# SUMMARY TEST DATA ON P2T-1G1R1G-25-R-SFF-100W

PL20735/1713

| | | | |
|---|---|---|---|
| **Customer:** | **Bharat Electronics, India** | **Tested By:** | **A. Lopez C / Shan** |
| **SO No:** | **SO16-275-S-P** | **Temperature:** | **+25°C** |
| **Model No:** | **P2T-1G1R1G-25-R-SFF-100W** | **Date:** | **3/16/18** |
| **Serial No:** | **PL20735/1713** | **Drawing No:** | **27621759** **Rev: B1** |

| TEST. ITEM NO | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | QA QC |
|---|---|---|---|---|
| 1 | Frequency Range: | 1.0 to 1.1 GHz | **1.0 to 1.1 GHz (See Plot)** | |
| 2 | Power: | 5 kW Peak | **Not Tested for Peak Power** | |
| 3 | Average Power: | 100 W | **125.89 W (See Plot)** | |
| 4 | Insertion Loss: | 0.8 dB Max | **0.60dB (See Plot)** | |
| 5 | Isolation: | 25 dB Min | **37.57 dB (See Plot)** | |
| 6 | VSWR: | 1.5:1 | **1.23:1 (See Plot)** | |
| 7 | Rise Time: | 275 ns Typ<br>From 10% to 90% RF | **80 nsec.** | |
| 8 | Duty Cycle: | 2% | **2 %** | |
| 9 | Pulse Width: | 17 µs | **17 µs See Typical Characteristics** | |
| 10 | PRF: | 600 Hz | **600 Hz (See Typical Characteristics)** | |
| 11 | Switching Speed: | 250 ns Typ<br>(50% TTL to 10%/90% RF) | **ON: 204 nsec OFF: 101 nsec. (See Plots)** | |
| 12 | Switching Rate: | 2 kHz | **2 kHz** | |
| 13 | Power Supply: | +50V @ 50 mA<br>+5V @ 200 mA | **+50V @ 10mA**<br>**+5V @ 175mA** | |
| 14 | Control Table: | Logic Table<br>TTL / State<br>"0" / J1 – J3<br>"1" / J1 – J2 | **Pass** | |

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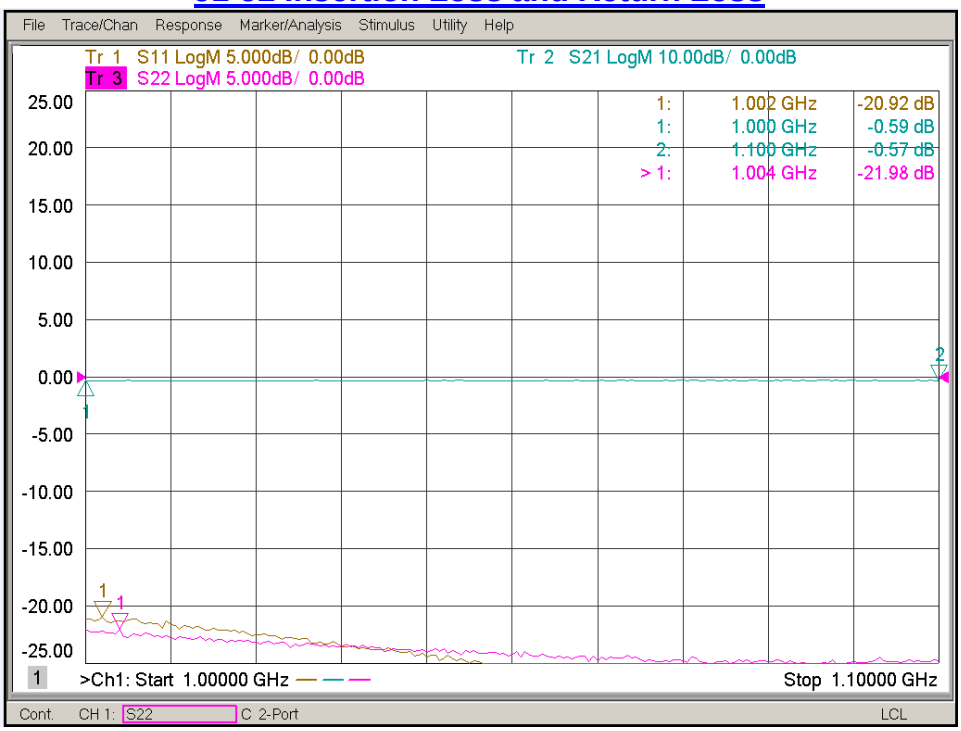
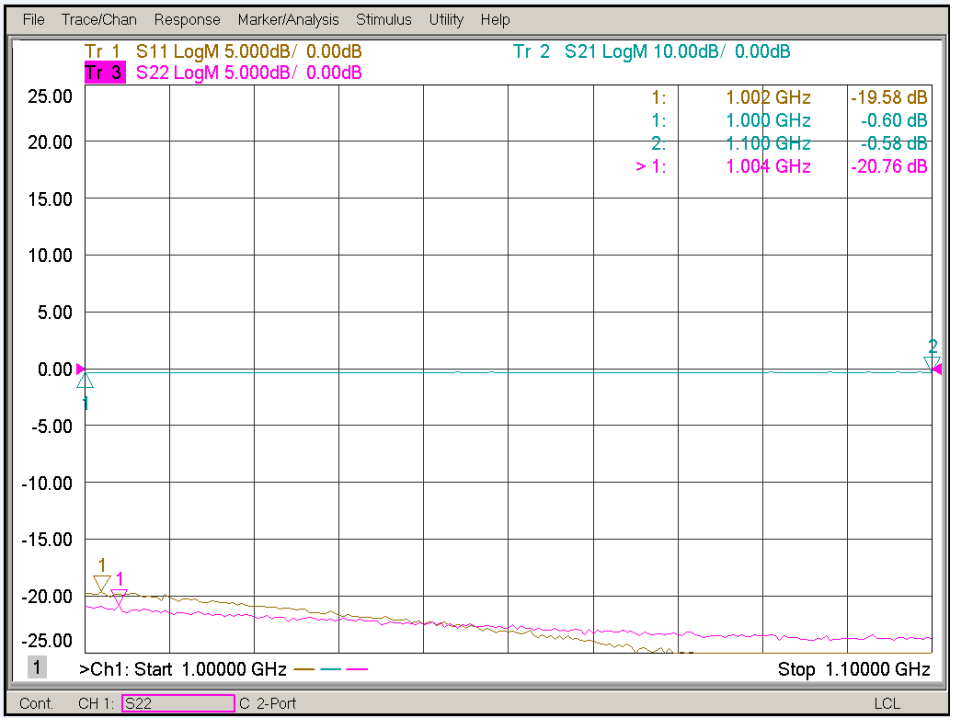
## J1-J2 Insertion Loss and Return Loss




## J1-J3 Insertion Loss and Return Loss

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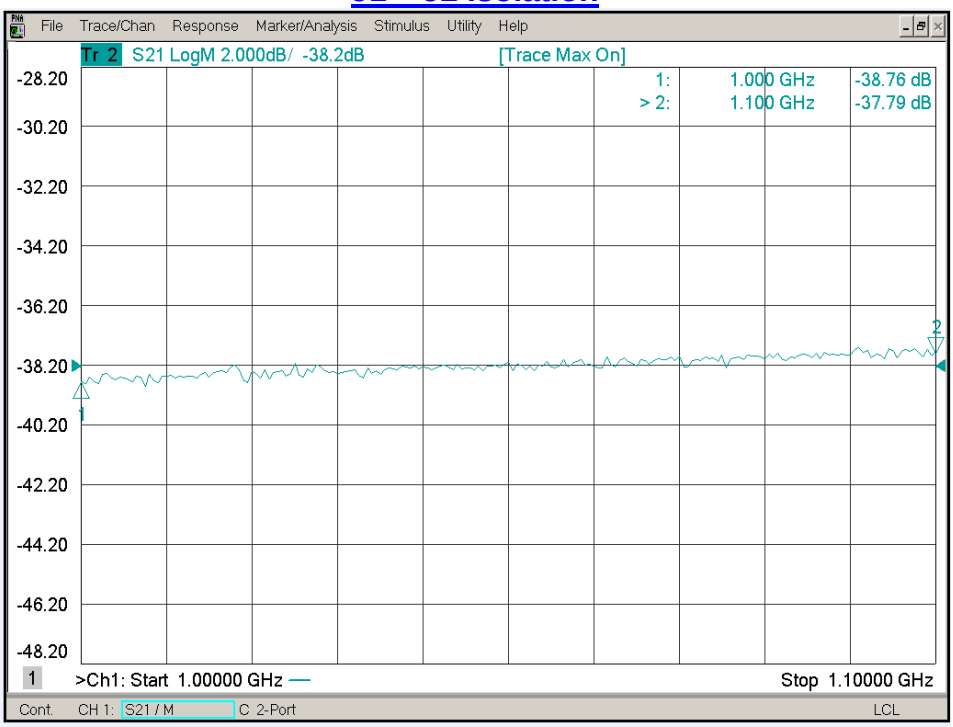
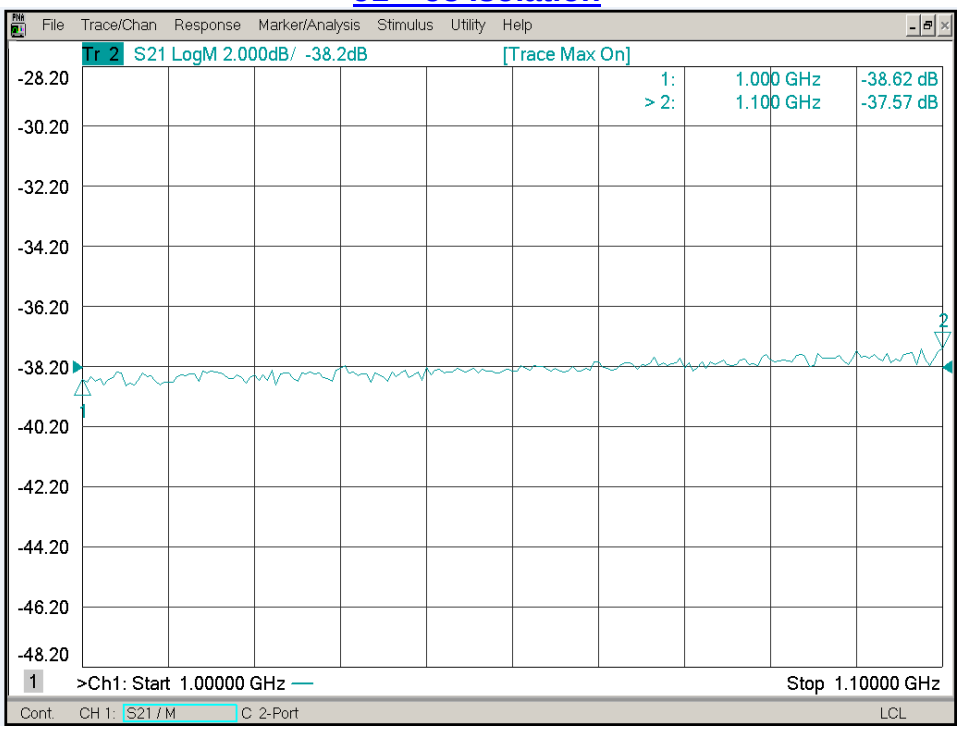
## J1 – J2 Isolation




## J1 – J3 Isolation





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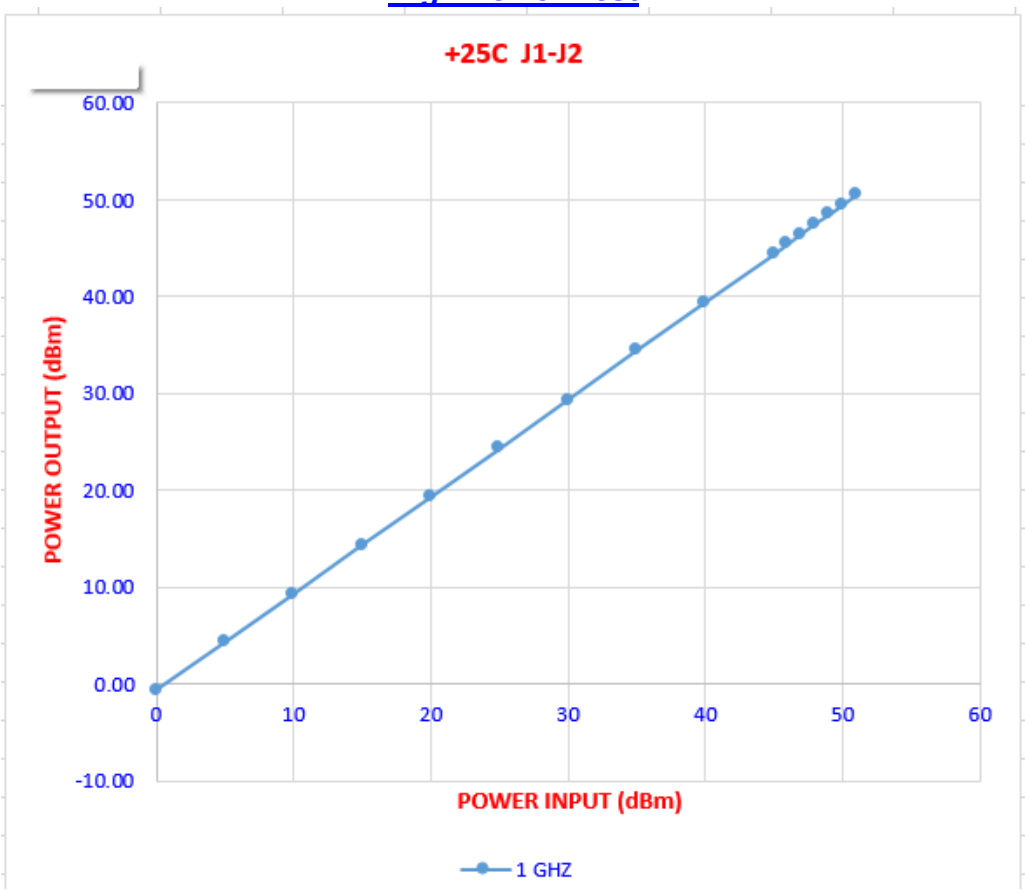
## High Power Test




| POWER INPUT (dBm) | POWER INPUT (Watts) | POWER OUTPUT (dBm) |
|---|---|---|
| 0 | 0.001 | -0.68 |
| 5 | 0.003 | 4.31 |
| 10 | 0.01 | 9.30 |
| 15 | 0.03 | 14.30 |
| 20 | 0.01 | 19.30 |
| 25 | 0.31 | 24.31 |
| 30 | 1 | 29.31 |
| 35 | 3.16 | 34.42 |
| 40 | 10 | 39.34 |
| 45 | 31.62 | 44.37 |
| 46 | 39.81 | 45.38 |
| 47 | 50.11 | 46.40 |
| 48 | 63.09 | 47.46 |
| 49 | 79.43 | 48.44 |
| 50 | 100 | 49.42 |
| 51 | 125.89 | 50.45 |

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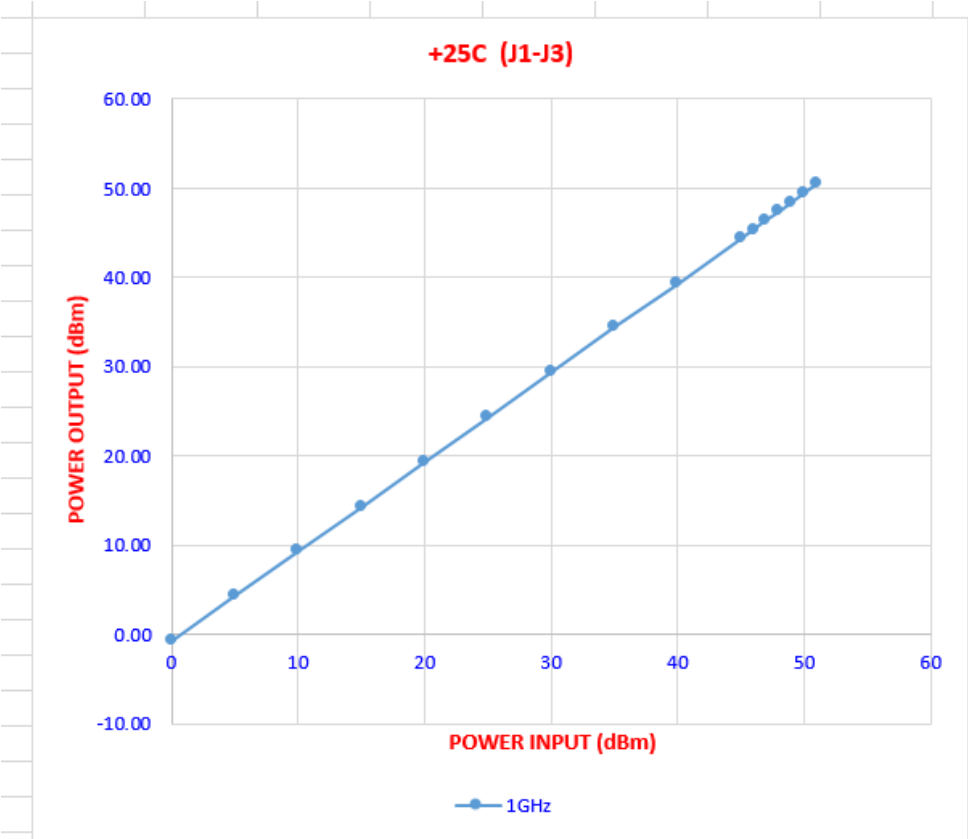


| POWER INPUT (dBm) | POWER INPUT (Watts) | POWER OUTPUT (dBm) |
|---|---|---|
| 0 | 0.001 | -0.70 |
| 5 | 0.003 | 4.35 |
| 10 | 0.01 | 9.38 |
| 15 | 0.03 | 14.28 |
| 20 | 0.01 | 19.31 |
| 25 | 0.31 | 24.30 |
| 30 | 1 | 29.33 |
| 35 | 3.16 | 34.44 |
| 40 | 10 | 39.30 |
| 45 | 31.62 | 44.33 |
| 46 | 39.81 | 45.35 |
| 47 | 50.11 | 46.42 |
| 48 | 63.09 | 47.40 |
| 49 | 79.43 | 48.43 |
| 50 | 100 | 49.43 |
| 51 | 125.89 | 50.44 |

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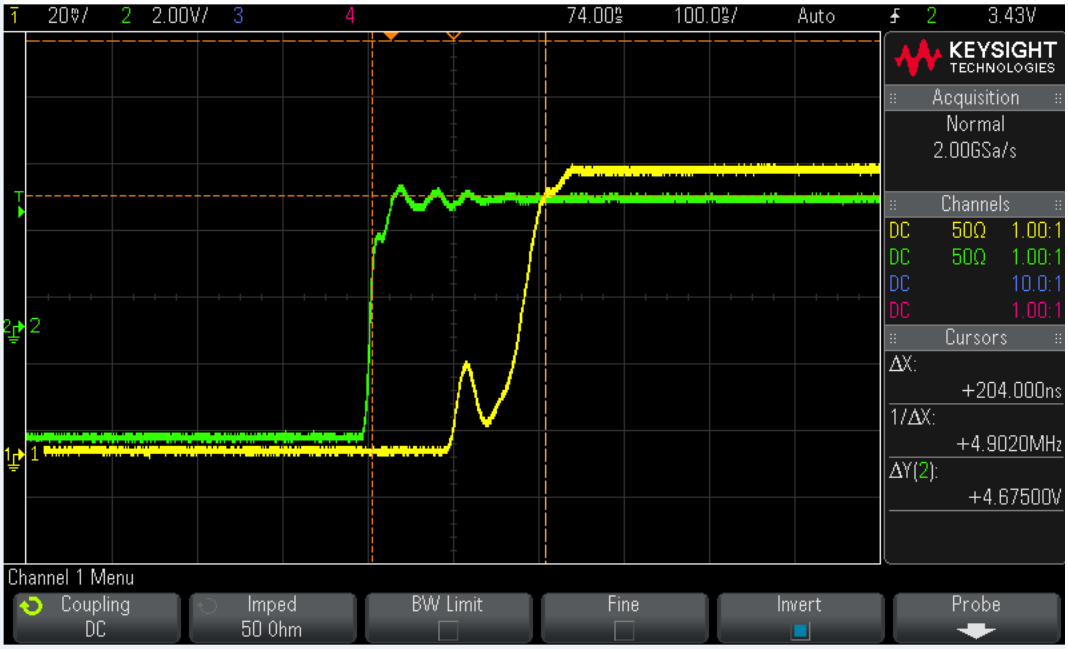
## Switching Speed ON 100 nsec per Div.




**Green Trace: TTL Signal**

**Yellow Trace: RF Output Crystal Detector**

## Switching Speed OFF 50 nsec per Div.

**Green Trace: TTL Signal**

**Yellow Trace: RF Output Crystal Detector**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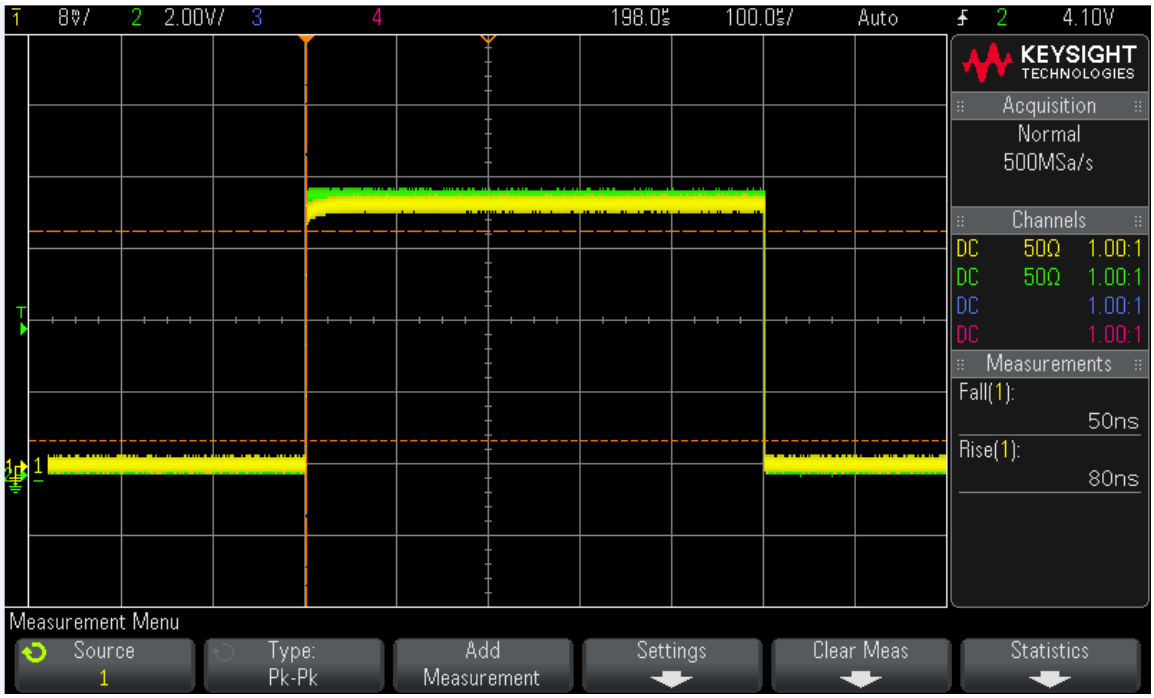
**SUMMARY TEST DATA**
**ON**
**P2T-1G1R1G-25-R-SFF-100W**

**PL20735/1713**

## ull Pulse, Rise Time and Fall Time
## 100 usec. Per Div.




**Green Trace: TTL Signal**
**Yellow Trace: RF Output Crystal Detector**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