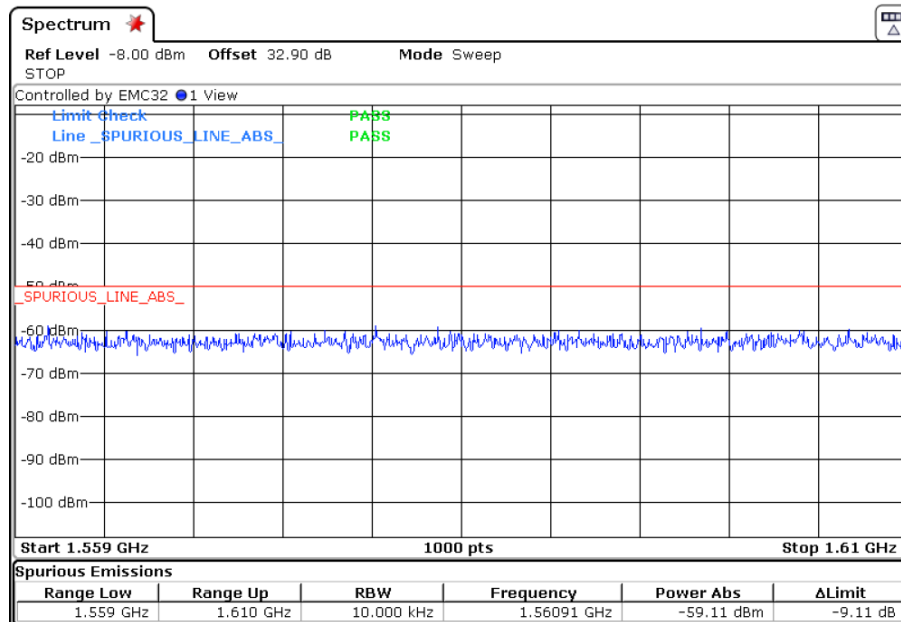
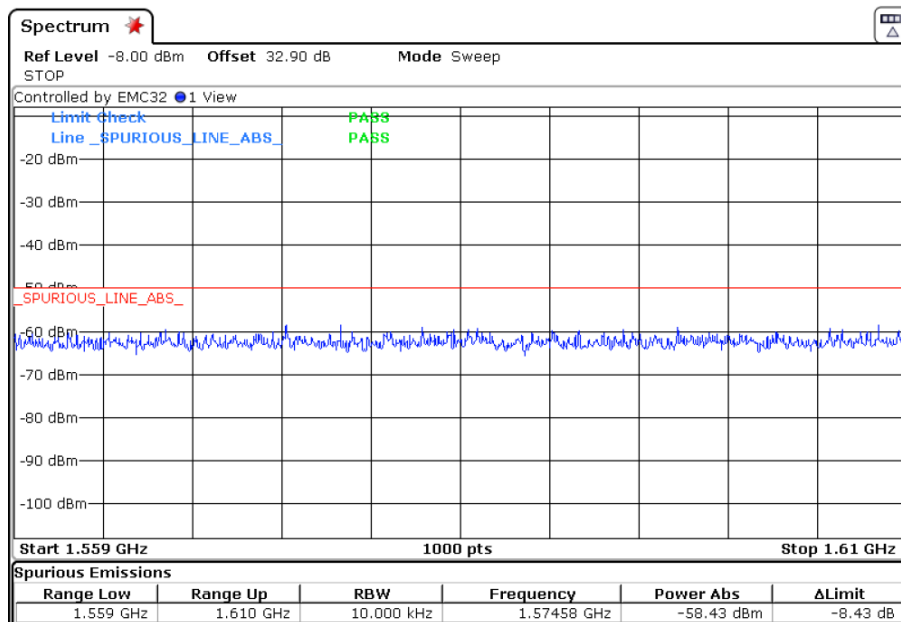


Middle Channel



High Channel



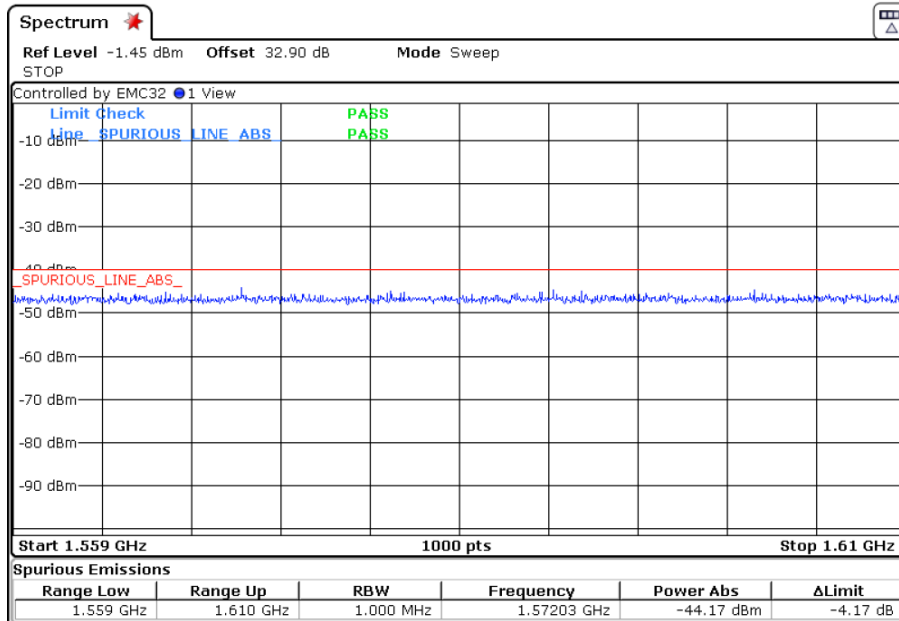
Band: 23 SCS 3.75 kHz

Modulation: QPSK (1SC0)

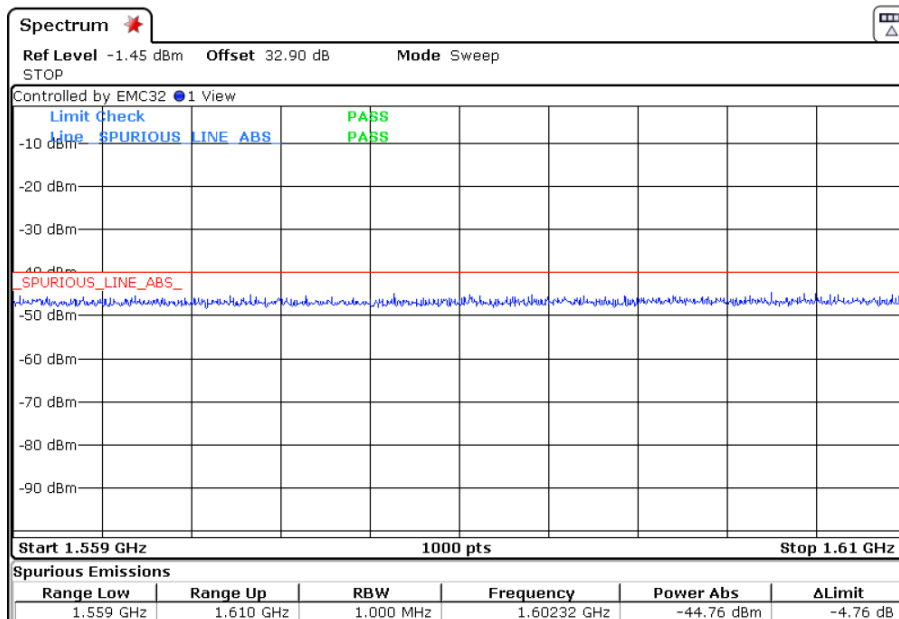
Carrier On

Results

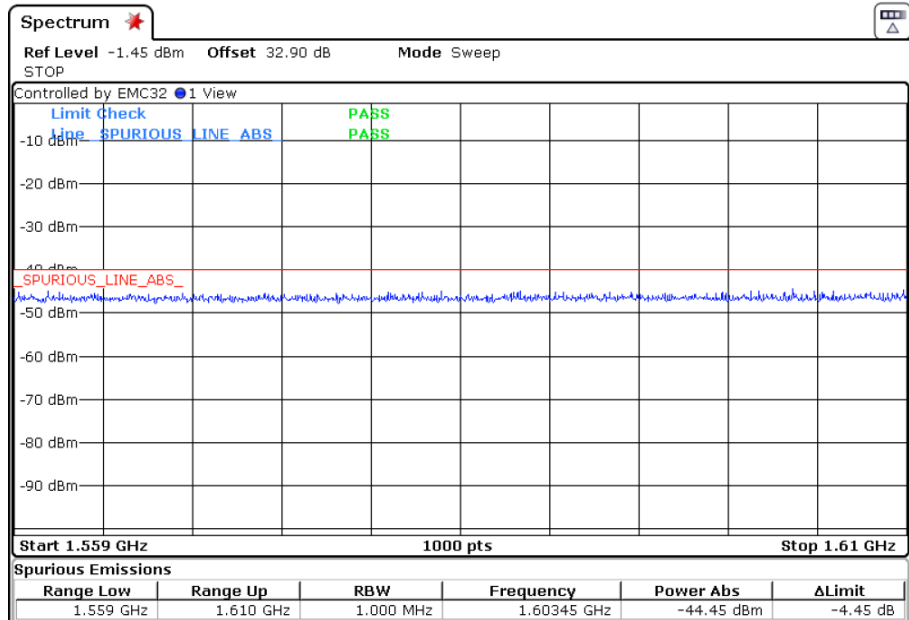
Low Channel



Middle Channel



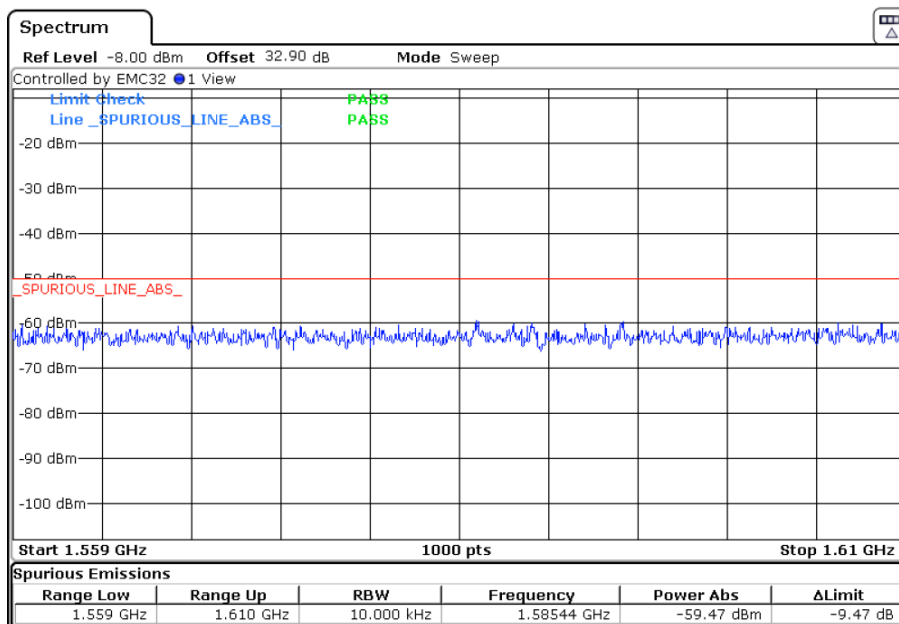
High Channel



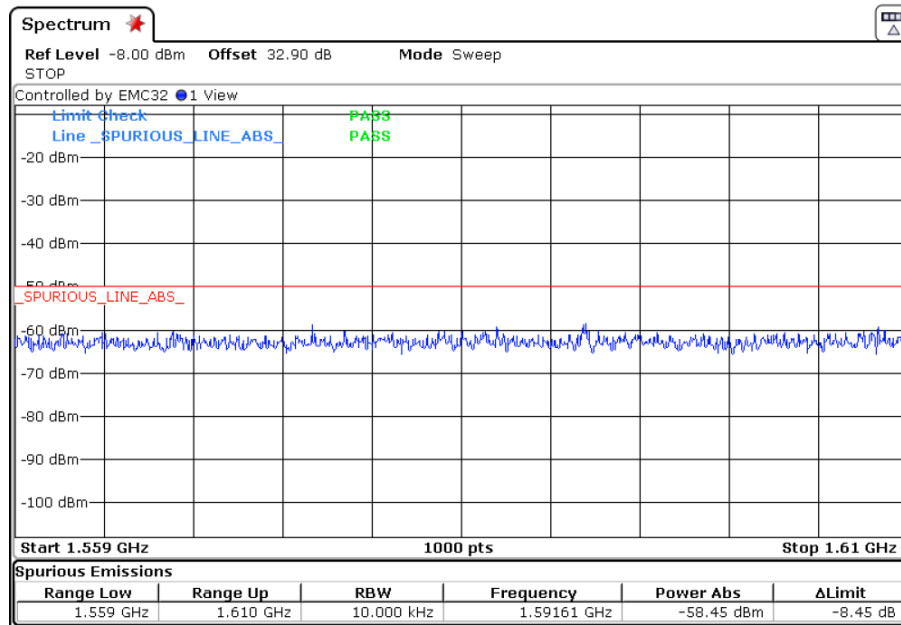
Modulation: QPSK (1SC0)
Discrete

Results

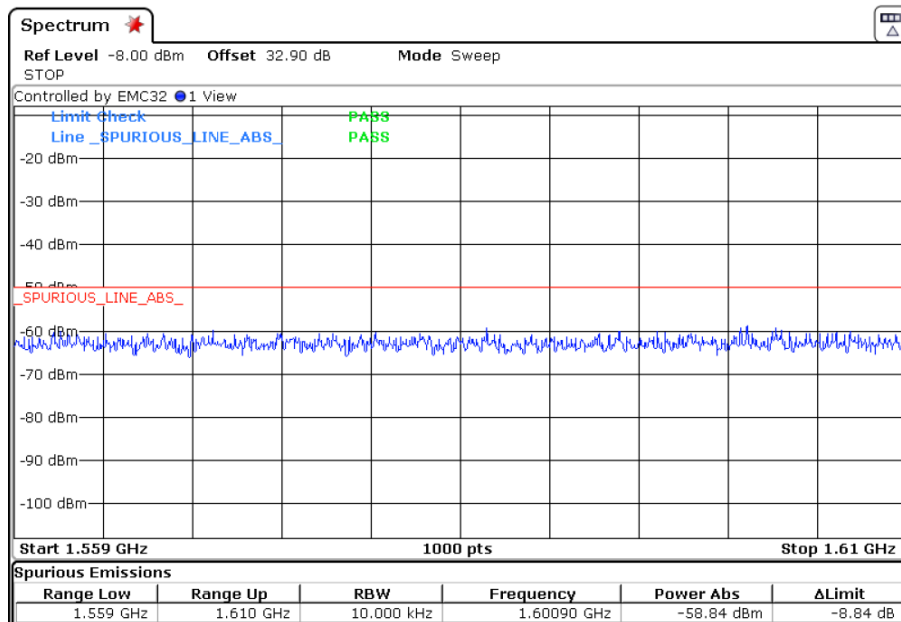
Low Channel



Middle Channel



High Channel



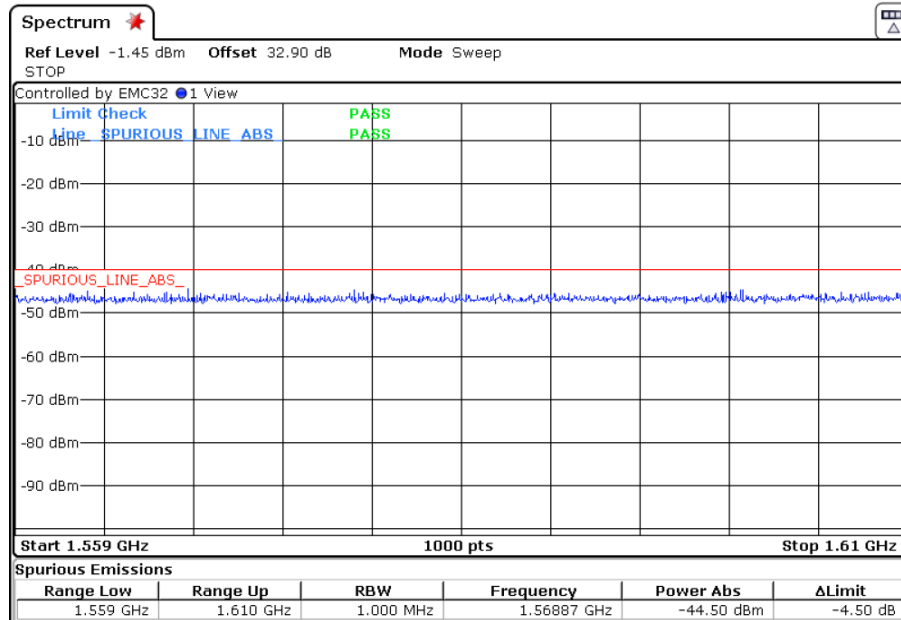
Band: 23 SCS 15 kHz

Modulation: BPSK (1SC0)

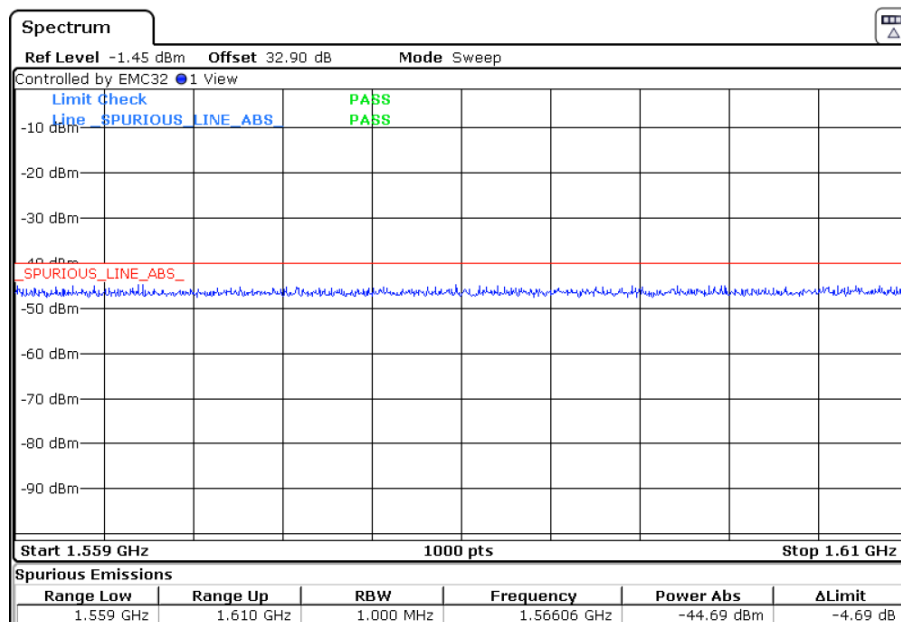
Carrier On

Results

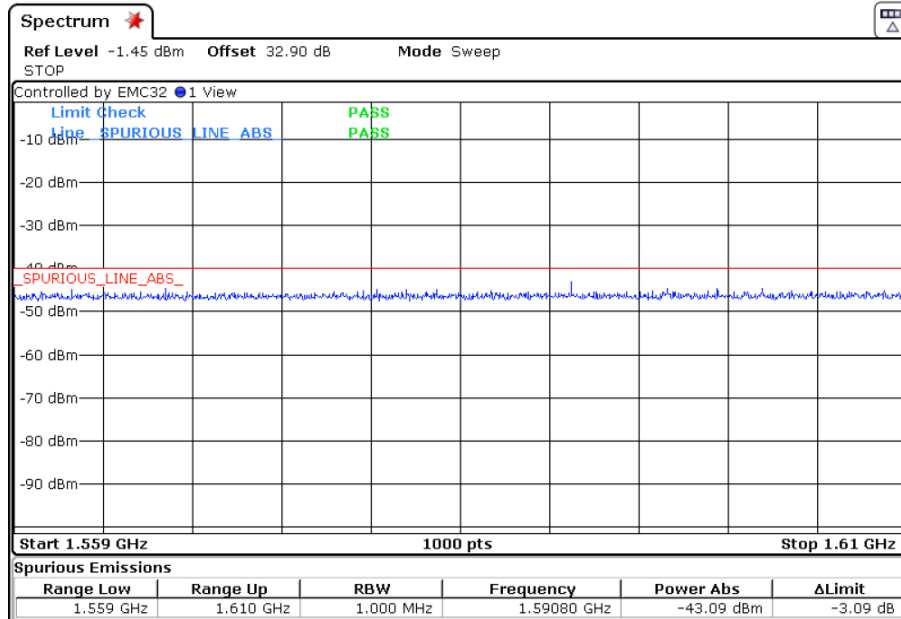
Low Channel



Middle Channel



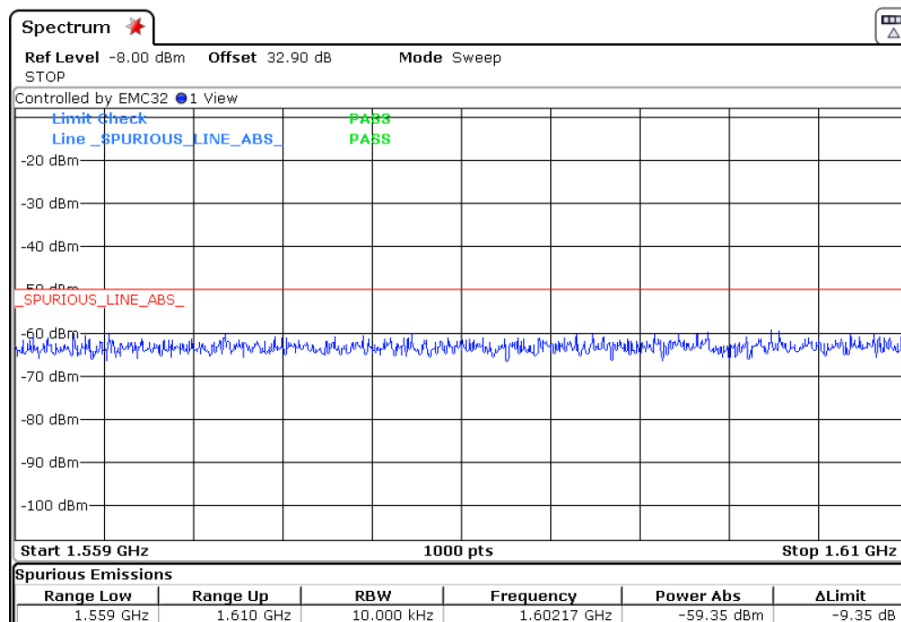
High Channel



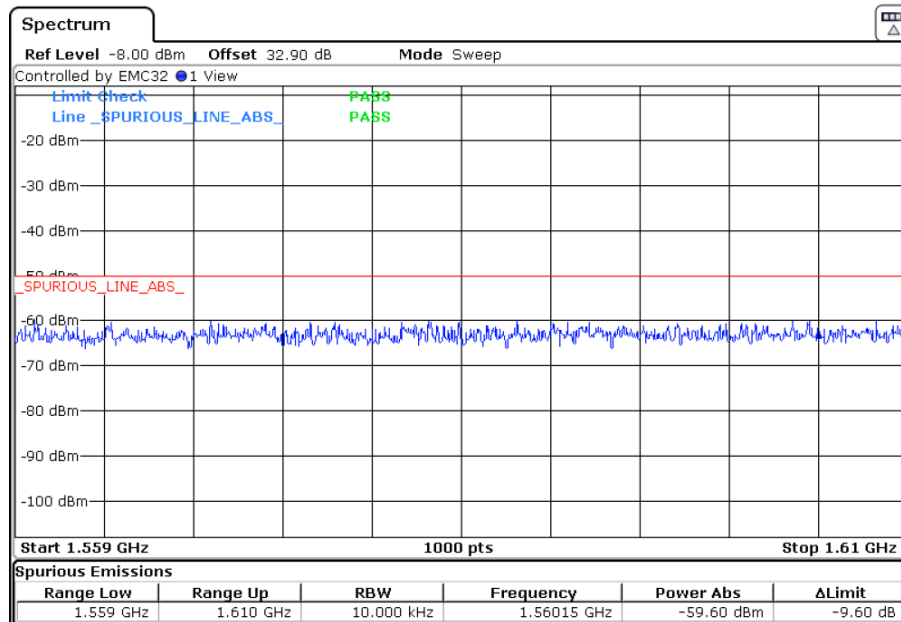
Modulation: BPSK (1SC0)
Discrete

Results

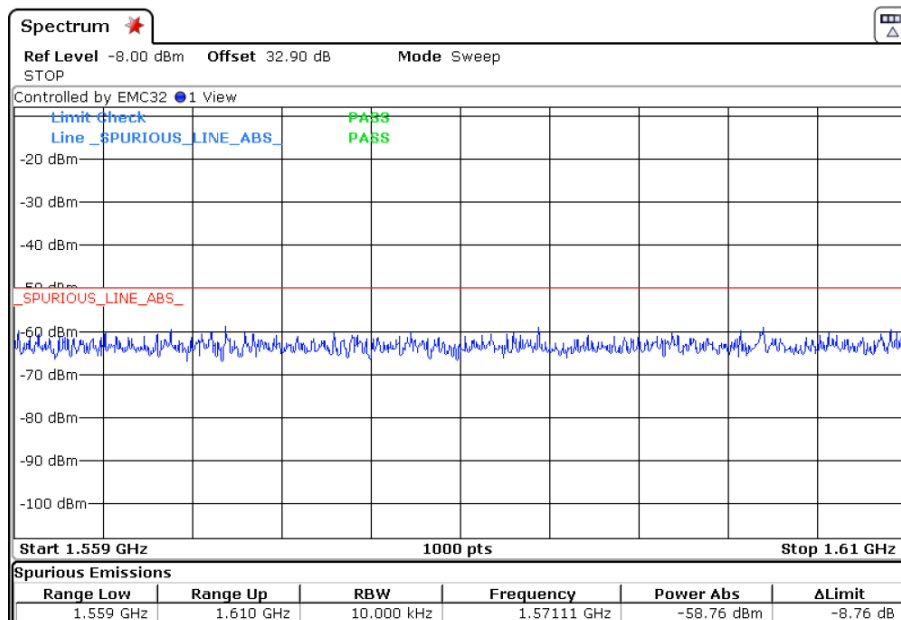
Low Channel



Middle Channel



High Channel



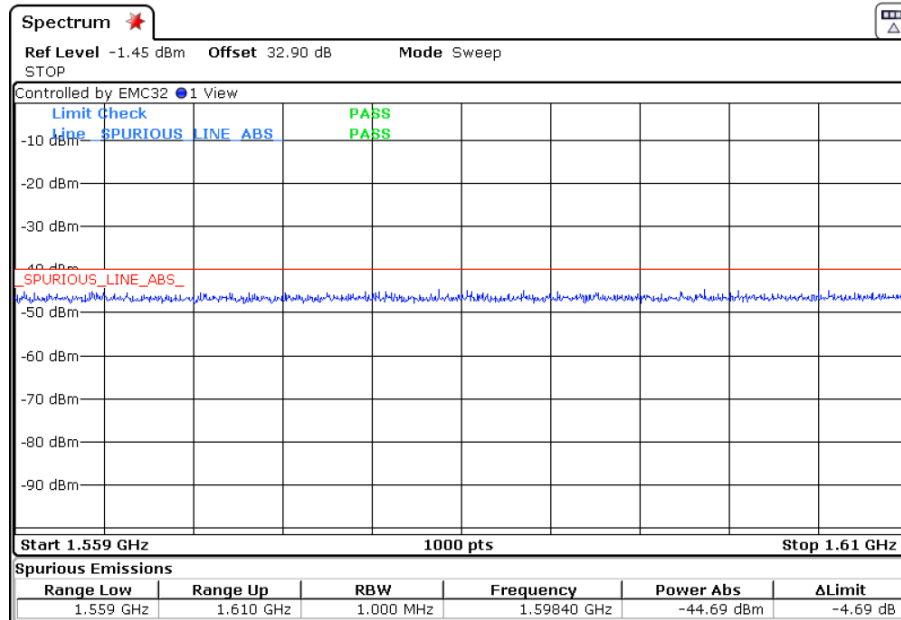
Band: 23 SCS 15 kHz

Modulation: QPSK (1SC0)

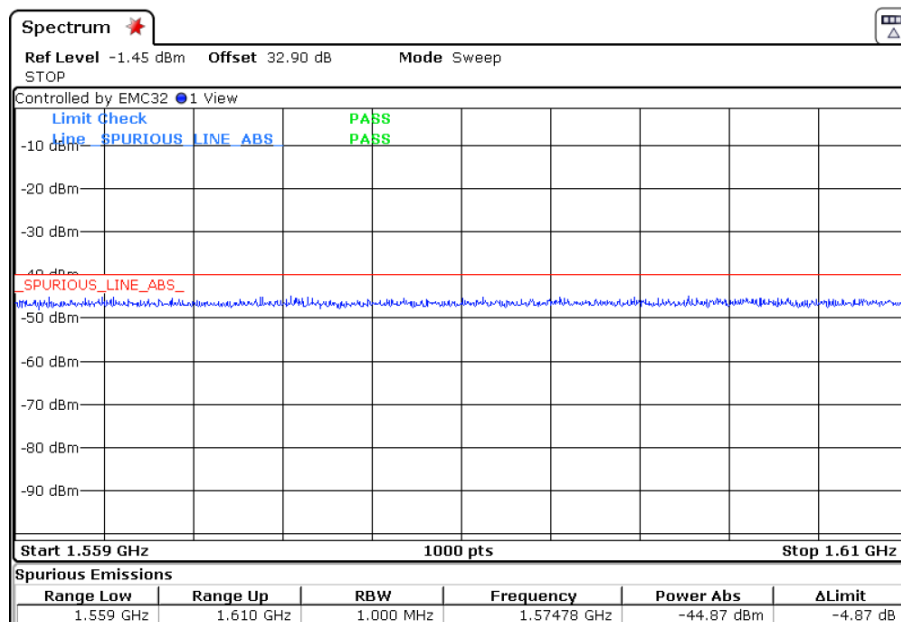
Carrier On

Results

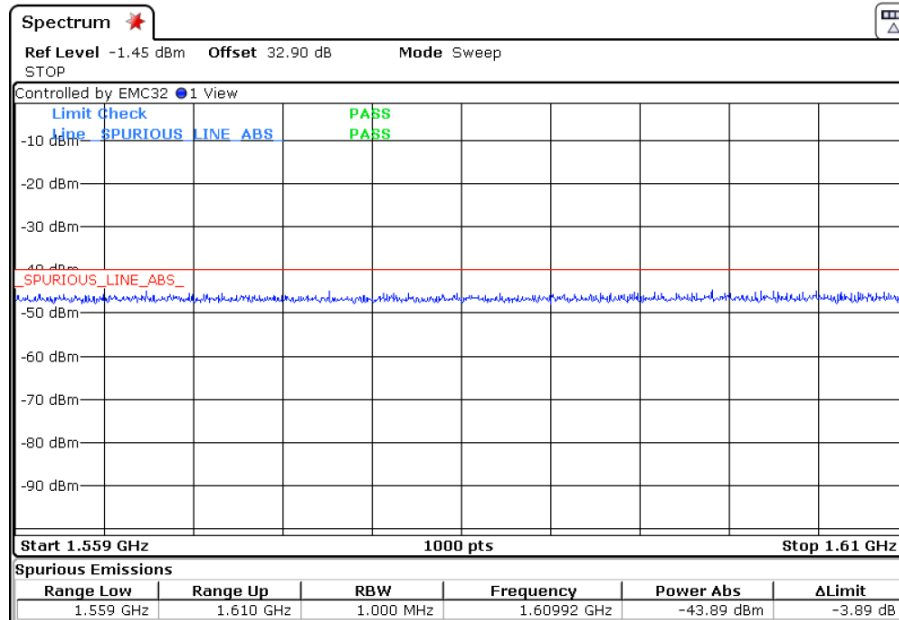
Low Channel



Middle Channel



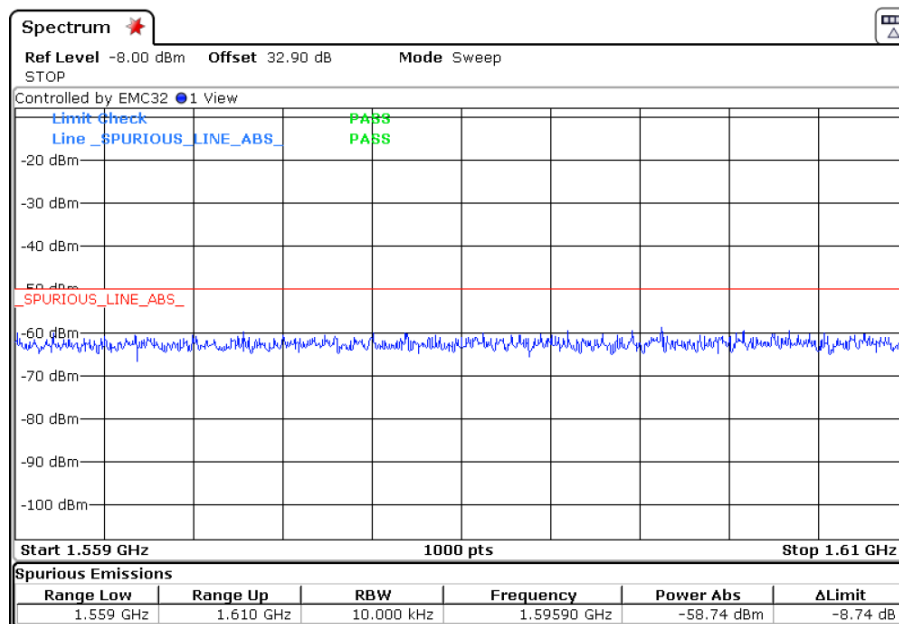
High Channel



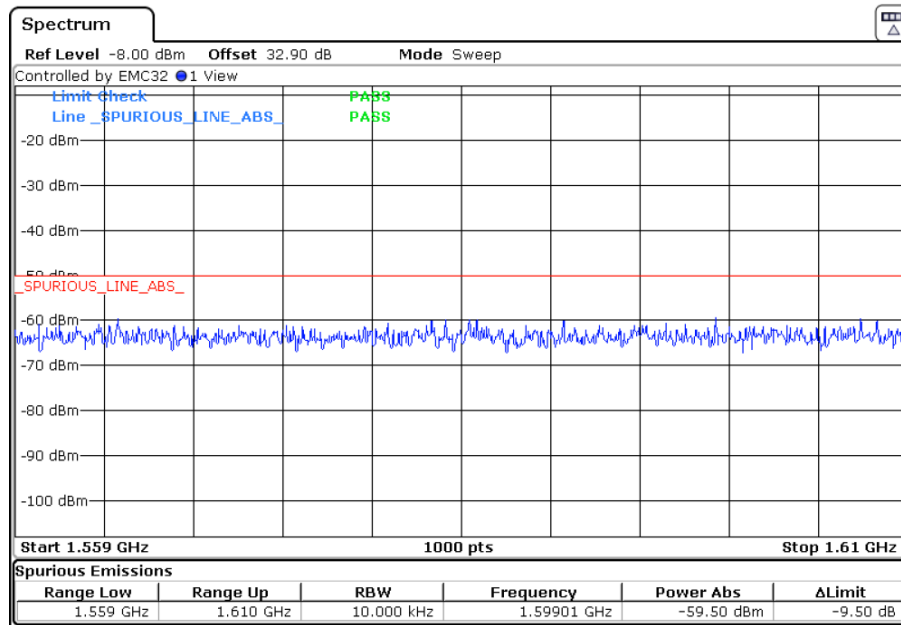
Modulation: QPSK (1SC0)
Discrete

Results

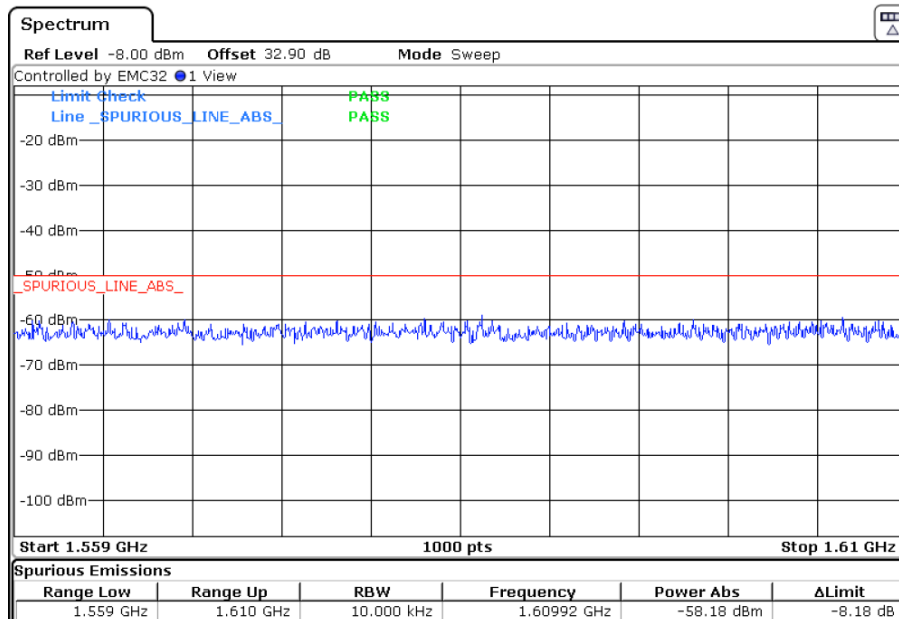
Low Channel



Middle Channel



High Channel



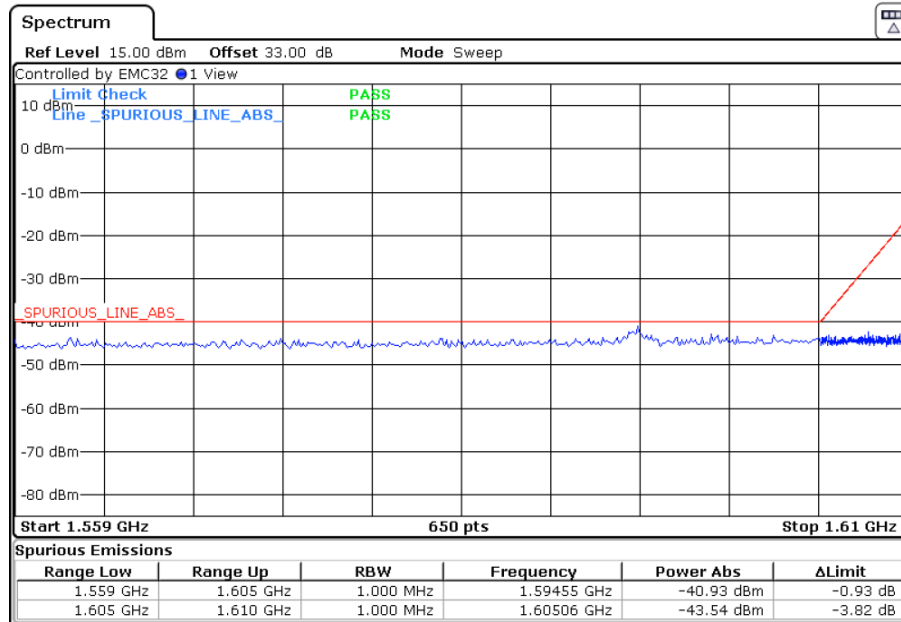
Band: 255 SCS 3.75 kHz

Modulation: BPSK (1SC0)

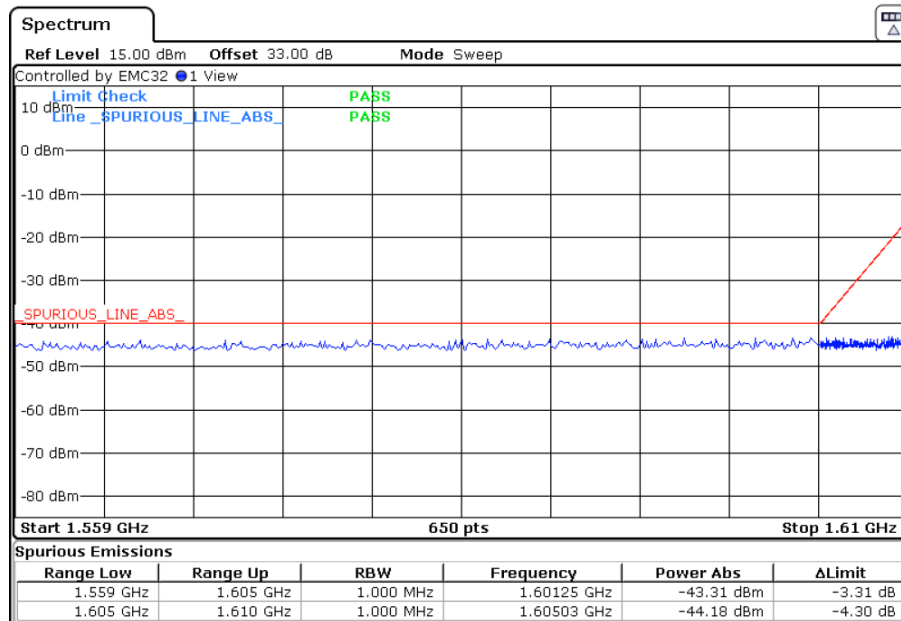
Carrier On

Results

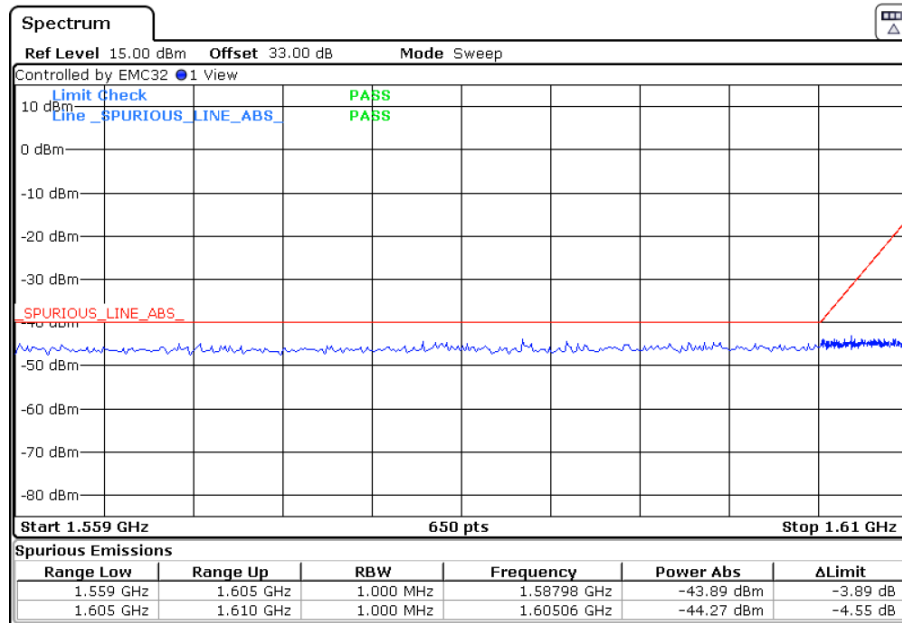
Low Channel



Middle Channel



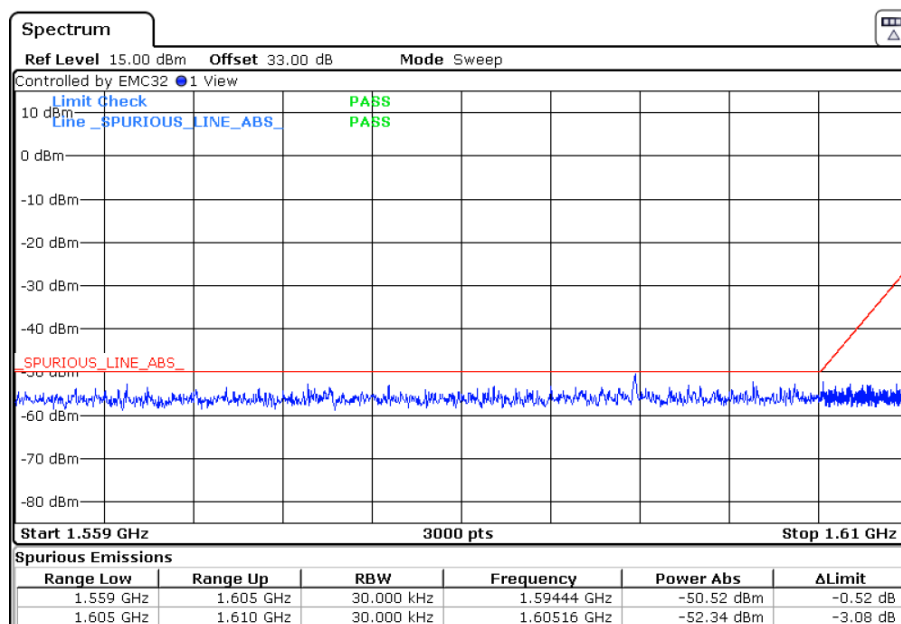
High Channel



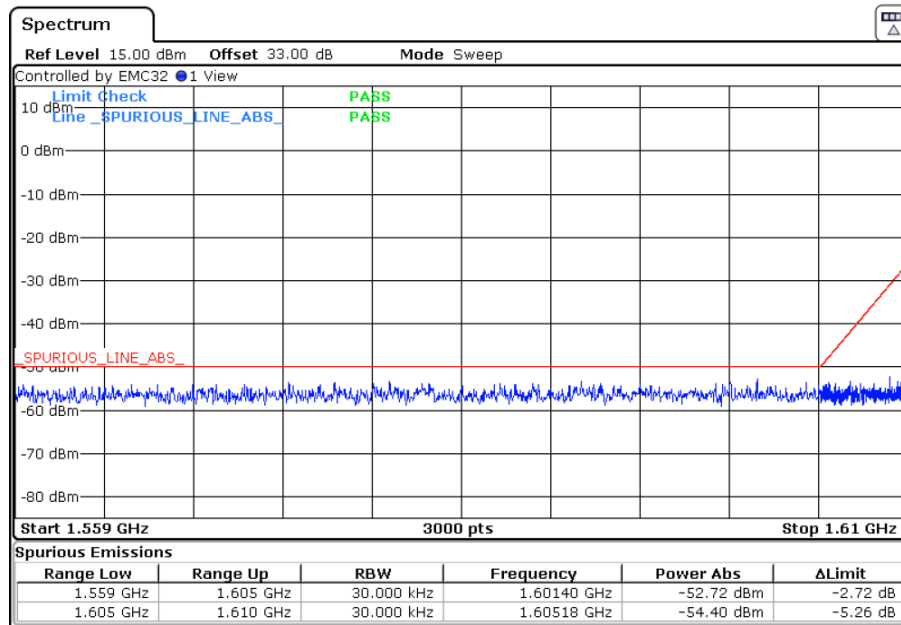
Modulation: BPSK (1SC0)
Discrete

Results

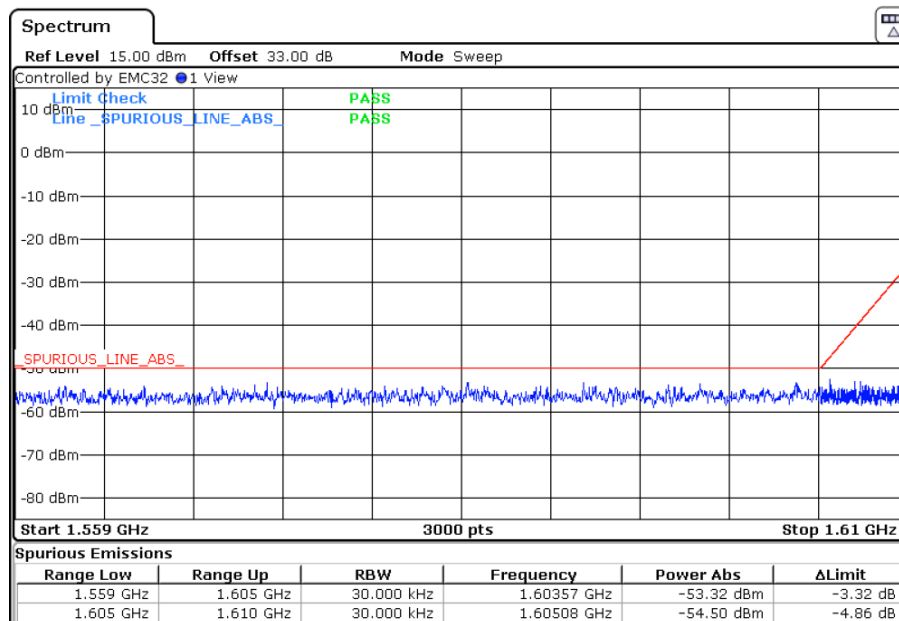
Low Channel



Middle Channel



High Channel



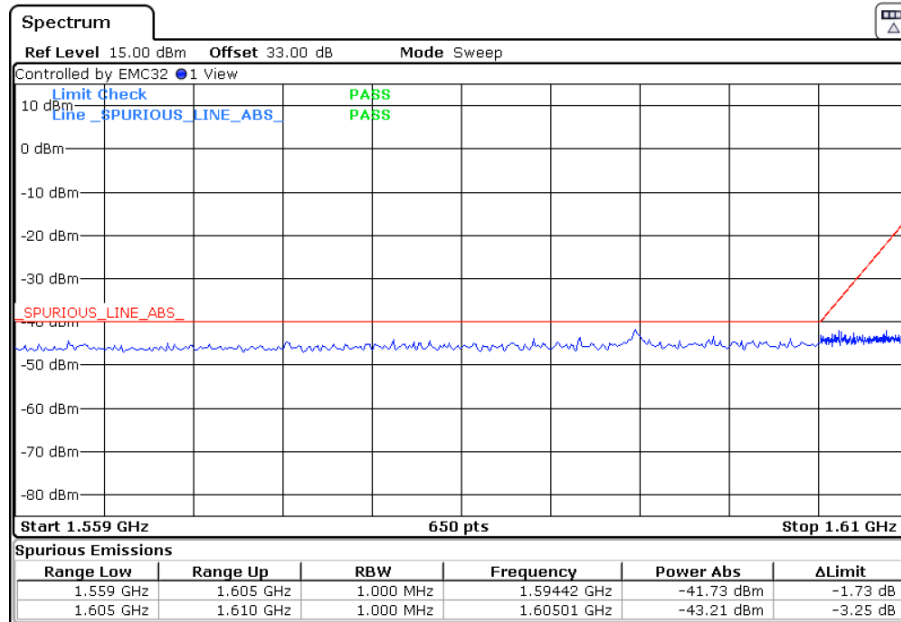
Band: 255 SCS 3.75 kHz

Modulation: QPSK (1SC0)

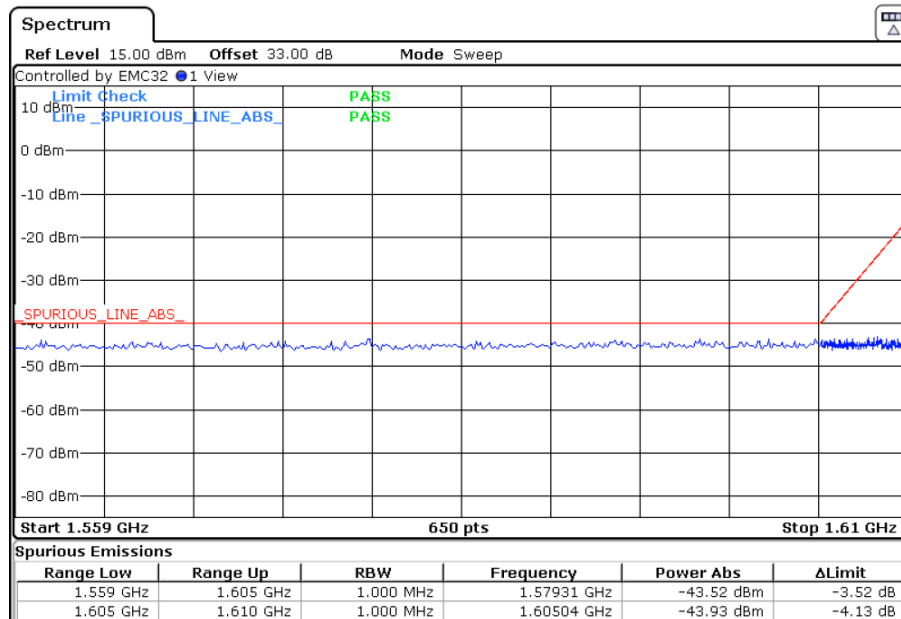
Carrier On

Results

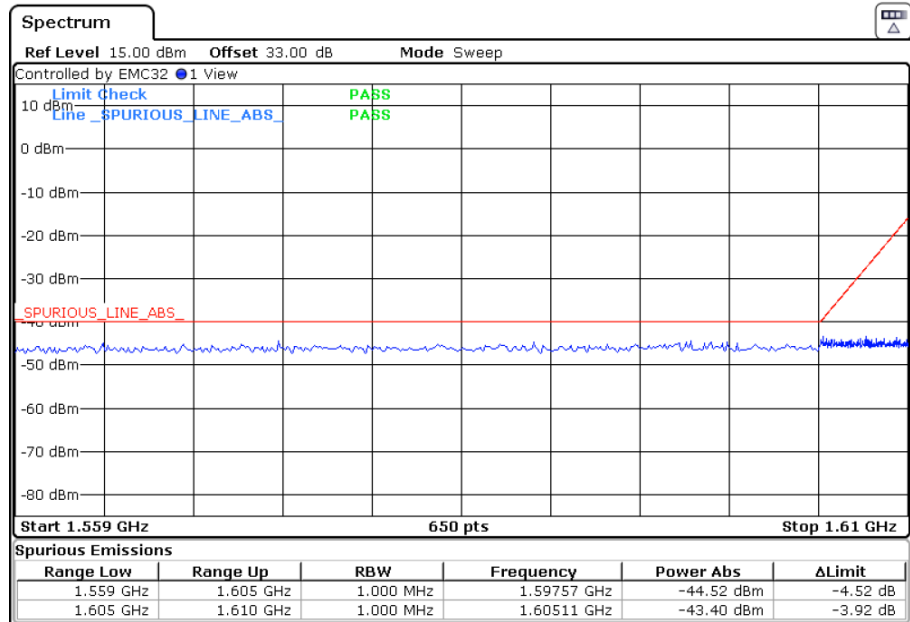
Low Channel



Middle Channel



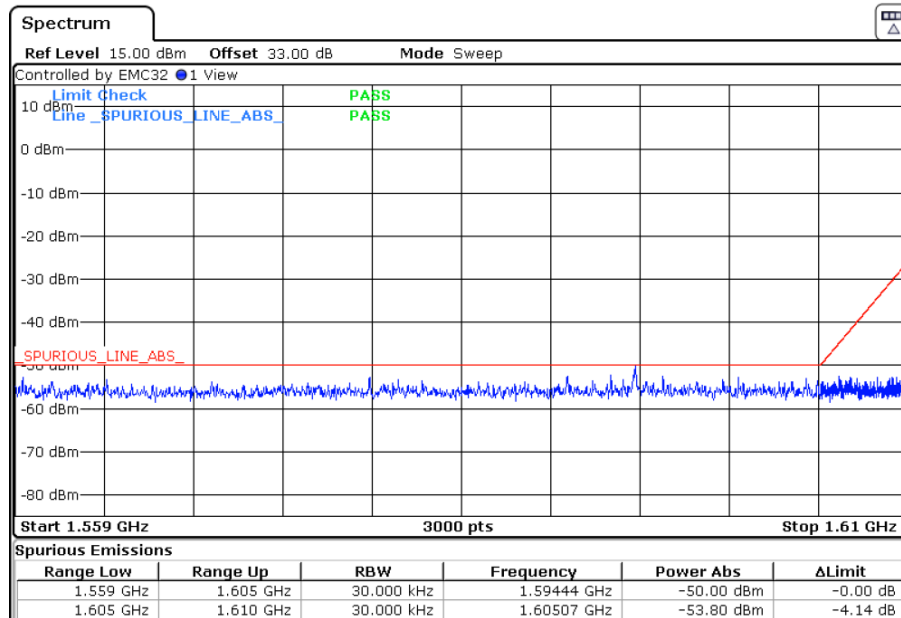
High Channel



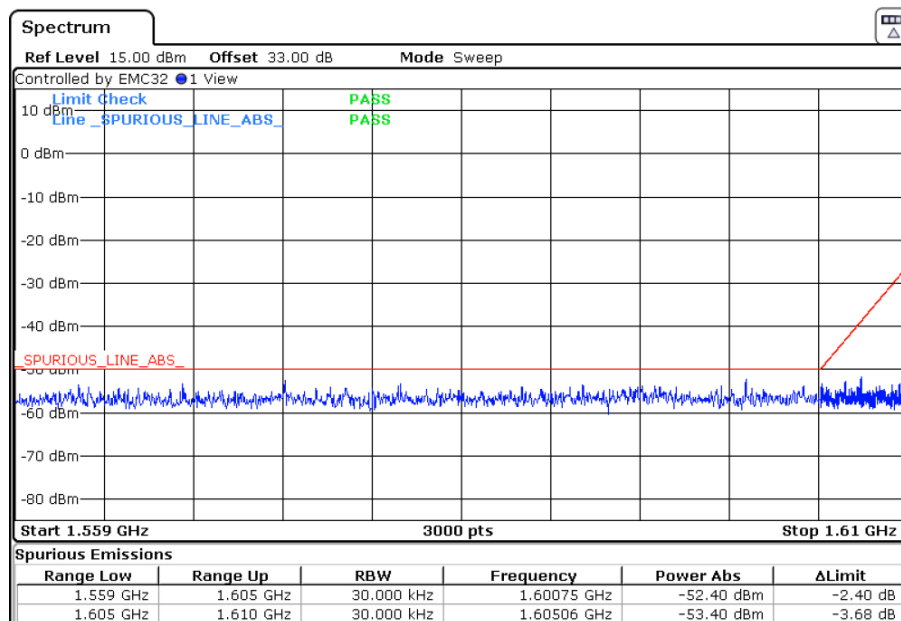
Modulation: QPSK (1SC0)
Discrete

Results

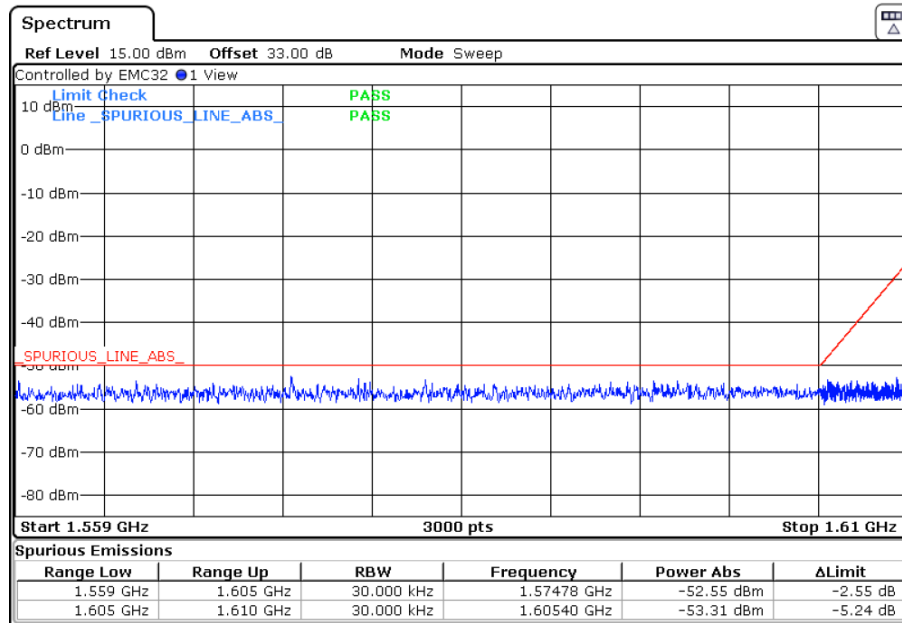
Low Channel



Middle Channel



High Channel



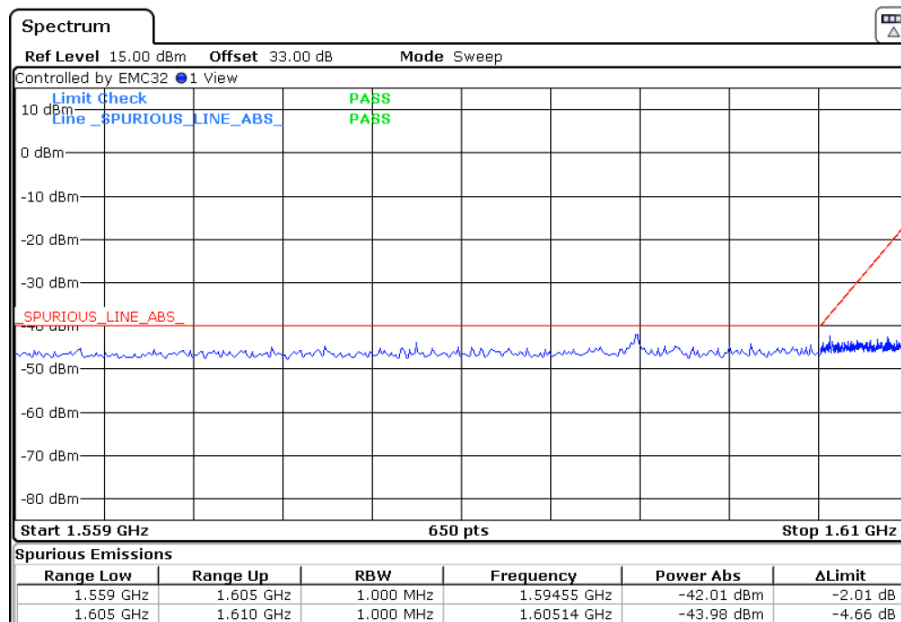
Band: 255 SCS 15 kHz

Modulation: BPSK (1SC0)

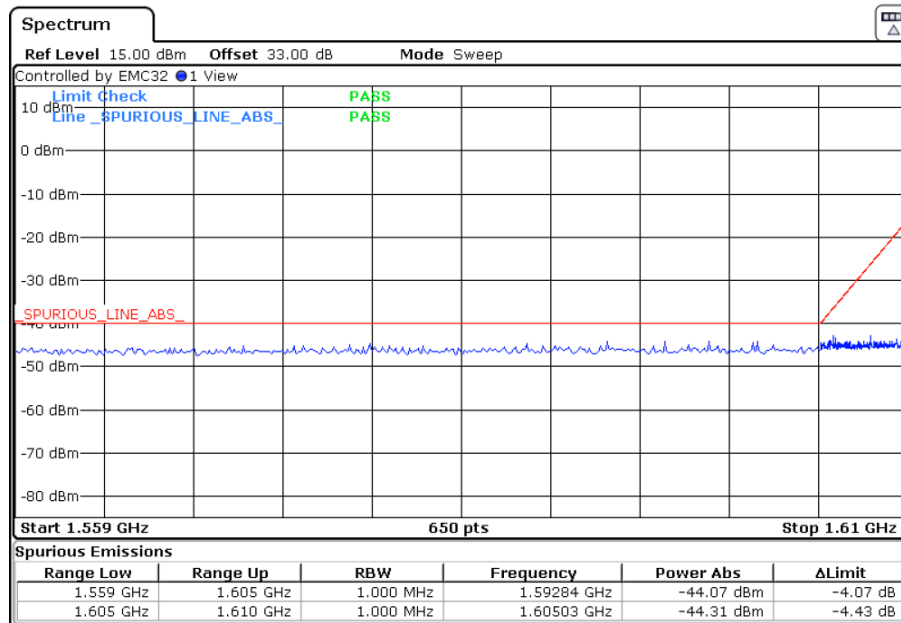
Carrier On

Results

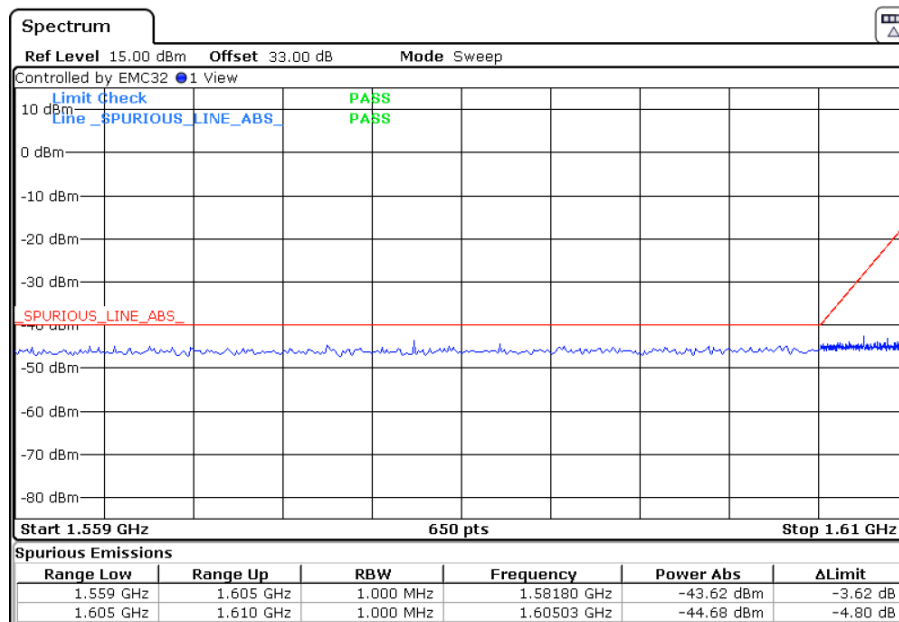
Low Channel



Middle Channel



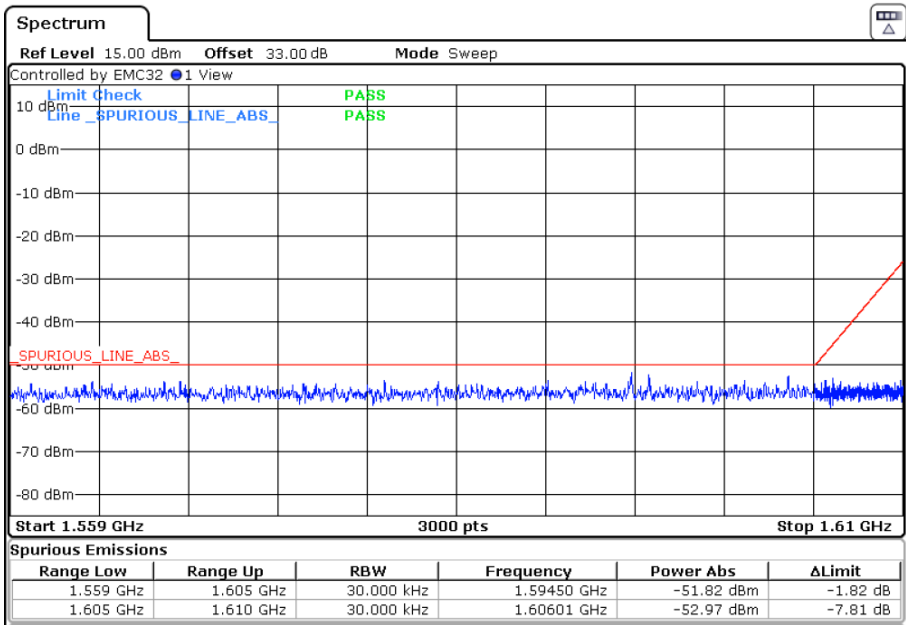
High Channel



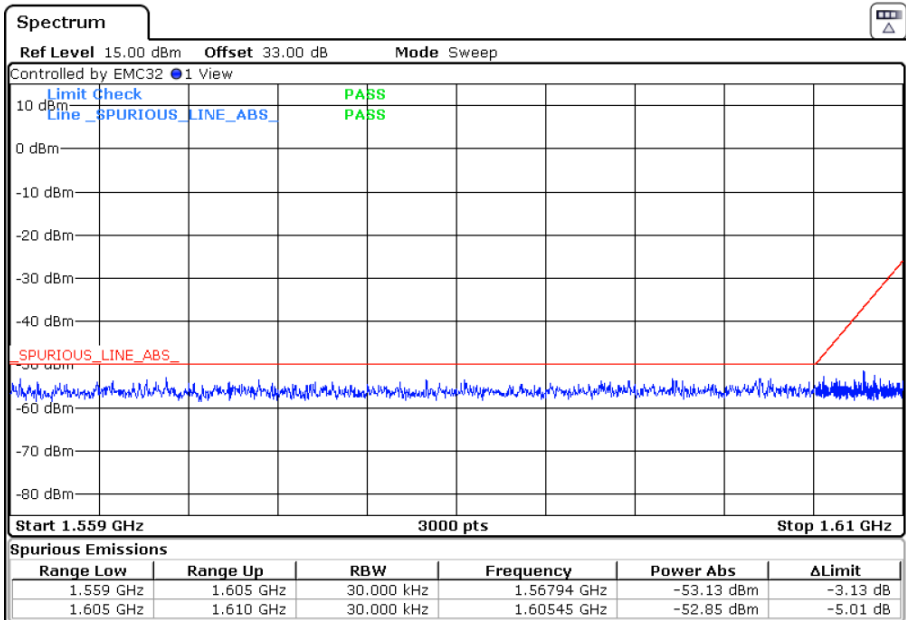
Modulation: BPSK (1SC0)
Discrete

Results

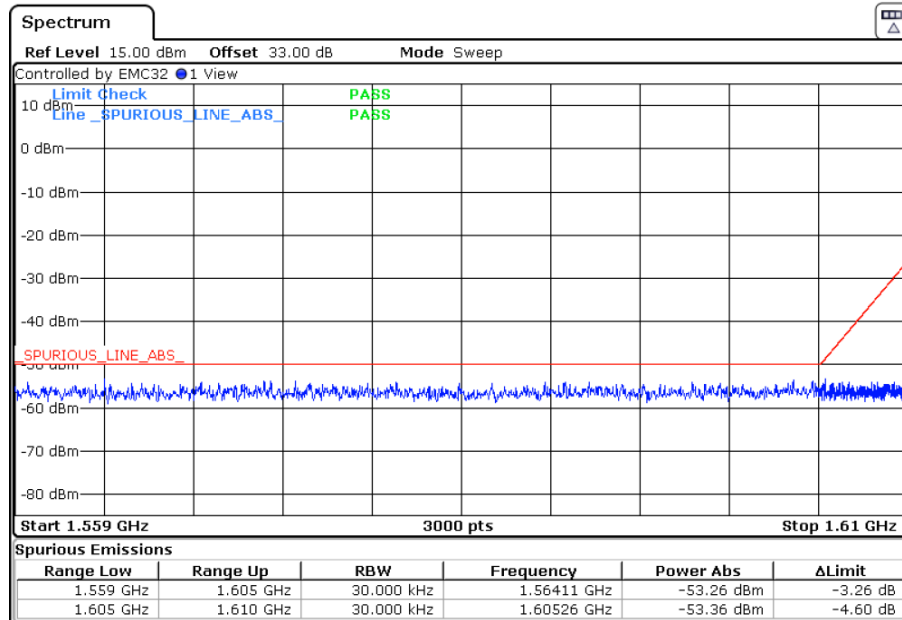
Low Channel



Middle Channel



High Channel



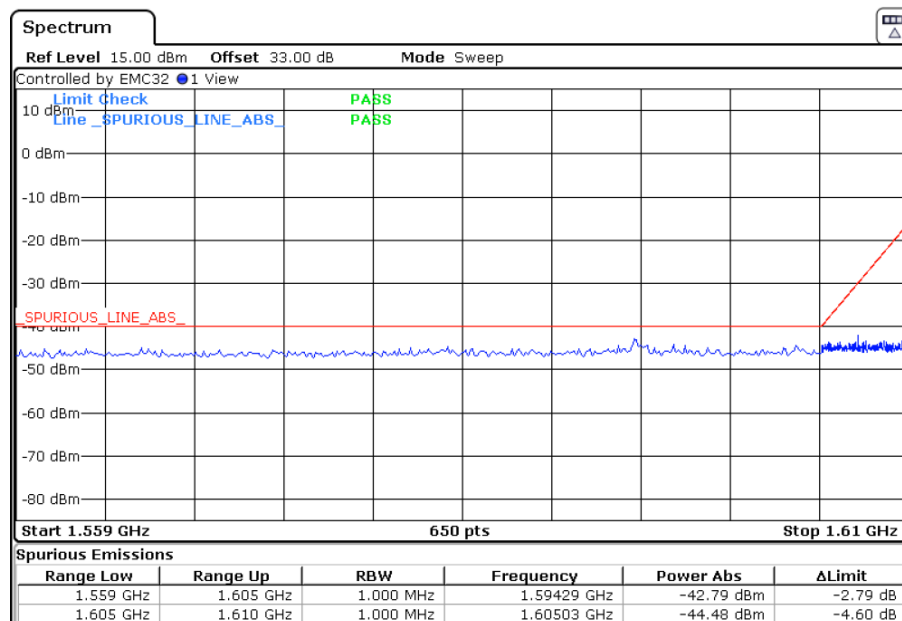
Band: 255 SCS 15 kHz

Modulation: QPSK (1SC0)

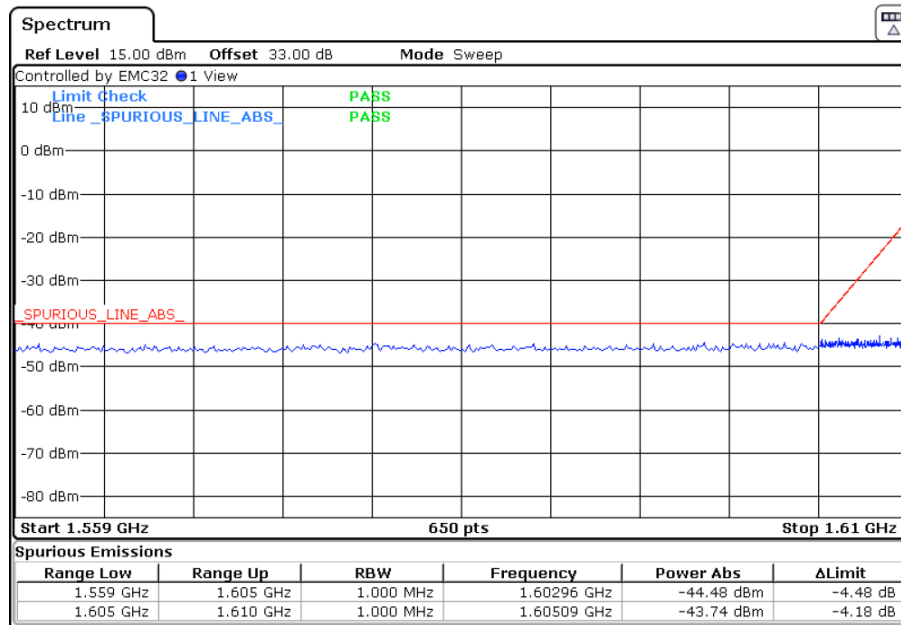
Carrier On

Results

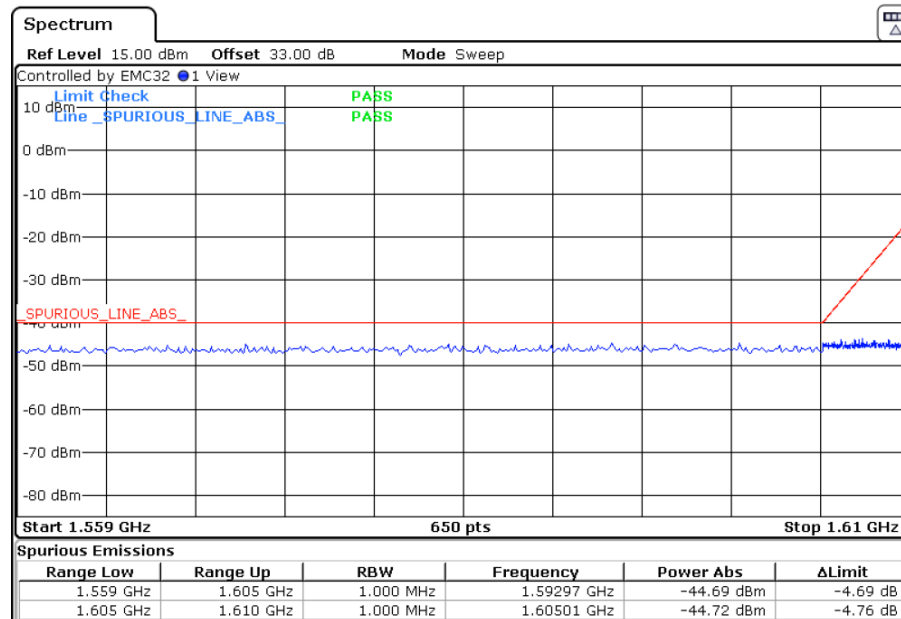
Low Channel



Middle Channel



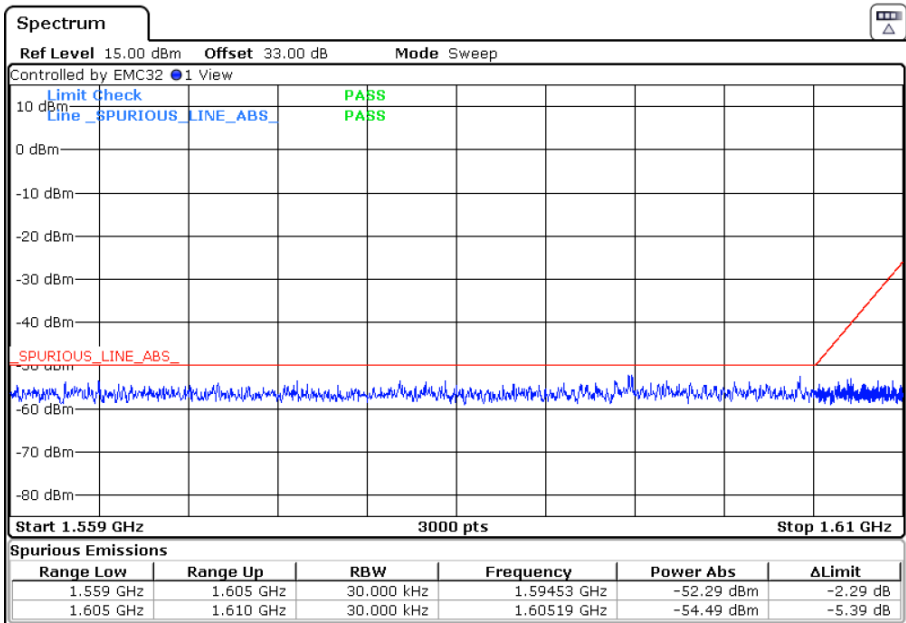
High Channel



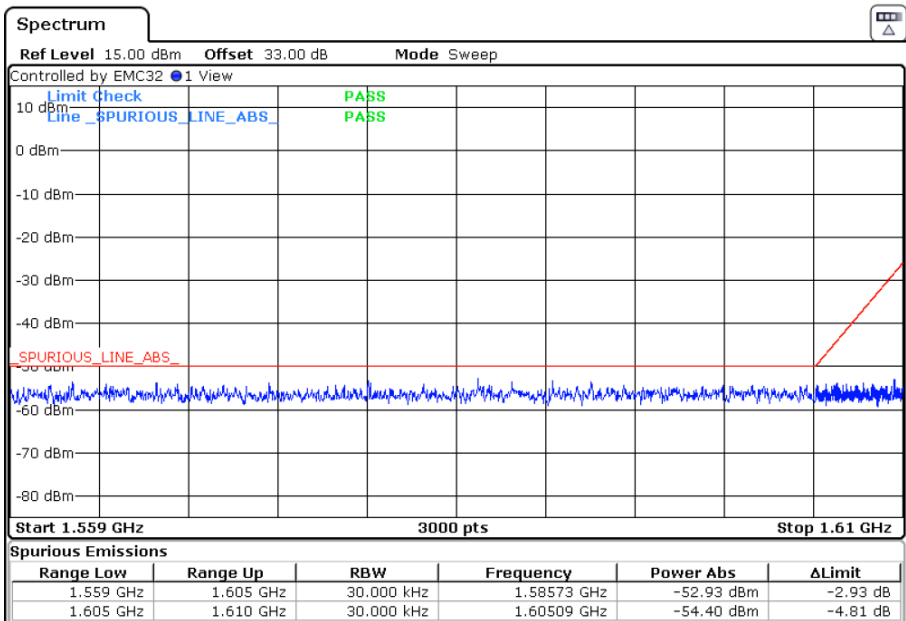
Modulation: QPSK (1SC0)
Discrete

Results

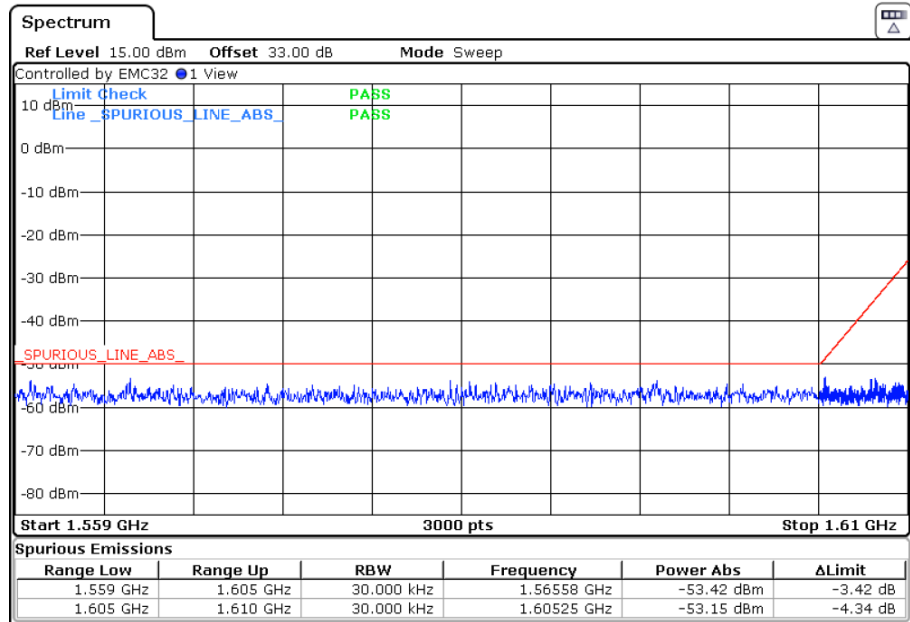
Low Channel



Middle Channel



High Channel



FCC 25.202 (f) / RSS-170 (5.8) Radiated Spurious Emission

Limits

FCC25.202

- (f) Except for SDARS terrestrial repeaters and as provided for in paragraph (i), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the schedule set forth in paragraphs (f)(1) through (f)(4) of this section. The out-of-band emissions of SDARS terrestrial repeaters shall be attenuated in accordance with the schedule set forth in paragraph (h) of this section

- (3) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 250 percent of the authorized bandwidth: An amount equal to 43 dB plus 10 times the logarithm (to the base 10) of the transmitter power in watts.

RSS-170

- 5.8 The average power of unwanted emissions shall be attenuated below the average output power, P (dBW), of the transmitter, as specified below:

- a. $43 + 10 \log p$ (watts) in any 4 kHz, the frequency of which is offset from the channel centre frequency by more than 250% of the occupied bandwidth or necessary bandwidth, whichever is greater

Test Results:

Band 23 SCS 15 kHz

Modulation: QPSK (1SC0)

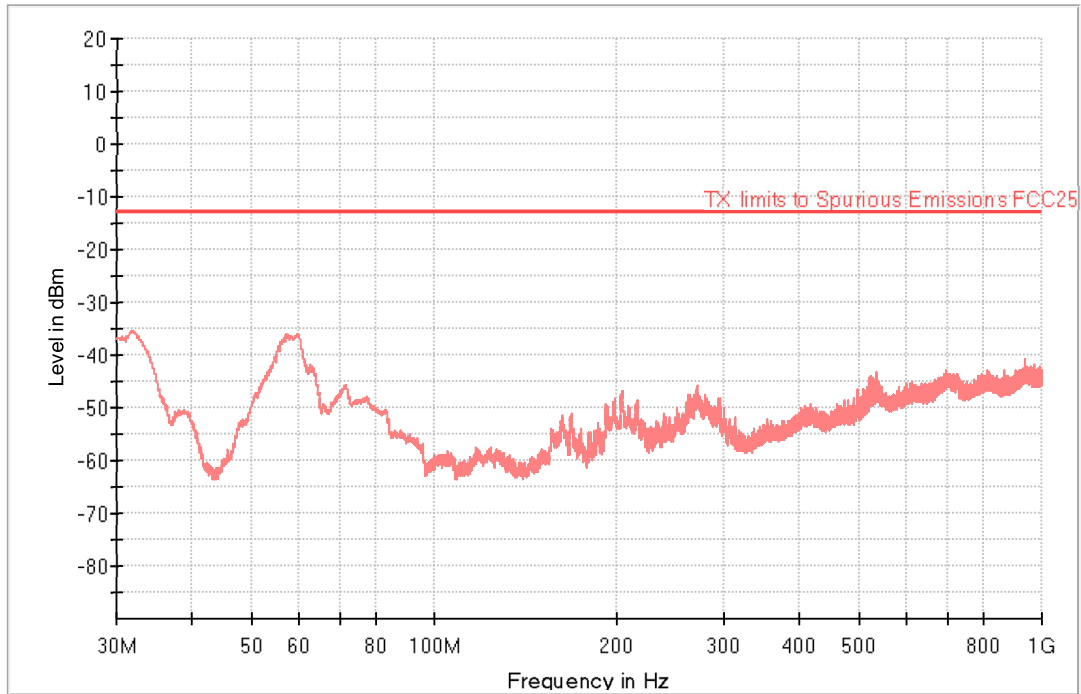
Frequency range 30 MHz – 1000 MHz

The spurious emissions below 1 GHz do not depend on the operating channel and modulation selected in the EUT.

Attachments

Frequency Range GHz = [0.03, 1], Frequency MHz = 2010.00000, Modulation = QPSK (1SC0), Measurement Point = 1

Images:

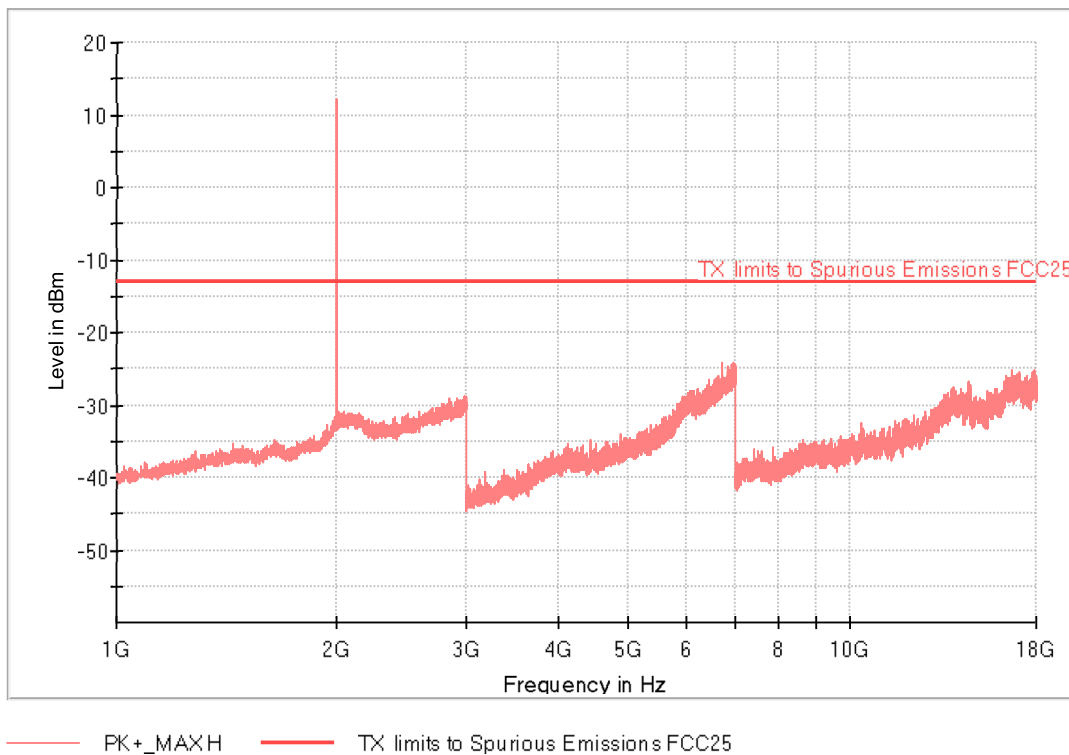


PK+_MAXH TX limits to Spurious Emissions FCC25

Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)
31.940000	-35.2	V	22.2	-13.0
59.488000	-36.1	V	23.1	-13.0
167.869333	-51.1	V	38.1	-13.0
270.430667	-45.8	V	32.8	-13.0
533.333000	-43.3	V	30.3	-13.0
935.495000	-40.8	V	27.8	-13.0

Frequency Range GHz = [1, 18], Frequency MHz = 2000.10000, Modulation = QPSK (1SC0), Measurement Point = 1

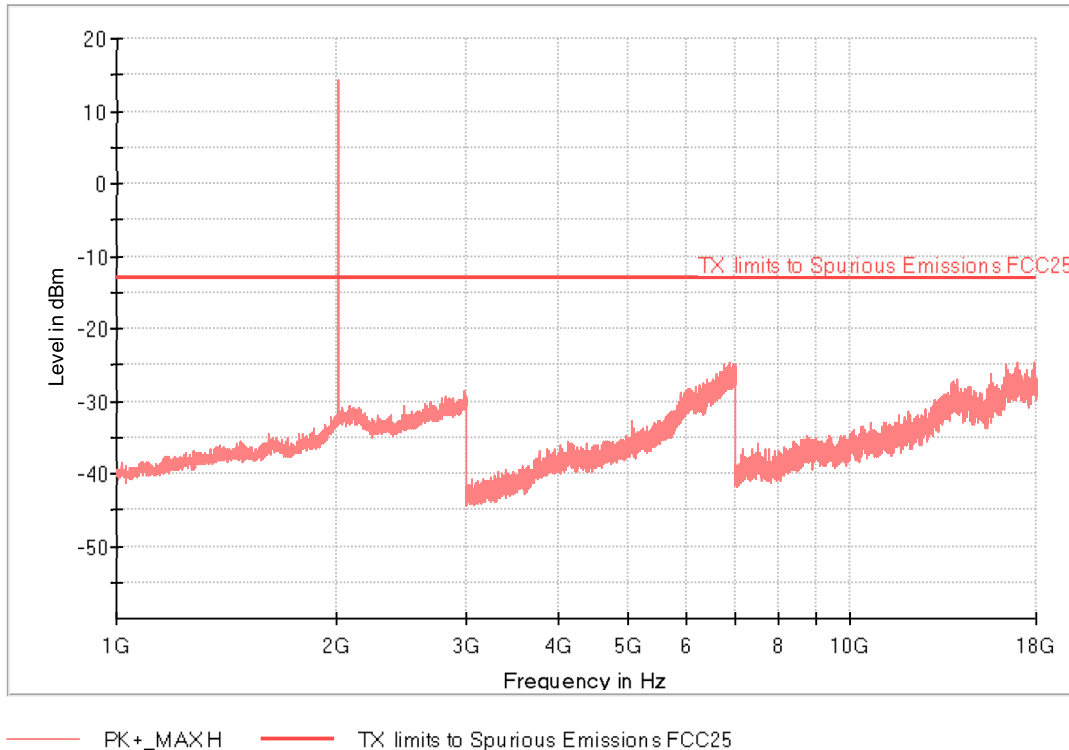
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
2000.000000	12.3	V	---	---	UL Fundamental
6711.500000	-24.1	V	11.1	-13.0	
16715.500000	-25.1	V	12.0	-13.0	

Frequency Range GHz = [1, 18], Frequency MHz = 2010.10000, Modulation = QPSK (1SC0), Measurement Point = 1

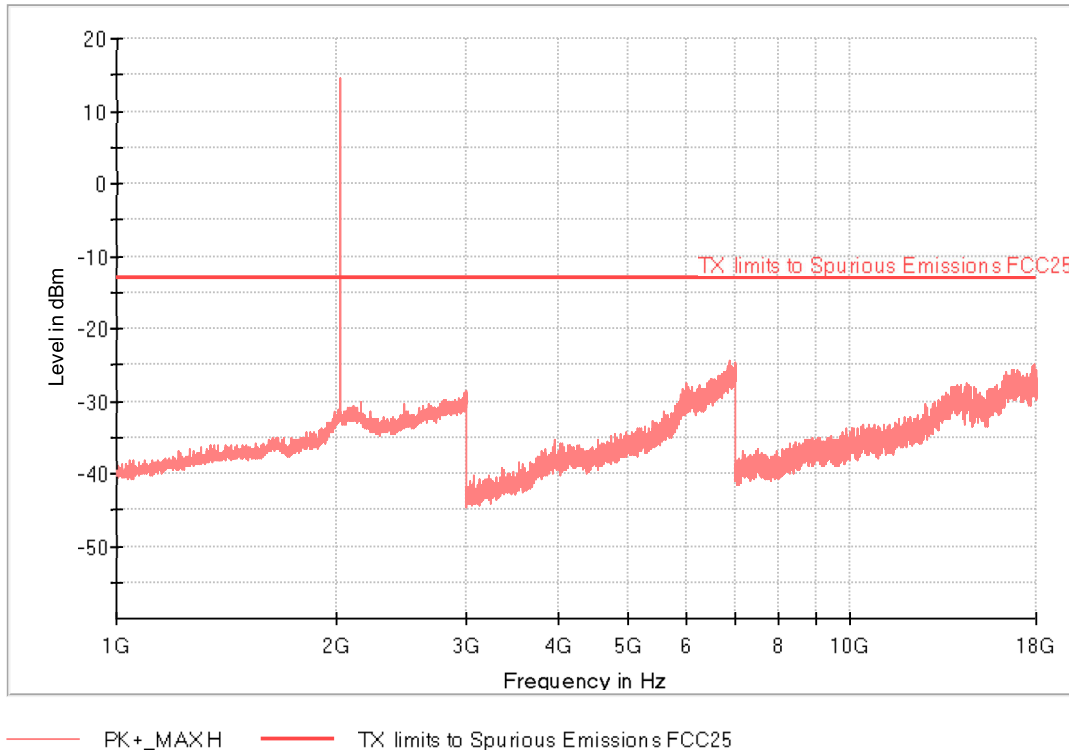
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
2010.000000	14.2	H	---	---	UL Fundamental
6744.000000	-25.0	H	12.0	-13.0	
17005.500000	-24.7	H	11.7	-13.0	

Frequency Range GHz = [1, 18], Frequency MHz = 2019.90000, Modulation = QPSK (1SC0), Measurement Point = 1

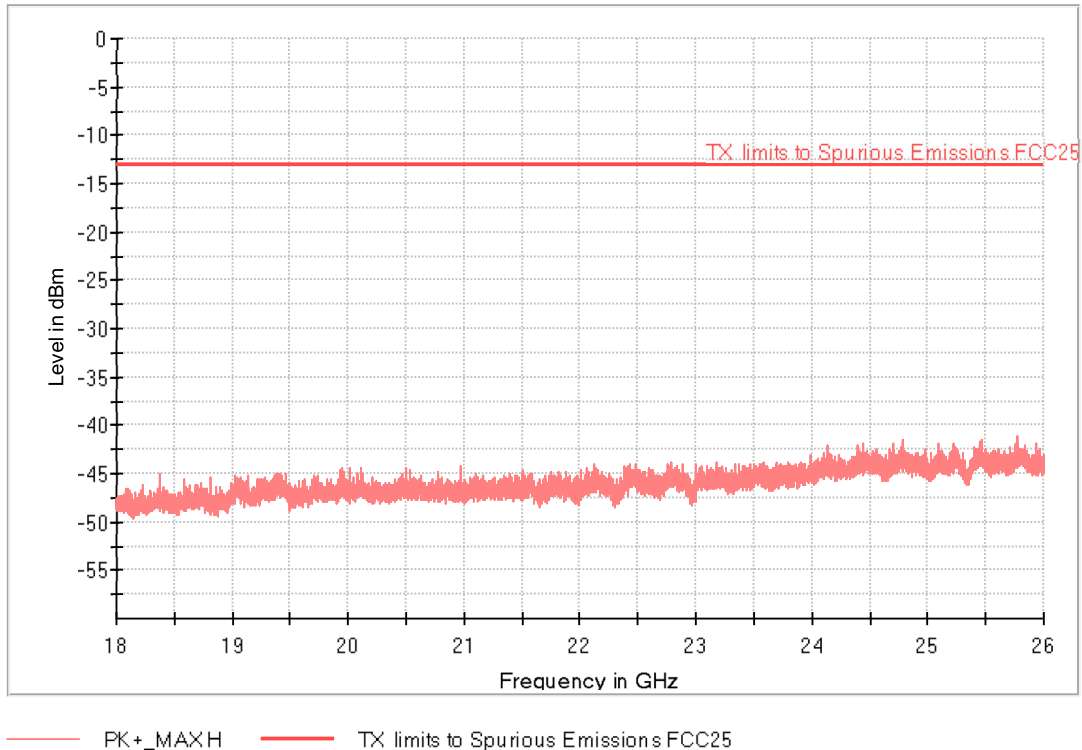
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
2019.500000	14.5	H	---	---	UL Fundamental
6869.000000	-24.3	H	11.3	-13.0	
17866.500000	-24.8	H	11.8	-13.0	

Frequency Range GHz = [18, 26], Frequency MHz = 2000.10000, Modulation = QPSK (1SC0), Measurement Point = 1

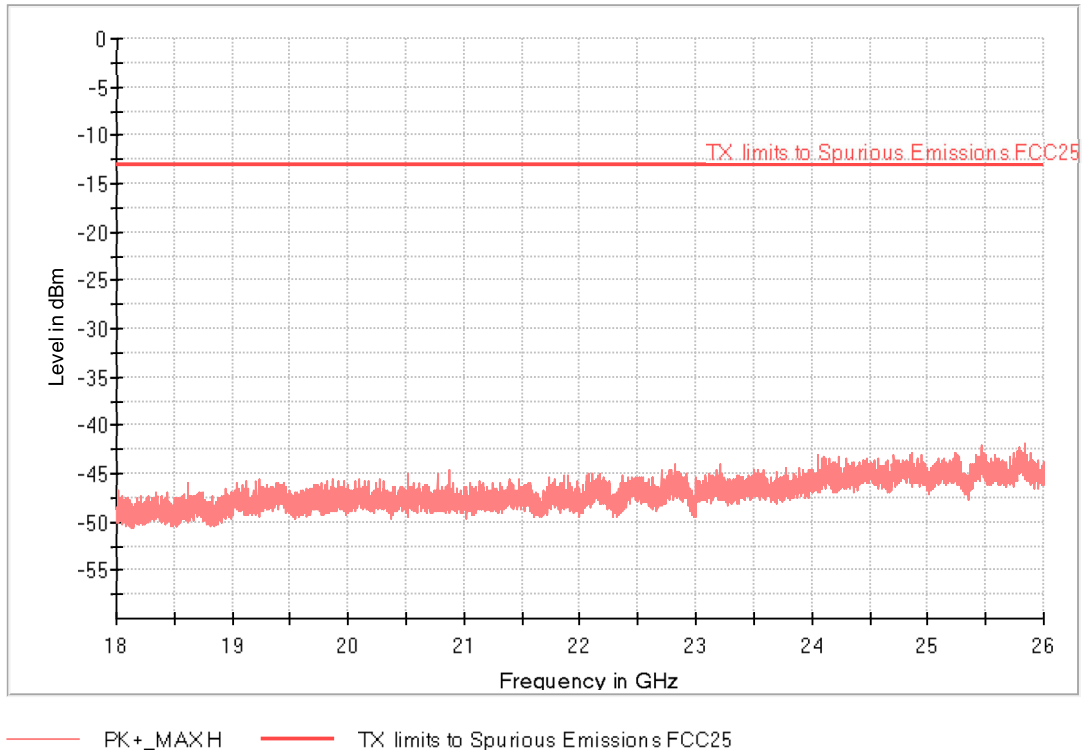
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)
18367.812500	-44.9	V	31.9	-13.0
25774.937500	-41.0	H	28.0	-13.0

Frequency Range GHz = [18, 26], Frequency MHz = 2010.00000, Modulation = QPSK (1SC0), Measurement Point = 1

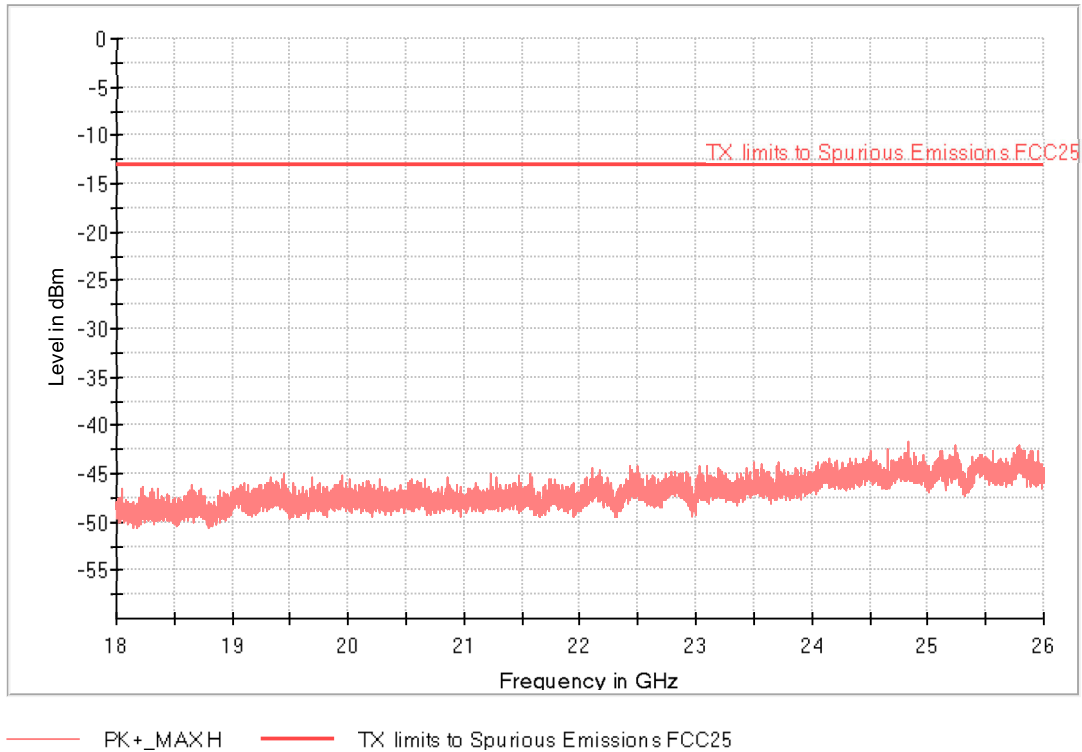
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)
20868.250000	-44.5	V	31.5	-13.0
25459.375000	-42.1	H	29.1	-13.0

Frequency Range GHz = [18, 26], Frequency MHz = 2019.90000, Modulation = QPSK (1SC0), Measurement Point = 1

Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)
19436.875000	-45.0	H	32.0	-13.0
24828.250000	-41.8	V	28.8	-13.0

Verdict

Pass

Band 255 SCS 15 kHz

Modulation: QPSK (1SC0)

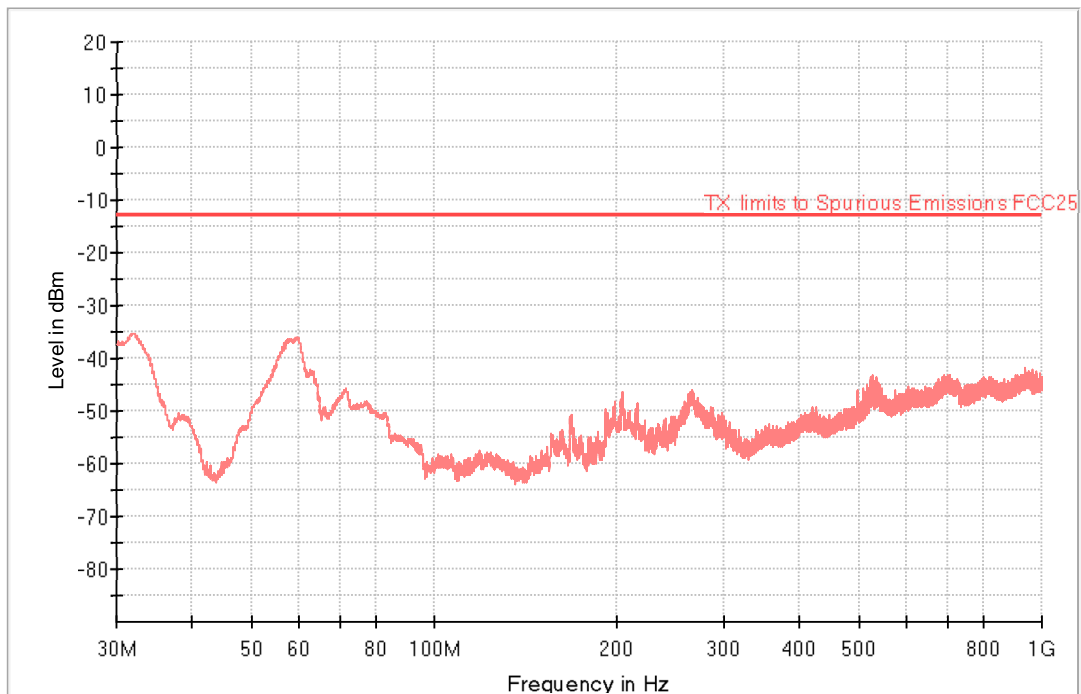
Frequency range 30 MHz – 1000 MHz

The spurious emissions below 1 GHz do not depend on the operating channel and modulation selected in the EUT.

Test Results

Frequency Range GHz = [0.03, 1], Frequency MHz = 1643.50000, Modulation = QPSK (1SC0), Measurement Point = 1

Images:

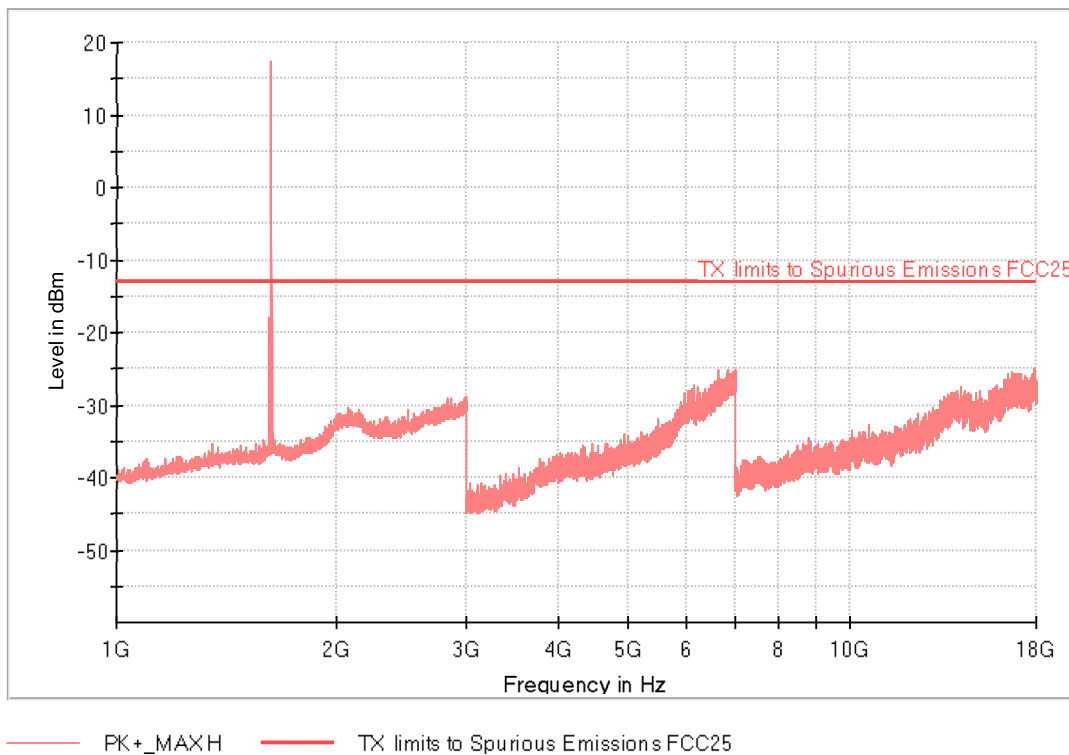


— PK+_MAXH — TX limits to Spurious Emissions FCC25

Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)
32.004667	-35.2	V	22.2	-13.0
59.294000	-36.1	V	23.1	-13.0
167.901667	-50.7	V	37.7	-13.0
203.953333	-46.4	V	33.4	-13.0
266.550667	-46.1	V	33.1	-13.0
526.381333	-43.1	V	30.1	-13.0

Frequency Range GHz = [1, 18], Frequency MHz = 1626.50000, Modulation = QPSK (1SC0), Measurement Point = 1

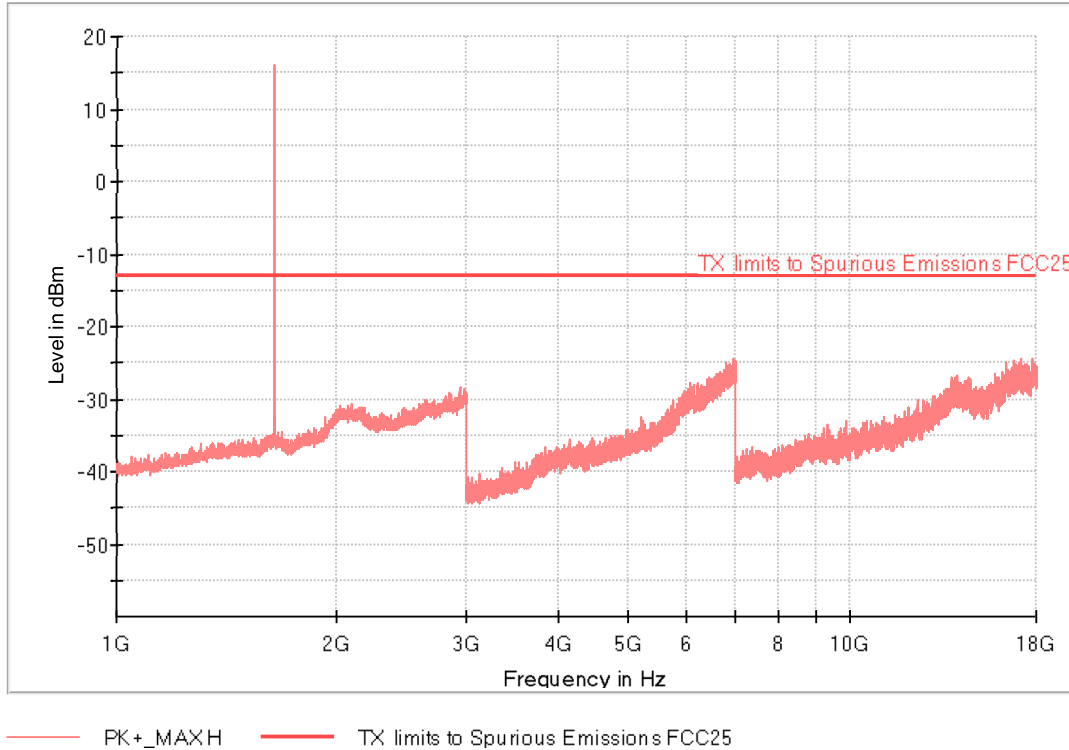
Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
1626.500000	17.4	H	---	---	UL Fundamental
6613.000000	-25.1	H	12.1	-13.0	
16650.500000	-25.5	H	12.5	-13.0	

Frequency Range GHz = [1, 18], Frequency MHz = 1643.50000, Modulation = QPSK (1SC0), Measurement Point = 1

Images:

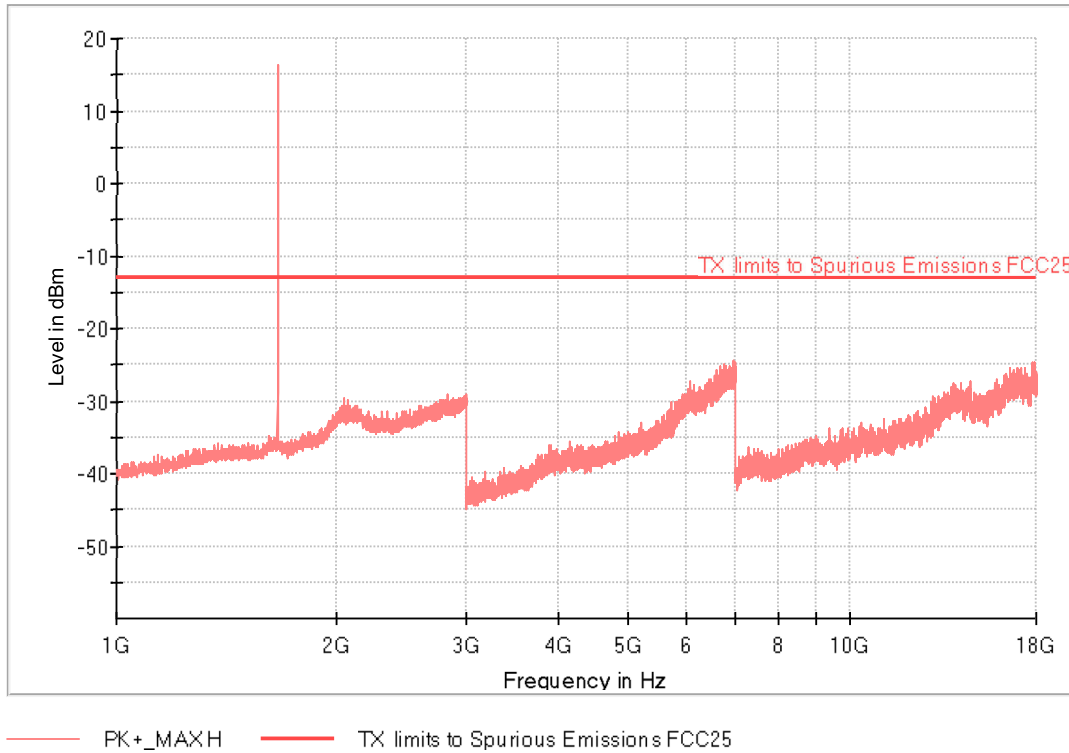


Frequency (MHz)	PK+_MAXH (dBm)	PoI	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
1643.500000	16.2	H	---	---	UL Fundamental
6952.500000	-24.5	V	11.5	-13.0	
17158.000000	-24.4	V	11.4	-13.0	

Frequency Range GHz = [1, 18], Frequency MHz = 1660.40000, Modulation = QPSK (1SC0), Measurement Point = 1

Images:

Images:



Frequency (MHz)	PK+_MAXH (dBm)	Pol	Margin - PK+ (dB)	Limit - PK+ (dBm)	Comment
1660.500000	16.4	H	---	---	UL Fundamental
6953.500000	-24.5	H	11.5	-13.0	
16552.000000	-25.5	H	12.5	-13.0	

Verdict

Pass