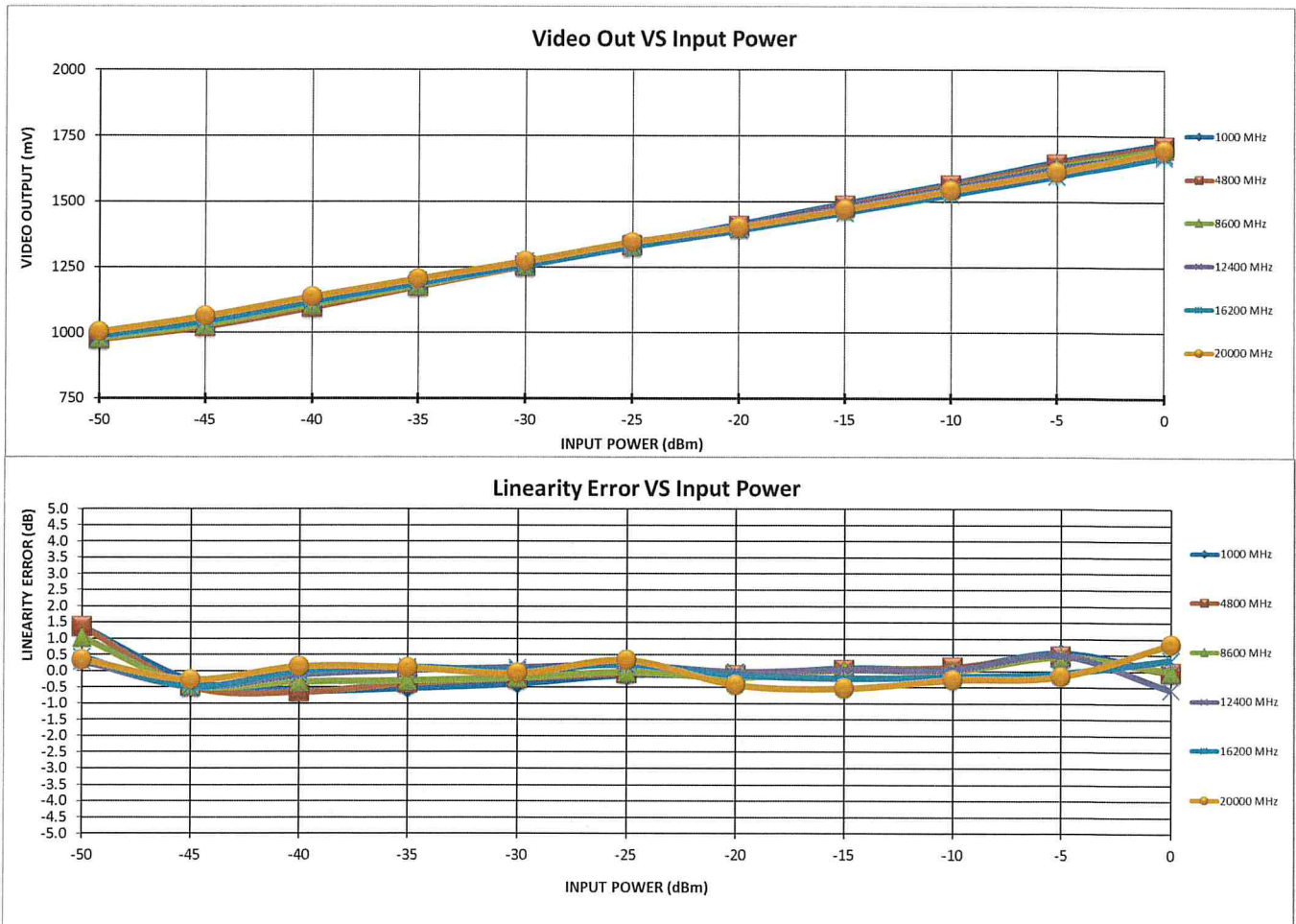
Test Temp: +25C



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Transfer @ 25C – Plot

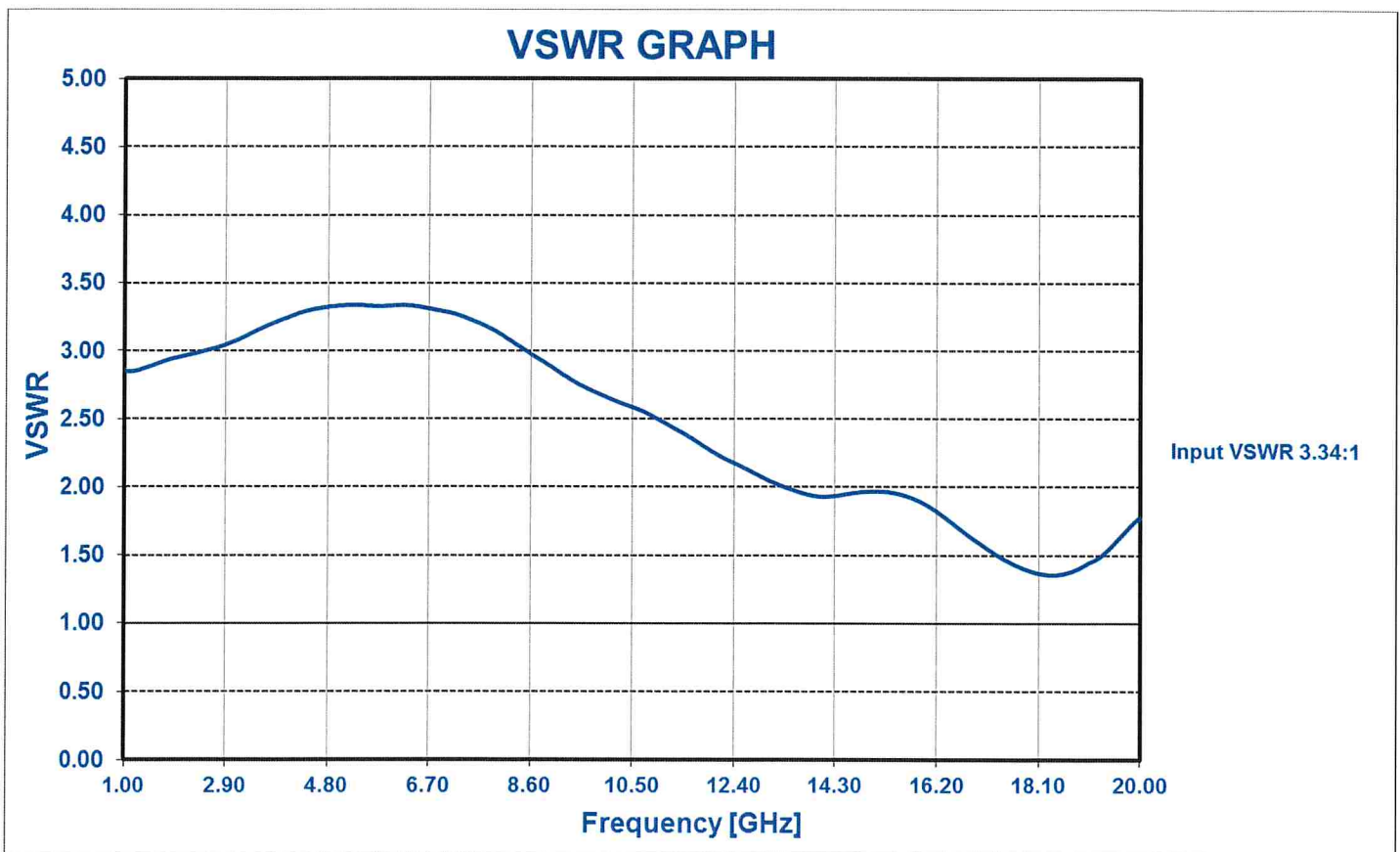




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VSWR

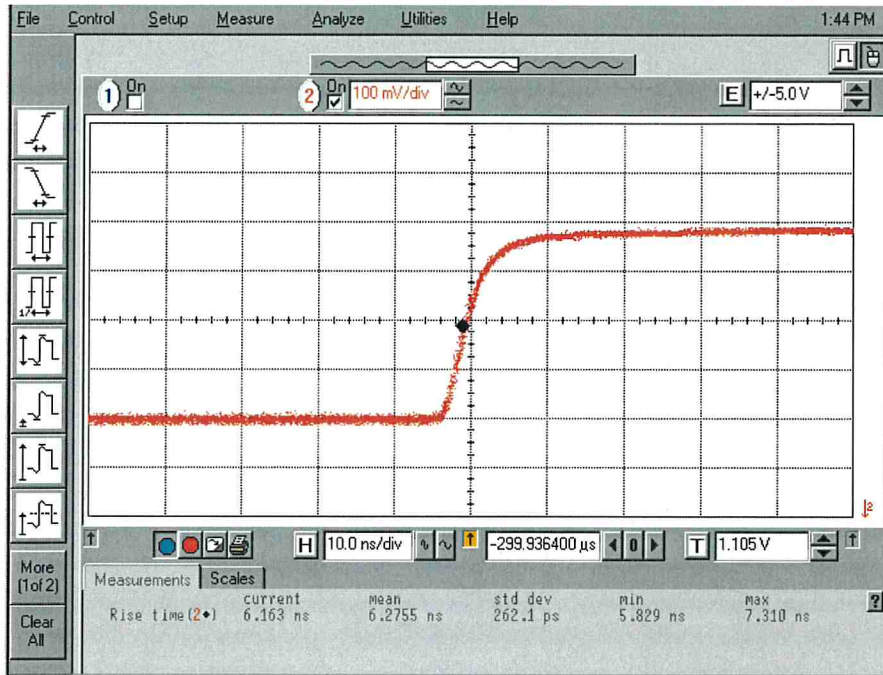




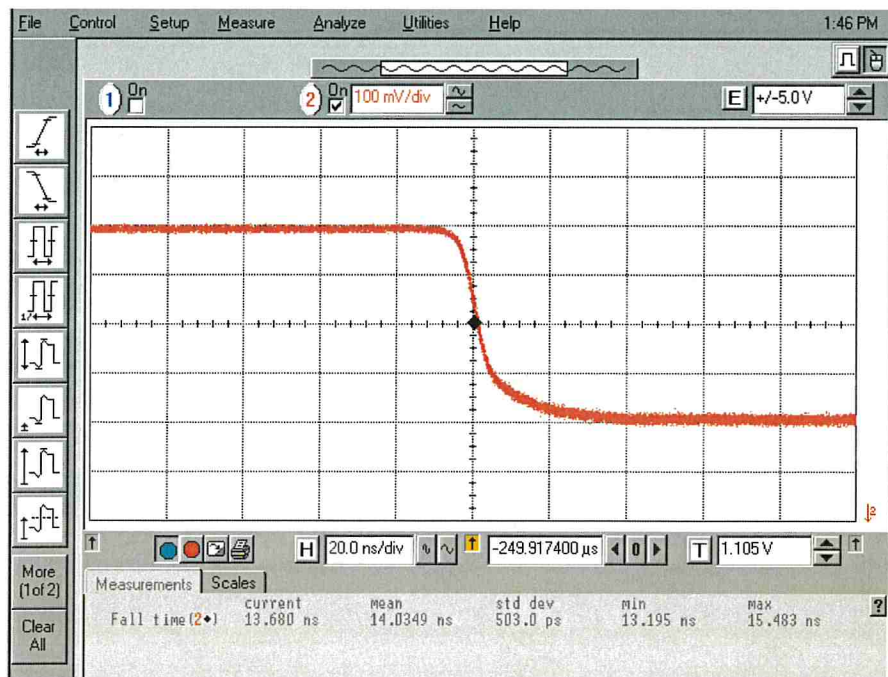
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Rise Time



Fall/Recovery Time





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TSS

