



TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

THE SDLVA-2020 SERIES OF TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIERS (SDLVA'S) ARE AVAILABLE IN EXTENDED 70/75dB DYNAMIC RANGE OVER THE RANGE OF 0.5-18 GHz BANDWIDTH (TESTED AND OPERATIONAL FROM 0.25-19 GHz), WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY. THE SIZE IS 3.00" X 3.50" X 0.50".



November 7, 2018

Designed By: Dr. Ashok (Ash) Gorwara

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(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
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DESCRIPTION

THE SDLVA-2020 SERIES OF TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIERS (SDLVA'S) ARE AVAILABLE IN EXTENDED 70/75dB DYNAMIC RANGE OVER THE RANGE OF 0.5-18 GHz BANDWIDTH, WITH TRUE DC COUPLING, UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/AMIC TECHNOLOGY. THE SIZE IS 3.00" X 3.50" X 0.50".

FEATURES

- TRULY DC COUPLED
- WIDE BANDWIDTHS
- FAST RISE TIMES
- SHORT RECOVERY TIMES
- SUPERIOR ACCURACY
- EXTENDED DYNAMIC RANGE CAPABILITY
- MINATURE SIZE
- 7.2oz WEIGHT

SPECIFICATIONS

- FREQUENCY RANGE: 0.5 TO 18 GHz
- FREQUENCY FLATNESS: $\pm 2.0dB$ Typ (0.5-18GHz)
- TSS: $-65dBm$ Min (8-18GHz)
- VSWR: 3.0:1, (0.5-18GHz, @ $-20dBm$)
- LOGGING RANGE: $-65dBm$ TO $+5dBm$
- LOG LINEARITY: $\pm 1.75dB$ Max ($-65dBm$ TO $+5dBm$)
- LOG SLOPE: $20mV/dB$ ($\pm 10\%$ TOLERANCE)
- LOG TEMPERATURE STABILITY: $\pm 1.75dB$ (0°C TO 60°C)
- RISE TIME (10% TO 90%): 20ns Max
- RECOVERY TIME: 200ns Max ($-65dBm$ TO $+5dBm$)
- OUTPUT POWER: $+10dBm$ $\pm 2.5dB$ Typ
- OUTPUT VIDEO LOAD: 50 OHMS $\pm 10\%$ OR AS DESIRED
- POWER SUPPLY: $+15V$ @ 600 mA Max
 $-15V$ @ 200 mA Max
- SIZE: 3.00" (L) x 3.50" (W) x 0.50" (H)
- FINISH: MOUNTING SIDE FREE OF PAINT (GOLD PLATED)
GRAY EPOXY POLYIMIDE COATING (AW MIL-C-22750,
TYPE I OVER EPOXY POLYIMIDE PRIMER
IAW MIL-P-23377, TYPE I, CLASS 1 OR 3).

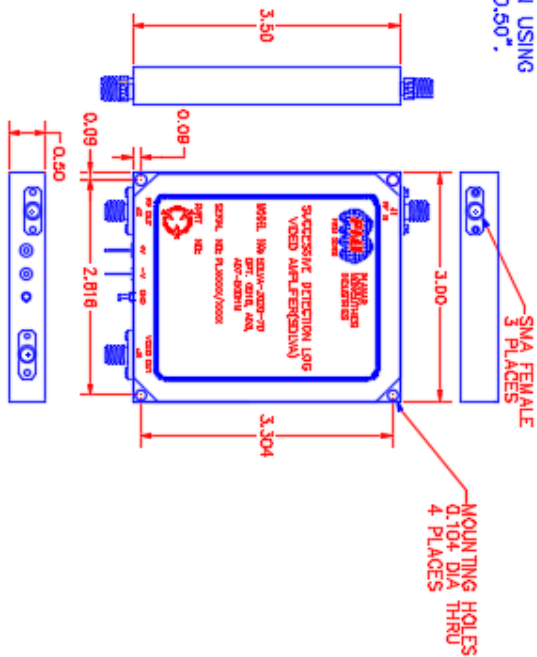
ENVIRONMENTAL RATINGS:

- TEMPERATURE: 54°C TO +85°C (OPERATING)
 $-65^\circ C$ TO $+100^\circ C$ (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTES: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX ±.005
XXX ±.003
XXX ±.002

| REV# | DESCRIPTION | DATE | APPROVED |
|------|------------------|---------|----------|
| A1 | ORIGINAL RELEASE | 8/6/78 | |
| A2 | ECN # 15-0007 | 1/26/78 | |
| A3 | ECN # 22-0092 | 7/21/78 | |



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E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

PMI

PRODUCT FEATURE
SDLVA-2020-70
OPT. 0518, A03, A07-50OHM
SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER

| | | | |
|------|------------------|---------|----------|
| REV# | DESCRIPTION | DATE | APPROVED |
| A1 | ORIGINAL RELEASE | 8/6/78 | |
| A2 | ECN # 15-0007 | 1/26/78 | |
| A3 | ECN # 22-0092 | 7/21/78 | |

DATE: 6/8/88
BY: [Signature]
APP'D: [Signature]

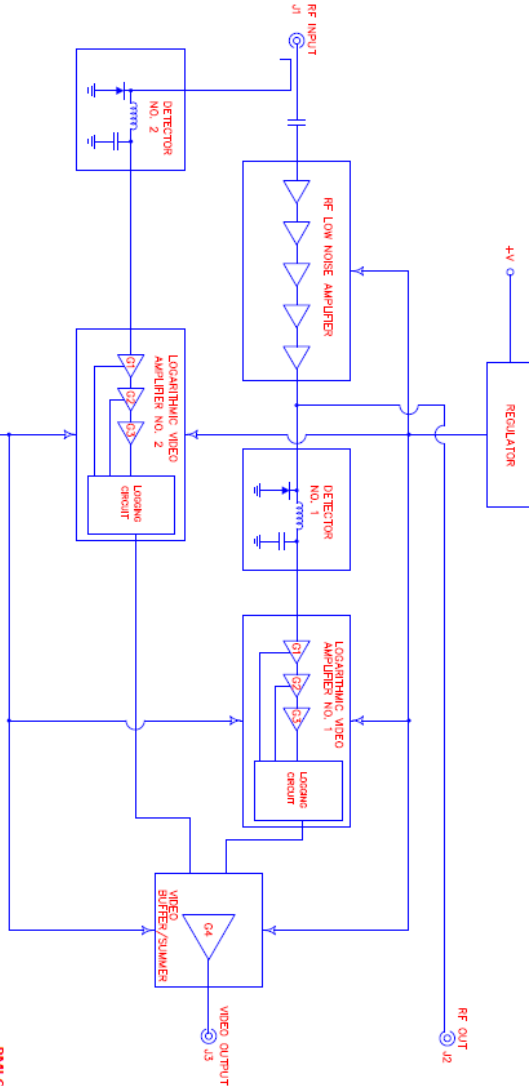
SIZE: A 05X00
SHEET 1 OF 2



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ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
 (TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
 SEE PAGES 20 TO 23)

DESCRIPTION

THE SDLVA-2020 SERIES OF TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIERS (SDLVA'S) ARE AVAILABLE IN EXTENDED 70/75dB DYNAMIC RANGE OVER THE RANGE OF 0.5-18 GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY. THE SIZE IS 3.00" X 3.50" X 0.50".



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ALL DIMENSIONS ARE IN INCHES
 TOLERANCES: .000
 .0005
 .0010

| APPROVALS | DATE | TITLE |
|-----------|--------|--|
| DESIGNED | 8/6/08 | PRODUCT FEATURE |
| CHECKED | | SDLVA-2020-70 |
| DRAWN | | OPT. 0518, A03, A07-50OHM |
| SCALE | A | SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER |
| TOLERANCE | 05X00 | DWG NO. 27010088 |
| | | SHEET 2 OF 2 |



TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
 SEE PAGES 20 TO 23)

| TEST. ITEM NO | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | QA QC |
|---------------|----------------------------|--------------------------------------|--------------------------------------|-------|
| 1 | Frequency Range: | 0.5GHz to 18.0GHz | 0.5GHz to 18.0GHz See Plot | |
| 2 | Frequency Flatness: | ±2.0dB Typ (0.5GHz to 18.0GHz) | ±1.20dB See Plot | |
| 3 | TSS: | -65dBm Min (8.0 to 18.0GHz) | -68.5dBm See Plot | |
| 4 | VSWR: | 3.0:1 (0.5 to 18.0GHz @ -20dBm) | 1.60:1 See Plot | |
| 5 | Logging Range | -65 dBm to +5 dBm | >-65 to +5dBm See Plot | |
| 6 | Log Slope | 20mV/dB (±10% Tolerance) | 20.3mV/dB | |
| 7 | Log Temperature Stability: | ±1.75dB (0°C to 60°C) | <±1.75dB See Plot | |
| 8 | Rise Time (10% to 90%): | 20ns Max | 18.68ns See Plot | |
| 9 | Recover Time: | 200ns Max (-65 dBm to +5 dBm) | 189.09ns See Plot | |
| 10 | Output Power: | +10dBm ±2.5dB Typ | 10.26dBm See Plot | |
| 11 | Output Video Load: | 50Ω ±10% or as desired | 50Ω | |
| 12 | Power Supply: | +15V @ 600mA Max -15V @ 200mA Max | 450mA 100mA | |



TYPICAL CHARACTERISTICS ON SDLVA-2020-70 Opt 0518 A03 A07-50OHM

(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
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LOGGING CHARACTERISTICS @+25C

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
TESTED BY: Edd Benson
DATE: 1/27/15
SERIAL NO: 0317

Wednesday, January 28, 2015

Test Temp: 25C



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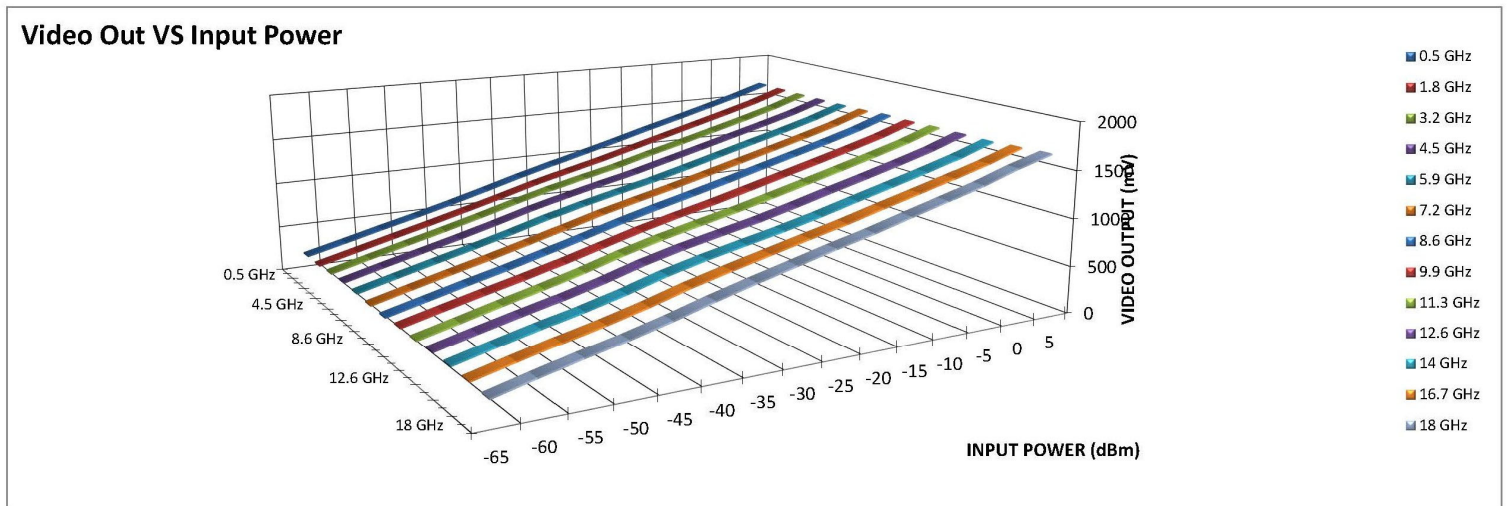
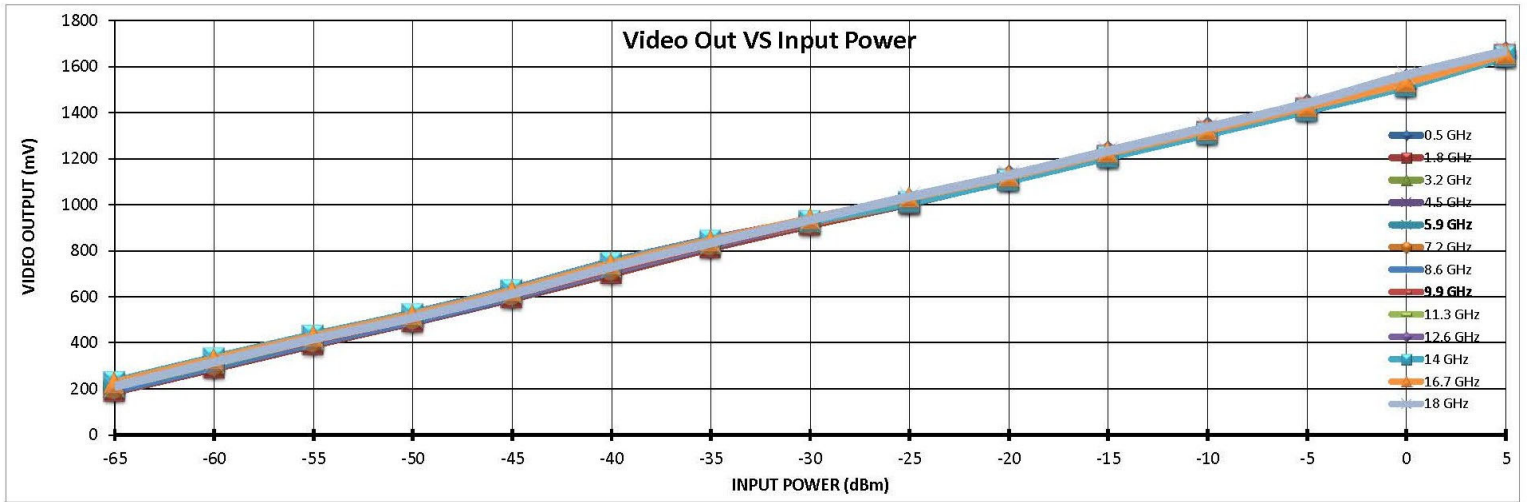
Frequency

| | | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | RF Input Power (dBm) |
|-----------------------|----------------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|------|----------------------|
| 0.5 GHz | INTERCEPT (mV) | 195 | 293 | 394 | 491 | 594 | 703 | 816 | 921 | 1023 | 1126 | 1233 | 1334 | 1438 | 1544 | 1662 | Measured Value (mV) |
| | SLOPE (mV/dB) | 11 | 4 | 0 | -8 | -9 | -5 | 3 | 3 | 0 | -1 | 1 | -3 | -4 | -2 | 11 | Error (mV) |
| | | 0.51 | 0.18 | 0.00 | -0.37 | -0.45 | -0.25 | 0.14 | 0.15 | 0.02 | -0.06 | 0.04 | -0.14 | -0.18 | -0.12 | 0.51 | LINEARITY ERROR (dB) |
| 1.8 GHz | INTERCEPT (mV) | 190 | 291 | 393 | 492 | 596 | 702 | 813 | 913 | 1007 | 1110 | 1214 | 1317 | 1420 | 1527 | 1653 | Measured Value (mV) |
| | SLOPE (mV/dB) | 5 | 2 | 1 | -4 | -3 | 0 | 7 | 4 | -6 | -6 | -5 | -6 | -6 | -3 | 20 | Error (mV) |
| | | 0.23 | 0.11 | 0.04 | -0.17 | -0.14 | -0.02 | 0.35 | 0.18 | -0.27 | -0.29 | -0.26 | -0.28 | -0.30 | -0.13 | 0.96 | LINEARITY ERROR (dB) |
| 3.2 GHz | INTERCEPT (mV) | 208 | 312 | 413 | 513 | 618 | 728 | 832 | 925 | 1011 | 1115 | 1212 | 1313 | 1414 | 1521 | 1647 | Measured Value (mV) |
| | SLOPE (mV/dB) | -4 | -1 | -1 | -2 | 2 | 11 | 14 | 6 | -9 | -6 | -10 | -10 | -10 | -4 | 22 | Error (mV) |
| | | -0.20 | -0.05 | -0.05 | -0.10 | 0.10 | 0.55 | 0.70 | 0.31 | -0.43 | -0.28 | -0.48 | -0.48 | -0.47 | -0.17 | 1.07 | LINEARITY ERROR (dB) |
| 4.5 GHz | INTERCEPT (mV) | 219 | 323 | 422 | 522 | 627 | 739 | 838 | 929 | 1016 | 1116 | 1216 | 1316 | 1417 | 1521 | 1644 | Measured Value (mV) |
| | SLOPE (mV/dB) | -5 | -1 | -2 | -2 | 3 | 15 | 14 | 5 | -8 | -8 | -8 | -9 | -8 | -4 | 19 | Error (mV) |
| | | -0.25 | -0.05 | -0.11 | -0.11 | 0.14 | 0.74 | 0.69 | 0.23 | -0.42 | -0.42 | -0.42 | -0.43 | -0.38 | -0.18 | 0.97 | LINEARITY ERROR (dB) |
| 5.9 GHz | INTERCEPT (mV) | 214 | 317 | 418 | 517 | 622 | 734 | 834 | 923 | 1009 | 1108 | 1210 | 1312 | 1411 | 1517 | 1643 | Measured Value (mV) |
| | SLOPE (mV/dB) | -4 | -2 | -1 | -2 | 3 | 15 | 15 | 4 | -10 | -12 | -10 | -8 | -9 | -3 | 23 | Error (mV) |
| | | -0.22 | -0.08 | -0.03 | -0.09 | 0.16 | 0.75 | 0.74 | 0.19 | -0.52 | -0.58 | -0.48 | -0.39 | -0.44 | -0.15 | 1.14 | LINEARITY ERROR (dB) |
| 7.2 GHz | INTERCEPT (mV) | 202 | 305 | 406 | 504 | 608 | 717 | 826 | 921 | 1013 | 1111 | 1211 | 1311 | 1412 | 1518 | 1645 | Measured Value (mV) |
| | SLOPE (mV/dB) | -1 | 0 | 0 | -4 | -1 | 6 | 14 | 7 | -3 | -6 | -8 | -9 | -10 | -5 | 20 | Error (mV) |
| | | -0.07 | 0.00 | -0.02 | -0.20 | -0.07 | 0.30 | 0.67 | 0.34 | -0.12 | -0.30 | -0.37 | -0.44 | -0.47 | -0.25 | 1.01 | LINEARITY ERROR (dB) |
| 8.6 GHz | INTERCEPT (mV) | 196 | 298 | 400 | 497 | 602 | 712 | 823 | 925 | 1020 | 1118 | 1220 | 1321 | 1421 | 1529 | 1656 | Measured Value (mV) |
| | SLOPE (mV/dB) | 2 | 1 | 0 | -6 | -5 | 2 | 10 | 9 | 1 | -4 | -5 | -7 | -10 | -6 | 18 | Error (mV) |
| | | 0.09 | 0.04 | -0.02 | -0.31 | -0.22 | 0.11 | 0.50 | 0.44 | 0.05 | -0.20 | -0.25 | -0.35 | -0.50 | -0.27 | 0.89 | LINEARITY ERROR (dB) |
| 9.9 GHz | INTERCEPT (mV) | 212 | 314 | 413 | 508 | 611 | 721 | 830 | 927 | 1017 | 1115 | 1215 | 1315 | 1416 | 1522 | 1649 | Measured Value (mV) |
| | SLOPE (mV/dB) | 1 | 2 | 0 | -6 | -4 | 4 | 12 | 8 | -3 | -6 | -8 | -9 | -9 | -4 | 22 | Error (mV) |
| | | 0.07 | 0.11 | 0.00 | -0.31 | -0.22 | 0.22 | 0.60 | 0.40 | -0.16 | -0.32 | -0.38 | -0.44 | -0.45 | -0.21 | 1.07 | LINEARITY ERROR (dB) |
| 11.3 GHz | INTERCEPT (mV) | 211 | 313 | 417 | 516 | 623 | 741 | 845 | 935 | 1022 | 1119 | 1218 | 1318 | 1421 | 1527 | 1654 | Measured Value (mV) |
| | SLOPE (mV/dB) | -6 | -5 | -2 | -5 | 1 | 18 | 21 | 10 | -5 | -9 | -11 | -12 | -10 | -5 | 20 | Error (mV) |
| | | -0.30 | -0.26 | -0.12 | -0.23 | 0.06 | 0.89 | 1.03 | 0.48 | -0.22 | -0.43 | -0.54 | -0.60 | -0.51 | -0.27 | 1.01 | LINEARITY ERROR (dB) |
| 12.6 GHz | INTERCEPT (mV) | 231 | 334 | 432 | 527 | 632 | 750 | 848 | 932 | 1015 | 1111 | 1213 | 1311 | 1413 | 1520 | 1649 | Measured Value (mV) |
| | SLOPE (mV/dB) | -4 | 0 | -1 | -5 | 1 | 20 | 19 | 4 | -12 | -15 | -12 | -13 | -10 | -2 | 28 | Error (mV) |
| | | -0.20 | 0.00 | -0.05 | -0.25 | 0.05 | 1.02 | 0.97 | 0.21 | -0.60 | -0.75 | -0.60 | -0.65 | -0.49 | -0.09 | 1.43 | LINEARITY ERROR (dB) |
| 14 GHz | INTERCEPT (mV) | 231 | 334 | 433 | 526 | 630 | 748 | 845 | 930 | 1013 | 1106 | 1208 | 1308 | 1409 | 1516 | 1644 | Measured Value (mV) |
| | SLOPE (mV/dB) | -4 | 0 | 1 | -5 | 0 | 20 | 18 | 5 | -11 | -17 | -13 | -12 | -9 | -1 | 28 | Error (mV) |
| | | -0.21 | 0.01 | 0.03 | -0.25 | 0.02 | 1.00 | 0.92 | 0.23 | -0.56 | -0.84 | -0.67 | -0.60 | -0.48 | -0.05 | 1.44 | LINEARITY ERROR (dB) |
| 16.7 GHz | INTERCEPT (mV) | 225 | 328 | 427 | 520 | 624 | 741 | 842 | 937 | 1032 | 1124 | 1227 | 1326 | 1427 | 1532 | 1656 | Measured Value (mV) |
| | SLOPE (mV/dB) | 0 | 2 | 0 | -8 | -5 | 11 | 12 | 6 | 0 | -9 | -7 | -8 | -8 | -4 | 19 | Error (mV) |
| | | -0.02 | 0.09 | 0.00 | -0.39 | -0.23 | 0.57 | 0.58 | 0.29 | 0.00 | -0.44 | -0.33 | -0.42 | -0.41 | -0.20 | 0.94 | LINEARITY ERROR (dB) |
| 18 GHz | INTERCEPT (mV) | 211 | 316 | 417 | 509 | 613 | 729 | 834 | 934 | 1035 | 1128 | 1233 | 1336 | 1440 | 1563 | 1667 | Measured Value (mV) |
| | SLOPE (mV/dB) | 4 | 5 | 3 | -8 | -8 | 5 | 6 | 3 | 1 | -10 | -8 | -9 | -8 | 12 | 12 | Error (mV) |
| | | 0.19 | 0.27 | 0.15 | -0.40 | -0.38 | 0.23 | 0.31 | 0.15 | 0.03 | -0.48 | -0.40 | -0.42 | -0.39 | 0.56 | 0.59 | LINEARITY ERROR (dB) |
| Flatness | | 1 | 1 | 1 | 0.9 | 0.9 | 1.2 | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.7 | 0.8 | 1.1 | 0.6 | |
| Linearity Max. (dB)= | | 1.44 | | | | | | | | | | | | | | | |
| Linearity Min. (dB)= | | -0.84 | | | | | | | | | | | | | | | |
| Average Slope (mV/dB) | | 20.3 | | | | | | | | | | | | | | | |



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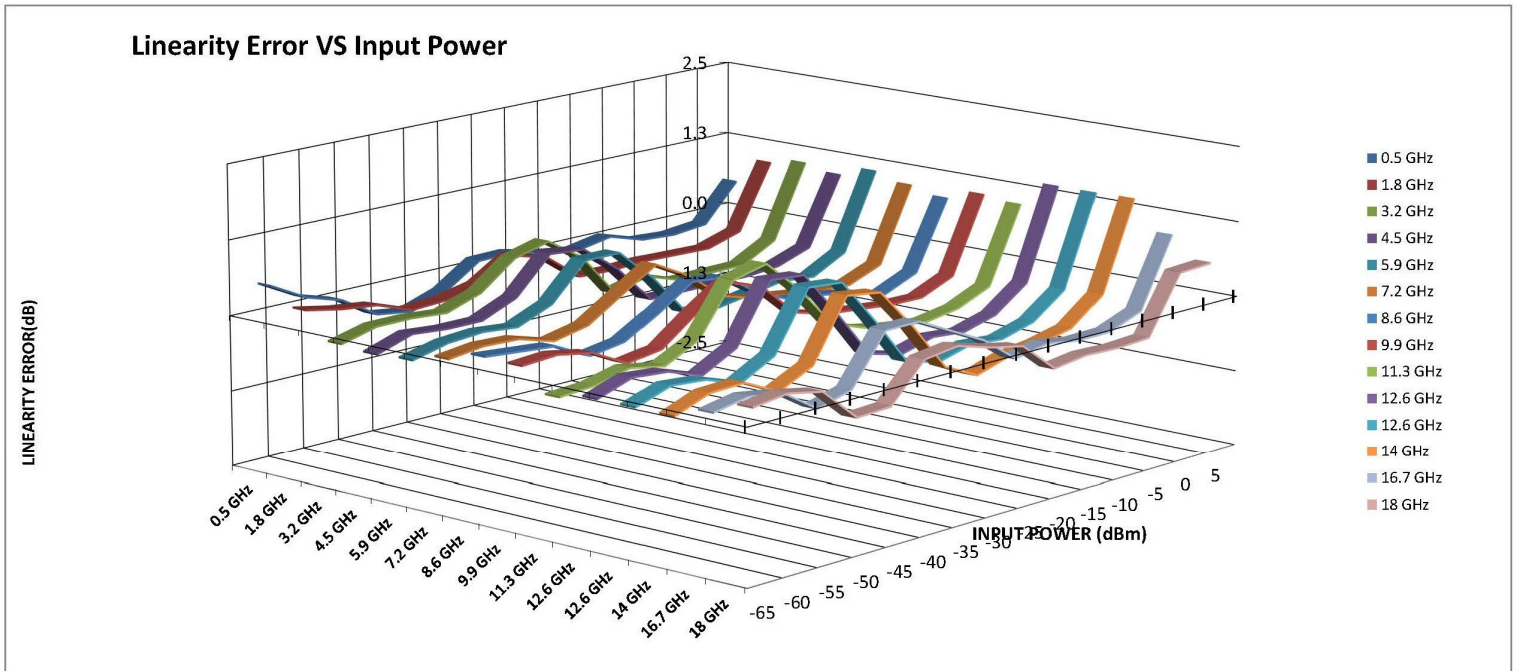
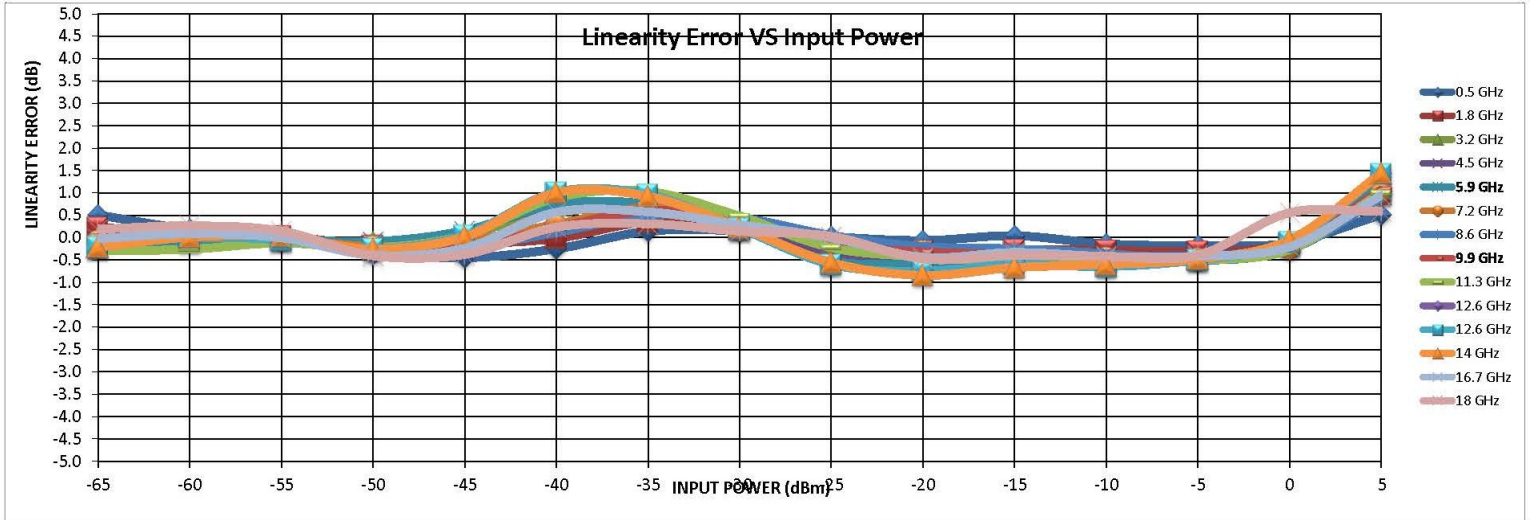
LOGGING CHARACTERISTICS @+25C





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LOGGING CHARACTERISTICS @+25C





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LOGGING CHARACTERISTICS @ 0C

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
TESTED BY: Edd Benson
DATE: 1/27/15
SERIAL NO: 0317

Wednesday, January 28, 2015

Test Temp: -0C



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EMAIL: SALES@PMI-RF.COM

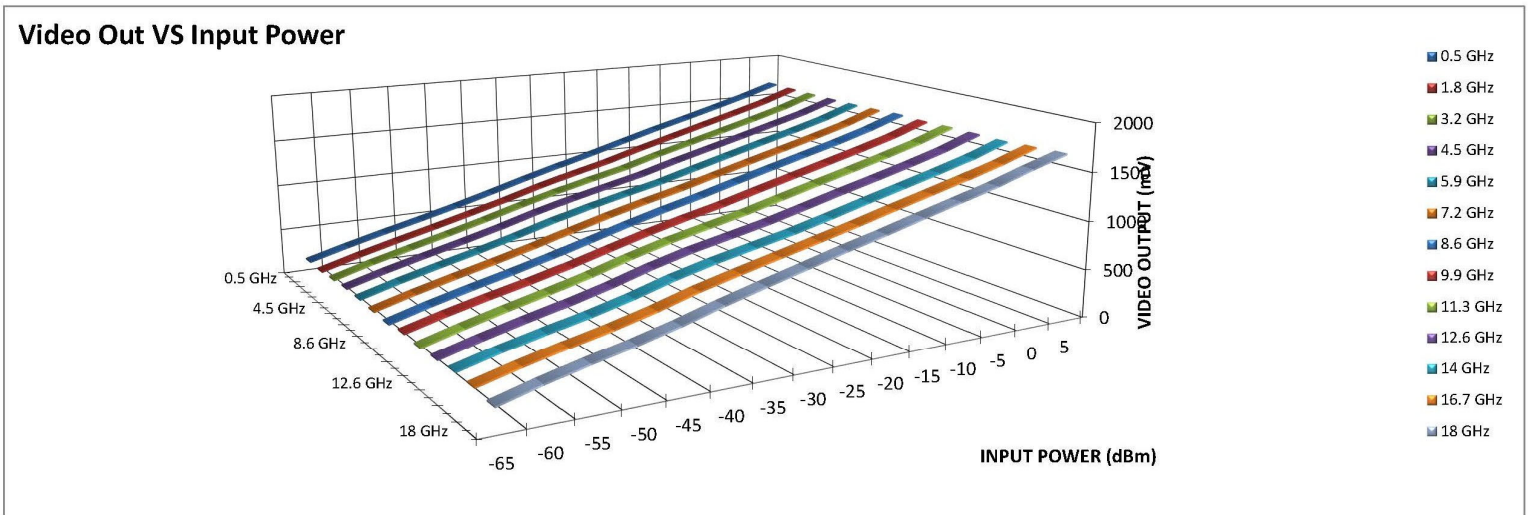
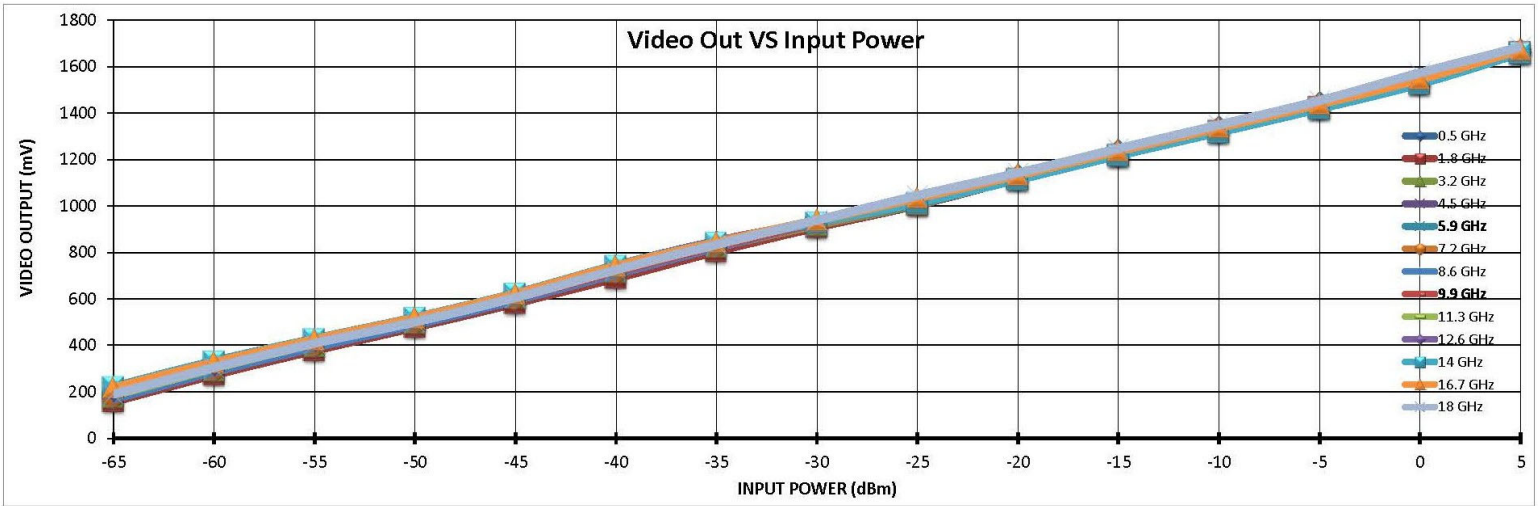
Frequency

| | | | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | RF Input Power (dBm) |
|-----------------------|----------------|------|-------|-------|------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|------|----------------------|
| 0.5 GHz | INTERCEPT (mV) | 1558 | 166 | 277 | 381 | 479 | 582 | 693 | 808 | 917 | 1023 | 1133 | 1242 | 1342 | 1446 | 1553 | 1672 | Measured Value (mV) |
| | SLOPE (mV/dB) | 21.5 | 3 | 7 | 3 | -6 | -10 | -7 | 1 | 3 | 1 | 4 | 6 | -2 | -5 | -5 | 6 | Error (mV) |
| | | | 0.14 | 0.31 | 0.16 | -0.28 | -0.48 | -0.31 | 0.05 | 0.13 | 0.07 | 0.19 | 0.27 | -0.07 | -0.23 | -0.24 | 0.30 | LINEARITY ERROR (dB) |
| 1.8 GHz | INTERCEPT (mV) | 1541 | 159 | 274 | 379 | 479 | 583 | 690 | 805 | 909 | 1005 | 1117 | 1221 | 1325 | 1428 | 1535 | 1664 | Measured Value (mV) |
| | SLOPE (mV/dB) | 21.2 | -3 | 6 | 4 | -2 | -4 | -3 | 6 | 4 | -6 | 0 | -2 | -4 | -7 | -6 | 17 | Error (mV) |
| | | | -0.16 | 0.26 | 0.21 | -0.08 | -0.17 | -0.13 | 0.29 | 0.19 | -0.28 | 0.00 | -0.10 | -0.19 | -0.34 | -0.29 | 0.79 | LINEARITY ERROR (dB) |
| 3.2 GHz | INTERCEPT (mV) | 1536 | 175 | 293 | 397 | 498 | 604 | 717 | 823 | 919 | 1008 | 1120 | 1219 | 1321 | 1423 | 1529 | 1659 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.8 | -12 | 2 | 2 | 0 | 2 | 11 | 13 | 5 | -9 | -1 | -6 | -8 | -10 | -7 | 19 | Error (mV) |
| | | | -0.58 | 0.10 | 0.11 | -0.02 | 0.08 | 0.53 | 0.63 | 0.26 | -0.46 | -0.06 | -0.29 | -0.38 | -0.46 | -0.36 | 0.90 | LINEARITY ERROR (dB) |
| 4.5 GHz | INTERCEPT (mV) | 1537 | 192 | 307 | 410 | 510 | 615 | 730 | 833 | 925 | 1015 | 1124 | 1224 | 1324 | 1427 | 1530 | 1657 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.5 | -11 | 1 | 2 | -1 | 1 | 14 | 14 | 3 | -9 | -3 | -5 | -8 | -8 | -7 | 17 | Error (mV) |
| | | | -0.55 | 0.06 | 0.07 | -0.05 | 0.06 | 0.67 | 0.69 | 0.17 | -0.45 | -0.13 | -0.26 | -0.39 | -0.37 | -0.35 | 0.84 | LINEARITY ERROR (dB) |
| 5.9 GHz | INTERCEPT (mV) | 1534 | 190 | 305 | 409 | 508 | 614 | 729 | 832 | 923 | 1011 | 1117 | 1220 | 1322 | 1422 | 1528 | 1658 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.5 | -12 | 1 | 2 | -1 | 2 | 15 | 15 | 4 | -11 | -7 | -7 | -7 | -10 | -6 | 21 | Error (mV) |
| | | | -0.56 | 0.05 | 0.12 | -0.05 | 0.12 | 0.72 | 0.75 | 0.19 | -0.52 | -0.35 | -0.33 | -0.36 | -0.48 | -0.31 | 1.03 | LINEARITY ERROR (dB) |
| 7.2 GHz | INTERCEPT (mV) | 1539 | 179 | 294 | 398 | 497 | 601 | 715 | 824 | 923 | 1016 | 1120 | 1223 | 1323 | 1424 | 1531 | 1662 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.8 | -9 | 2 | 2 | -3 | -2 | 8 | 13 | 8 | -3 | -3 | -4 | -8 | -11 | -8 | 19 | Error (mV) |
| | | | -0.42 | 0.11 | 0.12 | -0.12 | -0.12 | 0.36 | 0.61 | 0.37 | -0.16 | -0.16 | -0.20 | -0.39 | -0.53 | -0.39 | 0.92 | LINEARITY ERROR (dB) |
| 8.6 GHz | INTERCEPT (mV) | 1551 | 170 | 287 | 392 | 490 | 595 | 708 | 822 | 927 | 1024 | 1129 | 1232 | 1333 | 1433 | 1543 | 1672 | Measured Value (mV) |
| | SLOPE (mV/dB) | 21.1 | -8 | 4 | 3 | -5 | -5 | 2 | 11 | 10 | 1 | 1 | -2 | -7 | -12 | -8 | 15 | Error (mV) |
| | | | -0.36 | 0.18 | 0.15 | -0.21 | -0.25 | 0.10 | 0.50 | 0.47 | 0.06 | 0.03 | -0.10 | -0.32 | -0.59 | -0.38 | 0.72 | LINEARITY ERROR (dB) |
| 9.9 GHz | INTERCEPT (mV) | 1538 | 198 | 310 | 410 | 503 | 605 | 718 | 828 | 928 | 1019 | 1123 | 1224 | 1325 | 1426 | 1532 | 1663 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.6 | -2 | 7 | 4 | -6 | -7 | 3 | 10 | 7 | -5 | -4 | -6 | -7 | -9 | -6 | 22 | Error (mV) |
| | | | -0.12 | 0.32 | 0.18 | -0.30 | -0.34 | 0.15 | 0.49 | 0.35 | -0.23 | -0.18 | -0.27 | -0.36 | -0.45 | -0.30 | 1.06 | LINEARITY ERROR (dB) |
| 11.3 GHz | INTERCEPT (mV) | 1545 | 186 | 302 | 409 | 509 | 617 | 737 | 844 | 934 | 1023 | 1126 | 1227 | 1327 | 1430 | 1536 | 1667 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.7 | -16 | -3 | 1 | -3 | 2 | 19 | 22 | 9 | -5 | -6 | -8 | -11 | -12 | -9 | 19 | Error (mV) |
| | | | -0.75 | -0.14 | 0.04 | -0.12 | 0.10 | 0.91 | 1.08 | 0.44 | -0.26 | -0.27 | -0.38 | -0.55 | -0.56 | -0.43 | 0.90 | LINEARITY ERROR (dB) |
| 12.6 GHz | INTERCEPT (mV) | 1537 | 201 | 315 | 418 | 515 | 622 | 744 | 848 | 933 | 1019 | 1120 | 1223 | 1321 | 1422 | 1530 | 1663 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.4 | -13 | -1 | 1 | -4 | 1 | 21 | 23 | 7 | -9 | -10 | -9 | -12 | -13 | -7 | 24 | Error (mV) |
| | | | -0.63 | -0.03 | 0.03 | -0.21 | 0.05 | 1.04 | 1.15 | 0.33 | -0.44 | -0.48 | -0.42 | -0.61 | -0.64 | -0.34 | 1.20 | LINEARITY ERROR (dB) |
| 14 GHz | INTERCEPT (mV) | 1529 | 222 | 332 | 428 | 520 | 624 | 744 | 844 | 930 | 1015 | 1114 | 1218 | 1318 | 1419 | 1526 | 1658 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20 | -4 | 6 | 2 | -7 | -3 | 17 | 17 | 3 | -13 | -14 | -10 | -10 | -9 | -3 | 29 | Error (mV) |
| | | | -0.20 | 0.29 | 0.08 | -0.33 | -0.14 | 0.84 | 0.83 | 0.13 | -0.63 | -0.69 | -0.50 | -0.51 | -0.47 | -0.13 | 1.45 | LINEARITY ERROR (dB) |
| 16.7 GHz | INTERCEPT (mV) | 1550 | 217 | 326 | 425 | 517 | 621 | 741 | 843 | 939 | 1035 | 1133 | 1237 | 1337 | 1439 | 1546 | 1672 | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.5 | -1 | 5 | 2 | -9 | -7 | 11 | 10 | 4 | -3 | -7 | -5 | -8 | -8 | -4 | 20 | Error (mV) |
| | | | -0.06 | 0.26 | 0.09 | -0.41 | -0.34 | 0.52 | 0.50 | 0.19 | -0.13 | -0.34 | -0.27 | -0.39 | -0.41 | -0.18 | 0.97 | LINEARITY ERROR (dB) |
| 18 GHz | INTERCEPT (mV) | 1569 | 190 | 305 | 409 | 501 | 606 | 725 | 834 | 939 | 1045 | 1142 | 1247 | 1349 | 1453 | 1573 | 1684 | Measured Value (mV) |
| | SLOPE (mV/dB) | 21.2 | -2 | 7 | 5 | -9 | -10 | 3 | 6 | 6 | 6 | -3 | -4 | -8 | -10 | 4 | 9 | Error (mV) |
| | | | -0.11 | 0.32 | 0.23 | -0.42 | -0.46 | 0.16 | 0.30 | 0.26 | 0.27 | -0.15 | -0.19 | -0.38 | -0.47 | 0.20 | 0.44 | LINEARITY ERROR (dB) |
| Flatness | | | 1.5 | 1.4 | 1.2 | 1 | 1 | 1.3 | 1 | 0.7 | 0.9 | 0.7 | 0.7 | 0.7 | 0.8 | 1.1 | 0.6 | |
| Linearity Max. (dB) | | | 1.46 | | | | | | | | | | | | | | | |
| Linearity Min. (dB) | | | -0.76 | | | | | | | | | | | | | | | |
| Average Slope (mV/dB) | | | 20.7 | | | | | | | | | | | | | | | |



TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

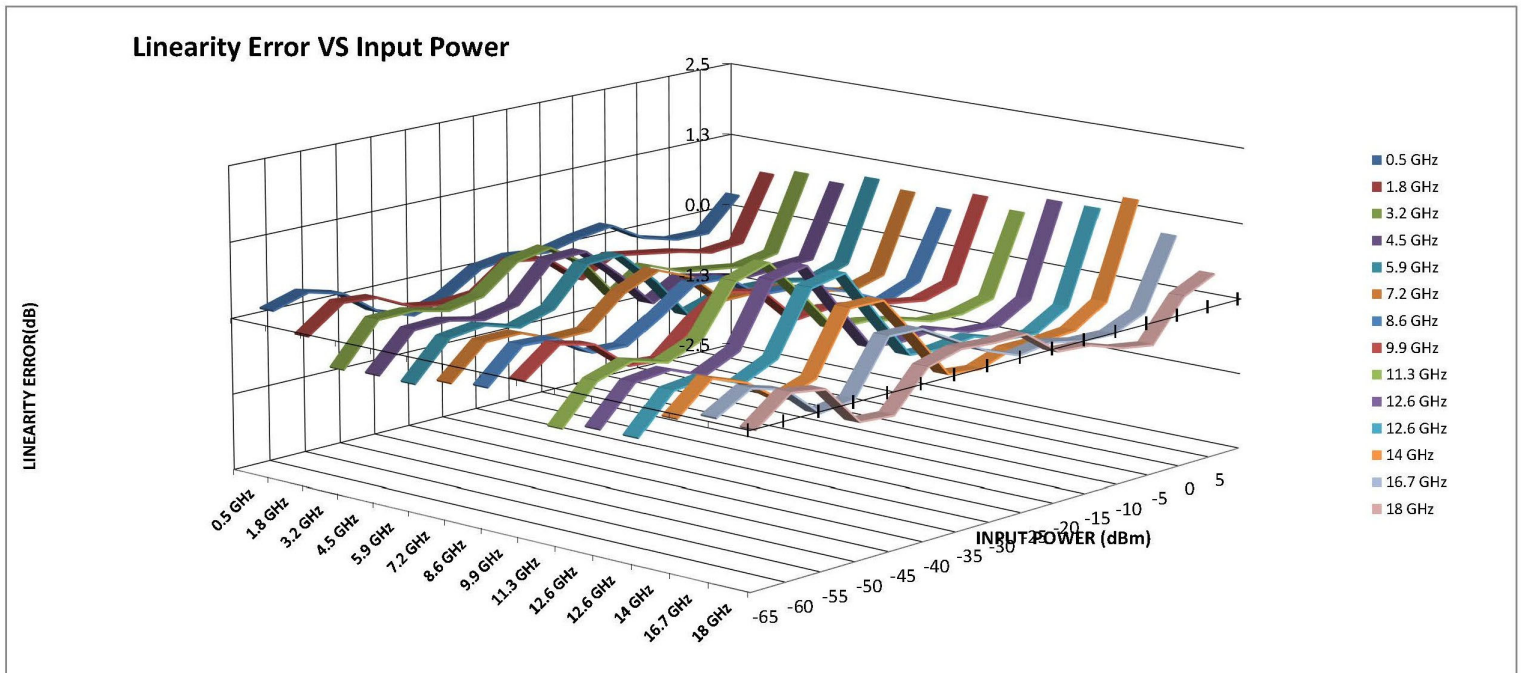
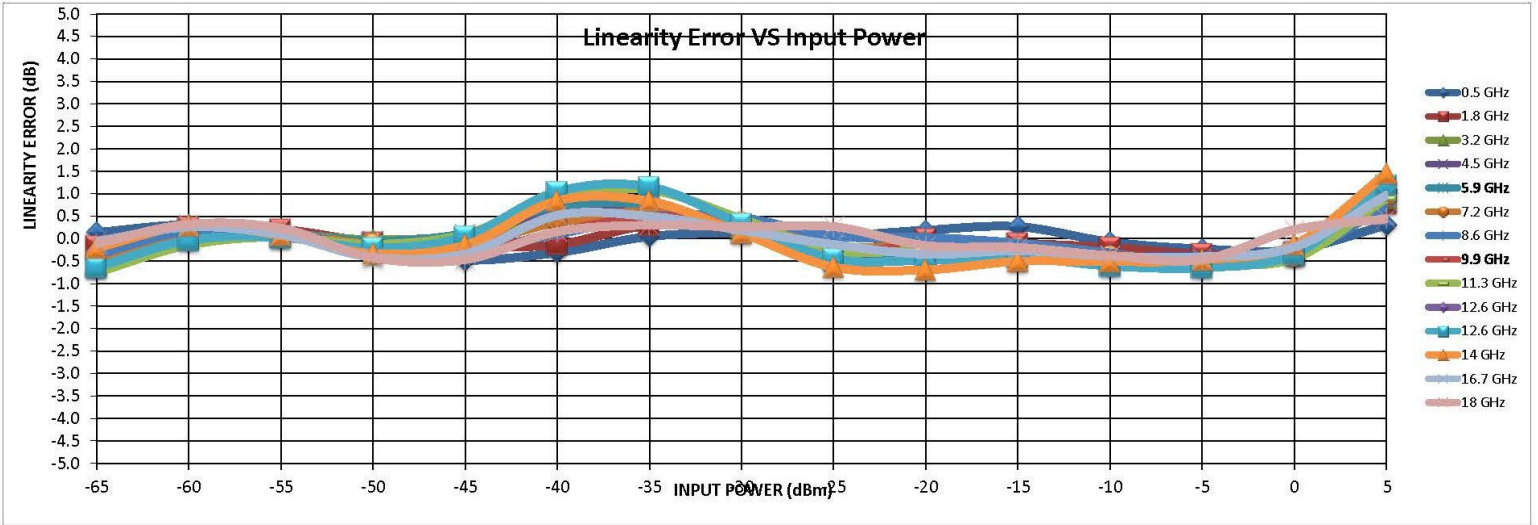
LOGGING CHARACTERISTICS @ 0C





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

LOGGING CHARACTERISTICS @ 0C





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
 (TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
 SEE PAGES 20 TO 23)

LOGGING CHARACTERISTICS @ 60C

LOG TRANSFER VS FREQUENCY
 MODEL: SDLVA-2020-70 OPT. 0518, A03, A07-50OHM
 TESTED BY: Edd Benson
 DATE: 1/27/15
 SERIAL NO: 0317

Wednesday, January 28, 2015

Test Temp: 60C



PLANAR MONOLITHICS INDUSTRIES
 7311-F GROVE ROAD, FREDERICK, MD 21704 USA
 TEL: 301-662-5019 FAX: 301-662-1731
 URL: WWW.PMI-RF.COM
 EMAIL: SALES@PMI-RF.COM

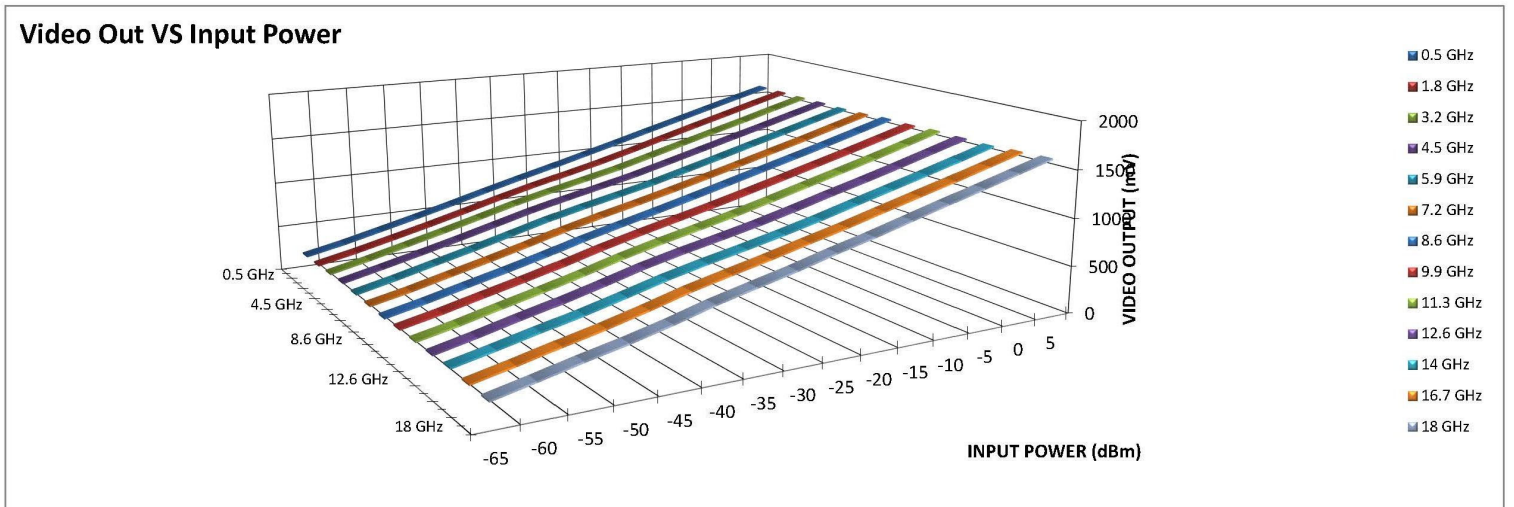
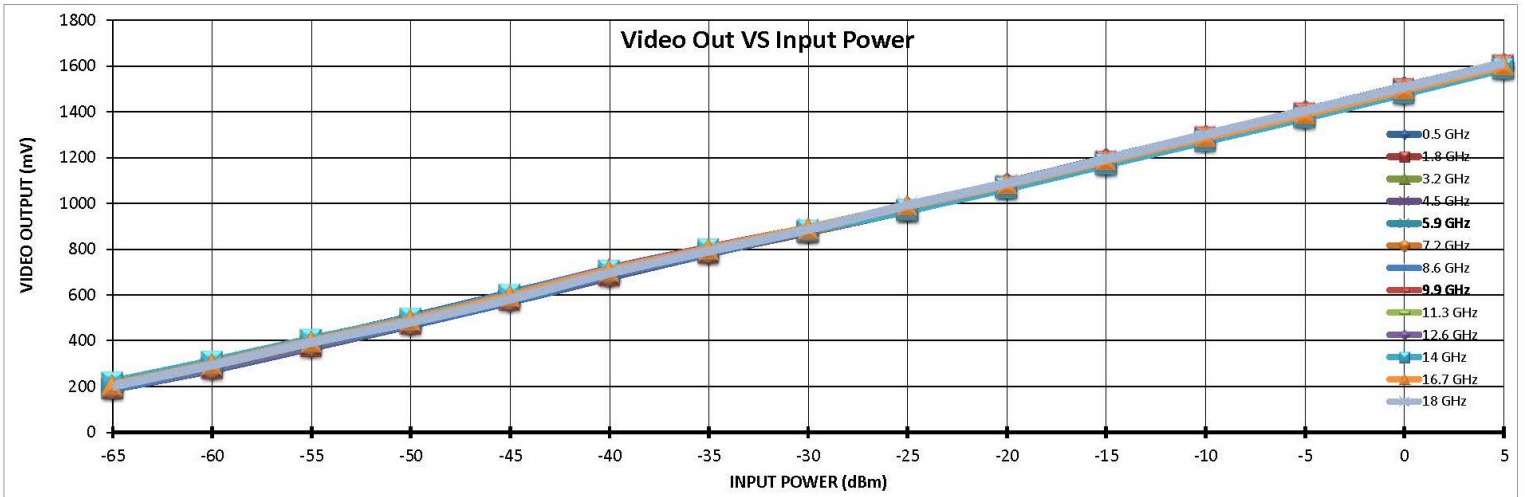
Frequency

| | | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | RF Input Power (dBm) |
|-----------------------|----------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|----------------------|
| 0.5 GHz | INTERCEPT (mV) | 191 | 275 | 372 | 470 | 572 | 679 | 782 | 881 | 986 | 1089 | 1195 | 1299 | 1404 | 1509 | 1610 | Measured Value (mV) |
| | SLOPE (mV/dB) | 21 | 3 | -3 | -8 | -8 | -4 | -3 | -7 | -4 | -4 | 0 | 1 | 4 | 6 | 5 | Error (mV) |
| | | 1.03 | 0.12 | -0.15 | -0.37 | -0.39 | -0.17 | -0.15 | -0.32 | -0.20 | -0.18 | -0.01 | 0.06 | 0.18 | 0.31 | 0.23 | LINEARITY ERROR (dB) |
| 1.8 GHz | INTERCEPT (mV) | 192 | 279 | 375 | 473 | 577 | 684 | 784 | 876 | 971 | 1074 | 1183 | 1290 | 1394 | 1500 | 1604 | Measured Value (mV) |
| | SLOPE (mV/dB) | 17 | 3 | -2 | -6 | -3 | 3 | 2 | -8 | -14 | -12 | -5 | 1 | 4 | 9 | 11 | Error (mV) |
| | | 0.85 | 0.15 | -0.12 | -0.28 | -0.14 | 0.14 | 0.08 | -0.38 | -0.69 | -0.61 | -0.23 | 0.06 | 0.19 | 0.42 | 0.56 | LINEARITY ERROR (dB) |
| 3.2 GHz | INTERCEPT (mV) | 203 | 295 | 394 | 494 | 599 | 705 | 798 | 887 | 974 | 1077 | 1182 | 1286 | 1388 | 1495 | 1599 | Measured Value (mV) |
| | SLOPE (mV/dB) | 6 | -1 | -2 | -1 | 5 | 12 | 5 | -5 | -17 | -13 | -7 | -3 | 0 | 8 | 13 | Error (mV) |
| | | 0.29 | -0.07 | -0.08 | -0.04 | 0.25 | 0.59 | 0.28 | -0.24 | -0.85 | -0.66 | -0.37 | -0.13 | 0.01 | 0.40 | 0.64 | LINEARITY ERROR (dB) |
| 4.5 GHz | INTERCEPT (mV) | 214 | 307 | 403 | 502 | 606 | 711 | 804 | 891 | 979 | 1080 | 1183 | 1287 | 1388 | 1493 | 1596 | Measured Value (mV) |
| | SLOPE (mV/dB) | 5 | 0 | -2 | -1 | 4 | 11 | 6 | -5 | -15 | -13 | -8 | -2 | 1 | 7 | 12 | Error (mV) |
| | | 0.27 | 0.00 | -0.11 | -0.07 | 0.22 | 0.57 | 0.30 | -0.27 | -0.79 | -0.65 | -0.40 | -0.11 | 0.03 | 0.38 | 0.62 | LINEARITY ERROR (dB) |
| 5.9 GHz | INTERCEPT (mV) | 205 | 297 | 397 | 495 | 599 | 706 | 798 | 882 | 970 | 1072 | 1174 | 1279 | 1380 | 1485 | 1589 | Measured Value (mV) |
| | SLOPE (mV/dB) | 4 | -2 | -1 | -1 | 5 | 14 | 8 | -7 | -17 | -13 | -9 | -2 | 0 | 7 | 13 | Error (mV) |
| | | 0.20 | -0.12 | -0.03 | -0.04 | 0.26 | 0.71 | 0.39 | -0.33 | -0.85 | -0.66 | -0.47 | -0.12 | 0.02 | 0.37 | 0.67 | LINEARITY ERROR (dB) |
| 7.2 GHz | INTERCEPT (mV) | 199 | 286 | 385 | 482 | 584 | 694 | 791 | 880 | 974 | 1073 | 1173 | 1276 | 1377 | 1484 | 1591 | Measured Value (mV) |
| | SLOPE (mV/dB) | 10 | -2 | -2 | -4 | -2 | 9 | 7 | -3 | -8 | -9 | -8 | -4 | -2 | 6 | 13 | Error (mV) |
| | | 0.51 | -0.10 | -0.11 | -0.23 | -0.08 | 0.46 | 0.35 | -0.16 | -0.43 | -0.44 | -0.40 | -0.20 | -0.11 | 0.28 | 0.67 | LINEARITY ERROR (dB) |
| 8.6 GHz | INTERCEPT (mV) | 192 | 281 | 379 | 475 | 576 | 687 | 785 | 881 | 980 | 1081 | 1184 | 1286 | 1388 | 1495 | 1602 | Measured Value (mV) |
| | SLOPE (mV/dB) | 13 | 2 | -1 | -6 | -6 | 4 | 1 | -4 | -6 | -6 | -3 | -2 | -1 | 5 | 11 | Error (mV) |
| | | 0.67 | 0.08 | -0.07 | -0.31 | -0.30 | 0.20 | 0.05 | -0.19 | -0.28 | -0.28 | -0.17 | -0.12 | -0.06 | 0.24 | 0.54 | LINEARITY ERROR (dB) |
| 9.9 GHz | INTERCEPT (mV) | 203 | 291 | 390 | 486 | 587 | 697 | 795 | 888 | 981 | 1079 | 1180 | 1282 | 1384 | 1490 | 1597 | Measured Value (mV) |
| | SLOPE (mV/dB) | 10 | -1 | -2 | -5 | -3 | 7 | 6 | -1 | -7 | -8 | -7 | -4 | -2 | 5 | 12 | Error (mV) |
| | | 0.51 | -0.06 | -0.08 | -0.25 | -0.17 | 0.36 | 0.29 | -0.03 | -0.36 | -0.43 | -0.35 | -0.22 | -0.09 | 0.24 | 0.63 | LINEARITY ERROR (dB) |
| 11.3 GHz | INTERCEPT (mV) | 208 | 295 | 395 | 492 | 596 | 707 | 803 | 891 | 982 | 1081 | 1184 | 1286 | 1388 | 1496 | 1604 | Measured Value (mV) |
| | SLOPE (mV/dB) | 9 | -3 | -2 | -5 | 0 | 12 | 8 | -3 | -11 | -12 | -8 | -5 | -2 | 6 | 15 | Error (mV) |
| | | 0.47 | -0.15 | -0.11 | -0.23 | 0.00 | 0.59 | 0.43 | -0.14 | -0.56 | -0.58 | -0.39 | -0.26 | -0.12 | 0.31 | 0.75 | LINEARITY ERROR (dB) |
| 12.6 GHz | INTERCEPT (mV) | 210 | 303 | 403 | 498 | 603 | 713 | 805 | 888 | 975 | 1073 | 1177 | 1276 | 1379 | 1487 | 1595 | Measured Value (mV) |
| | SLOPE (mV/dB) | 3 | -2 | 0 | -3 | 4 | 16 | 11 | -4 | -15 | -15 | -9 | -8 | -3 | 7 | 18 | Error (mV) |
| | | 0.14 | -0.11 | 0.00 | -0.15 | 0.22 | 0.84 | 0.54 | -0.22 | -0.78 | -0.77 | -0.46 | -0.40 | -0.14 | 0.38 | 0.90 | LINEARITY ERROR (dB) |
| 14 GHz | INTERCEPT (mV) | 219 | 310 | 406 | 498 | 601 | 708 | 800 | 883 | 972 | 1067 | 1171 | 1273 | 1375 | 1481 | 1589 | Measured Value (mV) |
| | SLOPE (mV/dB) | 8 | 2 | 1 | -4 | 2 | 12 | 7 | -7 | -15 | -17 | -10 | -5 | 0 | 9 | 20 | Error (mV) |
| | | 0.40 | 0.09 | 0.04 | -0.22 | 0.09 | 0.61 | 0.35 | -0.37 | -0.78 | -0.89 | -0.53 | -0.27 | -0.01 | 0.45 | 1.02 | LINEARITY ERROR (dB) |
| 16.7 GHz | INTERCEPT (mV) | 207 | 298 | 397 | 490 | 594 | 706 | 800 | 891 | 989 | 1084 | 1188 | 1290 | 1391 | 1497 | 1602 | Measured Value (mV) |
| | SLOPE (mV/dB) | 8 | 0 | -1 | -7 | -2 | 10 | 5 | -4 | -5 | -10 | -5 | -3 | -1 | 5 | 11 | Error (mV) |
| | | 0.43 | 0.00 | -0.03 | -0.35 | -0.12 | 0.50 | 0.23 | -0.20 | -0.27 | -0.50 | -0.27 | -0.14 | -0.07 | 0.26 | 0.54 | LINEARITY ERROR (dB) |
| 18 GHz | INTERCEPT (mV) | 202 | 294 | 393 | 482 | 582 | 696 | 792 | 886 | 992 | 1088 | 1194 | 1300 | 1404 | 1508 | 1612 | Measured Value (mV) |
| | SLOPE (mV/dB) | 15 | 5 | 3 | -9 | -10 | 3 | -2 | -9 | -4 | -9 | -4 | 1 | 4 | 7 | 9 | Error (mV) |
| | | 0.72 | 0.27 | 0.17 | -0.43 | -0.48 | 0.16 | -0.10 | -0.45 | -0.20 | -0.45 | -0.21 | 0.03 | 0.18 | 0.32 | 0.47 | LINEARITY ERROR (dB) |
| Flatness | | 0.7 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.6 | |
| Linearity Max.(dB)= | 1.03 | | | | | | | | | | | | | | | | |
| Linearity Min.(dB)= | -0.89 | | | | | | | | | | | | | | | | |
| Average Slope (mV/dB) | 19.9 | | | | | | | | | | | | | | | | |



**TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM**
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

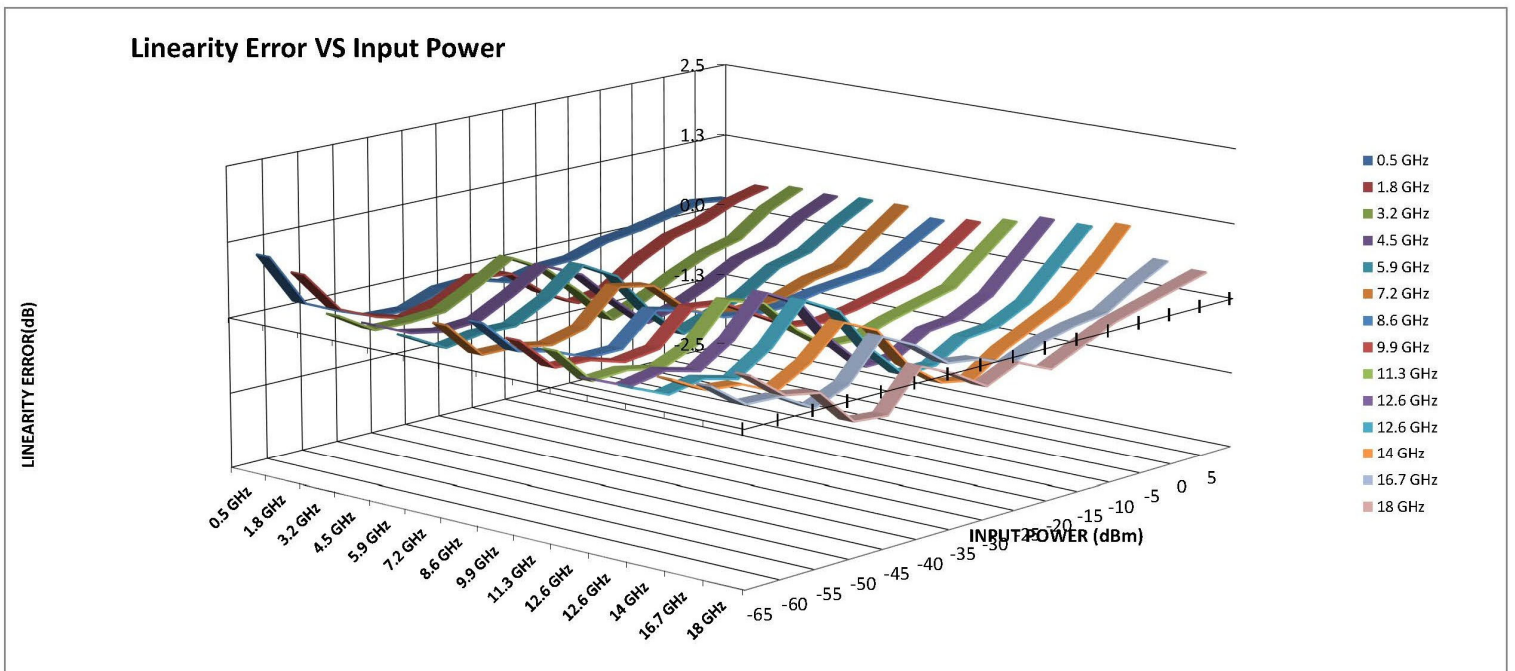
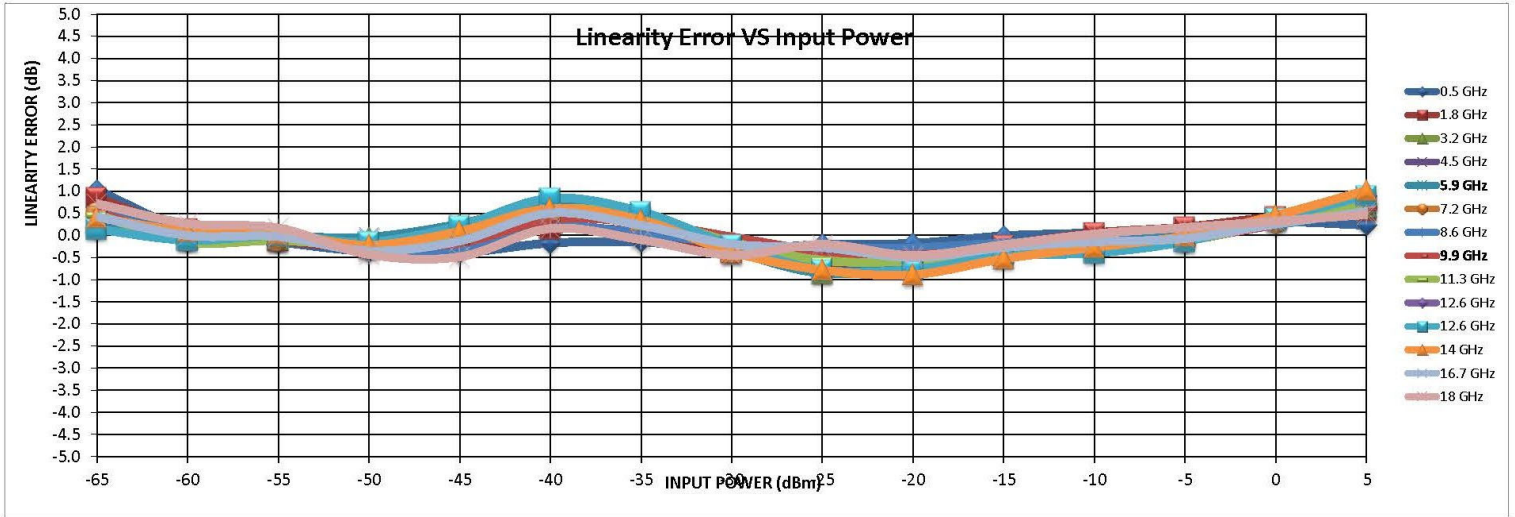
LOGGING CHARACTERISTICS @ 60C





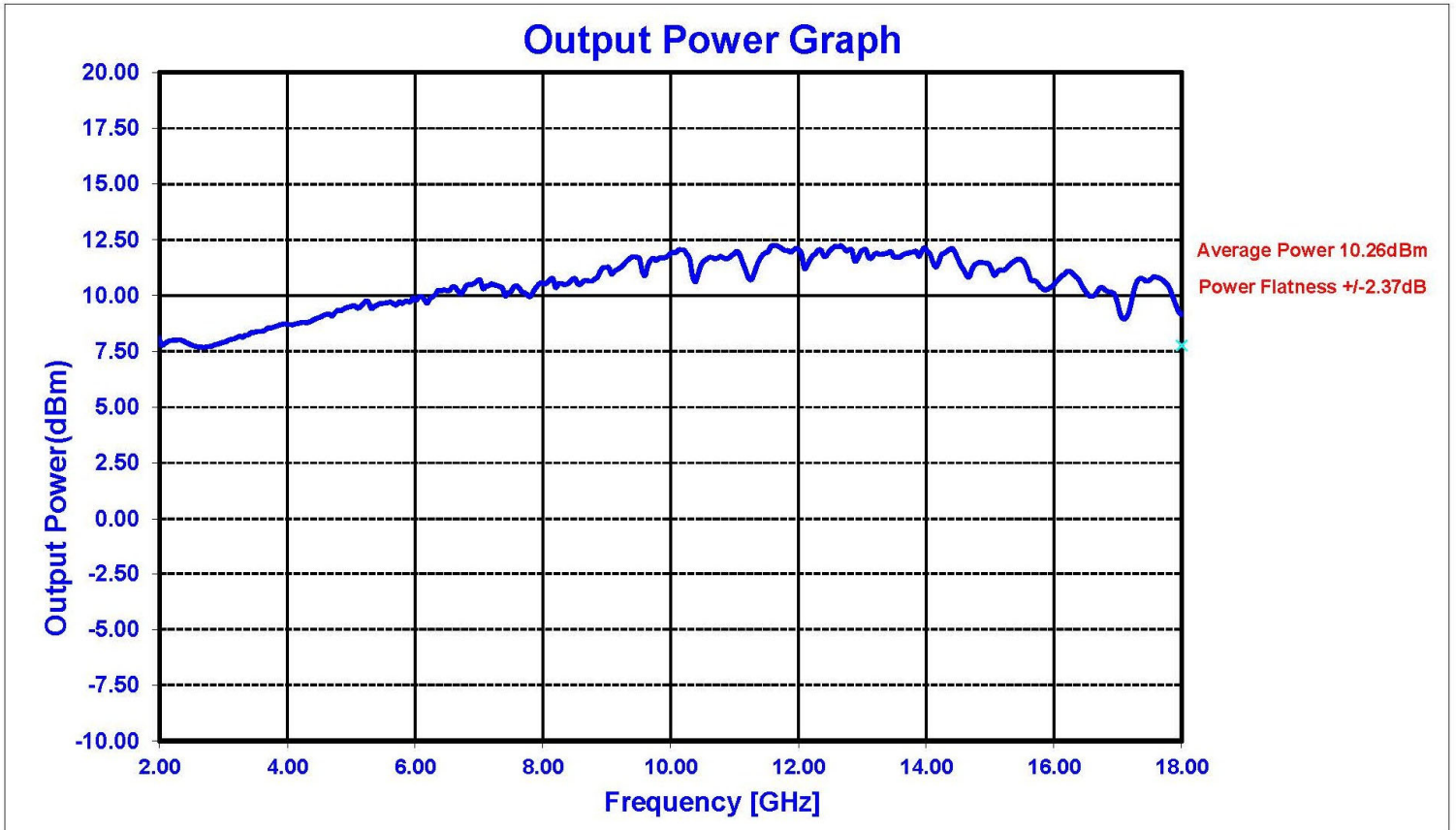
**TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM**
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

LOGGING CHARACTERISTICS @ 60C



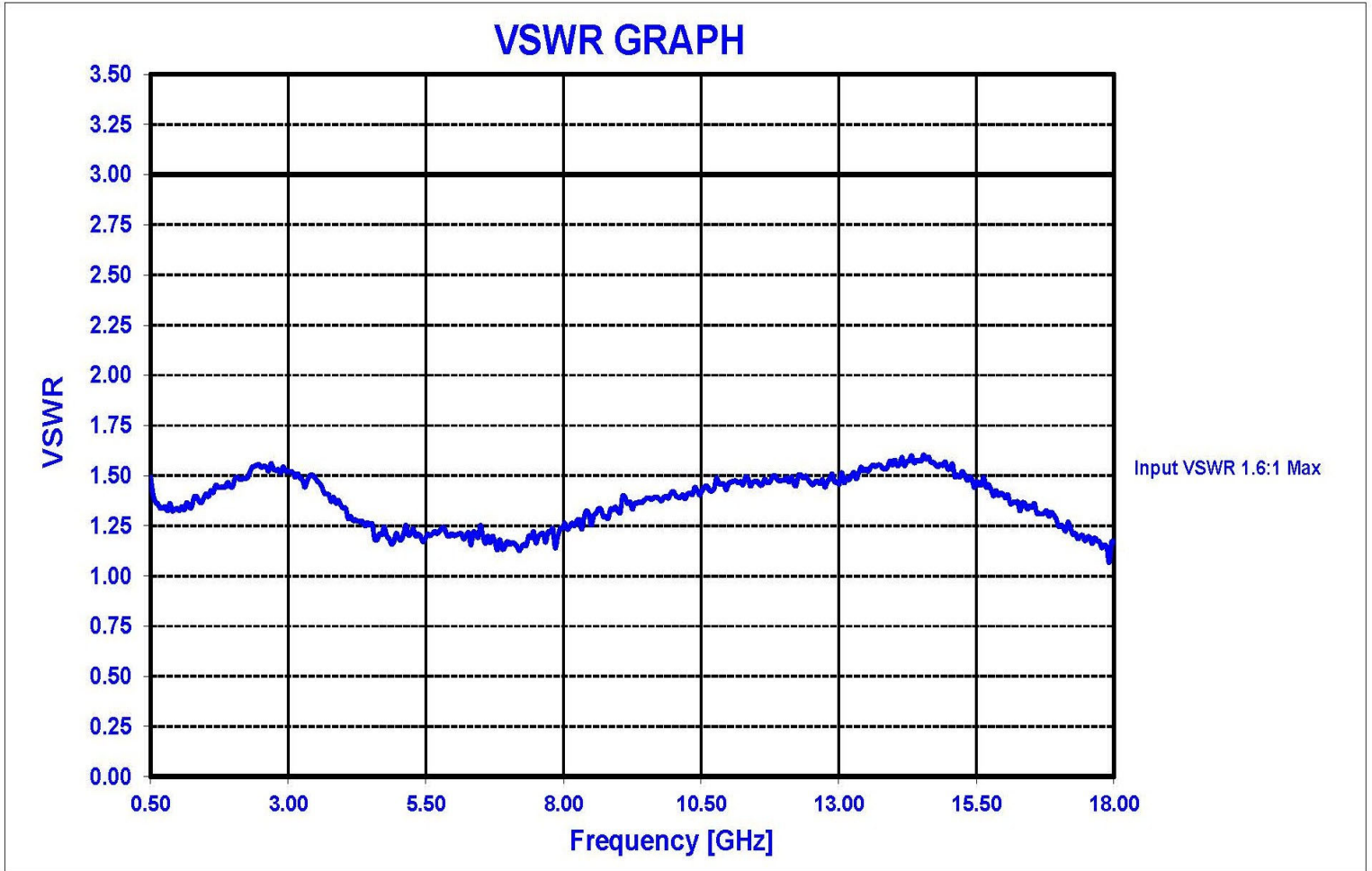


TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)





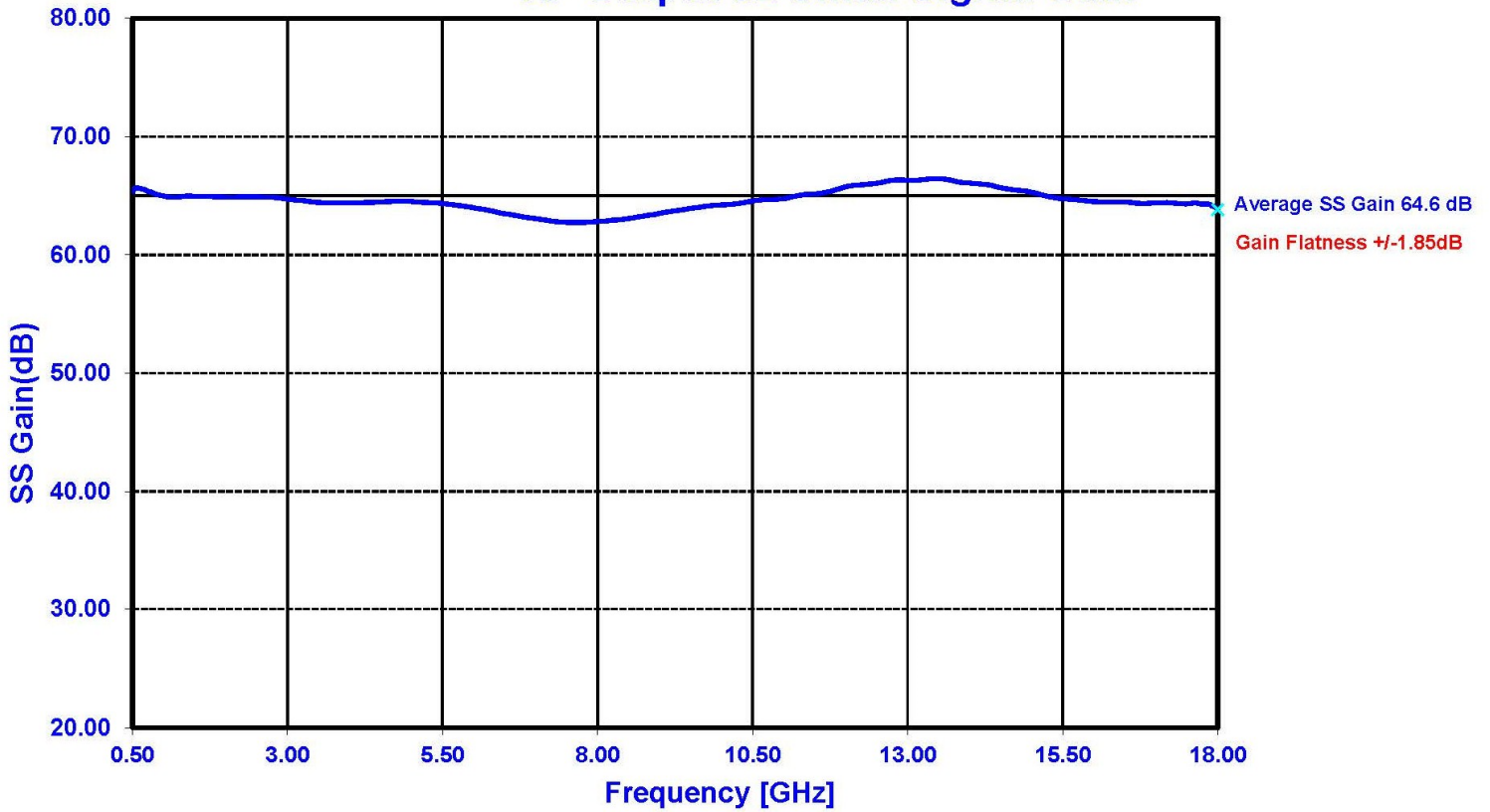
TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

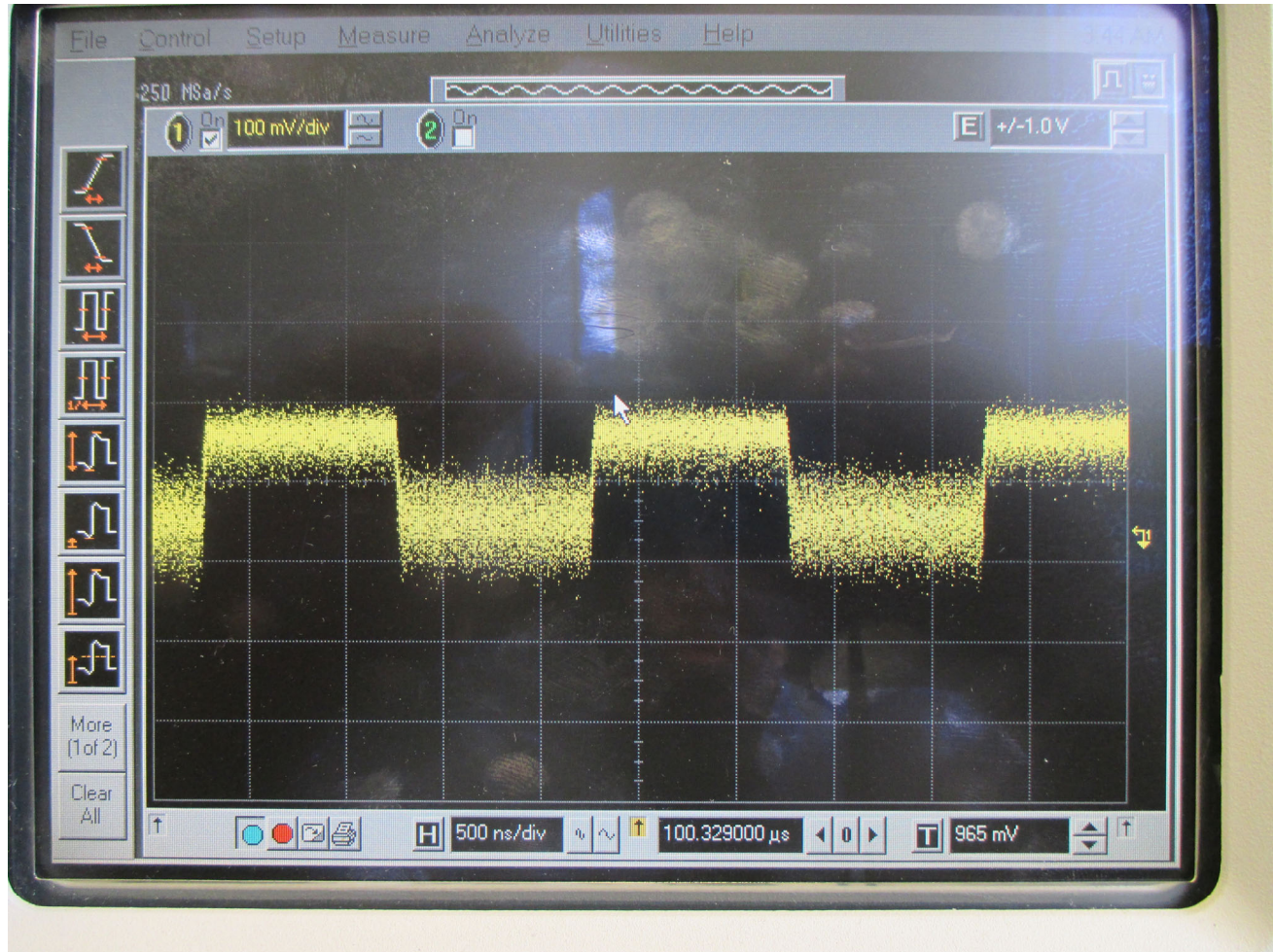
RF Output J2 Small Signal Gain





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

TSS @ -68.5dBm





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

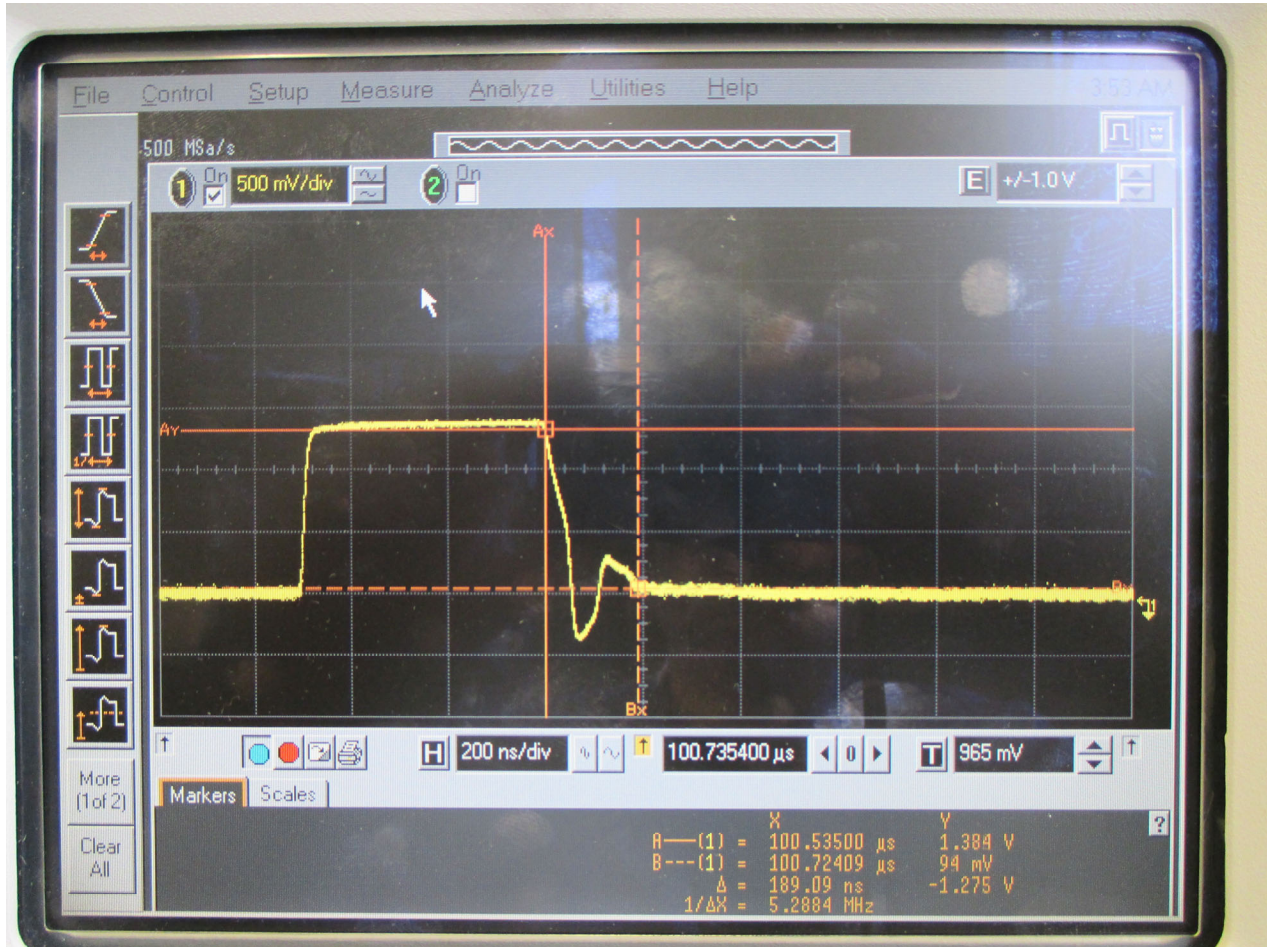
Rise Time 18.68ns





TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

Recovery Time 189.09ns





**TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM**
(TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
SEE PAGES 20 TO 23)

**TYPICAL EXTENDED RANGE PERFORMANCE
FROM 0.25 GHz to 19GHz
LOGGING CHARACTERISTICS @ 25C**

LOG TRANSFER VS FREQUENCY
MODEL: PE15A2003
TESTED BY: RLC
SERIAL NO: V000977012720150317

Monday, November 05, 2018

Test Temp: 25C



PLANAR MONOLITHICS INDUSTRIES
7311-F GROVE ROAD, FREDERICK, MD 21704
USA
TEL: 301-662-5019 FAX: 301-662-1731
URL: WWW.PMI-RF.COM

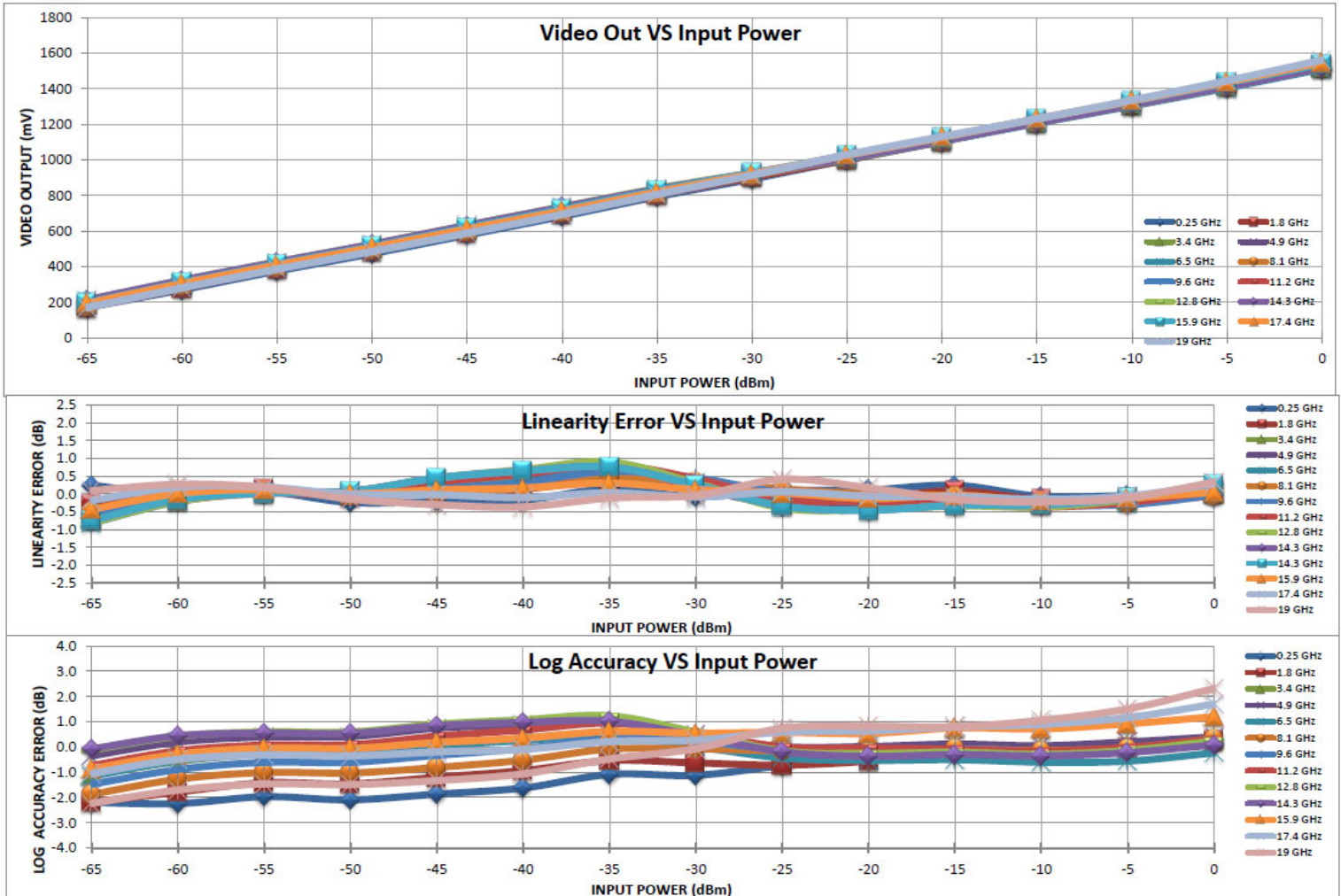
Frequency

| | | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | RF Input Power (dBm) |
|------------------------|----------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 0.25 GHz | INTERCEPT (mV) | 1518 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.8 | | | | | | | | | | | | | | Error (mV) |
| | | 171 | 270 | 376 | 473 | 578 | 682 | 793 | 893 | 1000 | 1105 | 1211 | 1309 | 1413 | 1517 | LINEARITY ERROR (dB) |
| | | 5 | 0 | 1 | -5 | -4 | -4 | 3 | -2 | 2 | 2 | 5 | -1 | -1 | -1 | |
| | | 0.24 | 0.00 | 0.07 | -0.24 | -0.22 | -0.18 | 0.14 | -0.08 | 0.09 | 0.11 | 0.24 | -0.07 | -0.05 | -0.05 | |
| 1.8 GHz | INTERCEPT (mV) | 1520 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.7 | | | | | | | | | | | | | | Error (mV) |
| | | 171 | 279 | 387 | 486 | 591 | 696 | 804 | 902 | 1001 | 1104 | 1212 | 1310 | 1414 | 1520 | LINEARITY ERROR (dB) |
| | | -6 | -1 | 3 | -1 | 1 | 3 | 7 | 2 | -3 | -3 | 2 | -3 | -2 | 0 | |
| | | -0.28 | -0.06 | 0.14 | -0.06 | 0.04 | 0.14 | 0.36 | 0.12 | -0.13 | -0.13 | 0.09 | -0.15 | -0.10 | 0.02 | |
| 3.4 GHz | INTERCEPT (mV) | 1521 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.2 | | | | | | | | | | | | | | Error (mV) |
| | | 192 | 304 | 409 | 510 | 617 | 722 | 827 | 919 | 1011 | 1114 | 1214 | 1313 | 1416 | 1521 | LINEARITY ERROR (dB) |
| | | -14 | -4 | 1 | 0 | 6 | 10 | 14 | 5 | -4 | -2 | -4 | -6 | -4 | 1 | |
| | | -0.68 | -0.18 | 0.04 | 0.02 | 0.32 | 0.49 | 0.67 | 0.26 | -0.20 | -0.12 | -0.18 | -0.29 | -0.19 | 0.03 | |
| 4.9 GHz | INTERCEPT (mV) | 1521 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20 | | | | | | | | | | | | | | Error (mV) |
| | | 208 | 319 | 423 | 523 | 630 | 732 | 834 | 924 | 1015 | 1115 | 1217 | 1316 | 1419 | 1523 | LINEARITY ERROR (dB) |
| | | -14 | -3 | 1 | 1 | 8 | 11 | 13 | 3 | -6 | -6 | -4 | -5 | -2 | 2 | |
| | | -0.70 | -0.15 | 0.05 | 0.07 | 0.41 | 0.54 | 0.65 | 0.15 | -0.30 | -0.29 | -0.19 | -0.25 | -0.10 | 0.11 | |
| 6.5 GHz | INTERCEPT (mV) | 1509 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20 | | | | | | | | | | | | | | Error (mV) |
| | | 192 | 304 | 410 | 510 | 616 | 720 | 824 | 915 | 1006 | 1104 | 1205 | 1303 | 1404 | 1510 | LINEARITY ERROR (dB) |
| | | -17 | -4 | 1 | 1 | 7 | 11 | 15 | 6 | -3 | -5 | -4 | -6 | -5 | 1 | |
| | | -0.83 | -0.21 | 0.06 | 0.07 | 0.37 | 0.57 | 0.76 | 0.32 | -0.13 | -0.23 | -0.21 | -0.31 | -0.27 | 0.05 | |
| 8.1 GHz | INTERCEPT (mV) | 1523 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.5 | | | | | | | | | | | | | | Error (mV) |
| | | 177 | 289 | 395 | 494 | 599 | 705 | 813 | 913 | 1012 | 1112 | 1213 | 1312 | 1414 | 1522 | LINEARITY ERROR (dB) |
| | | -10 | -1 | 2 | -1 | 0 | 3 | 10 | 7 | 3 | 0 | -1 | -5 | -6 | -1 | |
| | | -0.50 | -0.04 | 0.09 | -0.06 | 0.02 | 0.17 | 0.46 | 0.34 | 0.14 | 0.00 | -0.06 | -0.24 | -0.28 | -0.05 | |
| 9.6 GHz | INTERCEPT (mV) | 1521 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.3 | | | | | | | | | | | | | | Error (mV) |
| | | 185 | 297 | 403 | 503 | 608 | 714 | 822 | 920 | 1013 | 1112 | 1213 | 1311 | 1413 | 1520 | LINEARITY ERROR (dB) |
| | | -13 | -3 | 1 | -1 | 3 | 7 | 13 | 9 | 1 | -2 | -2 | -6 | -6 | -1 | |
| | | -0.64 | -0.14 | 0.05 | -0.03 | 0.16 | 0.33 | 0.63 | 0.45 | 0.03 | -0.10 | -0.11 | -0.30 | -0.30 | -0.04 | |
| 11.2 GHz | INTERCEPT (mV) | 1520 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.1 | | | | | | | | | | | | | | Error (mV) |
| | | 200 | 312 | 417 | 517 | 623 | 728 | 834 | 926 | 1015 | 1114 | 1213 | 1312 | 1415 | 1521 | LINEARITY ERROR (dB) |
| | | -15 | -4 | 0 | 0 | 7 | 11 | 16 | 9 | -3 | -4 | -6 | -7 | -5 | 2 | |
| | | -0.77 | -0.20 | 0.01 | 0.01 | 0.33 | 0.56 | 0.82 | 0.43 | -0.15 | -0.21 | -0.27 | -0.37 | -0.24 | 0.08 | |
| 12.8 GHz | INTERCEPT (mV) | 1514 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 19.8 | | | | | | | | | | | | | | Error (mV) |
| | | 213 | 323 | 427 | 527 | 633 | 737 | 840 | 927 | 1012 | 1110 | 1211 | 1309 | 1412 | 1520 | LINEARITY ERROR (dB) |
| | | -16 | -4 | 1 | 2 | 9 | 13 | 18 | 6 | -8 | -9 | -7 | -7 | -3 | 6 | |
| | | -0.81 | -0.20 | 0.03 | 0.08 | 0.45 | 0.68 | 0.90 | 0.30 | -0.40 | -0.45 | -0.34 | -0.36 | -0.15 | 0.28 | |
| 14.3 GHz | INTERCEPT (mV) | 1511 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 19.7 | | | | | | | | | | | | | | Error (mV) |
| | | 213 | 324 | 426 | 526 | 632 | 734 | 835 | 924 | 1011 | 1108 | 1209 | 1308 | 1410 | 1517 | LINEARITY ERROR (dB) |
| | | -15 | -3 | 0 | 1 | 9 | 13 | 15 | 5 | -7 | -9 | -6 | -6 | -2 | 5 | |
| | | -0.75 | -0.16 | 0.02 | 0.07 | 0.44 | 0.64 | 0.75 | 0.25 | -0.34 | -0.46 | -0.32 | -0.31 | -0.11 | 0.26 | |
| 15.9 GHz | INTERCEPT (mV) | 1538 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.5 | | | | | | | | | | | | | | Error (mV) |
| | | 198 | 309 | 414 | 514 | 619 | 722 | 827 | 926 | 1027 | 1126 | 1230 | 1329 | 1433 | 1539 | LINEARITY ERROR (dB) |
| | | -9 | 0 | 3 | 0 | 2 | 3 | 6 | 2 | 1 | -3 | -1 | -4 | -2 | 1 | |
| | | -0.44 | 0.01 | 0.12 | 0.00 | 0.11 | 0.16 | 0.30 | 0.12 | 0.03 | -0.13 | -0.04 | -0.19 | -0.11 | 0.05 | |
| 17.4 GHz | INTERCEPT (mV) | 1543 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 20.7 | | | | | | | | | | | | | | Error (mV) |
| | | 194 | 305 | 409 | 508 | 611 | 713 | 819 | 920 | 1027 | 1128 | 1231 | 1333 | 1438 | 1549 | LINEARITY ERROR (dB) |
| | | -4 | 4 | 4 | 0 | -1 | -2 | 1 | -2 | 1 | -1 | -2 | -3 | -1 | 6 | |
| | | -0.19 | 0.19 | 0.19 | -0.01 | -0.03 | -0.10 | 0.03 | -0.08 | 0.06 | -0.06 | -0.08 | -0.15 | -0.06 | 0.28 | |
| 19 GHz | INTERCEPT (mV) | 1554 | | | | | | | | | | | | | | Measured Value (mV) |
| | SLOPE (mV/dB) | 21.3 | | | | | | | | | | | | | | Error (mV) |
| | | 170 | 281 | 386 | 485 | 588 | 694 | 805 | 914 | 1030 | 1131 | 1231 | 1336 | 1445 | 1561 | LINEARITY ERROR (dB) |
| | | 2 | 6 | 4 | -3 | -7 | -8 | -3 | -1 | 9 | 4 | -3 | -5 | -2 | 7 | |
| | | 0.09 | 0.27 | 0.19 | -0.14 | -0.31 | -0.36 | -0.12 | -0.04 | 0.41 | 0.17 | -0.15 | -0.22 | -0.11 | 0.33 | |
| Average Slope (mV) | | 20.4 | | | | | | | | | | | | | | |
| Flatness | | ± dB | | | | | | | | | | | | | | |
| Average Intercept (mV) | | 0 | | | | | | | | | | | | | | |
| Log Accuracy | | ± dB | | | | | | | | | | | | | | |
| | | 1.1 | 1.3 | 1.3 | 1.3 | 1.4 | 1.3 | 1.1 | 0.8 | 0.7 | 0.7 | 0.6 | 0.8 | 1 | 1.3 | |
| | | 170 | 270 | 376 | 473 | 578 | 682 | 793 | 893 | 1000 | 1104 | 1205 | 1303 | 1404 | 1510 | |
| | | 213 | 324 | 427 | 527 | 633 | 737 | 840 | 927 | 1030 | 1131 | 1231 | 1336 | 1445 | 1561 | |
| | | 1.8 | 1.8 | 1.6 | 1.7 | 1.5 | 1.3 | 1.0 | 0.9 | 0.6 | 0.7 | 0.6 | 0.8 | 1.2 | 1.8 | |

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Email: sales@pmi-rf.com



TYPICAL CHARACTERISTICS
ON
SDLVA-2020-70 Opt 0518 A03 A07-50OHM
 (TESTED AND OPERATIONAL FROM 0.25 GHz TO 19 GHz
 SEE PAGES 20 TO 23)





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