



**TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH**

**PMI MODEL: PMIX-L4G20G-I100M4G-MAH IS AN ACTIVE MIXER WITH AN INTEGRATED LO AMPLIFIER IN A COMPACT GOLD PLATED PACKAGE. THE MIXER OPERATES WITHIN AN RF FREQUENCY RANGE OF 2 TO 18 GHz, AN LO FREQUENCY RANGE OF 4 TO 20 GHz AND AN IF FREQUENCY RANGE OF 100 MHz TO 4 GHz.**



**JANUARY 28, 2017**

**DESIGNED BY:  
DAVE DURBIN**

**TESTED AND REPORTED BY:  
RANDY COMBS**



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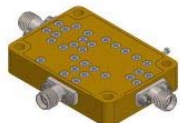
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## TYPICAL CHARACTERISTICS ON PMIX-L4G20G-R2G18G-I100M4G-MAH

### PRODUCT FEATURE

**DESCRIPTION:**  
PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PMIX-L4G20G-R2G-I100M4G-MAH IS AN ACTIVE MIXER WITH AN INTEGRATED LO AMPLIFIER. THIS COMPACT PACKAGE OFFERS THE FOLLOWING SPECIFICATIONS.



**SPECIFICATIONS:**

**RF PORT**

- FREQUENCY RANGE:..... 2.0 GHz TO 18.0 GHz
- AMPLITUDE:..... +5 dBm NOMINAL

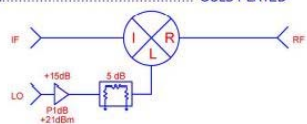
**LO PORT**

- FREQUENCY RANGE:..... 4.0 GHz TO 20.0 GHz
- AMPLITUDE:..... +10 dBm NOMINAL
- +VDC (INTERNAL AMP):..... +12 VDC @ 180 mA TYPICAL

**IF PORT**

- FREQUENCY RANGE:..... 100 MHz TO 4 GHz
- AMPLITUDE:..... -8 dBm NOMINAL
- TTL LOGIC "1" = "ISOLATION"
- PINS E1, E2, & E3 ARE PULLED LOW "0"

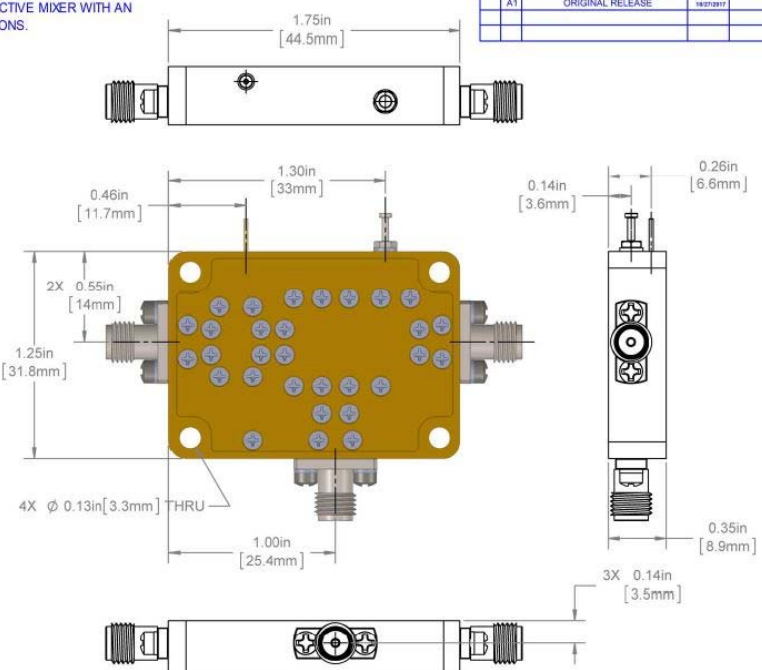
• FINISH:..... GOLD PLATED



**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)  
-65°C TO +125°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

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	18020812	



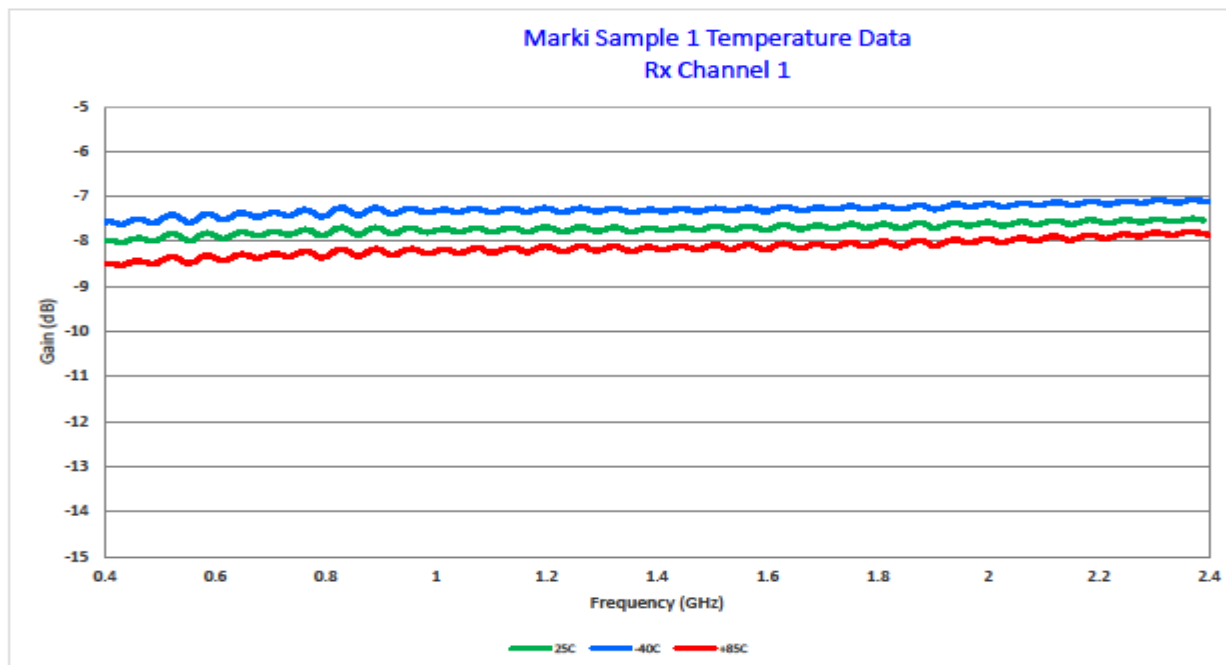
**PMI CONFIDENTIAL AND PROPRIETARY**

<b>PLANAR MONOLITHICS INDUSTRIES, INC.</b>	
<p>APPROVALS DATE</p> <p>DESIGNED BY: M. HANKEN 18020812</p> <p>DRAWN BY:</p> <p>ISSUED BY: S. OSX/DD</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES</p> <p>AS SHOWN ON THIS DRAWING</p>	<p>TITLE: OUTLINE</p> <p>MODEL: PMIX-L4G20G-R2G18G-I100M4G-MAH</p> <p>REV: B</p> <p>PCW NO: 27033740</p> <p>SCALE: 2:1</p> <p>SHEET 1 OF 1</p>



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Planar Monolithics Industries, Inc.  
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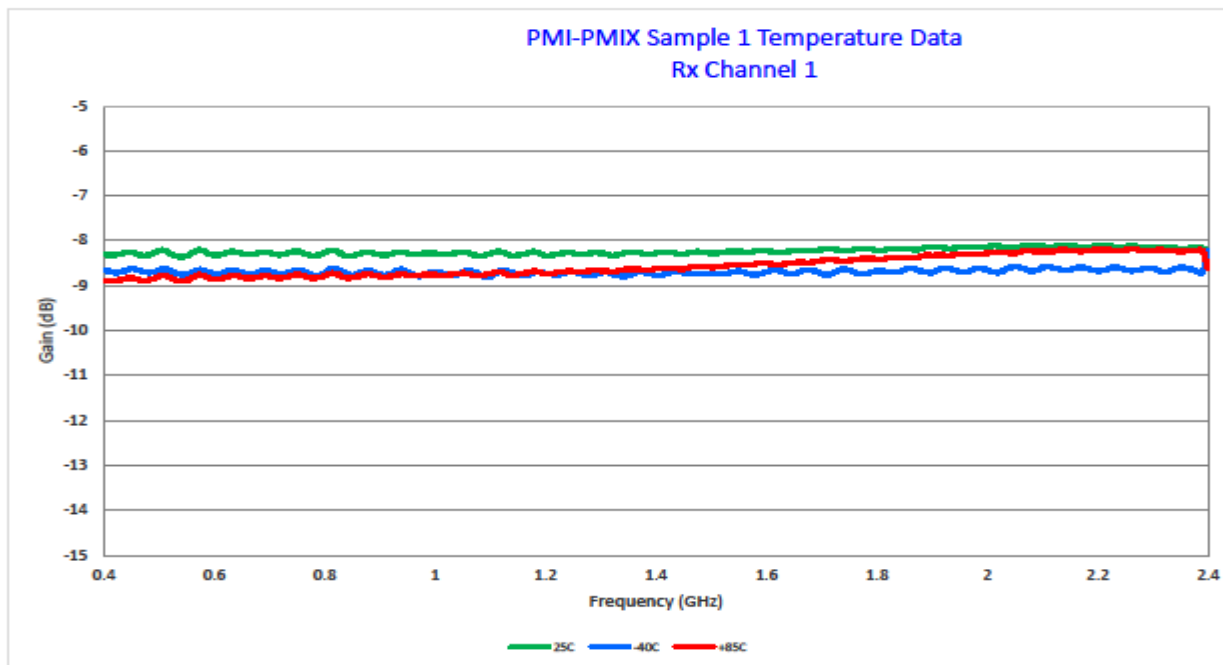
### Temperature Ripple

+25C	0.53
-40C	0.54
+85C	0.75



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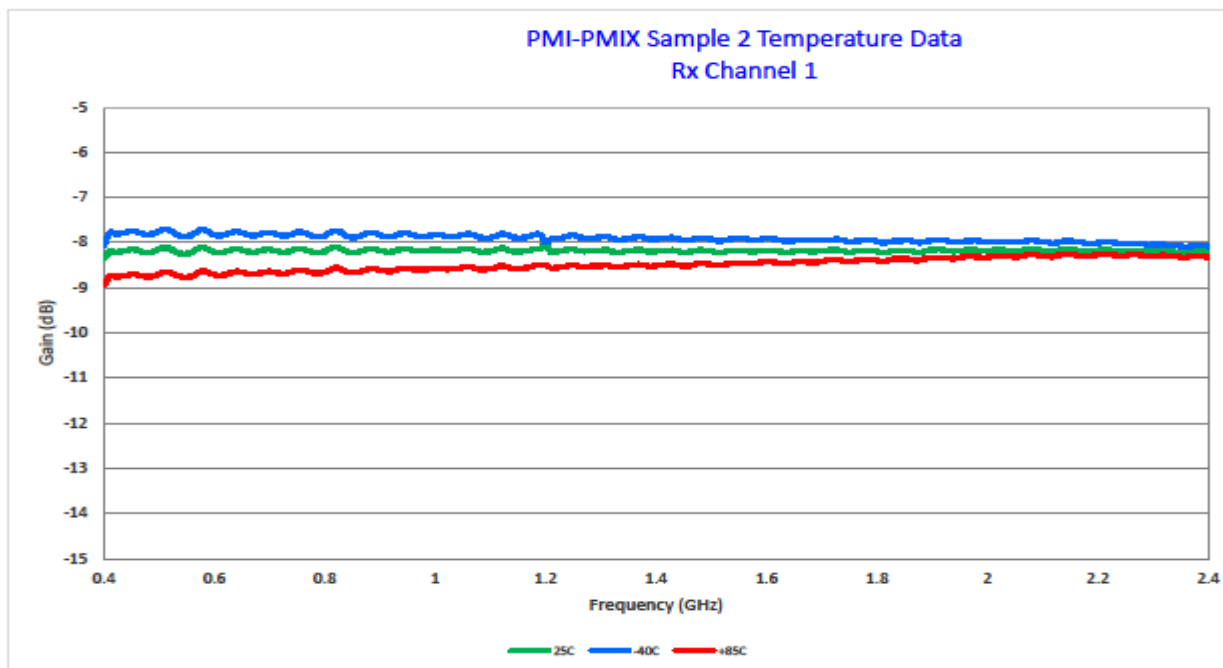
### Temperature Ripple

+25C	0.27
-40C	0.59
+85C	0.71



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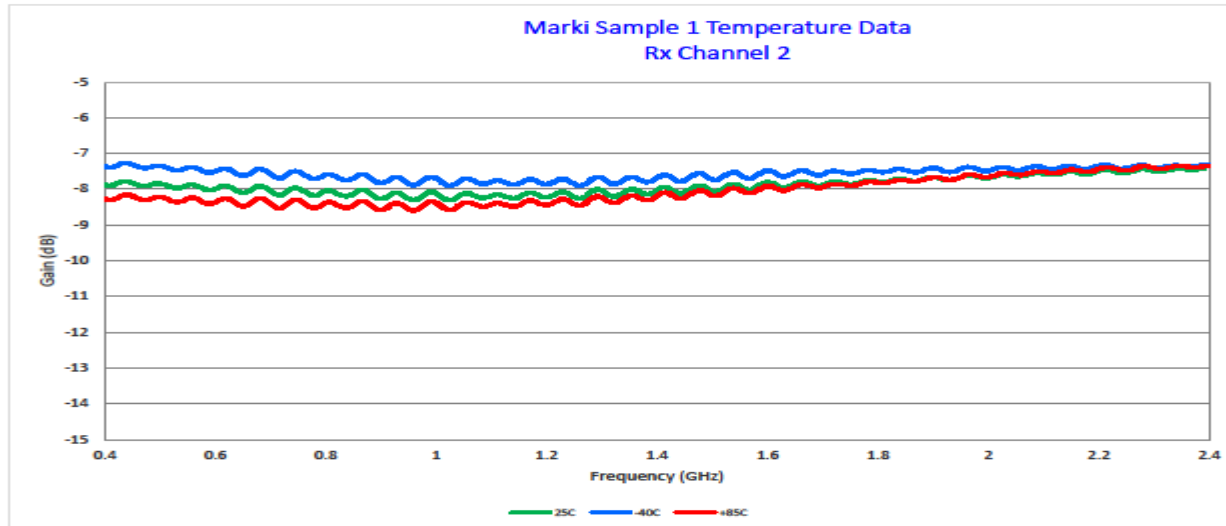
### Temperature Ripple

+25C	0.37
-40C	0.39
+85C	0.69



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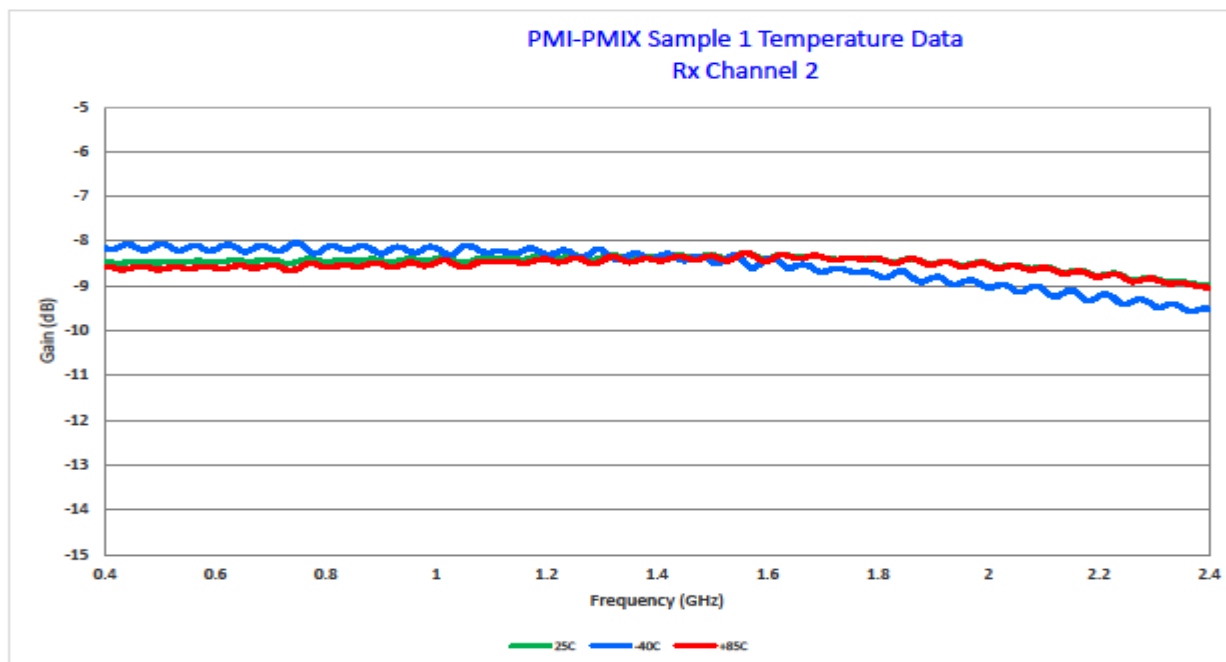
### Temperature Ripple

+25C	0.88
-40C	0.63
+85C	1.26



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### Temperature Ripple

+25C	0.74
-40C	1.53
+85C	0.78

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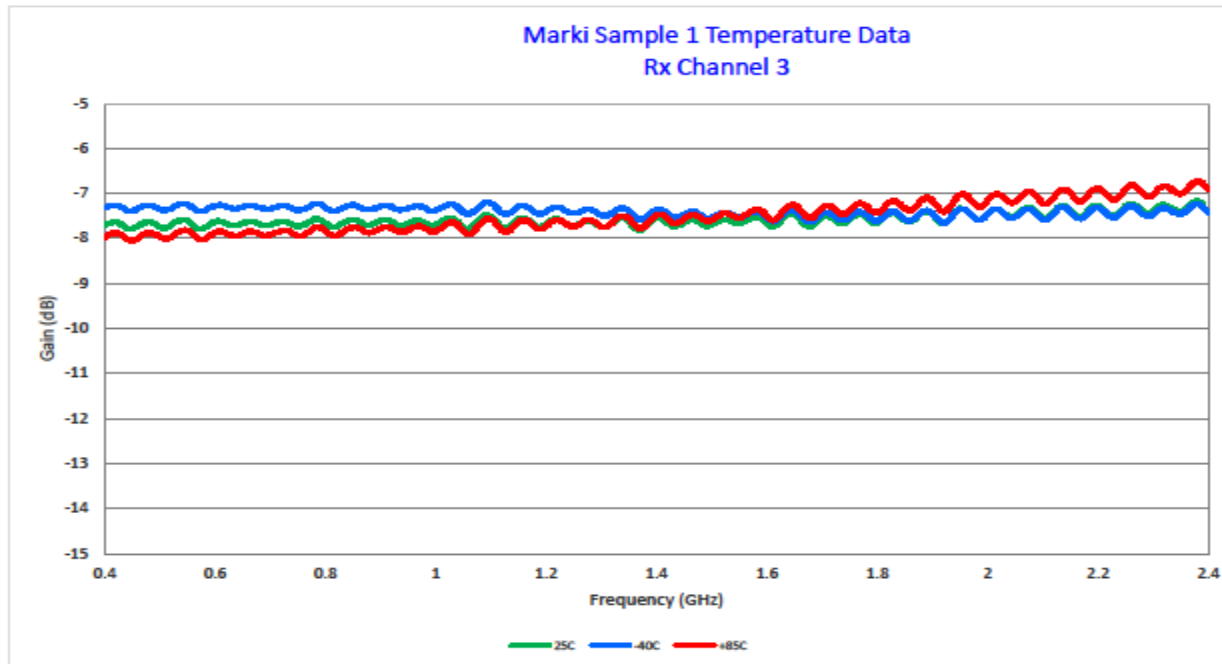






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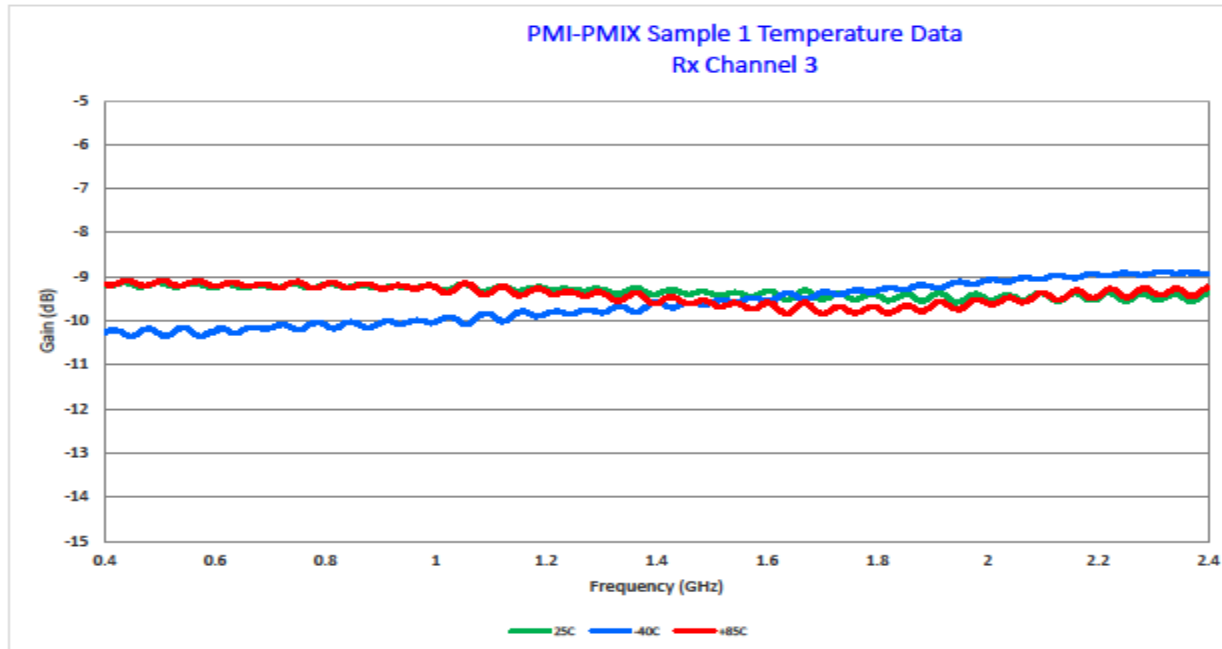
### Temperature Ripple

+25C	0.65
-40C	0.46
+85C	1.33



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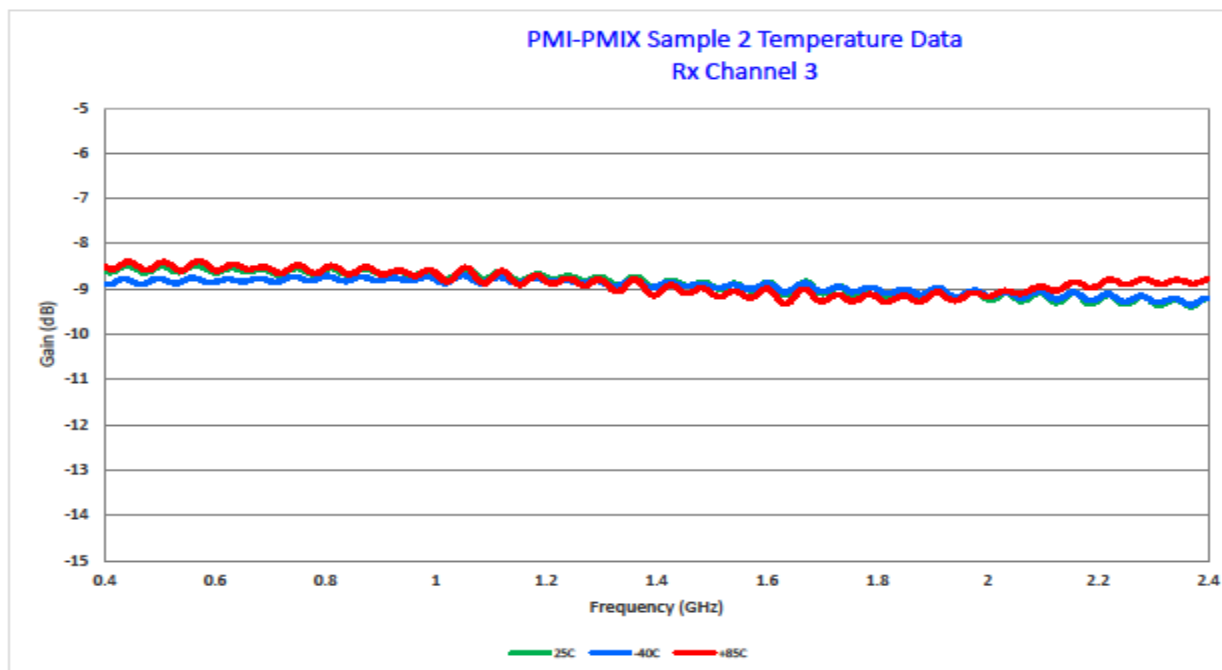
### Temperature Ripple

+25C	0.44
-40C	1.48
+85C	0.75



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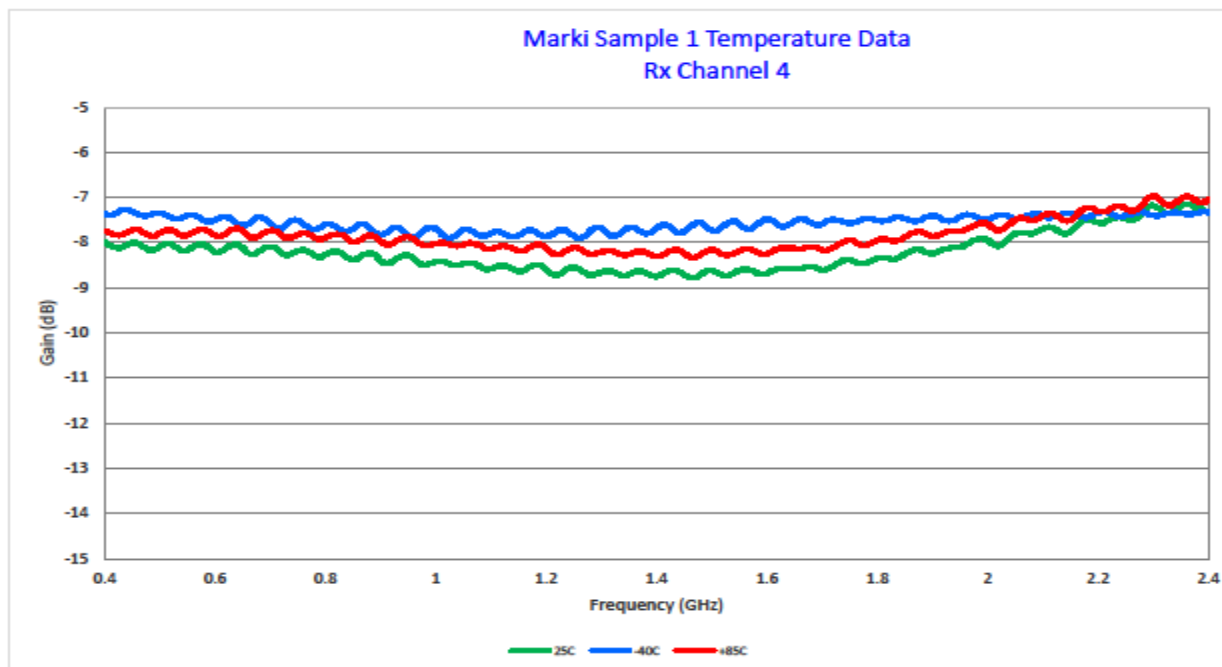
### Temperature Ripple

+25C	0.91
-40C	0.65
+85C	0.94



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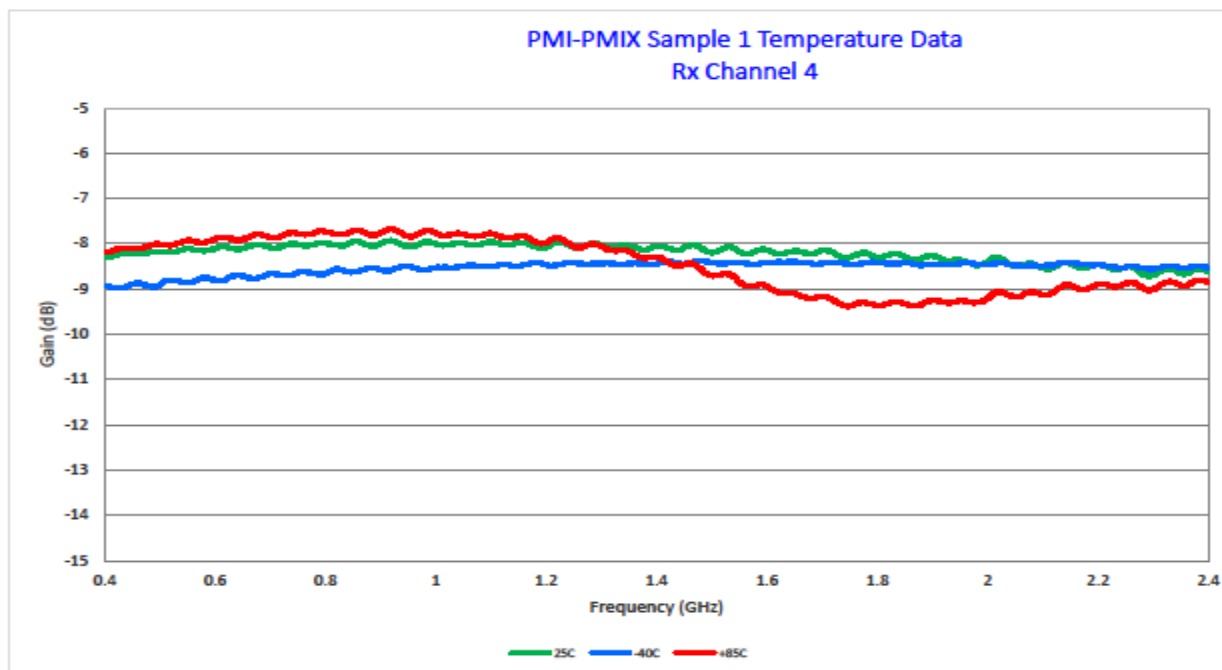
### Temperature Ripple

+25C	1.63
-40C	0.63
+85C	1.36



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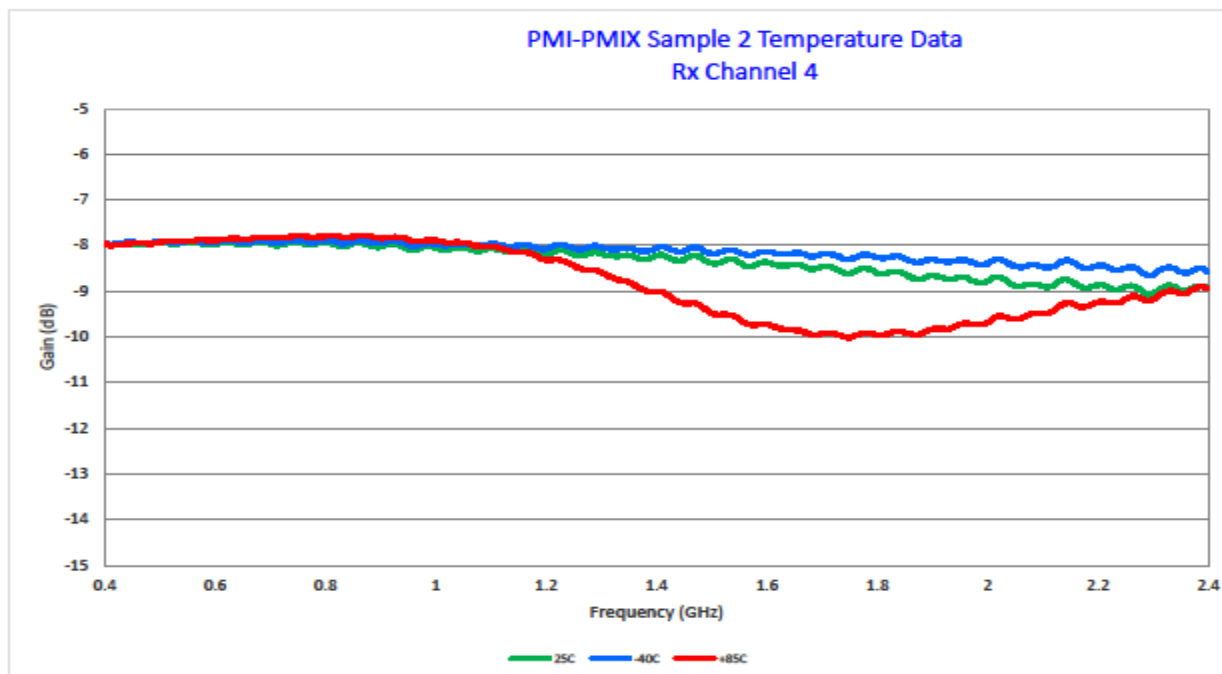
### Temperature Ripple

+25C	0.79
-40C	0.59
+85C	1.71



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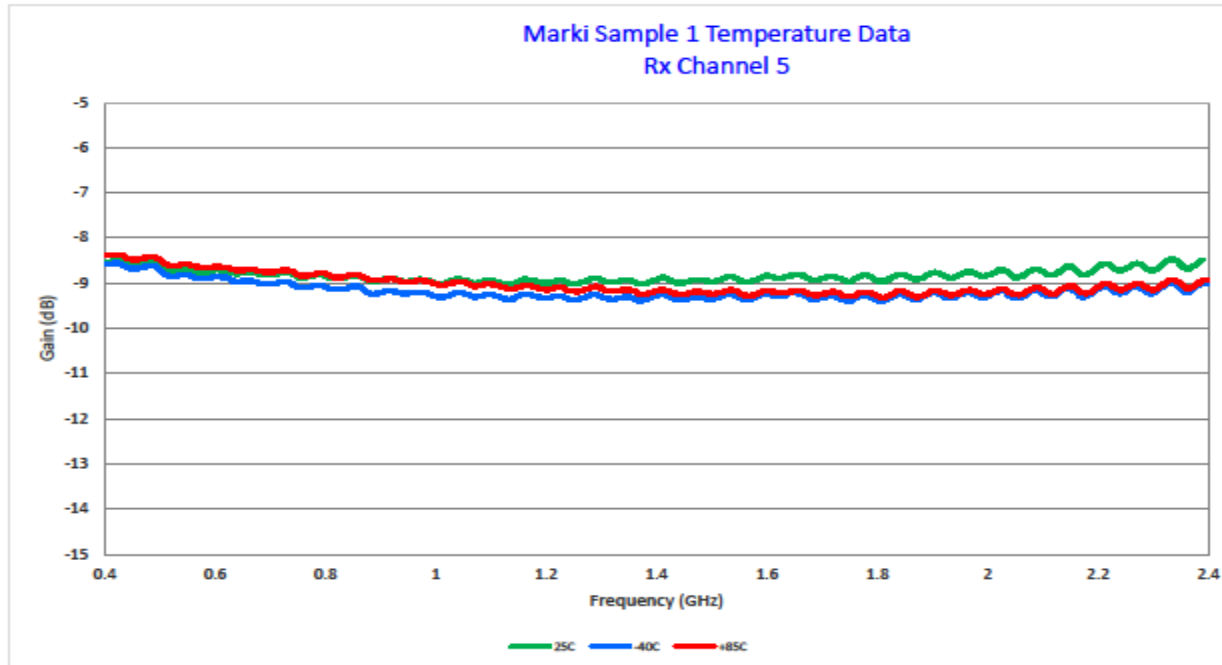
### Temperature Ripple

+25C	1.15
-40C	0.77
+85C	2.24



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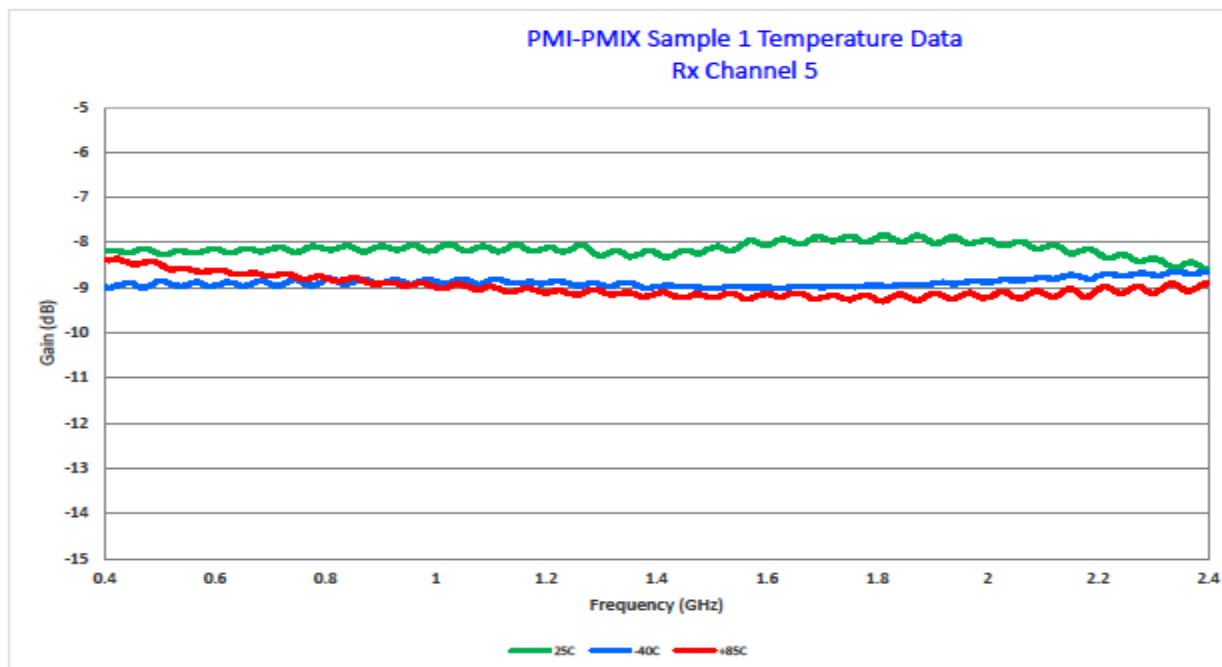
### Temperature Ripple

+25C	0.56
-40C	0.86
+85C	0.96



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### Temperature Ripple

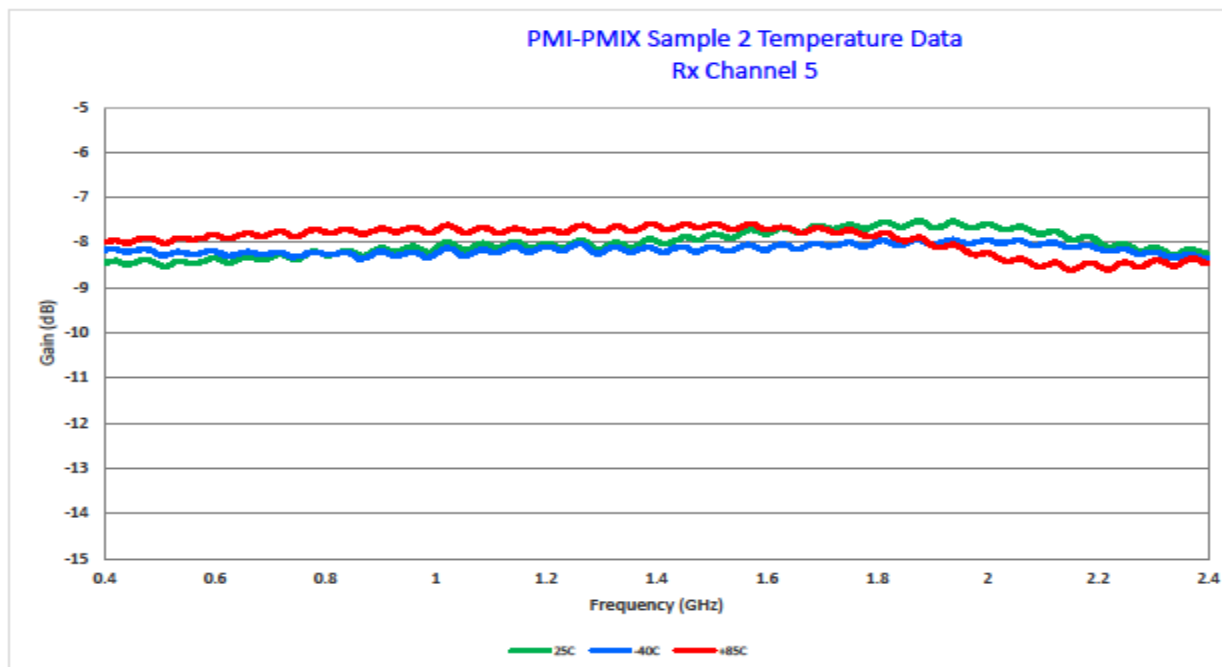
+25C	0.76
-40C	0.37
+85C	0.94





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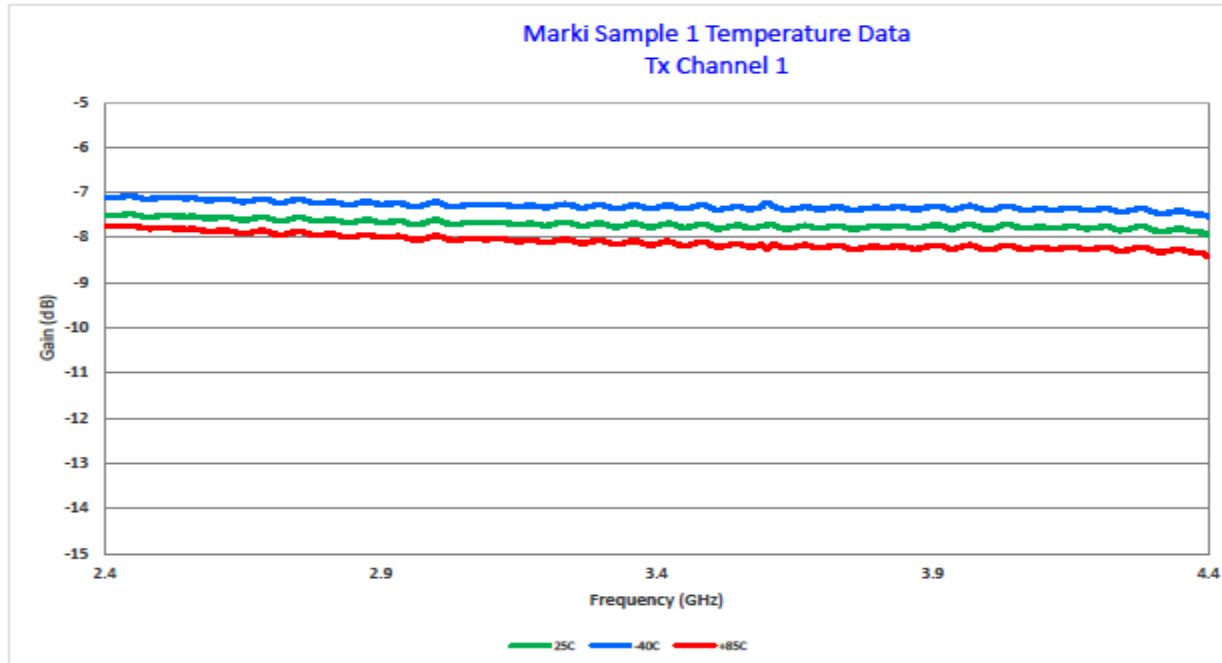
### Temperature Ripple

+25C	1.01
-40C	0.43
+85C	1.03



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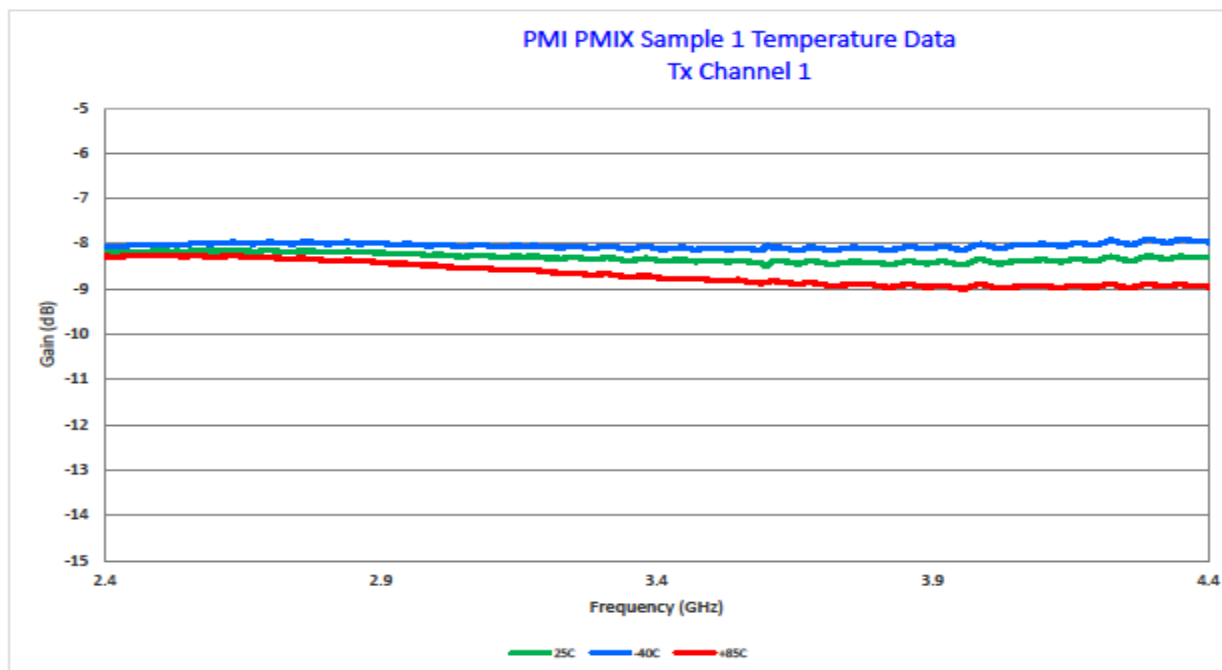
### Temperature Ripple

+25C	0.46
-40C	0.45
+85C	0.69



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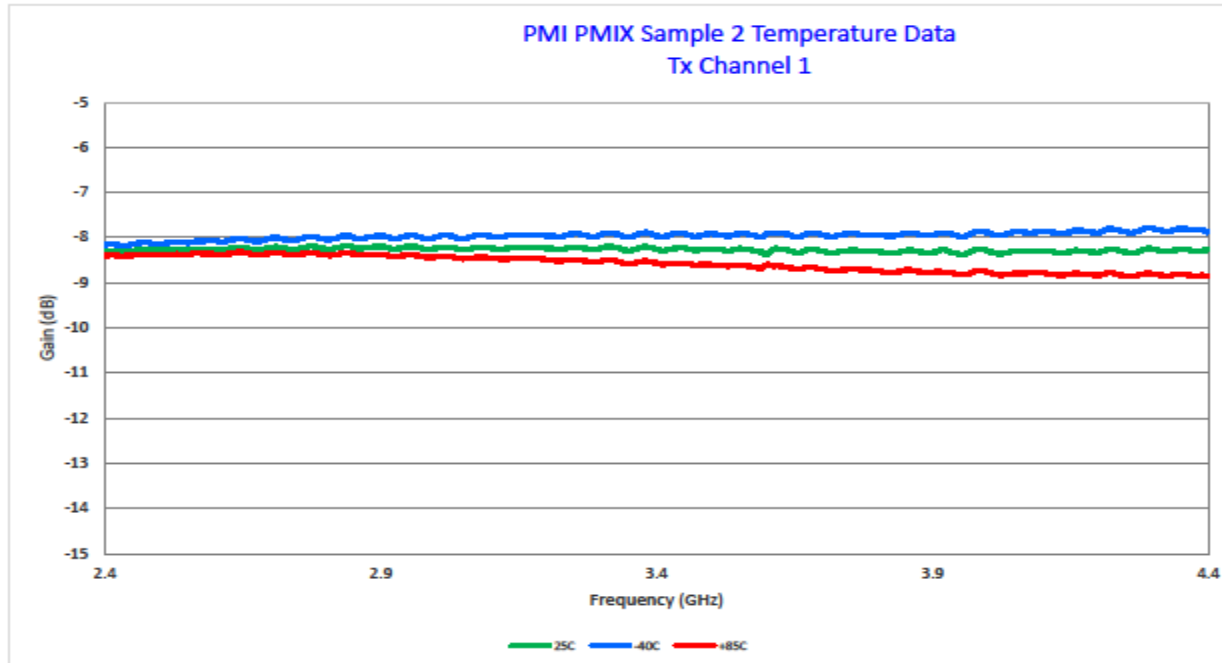
### Temperature Ripple

+25C	0.35
-40C	0.25
+85C	0.74



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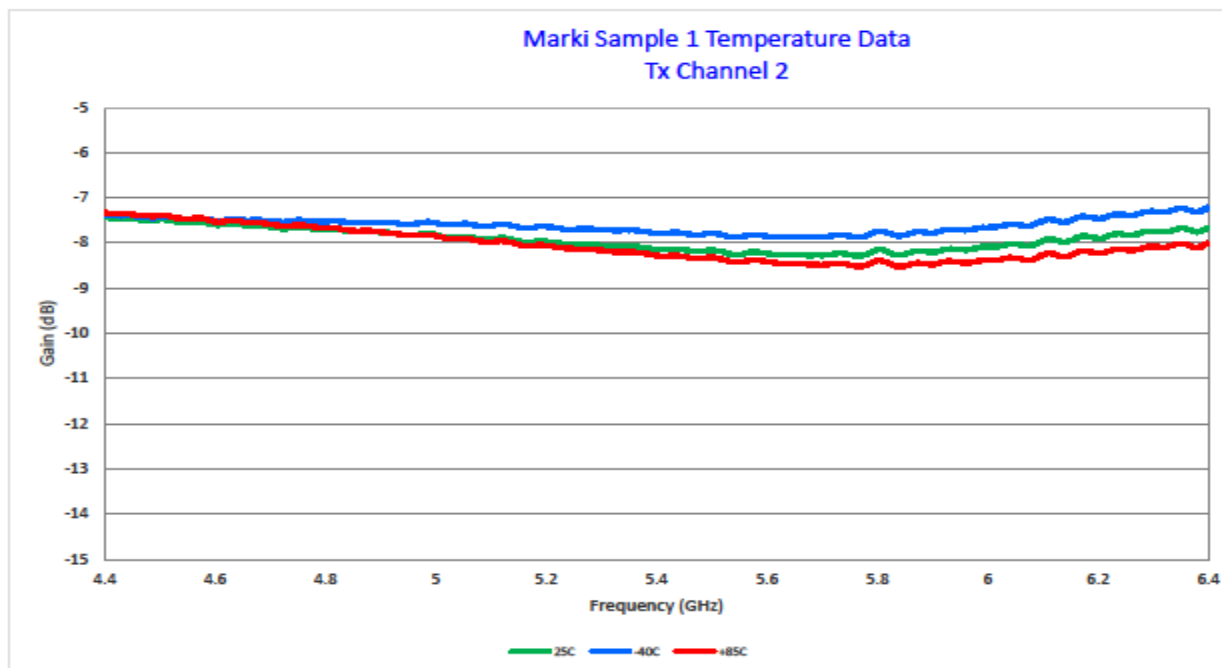
### Temperature Ripple

+25C	0.18
-40C	0.40
+85C	0.53



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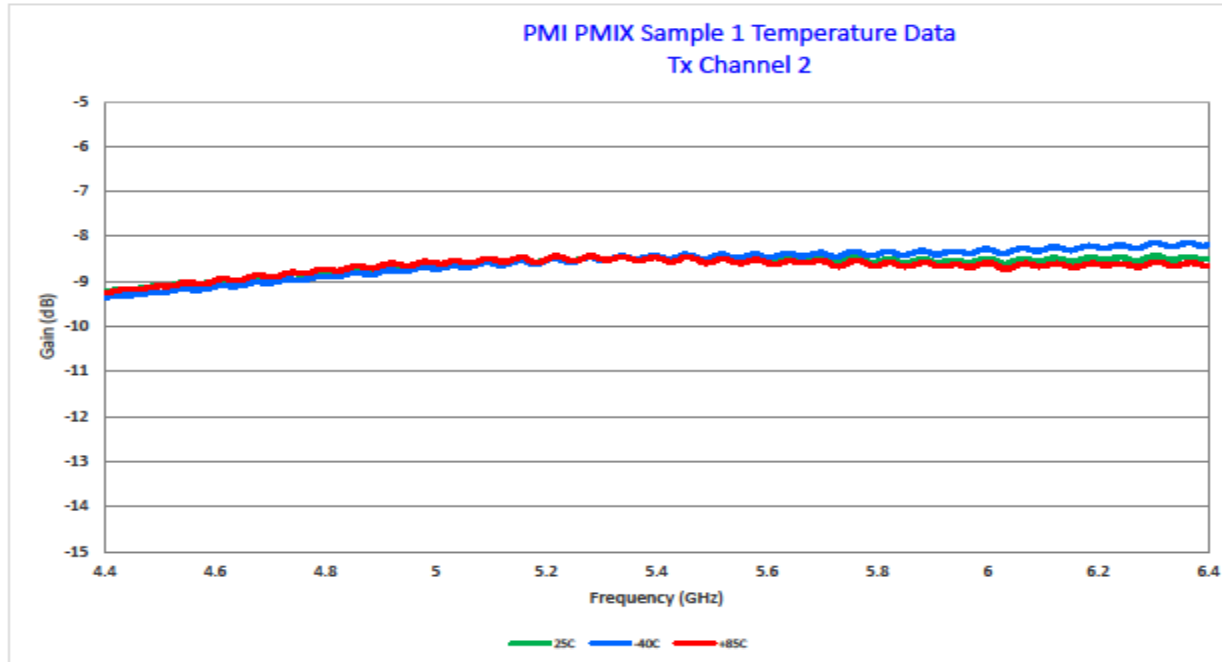
### Temperature Ripple

+25C	0.84
-40C	0.67
+85C	1.20



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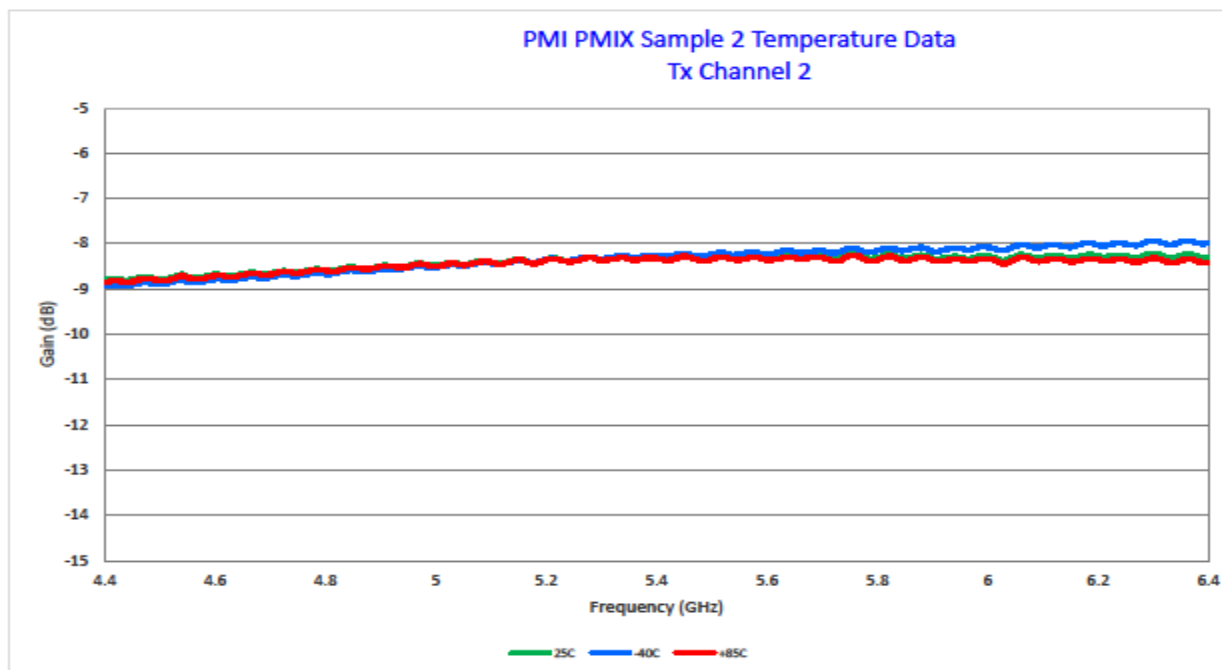
### Temperature Ripple

+25C	0.80
-40C	1.22
+85C	0.83



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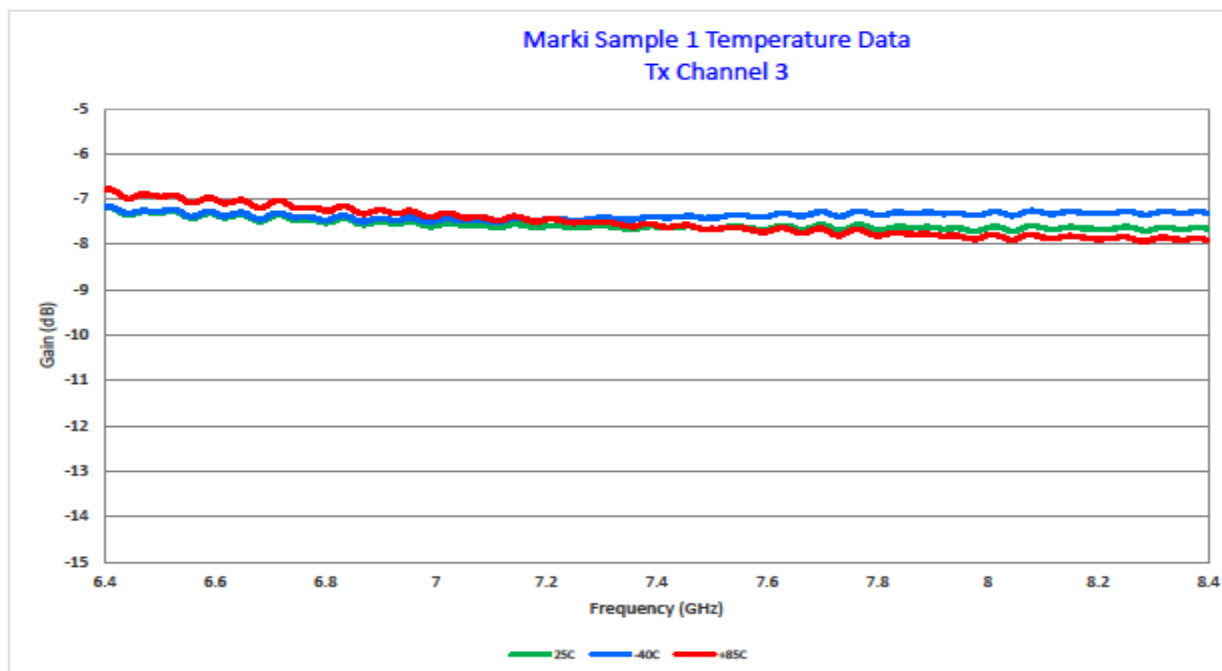
### Temperature Ripple

+25C	0.59
-40C	1.01
+85C	0.59



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### Temperature Ripple

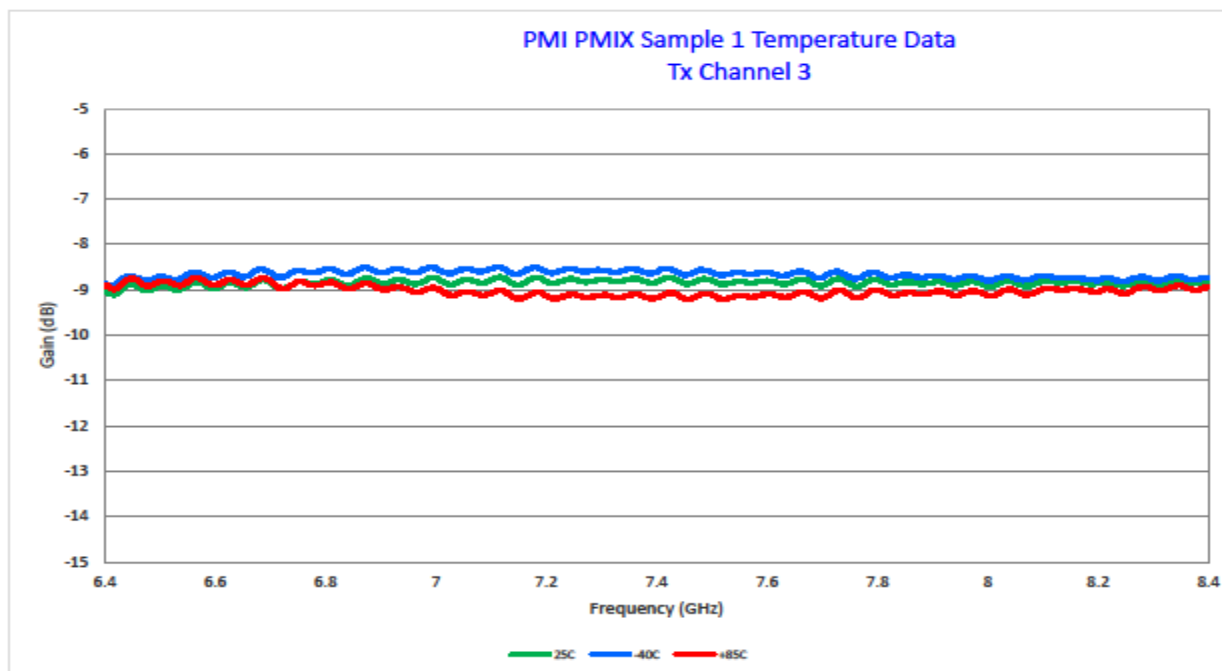
+25C	0.53
-40C	0.35
+85C	1.16





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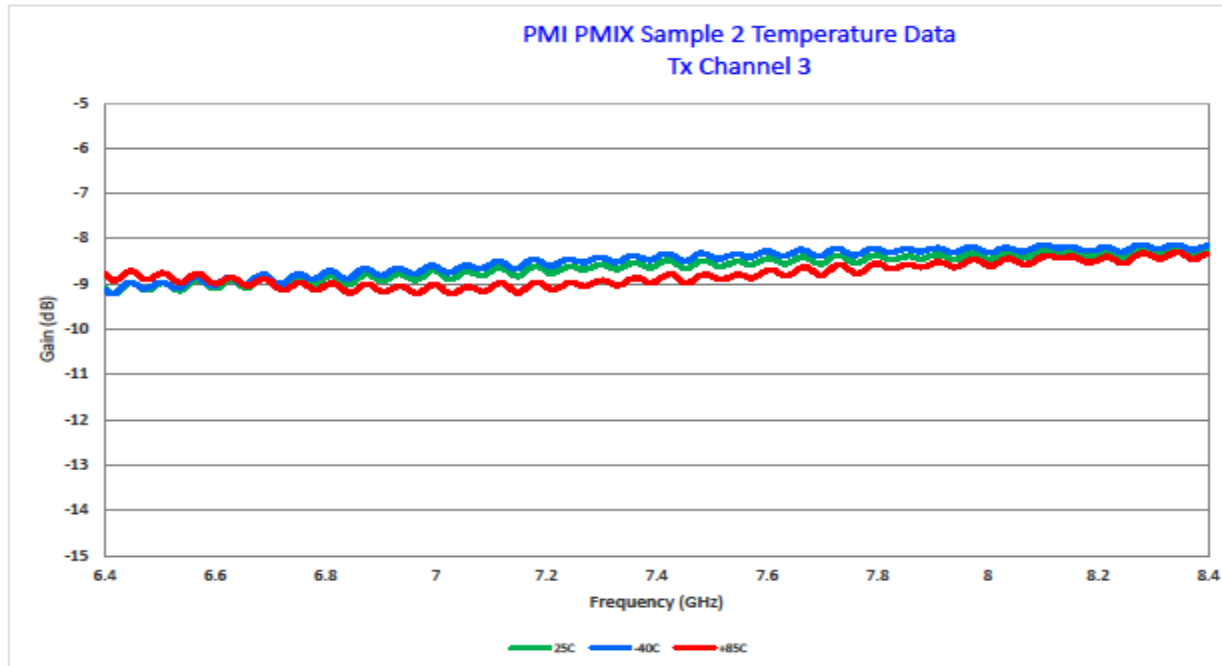
### Temperature Ripple

+25C	0.38
-40C	0.40
+85C	0.47



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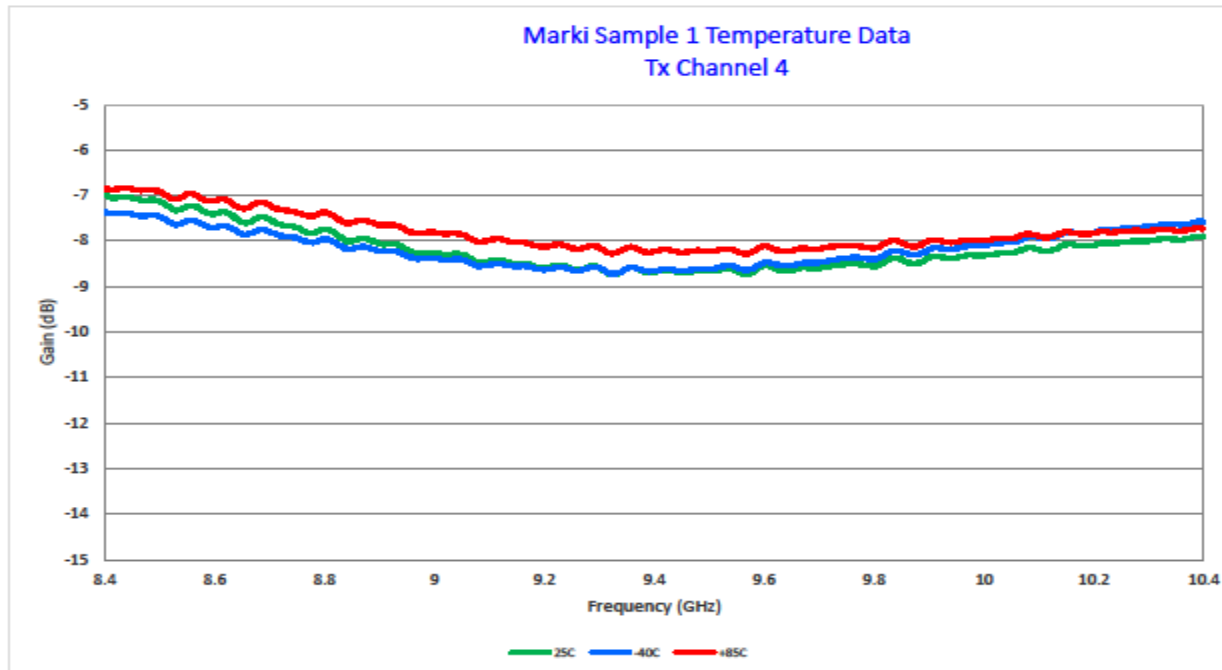
### Temperature Ripple

+25C	1.02
-40C	1.09
+85C	0.91



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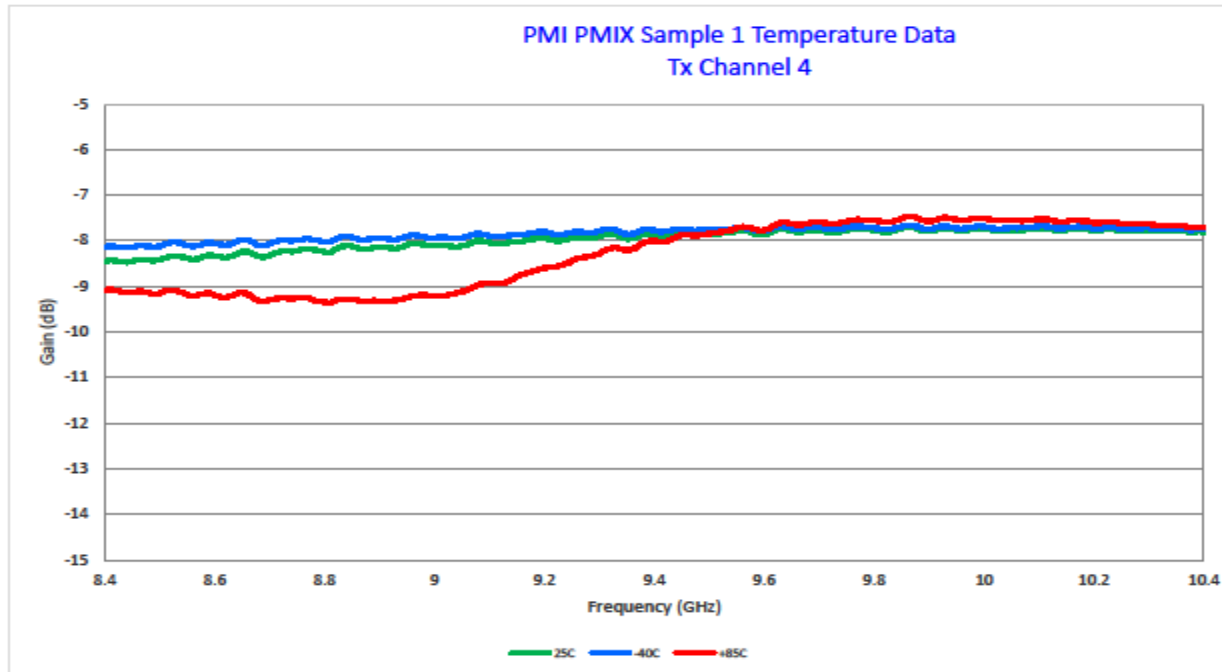
### Temperature Ripple

+25C	1.74
-40C	1.36
+85C	1.44



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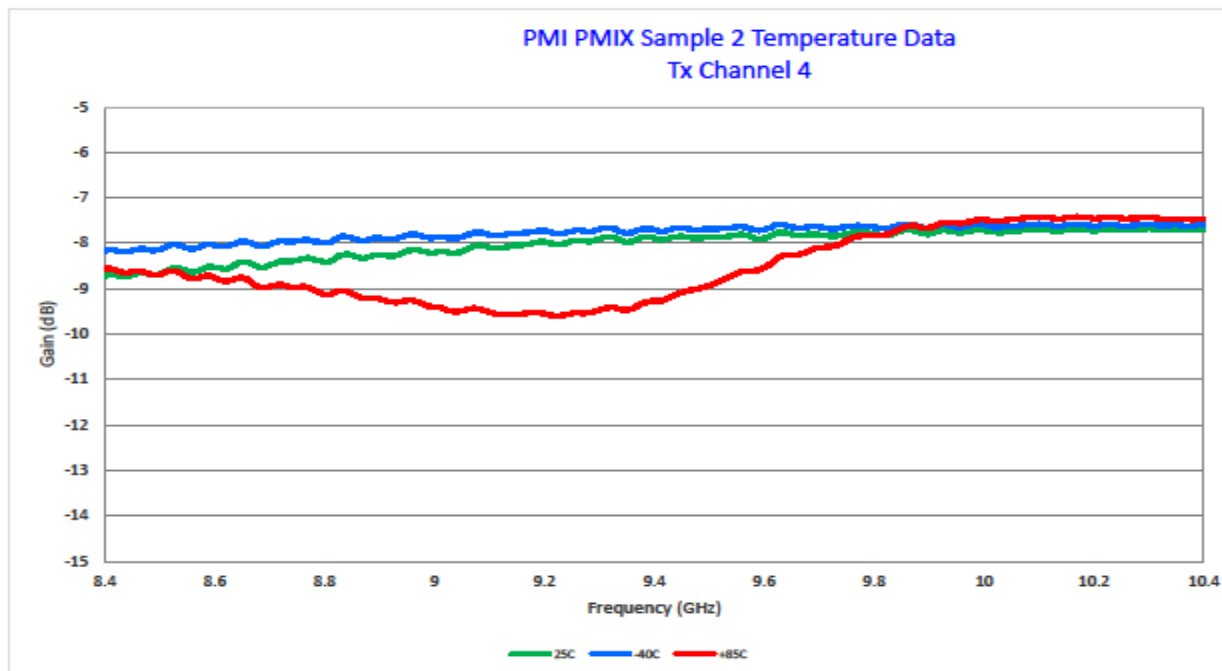
### Temperature Ripple

+25C	0.78
-40C	0.50
+85C	1.89



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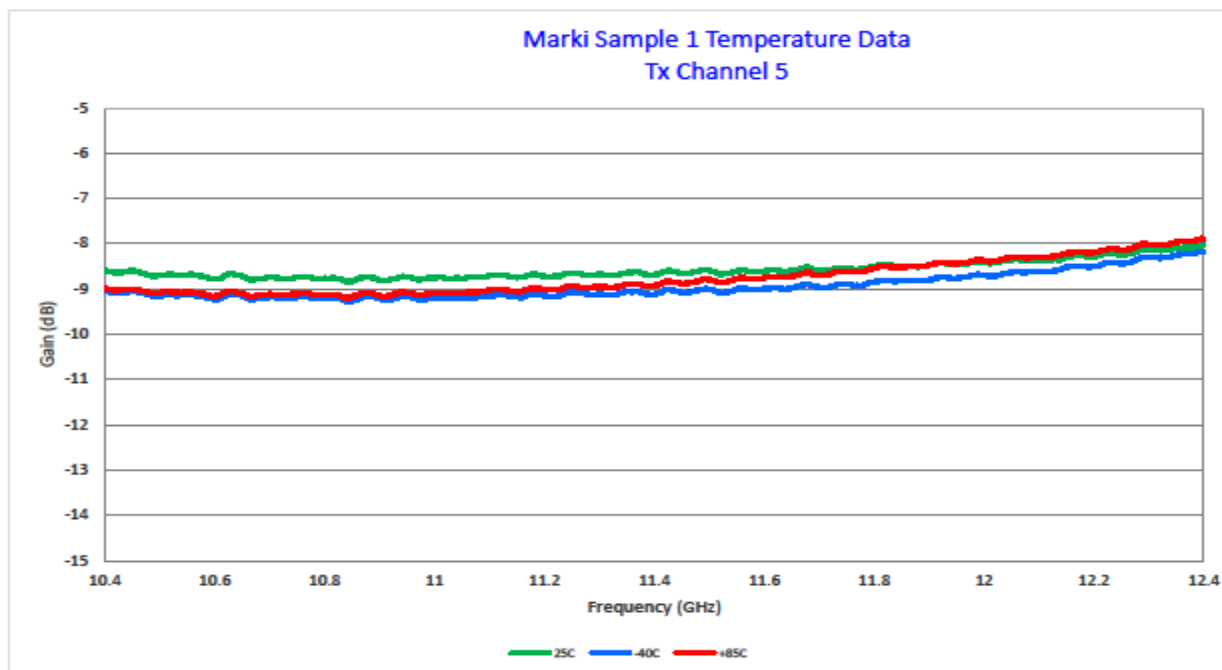
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+25C	1.06
-40C	0.62
+85C	2.19



# TYPICAL CHARACTERISTICS ON PMIX-L4G20G-R2G18G-I100M4G-MAH

Planar Monolithics Industries, Inc.  
7311-F Grove Road  
Frederick, MD 21704  
Tel. 301-862-5019 Fax. 301-862-1731  
Website: [www.pmi-rf.com](http://www.pmi-rf.com) E-mail: [quality@pmi-rf.com](mailto:quality@pmi-rf.com)



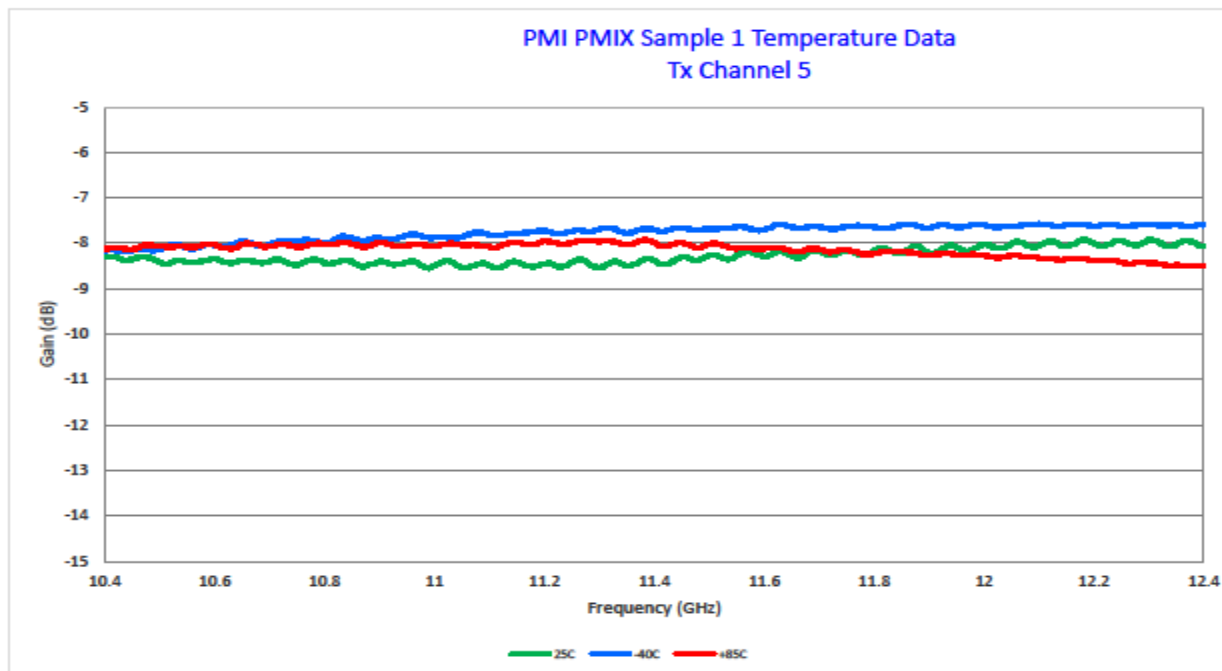
### Temperature Ripple

+25C	0.79
-40C	1.11
+85C	1.31



# TYPICAL CHARACTERISTICS ON PMIX-L4G20G-R2G18G-I100M4G-MAH

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7311-F Grove Road  
Frederick, MD 21704  
Tel. 301-662-5019 Fax. 301-662-1731  
Website: [www.pmi-rf.com](http://www.pmi-rf.com) E-mail: [quality@pmi-rf.com](mailto:quality@pmi-rf.com)



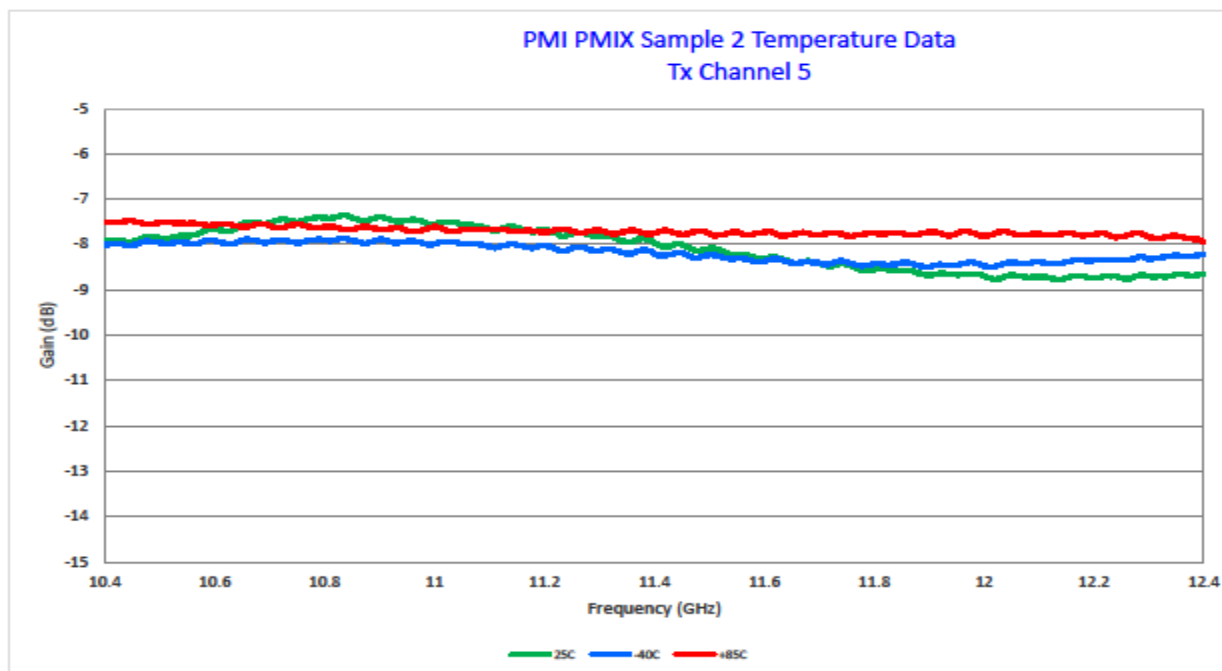
### Temperature Ripple

+25C	0.64
-40C	0.62
+85C	0.58



# TYPICAL CHARACTERISTICS ON PMIX-L4G20G-R2G18G-I100M4G-MAH

Planar Monolithics Industries, Inc.  
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Frederick, MD 21704  
Tel. 301-862-5019 Fax. 301-862-1731  
Website: [www.pmi-rf.com](http://www.pmi-rf.com) E-mail: [quality@pmi-rf.com](mailto:quality@pmi-rf.com)



### Temperature Ripple

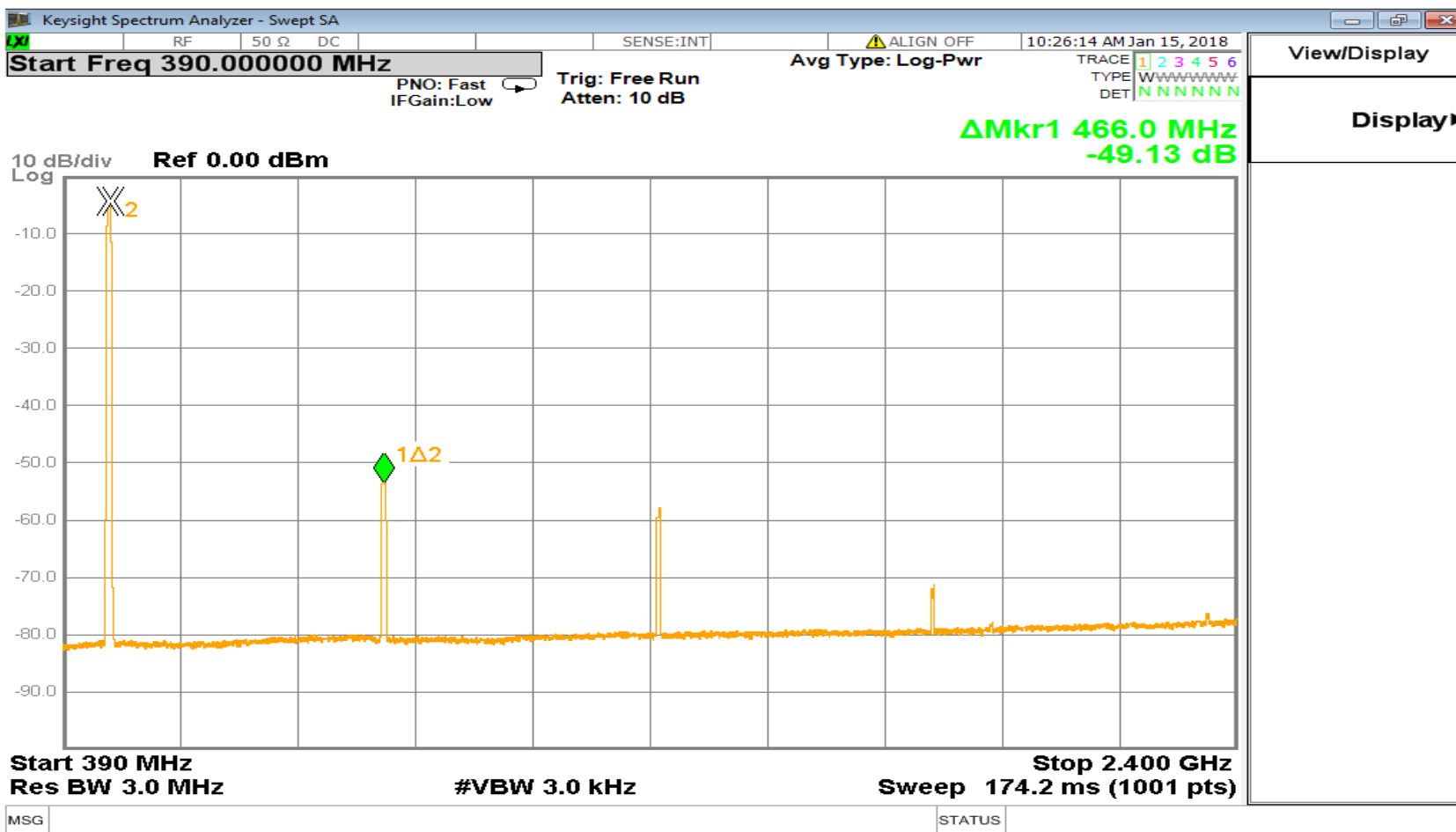
+25C	1.41
-40C	0.62
+85C	0.46





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

PMI Rx CHANNEL 1 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

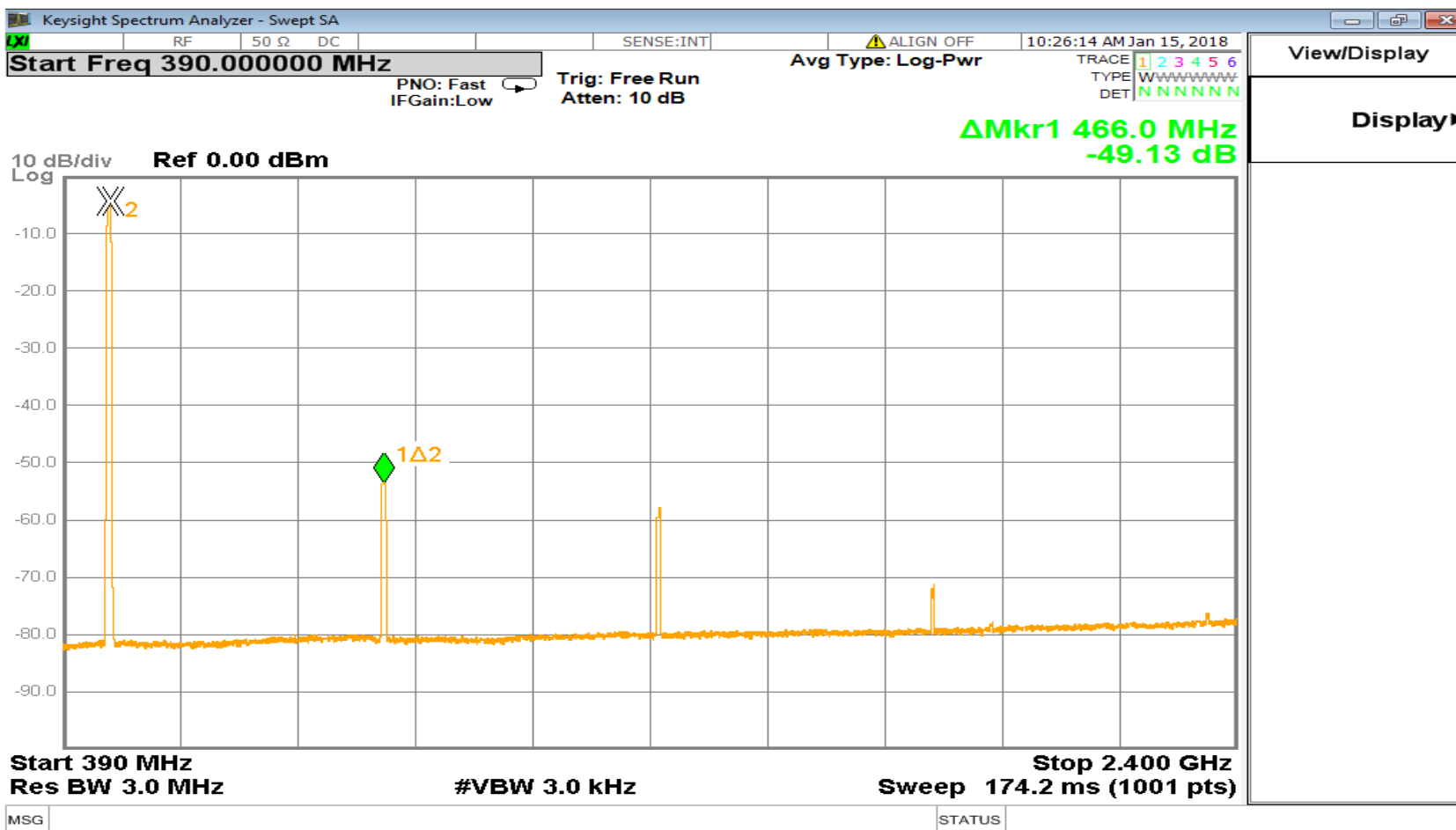
MARKI Rx CHANNEL 1 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

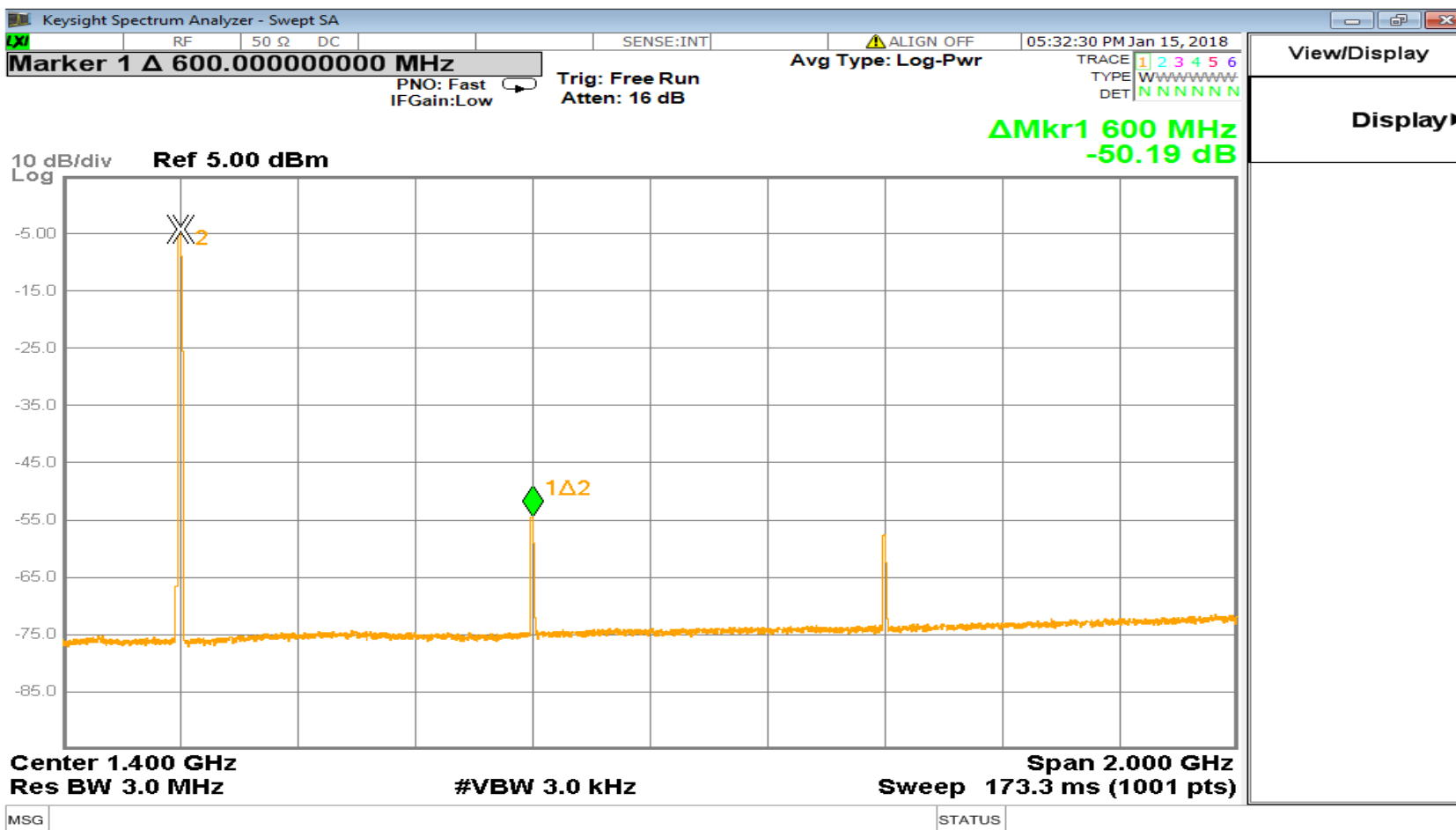
PMI Rx CHANNEL 2 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

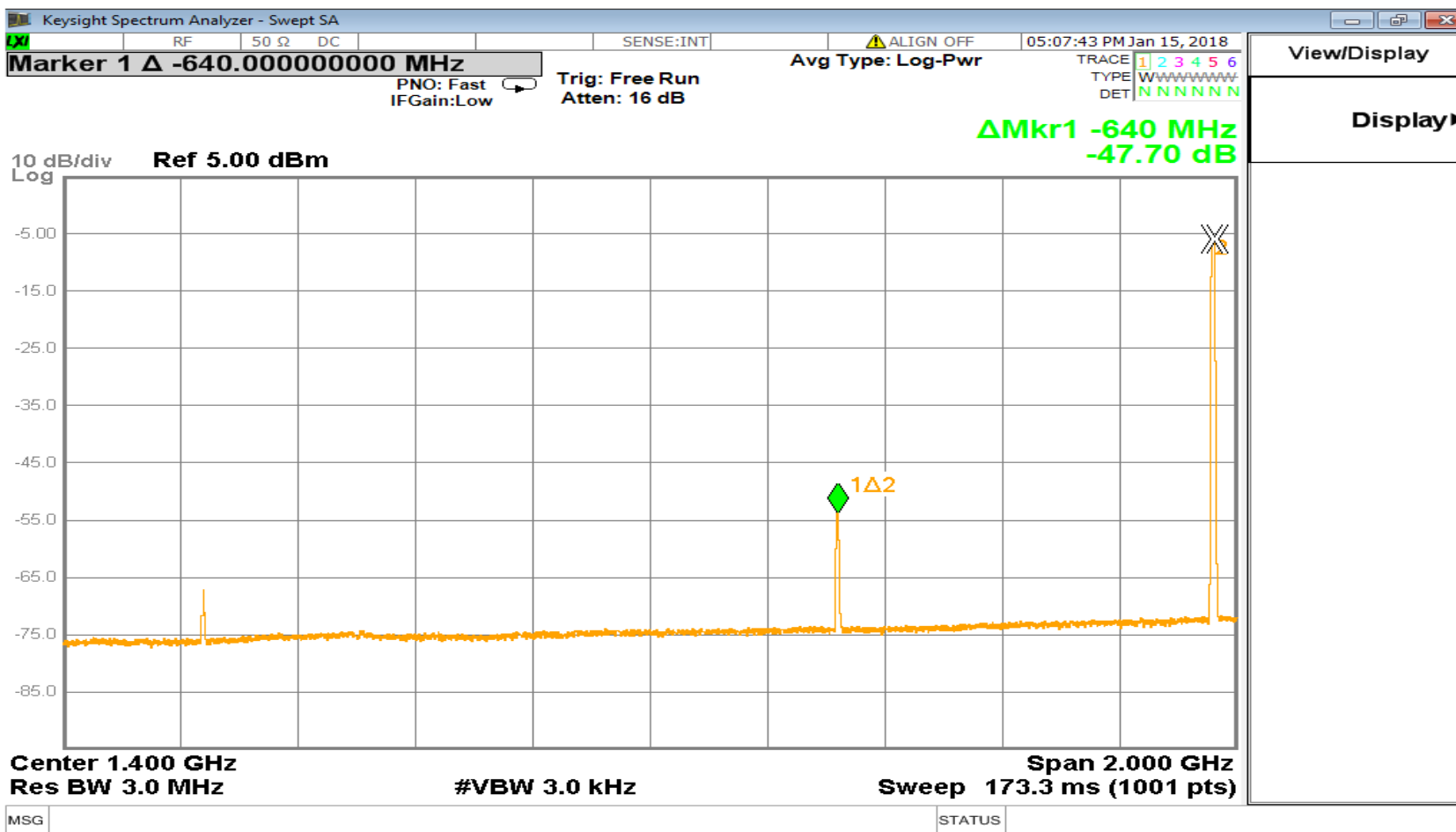
MARKI Rx CHANNEL 2 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

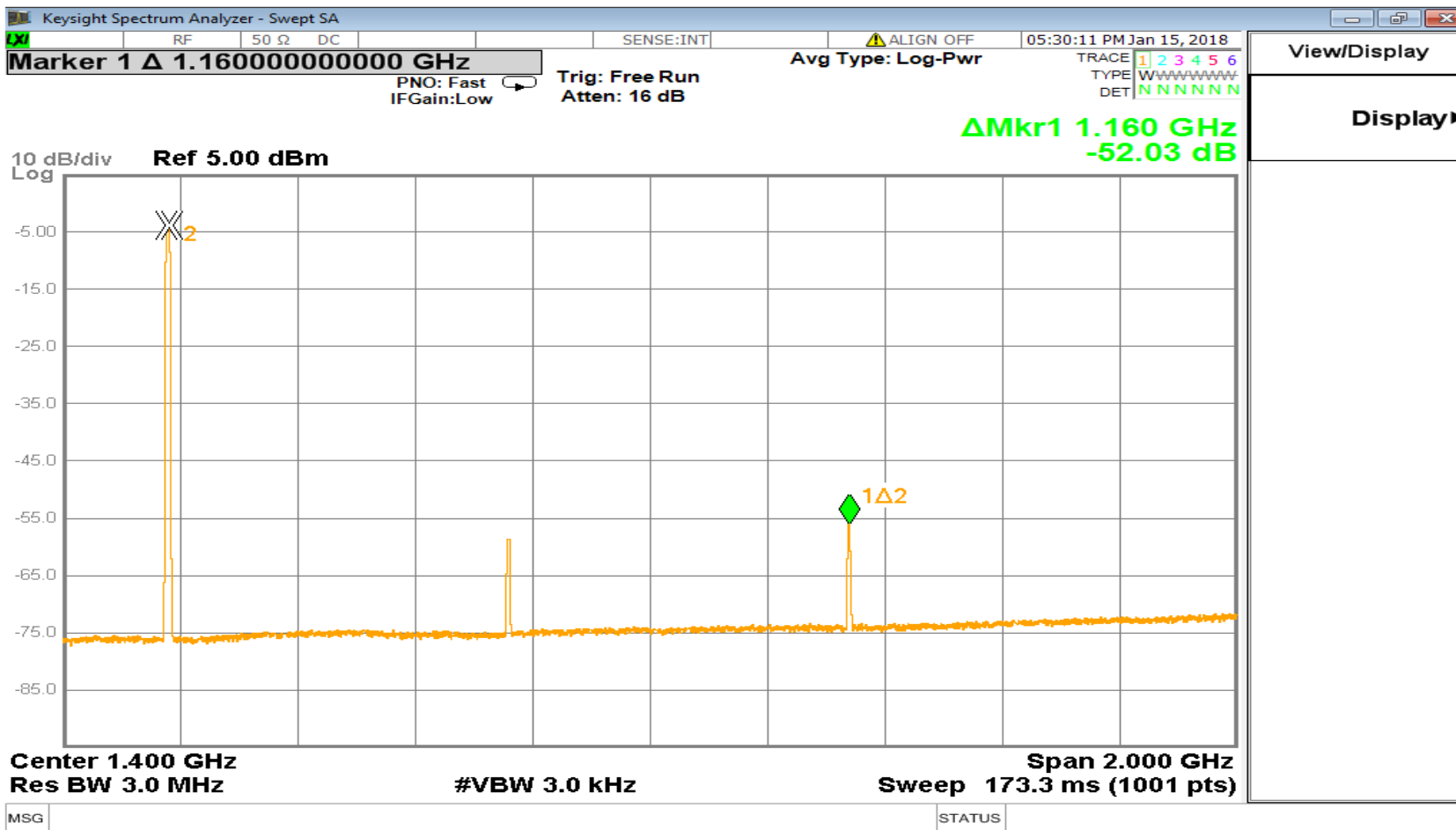
PMI Rx CHANNEL 3 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
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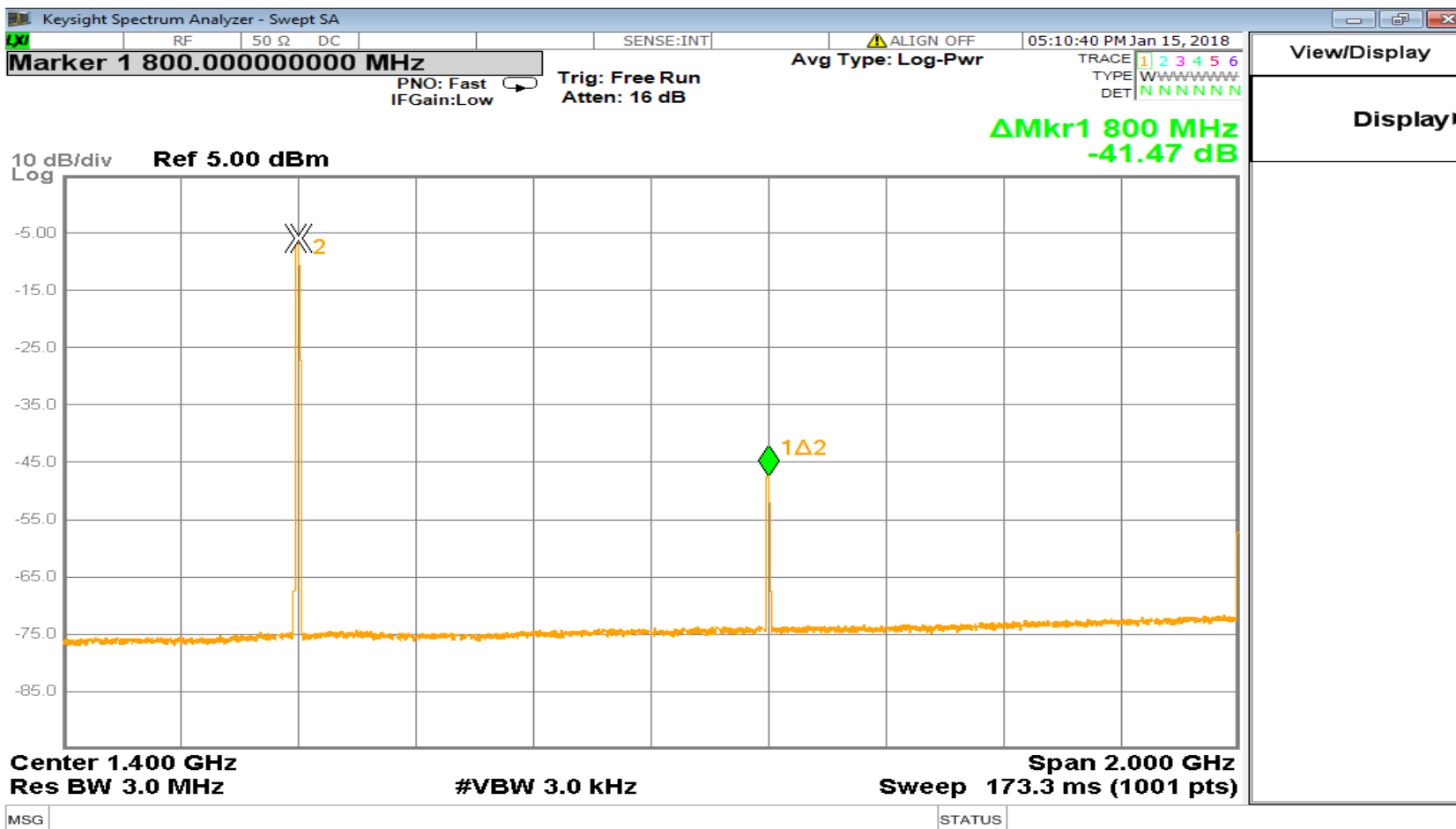
MARKI Rx CHANNEL 3 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
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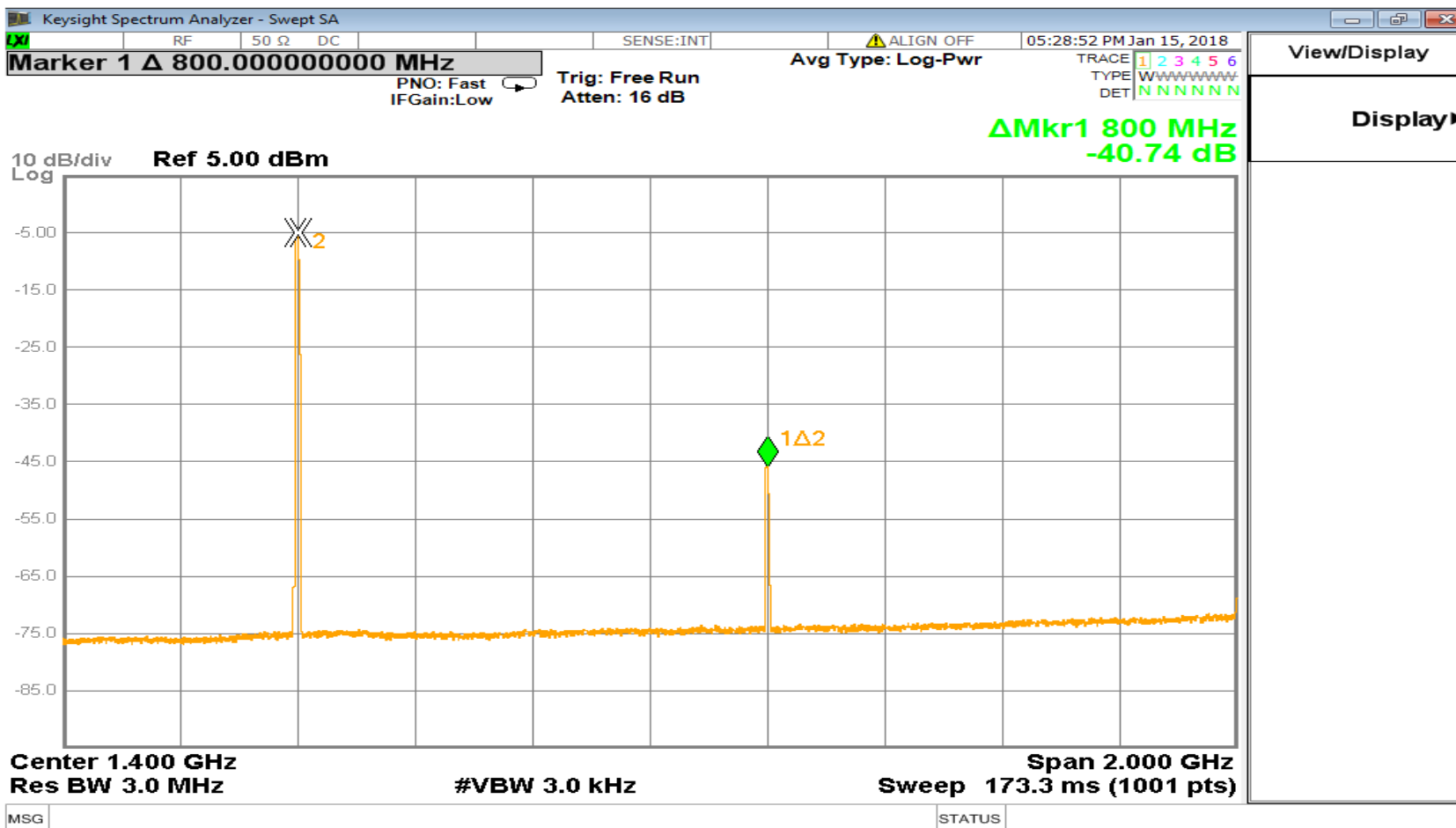
PMI Rx CHANNEL 4 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

MARKI Rx CHANNEL 4 SPURIOUS OUTPUT

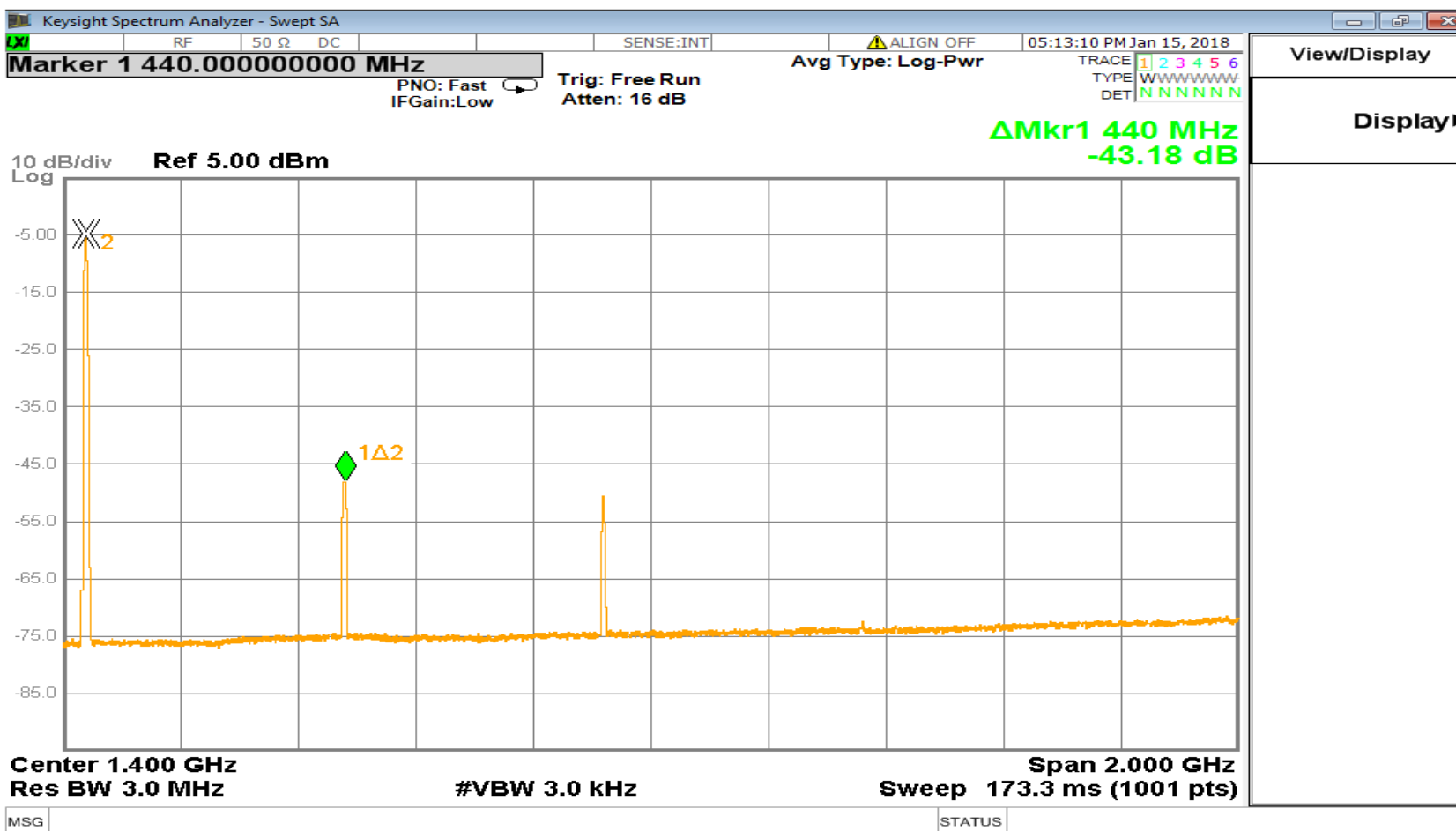






TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

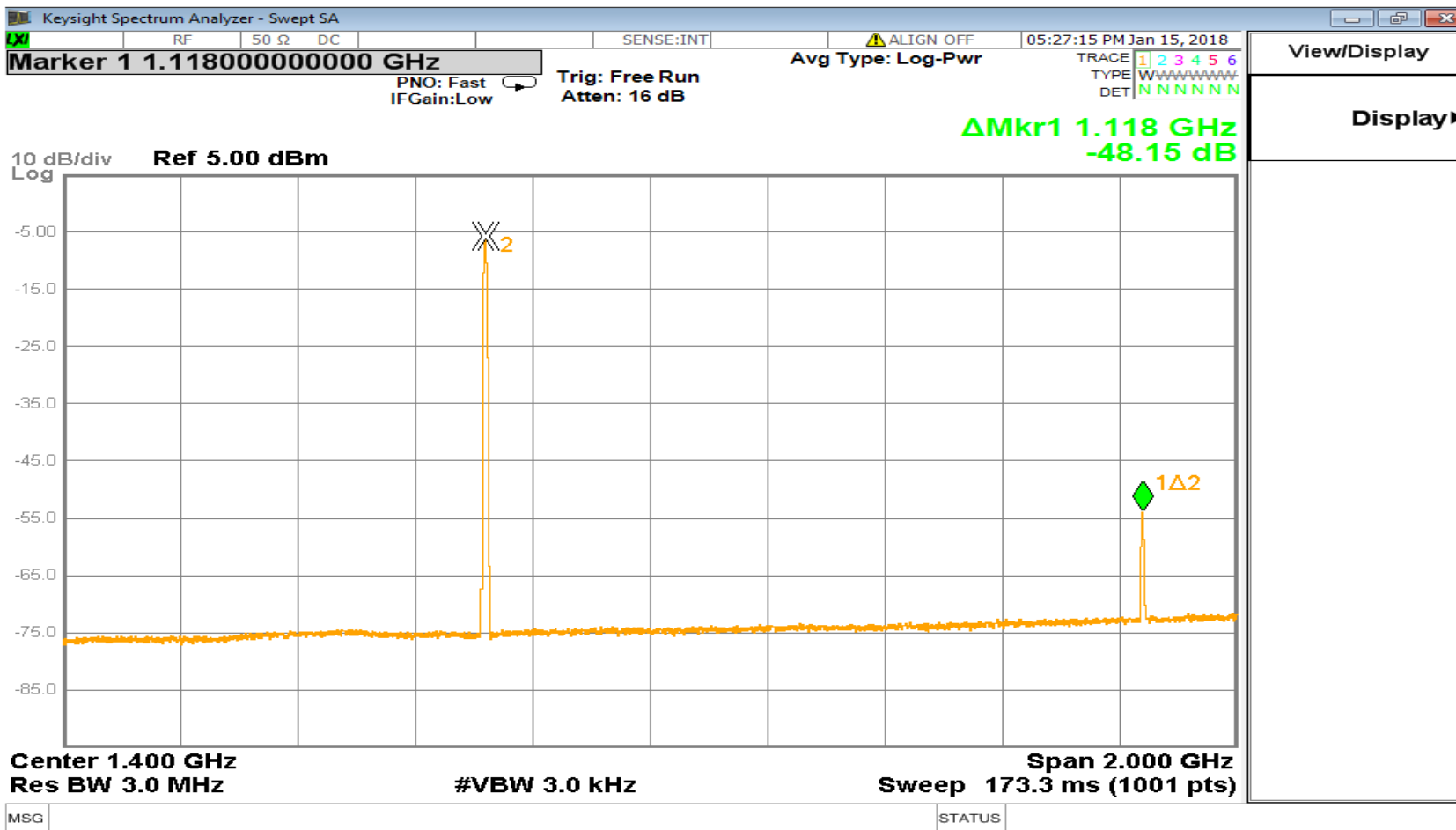
PMI Rx CHANNEL 5 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

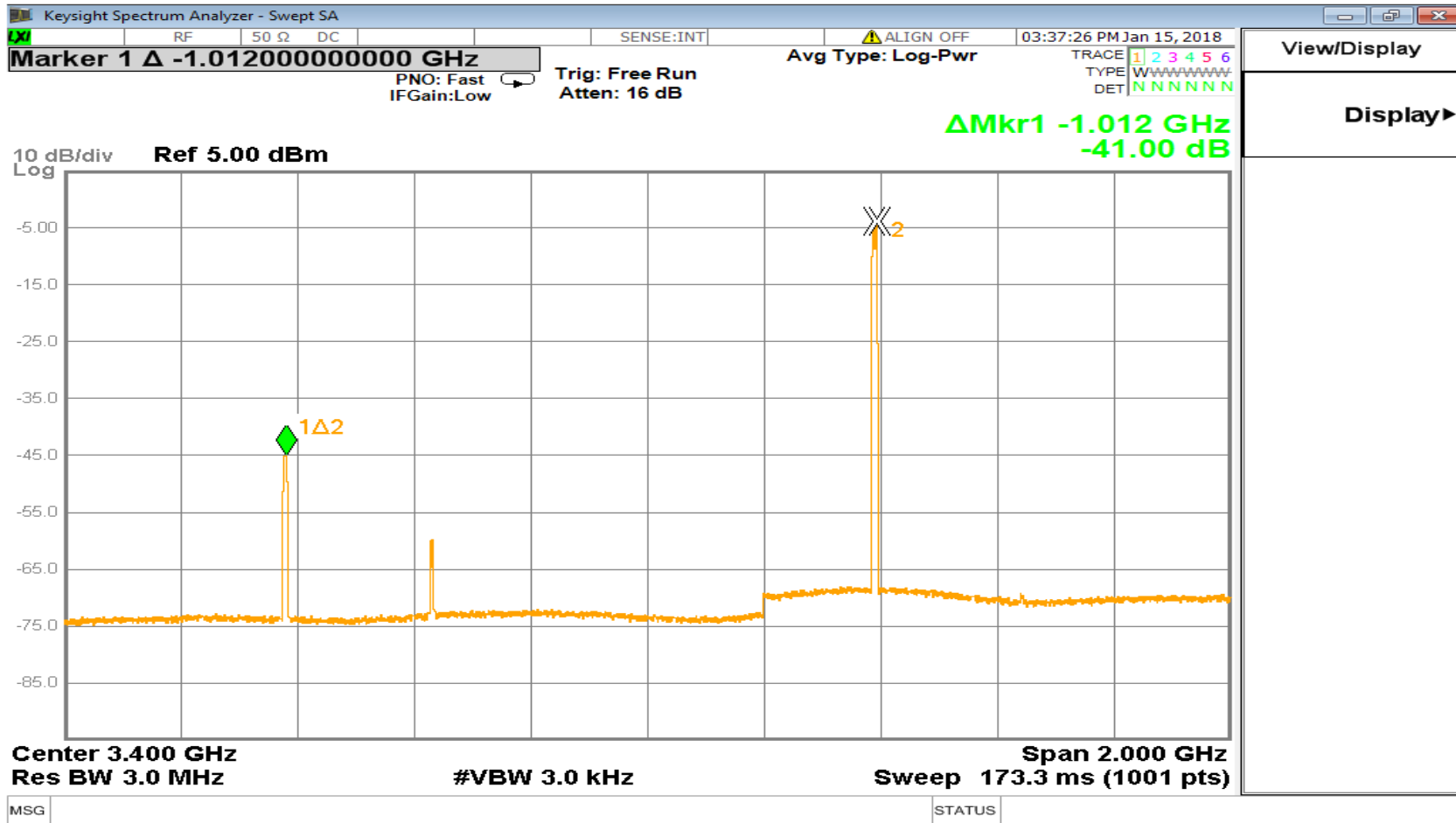
MARKI Rx CHANNEL 5 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

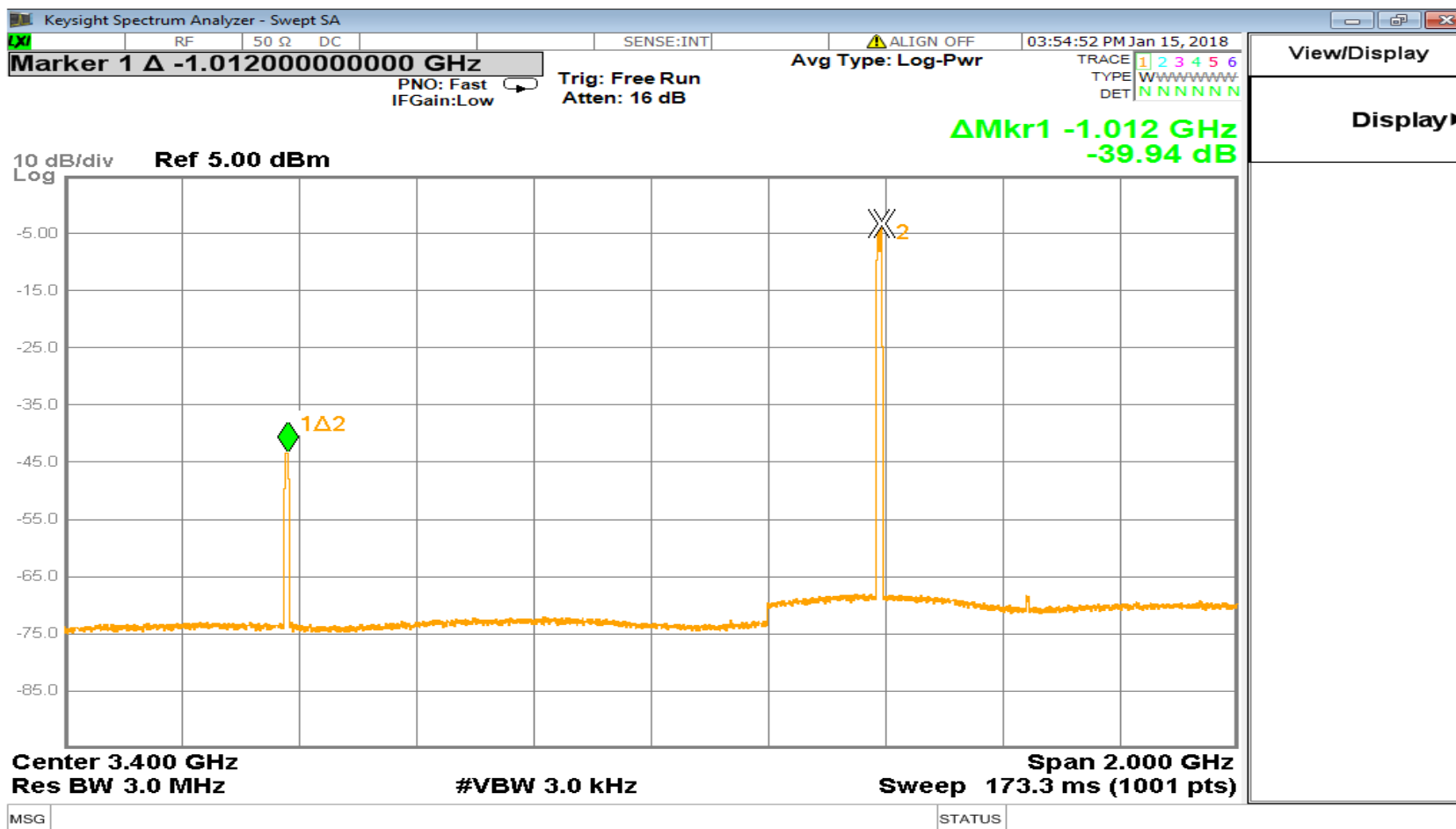
PMI Tx CHANNEL 1 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

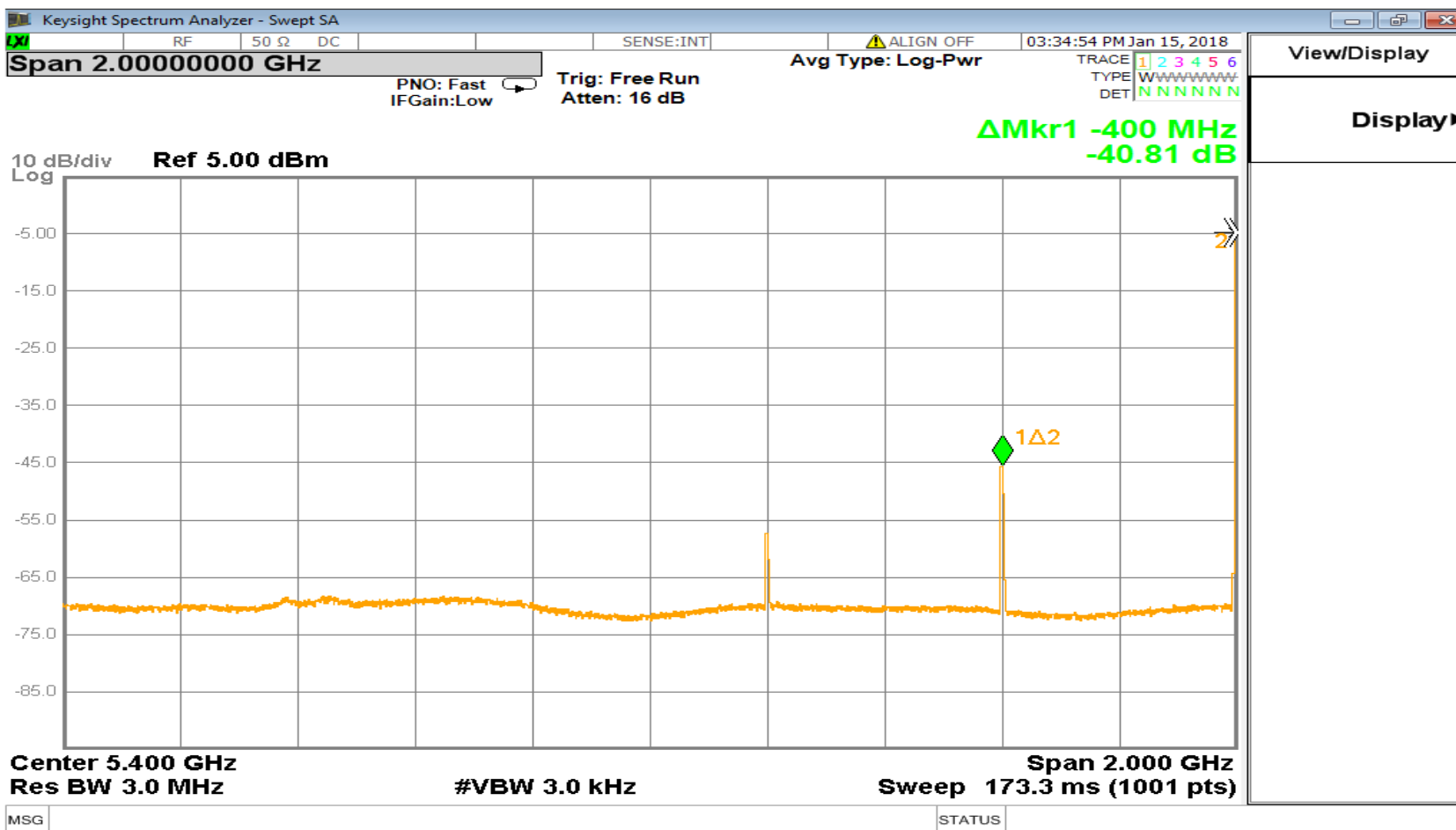
MARKI Tx CHANNEL 1 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

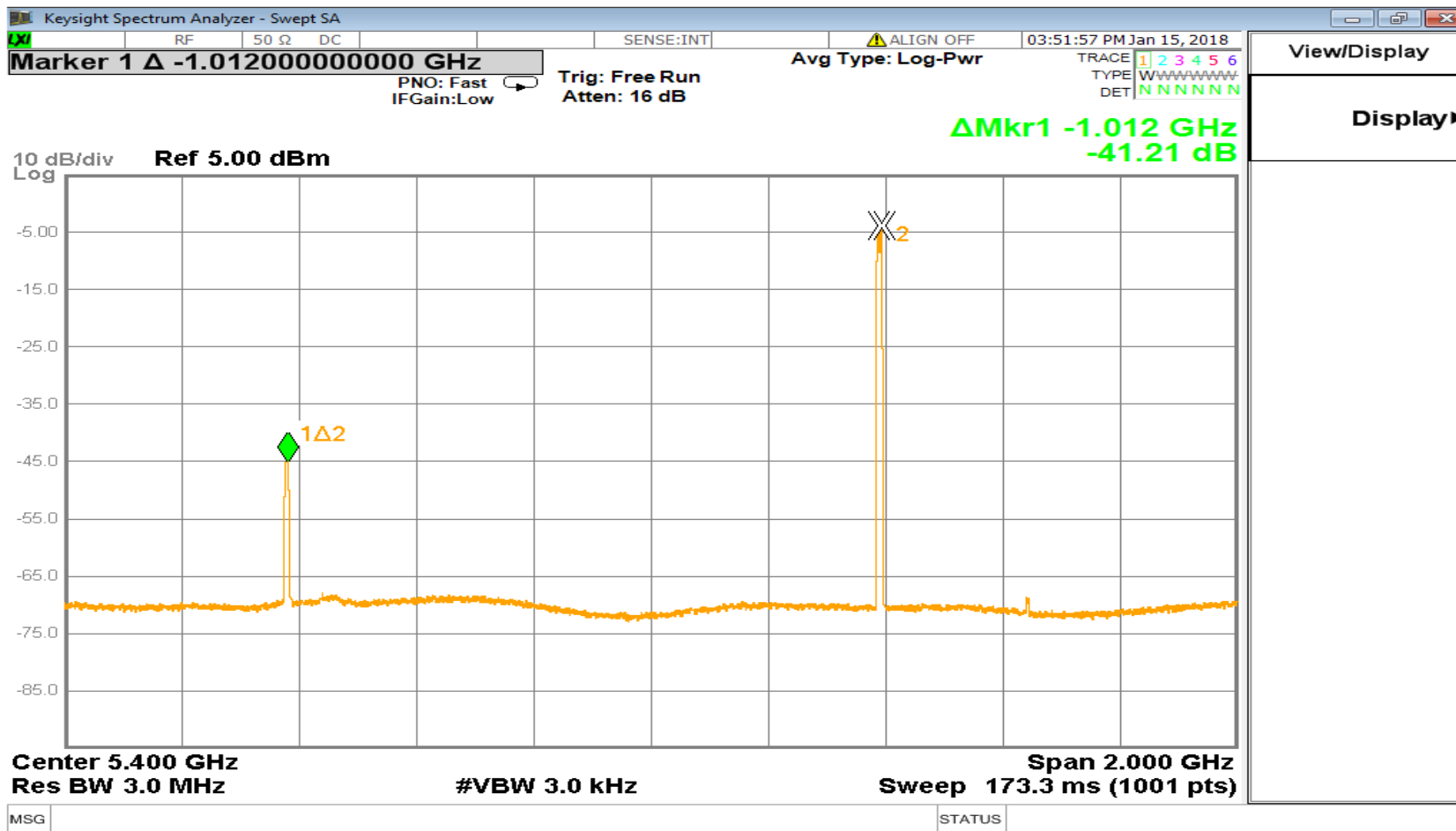
PMI Tx CHANNEL 2 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

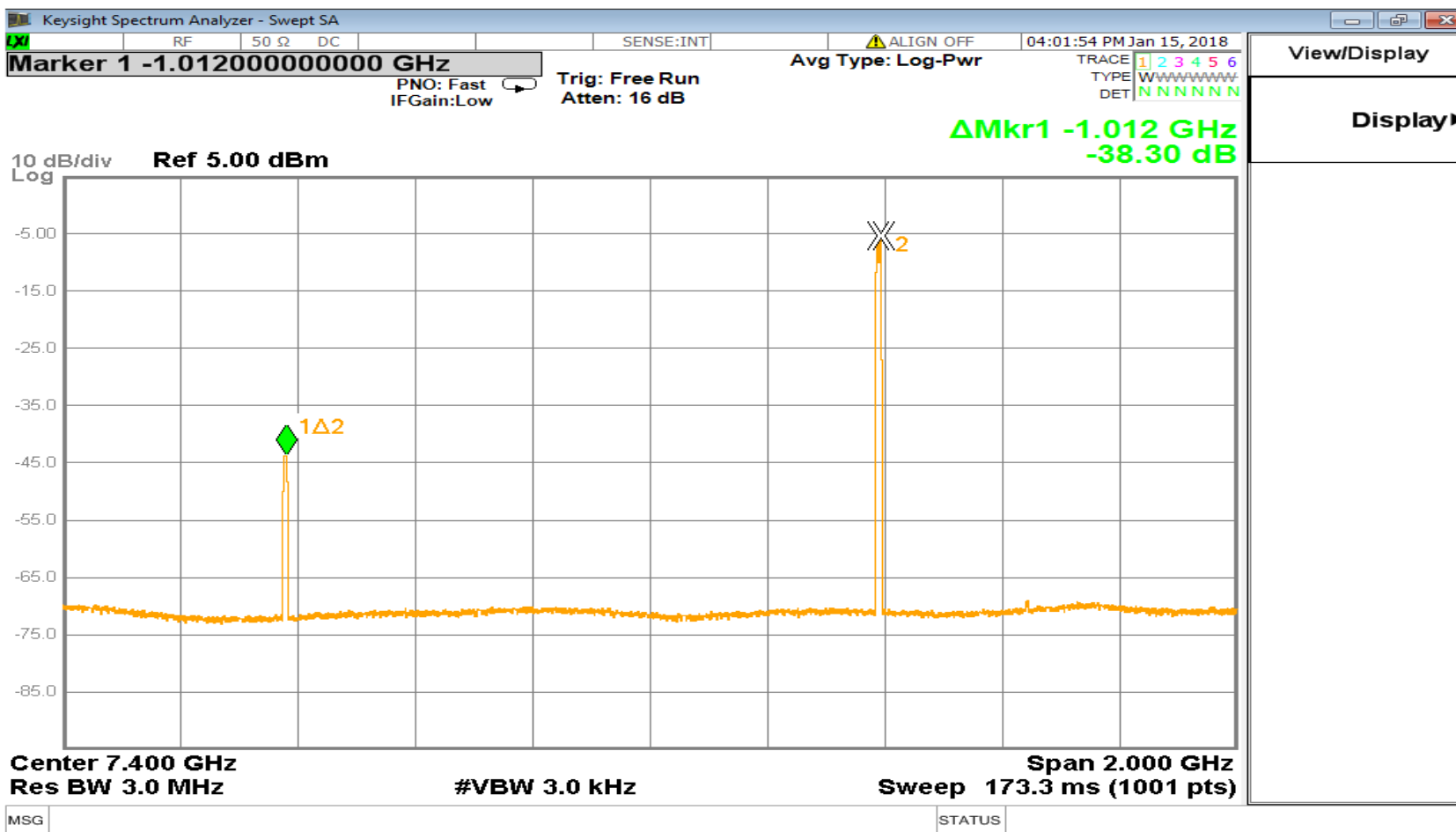
MARKI Tx CHANNEL 2 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

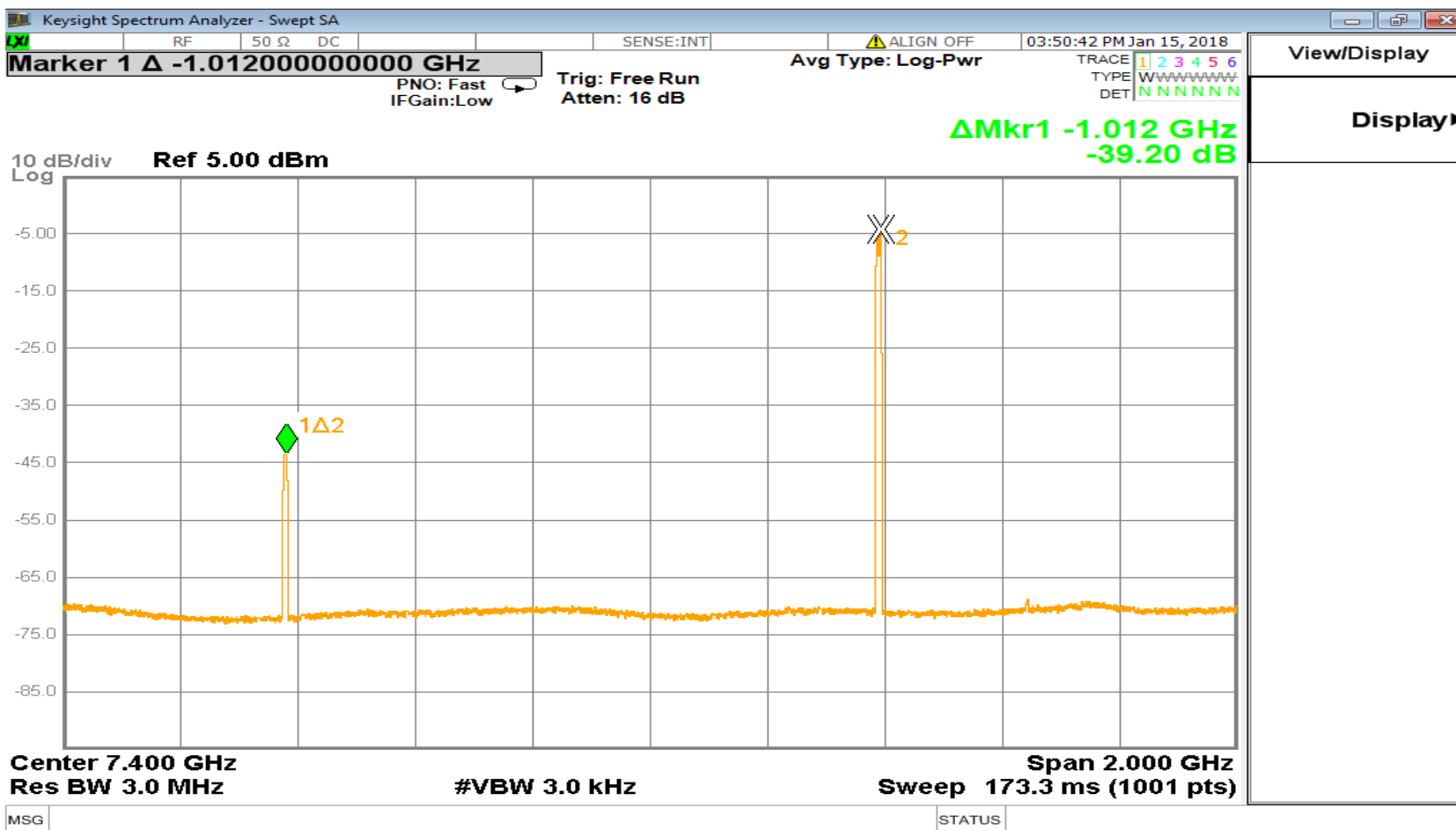
PMI Tx CHANNEL 3 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

MARKI Tx CHANNEL 3 SPURIOUS OUTPUT

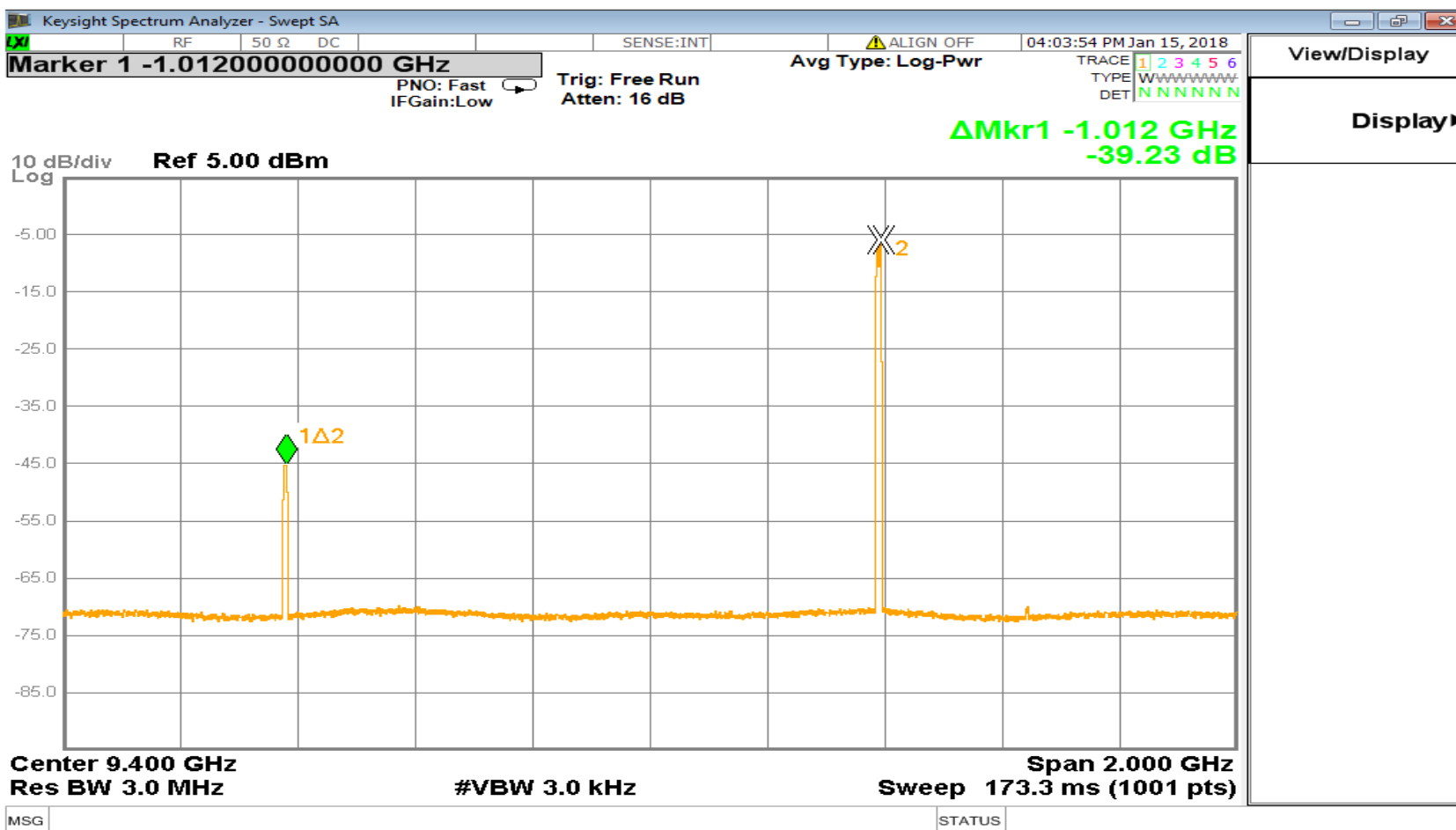






TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

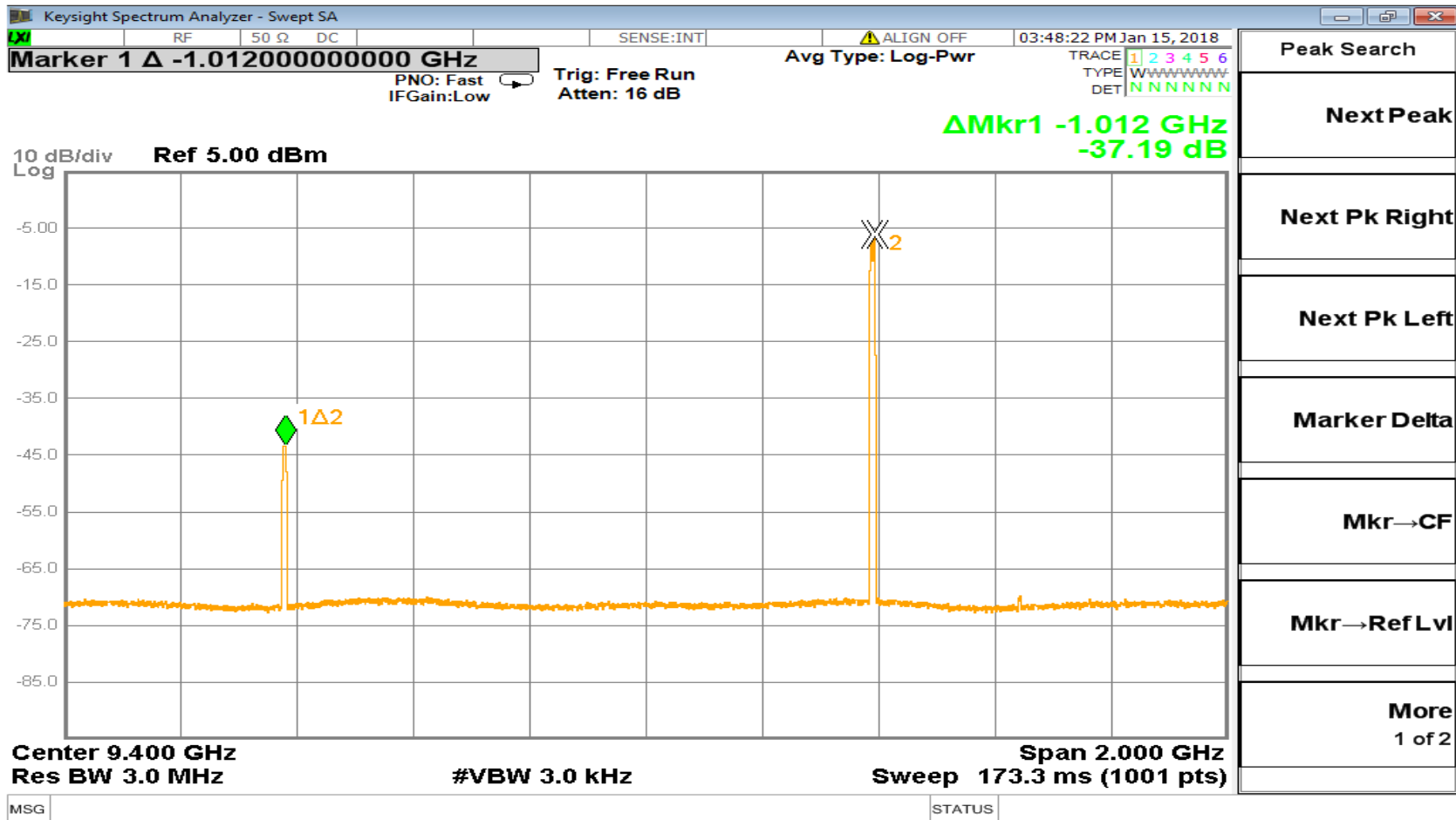
PMI Tx CHANNEL 4 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

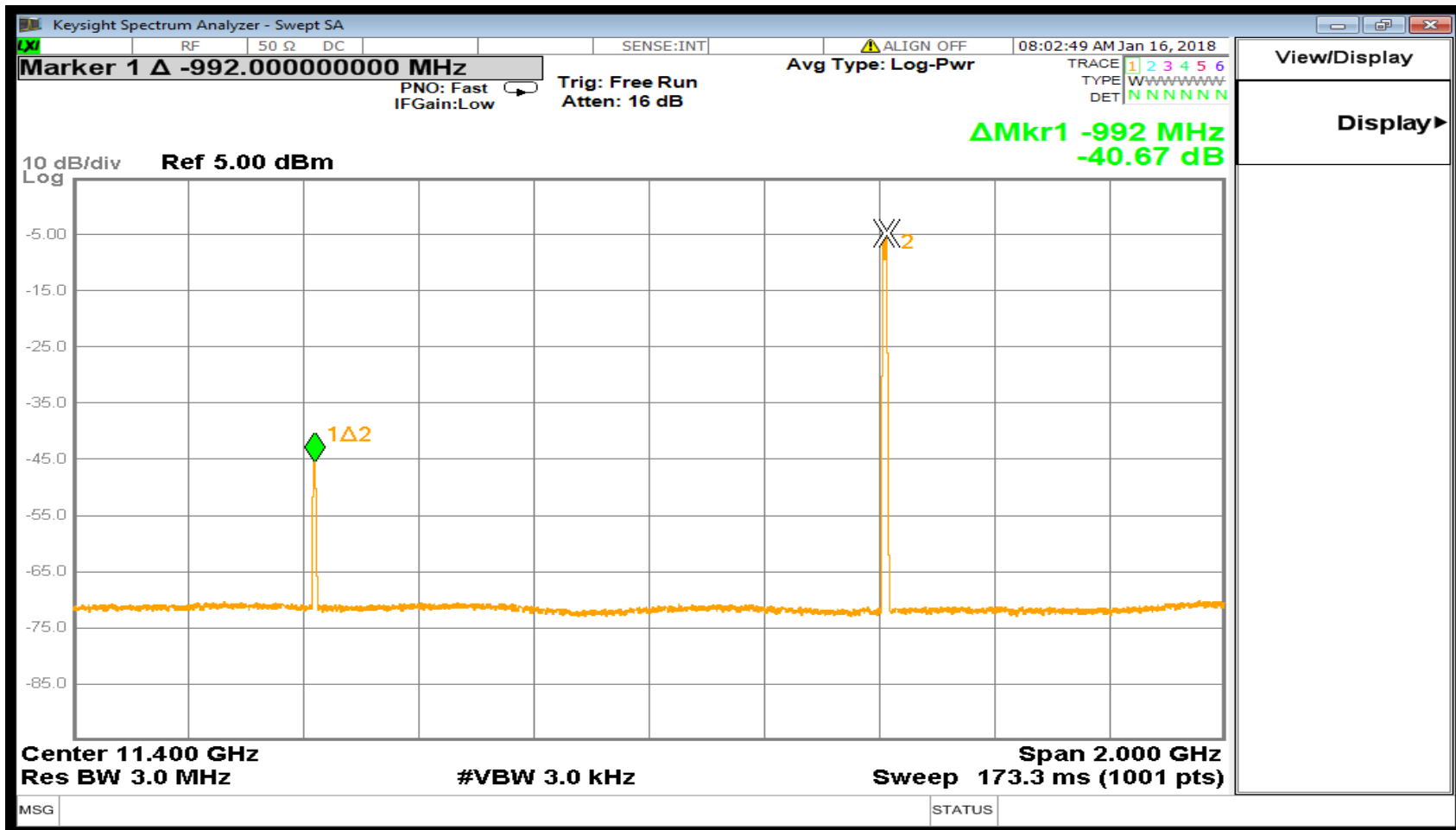
MARKI Tx CHANNEL 4 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

PMI Tx CHANNEL 5 SPURIOUS OUTPUT





TYPICAL CHARACTERISTICS  
ON  
PMIX-L4G20G-R2G18G-I100M4G-MAH

MARKI Tx CHANNEL 5 SPURIOUS OUTPUT

