



TYPICAL CHARACTERISTICS ON LM-20M18G-80W-15DBM

PMI MODEL NUMBER LM-20M18G-80W-15DBM IS A 20 MHz TO 18 GHz RF LIMITER FEATURING 80 W CW POWER HANDLING, +15 dBm LEAKAGE, AND LESS THAN 100 ns RECOVERY TIME.



June 9, 2026

Designed By:

Engineering PMI

Tested and Reported By:

Erick Castillo

Kevin Craven

TYPICAL CHARACTERISTICS ON LM-20M18G-80W-15DBM

Outline Drawing

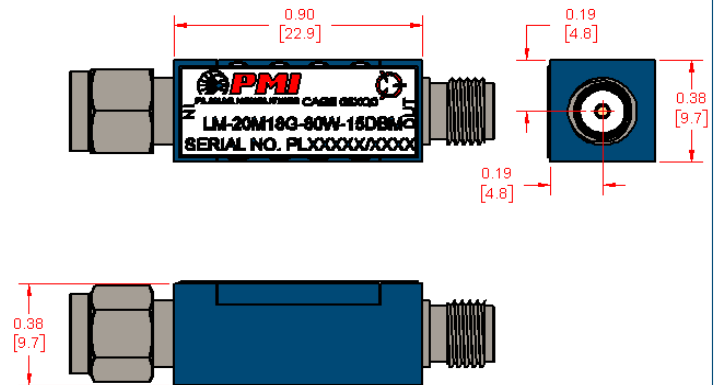
DESCRIPTION:

PMI MODEL NUMBER LM-20M18G-80W-15DBM IS A 20 MHz TO 18 GHz RF LIMITER FEATURING 80 W CW POWER HANDLING, +15 dBm LEAKAGE, AND LESS THAN 100 ns RECOVERY TIME.

| REV. | DESCRIPTION | DATE | APPROVED |
|------|------------------|------|----------|
| A1 | ORIGINAL RELEASE | | |

SPECIFICATIONS:

- FREQUENCY RANGE:..... 20 MHz TO 18 GHz
- VSWR @ -10 dBm INPUT POWER:..... 2.0:1 MAX
- INSERTION LOSS @ -10 dBm INPUT POWER:..... 2.6 dB MAX
- RF POWER HANDLING:..... 80 W CW MAX
1 kW PEAK MIN (1 us MAX PULSE WIDTH, 0.1% DUTY CYCLE)
- LEAKAGE POWER @ 80 W CW:..... +15 dBm MAX
- LIMITING THRESHOLD P1dB:..... +5 dBm MIN
- RECOVERY TIME @ 1KW PEAK POWER:..... 100 ns MAX
- CONNECTORS:..... SMA INPUT FEMALE
SMA OUTPUT MALE
- FINISH:..... PAINTED BLUE



ENVIRONMENTAL RATINGS:

IAW MIL-E-5400, CLASS 2 EQUIPMENT

- TEMPERATURE:..... -55°C TO +85°C (OPERATING)
-62°C TO +95°C (STORAGE)
- HUMIDITY:..... 100%
- SHOCK:..... 15G, 11±1ms
- VIBRATION:..... 0.1 Inchpp OR ±10G, 5 ~ 500 Hz
(FIGURE 2, SHEET 1 OF 3, CURVE IV)
- ALTITUDE:..... 70,000 FT
- TEMPERATURE CYCLE:..... MIL-STD-202, METHOD 107D COND. A

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

PMI CONFIDENTIAL AND PROPRIETARY

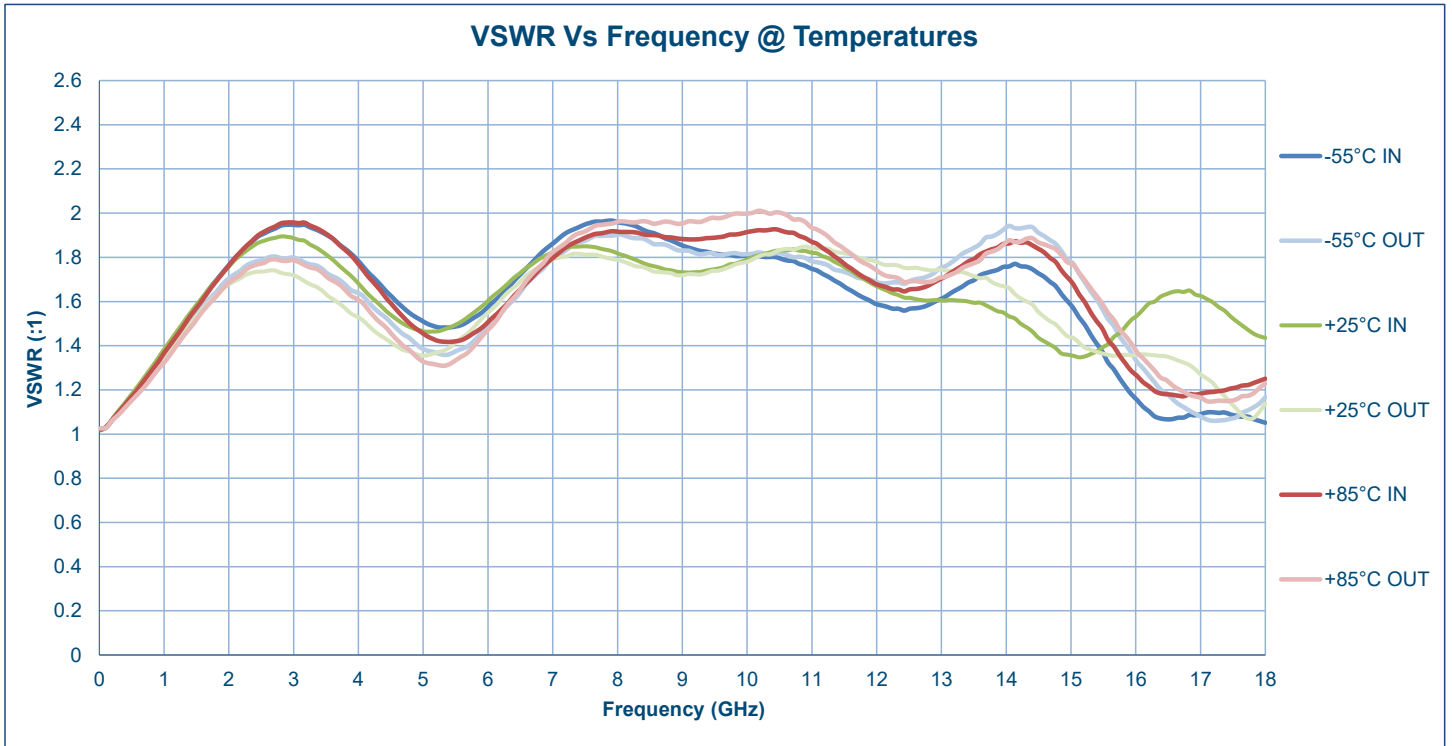
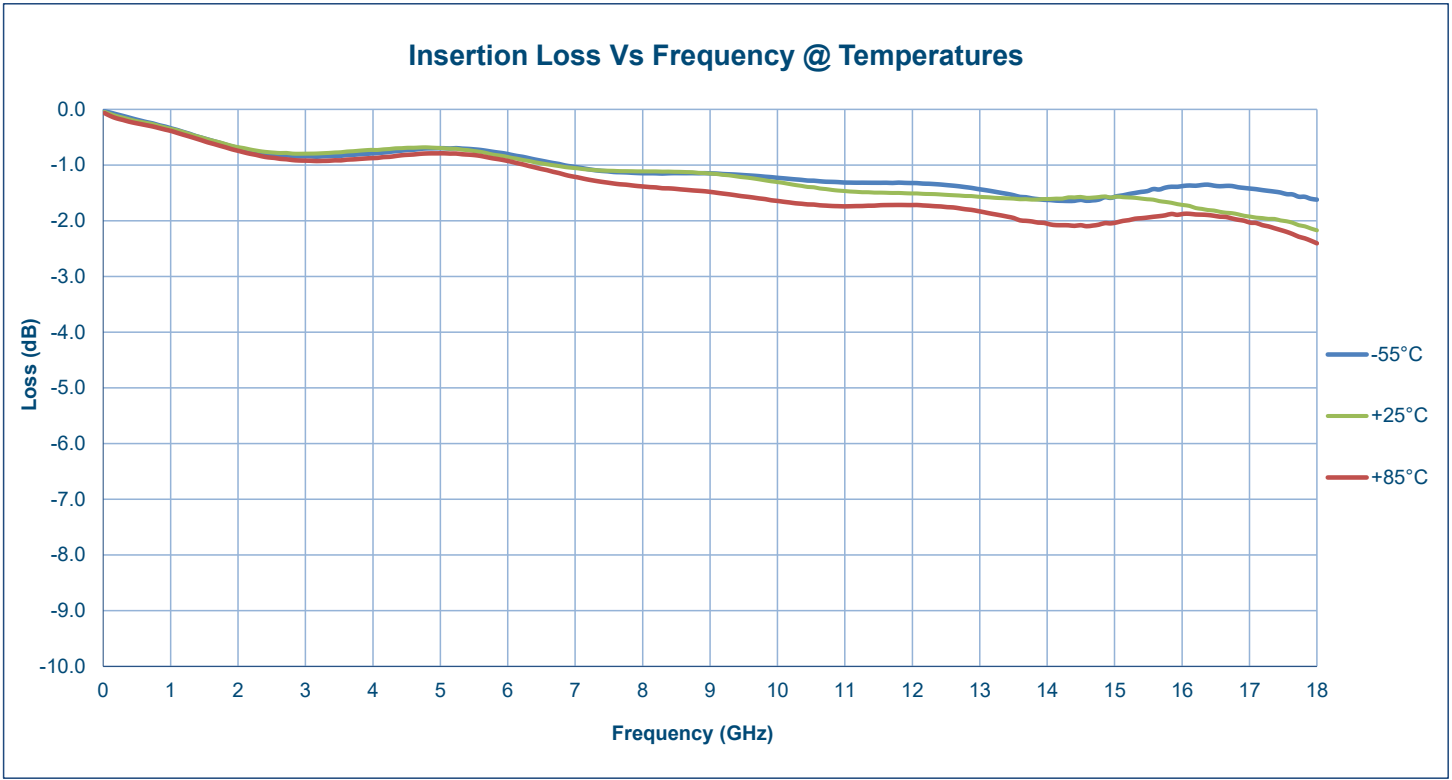
| APPROVALS | DATE | TITLE |
|---------------------|------------|--------------|
| DESIGN: E. Castillo | | OUTLINE |
| CHECKED: | | |
| DATE: | | |
| SIZE: | SCALE: 4:1 | |
| FIG. NO.: | 27054700 | |
| REV.: | | |
| | | SHEET 1 OF 1 |

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Technical Specifications

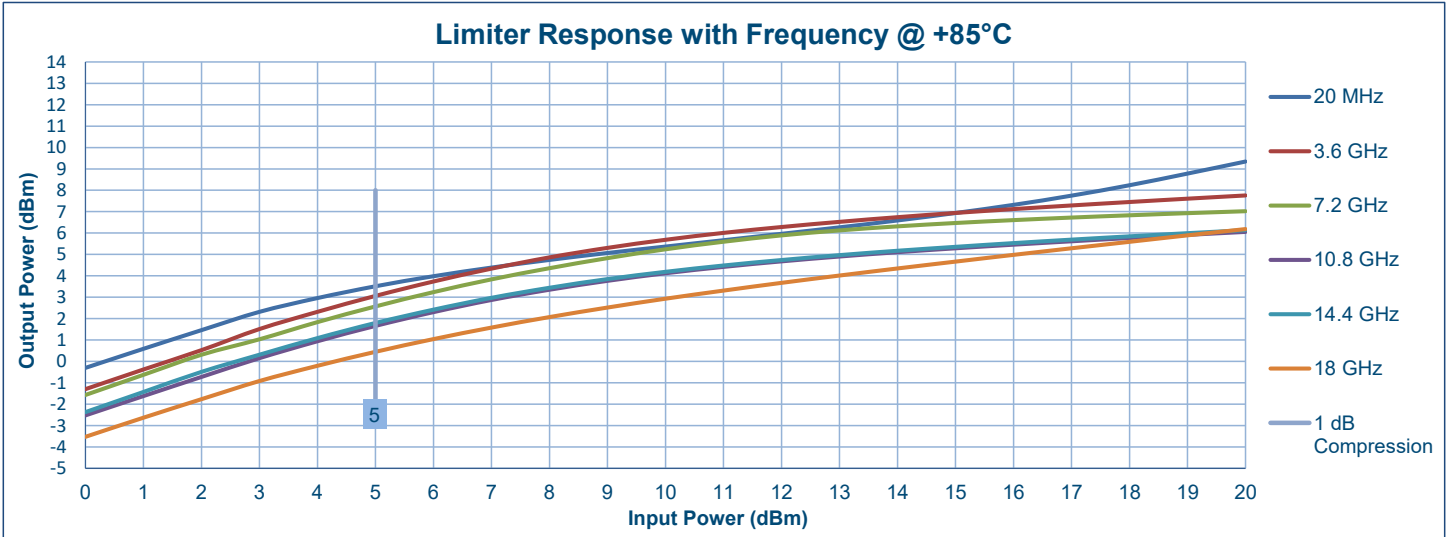
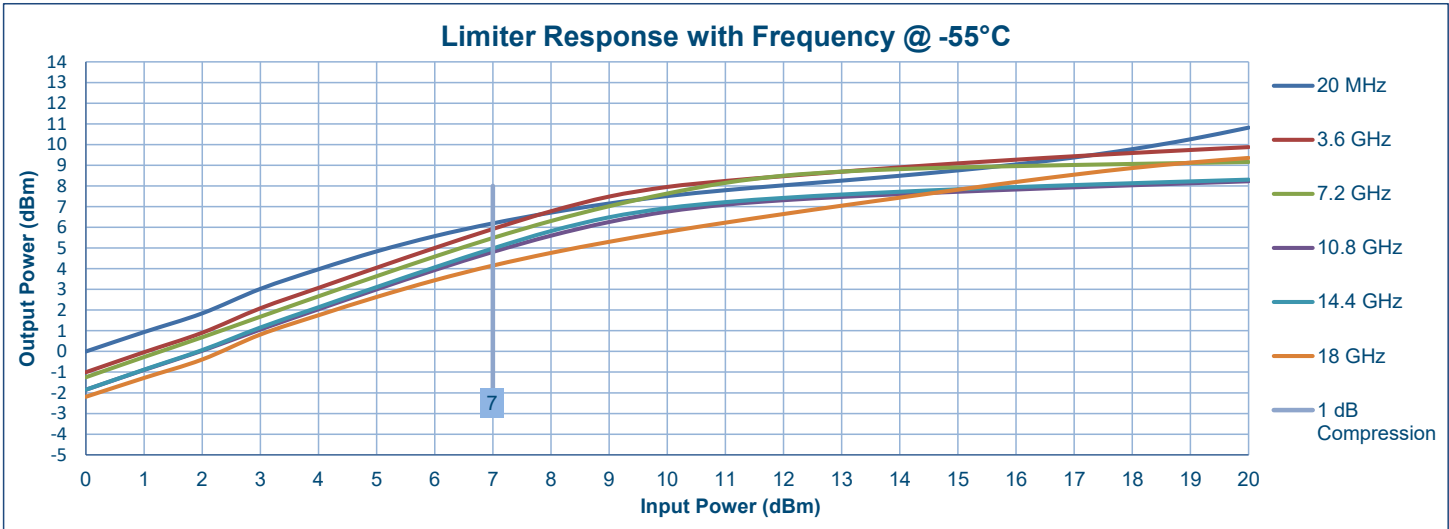
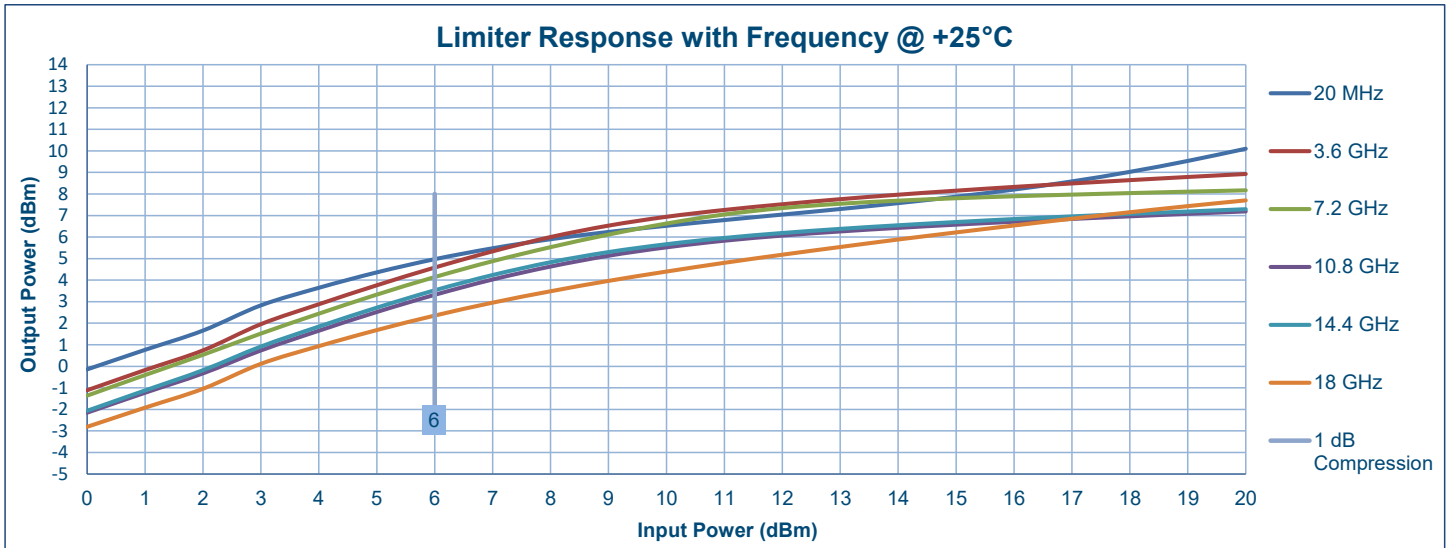
| TEST ITEM NO. | PARAMETERS | SPECIFIED VALUE | Test Results | | |
|---------------|------------------------------|--|--|--|-------------------------------------|
| | | | -55°C | +25°C | +85°C |
| 1 | Frequency Range: | 20 MHz to 18 GHz | 20 MHz to 18 GHz | 20 MHz to 18 GHz | 20 MHz to 18 GHz |
| 2 | Insertion Loss: | 2.6 dB Max @-10dBm Input Power | 1.64 dB (See Graph) | 2.17 dB (See Graph) | 2.4 dB (See Graph) |
| 3 | VSWR: | 2.0:1 Max. @ -10 dBm Input Power | 1.97:1 In 1.94:1 Out (See Graph) | 1.89:1 In 1.85:1 Out (See Graph) | 1.96:1 In 2:1 Out (See Graph) |
| 4 | RF Power Handling: | 80W CW Max. @ -55C TO +85C | Pass 80 Watts CW (See Graphs) | Pass 80 Watts CW (See Graphs) | Pass 80 Watts CW (See Graphs) |
| | | 1kW Peak (1µs Max. PW, 0.1% Duty Cycle) | Pass 1 kWatt Peak (See Graphs) | Pass 1 kWatt Peak (See Graphs) | Pass 1 kWatt Peak (See Graphs) |
| 5 | Leakage Power: | +15 dBm Max. Max. @80W CW | +14.64 dBm See Graphs | +14.66 dBm See Graphs | +14.57 dBm See Graphs |
| 6 | Limiting Threshold: P1dB: | +5 dBm Min. | + 7 dBm (See Graph) | + 6 dBm (See Graph) | + 5 dBm (See Graph) |
| 7 | Recovery Time: | 100 ns Max. @ 1kW Peak Power | 69.2 ns (See Plot) | | |

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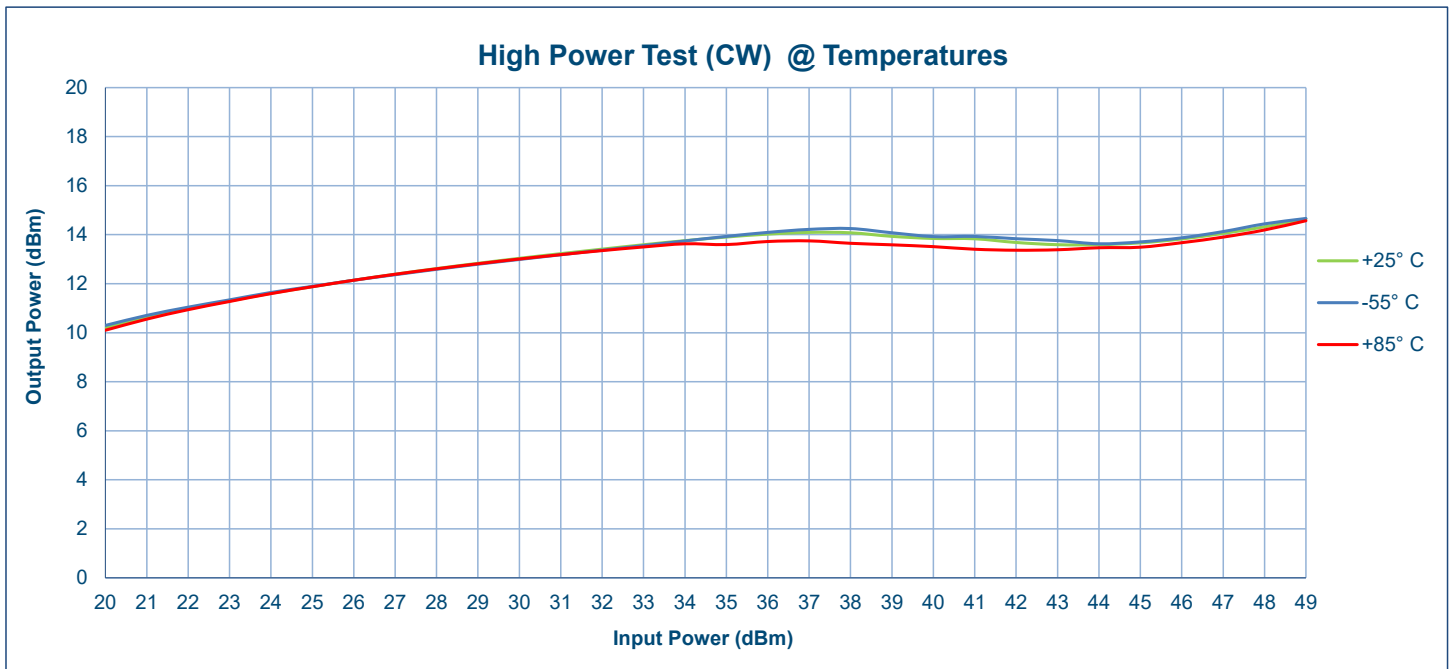
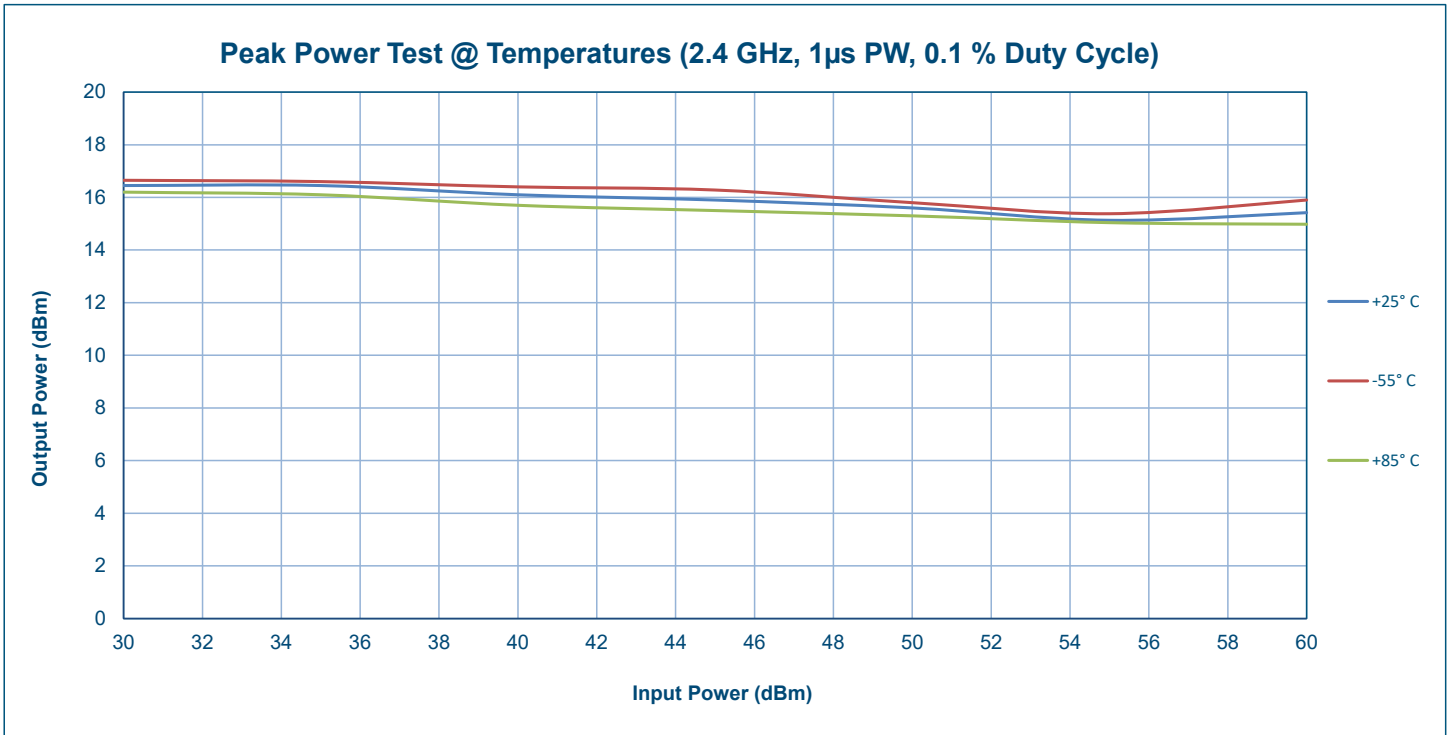




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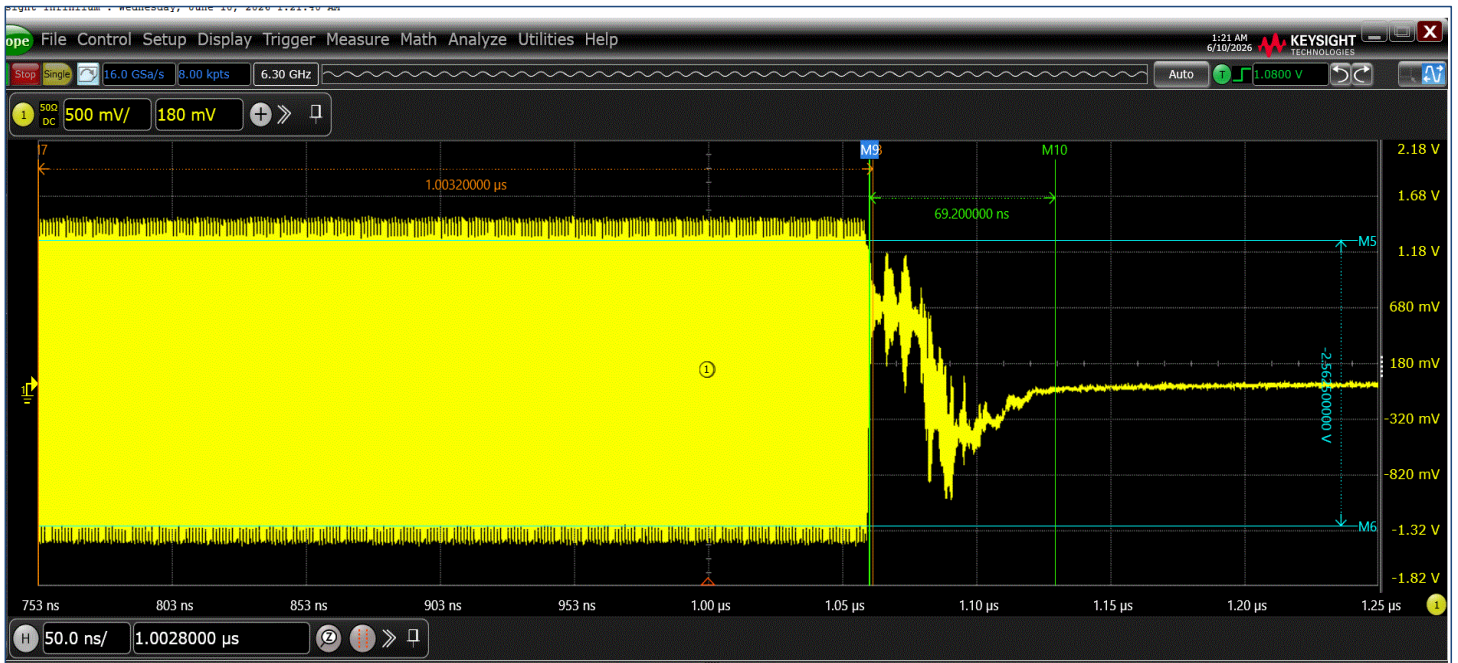


TYPICAL CHARACTERISTICS ON LM-20M18G-80W-15DBM

Recovery Time

2.4 GHz
Pulsed RF Input Power (1KW, 1us PW, 0.1% Duty Cycle)
50 ns Per Div.

Measured value (69.2 ns)



Full Pulse

1KW Input Power, 1us PW, 0.1% Duty Cycle

