

6 - PEAK POWER SPECTRAL DENSITY

6.1 Standard Applicable

According to §15.247 (d), for direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

6.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to zero span mode. And then, set RBW and VBW of spectrum analyzer to proper value.
4. Repeat above procedures until all frequencies measured were complete.

6.3 Test Results

Please refer to the attached plot(s).

ATTEN 30dB

RL 20.0dBm

10dB/

MKR -18.50dBm

2.410357GHz

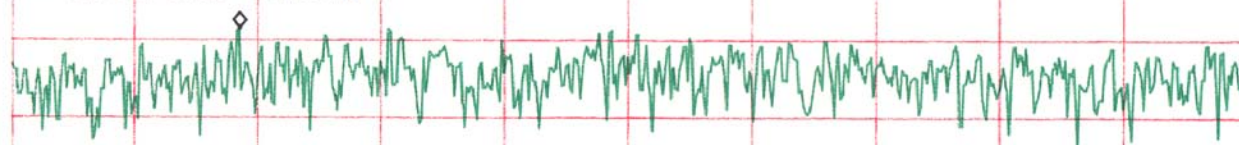
AMBIT T60H418 B2

4-18 (1. LOW CH)

MKR

2.410357 GHz

-18.50 dBm



CENTER 2.412247GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

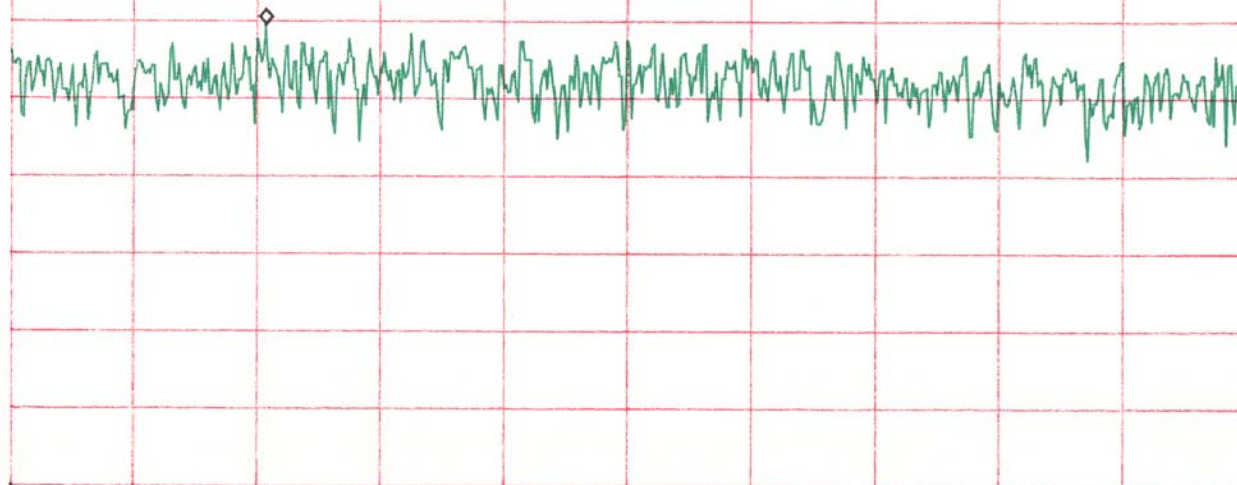
ATTEN 30dB
RL 20.0dBm

10dB/

MKR -20.50dBm
2.435297GHz

AMBIT T60H418 B2
4-18 (1, MID CH)

MKR
2.435297 GHz
-20.50 dBm



CENTER 2.437057GHz SPAN 6.000MHz
*RBW 3.0kHz VBW 3.0kHz *SWP 2.0ksec

ATTEN 30dB

RL 20.0dBm

10dB/

MKR -24.67dBm

2.462400GHz

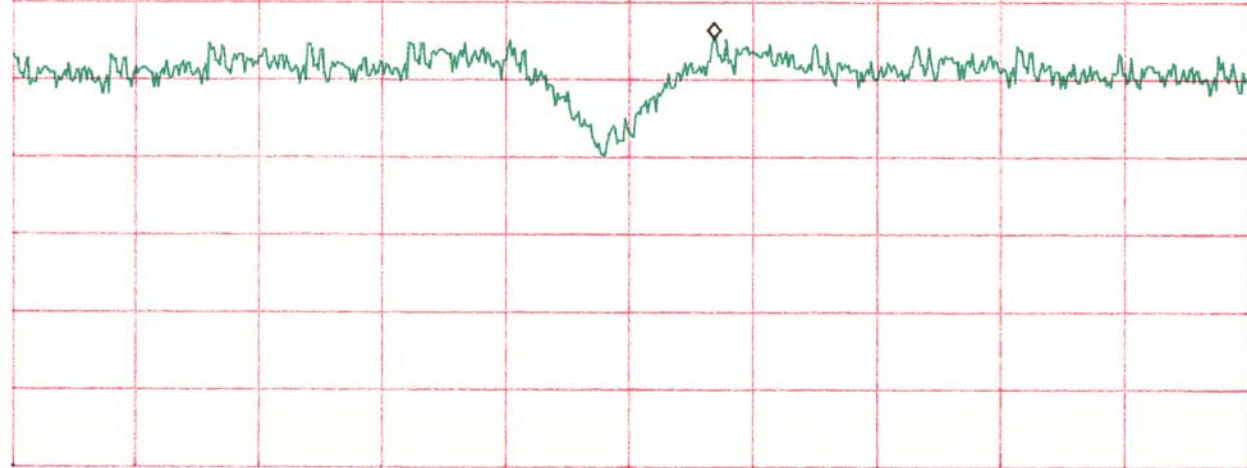
AMBIT T60H418 B2

4-18 (1, HIGH CH)

MKR

2.462400 GHz

-24.67 dBm



CENTER 2.461990GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

ATTEN 30dB

RL 20.0dBm

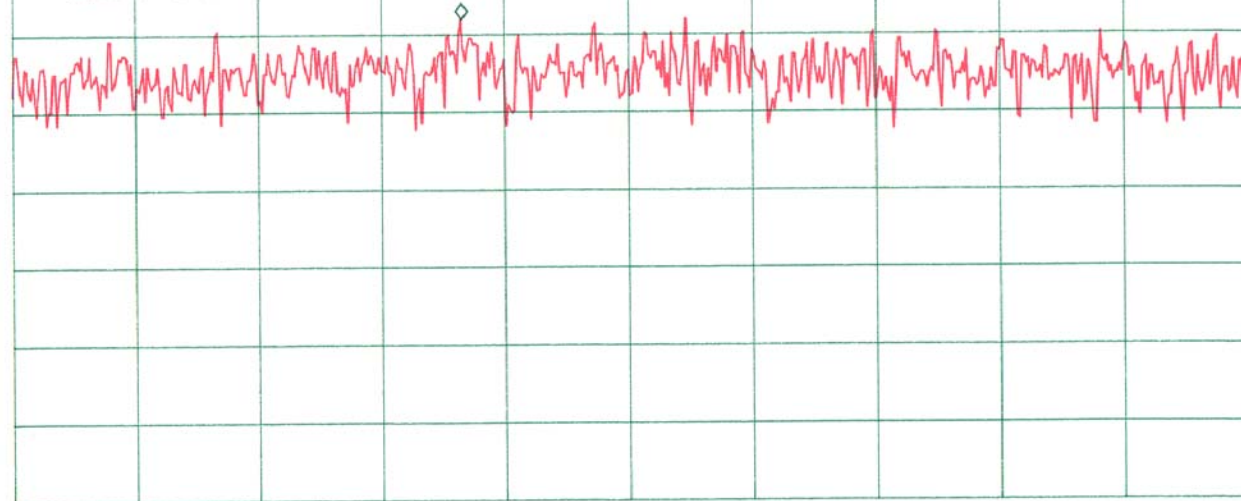
10dB/

MKR -18.00dBm

2.411307GHz

AMBIT T60H418 B2
4-19 (1, LOW CH)

MKR
2.411307 GHz
-18.00 dBm



CENTER 2.412117GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

ATTEN 30dB

RL 20.0dBm

10dB/

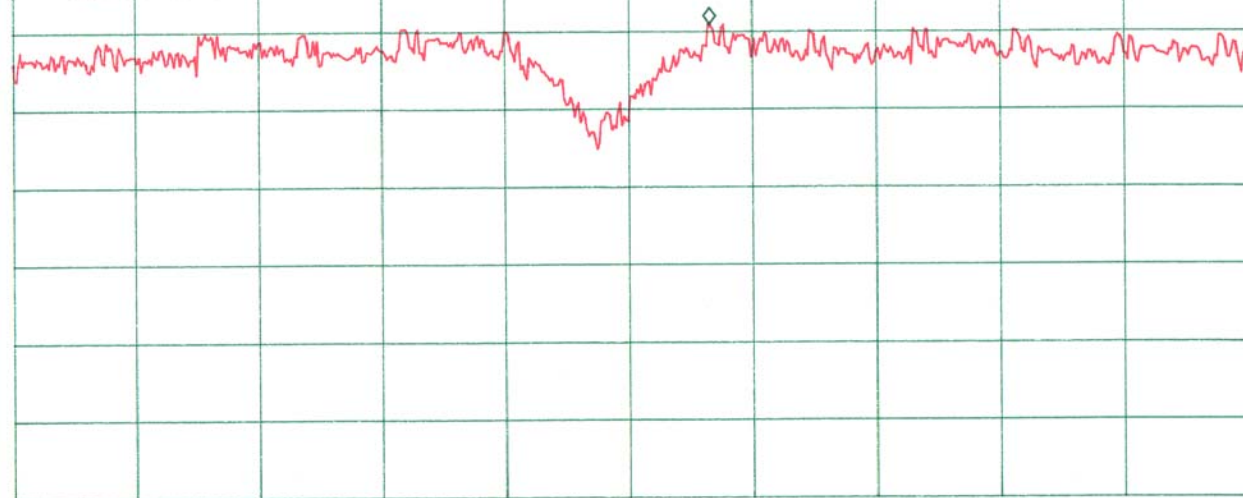
MKR -19.00dBm

2.437393GHz

AMBIT T60H418 B2

4-19 (1. MID CH)

MKR
2.437393 GHz
-19.00 dBm



CENTER 2.437003GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

ATTEN 30dB

RL 20.0dBm

10dB/

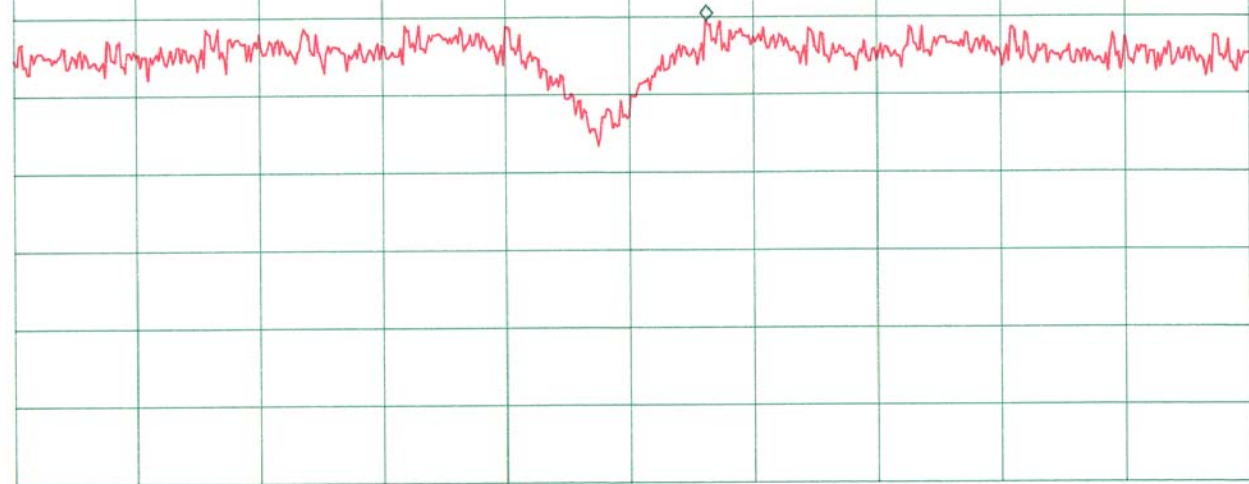
MKR -20.50dBm

2.462383GHz

AMBIT T60H418 B2

4-19 (1, HIGH CH)

MKR
2.462383 GHz
-20.50 dBm



CENTER 2.462013GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

*ATTEN 0dB

RL -10.0dBm

10dB/

MKR -55.83dBm

2.412363GHz

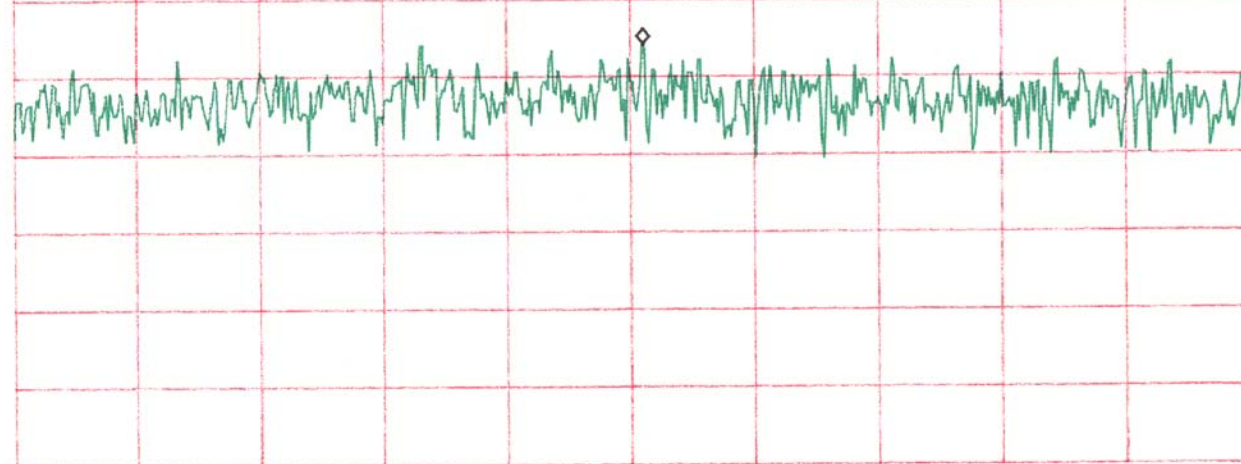
AMBIT T60H418 B2

4-18 (2, LOW CH)

MKR

2.412363 GHz

-55.83 dBm



CENTER 2.412303GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

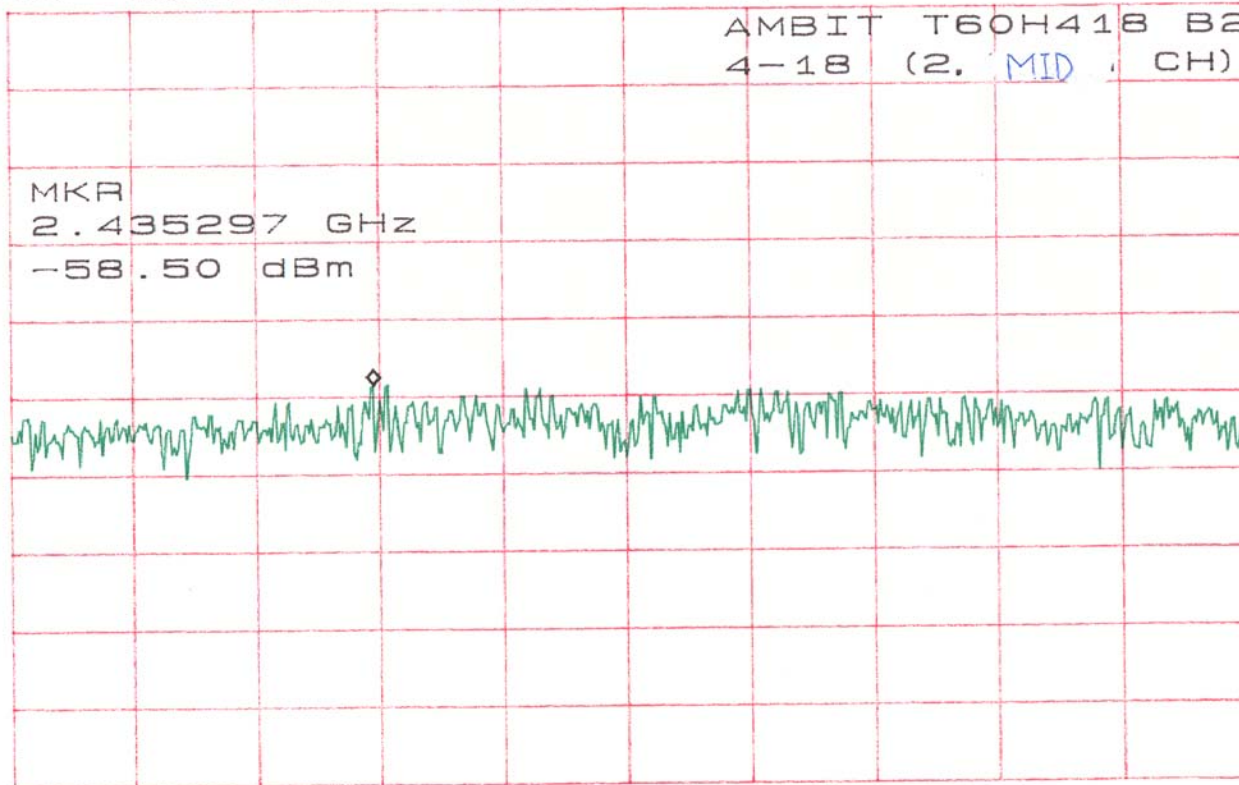
*ATTEN 0dB
RL -10.0dBm

10dB/

MKR -58.50dBm
2.435297GHz

AMBIT T60H418 B2
4-18 (2. MID , CH)

MKR
2.435297 GHz
-58.50 dBm



CENTER 2.436527GHz
*RBW 3.0kHz VBW 3.0kHz

SPAN 6.000MHz
*SWP 2.0ksec

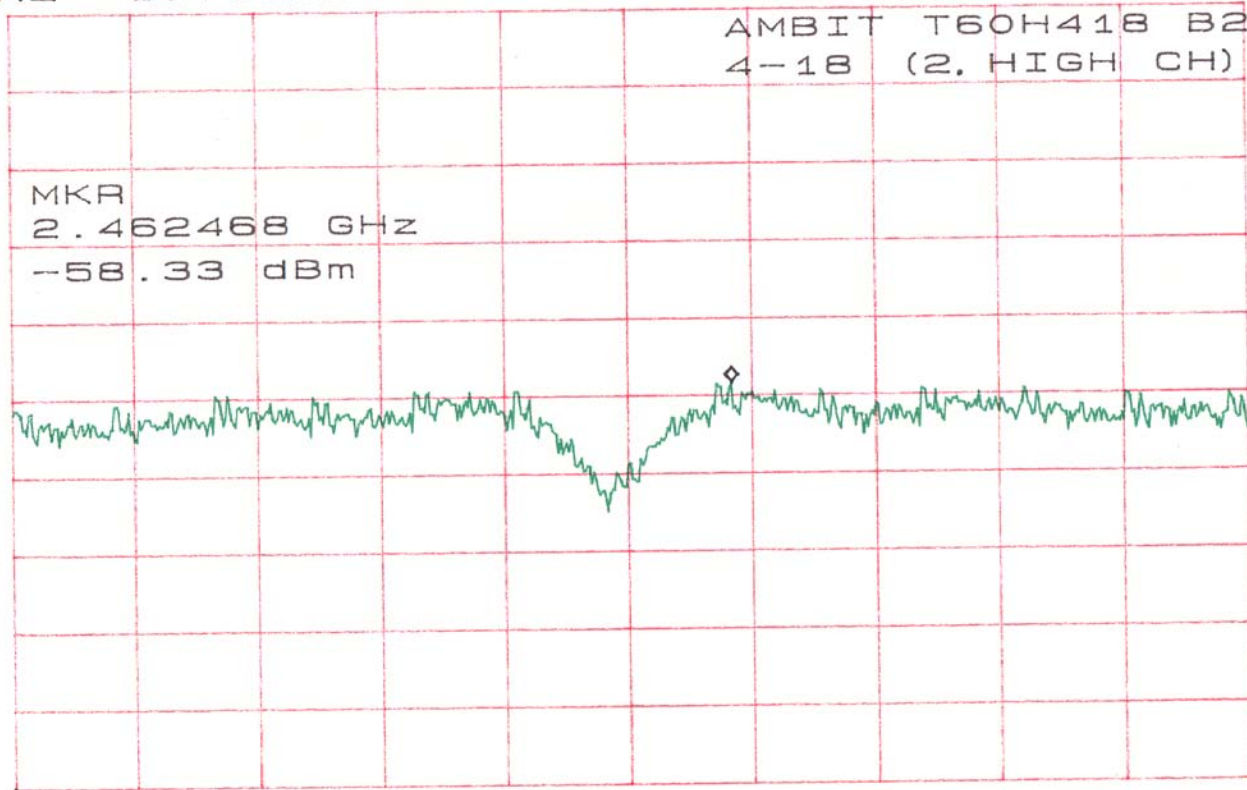
*ATTEN 0dB
RL -10.0dBm

10dB/

MKR -58.33dBm
2.462468GHz

AMBIT T60H418 B2
4-18 (2, HIGH CH)

MKR
2.462468 GHz
-58.33 dBm



CENTER 2.461968GHz
*RBW 3.0kHz VBW 3.0kHz

SPAN 6.000MHz
*SWP 2.0ksec

*ATTEN 0dB

RL -10.0dBm

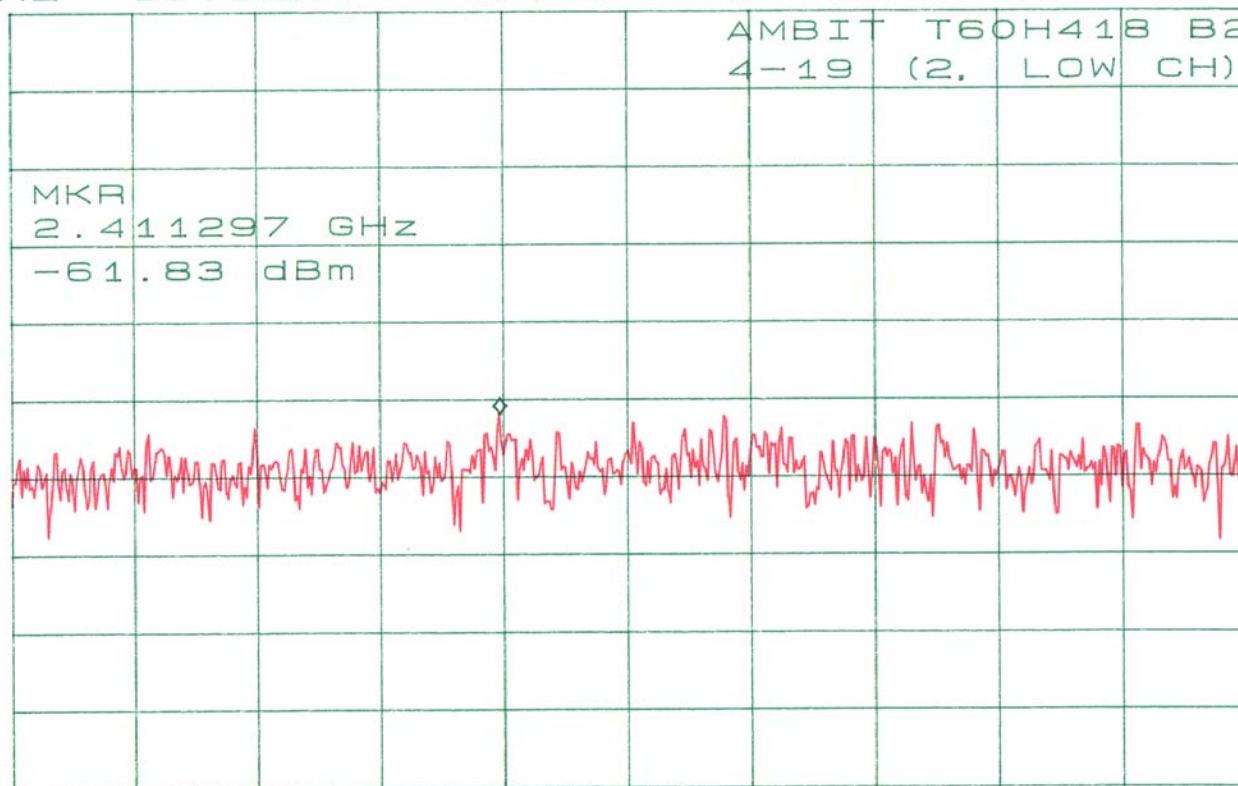
10dB/

MKR -61.83dBm

2.411297GHz

AMBIT T60H418 B2
4-19 (2, LOW CH)

MKR
2.411297 GHz
-61.83 dBm



CENTER 2.411917GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

*ATTEN 0dB

RL -10.0dBm

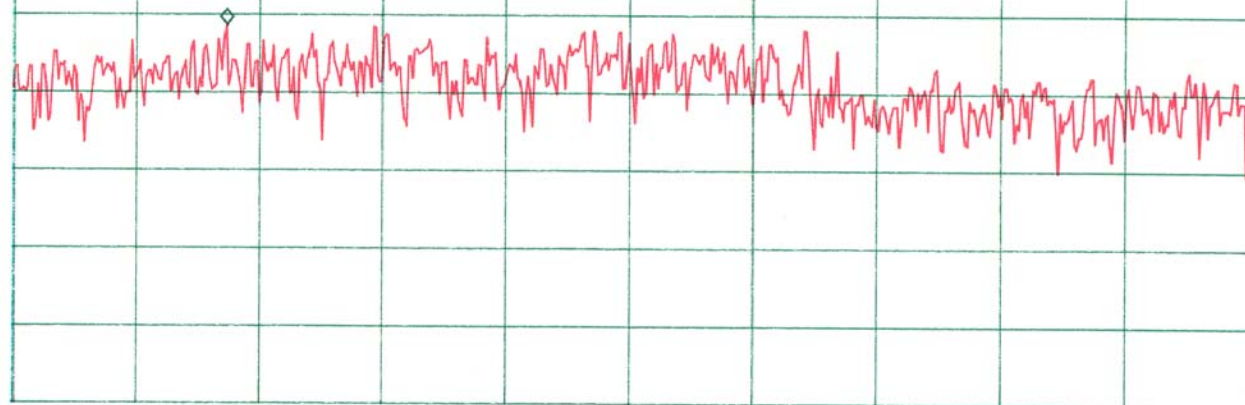
10dB/

MKR -61.33dBm

2.435337GHz

AMBIT T60H418 B2
4-19 (2, MID CH)

MKR
2.435337 GHz
-61.33 dBm



CENTER 2.437297GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

*ATTEN 0dB

RL -10.0dBm

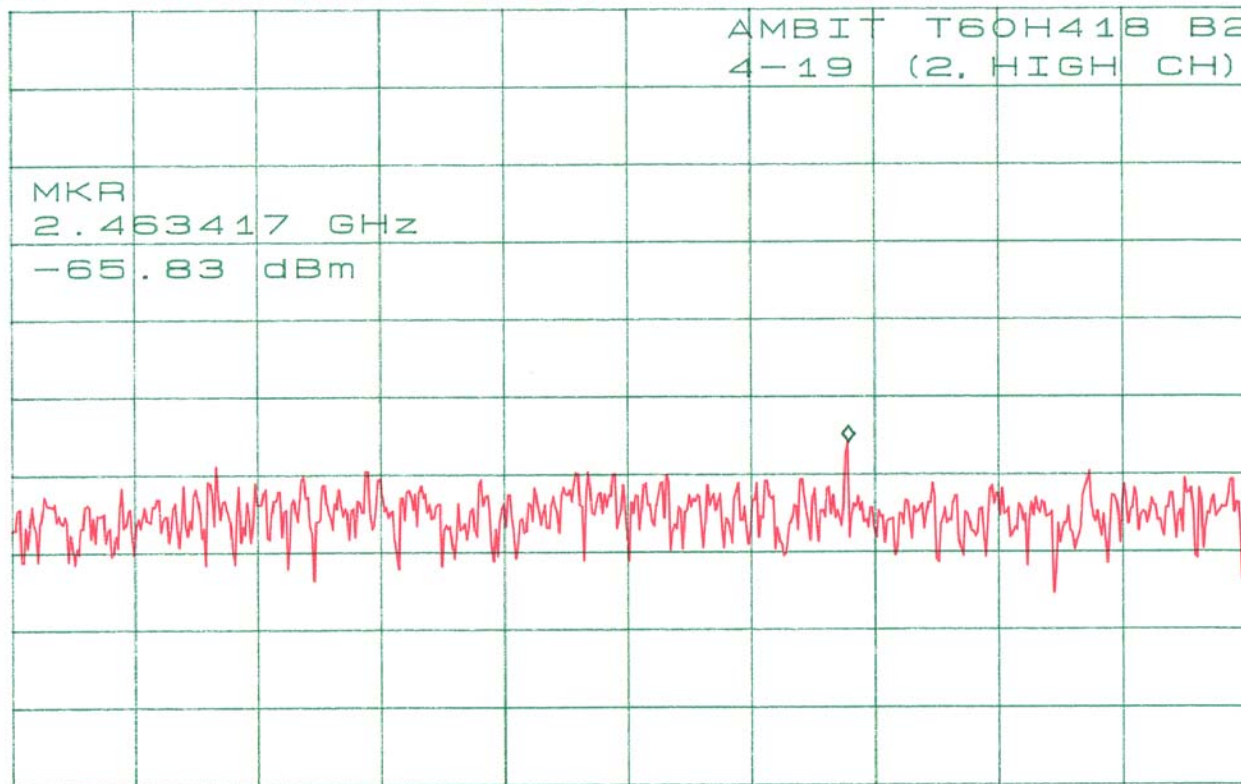
10dB/

MKR -65.83dBm

2.463417GHz

AMBIT T60H418 B2
4-19 (2. HIGH CH)

MKR
2.463417 GHz
-65.83 dBm



CENTER 2.462347GHz

SPAN 6.000MHz

*RBW 3.0kHz

VBW 3.0kHz

*SWP 2.0ksec

7 - 6 DB BANDWIDTH

7.1 Standard Applicable

According to §15.247(a)(2), for direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz.

7.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

7.3 Measurement Data

Please refer to appending plot for more information.

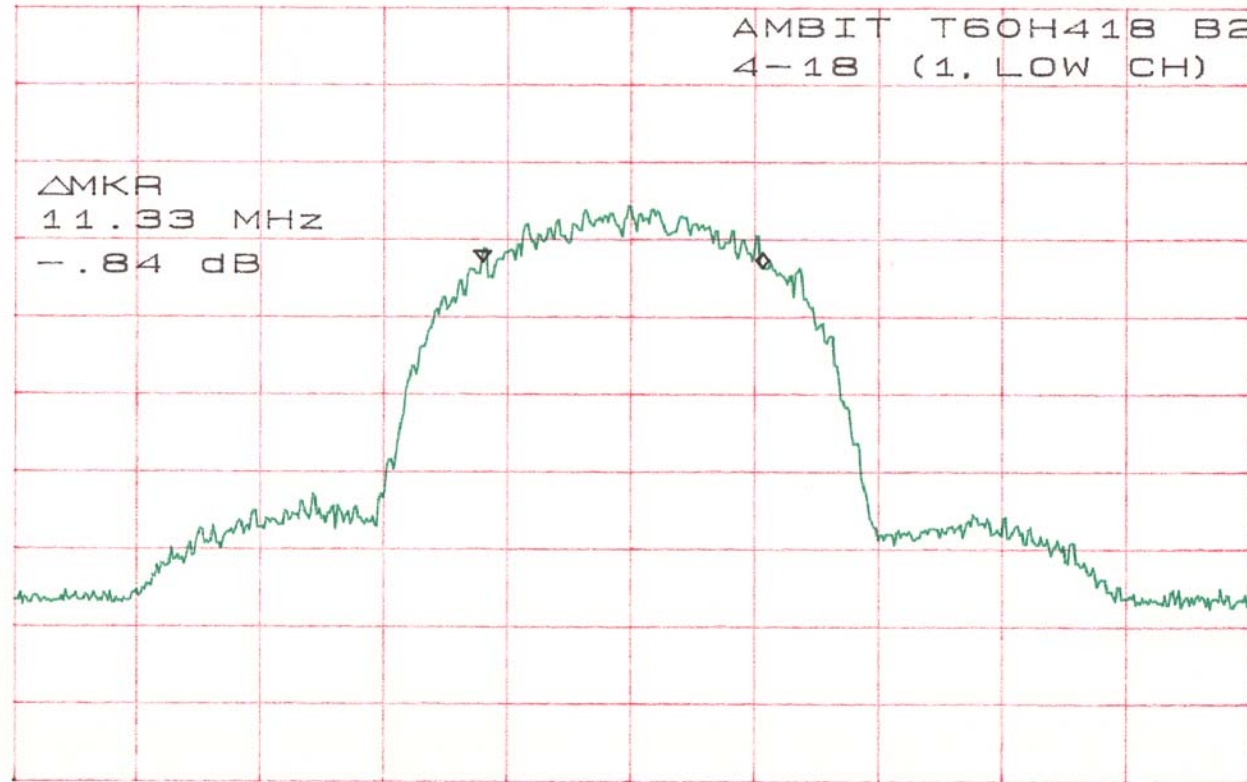
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR -.84dB
11.33MHz

AMBIT T60H418 B2
4-18 (1, LOW CH)

Δ MKR
11.33 MHz
-.84 dB



CENTER 2.41225GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

ATTEN 30dB

RL 20.0dBm

10dB/

Δ MKR -.66dB

11.50MHz

AMBIT T60H418 B2

4-18 (1, MID CH)

Δ MKR
11.50 MHz
-.66 dB



CENTER 2.43691GHz

SPAN 50.00MHz

*RBW 100kHz

VBW 100kHz

SWP 50.0ms

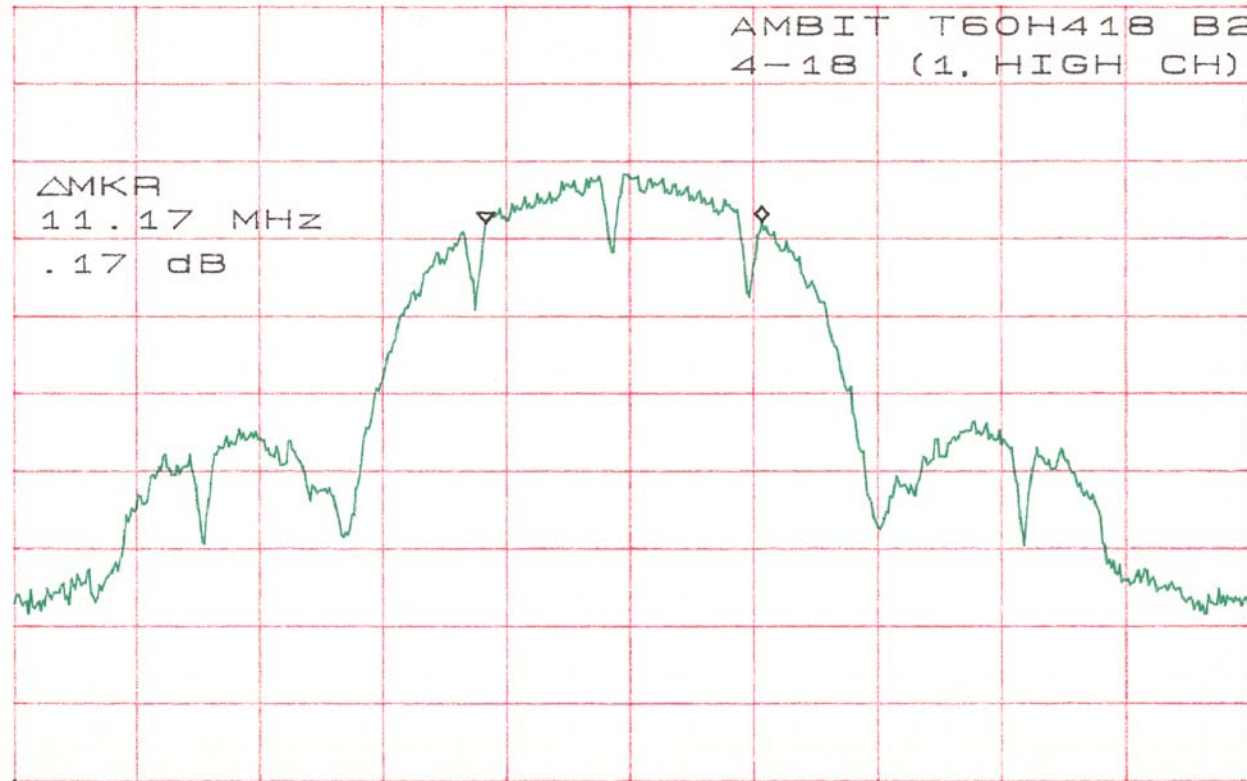
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR .17dB
11.17MHz

AMBIT T60H418 B2
4-18 (1. HIGH CH)

Δ MKR
11.17 MHz
.17 dB



CENTER 2.46290GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

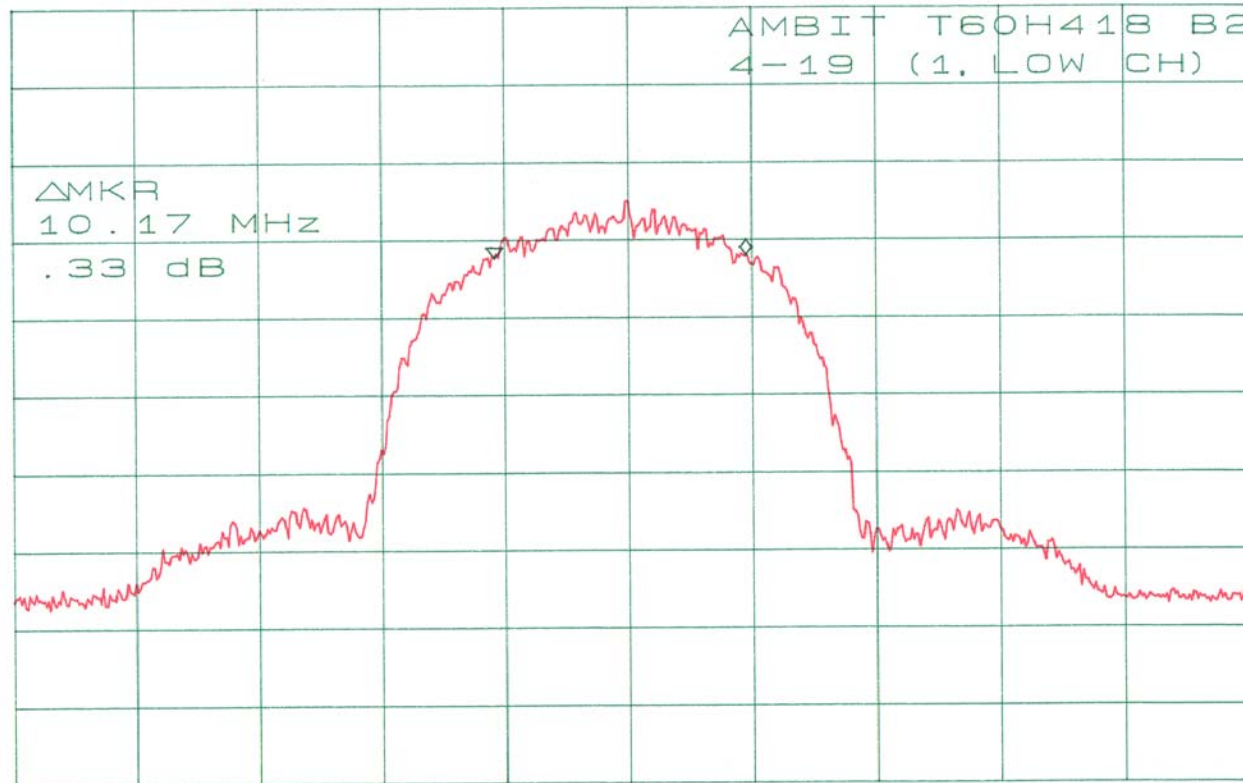
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR .33dB
10.17MHz

AMBIT T60H418 B2
4-19 (1. LOW CH)

D
 Δ MKR
10.17 MHz
.33 dB



CENTER 2.41272GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

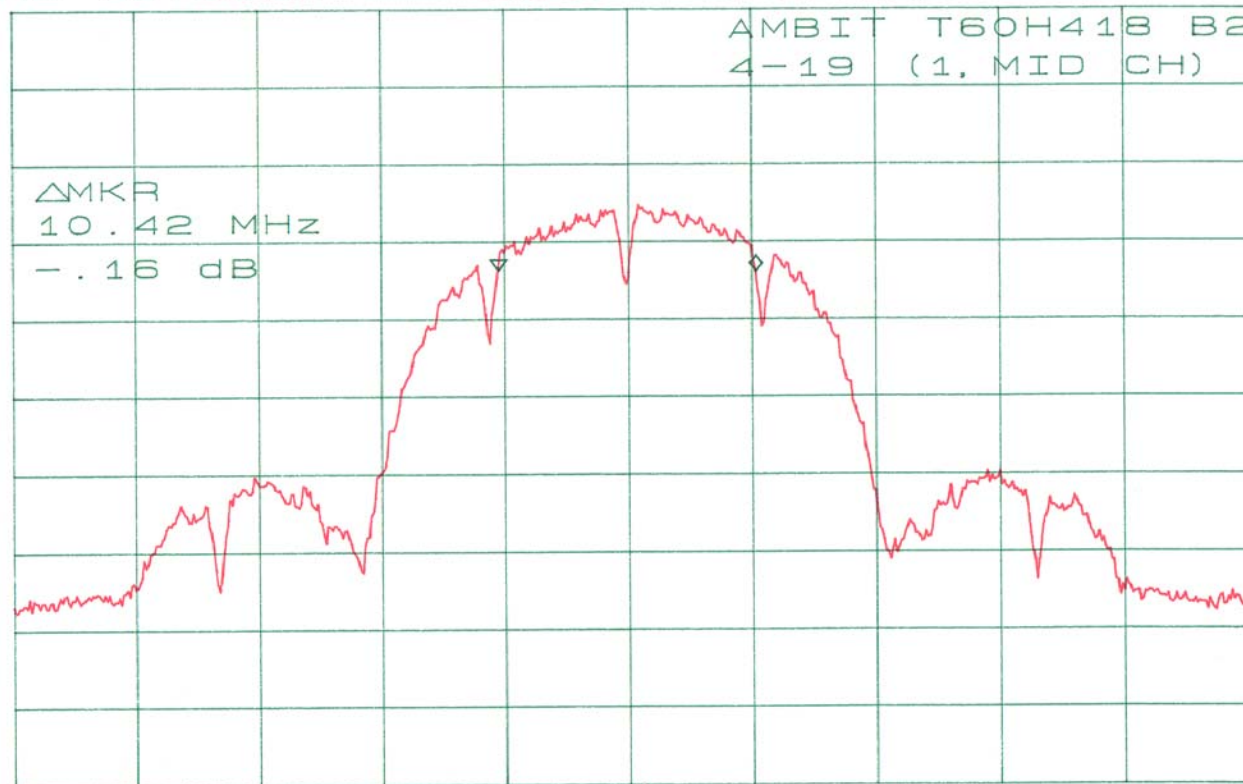
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR -.16dB
10.42MHz

AMBIT T60H418 B2
4-19 (1, MID CH)

Δ MKR
10.42 MHz
-.16 dB



CENTER 2.43717GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

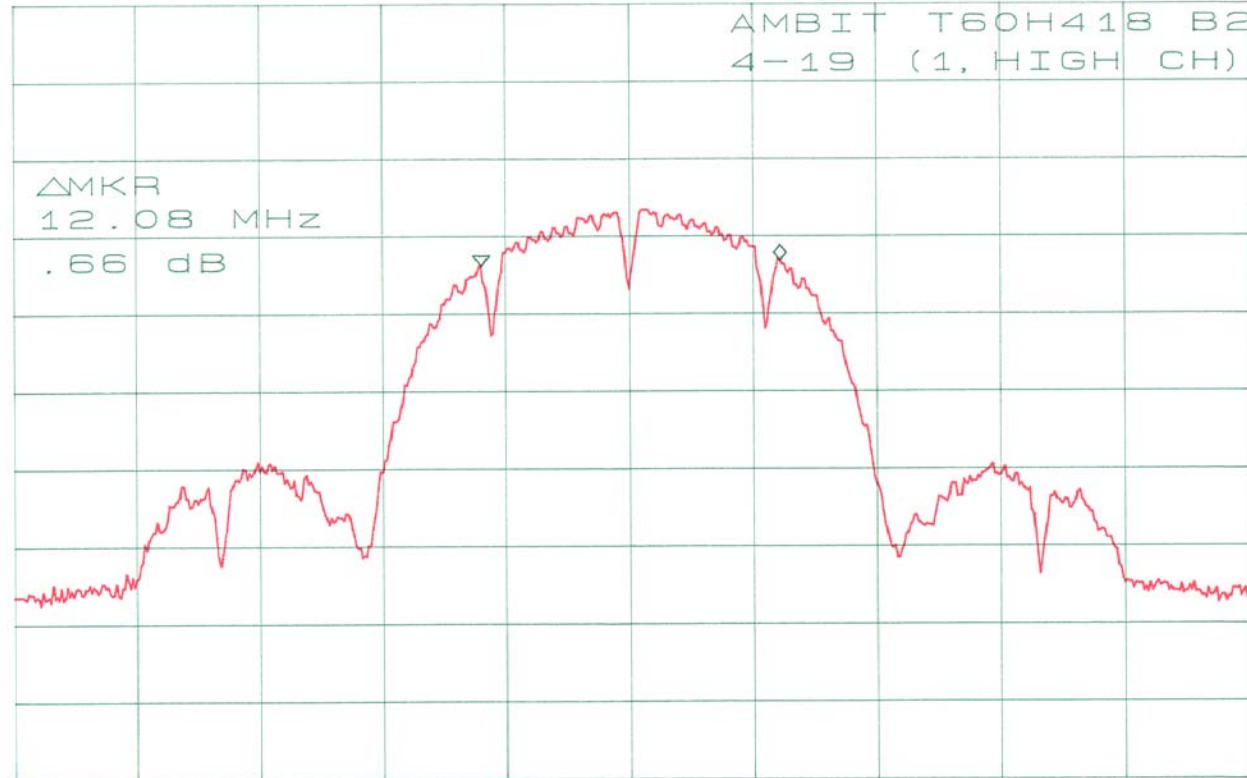
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR .66dB
12.08MHz

AMBIT T60H418 B2
4-19 (1, HIGH CH)

D
 Δ MKR
12.08 MHz
.66 dB



CENTER 2.46215GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

*ATTEN 0dB

RL -10.0dBm

10dB/

Δ MKR -.50dB

9.58MHz

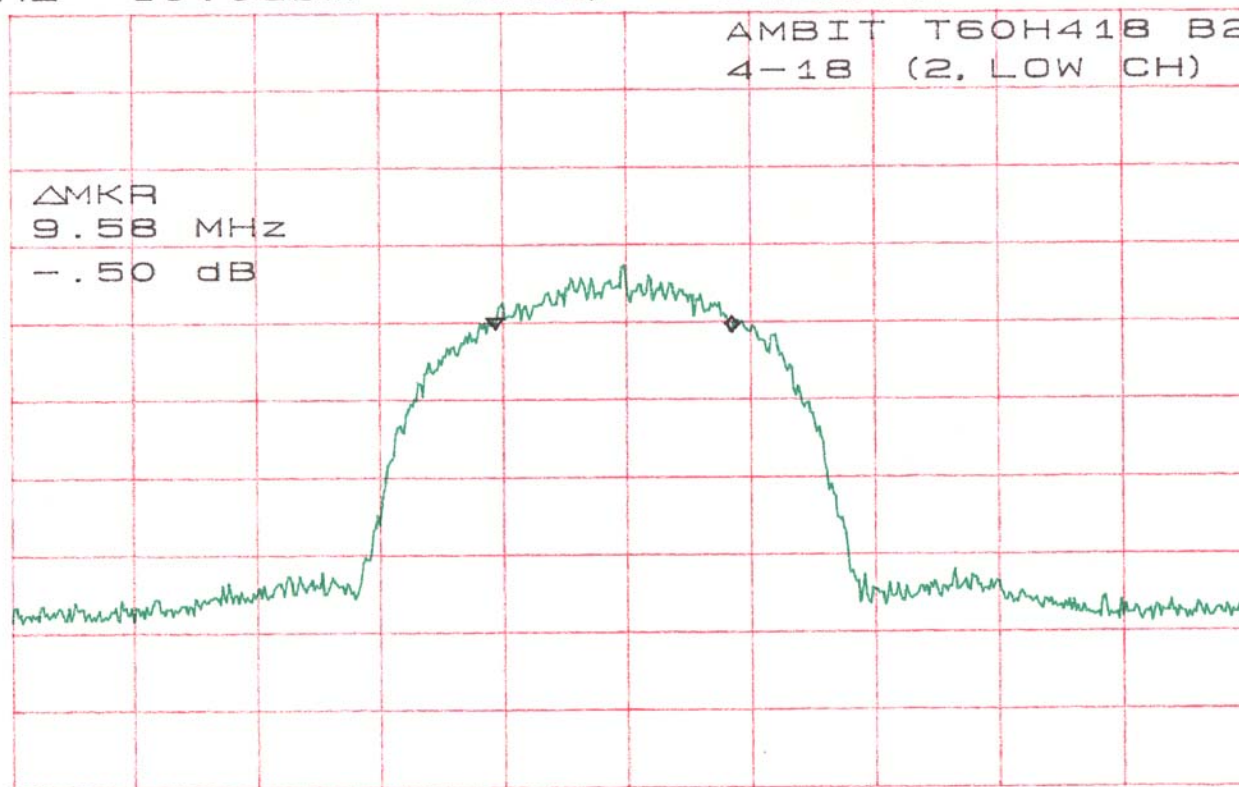
AMBIT T60H41B B2

4-1B (2, LOW CH)

Δ MKR

9.58 MHz

-.50 dB



CENTER 2.41280GHz

SPAN 50.00MHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms

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*ATTEN 0dB
RL -10.0dBm
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10dB/

 $\Delta MKR \quad .33dB$

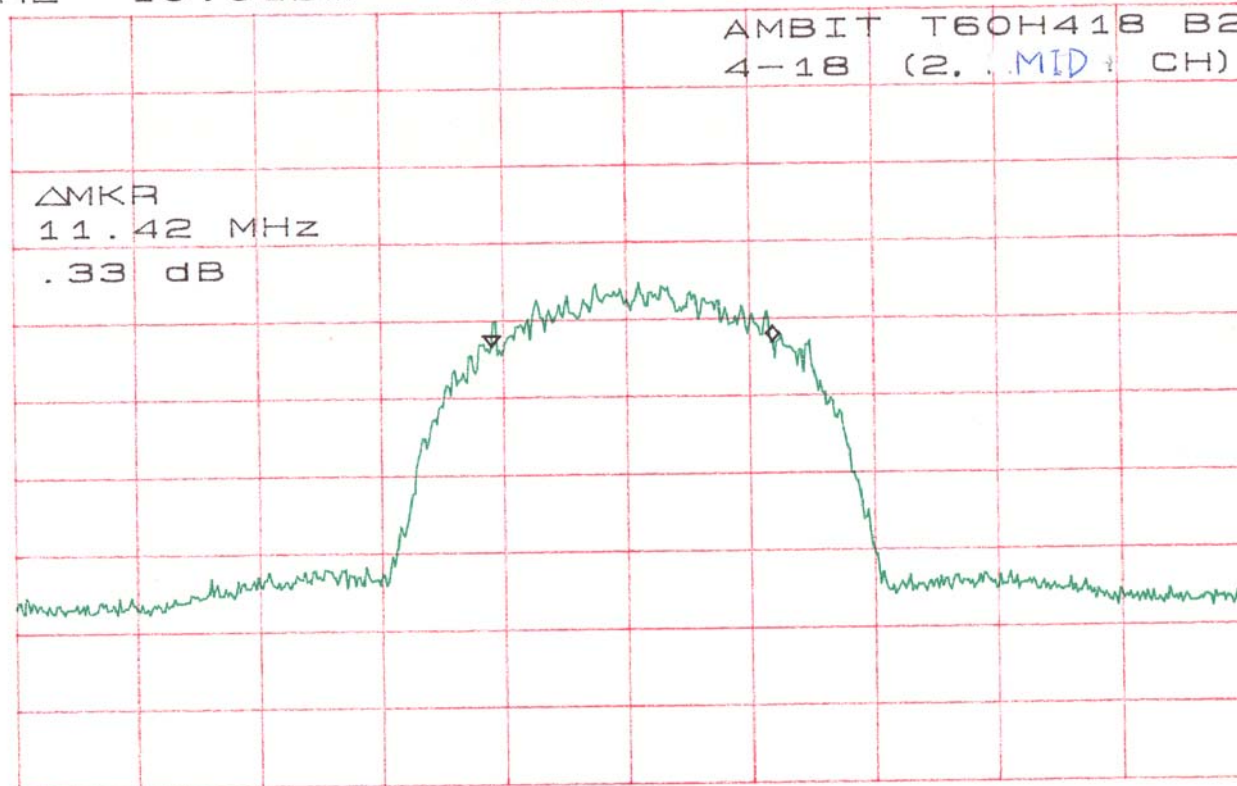
11.42MHz

AMBIT T60H418 B2

4-18 (2. MID CH)

ΔMKR	
11.42	MHz
.33	dB

D



CENTER 2.43680GHz

SPAN 50.00MHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms

*ATTEN 0dB
RL -10.0dBm

10dB/

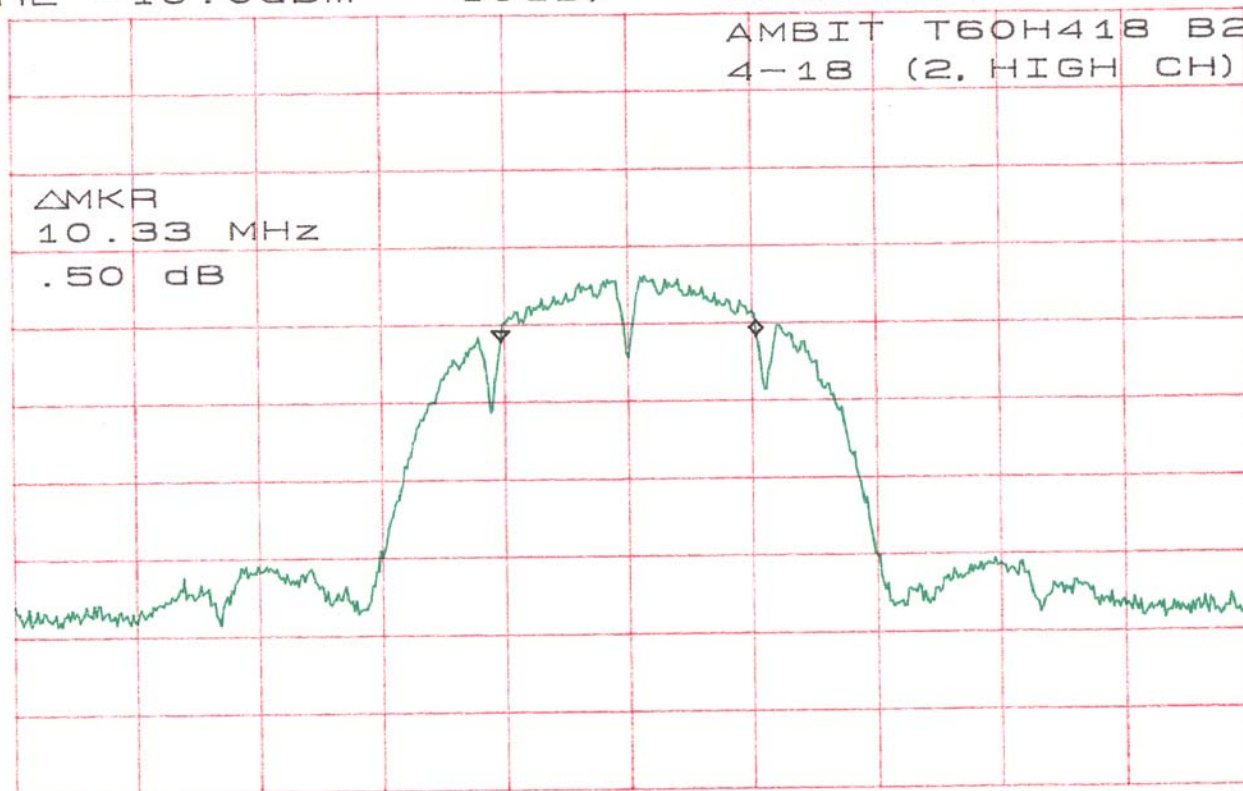
Δ MKR .50dB

10.33MHz

AMBIT T60H418 B2

4-18 (2. HIGH CH)

Δ MKR
10.33 MHz
.50 dB



CENTER 2.46218GHz
*RBW 100KHz VBW 100KHz

SPAN 50.00MHz

*SWP 50.0ms

*ATTEN 0dB

RL -10.0dBm

10dB/

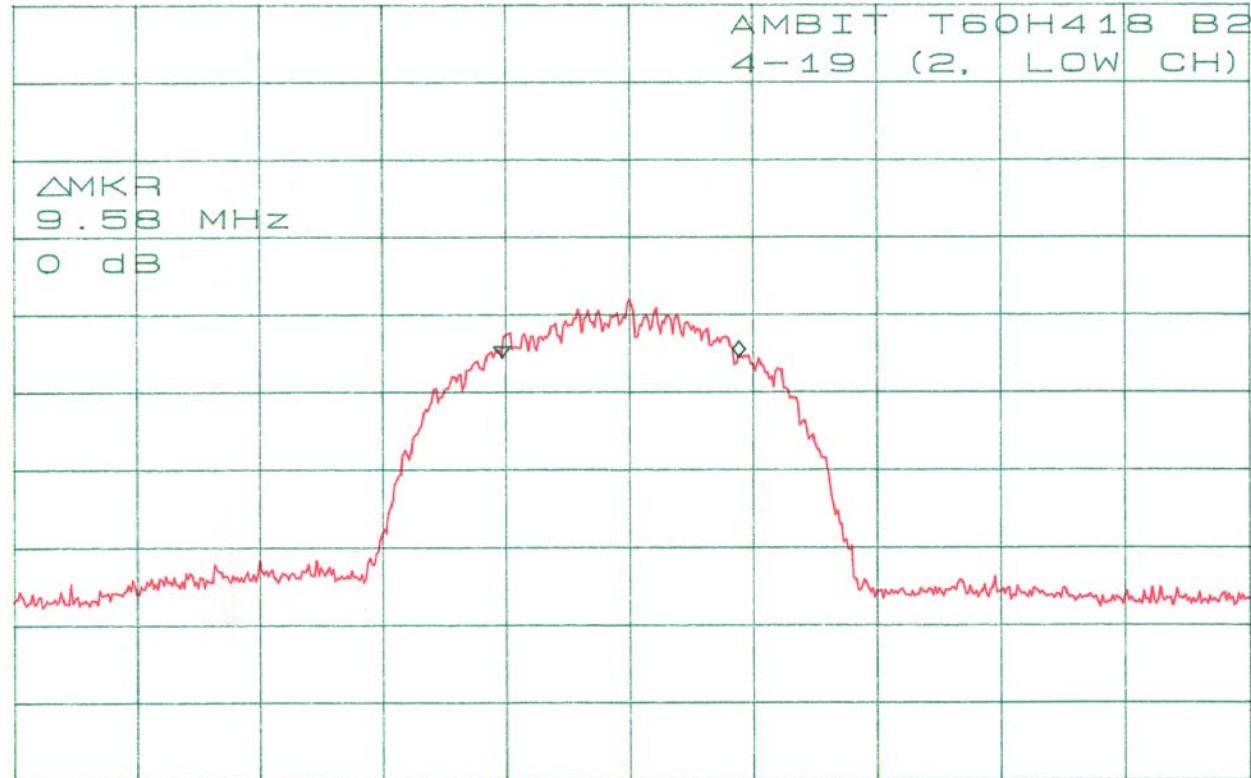
Δ MKR 0dB

9.58MHz

AMBIT T60H418 B2

4-19 (2, LOW CH)

Δ MKR
9.58 MHz
0 dB



CENTER 2.41266GHz

SPAN 50.00MHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms

*ATTEN 0dB

RL -10.0dBm

10dB/

Δ MKR -1.00dB

11.33MHz

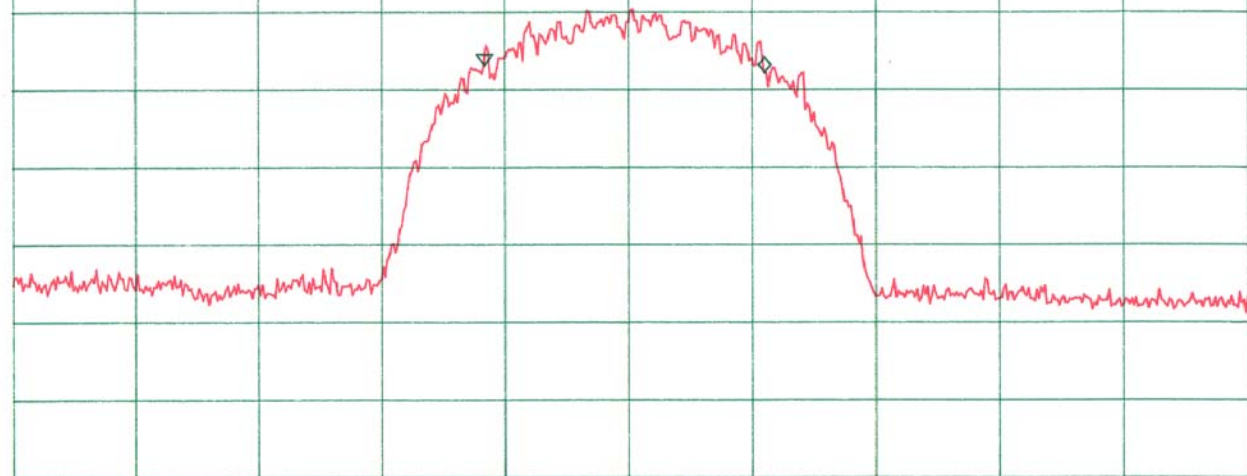
AMBIT T60H418 B2

4-19 (2, MID CH)

Δ MKR

11.33 MHz

-1.00 dB



CENTER 2.43716GHz

SPAN 50.00MHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms

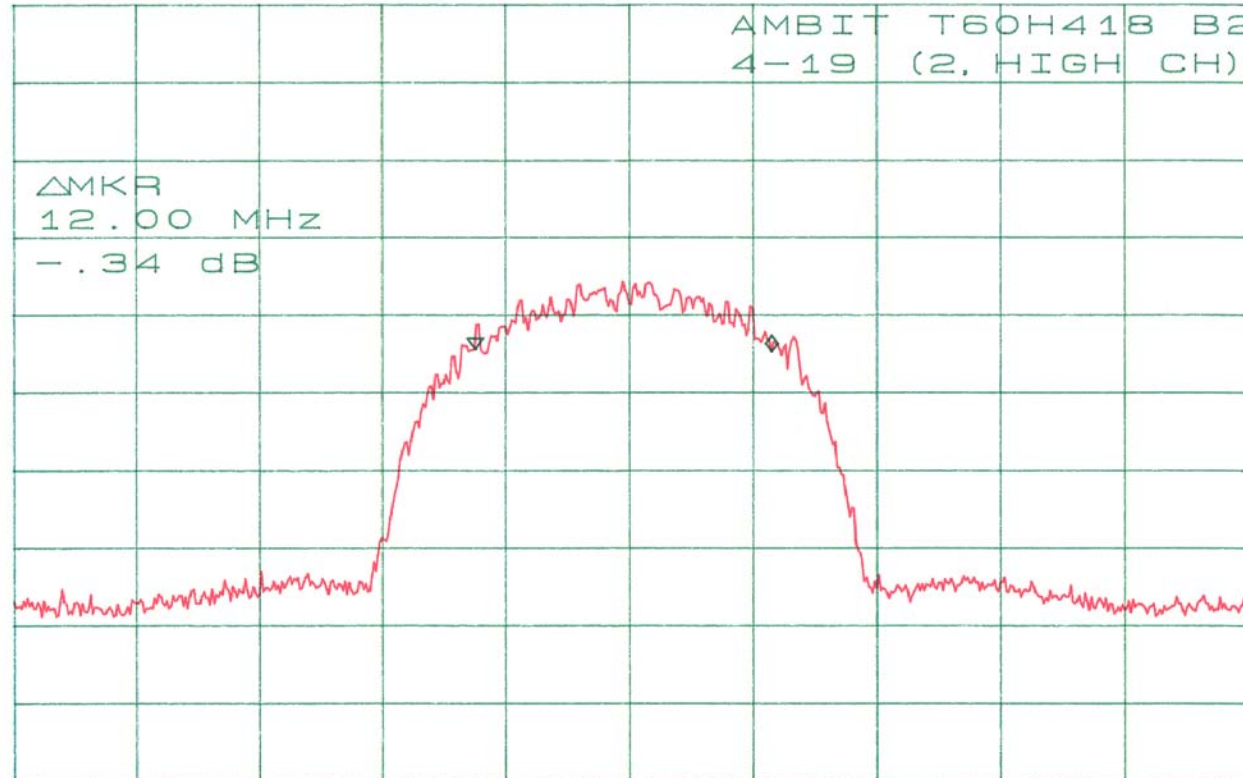
*ATTEN 0dB
RL -10.0dBm

10dB/

Δ MKR -.34dB
12.00MHz

AMBIT T60H418 B2
4-19 (2, HIGH CH)

Δ MKR
12.00 MHz
-.34 dB



CENTER 2.46263GHz
*RBW 100kHz VBW 100kHz

SPAN 50.00MHz
*SWP 50.0ms

8 -100 KHZ BANDWIDTH OF BAND EDGES MEASUREMENT

8.1 Standard Applicable

According to §15.247(c), in *any* 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) see §15.2057(c)).

8.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

8.3 Test Results

Please refer to the appending plot for more information.

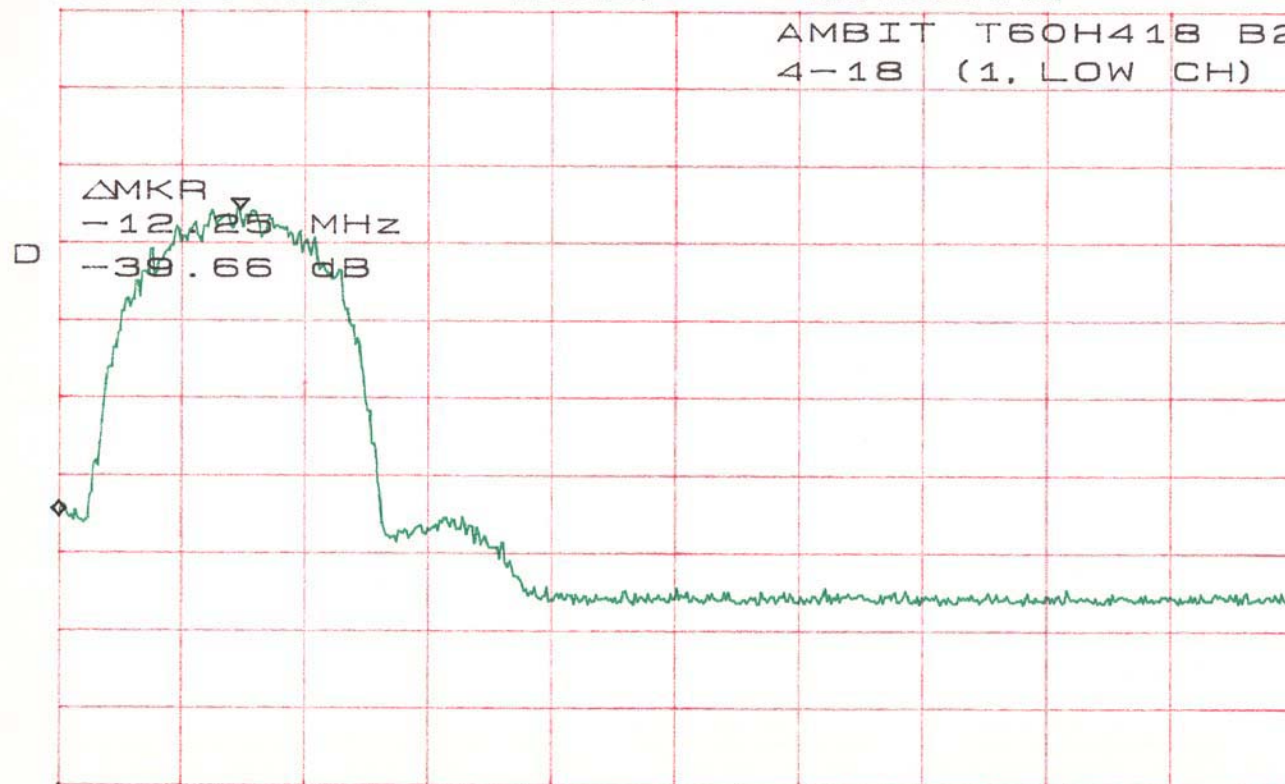
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR -39.66dB
-12.25MHz

AMBIT T60H418 B2
4-18 (1, LOW CH)

D
 Δ MKR
-12.25 MHz
-39.66 dB



START 2.40000GHz STOP 2.48350GHz
*RBW 100kHz VBW 100kHz *SWP 50.0ms

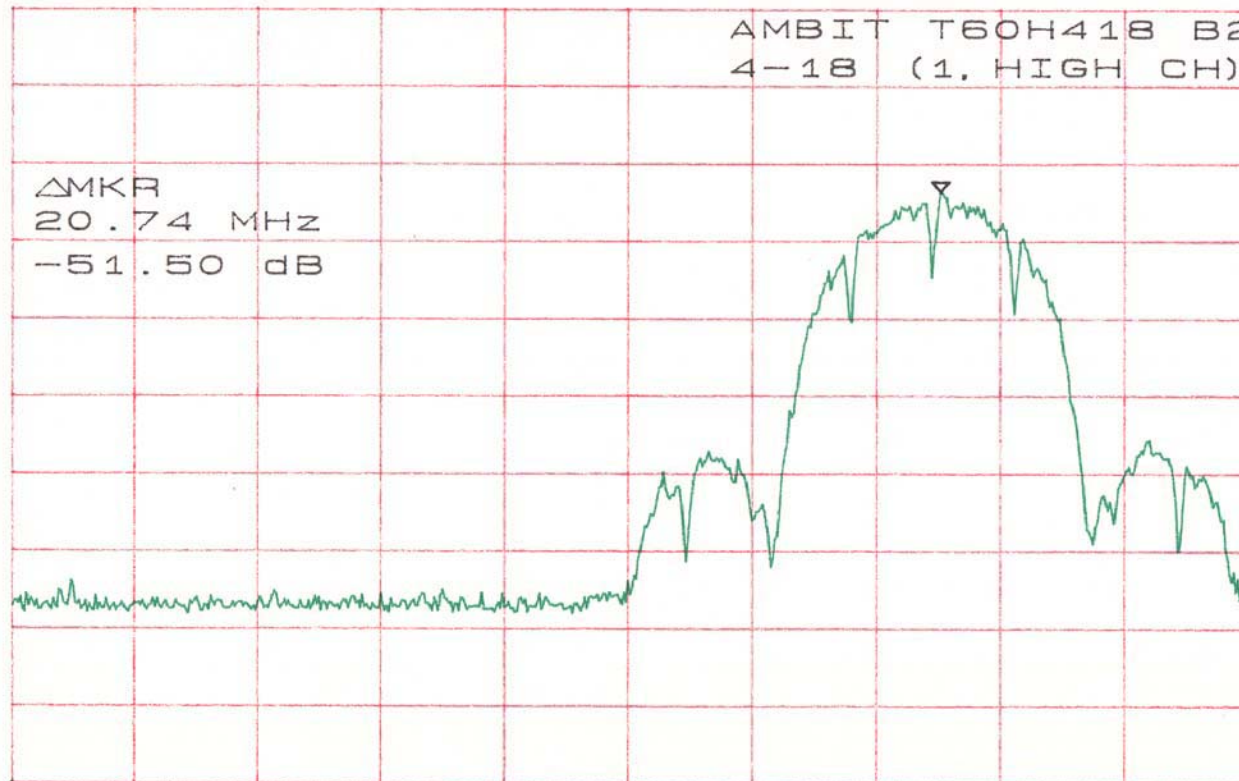
ATTEN 30dB
RL 20.0dBm

10dB/

Δ MKR -51.50dB
20.74MHz

AMBIT T60H418 B2
4-18 (1, HIGH CH)

Δ MKR
20.74 MHz
-51.50 dB



START 2.40000GHz STOP 2.48350GHz
*RBW 100kHz VBW 100kHz *SWP 50.0ms

ATTEN 30dB

RL 20.0dBm

10dB/

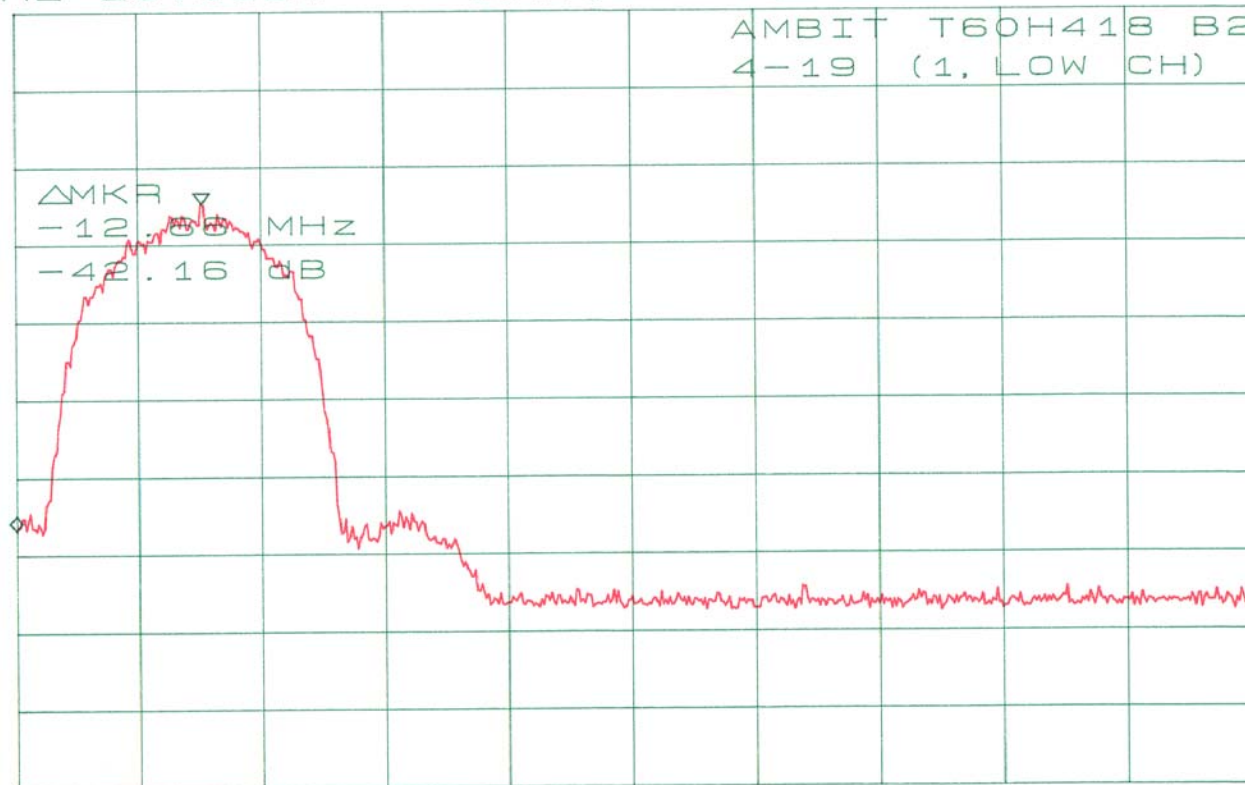
ΔMKR -42.16dB

-12.66MHz

AMBIT T60H418 B2
4-19 (1, LOW CH)

D

ΔMKR ∇
-12.66 MHz
-42.16 dB



START 2.40000GHz

STOP 2.48350GHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms

ATTEN 30dB
RL 20.0dBm

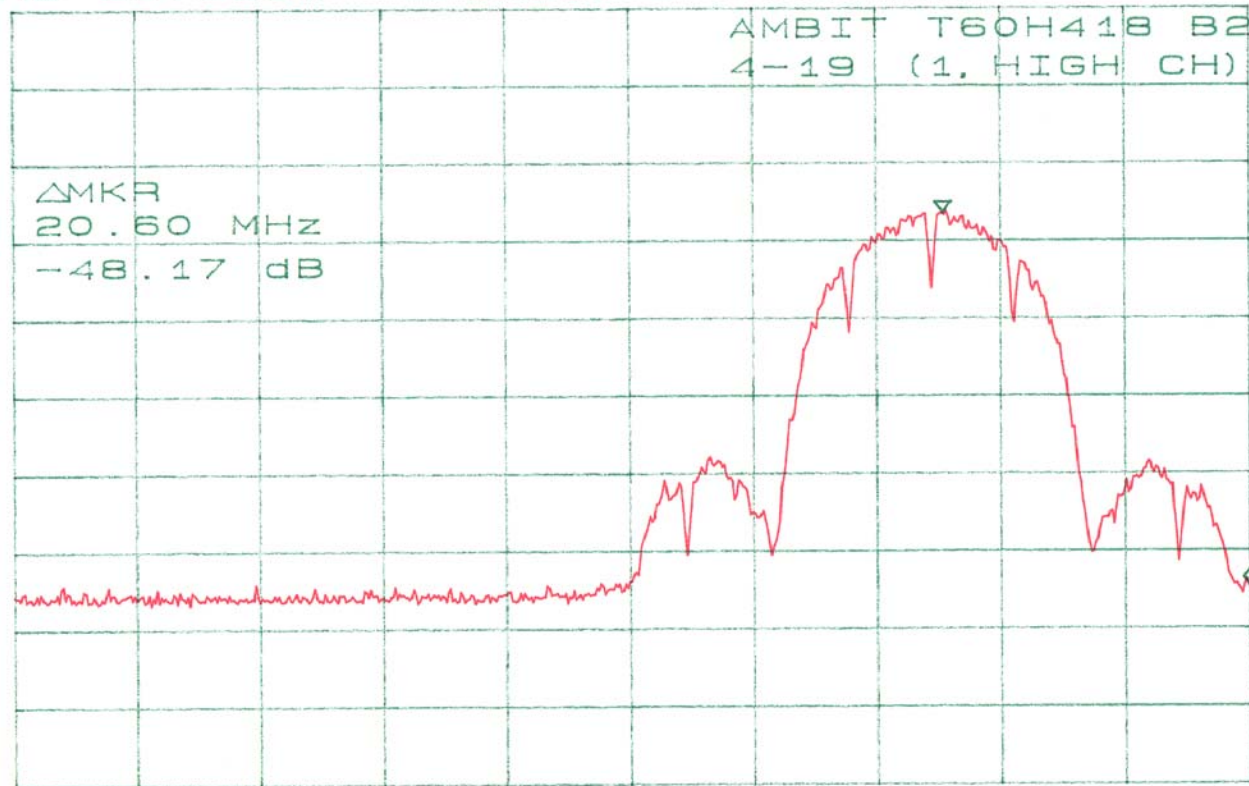
10dB/

Δ MKR -48.17dB
20.60MHz

AMBIT T60H418 B2
4-19 (1, HIGH CH)

D

Δ MKR
20.60 MHz
-48.17 dB



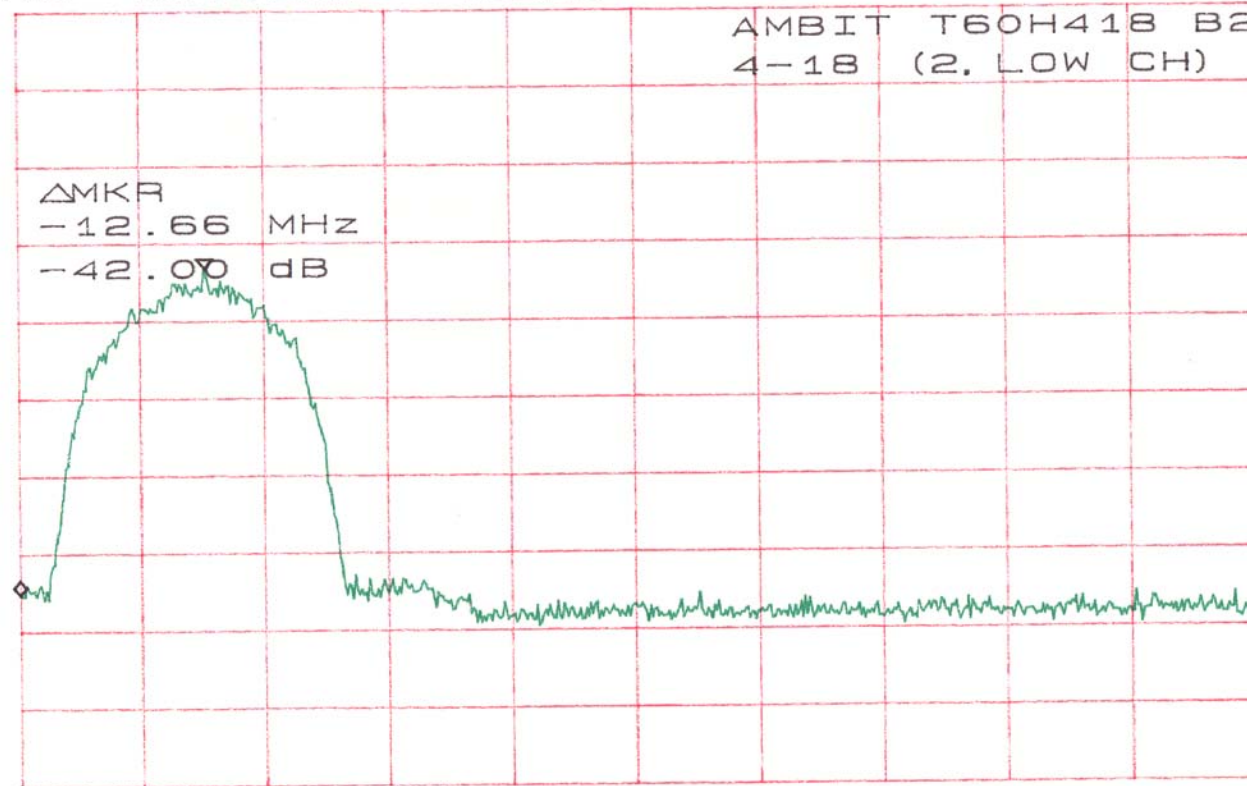
START 2.40000GHz STOP 2.48350GHz
*RBW 100kHz VBW 100kHz SWP 50.0ms

*ATTEN 0dB
RL -10.0dBm

10dB/

Δ MKR -42.00dB
-12.66MHz

AMBIT T60H418 B2
4-18 (2. LOW CH)



START 2.40000GHz STOP 2.48350GHz
*RBW 100kHz VBW 100kHz *SWP 50.0ms

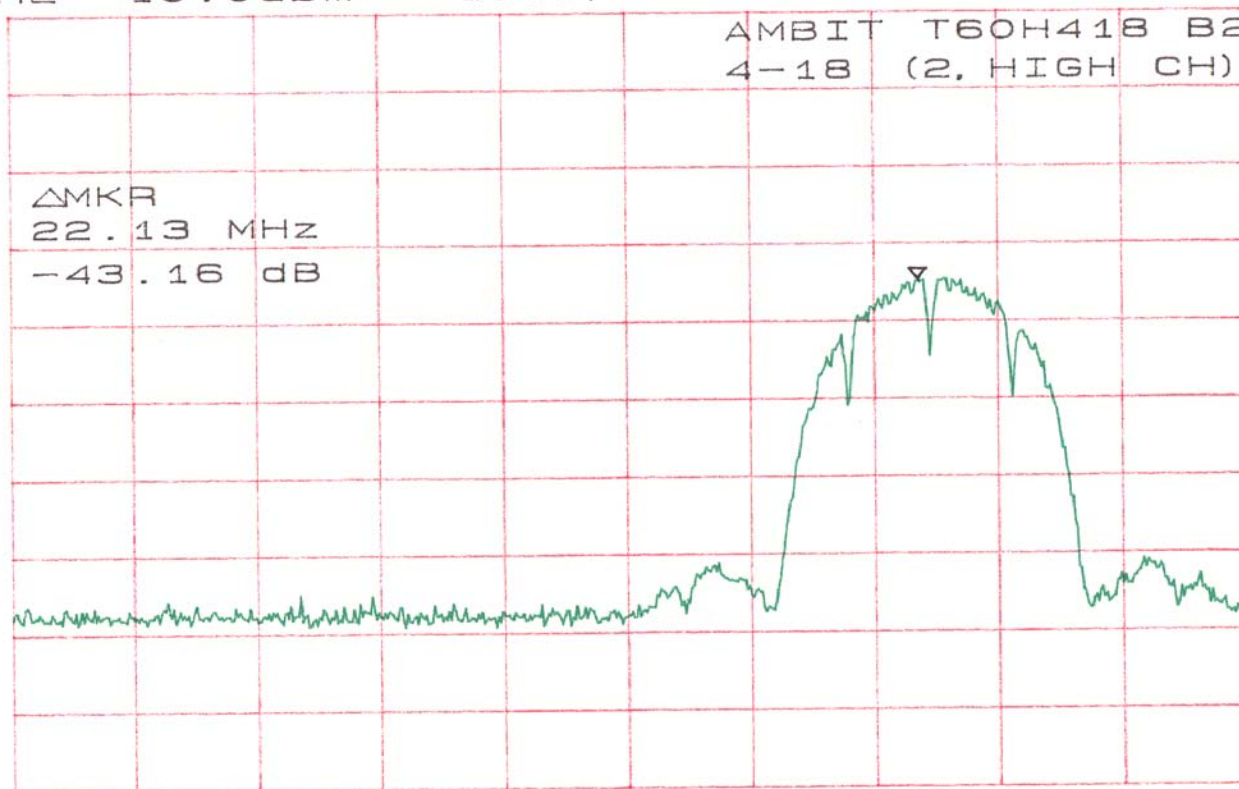
*ATTEN 0dB
RL -10.0dBm

10dB/

Δ MKR -43.16dB
22.13MHz

AMBIT T60H418 B2
4-18 (2, HIGH CH)

Δ MKR
22.13 MHz
-43.16 dB



START 2.40000GHz STOP 2.48350GHz
*RBW 100kHz VBW 100kHz *SWP 50.0ms

*ATTEN 0dB

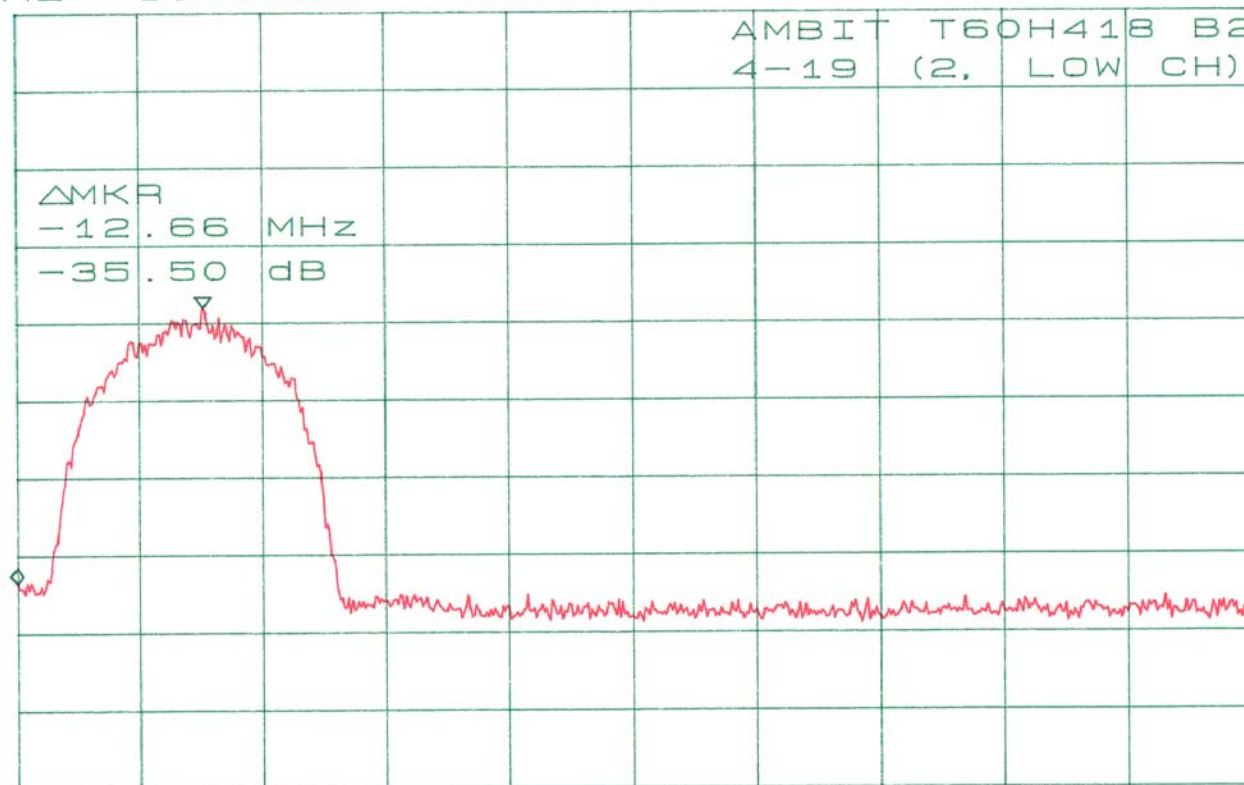
RL -10.0dBm

10dB/

Δ MKR -35.50dB

-12.66MHz

AMBIT T60H418 B2
4-19 (2, LOW CH)



START 2.40000GHz

STOP 2.48350GHz

*RBW 100kHz

VBW 100kHz

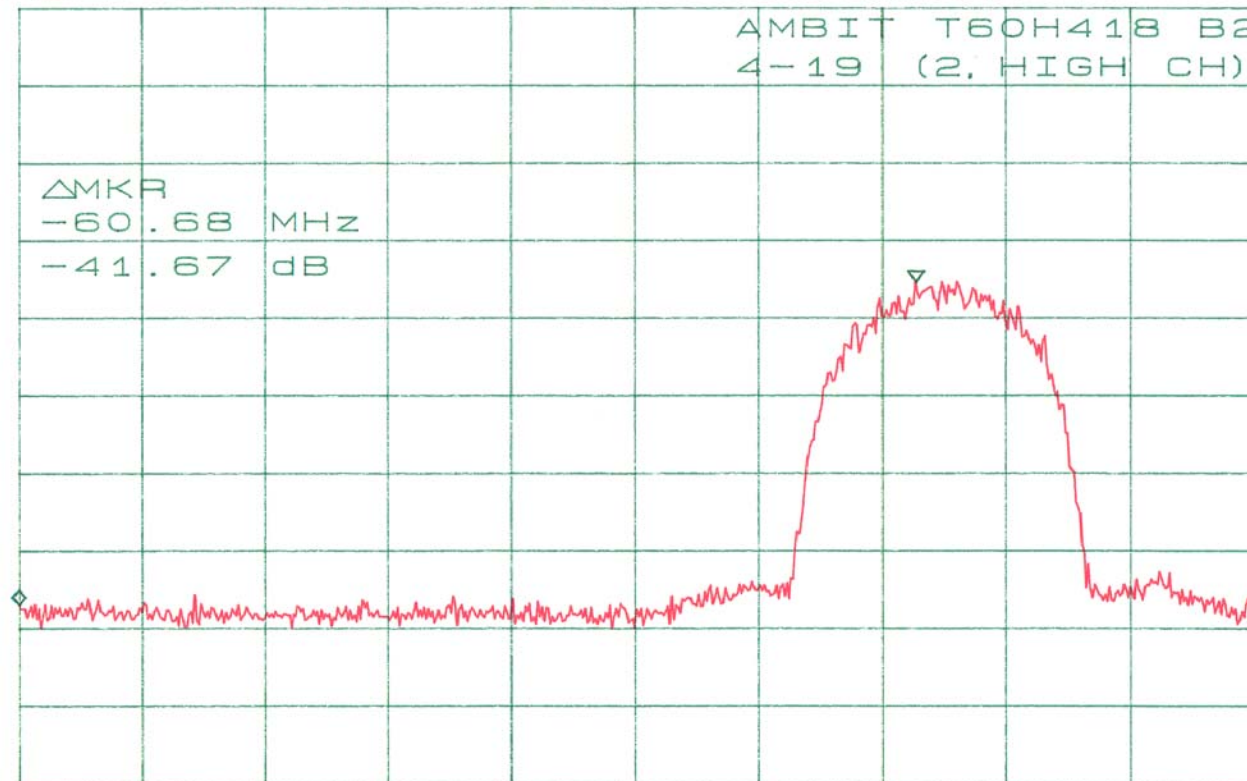
*SWP 50.0ms

*ATTEN 0dB
RL -10.0dBm

10dB/

Δ MKR -41.67dB
-60.68MHz

AMBIT T60H418 B2
4-19 (2, HIGH CH)



START 2.40000GHz

STOP 2.48350GHz

*RBW 100kHz

VBW 100kHz

*SWP 50.0ms