



**Typical Characteristics  
ON  
P4T-0R1G20G-80-T-SFF**

**PMI MODEL: P4T-0R1G20G-80-T-SFF IS A SINGLE POLE FOUR THROW  
ABSORPTIVE SWITCH. THIS MODEL HAS THE FOLLOWING  
SPECIFICATIONS.**



**April 1, 2019**

**Designed By: Engineering PMI**

**Tested and Reported By:  
Alfredo Lopez**



## Typical Characteristics ON P4T-0R1G20G-80-T-SFF

### Outline Drawing

#### DESCRIPTION

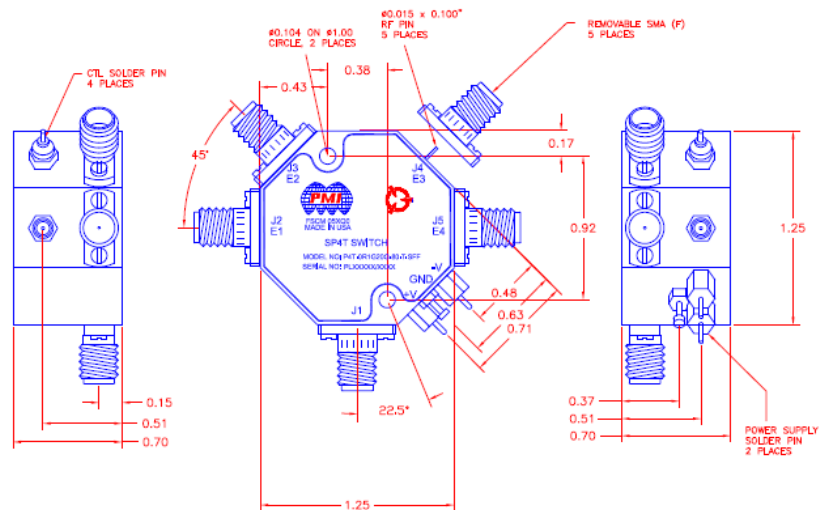
PMI MODEL: P4T-0R1G20G-80-T-SFF IS A SINGLE POLE FOUR THROW ABSORPTIVE SWITCH. THIS MODEL HAS THE FOLLOWING SPECIFICATIONS.

#### SPECIFICATIONS

- FREQUENCY RANGE:.....0.1 TO 20.0 GHz
- INSERTION LOSS:.....5.0 dB MAX
- ISOLATION:.....80 dB MIN
- VSWR (ON/OFF):.....2.0:1 MAX
- SWITCHING SPEED:.....300 ns (10% - 90% RF)
- CONTROL LOGIC:.....TTL LOGIC "0" = ON, "1" = OFF
- SURVIVAL POWER:.....+30 dBm (1 WATT)
- OPERATING POWER:.....+20 dBm MAX
- RF PHASE TRACKING:.....2 DEGREES PER °C  
(ALL PORTS WITH RESPECT TO  
COMMON WITH TEMPERATURE)
- DC SUPPLY:.....+ 5VDC @ 200mA MAX  
-12VDC @ 100mA MAX
- CONNECTORS IN/OUT:.....SMA (F) REMOVABLE
- CONTROL CONNECTORS:.....CONTROL PINS
- SIZE:.....(L) 1.25" X (W) 1.25" X (H) 0.70"
- WEIGHT:.....1.5oz
- FINISH:.....PAINTED BLUE

| REVISIONS |      |                 |          |          |
|-----------|------|-----------------|----------|----------|
| ZONE      | REV. | DESCRIPTION     | DATE     | APPROVED |
|           | A1   | INITIAL RELEASE | 10/30/18 | JP       |

#### MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

#### ENVIRONMENTAL RATINGS

- TEMPERATURE:.....0°C TO + 55°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY:.....MIL-STD-202G, METHOD 103B COND. B
- SHOCK:.....MIL-STD-202G, METHOD 213B COND. B
- VIBRATION:.....MIL-STD-202G, METHOD 204D COND. B
- ALTITUDE:.....MIL-STD-202G, METHOD 105C COND. B
- TEMPERATURE CYCLE:.....MIL-STD-202G, METHOD 107G COND. A

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

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

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E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
ISO 9001 CERTIFIED



| APPROVALS |     | DATE     | TITLE           |          |          | REV.   |
|-----------|-----|----------|-----------------|----------|----------|--------|
| DRAWN     | NJA | 10/30/18 | PRODUCT FEATURE |          |          | A1     |
| CHECKED   |     |          | SILE            | FSCM NO. | DWG NO.  |        |
| ISSUED    |     |          | A               | 05XQ0    | 27035901 |        |
|           |     |          | SCALE           | N:S      | SHEET    | 1 OF 1 |



**Typical Characteristics  
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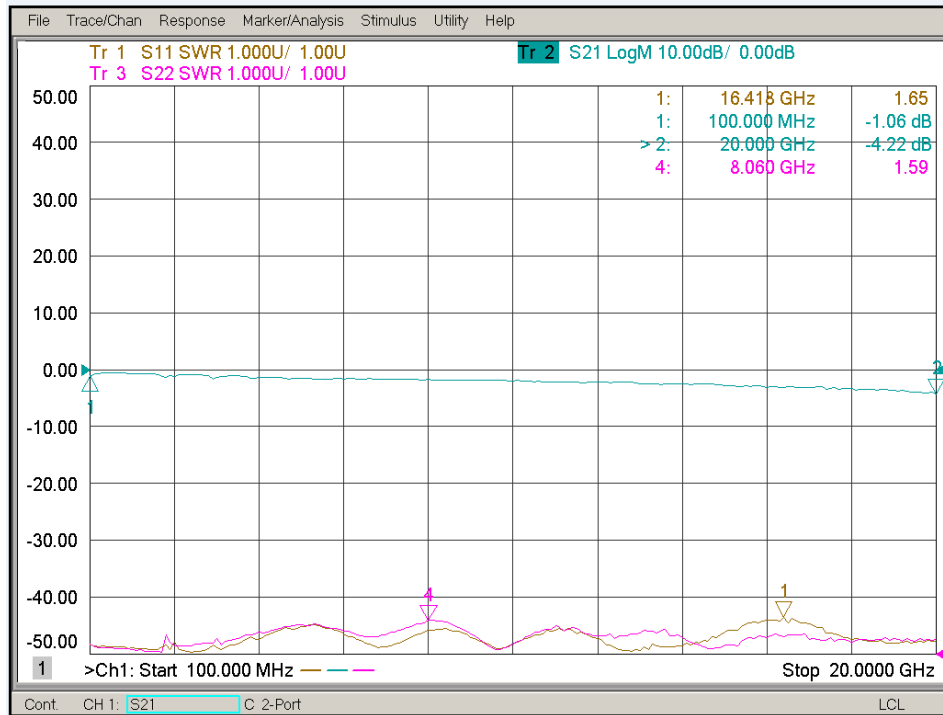
**Technical Specifications**

| TEST. ITEM NO | PARAMETERS         | SPECIFIED VALUE                           | TEST RESULTS  | QA QC |
|---------------|--------------------|---|---|-------|
| 1             | Frequency Range:   | 0.1 GHz – 20.0 GHz                        | <b>0.1 GHz – 20.0 GHz<br/>(See Plots)</b>             |       |
| 2             | Insertion Loss:    | 5.0dB Max                                 | <b>4.22 dB<br/>(See Plots)</b>                        |       |
| 3             | Isolation:         | 80dB Min                                  | <b>88.95 dB<br/>(See Plots)</b>                       |       |
| 4             | VSWR:<br>(ON/OFF)  | 2.0:1 Max.                                | <b>Input:1.68:1<br/>Output:1.93:1<br/>(See Plots)</b> |       |
| 5             | Switching Speed:   | 300 ns<br>(10% - 90% RF)                  | <b>ON: 30.40ns<br/>OFF: 40.80ns</b>                   |       |
| 6             | Control Logic:     | TTL Logic<br>"0" = ON, "1" = OFF          | <b>PASS</b>   |       |
| 7             | Survival Power:    | +30 dBm ( 1 Watt )                        | <b>Pass<br/>(See Graph)</b>                           |       |
| 8             | Operating Power:   | +20 dBm Max                               | <b>Pass<br/>(See Graph)</b>                           |       |
| 9             | RF Phase Tracking: | 2 Degree per Degree Celsius               | <b>Pass<br/>(See Graph)</b>                           |       |
| 10            | DC Supply:         | +5VDC @ 200 mA Max<br>-12VDC @ 100 mA Max | <b>+5VDC @ 110mA<br/>-12VDC @ 45mA</b>                |       |

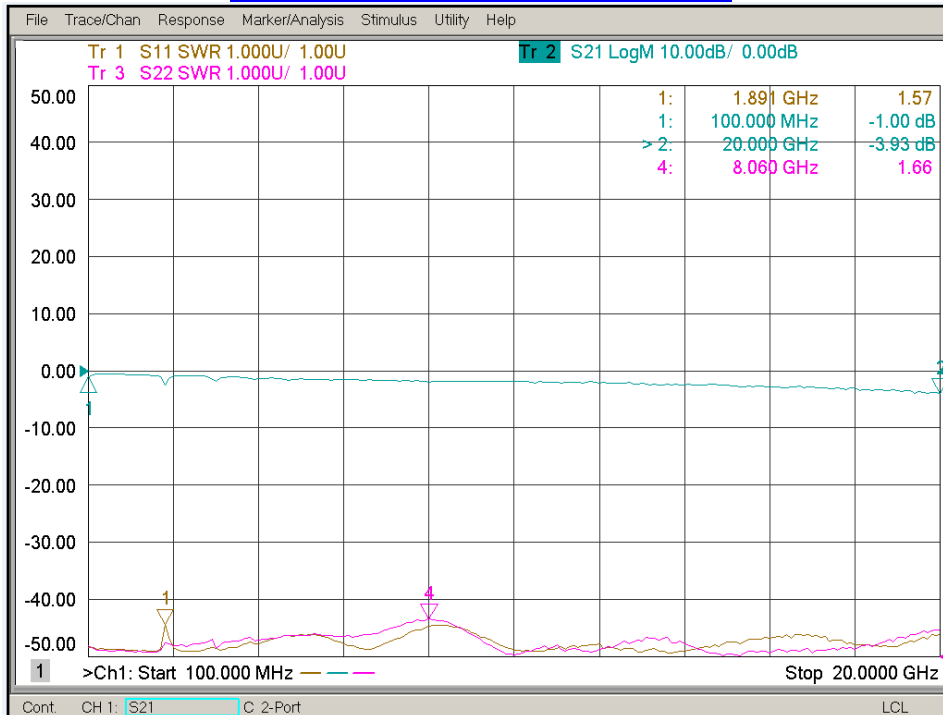


**Typical Characteristics  
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P4T-0R1G20G-80-T-SFF**

**(J1-J2) Insertion Loss and VSWR**



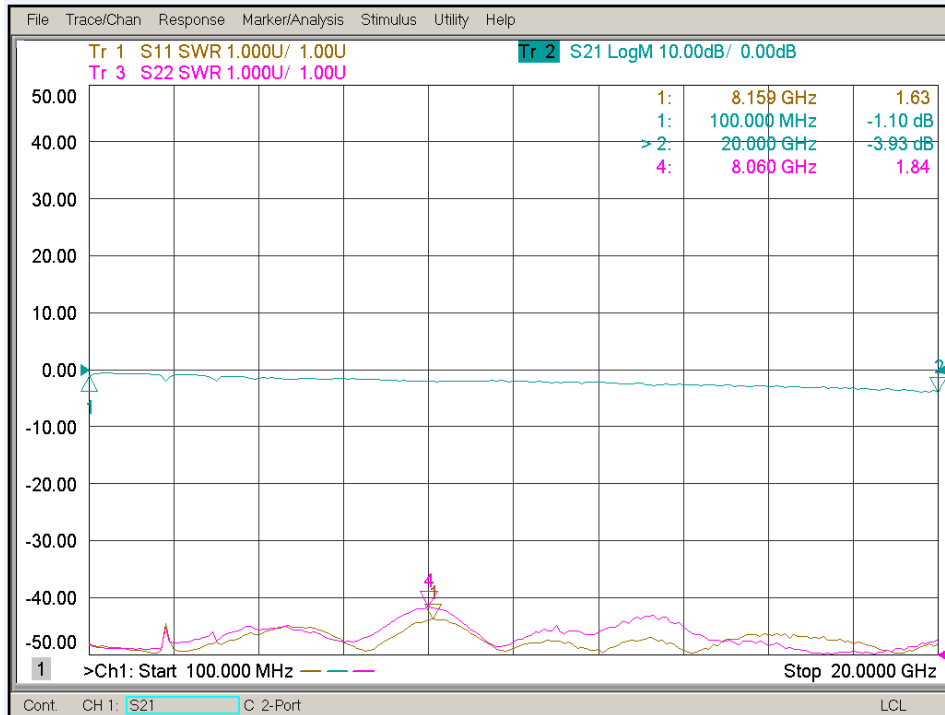
**(J1-J3) Insertion Loss and VSWR**



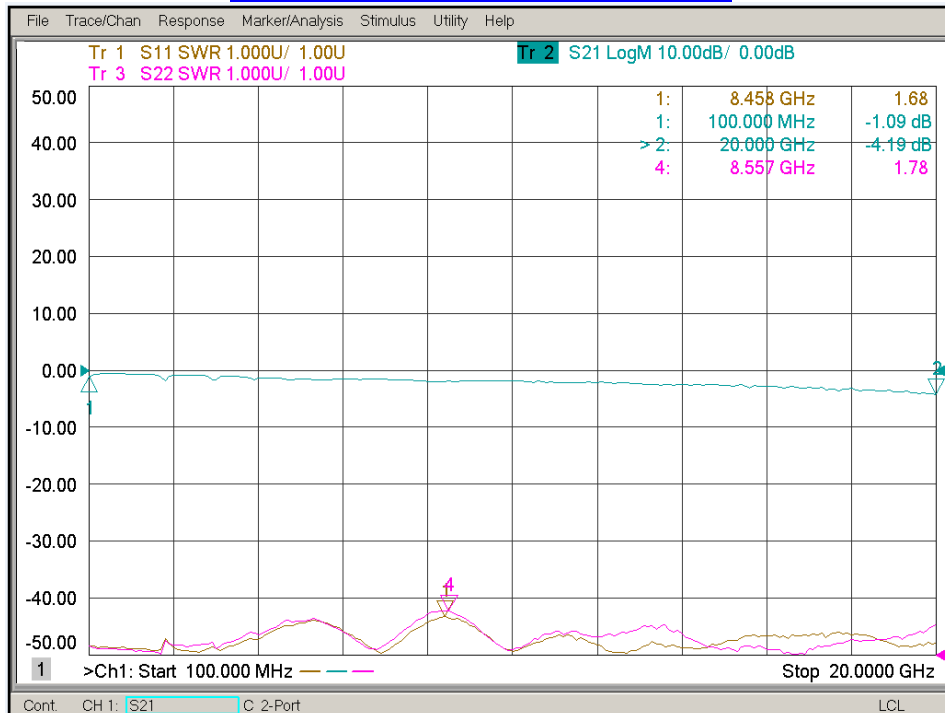


**Typical Characteristics  
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**(J1-J4) Insertion Loss and VSWR**



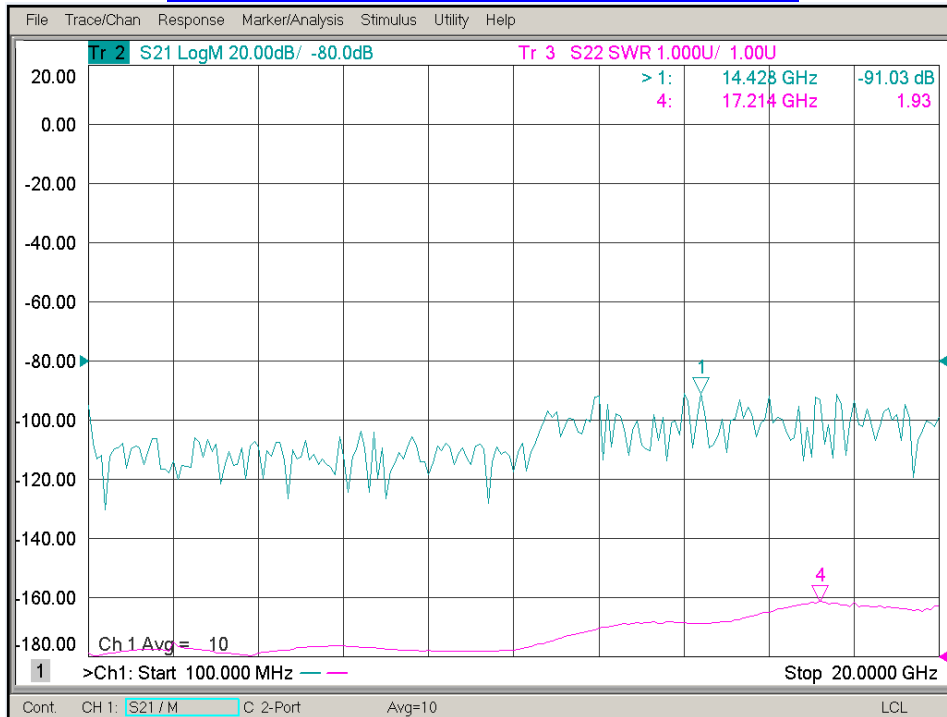
**(J1-J5) Insertion Loss and VSWR**



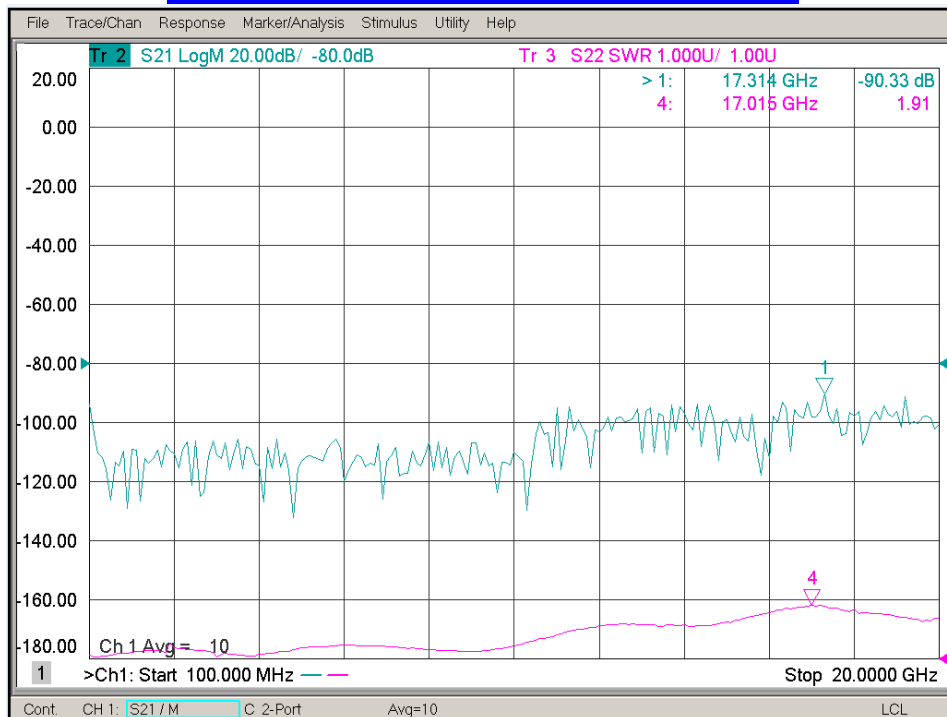


# Typical Characteristics ON P4T-0R1G20G-80-T-SFF

## (J1 – J2) Isolation and Termination VSWR



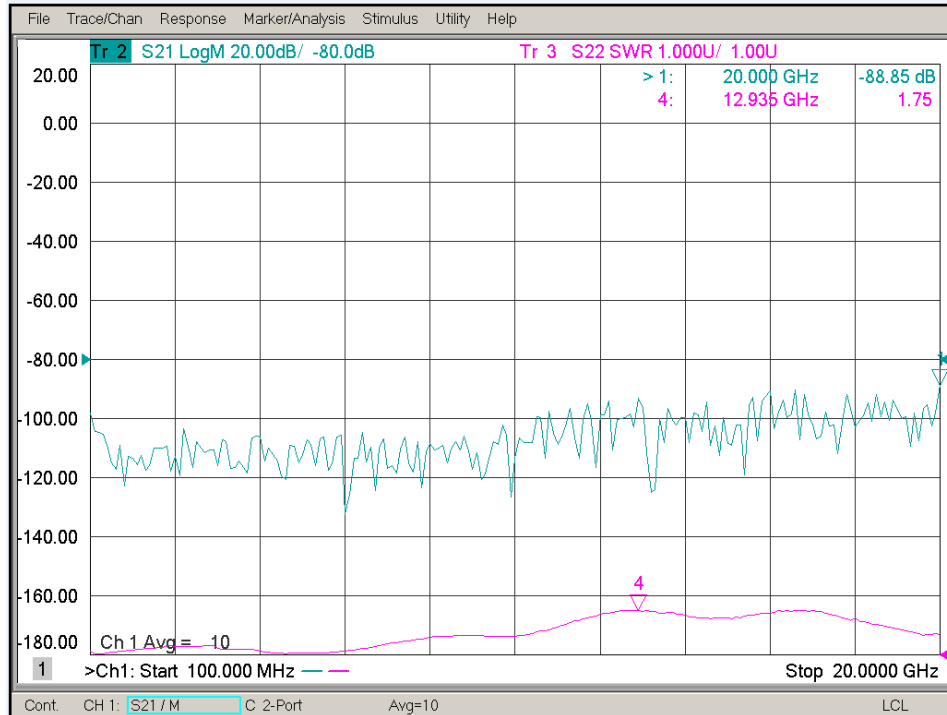
## (J1 – J3) Isolation and Termination VSWR



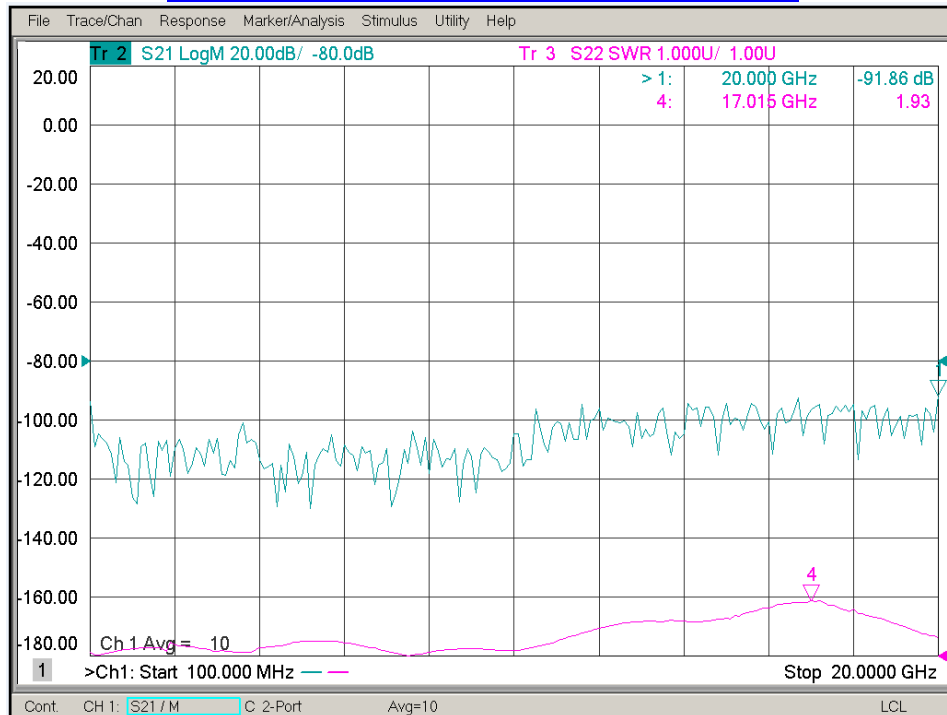


# Typical Characteristics ON P4T-0R1G20G-80-T-SFF

## (J1 – J4) Isolation and Termination VSWR



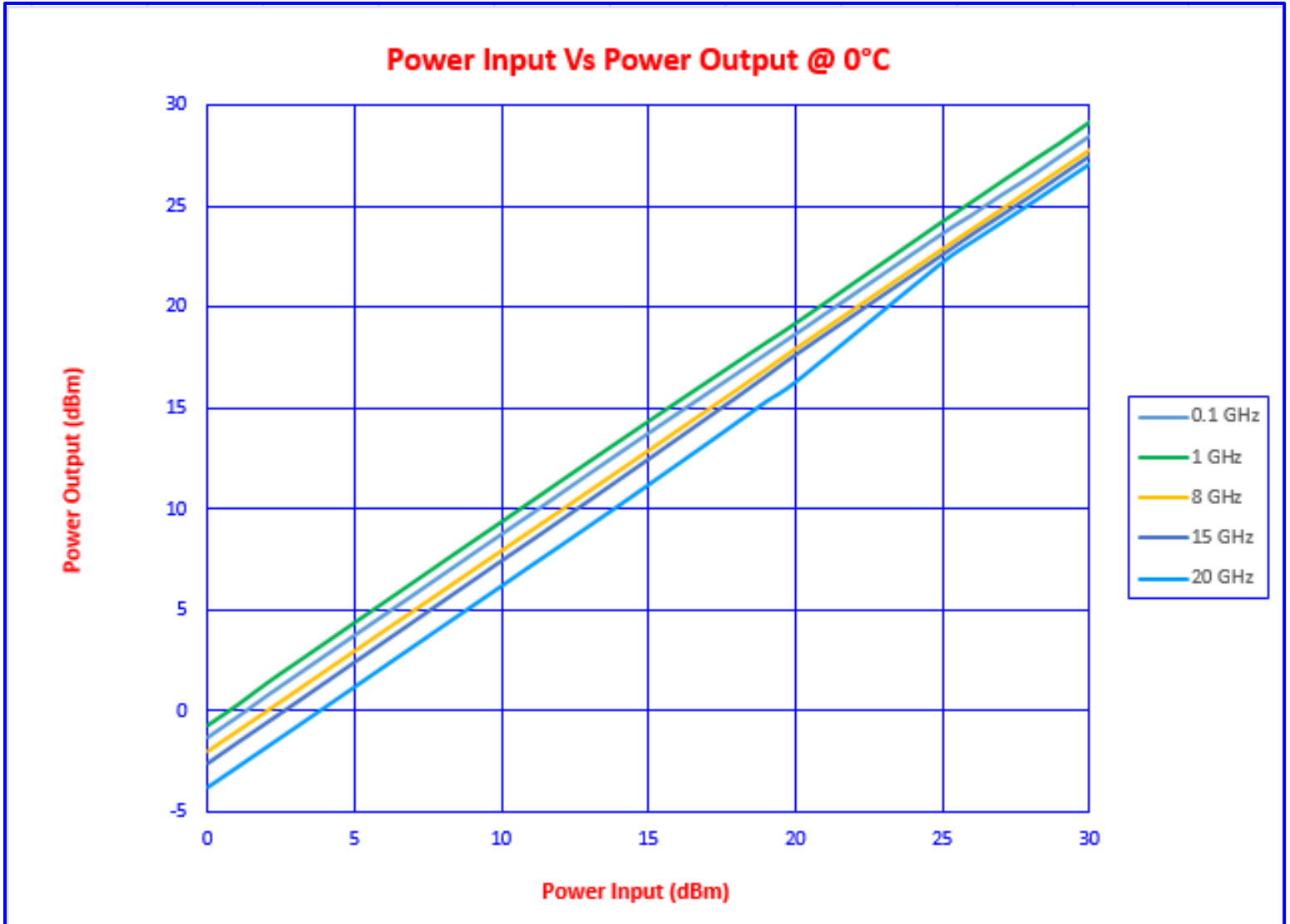
## (J1 – J5) Isolation and Termination VSWR





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High Power Test.







**Typical Characteristics  
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**Data High Power Test.**

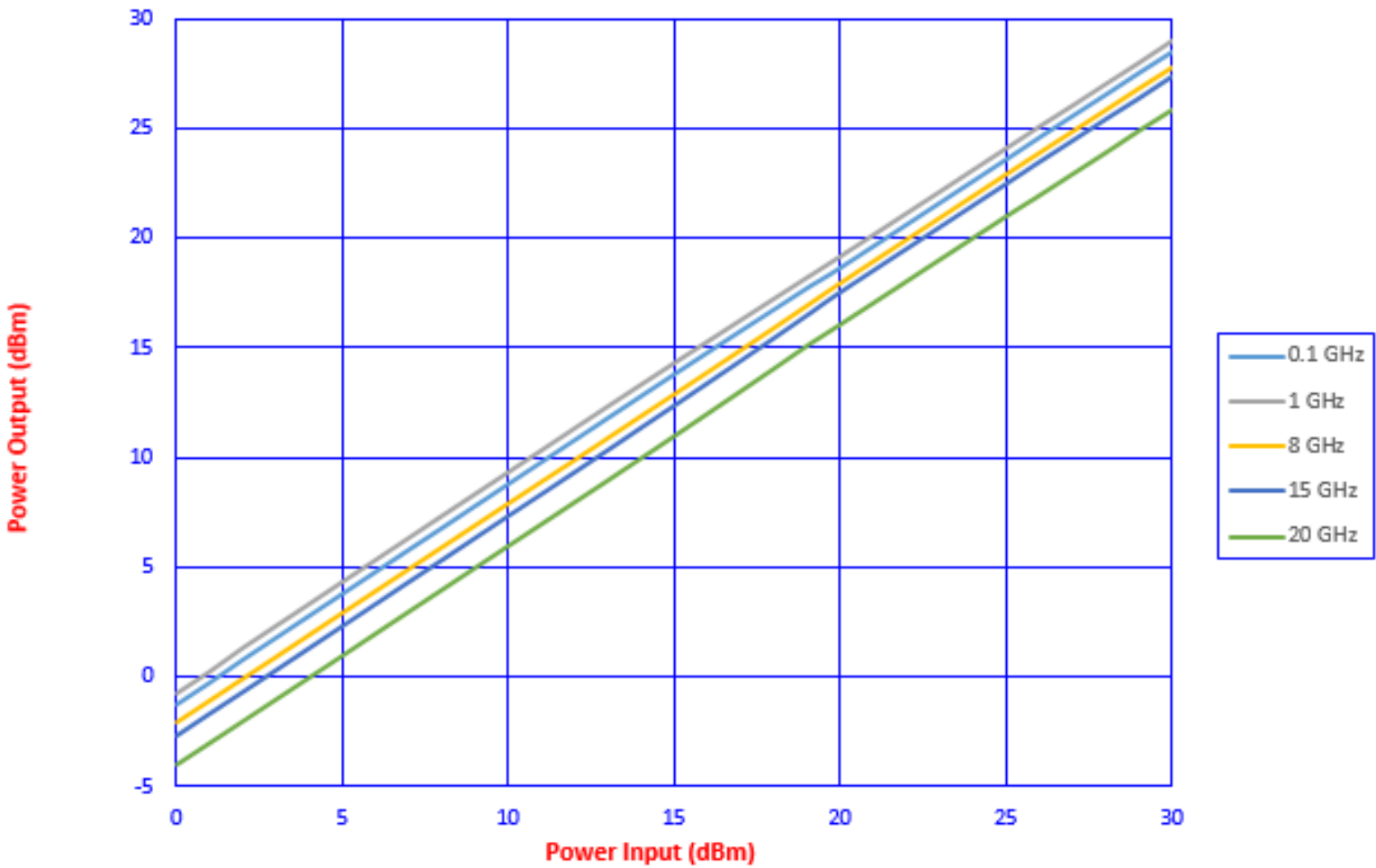
| <b>0 °C</b>       |                    |             |                   |                    |             |                   |                    |             |                   |                    |             |                   |                    |             |
|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|
| 0.5 GHz           |                    |             | 1 GHz             |                    |             | 8GHz              |                    |             | 15GHz             |                    |             | 20GHz             |                    |             |
| POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        |
| 0                 | -1.27              | 1.27        | 0                 | -0.75              | 0.75        | 0                 | -2.03              | 2.03        | 0                 | -2.61              | 2.61        | 0                 | -3.77              | 3.77        |
| 1                 | -0.27              | 1.27        | 1                 | 0.25               | 0.75        | 1                 | -1.04              | 2.04        | 1                 | -1.60              | 2.60        | 1                 | -2.78              | 3.78        |
| 2                 | 0.78               | 1.22        | 2                 | 1.33               | 0.67        | 2                 | -0.04              | 2.04        | 2                 | -0.60              | 2.60        | 2                 | -1.78              | 3.78        |
| 3                 | 1.78               | 1.22        | 3                 | 2.34               | 0.66        | 3                 | 0.95               | 2.05        | 3                 | 0.39               | 2.61        | 3                 | -0.79              | 3.79        |
| 4                 | 2.79               | 1.22        | 4                 | 3.34               | 0.66        | 4                 | 1.95               | 2.05        | 4                 | 1.40               | 2.60        | 4                 | 0.20               | 3.80        |
| 5                 | 3.79               | 1.21        | 5                 | 4.34               | 0.66        | 5                 | 2.95               | 2.05        | 5                 | 2.40               | 2.60        | 5                 | 1.20               | 3.80        |
| 6                 | 4.79               | 1.21        | 6                 | 5.34               | 0.66        | 6                 | 3.95               | 2.05        | 6                 | 3.41               | 2.59        | 6                 | 2.21               | 3.79        |
| 7                 | 5.79               | 1.21        | 7                 | 6.34               | 0.66        | 7                 | 4.94               | 2.06        | 7                 | 4.42               | 2.58        | 7                 | 3.20               | 3.80        |
| 8                 | 6.79               | 1.21        | 8                 | 7.35               | 0.65        | 8                 | 5.94               | 2.06        | 8                 | 5.42               | 2.58        | 8                 | 4.20               | 3.80        |
| 9                 | 7.80               | 1.20        | 9                 | 8.34               | 0.66        | 9                 | 6.93               | 2.07        | 9                 | 6.43               | 2.57        | 9                 | 5.20               | 3.80        |
| 10                | 8.80               | 1.20        | 10                | 9.33               | 0.67        | 10                | 7.93               | 2.07        | 10                | 7.43               | 2.57        | 10                | 6.20               | 3.80        |
| 11                | 9.79               | 1.21        | 11                | 10.34              | 0.66        | 11                | 8.92               | 2.08        | 11                | 8.43               | 2.57        | 11                | 7.20               | 3.80        |
| 12                | 10.80              | 1.20        | 12                | 11.34              | 0.66        | 12                | 9.90               | 2.10        | 12                | 9.43               | 2.57        | 12                | 8.18               | 3.82        |
| 13                | 11.81              | 1.19        | 13                | 12.34              | 0.66        | 13                | 10.91              | 2.09        | 13                | 10.44              | 2.56        | 13                | 9.18               | 3.82        |
| 14                | 12.81              | 1.20        | 14                | 13.33              | 0.67        | 14                | 11.90              | 2.10        | 14                | 11.46              | 2.54        | 14                | 10.18              | 3.82        |
| 15                | 13.80              | 1.20        | 15                | 14.31              | 0.69        | 15                | 12.90              | 2.10        | 15                | 12.47              | 2.53        | 15                | 11.20              | 3.80        |
| 16                | 14.79              | 1.22        | 16                | 15.29              | 0.71        | 16                | 13.90              | 2.10        | 16                | 13.49              | 2.51        | 16                | 12.22              | 3.78        |
| 17                | 15.77              | 1.23        | 17                | 16.27              | 0.73        | 17                | 14.90              | 2.10        | 17                | 14.51              | 2.49        | 17                | 13.24              | 3.76        |
| 18                | 16.75              | 1.25        | 18                | 17.24              | 0.76        | 18                | 15.91              | 2.09        | 18                | 15.54              | 2.46        | 18                | 14.27              | 3.73        |
| 19                | 17.72              | 1.28        | 19                | 18.21              | 0.80        | 19                | 16.93              | 2.07        | 19                | 16.59              | 2.42        | 19                | 15.31              | 3.69        |
| 20                | 18.70              | 1.30        | 20                | 19.16              | 0.84        | 20                | 17.95              | 2.05        | 20                | 17.64              | 2.36        | 20                | 16.28              | 3.72        |
| 25                | 23.68              | 1.32        | 25                | 24.20              | 0.80        | 25                | 22.9               | 2.10        | 25                | 22.6               | 2.40        | 25                | 22.2               | 2.80        |
| 26                | 24.60              | 1.40        | 26                | 25.18              | 0.82        | 26                | 23.88              | 2.12        | 26                | 23.60              | 2.40        | 26                | 23.20              | 2.80        |
| 27                | 25.58              | 1.42        | 27                | 26.17              | 0.83        | 27                | 24.85              | 2.15        | 27                | 24.55              | 2.45        | 27                | 24.15              | 2.85        |
| 28                | 26.50              | 1.50        | 28                | 27.15              | 0.85        | 28                | 25.85              | 2.15        | 28                | 25.5               | 2.50        | 28                | 25.1               | 2.90        |
| 29                | 27.51              | 1.49        | 29                | 28.10              | 0.90        | 29                | 26.83              | 2.17        | 29                | 26.50              | 2.50        | 29                | 26.08              | 2.92        |
| <b>30</b>         | <b>28.50</b>       | <b>1.50</b> | <b>30</b>         | <b>29.12</b>       | <b>0.88</b> | <b>30</b>         | <b>27.80</b>       | <b>2.20</b> | <b>30</b>         | <b>27.48</b>       | <b>2.52</b> | <b>30</b>         | <b>27.05</b>       | <b>2.95</b> |



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High Power Test.

Power Input Vs Power Output @ +25 °C





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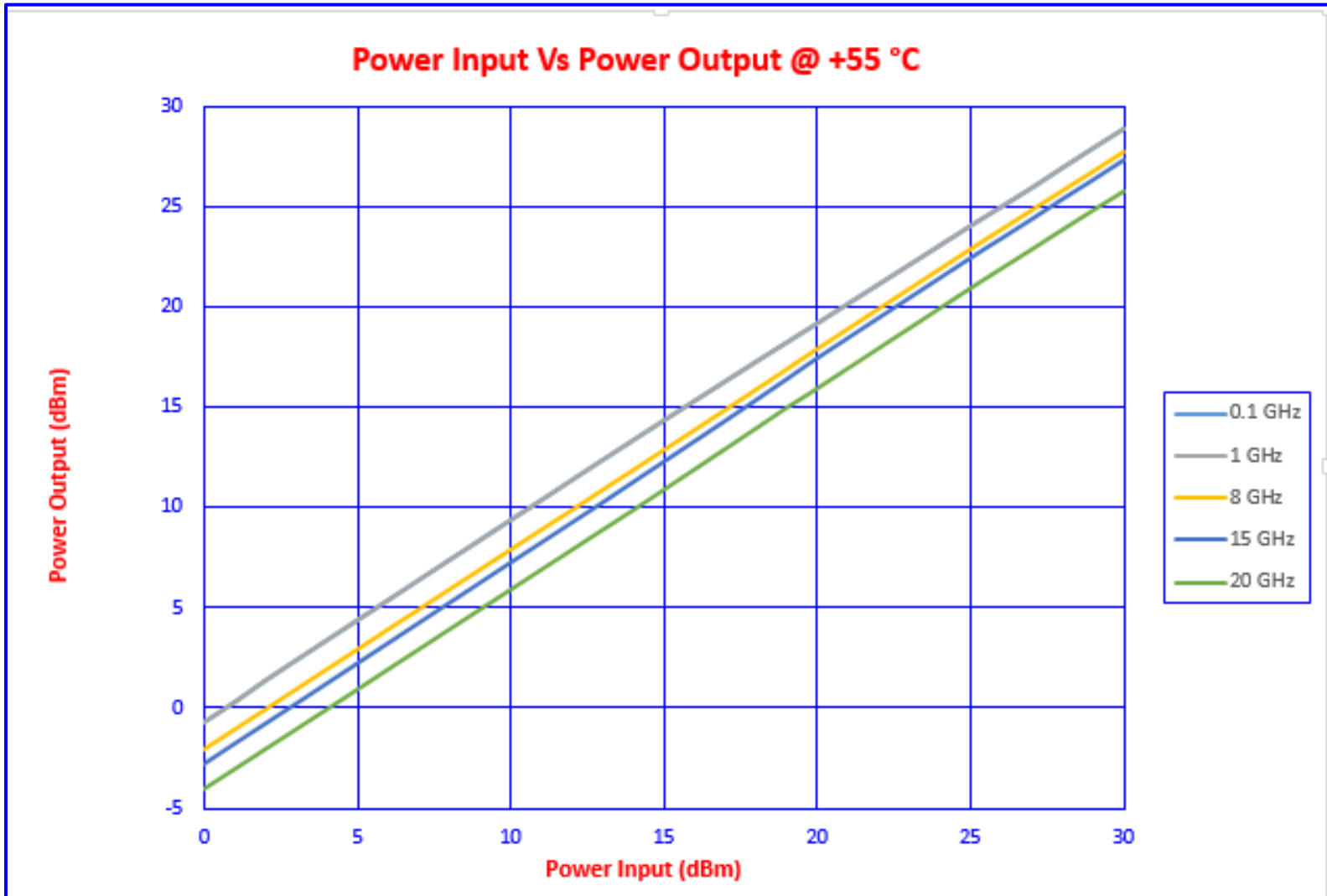
**Data High Power Test.**

| <b>+25 °C</b>     |                    |             |                   |                    |             |                   |                    |             |                   |                    |             |                   |                    |             |
|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|-------------------|--------------------|-------------|
| 0.5 GHz           |                    |             | 1 GHz             |                    |             | 8GHz              |                    |             | 15GHz             |                    |             | 20GHz             |                    |             |
| POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS        |
| 0                 | -1.26              | 1.26        | 0                 | -0.74              | 0.74        | 0                 | -2.04              | 2.04        | 0                 | -2.70              | 2.70        | 0                 | -3.96              | 3.96        |
| 1                 | -0.26              | 1.26        | 1                 | 0.26               | 0.74        | 1                 | -1.04              | 2.04        | 1                 | -1.69              | 2.69        | 1                 | -2.97              | 3.97        |
| 2                 | 0.78               | 1.22        | 2                 | 1.34               | 0.66        | 2                 | -0.05              | 2.05        | 2                 | -0.69              | 2.69        | 2                 | -1.98              | 3.98        |
| 3                 | 1.79               | 1.21        | 3                 | 2.34               | 0.66        | 3                 | 0.95               | 2.05        | 3                 | 0.30               | 2.70        | 3                 | -0.99              | 3.99        |
| 4                 | 2.79               | 1.21        | 4                 | 3.34               | 0.66        | 4                 | 1.95               | 2.05        | 4                 | 1.31               | 2.69        | 4                 | 0.01               | 3.99        |
| 5                 | 3.79               | 1.21        | 5                 | 4.35               | 0.65        | 5                 | 2.95               | 2.05        | 5                 | 2.31               | 2.69        | 5                 | 1.01               | 3.99        |
| 6                 | 4.79               | 1.21        | 6                 | 5.35               | 0.65        | 6                 | 3.94               | 2.06        | 6                 | 3.32               | 2.68        | 6                 | 2.01               | 3.99        |
| 7                 | 5.80               | 1.20        | 7                 | 6.35               | 0.65        | 7                 | 4.94               | 2.06        | 7                 | 4.33               | 2.67        | 7                 | 3.01               | 3.99        |
| 8                 | 6.80               | 1.20        | 8                 | 7.36               | 0.64        | 8                 | 5.94               | 2.06        | 8                 | 5.33               | 2.67        | 8                 | 4.01               | 3.99        |
| 9                 | 7.80               | 1.20        | 9                 | 8.35               | 0.65        | 9                 | 6.93               | 2.07        | 9                 | 6.34               | 2.66        | 9                 | 5.01               | 4.00        |
| 10                | 8.80               | 1.20        | 10                | 9.35               | 0.65        | 10                | 7.93               | 2.07        | 10                | 7.34               | 2.66        | 10                | 6.00               | 4.00        |
| 11                | 9.80               | 1.20        | 11                | 10.35              | 0.65        | 11                | 8.92               | 2.08        | 11                | 8.34               | 2.66        | 11                | 7.00               | 4.00        |
| 12                | 10.80              | 1.20        | 12                | 11.35              | 0.65        | 12                | 9.90               | 2.10        | 12                | 9.34               | 2.66        | 12                | 7.99               | 4.01        |
| 13                | 11.81              | 1.19        | 13                | 12.35              | 0.65        | 13                | 10.91              | 2.09        | 13                | 10.35              | 2.65        | 13                | 8.99               | 4.01        |
| 14                | 12.81              | 1.20        | 14                | 13.34              | 0.66        | 14                | 11.91              | 2.10        | 14                | 11.37              | 2.63        | 14                | 9.99               | 4.01        |
| 15                | 13.80              | 1.20        | 15                | 14.32              | 0.68        | 15                | 12.90              | 2.10        | 15                | 12.38              | 2.62        | 15                | 11.00              | 4.00        |
| 16                | 14.79              | 1.21        | 16                | 15.30              | 0.70        | 16                | 13.90              | 2.10        | 16                | 13.40              | 2.60        | 16                | 12.02              | 3.98        |
| 17                | 15.78              | 1.22        | 17                | 16.27              | 0.73        | 17                | 14.90              | 2.10        | 17                | 14.42              | 2.58        | 17                | 13.04              | 3.96        |
| 18                | 16.75              | 1.25        | 18                | 17.25              | 0.75        | 18                | 15.91              | 2.09        | 18                | 15.46              | 2.54        | 18                | 14.08              | 3.93        |
| 19                | 17.73              | 1.27        | 19                | 18.22              | 0.79        | 19                | 16.93              | 2.07        | 19                | 16.50              | 2.50        | 19                | 15.11              | 3.89        |
| 20                | 18.66              | 1.35        | 20                | 19.17              | 0.83        | 20                | 17.95              | 2.05        | 20                | 17.55              | 2.45        | 20                | 16.08              | 3.92        |
| 25                | 23.60              | 1.40        | 25                | 24.10              | 0.90        | 25                | 22.9               | 2.10        | 25                | 22.5               | 2.50        | 25                | 21                 | 4.00        |
| 26                | 24.60              | 1.40        | 26                | 25.09              | 0.91        | 26                | 23.88              | 2.12        | 26                | 23.50              | 2.50        | 26                | 21.95              | 4.05        |
| 27                | 25.58              | 1.42        | 27                | 26.05              | 0.95        | 27                | 24.85              | 2.15        | 27                | 24.47              | 2.53        | 27                | 22.93              | 4.07        |
| 28                | 26.55              | 1.45        | 28                | 27.03              | 0.97        | 28                | 25.83              | 2.17        | 28                | 25.45              | 2.55        | 28                | 23.9               | 4.10        |
| 29                | 27.54              | 1.46        | 29                | 28.00              | 1.00        | 29                | 26.81              | 2.19        | 29                | 26.40              | 2.60        | 29                | 24.90              | 4.10        |
| <b>30</b>         | <b>28.50</b>       | <b>1.50</b> | <b>30</b>         | <b>29.00</b>       | <b>1.00</b> | <b>30</b>         | <b>27.76</b>       | <b>2.24</b> | <b>30</b>         | <b>27.40</b>       | <b>2.60</b> | <b>30</b>         | <b>25.85</b>       | <b>4.15</b> |



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High Power Test.





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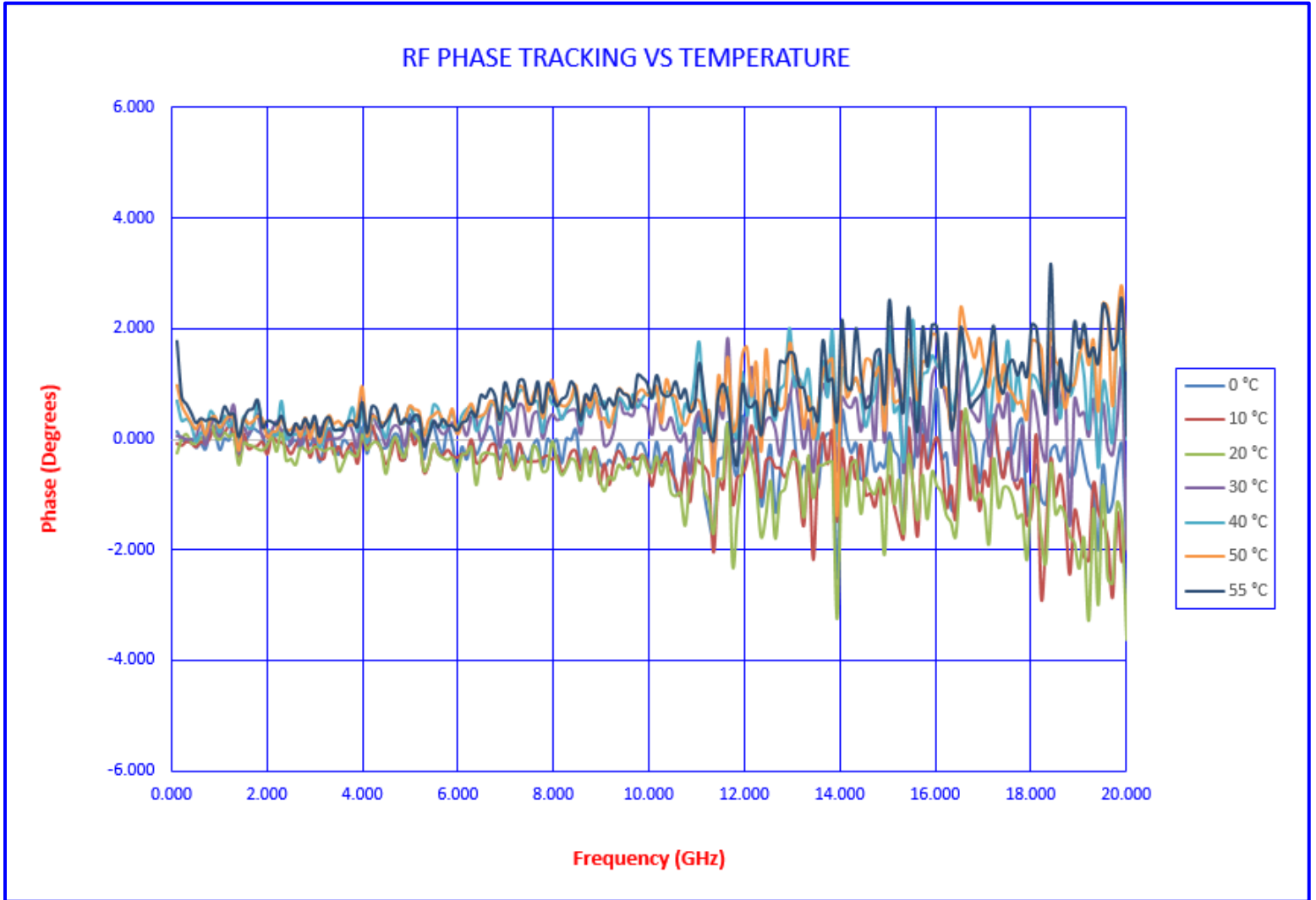
**Data High Power Test.**

| <b>+55 °C</b>     |                    |      |                   |                    |      |                   |                    |      |                   |                    |      |                   |                    |      |
|-------------------|--------------------|------|-------------------|--------------------|------|-------------------|--------------------|------|-------------------|--------------------|------|-------------------|--------------------|------|
| 0.5 GHz           |                    |      | 1 GHz             |                    |      | 8GHz              |                    |      | 15GHz             |                    |      | 20GHz             |                    |      |
| POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS | POWER INPUT (dBm) | POWER OUTPUT (dBm) | LOSS |
| 0                 | -1.32              | 1.32 | 0                 | -0.77              | 0.77 | 0                 | -2.08              | 2.08 | 0                 | -2.78              | 2.78 | 0                 | -4.09              | 4.09 |
| 1                 | -0.32              | 1.32 | 1                 | 0.23               | 0.77 | 1                 | -1.09              | 2.09 | 1                 | -1.77              | 2.77 | 1                 | -3.10              | 4.10 |
| 2                 | 0.73               | 1.27 | 2                 | 1.31               | 0.69 | 2                 | -0.09              | 2.09 | 2                 | -0.78              | 2.78 | 2                 | -2.11              | 4.11 |
| 3                 | 1.74               | 1.26 | 3                 | 2.32               | 0.68 | 3                 | 0.90               | 2.10 | 3                 | 0.22               | 2.78 | 3                 | -1.11              | 4.11 |
| 4                 | 2.74               | 1.26 | 4                 | 3.32               | 0.68 | 4                 | 1.90               | 2.10 | 4                 | 1.22               | 2.78 | 4                 | -0.12              | 4.12 |
| 5                 | 3.74               | 1.26 | 5                 | 4.32               | 0.68 | 5                 | 2.90               | 2.10 | 5                 | 2.23               | 2.77 | 5                 | 0.88               | 4.12 |
| 6                 | 4.74               | 1.26 | 6                 | 5.32               | 0.68 | 6                 | 3.90               | 2.10 | 6                 | 3.24               | 2.76 | 6                 | 1.88               | 4.12 |
| 7                 | 5.74               | 1.26 | 7                 | 6.32               | 0.68 | 7                 | 4.90               | 2.11 | 7                 | 4.24               | 2.76 | 7                 | 2.88               | 4.12 |
| 8                 | 6.74               | 1.26 | 8                 | 7.33               | 0.67 | 8                 | 5.89               | 2.11 | 8                 | 5.25               | 2.75 | 8                 | 3.88               | 4.12 |
| 9                 | 7.75               | 1.25 | 9                 | 8.32               | 0.68 | 9                 | 6.89               | 2.11 | 9                 | 6.25               | 2.75 | 9                 | 4.88               | 4.12 |
| 10                | 8.75               | 1.25 | 10                | 9.32               | 0.68 | 10                | 7.88               | 2.12 | 10                | 7.26               | 2.74 | 10                | 5.88               | 4.12 |
| 11                | 9.74               | 1.26 | 11                | 10.31              | 0.69 | 11                | 8.87               | 2.13 | 11                | 8.26               | 2.74 | 11                | 6.87               | 4.13 |
| 12                | 10.75              | 1.25 | 12                | 11.32              | 0.68 | 12                | 9.86               | 2.14 | 12                | 9.26               | 2.74 | 12                | 7.87               | 4.13 |
| 13                | 11.76              | 1.24 | 13                | 12.32              | 0.68 | 13                | 10.86              | 2.14 | 13                | 10.26              | 2.74 | 13                | 8.86               | 4.14 |
| 14                | 12.75              | 1.25 | 14                | 13.31              | 0.69 | 14                | 11.86              | 2.15 | 14                | 11.28              | 2.72 | 14                | 9.86               | 4.14 |
| 15                | 13.75              | 1.25 | 15                | 14.29              | 0.71 | 15                | 12.85              | 2.15 | 15                | 12.30              | 2.71 | 15                | 10.87              | 4.13 |
| 16                | 14.74              | 1.26 | 16                | 15.27              | 0.73 | 16                | 13.85              | 2.15 | 16                | 13.31              | 2.69 | 16                | 11.89              | 4.11 |
| 17                | 15.72              | 1.28 | 17                | 16.25              | 0.75 | 17                | 14.85              | 2.15 | 17                | 14.34              | 2.67 | 17                | 12.91              | 4.09 |
| 18                | 16.70              | 1.30 | 18                | 17.22              | 0.78 | 18                | 15.86              | 2.14 | 18                | 15.37              | 2.63 | 18                | 13.94              | 4.06 |
| 19                | 17.68              | 1.33 | 19                | 18.18              | 0.82 | 19                | 16.88              | 2.12 | 19                | 16.41              | 2.59 | 19                | 14.97              | 4.03 |
| 20                | 18.59              | 1.41 | 20                | 19.14              | 0.86 | 20                | 17.90              | 2.10 | 20                | 17.46              | 2.54 | 20                | 15.94              | 4.06 |
| 25                | 23.55              | 1.45 | 25                | 24.00              | 1.00 | 25                | 22.88              | 2.12 | 25                | 22.46              | 2.54 | 25                | 20.95              | 4.05 |
| 26                | 24.54              | 1.46 | 26                | 24.95              | 1.05 | 26                | 23.85              | 2.15 | 26                | 23.43              | 2.57 | 26                | 21.93              | 4.07 |
| 27                | 25.50              | 1.50 | 27                | 25.9               | 1.10 | 27                | 24.83              | 2.17 | 27                | 24.40              | 2.60 | 27                | 22.90              | 4.10 |
| 28                | 26.50              | 1.50 | 28                | 26.90              | 1.10 | 28                | 25.8               | 2.20 | 28                | 25.4               | 2.60 | 28                | 23.88              | 4.12 |
| 29                | 27.48              | 1.52 | 29                | 27.88              | 1.12 | 29                | 26.76              | 2.24 | 29                | 26.36              | 2.64 | 29                | 24.85              | 4.15 |
| 30                | 28.45              | 1.55 | 30                | 28.85              | 1.15 | 30                | 27.74              | 2.26 | 30                | 27.35              | 2.65 | 30                | 25.80              | 4.20 |



Typical Characteristics  
ON  
P4T-0R1G20G-80-T-SFF

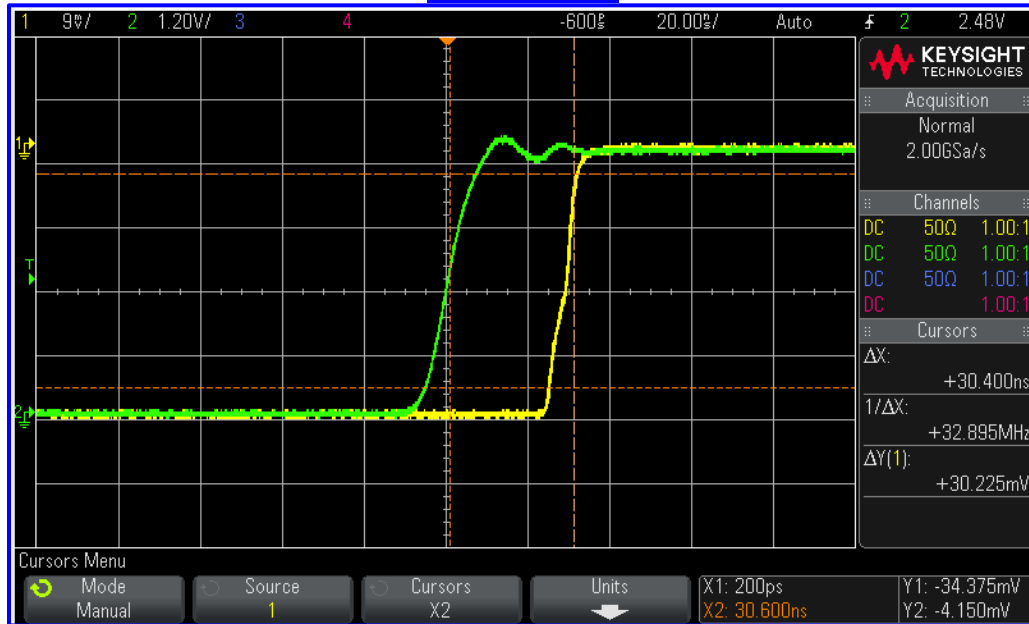
RF Phase Tracking



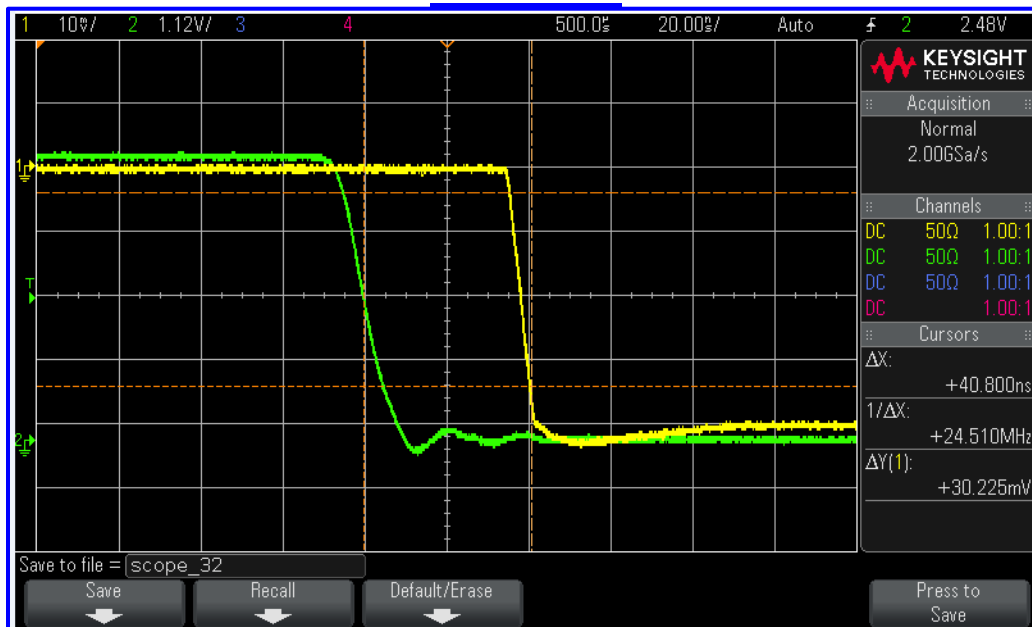


# Typical Characteristics ON P4T-0R1G20G-80-T-SFF

## Switching speed ON 20ns Per Div



## Switching speed OFF 20ns Per Div

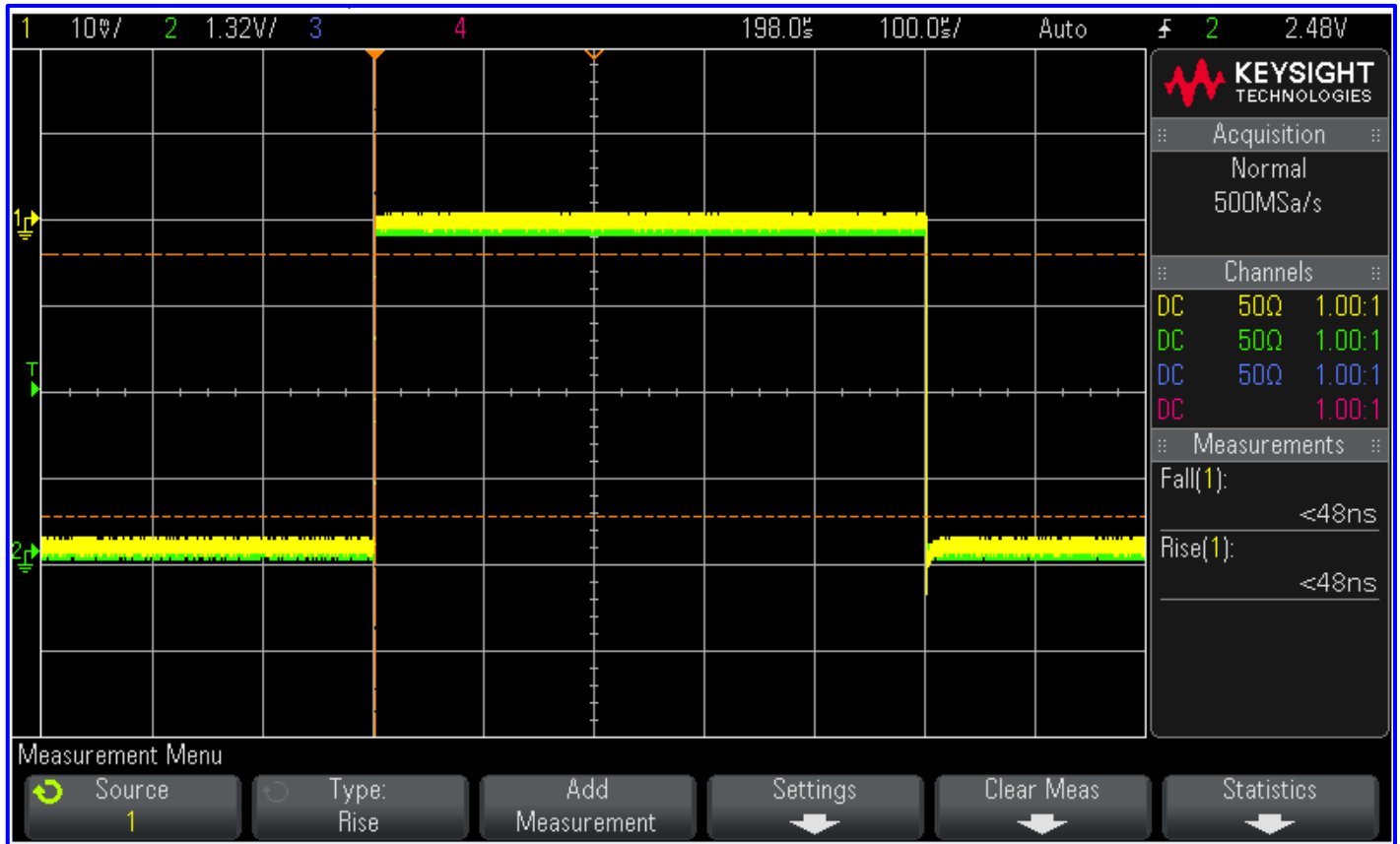


Signal TTL: Green  
Signal RF: Yellow



Typical Characteristics  
ON  
P4T-0R1G20G-80-T-SFF

Full Pulse  
20ns Per Div



Signal TTL: Green  
Signal RF: Yellow