Prüfbericht-Nr.: *Test Report No.*:	**50159793 001**	**Auftrags-Nr.:** *Order No.*:	**144188446**	**Seite 1 von 20** *Page 1 of 20*
Kunden-Referenz-Nr.: *Client Reference No.*:	**N/A**	**Auftragsdatum:** *Order date*:	**27.06.2018**	
Auftraggeber: *Client*:	**TBS Avionics Limited** 9/F, Tungtex Building, 203 Wai Yip Street, Kwun Tong, Hong Kong, China			
Prüfgegenstand: *Test item*:	**915 MHz and 2.4GHz Wi-Fi Transmitter Module (Transceiver)**			
Bezeichnung / Typ-Nr.: *Identification / Type No.*:	**TBS Crossfire MICRO TX**			
Auftrags-Inhalt: *Order content*:	**US FCC Certification**			
Prüfgrundlage: *Test specification*:	**FCC Part 15 Subpart C, ANSI C63.10-2013**			
Wareneingangsdatum: *Date of receipt*:	**28.08.2020**			
Prüfmuster-Nr.: *Test sample No.*:	**A002898394-001~002**			
Prüfzeitraum: *Testing period*:	**07.09.2020 - 18.09.2020**			
Ort der Prüfung: *Place of testing*:	**Hong Kong**			
Prüflaboratorium: *Testing laboratory*:	**TÜV Rheinland Hong Kong Ltd.**			
Prüfergebnis*: *Test result**:	**Pass**			

geprüft von / *tested by*:			**kontrolliert von** / *reviewed by*:		
07.12.2020	Mika Chan / Project Manager		07.12.2020	Sharon Li / Senior Manager	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*: **FCC ID: QOS-TXMICRO**
This report covers the UHF transmitter.

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

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Product information

Manufacturers declarations

	Transceiver	
	UHF	**Wi-Fi**
Operating frequency range	902.75 - 927.25 MHz	2412 - 2462 MHz
Type of modulation	Frequency Hopping Spread Spectr	802.11b: DSSS; Data rate: 1, 2, 5.5, 11 Mbps 802.11g: OFDM; Data rate: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n-HT20: OFDM Data rate: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps
Number of channels	50	802.11b: Ch 1-11 802.11g: Ch 1-11 802.11n-HT20: Ch 1-11
Channel separation	0.5 MHz	5 MHz
Type of antenna	Integral Antenna	
Antenna gain (dBi)	2.0 dBi	3.0 dBi
Power level	fix	
Type of equipment	stand alone radio device	
Connection to public utility power line	Yes	
Nominal voltage	3.5-13 VDC	
Independent Operation Modes	Transmit and receive	

Product function and intended use

The equipment under test (EUT) is an UHF long range plug-in radio module for RC controller. Additional, It supports Wi-Fi IEEE 802.11b/g/n(HT20) connectivity. It is powered by battery.

FCC ID: QOS-TXMICRO

Models	**Product description**
TBS Crossfire MICRO TX	915 MHz and 2.4GHz Wi-Fi Transmitter Module (Transceiver)

Submitted documents

Circuit Diagram
Block Diagram
Technical Description
User manual
Label

Independent Operation Modes

The basic operation modes are:

- Transmitting mode.
- Receiving mode

For further information refer to User Manual

Related Submittal(s) Grants

This is a composite device. For the test result of Wi-Fi function, UHF receiver function and others digital function, please refer to the test report 60393192 001 and 50308846 001 issued by TÜV Rheinland Hong Kong Ltd.

This test report covers the UHF transmitter.

Remark

The test results in this test report are only relevant to the tested sample and does not involve any assessment in the production.

Test Set-up and Operation Mode

Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Test Operation and Test Software

Test operation should refer to test methodology.

- During test, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power was selected according to the instruction given by the manufacturer. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.

Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

- Lenovo laptop - model: 80QQ

Countermeasures to achieve EMC Compliance

- NIL

Test Methodology

Radiated Emission

The radiated emission measurements of the transmitter part were performed according to the procedures in ANSI C63.10-2013.

For measurement below 1GHz - the equipment under test (EUT) was placed at the middle of the 80 cm height turntable. For measurement above 1GHz - the EUT was placed at the middle of the 1.5 m height turntable and RF absorbing material was placed on ground plane between turntable and measuring antenna. During the testing, the EUT was operated standalone and arranged for maximum emissions. The EUT was tested in three orthogonal planes.

The investigation is performed with the EUT rotated 360 ° , the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained.

All radiated tests were performed at an antenna to EUT with 3 meters distance, unless stated otherwise in particular parts of this test report.

Field Strength Calculation

The field strength at 3 m was established by adding the meter reading of the spectrum analyzer to the factors associated with antenna correction factor, cable loss, preamplifiers and filter attenuation.

The equation is expressed as follow:

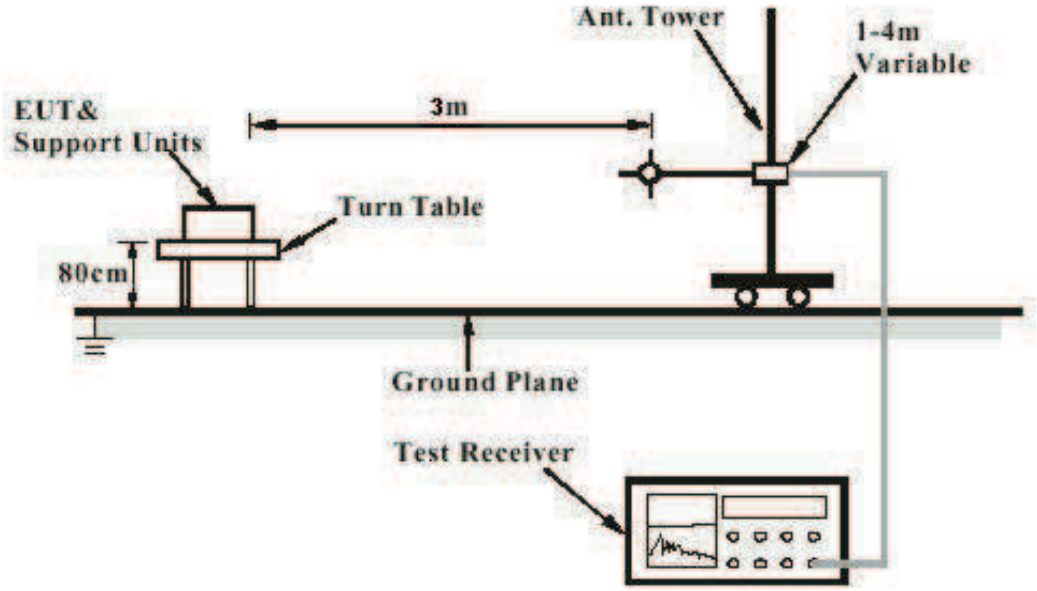
FS = R + AF + CF + FA – PA

Where FS = Field Strength in dBuV/m at 3 meters.
R = Reading of Spectrum Analyzer in dBuV.
AF = Antenna Factor in dB.
CF = Cable Attenuation Factor in dB.
FA = Filter Attenuation Factor in dB.
PA = Preamplifier Factor in dB.

FA and PA are only be used for the measuring frequency above 1 GHz.

Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 1 GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

Diagram of Measurement Equipment Configuration for Mains Conduction Measurement (if applicable)

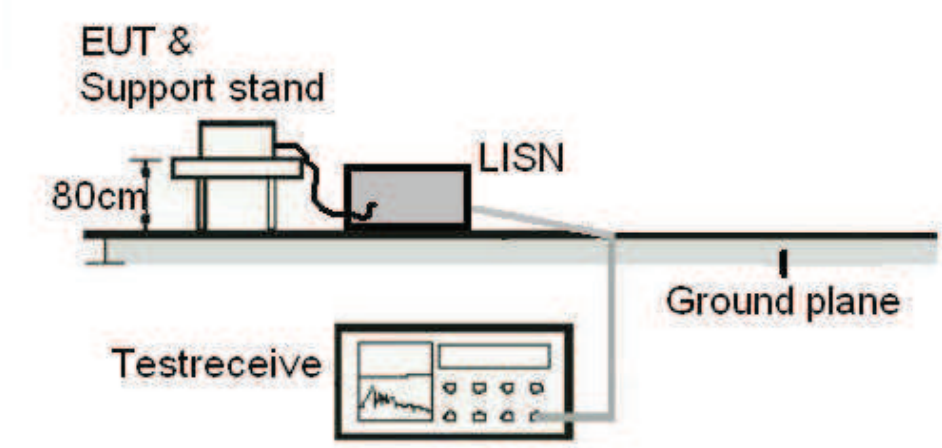
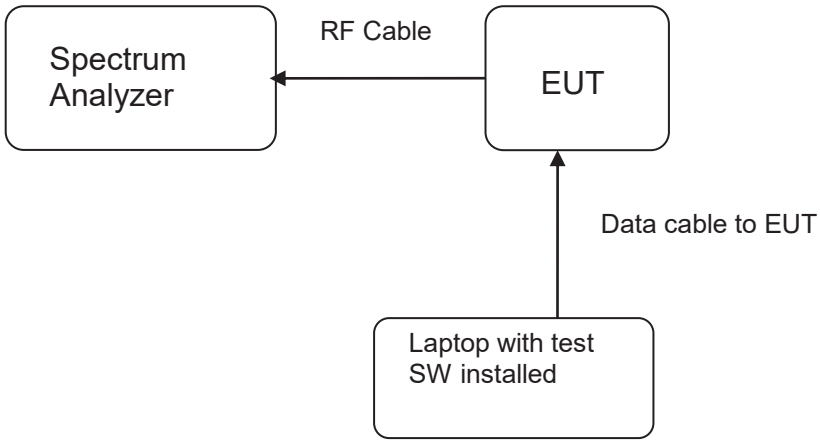


Diagram of Equipment Configuration for Antenna-port Conducted Measurement (if applicable)



Test Facility

Test Laboratory Information

TÜV Rheinland Hong Kong Ltd.
Address: 3-4, 11/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, N.T., Hong Kong·
Tel.: +852 2192 1000
Fax: +852 2192 1001
Email service-gc@tuv.com
Web: www.tuv.com

The test facility is recognized or accredited by the following organizations:

FCC

Type	:	Accredited Test Firm
Designation Number	:	HK0013
Test Firm Registration Number	:	371735
Scope	:	Intentional Radiators

List of Test and Measurement Instruments

Radiated Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Semi-anechoic Chamber	Frankonia	Nil	20 Mar 2020	20 Mar 2021
Test Receiver	R & S	ESU40	10 Oct 2019	10 Oct 2020
Bi-conical Antenna	R & S	HK116	07 Mar 2019	07 Mar 2021
Log Periodic Antenna	R & S	HL223	06 Mar 2019	06 Mar 2021
Standard Gain Horn	ETS-Lindgren	3160-07	04 Sep 2020	04 Sep 2021
Standard Gain Horn	ETS-Lindgren	3160-08	26 Sep 2020	26 Sep 2021
Standard Gain Horn	ETS-Lindgren	3160-10	03 Oct 2018	03 Oct 2020
Double-Ridged Waveguide Horn	EMCO	3116	05 Oct 2018	05 Oct 2020
Double-Ridged Waveguide Horn	EMCO	3117	30 Aug 2019	30 Aug 2021
Coaxial cable	Huber+Suhner	CNM-NMCMILX800-473	04 Oct 2018	04 Oct 2020
High Frequency Cable	Pasternack	PE3VNA4001-3M	29 Jan 2019	29 Jan 2021
Microwave Preamplifier	COM-POWER Corporation	PAM-118A	06 Mar 2020	06 Mar 2021
Preamplifier 18GHz to 40GHz with cable (EMC656)	A.H. Systems, Inc.	PAM-1840VH	30 Jan 2019	30 Jan 2021
High Pass Filter (cutoff freq. =1000MHz)	Trilithic	23042	30 Oct 2019	30 Oct 2021

AC Mains Conducted Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Test Receiver	R & S	ESU40	10 Oct 2019	10 Oct 2020
LISN	R&S	ENV216	09 Aug 2020	09 Aug 2021
Double Shield Cable	Huber+ Suhner	RG223/U-01	20 May 2019	20 May 2021

Radio Test

Equipment	Manufacturer	Type	Cal. Date	Due Date
Spectrum Analyzer	R & S	FSP30	14 Aug 2020	14 Aug 2021

Measurement Uncertainty

The estimated combined standard uncertainty for power-line conducted emissions measurements is ±2.42dB.

The estimated combined standard uncertainty for radiated emissions measurements is ±4.81dB (9kHz to 30MHz) and ±4.62dB (30MHz to 200MHz) and ±5.67dB (200MHz to 1000MHz) and is ±5.07dB (1GHz to 8.2GHz) and ±4.58dB (8.2GHz to 12.4GHz) and ±4.78dB (12.4GHz to 18GHz)

The estimated combined standard uncertainty for antenna conducted emission is ±2.1dB

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for the level of confidence is approximately 95%.

Results FCC Part 15 – Subpart C

FCC 15.203 – Antenna Requirement 1		**Pass**
FCC Requirement:	No antenna other than that furnished by the responsible party shall be used with the device	
Results:	a) Antenna type:	Integral antenna
	b) Manufacturer and model no:	N/A
	c) Peak Gain:	2.0 dBi
Verdict:	Pass	

FCC 15.204 – Antenna Requirement 2	**Pass**
FCC Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.
Results:	Only one integral antenna can be used.
Verdict:	N/A

FCC 15.207 – Conducted Emission on AC Mains **Pass**

Test Specification : ANSI C63.10-2013
Test date : 09.09.2020
Mode of operation : All function On (Wi-Fi On + UHF On + USB mode)
Port of testing : AC Mains input port of laptop
Supply voltage : 120Vac 60Hz
Temperature : 23ºC
Humidity : 50%

Requirement: 15.207(a)

Live measurement

Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBµV	Average dBµV	Limit QP (dBµV)	Limit AV (dBµV)	Verdict
0,15 – 0,5	0.154	54.28	---	66 - 56	56 - 46	Pass
	0.230	---	29.94	66 - 56	56 - 46	Pass
	0.450	36.66	25.60	66 - 56	56 - 46	Pass
> 0,5 - 5	1.534	---	30.22	56	46	Pass
	1.586	40.52	---	56	46	Pass
	3.150	---	30.51	56	46	Pass
	3.306	39.04	---	56	46	Pass
> 5 - 30	5.166	35.06	---	60	50	Pass
	5.206	---	27.85	60	50	Pass
	25.322	29.95	---	60	50	Pass
	25.726	---	23.87	60	50	Pass

Neutral measurement

Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBµV	Average dBµV	Limit QP (dBµV)	Limit AV (dBµV)	Verdict

0,15 – 0,5	0.162	51.11	---	66 - 56	56 - 46	Pass
	0.214	---	25.2	66 - 56	56 - 46	Pass
	0.434	36.39	25.73	66 - 56	56 - 46	Pass
> 0,5 - 5	1.494	---	26.52	56	46	Pass
	1.554	34.18	---	56	46	Pass
	2.554	---	30.47	56	46	Pass
	2.886	37.39	---	56	46	Pass
> 5 - 30	26.226	25.13	---	60	50	Pass
	26.430	---	20.97	60	50	Pass

Remark: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate.

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz does not exceed the limits. For test Results plots refer to Appendix 1, page 2.

FCC 15.247 (b)(1) – Peak Output Power **Pass**

Test Specification : ANSI C63.10 – 2013
Test date : 18.09.2020
Mode of operation : Tx mode
Port of testing : Temporary antenna port
Supply voltage : 7.6 VDC
Temperature : 23ºC
Humidity : 50%

FCC Requirement :

For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

Remark: For test protocols please refer to Appendix 1.

Frequency (MHz)	Maximum peak output power (dBm)	Limit (W/dBm)	Verdict
902.75	28.44	1 / 30.0	Pass
914.75	28.65	1 / 30.0	Pass
927.25	28.86	1 / 30.0	Pass

FCC 15.247 (a) – 20 dB Bandwidth	**Pass**
FCC Requirement: N/A	
Test Specification : ANSI C63.10 – 2013 Test date : 18.09.2020 Mode of operation : Tx mode Port of testing : Temporary antenna port Supply voltage : 7.6 VDC Temperature : 23ºC Humidity : 50%	
Remark: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and packet types. For test protocols refer to Appendix 1.	

Frequency (MHz)	**20 dB left (MHz)**	**20 dB right (MHz)**	**20dB bandwidth (MHz)**
902.75	902.620	902.874	0.254
914.75	914.622	914.874	0.252
927.25	927.120	927.375	0.255

FCC 15.247(a)(1)– Carrier Frequency Separation	**Pass**
FCC Requirement: Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater.	
Test Specification : ANSI C63.10 – 2013 Test date : 18.09.2020 Mode of operation : Tx mode (hopping on) Port of testing : Temporary antenna port Supply voltage : 7.6 VDC Temperature : 23ºC Humidity : 50%	
Remark: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and packet types. For test Results plots refer to Appendix 1.	

Channel Separation (kHz)	**20dB bandwidth (KHz)**	**Verdict**
500	255	Pass

FCC 15.247 (a)(1)(iii)– Number of hopping channels	Pass

FCC Requirement:

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies.

Test Specification : ANSI C63.10 – 2013
Test date : 18.09.2020
Mode of operation : Tx mode (hopping on)
Port of testing : Temporary antenna port
Supply voltage : 7.6 VDC
Temperature : 23ºC
Humidity : 50%

Remark: For test Results plots refer to Appendix 1.

No. of hopping channels	Limit	Verdict
50	25	Pass

FCC 15.247 (a)(1)(iii) – Time of Occupancy (Dwell Time)	Pass

FCC Requirement:

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

Test Specification : ANSI C63.10 – 2013
Test date : 18.09.2020
Mode of operation : Tx mode (hopping on)
Port of testing : Temporary antenna port
Supply voltage : 7.6 VDC
Temperature : 23ºC
Humidity : 50%

Results: Time period calculation = 10

Dwell time = 10 x 12.39 x 10^{-3} = 0.1239 s
<= 0.4 s

For test protocols please refer to Appendix 1.

Verdict: Pass

FCC 15.247 (a) – Hopping Sequence	**Pass**
FCC Requirement:	The system radio frequency (RF) bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The hopset shall be such that the near-term distribution of frequencies appears random, with sequential hops randomly distributed in both direction and magnitude of change in the hopset, while the long-term distribution appears evenly distributed.
Refer to LoRa Specification	

FCC 15.247 (a) – Equal Hopping Frequency Use	**Pass**
FCC Requirement:	Each of the transmitter's hopping channels is used equally on average. The system radio frequency (RF) bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The hopset shall be such that the near-term distribution of frequencies appears random, with sequential hops randomly distributed in both direction and magnitude of change in the hopset, while the long-term distribution appears evenly distributed.
Refer to LoRa Specification	

FCC 15.247 (a) – Receiver Input Bandwidth	**Pass**
FCC Requirement:	The associated receiver(s) complies with the requirement that its input bandwidth matches the bandwidth of the transmitted signal.
Refer to LoRa Specification	

FCC 15.247 (a) – Receiver Hopping Capability	**Pass**
FCC Requirement:	The associated receiver has the ability to shift frequencies in synchronisation with the transmitted signals.
Refer to LoRa Specification	

FCC 15.247 (d) – Spurious Conducted Emissions	**Pass**

Test Specification : ANSI C63.10 – 2013
Test date : 18.09.2020
Mode of operation : Tx mode
Port of testing : Temporary antenna port
Supply voltage : 7.6 VDC
Temperature : 23 ºC
Humidity : 50 %

FCC Requirement: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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.

Remark: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and packet types.

There is no peak found outside any 100kHz bandwidth of the operating frequency band in the three transmit frequency. All three transmit frequency modes comply with the limit stated in subclause 15.247(d). For test protocols refer to Appendix 1.

Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict
902.75	902.000	-18.38	28.33	46.71	Pass
914.75	7438.000	-20.76	28.54	49.30	Pass
927.25	928.000	-19.91	28.74	48.65	Pass

FCC 15.205– Radiated Emissions in Restricted Frequency Bands	**Pass**

Test Specification : ANSI C63.10 – 2013
Test Date : 09.09.2020
Mode of operation : Tx mode
Port of testing : Enclosure
Frequency range : 9kHz – 25GHz
Supply voltage : 7.6 VDC
Temperature : 23ºC
Humidity : 50%

FCC Requirement: In any 100kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in section15.205(a), must also comply with the radiated emission limits specified in section 15.205(c).

Remark: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate.

All three transmit frequency modes comply with the field strength within the restricted bands. There is no spurious found below 30MHz.

Mode: 902.75 MHz TX Vertical Polarization

Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1805.350	47.7	74.0 / PK
1805.350	41.6	54.0 / AV
2708.019	39.2	74.0 / PK
2708.019	26.9	54.0 / AV
8124.032	53.4	74.0 / PK
8124.032	40.3	54.0 / AV

Mode: 902.75 MHz TX Horizontal Polarization

Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1805.516	47.8	74.0 / PK
1805.516	42.3	54.0 / AV
8124.785	55.1	74.0 / PK
8124.785	42.6	54.0 / AV

Mode: 914.75 MHz TX Vertical Polarization

Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1829.500	46.5	74.0 / PK
1829.500	38.1	54.0 / AV
8232.641	47.8	74.0 / PK
8232.641	33.1	54.0 / AV

Mode: 914.75 MHz TX Horizontal Polarization

Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1829.522	46.8	74.0 / PK
1829.522	40.9	54.0 / AV
2744.022	39.2	74.0 / PK

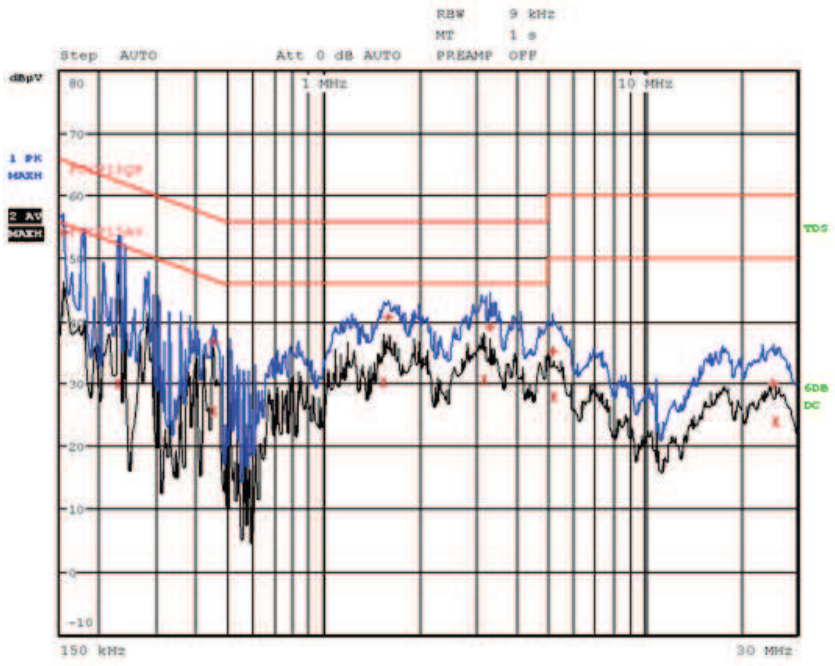
2744.022	27.1	54.0 / AV
8232.099	49.0	74.0 / PK
8232.099	33.8	54.0 / AV
Mode: 927.25 MHz TX	Vertical Polarization	
Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1854.349	44.4	74.0 / PK
1854.349	37.4	54.0 / AV
8344.584	48.1	74.0 / PK
8344.584	34.7	54.0 / AV
Mode: 927.25 MHz TX	Horizontal Polarization	
Freq MHz	**Level dBuV/m**	**Limit/ Detector dBuV/m**
1854.500	45.0	74.0 / PK
1854.500	38.6	54.0 / AV

Appendix 1

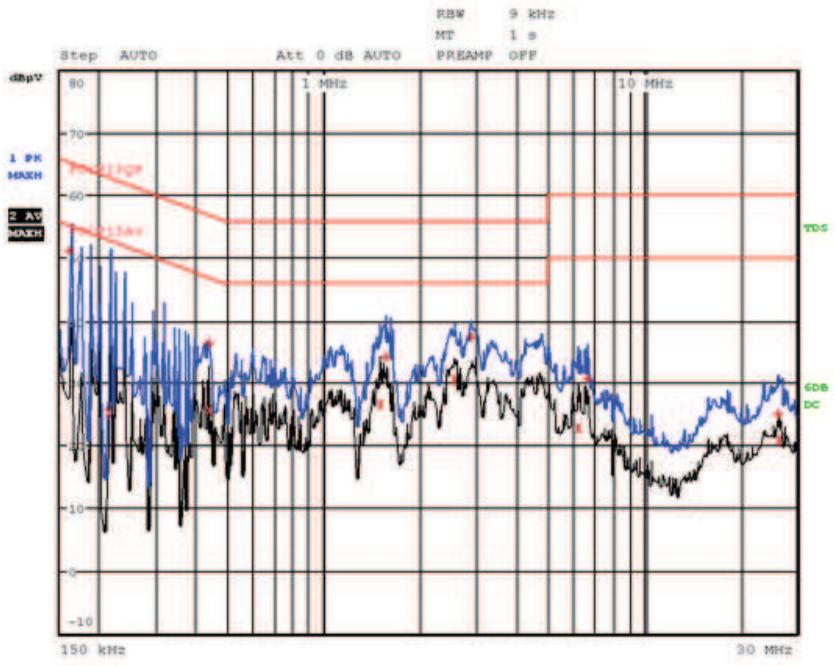
Test Protocols

AC Mains Conducted Emission

Mode: TX mode; Line: L1

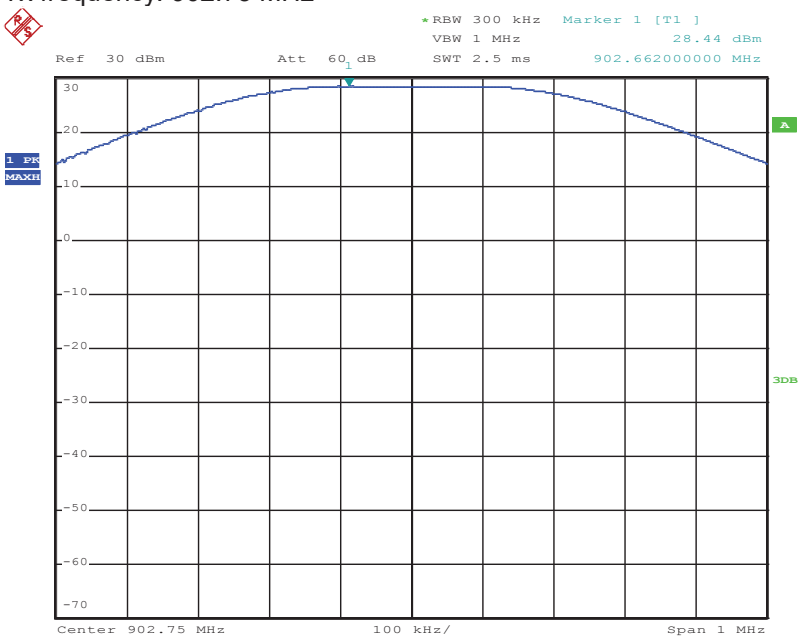


Mode: TX mode; Line: N



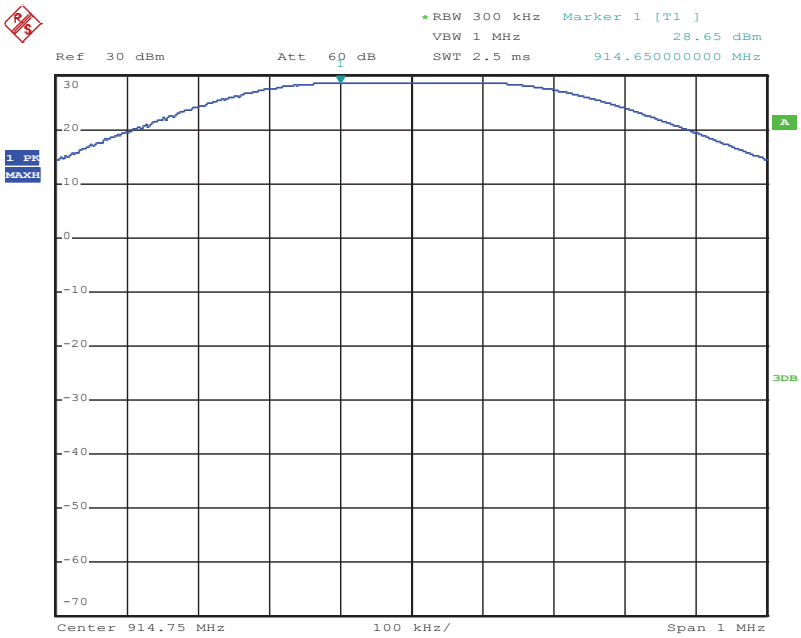
Peak Output Power

Tx frequency: 902.75 MHz



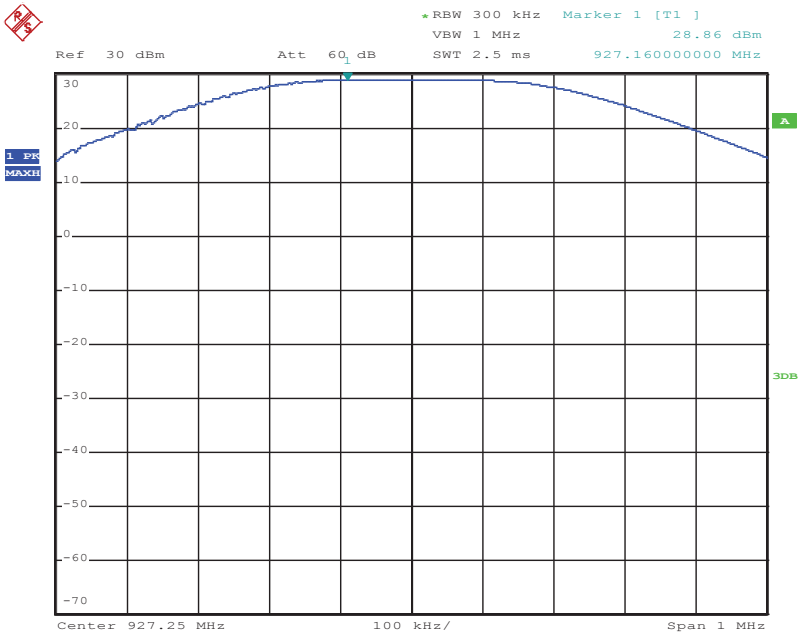
Date: 18.SEP.2020 14:23:47

Tx frequency: 914.75 MHz



Date: 18.SEP.2020 14:23:02

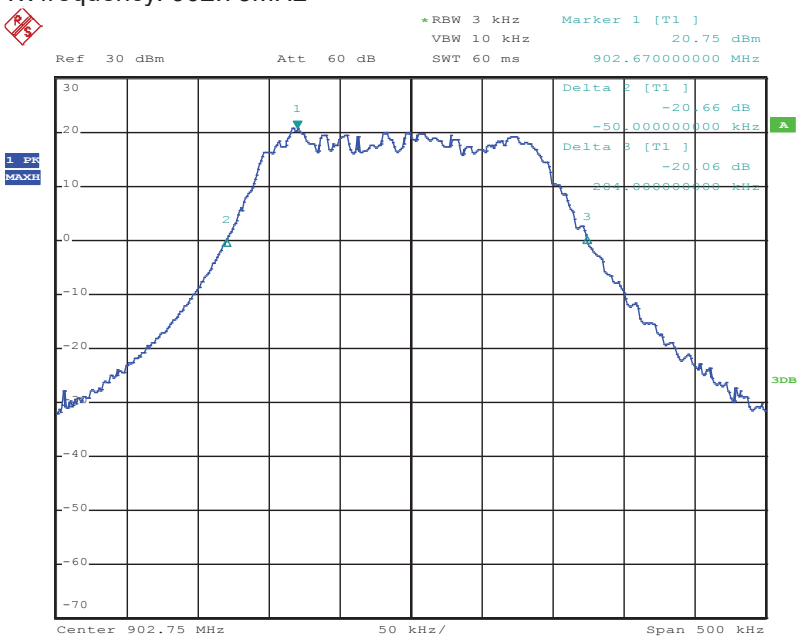
Tx frequency: 927.25 MHz



Date: 18.SEP.2020 14:22:29

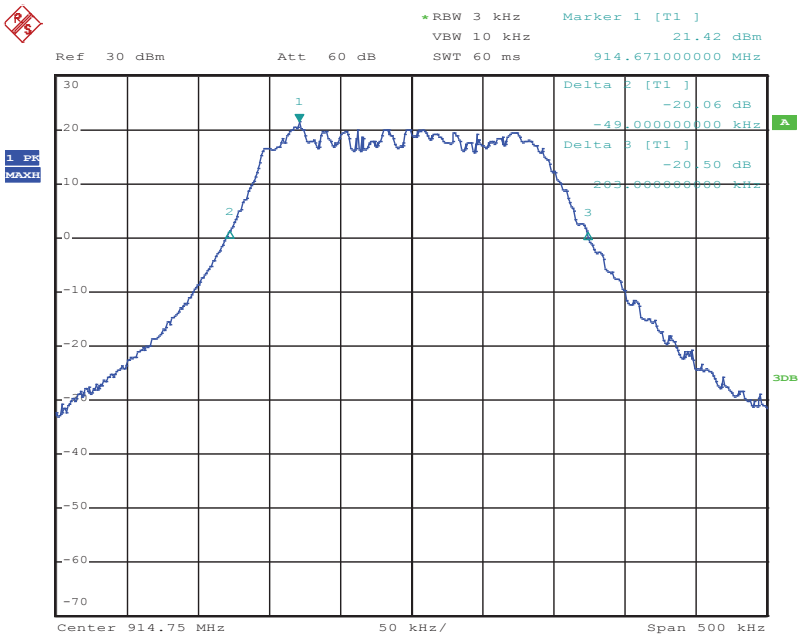
20dB Bandwidth

Tx frequency: 902.75MHz



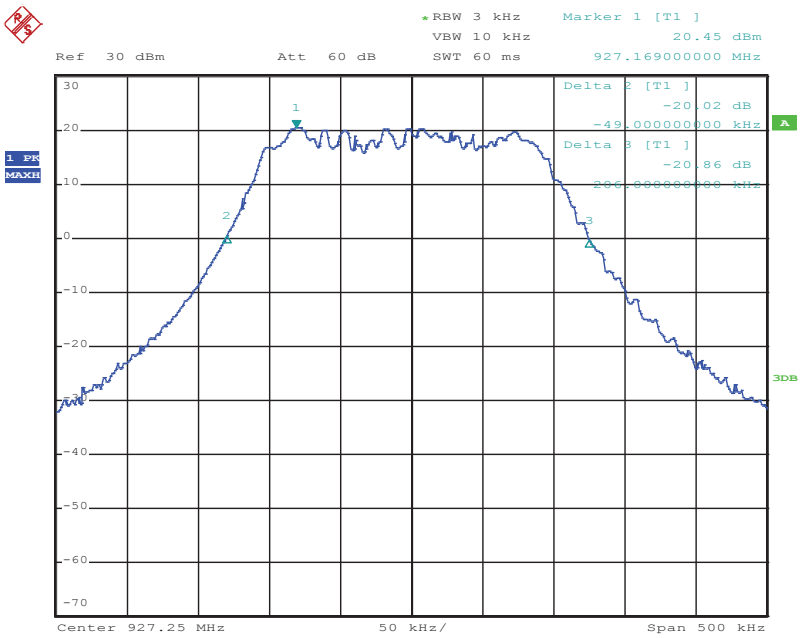
Date: 18.SEP.2020 14:12:35

Tx frequency: 914.75MHz



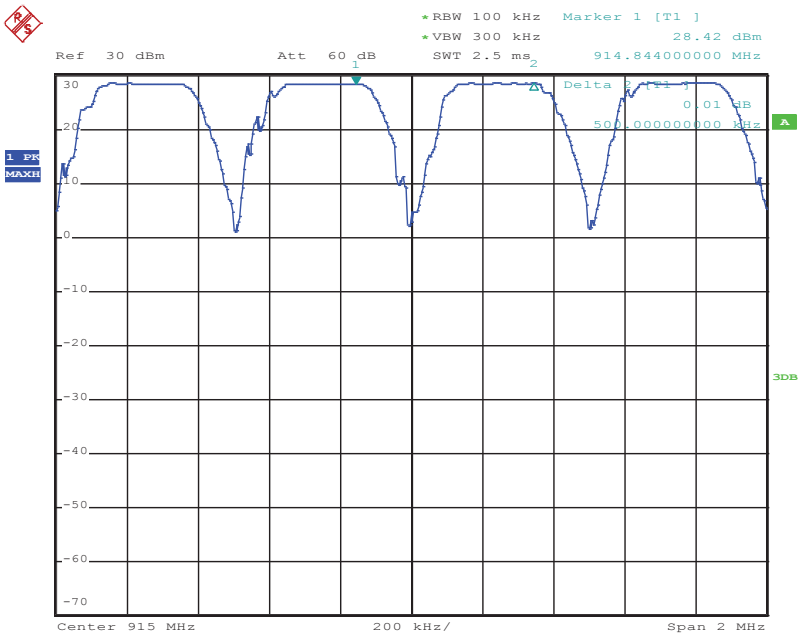
Date: 18.SEP.2020 14:15:09

Tx frequency: 927.25MHz



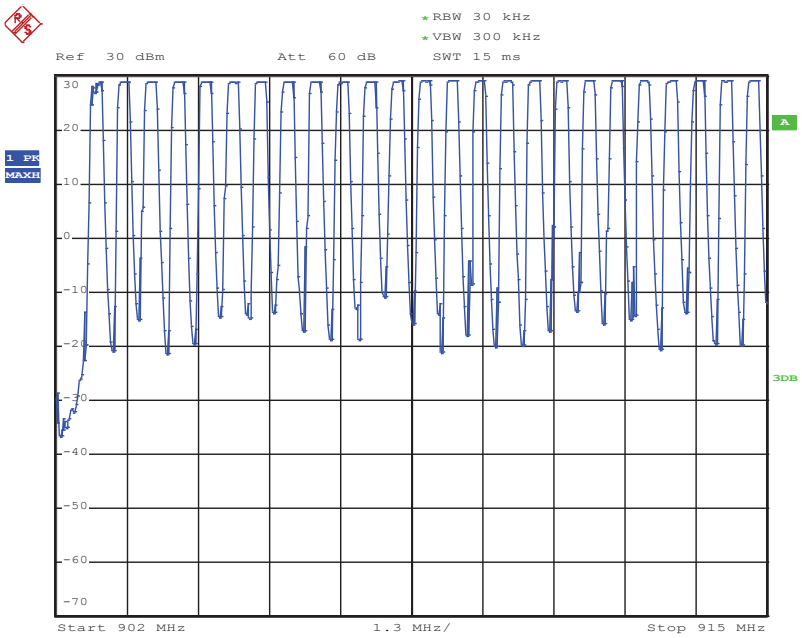
Date: 18.SEP.2020 14:18:16

Carrier Frequency Separation

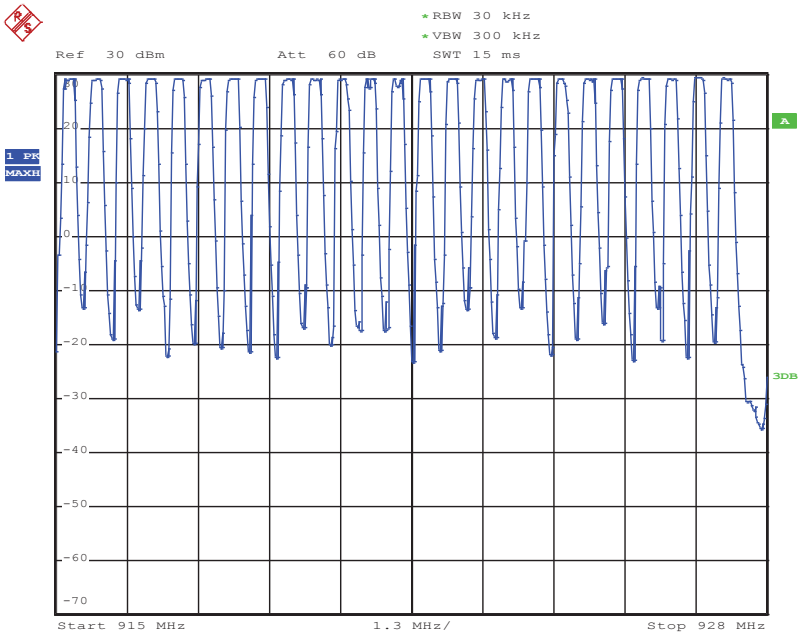


Date: 18.SEP.2020 15:11:02

Number of hopping channels

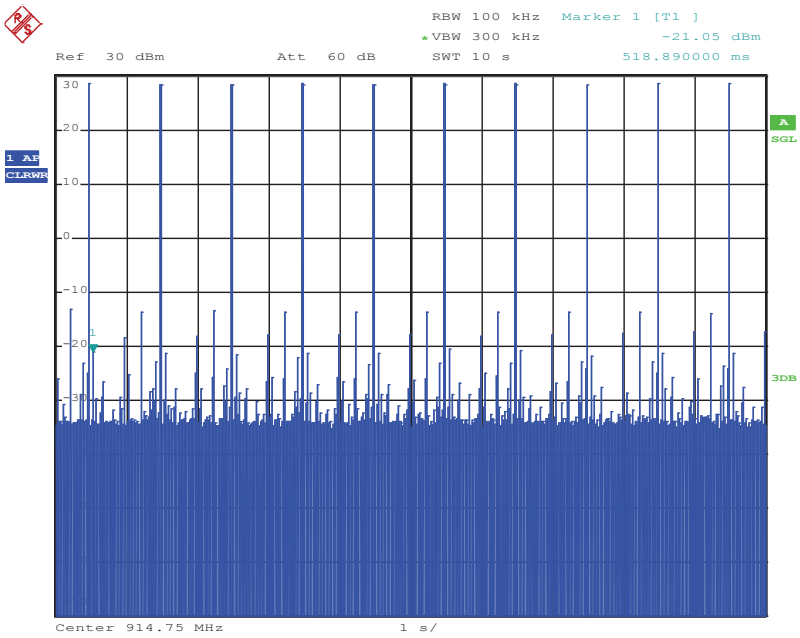


Date: 18.SEP.2020 15:23:19

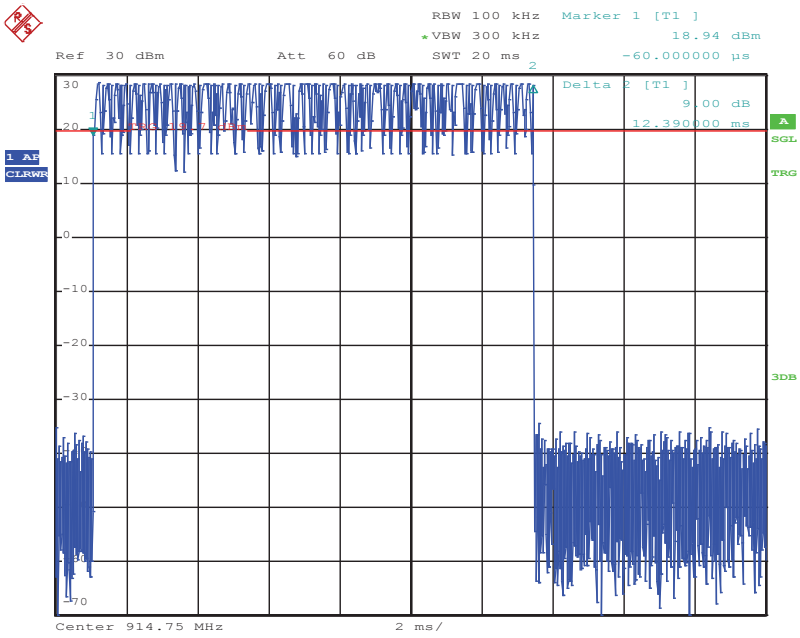


Date: 18.SEP.2020 16:05:13

Dwell Time



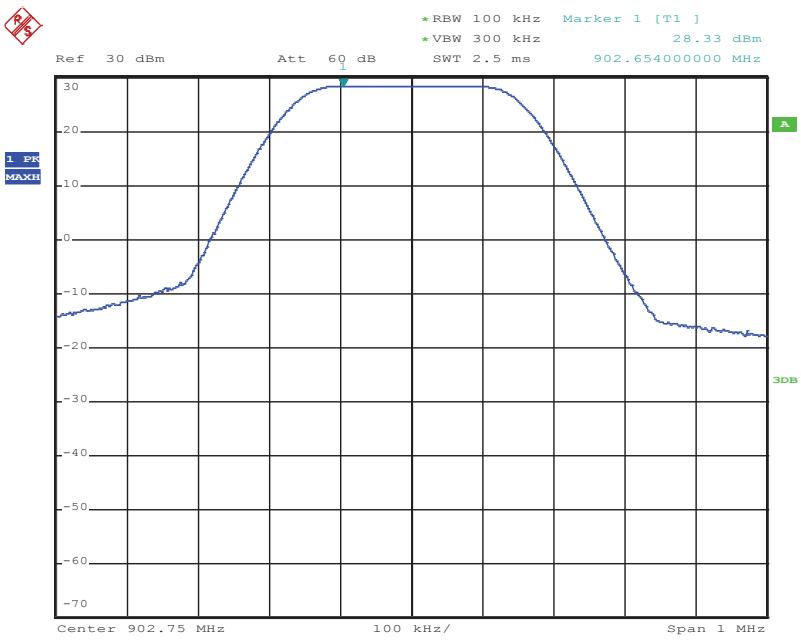
Date: 18.SEP.2020 15:18:03



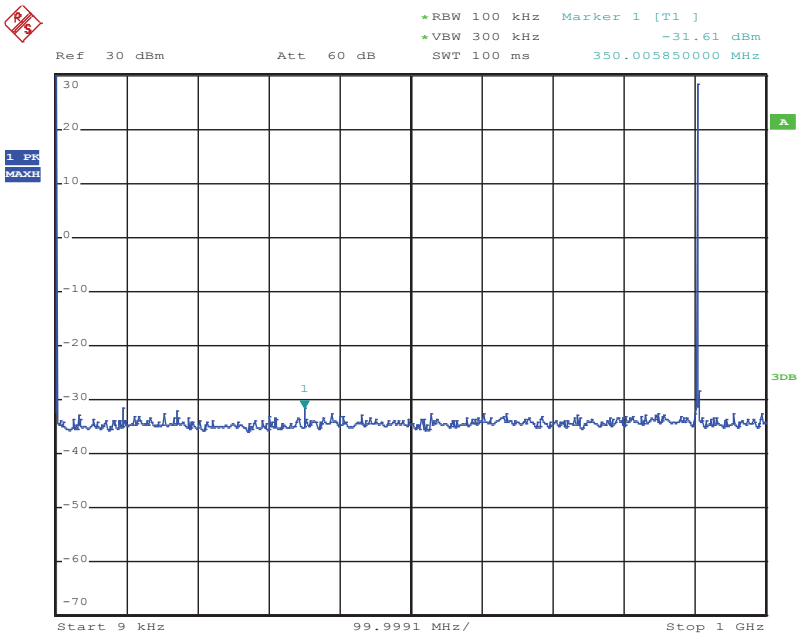
Date: 18.SEP.2020 15:15:35

Spurious Emissions - Conducted

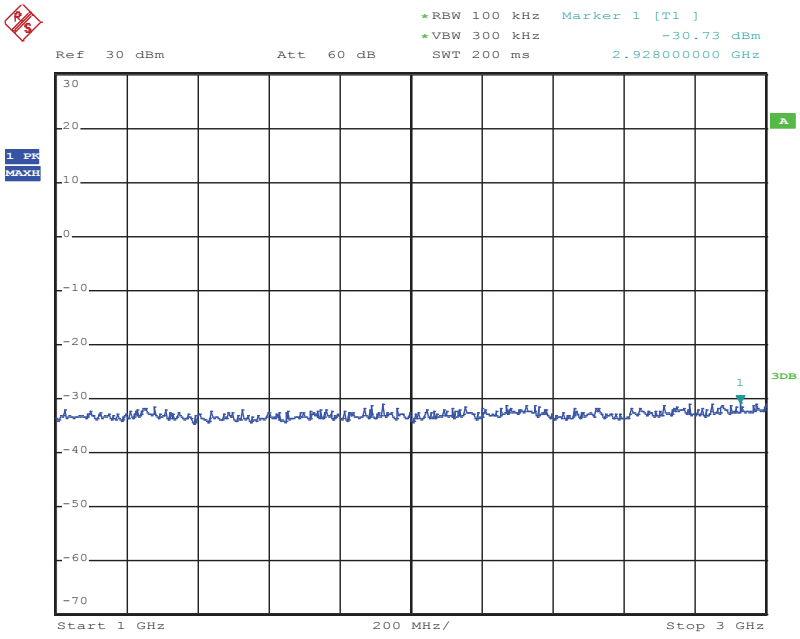
Tx frequency: 902.75MHz



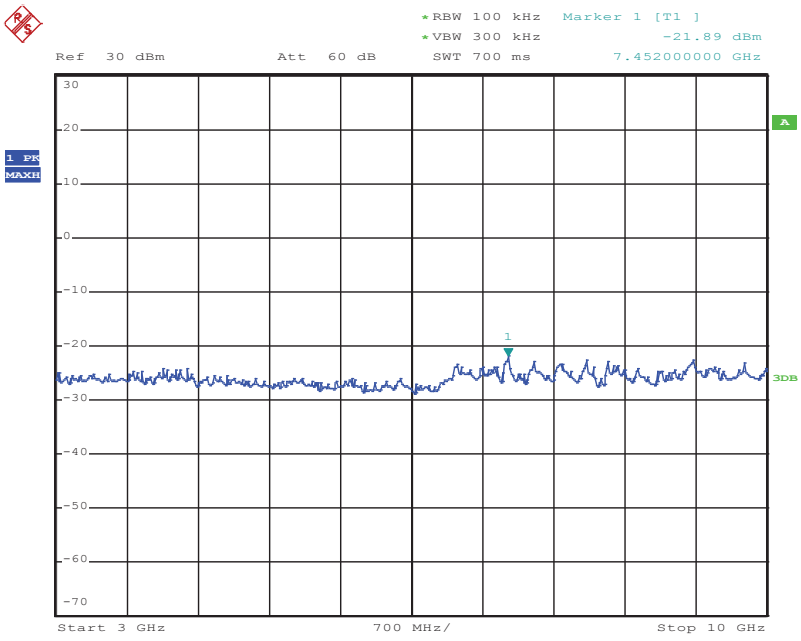
Date: 18.SEP.2020 15:33:31



Date: 18.SEP.2020 15:34:25

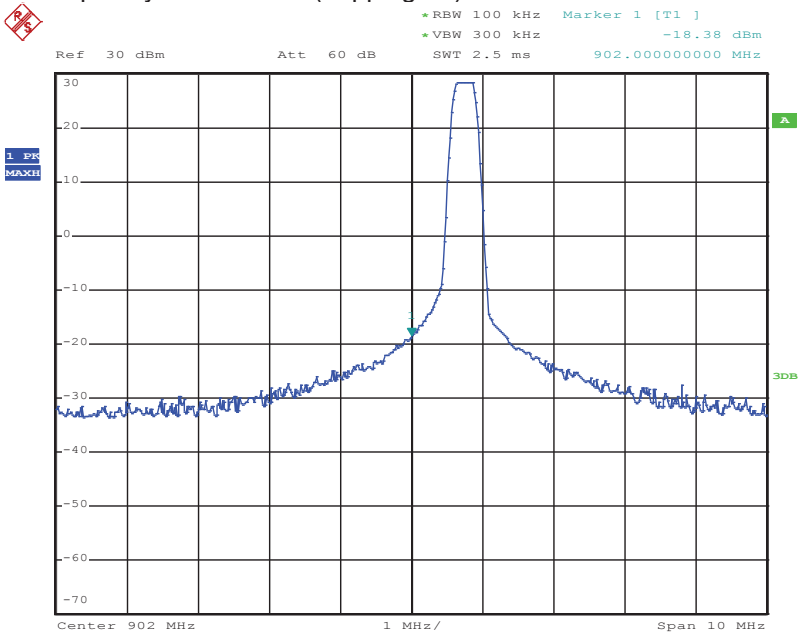


Date: 18.SEP.2020 15:35:18



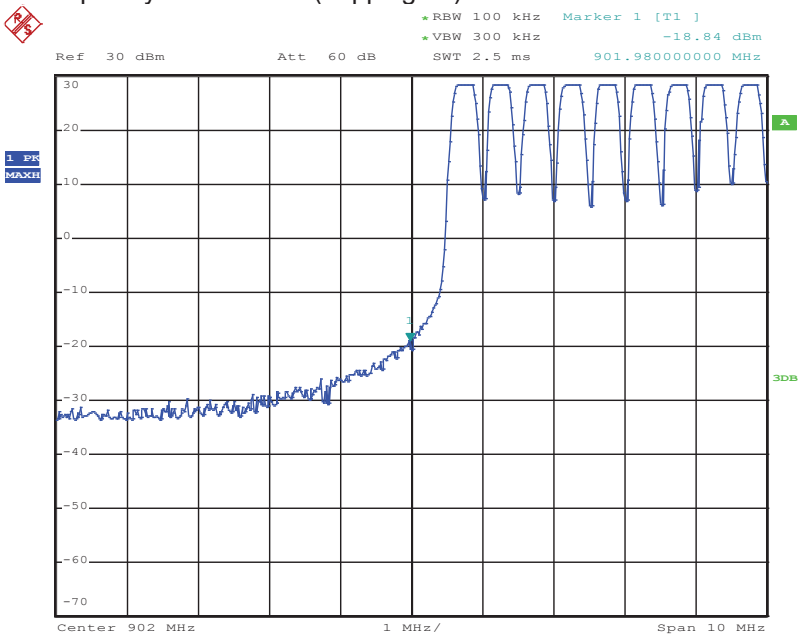
Date: 18.SEP.2020 15:35:50

Tx frequency: 902.75MHz (hopping off)



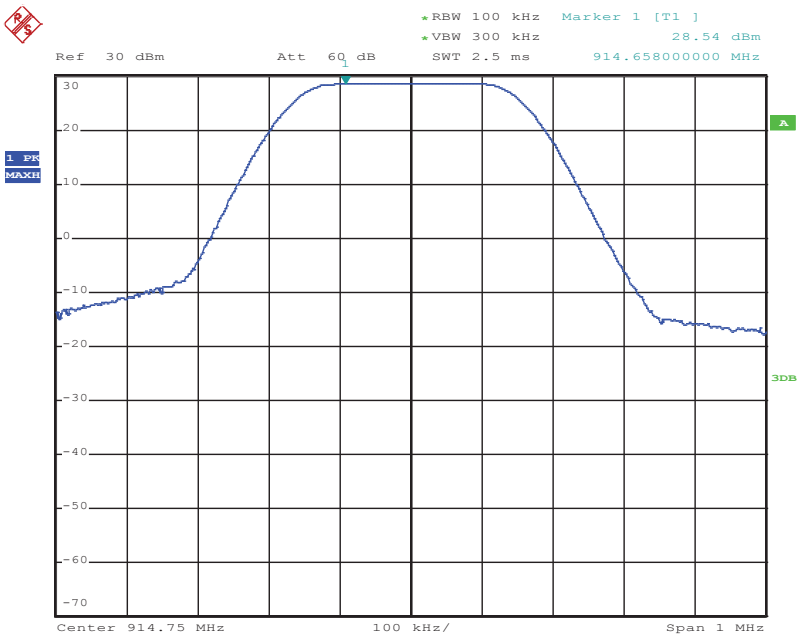
Date: 18.SEP.2020 14:35:18

Tx frequency: 902.75MHz (hopping on)

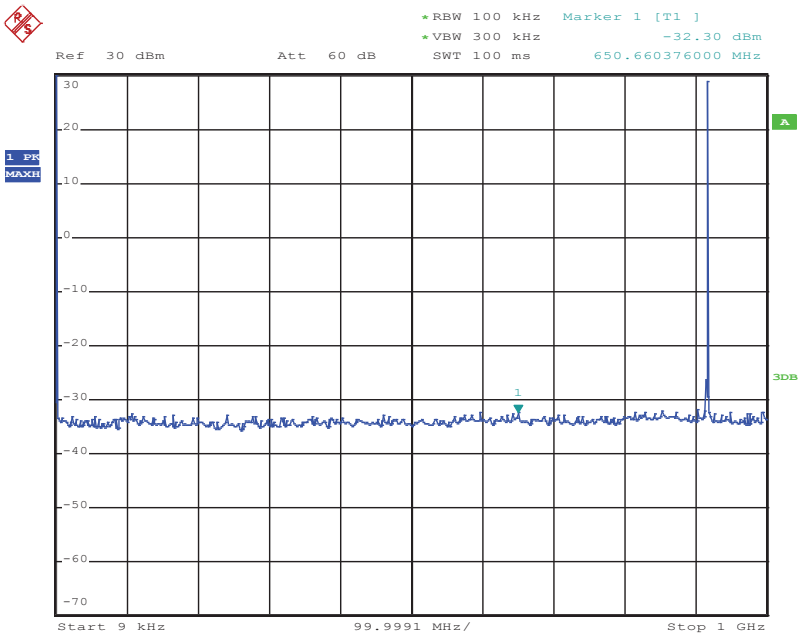


Date: 18.SEP.2020 14:43:43

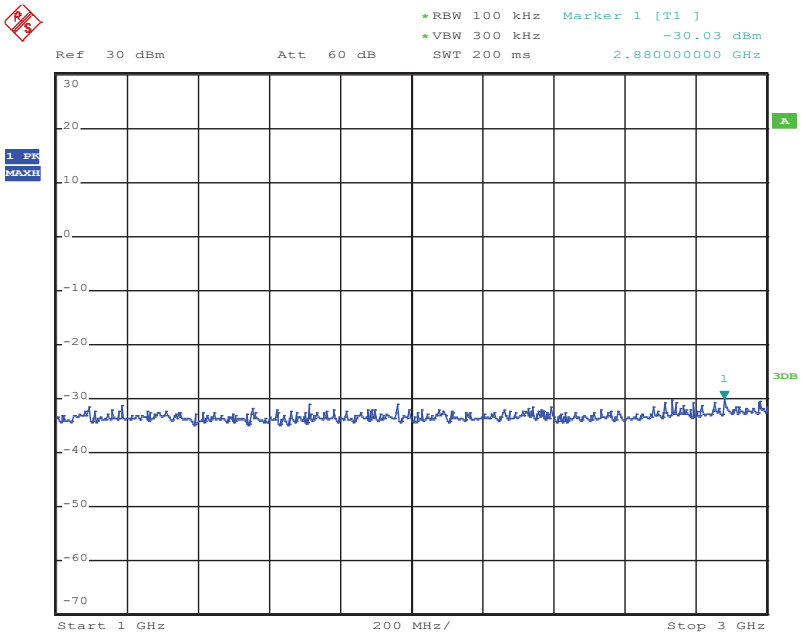
Tx frequency: 914.75 MHz



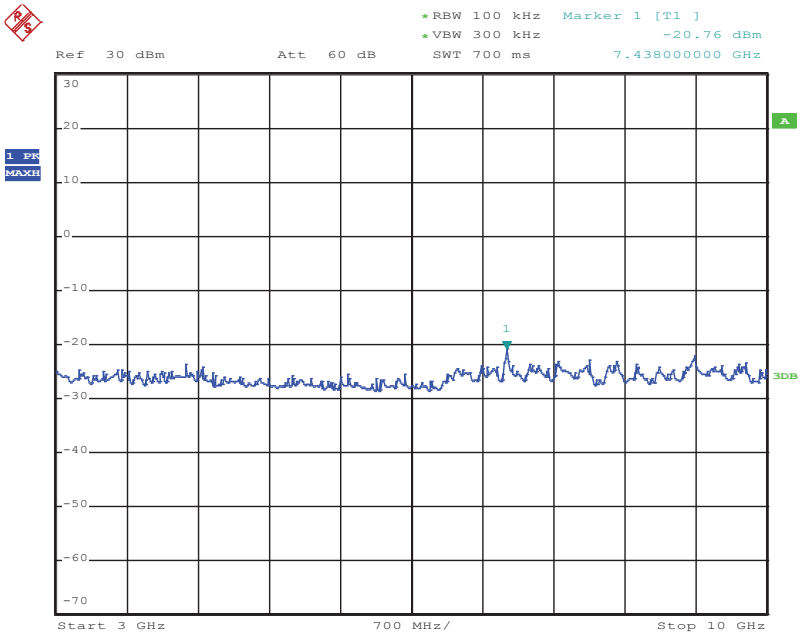
Date: 18.SEP.2020 15:43:09



Date: 18.SEP.2020 15:44:15

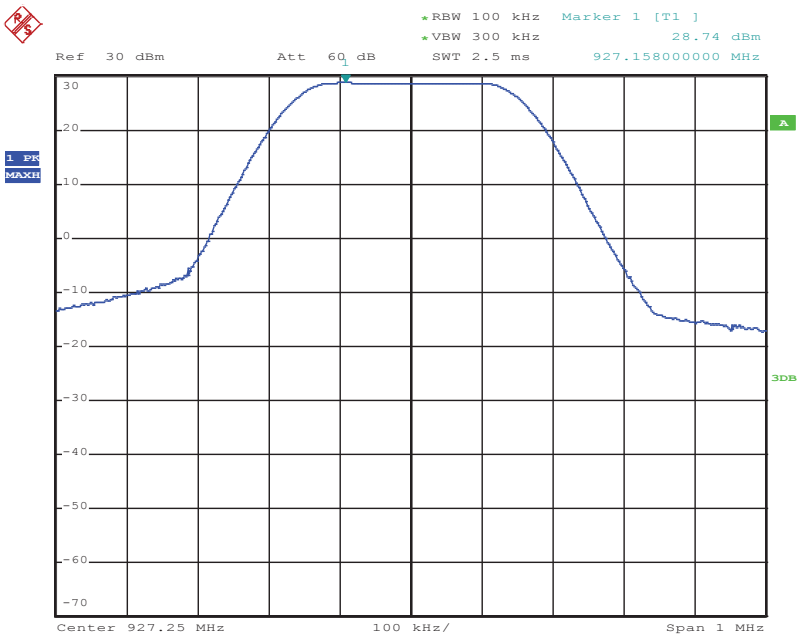


Date: 18.SEP.2020 15:44:48

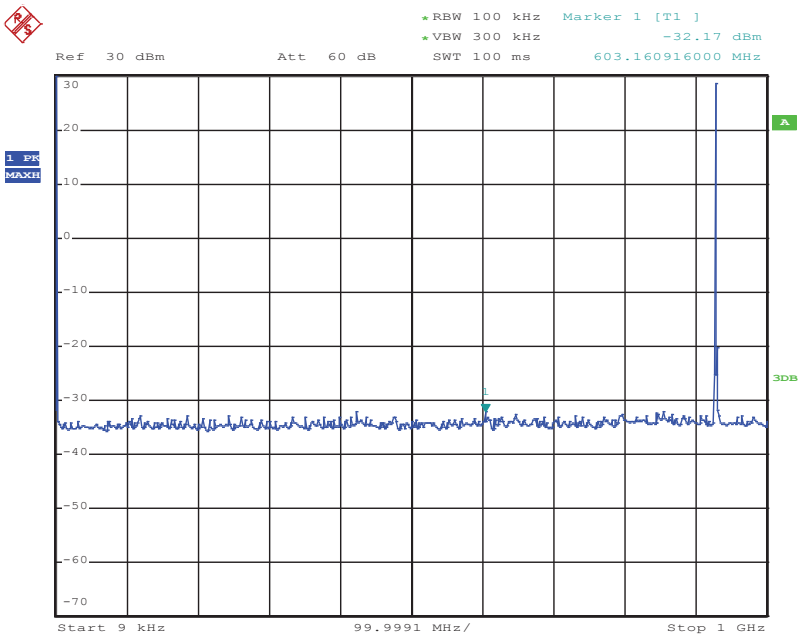


Date: 18.SEP.2020 15:45:16

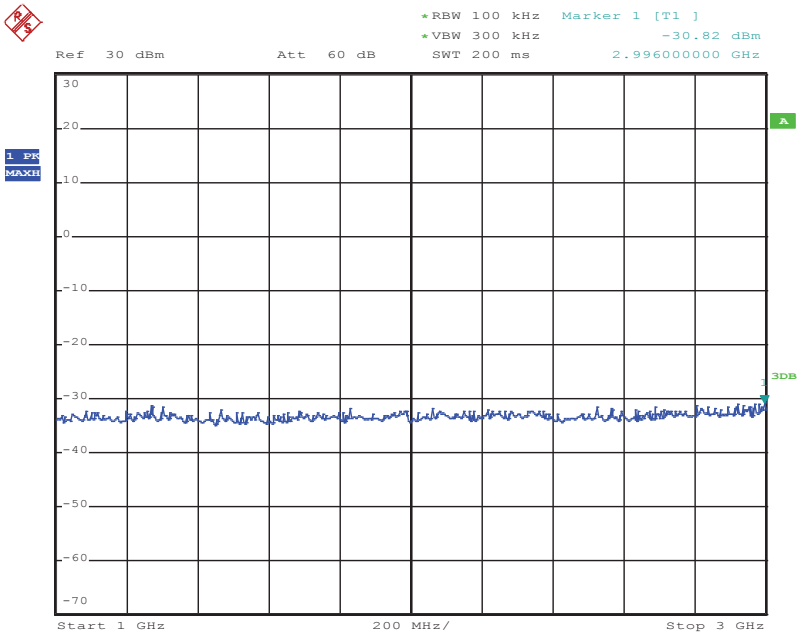
Tx frequency: 927.25 MHz



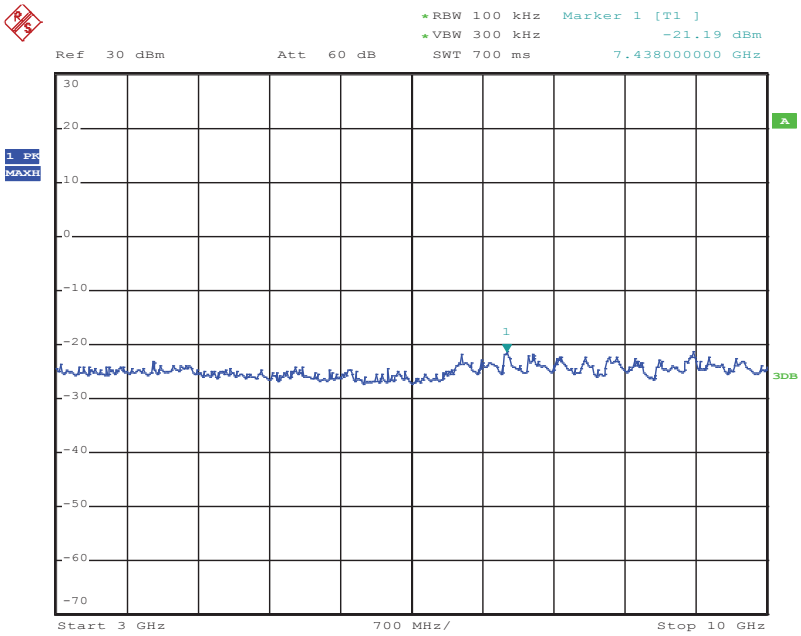
Date: 18.SEP.2020 15:52:26



Date: 18.SEP.2020 15:53:20

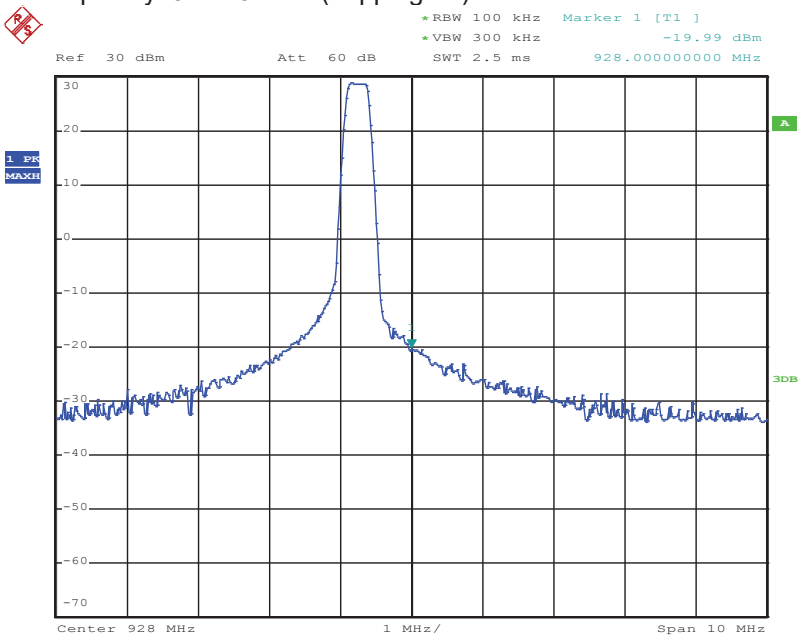


Date: 18.SEP.2020 15:53:57



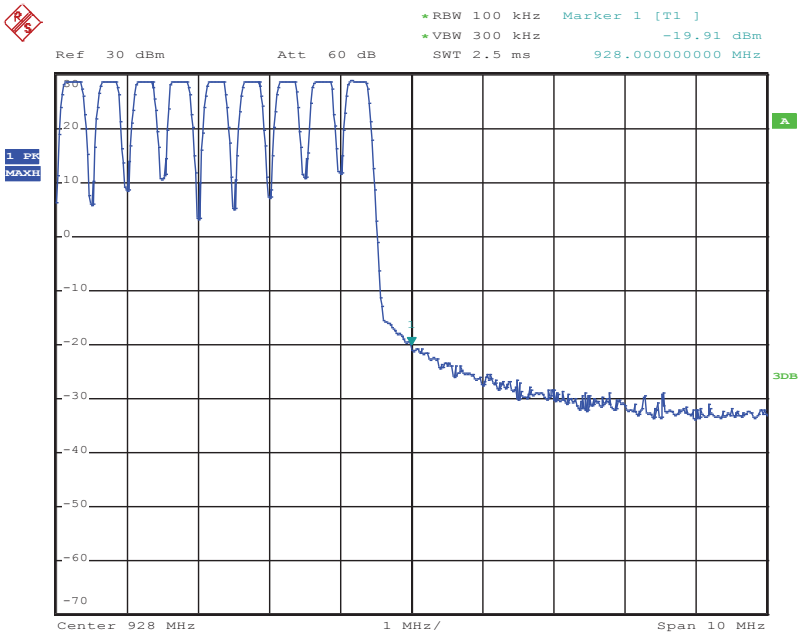
Date: 18.SEP.2020 15:59:01

Tx frequency: 927.25 MHz (hopping off)



Date: 18.SEP.2020 14:49:01

Tx frequency: 927.25 MHz (hopping on)



Date: 18.SEP.2020 14:57:42