# SUMMARY TEST DATA
ON
DFD-2G18G-5512

<table>
<thead>
<tr>
<th>TEST ITEM NO:</th>
<th>PARAMETERS</th>
<th>SPECIFIED VALUE</th>
<th>MEASURED VALUE</th>
<th>REMARKS QA/QC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frequency Range</td>
<td>2.0 to 18 GHz</td>
<td>2.0 to 18.0 GHz (See Data and Graphs)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Unambiguous Bandwidth</td>
<td>16 GHz MIN</td>
<td>16.0 GHz - Pass (See Graphs)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>VSWR</td>
<td>2.5:1 TYPICAL</td>
<td>3.1:1 MAX (See Graph)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dynamic Range</td>
<td>-50 to +15 dBM</td>
<td>-50 TO +15 dBM (See Graphs)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mean Frequency Resolution</td>
<td>1 MHz Nominal</td>
<td>1 MHz (See Graphs)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Frequency Accuracy</td>
<td>4.5 MHz (AVERAGE) TYPICAL</td>
<td>+2.45 / -5.52 MHz (See Data and Graphs)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Peak Frequency Error</td>
<td>15 MHz MAXIMUM</td>
<td>+4 / 8 MHz (See Plots)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Maximum RF Input Power</td>
<td>+17 dBM CW</td>
<td>+17 dBm CW After 5 Minutes - No Damage</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Throughput Time</td>
<td>Less Than 350 ns TYPICAL</td>
<td>280 to 400 ns (See Data and Graphs)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Recovery Time</td>
<td>100 ns MAX</td>
<td>90 ns</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Shadow Time</td>
<td>50 ns TYP</td>
<td>50 ns</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Minimum Pulse Width</td>
<td>100 ns TYPICAL</td>
<td>50 ns</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Power Consumption</td>
<td>-5 VDC @ 100 mA TYPICAL +5 VDC @ 1.5 A TYPICAL +12 VDC @ 800 mA TYPICAL</td>
<td>-5 VDC @ 30 mA +5 VDC @ 1480 mA +12 VDC @ 840 mA</td>
<td></td>
</tr>
</tbody>
</table>

QA/QC Approval: [Signature]
Date: 11/17/2020

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Email: sales@pmi-rf.com
SUMMARY TEST DATA
ON
DFD-2G18G-5512

FREQUENCY INPUT (-50dBm) VS FREQUENCY ACCURACY (AVERAGE) AT 25° C

FREQUENCY INPUT (-50dBm) VS PEAK FREQUENCY ACCURACY AT 25° C
SUMMARY TEST DATA ON DFD-2G18G-5512

FREQUENCY INPUT (-30dBm) VS FREQUENCY ACCURACY (AVERAGE) AT 25°C

FREQUENCY INPUT (-30dBm) VS PEAK FREQUENCY ACCURACY AT 25°C
SUMMARY TEST DATA ON DFD-2G18G-5512

FREQUENCY INPUT (-20dBm) VS FREQUENCY ACCURACY (AVERAGE) AT 25° C

FREQUENCY INPUT (-20dBm) VS PEAK FREQUENCY ACCURACY AT 25° C
SUMMARY TEST DATA
ON
DFD-2G18G-5512

FREQUENCY INPUT (0dBm) VS FREQUENCY ACCURACY
(AVERAGE) AT 25°C

FREQUENCY INPUT (0dBm) VS PEAK FREQUENCY
ACCURACY AT 25°C
SUMMARY TEST DATA ON DFD-2G18G-5512

FREQUENCY INPUT (+10dBm) VS FREQUENCY ACCURACY (AVERAGE) AT 25° C

FREQUENCY INPUT (+10dBm) VS PEAK FREQUENCY ACCURACY AT 25° C
FREQUENCY INPUT (+15dBm) VS FREQUENCY ACCURACY (AVERAGE) AT 25°C

FREQUENCY INPUT (+15dBm) VS PEAK FREQUENCY ACCURACY AT 25°C
Typical Throughput Time

Throughput Time (ns)

Throughput Time (ns)

Frequency (MHz)

- 40°C
- +25°C
- +60°C
- Throughput Time Typical

PMI
SUMMARY TEST DATA
ON
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DFD-2G18G-5512

Typical Single Tone Test

50ns Pulse Width
50ns per Div.

RF IN (Signal Generator) = 10.0 GHz

Hexadecimal Result = 1FD4
Binary Result = 1111111010100
Decimal Result = 8148
Decimal Result + 1850 = RF Input Frequency

DFD Output (14 Bits TTL) = 9.998 GHz
Typical Single Tone Test

100ns Pulse Width
50ns per Div.

50 MHz Clock Signal
100ns RF Puse (10% DC)
Bad Data Flag ("1" = Bad Data / "0" = Good Data)

14 Bits TTL

Hexadecimal Result
Throughput Time
Valid Data

RF IN (Signal Generator) = 10.0 GHz

Hexadecimal Result = 1FD4
Binary Result = 1111111010100
Decimal Result = 8148
Decimal Result + 1850 = RF Input Frequency

DFD Output (14 Bits TLL) = 9.998 GHz
**SUMMARY TEST DATA**
ON
DFD-2G18G-5512

**Typical Two Tone Test**
RF Pulse on Top of CW

10GHz / +15dBm RF IN / 100ns Pulse Width
on top of
3GHz / -15dBm RF IN / CW
50ns per Div.

50 MHz Clock Signal

100ns RF Pulse (10% DC)

Bad Data Flag ("1" = Bad Data / "0" = Good Data)

14 Bits TTL

Hexadecimal Result

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RF IN (Signal Generator) = 10.0 GHz (Pulse)
RF IN (Signal Generator) = 3.0 GHz (CW)

Hexadecimal Number = 1FD5 / 047D
Binary Number = 1111111010101 / 1000111101
Decimal Number = 8149 / 1149
Decimal Number + 1850 = Input Frequency

DFD Output (14 Bits TLL) = 9.999 GHz / 2.999 GHz
SUMMARY TEST DATA
ON
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Typical Two Tone Test
RF Pulse on Top of CW

10GHz / +15dBm RF IN / 200ns Pulse Width
on top of
3GHz / -15dBm RF IN / CW
100ns per Div.

50 MHz Clock Signal

200ns RF Pulse (10% DC)

Bad Data Flag ("1" = Bad Data / "0" = Good Data)

14 Bits TTL

Hexadecimal Result

RF IN (Signal Generator) = 10.0 GHz (Pulse)
RF IN (Signal Generator) = 3.0 GHz (CW)

Hexadecimal Number = 1FD5 / 047D
Binary Number = 1111111010101 / 100011111101
Decimal Number = 8149 / 1149
Decimal Number + 1850 = Input Frequency

DFD Output (14 Bits TLL) = 9.999 GHz / 2.999 GHz
Typical Return Loss

<table>
<thead>
<tr>
<th>Marker</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq [MHz]</td>
<td>2000</td>
<td>18000</td>
<td>14078</td>
</tr>
<tr>
<td>S11 [dB]</td>
<td>-12</td>
<td>-8.81</td>
<td>-5.83</td>
</tr>
</tbody>
</table>