STATEMENT OF MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The measurement uncertainty was calculated for all measurements listed in this test report according To CISPR 16–4 or EN TR 100-028 Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: "Uncertainty in EMC Measurements" and is documented in the Timco Engineering, Inc. quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Timco Engineering, Inc. is reported:

Parameters	Measurement Uncertainty
CONDUCTED EMISSIONS 9 kHz – 150 kHz	± 3.14 dB
CONDUCTED EMISSIONS 150 kHz – 30 MHz	± 3.08 dB
RADIATED EMISSIONS 30 MHz – 200 MHz	± 2.16 dB
RADIATED EMISSIONS 200 MHz – 1 GHz	± 2.15 dB
RADIATED EMISSIONS 1 GHz – 18 GHz	± 2.14 dB
RADIATED EMISSIONS 18 GHz – 40 GHz	± 2.31 dB

Notes: (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

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EMC EQUIPMENT LIST

Device	Manufacturer	Model	SN	Calibration Date	Cal Due Date
EMI Test Receiver R & S ESU 40 firmware v 4.43 SP 3 BIOS v5.1-24-3	Rohde & Schwarz	ESU 40	100320	08/28/18	08/28/20
Software: Field Strength Program	Timco	N/A	Version 4.10.7.0	N/A	N/A
Coaxial Cable - Chamber 3 cable set (backup)	Micro-Coax	Chamber 3 cable set (backup)	KMKM-0244-02 KMKM-0670-01 KFKF-0197-00	02/27/19	02/27/21
CHAMBER	Panashield	3M	N/A	03/15/19	03/15/21
Antenna: Active Loop	ETS-Lindgren	6502	00062529	12/11/17	12/11/20
Antenna: Biconical 1057	Eaton	94455-1	1057	12/13/17	12/13/20
Antenna: Log-Periodic 1243	Electro-Metrics	96005	1243	04/20/18	04/20/21
Ant: Double-Ridged Horn/ETS Horn 1	ETS-Lindgren	3117	00035923	02/25/20	02/25/23
Noise Source 10 MHz – 18 GHz	Agilent	346B	MY44421884	n/a	n/a
Splitter 1-1000MHz	Mini-Circuits	ZFSC-4-1-BNC+	U115700825	11/19/17	11/19/20

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ANNEX I – MANUFACTURER-PROVIDED INFORMATION

Note: The accuracy and precision of the following information provided by the manufacturer of the equipment under test has not been verified using test methods, cannot be verified, or is not necessary to verify.

N/A

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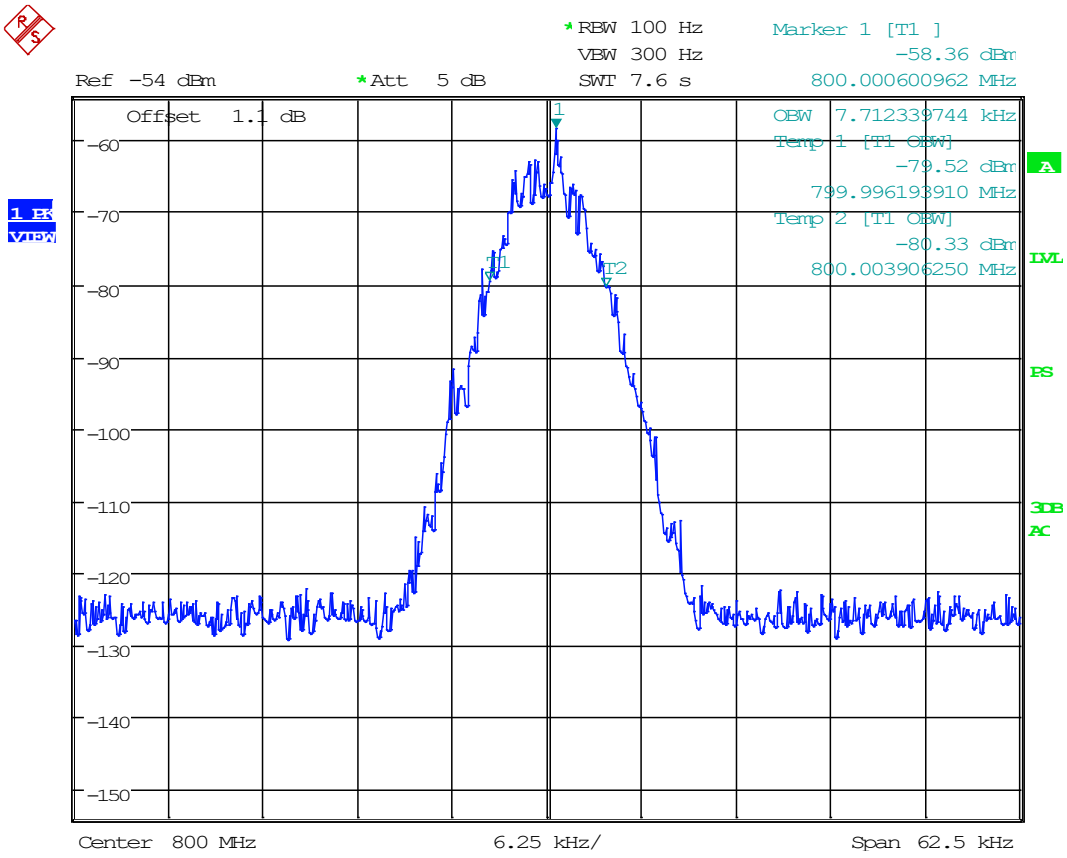
ANNEX II – MEASUREMENT DATA

KDB 935210 4.1 INPUT SIGNALS

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

8K10F1E/F1D (P25 Phase I C4FM Voice, Data)

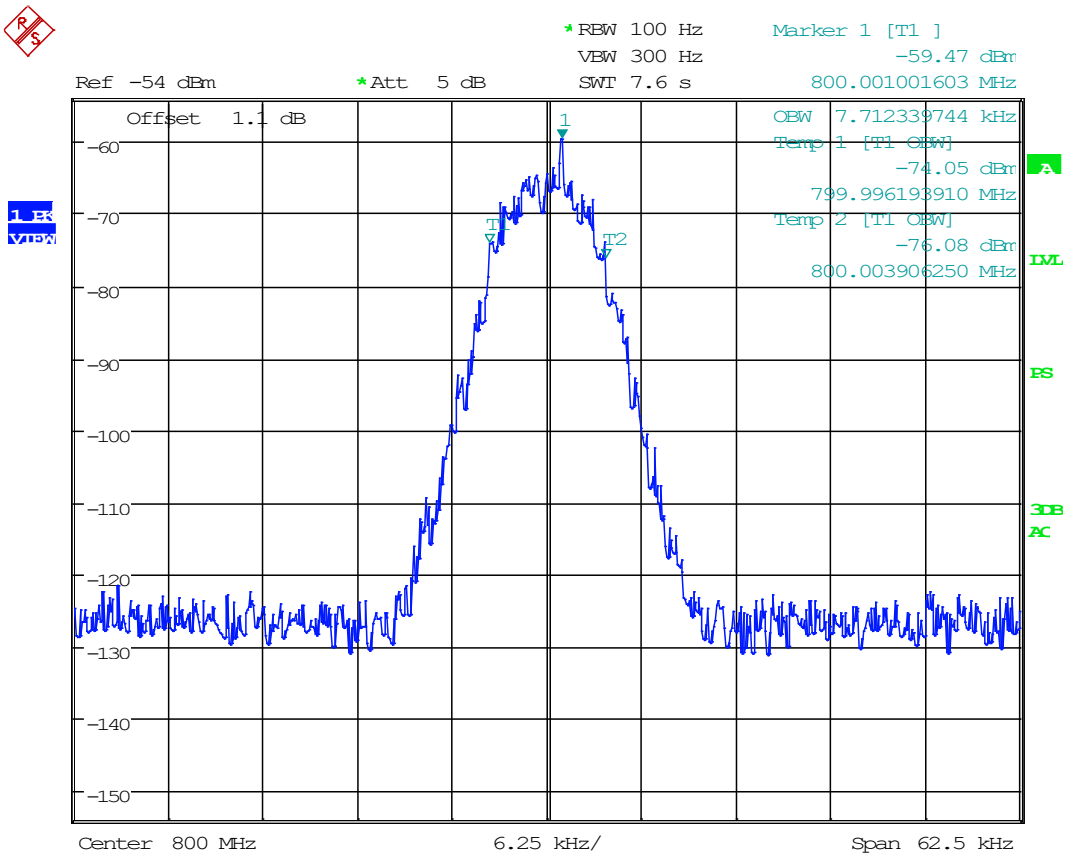


Date: 30.JAN.2019 14:28:58

Occupied Bandwidth: 7.71 kHz

KDB 935210 4.1 INPUT SIGNALS

8K10F1W (P25 Phase II H-CPM Voice & Data)



Date: 30.JAN.2019 14:30:47

Occupied Bandwidth: 7.71 kHz

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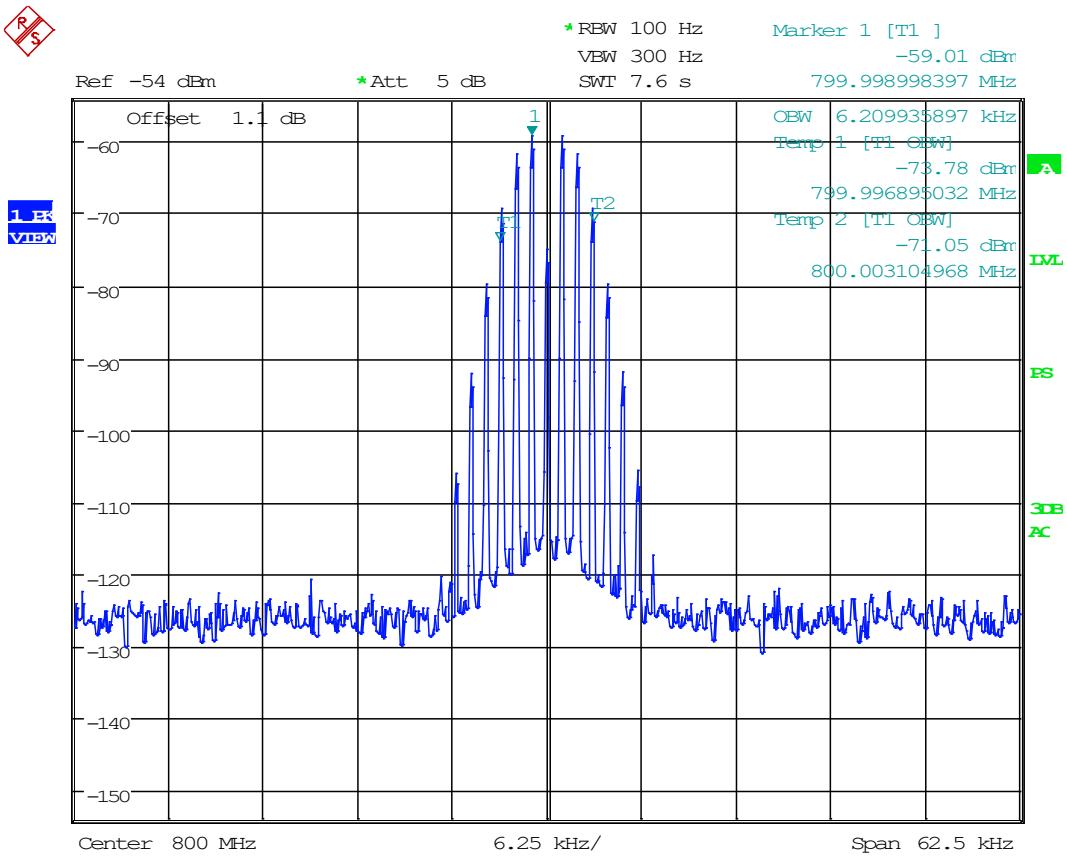
KDB 935210 4.1 INPUT SIGNALS

11K3F3E (Narrowband Analog FM Voice)



Date: 30.JAN.2019 14:19:45

Occupied Bandwidth: 6.21 kHz

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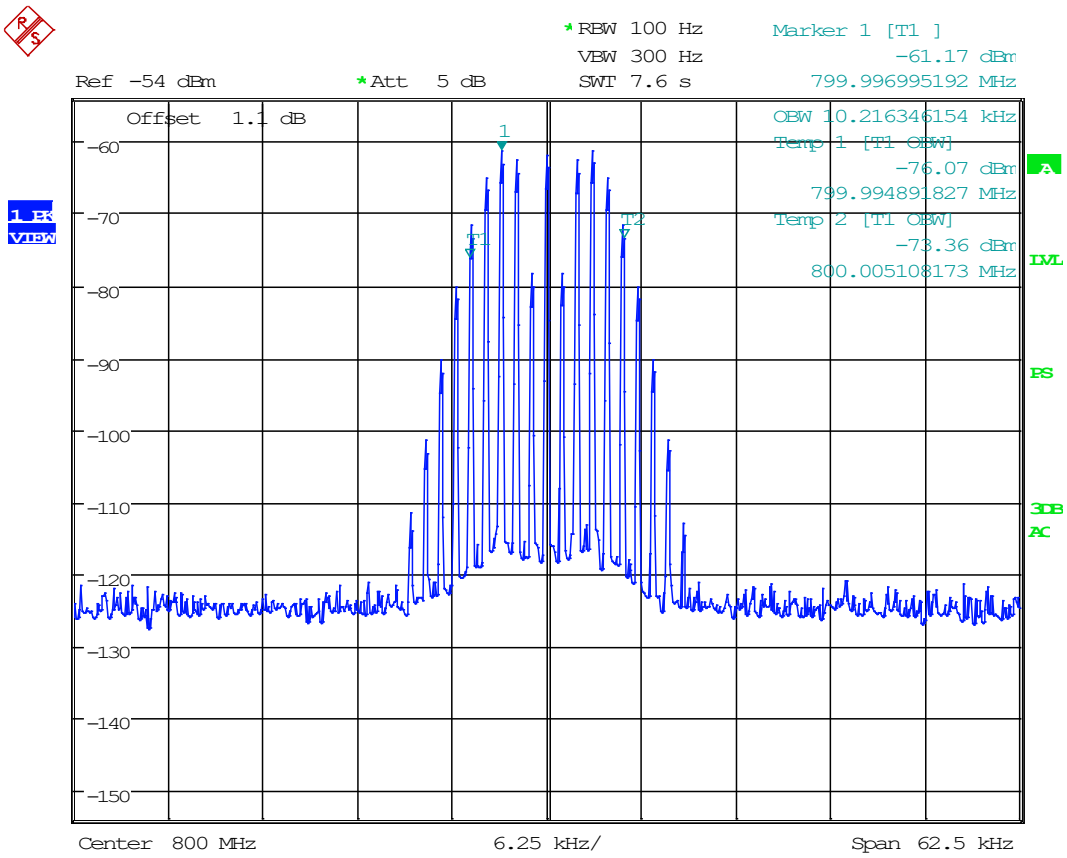
KDB 935210 4.1 INPUT SIGNALS

16K0F3E (Wideband Analog FM Voice)



Date: 30.JAN.2019 14:23:14

Occupied Bandwidth: 10.22 kHz

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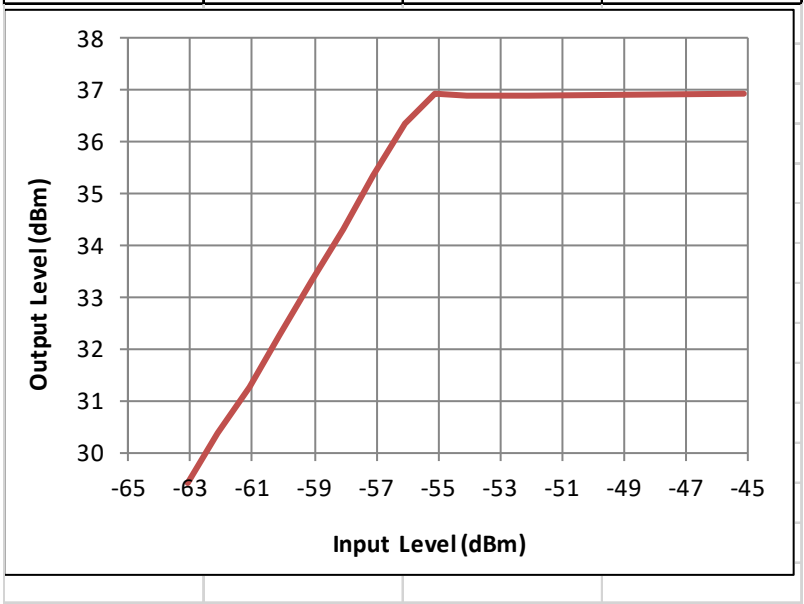
KDB 935210 4.2 AGC THRESHOLD

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

Test Engineer: FR
Test Date: AUG 3 2020

800 MHz Band, Uplink

INPUT (dBm)	CORRECTED INPUT (dBm)	CORRECTED OUTPUT (dBm)	GAIN (dB)
-57	-63.1	29.4	92.5
-56	-62.1	30.39	92.5
-55	-61.1	31.28	92.4
-54	-60.1	32.27	92.4
-53	-59.1	33.31	92.4
-52	-58.1	34.33	92.4
-51	-57.1	35.34	92.4
-50	-56.1	36.36	92.5
-49	-55.1	36.92	92.0
-48	-54.1	36.9	91.0
-47	-53.1	36.9	90.0
-46	-52.1	36.9	89.0
-39	-45.1	36.94	82.0



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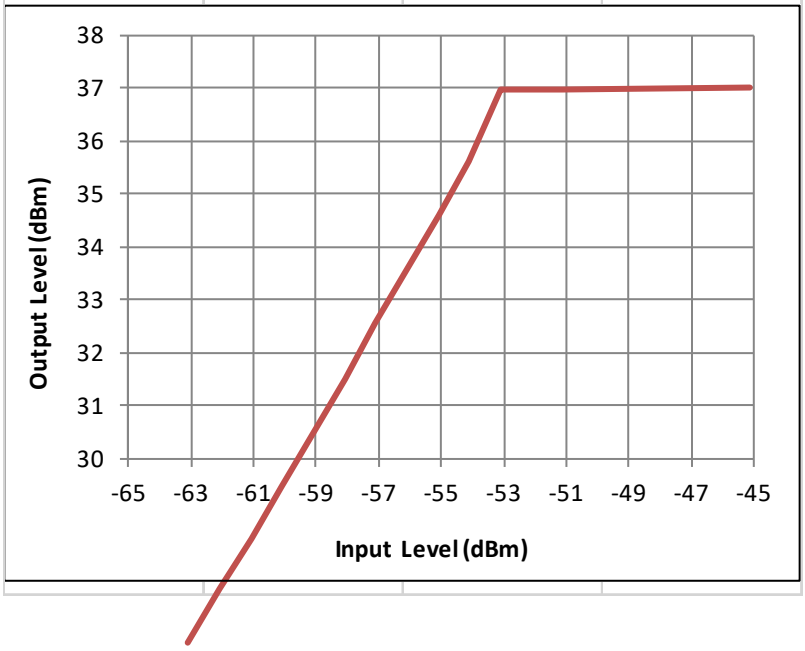
AGC Level

800 MHz Band, Downlink

INPUT (dBm)	CORRECTED INPUT (dBm)	CORRECTED OUTPUT (dBm)	GAIN (dB)
-57	-63.1	26.53	89.6
-56	-62.1	27.53	89.6
-55	-61.1	28.48	89.6
-54	-60.1	29.48	89.6
-53	-59.1	30.5	89.6
-52	-58.1	31.52	89.6
-51	-57.1	32.55	89.7
-50	-56.1	33.57	89.7
-49	-55.1	34.6	89.7
-48	-54.1	35.6	89.7
-47	-53.1	36.99	90.1
-46	-52.1	36.98	89.1
-45	-51.1	36.99	88.1
-39	-45.1	37	82.1



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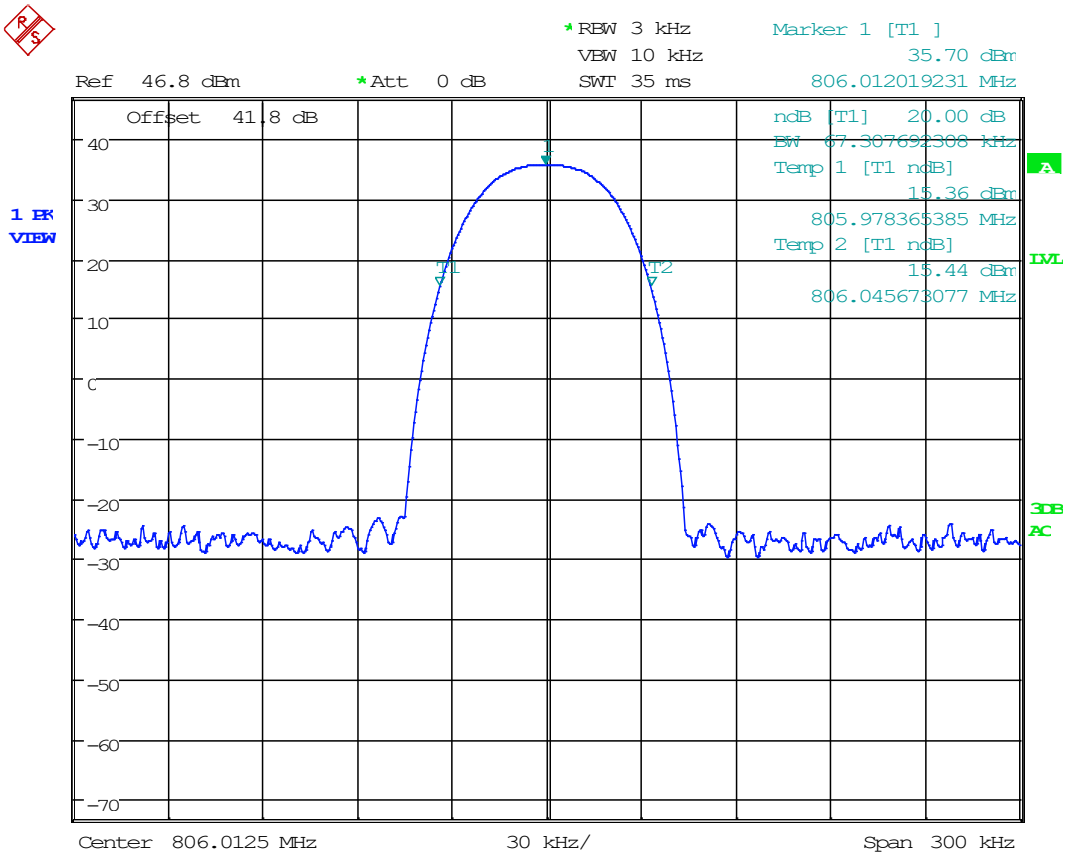
KDB 935210 4.3 OUT OF BAND REJECTION

Test Engineer: FR
Test Date: JUL 29 2020

Out of Band Rejection

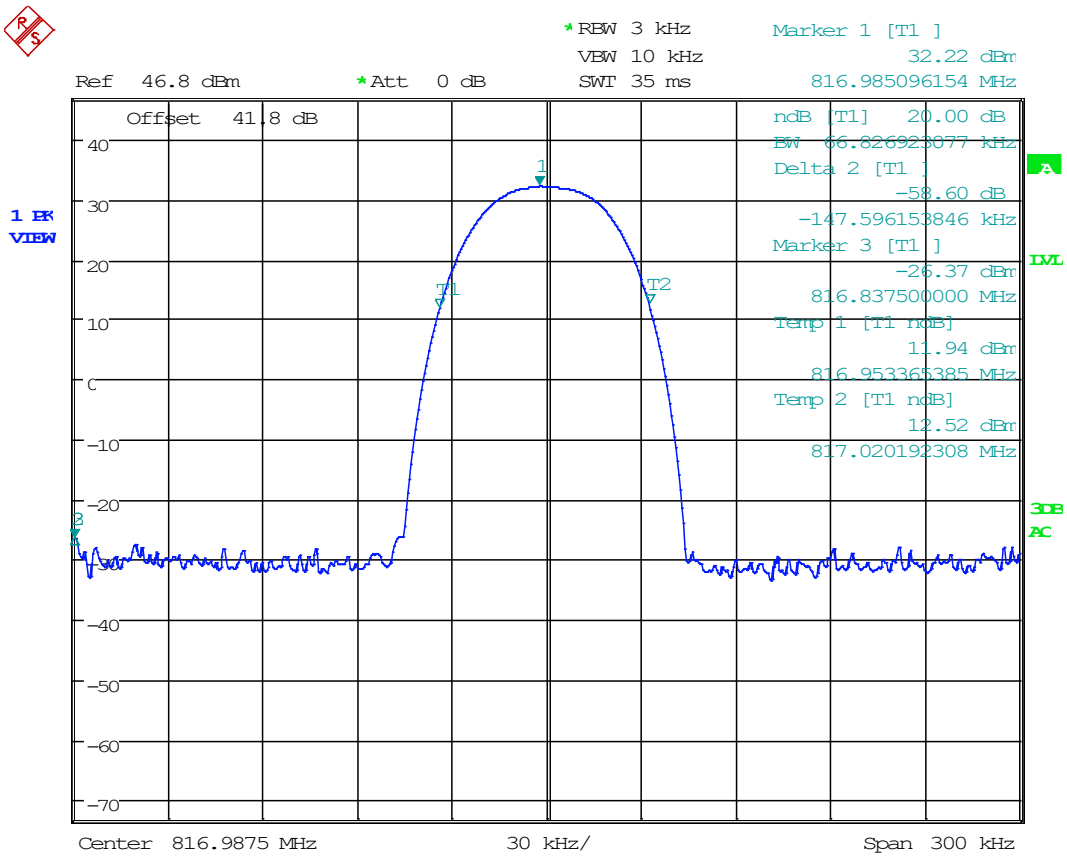
806.0125 MHz, Uplink, Class A



Date: 30.JUL.2020 18:49:40

Out of Band Rejection

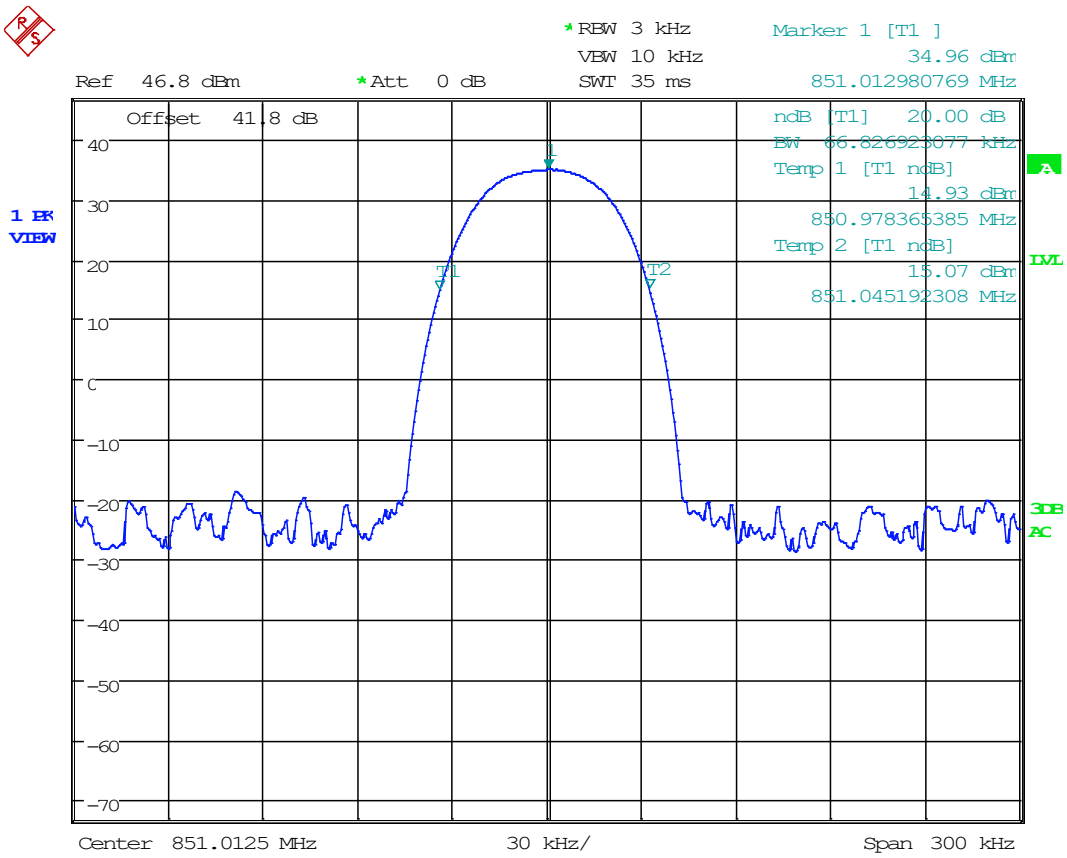
816.9875 MHz, Uplink, Class A



Date: 29.JUL.2020 18:05:17

Out of Band Rejection

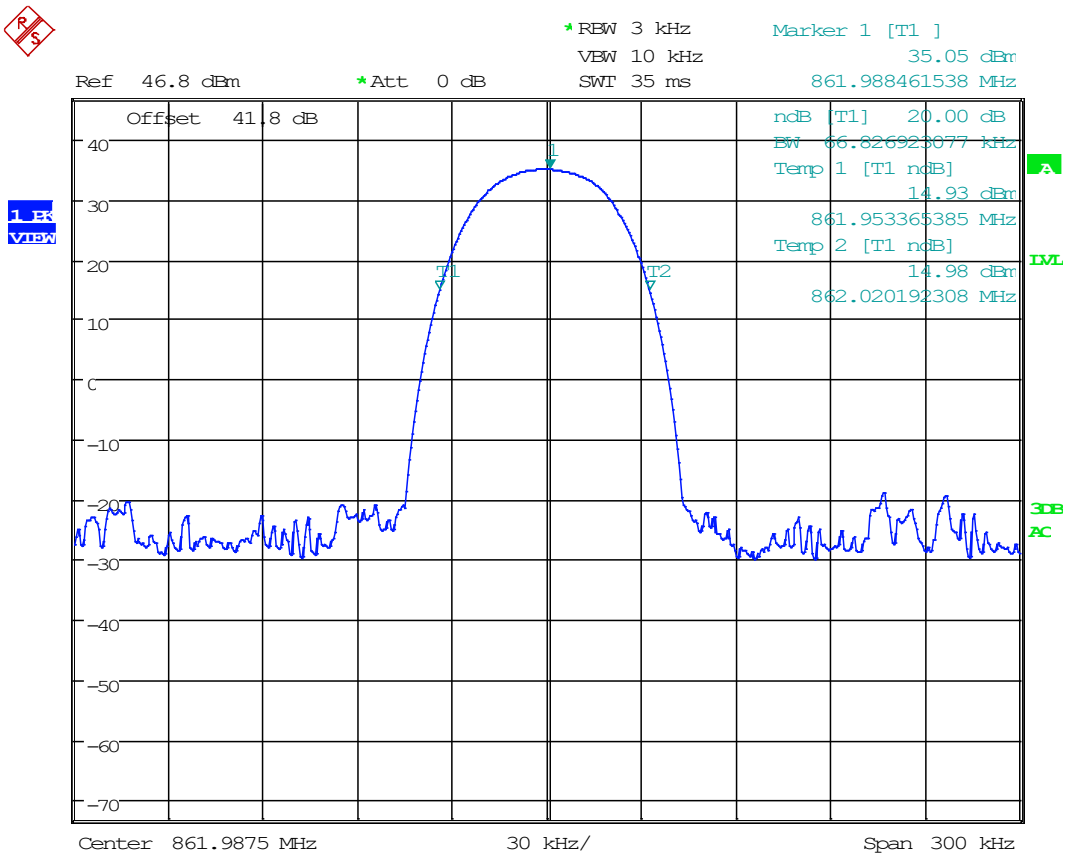
851.0125 MHz, Downlink, Class A



Date: 29.JUL.2020 15:08:01

Out of Band Rejection

861.9875 MHz, Downlink, Class A



Date: 29.JUL.2020 15:11:06

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2.1046 RF POWER OUTPUT

KDB 935210 4.5 RF POWER OUTPUT & GAIN

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

Test Engineer: FR
Test Date: AUG 3 2020

Frequency	AGC Level	Input (dBm)	Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Gain (dB)	Output ERP (W)
811.5	AGC	-57.04	36.92	0.00	0.00	94.0	4.92
811.5	AGC +3	-54.04	36.9	0.00	0.00	90.9	4.90
811.5	Saturation	-47.04	36.94	0.00	0.00	84.0	4.94
856.50	AGC	-54.1	36.98	0.00	0.00	91.1	4.99
856.50	AGC +3	-51.1	36.99	0.00	0.00	88.1	5.00
856.50	Saturation	-45.10	37	0.00	0.01	82.1	5.00

Rated Power Output = 36.99.00 dBm (5 W)

Max Gain = 94 dB

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KDB 935210 4.6 NOISE FIGURE

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

Test Engineer: FR
Test Date: AUG 3 2020

800 MHz Band, Uplink

FCC KDB 935210 S. 4.6, ISED RSS-131 S. 6.4 - NOISE FIGURE	
Measurement Freq. (MHz)	**811.5**
Noise Source ENR (dB)	15.0630
Noise Source T_s^{OFF}, T_O (K)	290
Noise Source T_s^{ON} (K)	9594.6895
Noise Source Cal N_2^{off} (dB)	**-122.58**
Noise Source Cal N_2^{off} (pW)	0.00055
Noise Source Cal N_2^{on} (dB)	**-117.94**
Noise Source Cal N_2^{on} (pW)	0.00161
Calibration Ratio Y_2	2.9107
Calibration T_2	4579.7368
Noise + EUT N_{12}^{off} (dB)	**-35.54**
Noise + EUT N_{12}^{off} (pW)	279254.38
Noise + EUT N_{12}^{on} (dB)	**-24.75**
Noise + EUT N_{12}^{on} (pW)	3349654.39
Noise + EUT Ratio Y_{12}	11.9950
Noise + EUT T_{12}	556.2661
Gain (Ratio)	2910707493.6920
Gain (dB)	94.6400
2nd Stage Correction T_1	556.266067690941
Noise Factor F	2.91816
Noise Figure (dB)	**4.65**
Limit (dB)	9.00
Margin (dB)	4.35

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Noise Figure

800 MHz Band, Downlink

FCC KDB 935210 S. 4.6, ISED RSS-131 S. 6.4 - NOISE FIGURE	
Measurement Freq. (MHz)	**856.5**
Noise Source ENR (dB)	15.0575
Noise Source T_s^{OFF}, T_O (K)	290
Noise Source T_s^{ON} (K)	9582.9133
Noise Source Cal N_2^{off} (dB)	**-126.58**
Noise Source Cal N_2^{off} (pW)	0.00022
Noise Source Cal N_2^{on} (dB)	**-119.29**
Noise Source Cal N_2^{on} (pW)	0.00118
Calibration Ratio Y_2	5.3580
Calibration T_2	1842.3967
Noise + EUT N_{12}^{off} (dB)	**-39.51**
Noise + EUT N_{12}^{off} (pW)	111943.79
Noise + EUT N_{12}^{on} (dB)	**-27.78**
Noise + EUT N_{12}^{on} (pW)	1667247.21
Noise + EUT Ratio Y_{12}	14.8936
Noise + EUT T_{12}	378.8624
Gain (Ratio)	1623795124.9128
Gain (dB)	92.1053
2nd Stage Correction T_1	378.862361583713
Noise Factor F	2.30642
Noise Figure (dB)	**3.63**
Limit (dB)	9.00
Margin (dB)	5.37

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2.1047 AUDIO FREQUENCY RESPONSE

2.1047 LOW PASS FILTER RESPONSE

Test Engineer:_____
Test Date:_____

N/A. Device does not accept audio input.

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2.1047 MODULATION LIMITING

Test Engineer:_____
Test Date:_____

N/A. Device does not have means to limit modulation.

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90.209 OCCUPIED BANDWIDTH

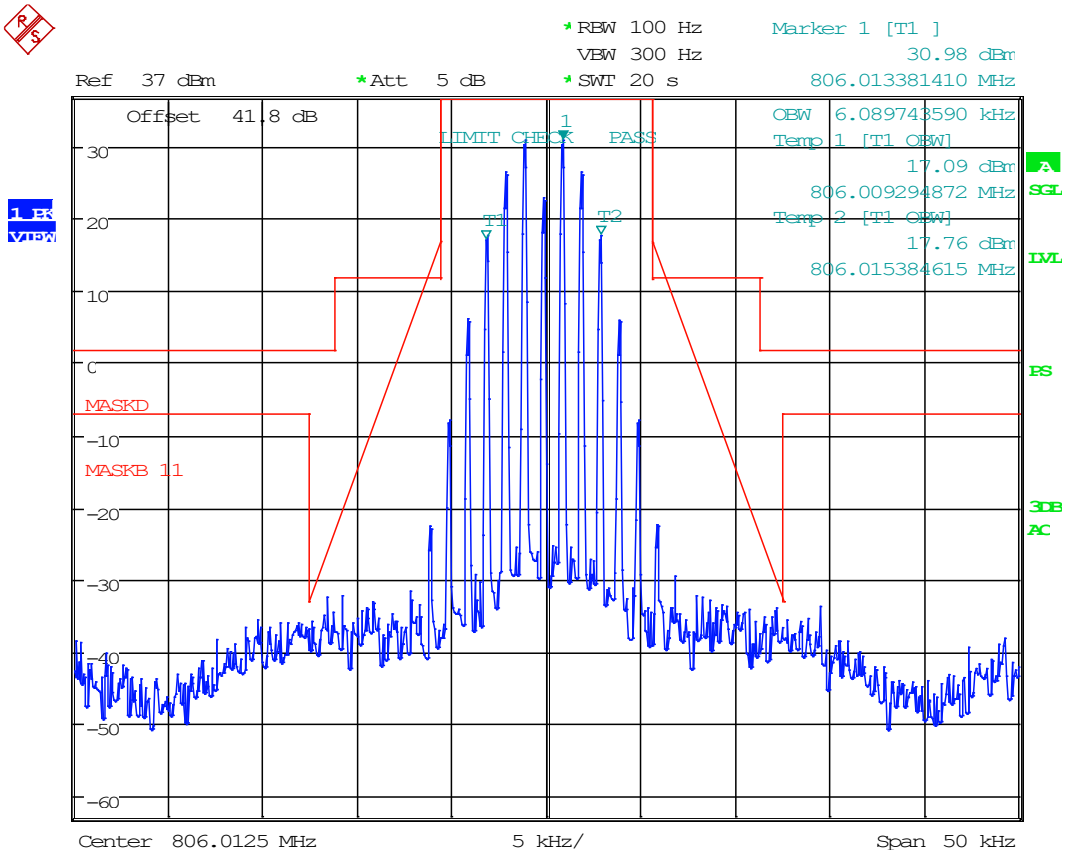
90.210 EMISSION MASKS

KDB 935210 4.4 INPUT VS OUTPUT COMPARISON

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

Test Engineer: FR
Test Date: JUL 30 2020

800 MHz Band, Uplink, 12.5k FM, AGC



Date: 29.JUL.2020 18:23:33

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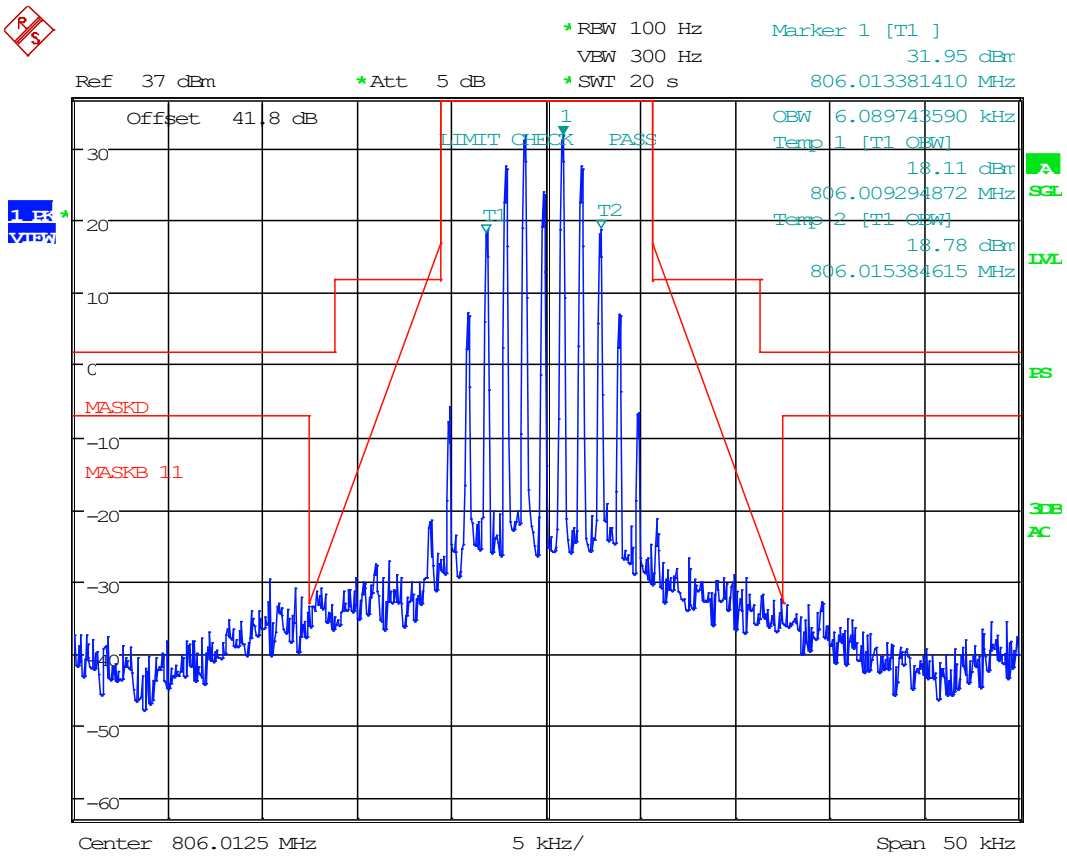
EMISSION MASK & IVO

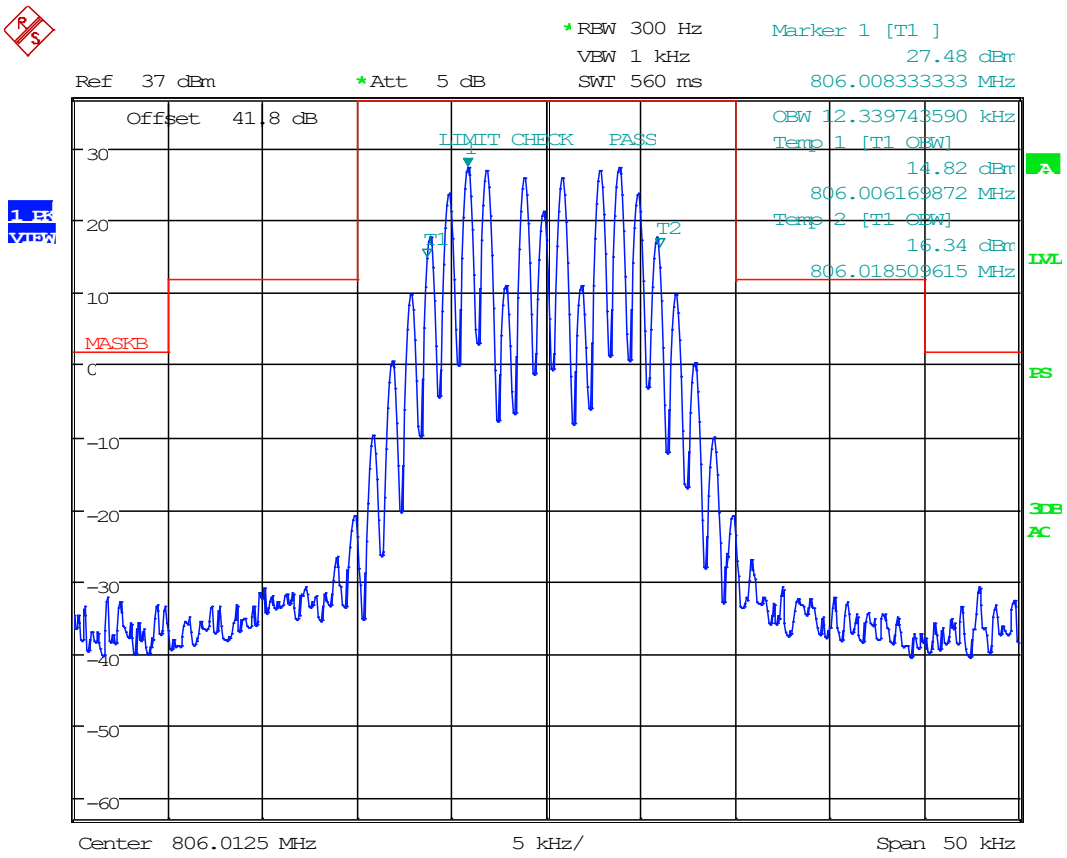
800 MHz Band, Uplink, 12.5k FM, AGC +3 dB



Date: 29.JUL.2020 18:22:35

EMISSION MASK & IVO

800 MHz Band, Uplink, 25k FM, AGC



Date: 29.JUL.2020 18:25:24

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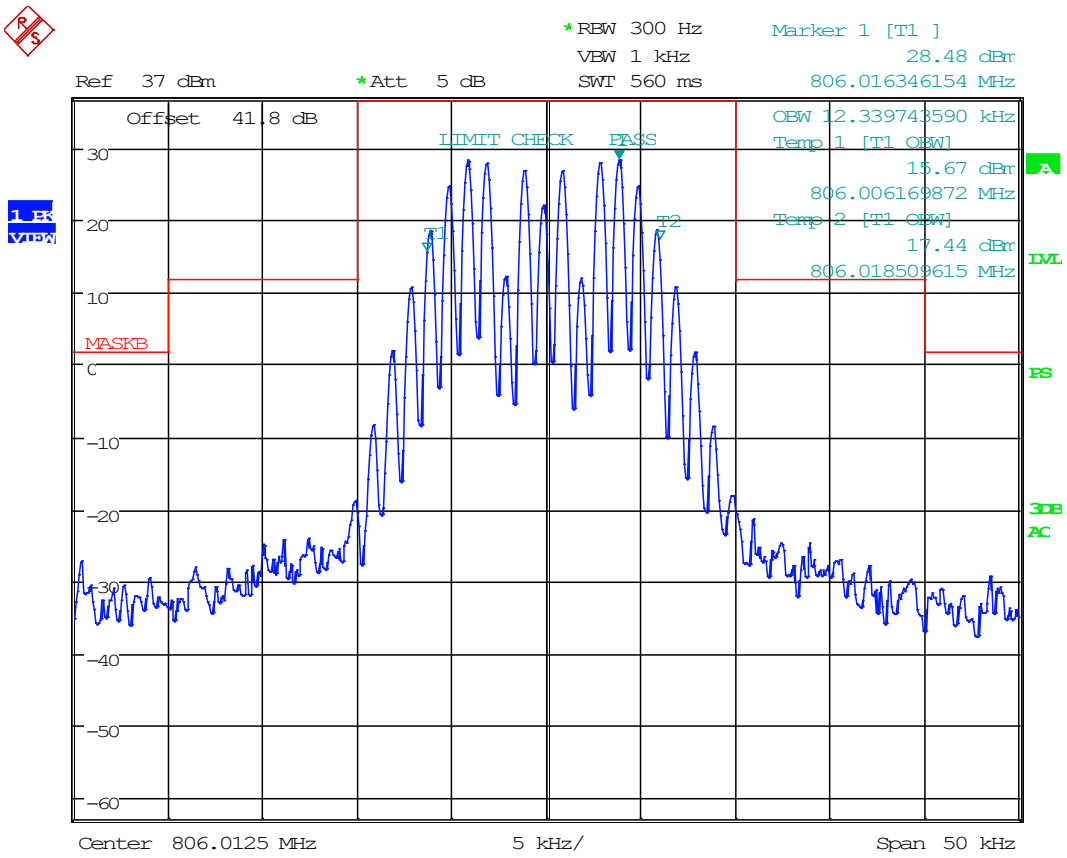
EMISSION MASK & IVO

800 MHz Band, Uplink, 25k FM, AGC +3 dB



Date: 29.JUL.2020 18:25:56

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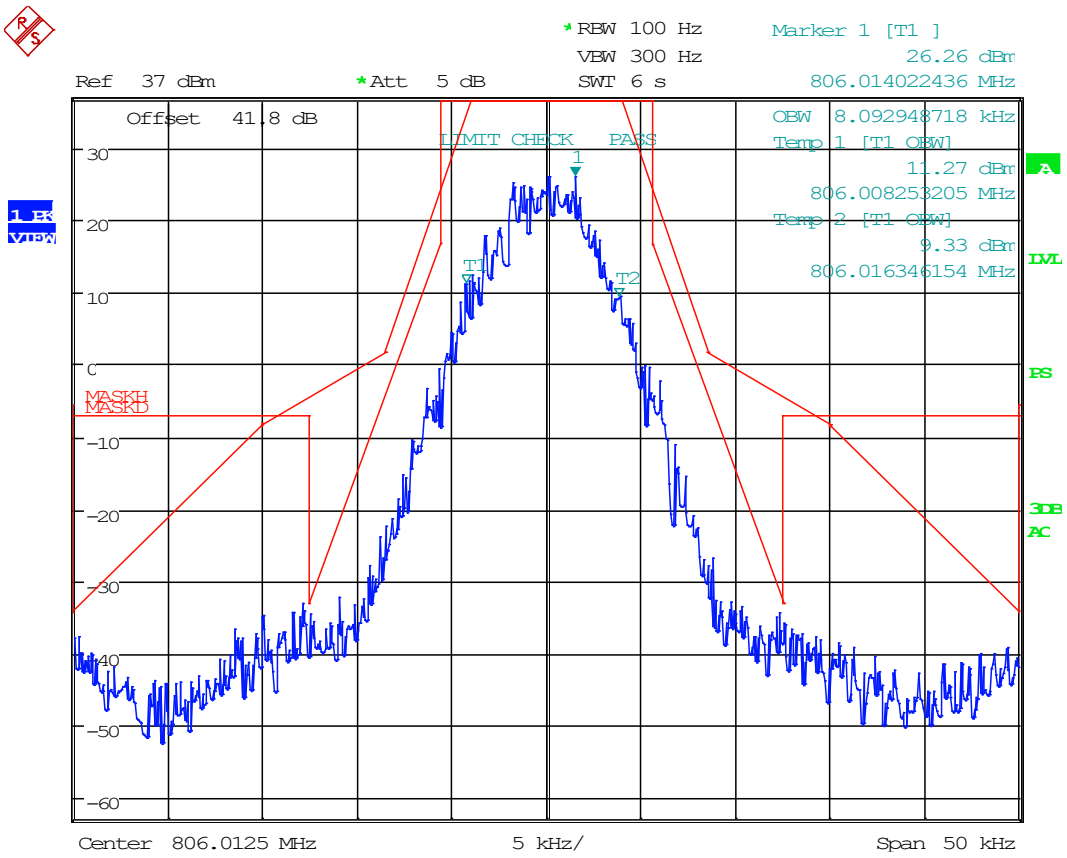
EMISSION MASK & IVO

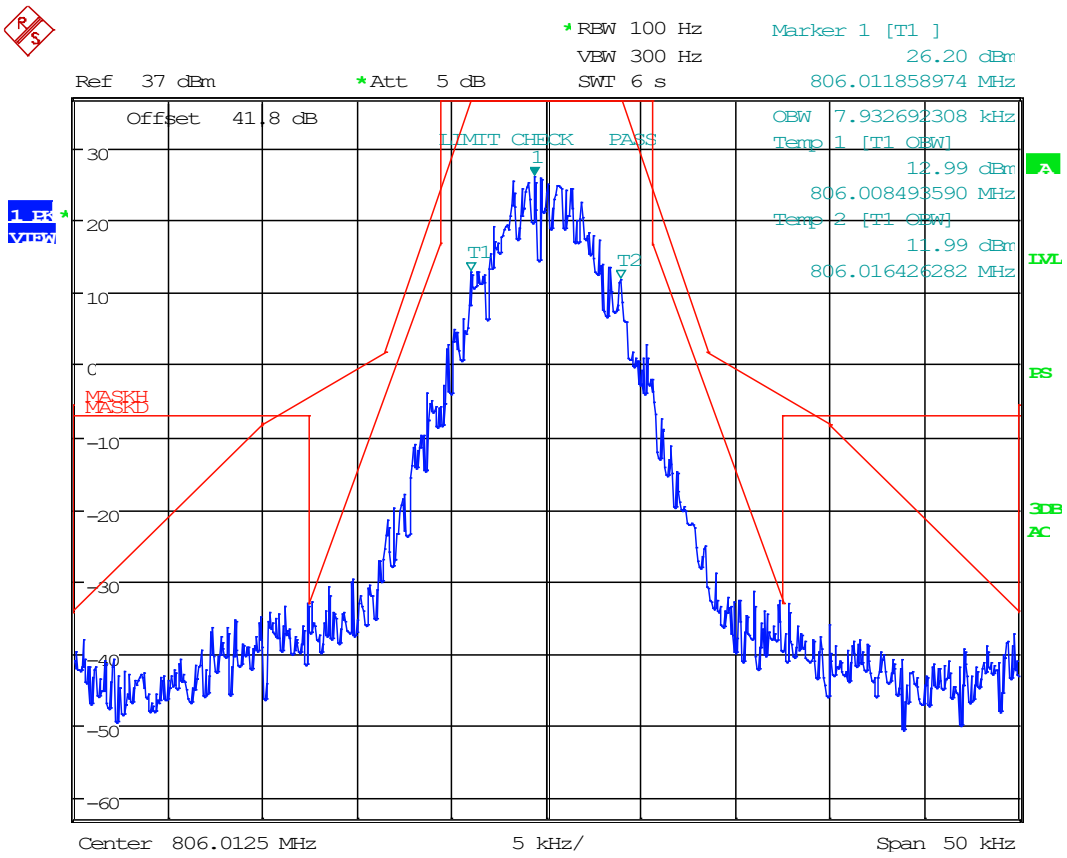
800 MHz Band, Uplink, C4FM, AGC



Date: 29.JUL.2020 18:15:35

EMISSION MASK & IVO

800 MHz Band, Uplink, C4FM, AGC +3 dB



Date: 29.JUL.2020 18:12:36

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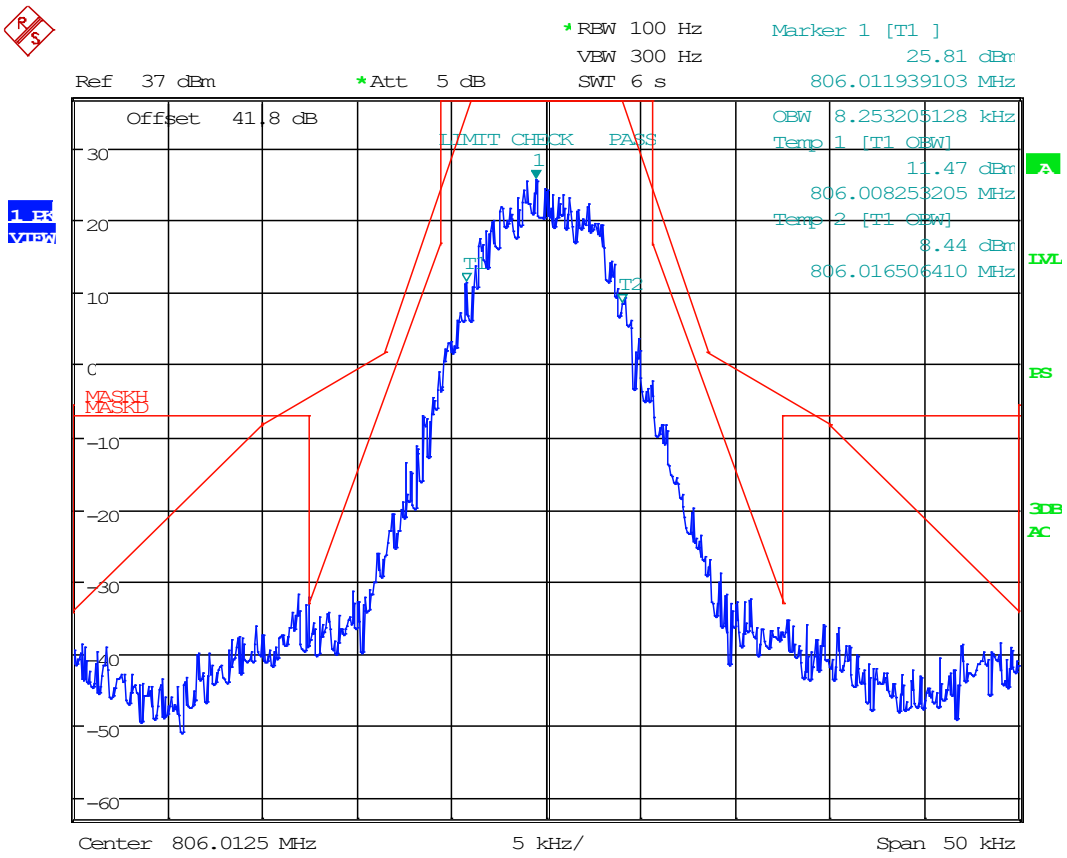
EMISSION MASK & IVO

800 MHz Band, Uplink, H-CPM, AGC



Date: 29.JUL.2020 18:16:17

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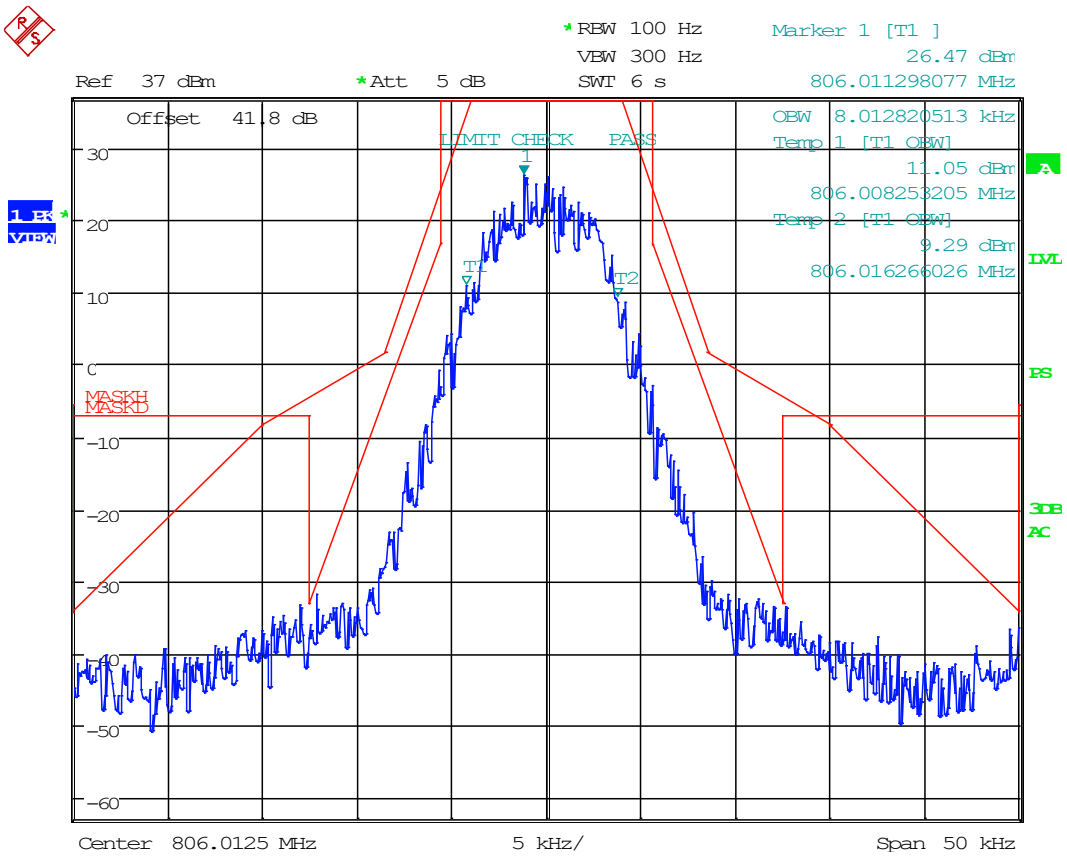
EMISSION MASK & IVO

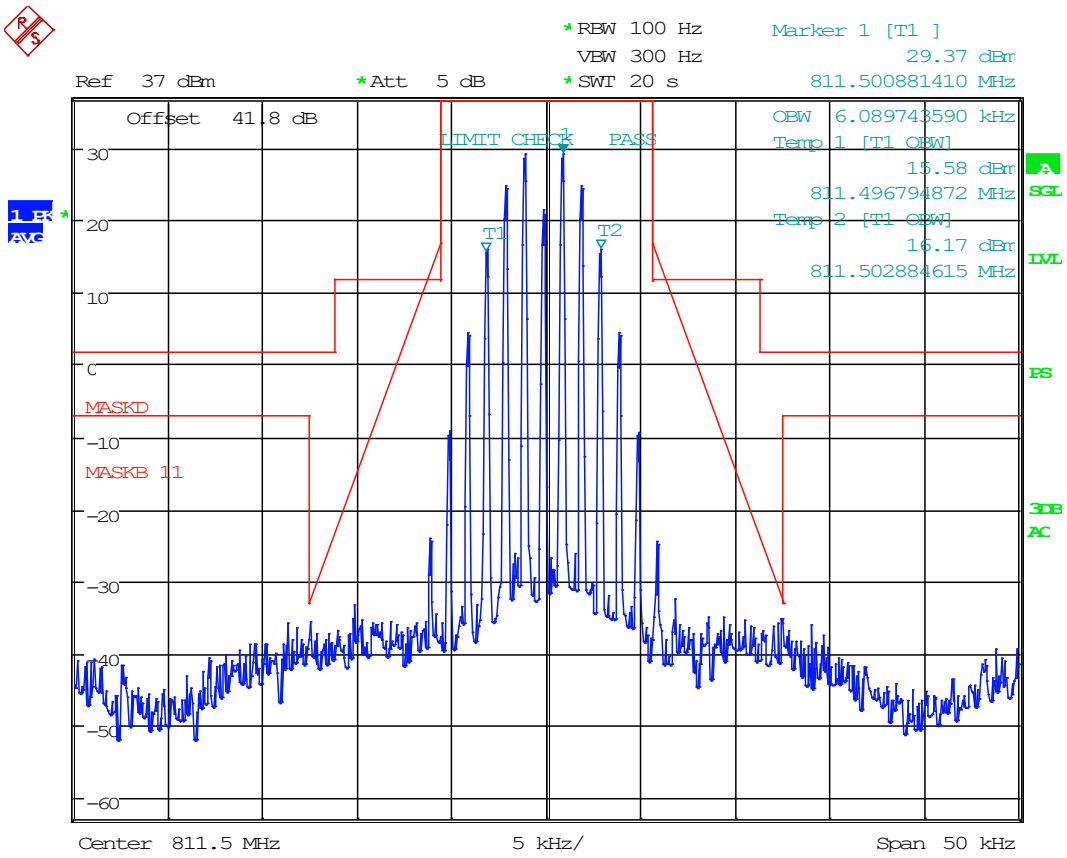
800 MHz Band, Uplink, H-CPM, AGC +3 DB



Date: 29.JUL.2020 18:17:28

EMISSION MASK & IVO

800 MHz Band, Uplink, 12.5k FM, AGC



Date: 29.JUL.2020 18:42:10

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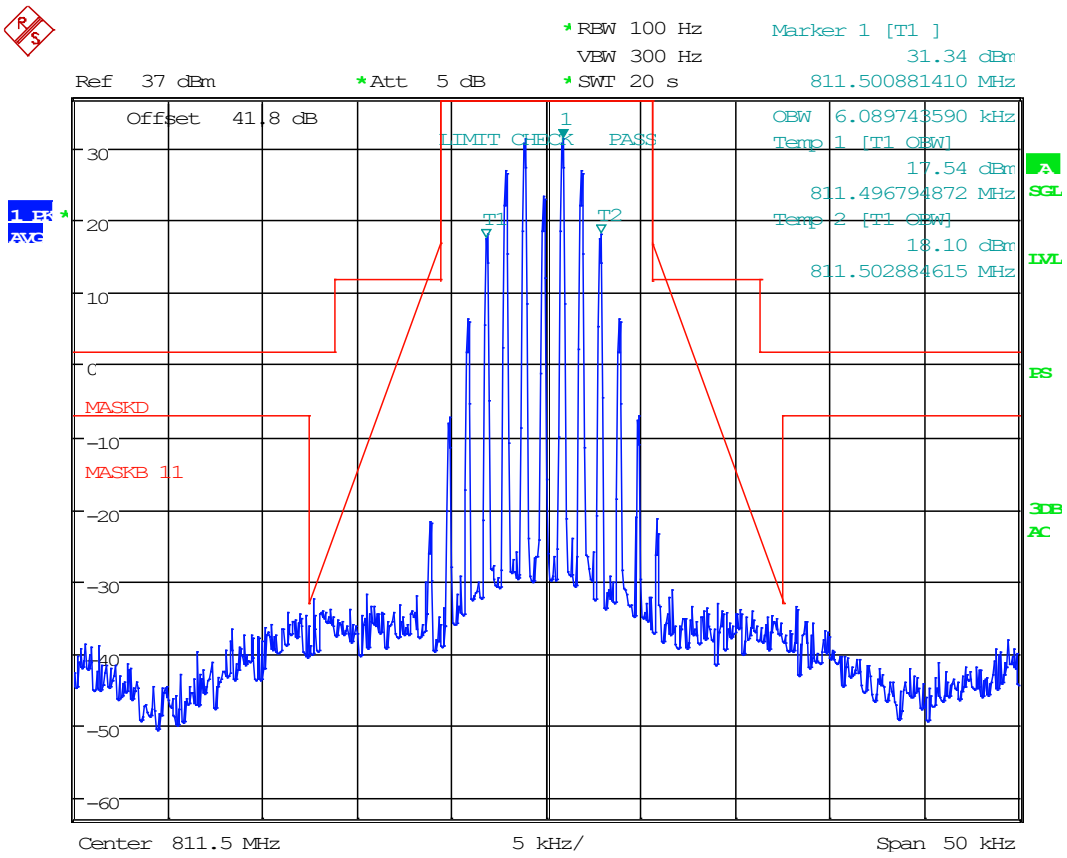
EMISSION MASK & IVO

800 MHz Band, Uplink, 12.5k FM, AGC +3 dB



Date: 29.JUL.2020 18:41:21

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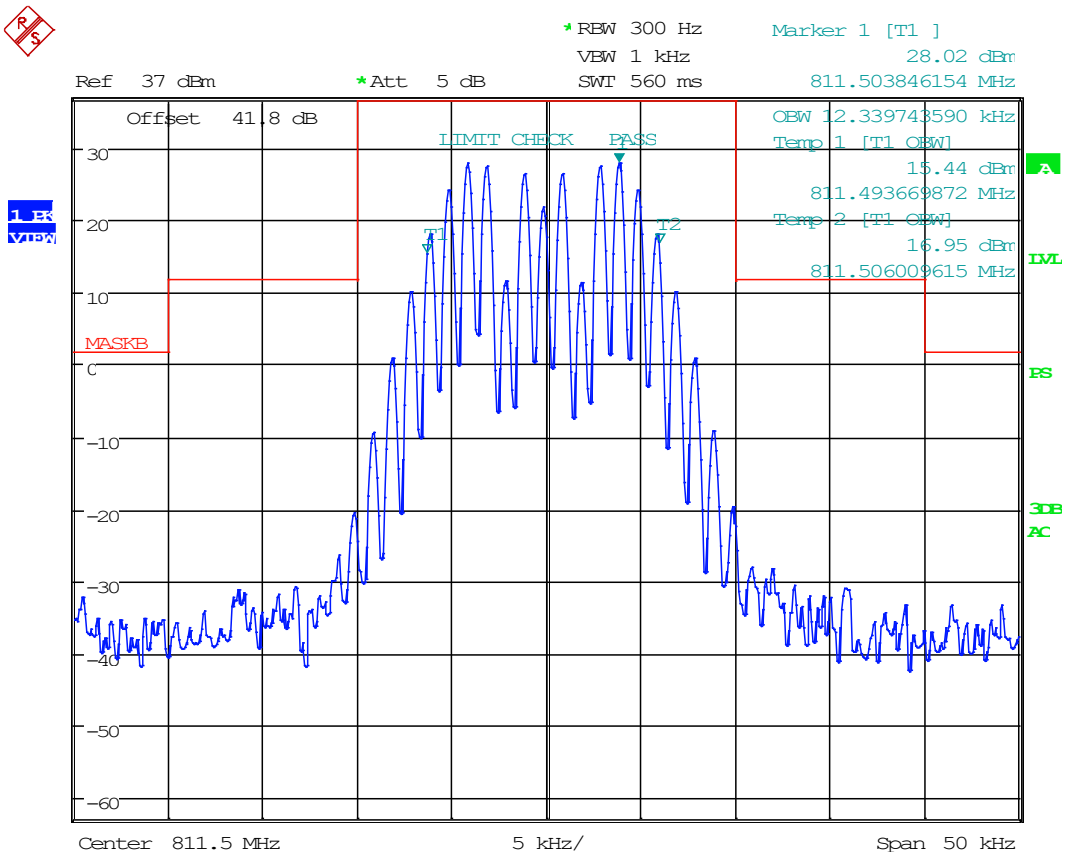
EMISSION MASK & IVO

800 MHz Band, Uplink, 25k FM, AGC



Date: 29.JUL.2020 18:29:08

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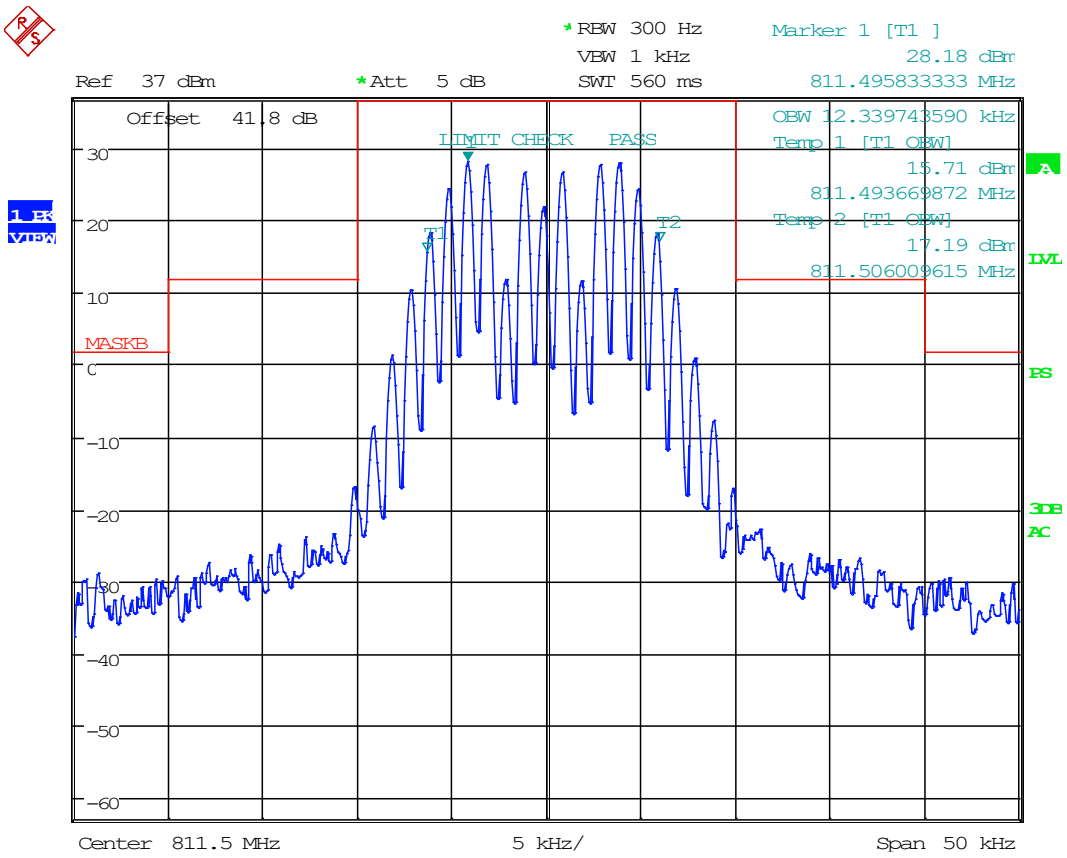
EMISSION MASK & IVO

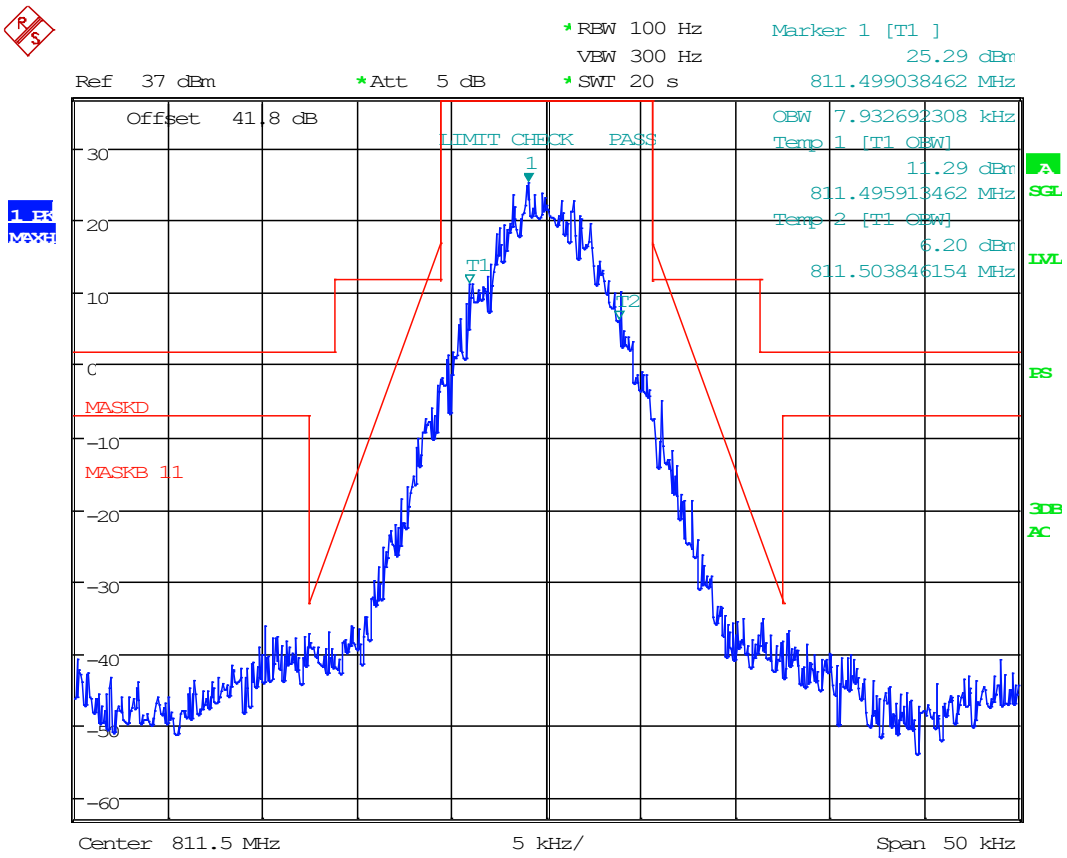
800 MHz Band, Uplink, 25k FM, AGC +3 dB



Date: 29.JUL.2020 18:28:41

EMISSION MASK & IVO

800 MHz Band, Uplink, C4FM, AGC



Date: 29.JUL.2020 18:35:54

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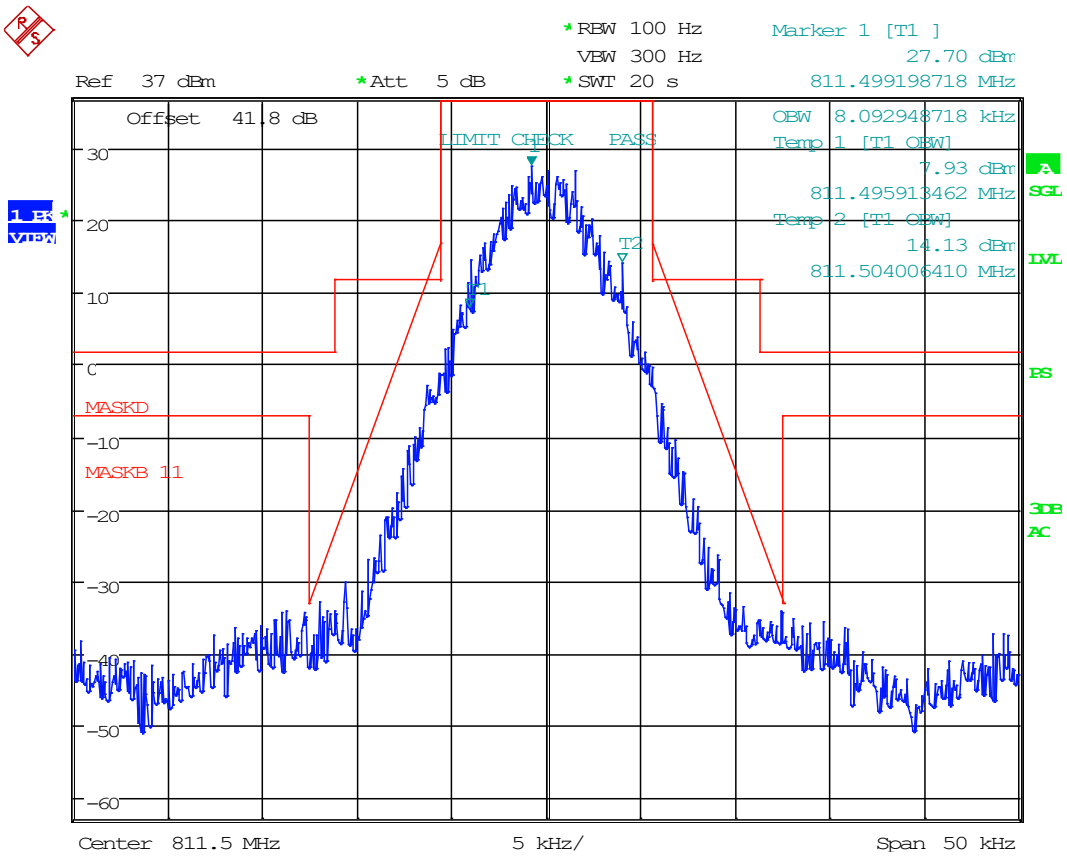
EMISSION MASK & IVO

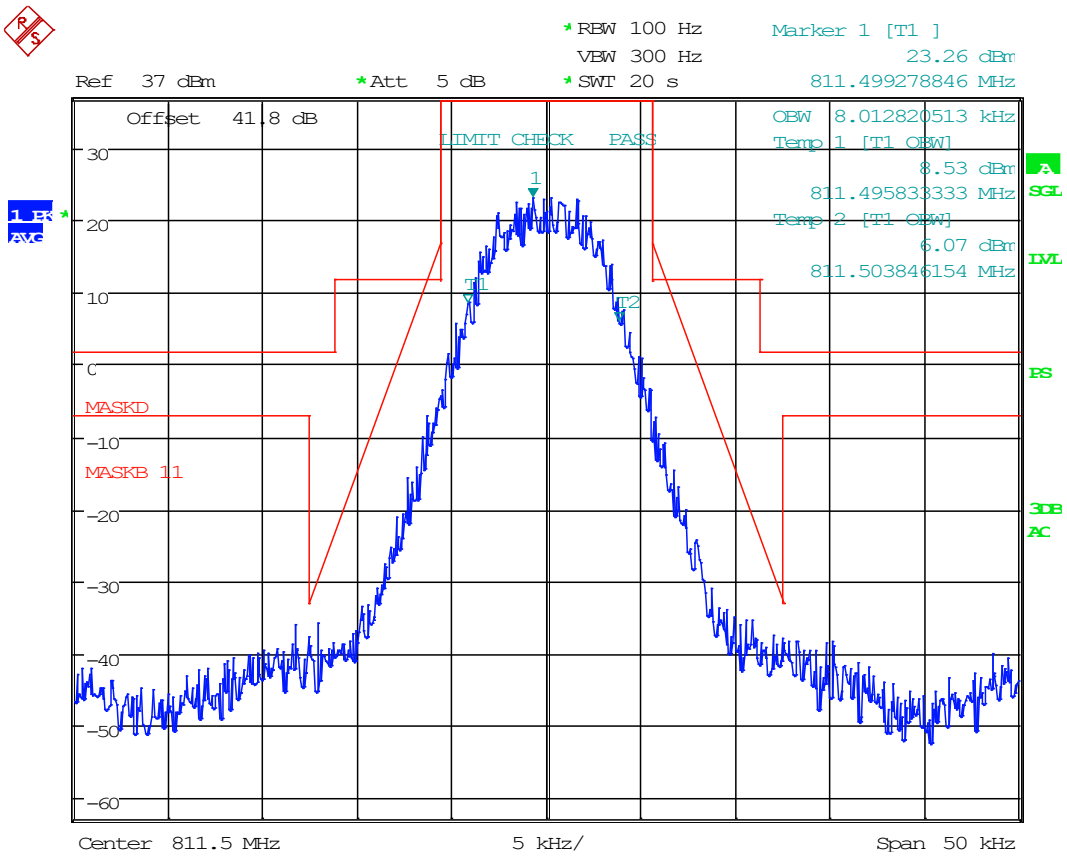
800 MHz Band, Uplink, C4FM, AGC +3 dB



Date: 29.JUL.2020 18:36:50

EMISSION MASK & IVO

800 MHz Band, Uplink, H-CPM, AGC



Date: 29.JUL.2020 18:38:44

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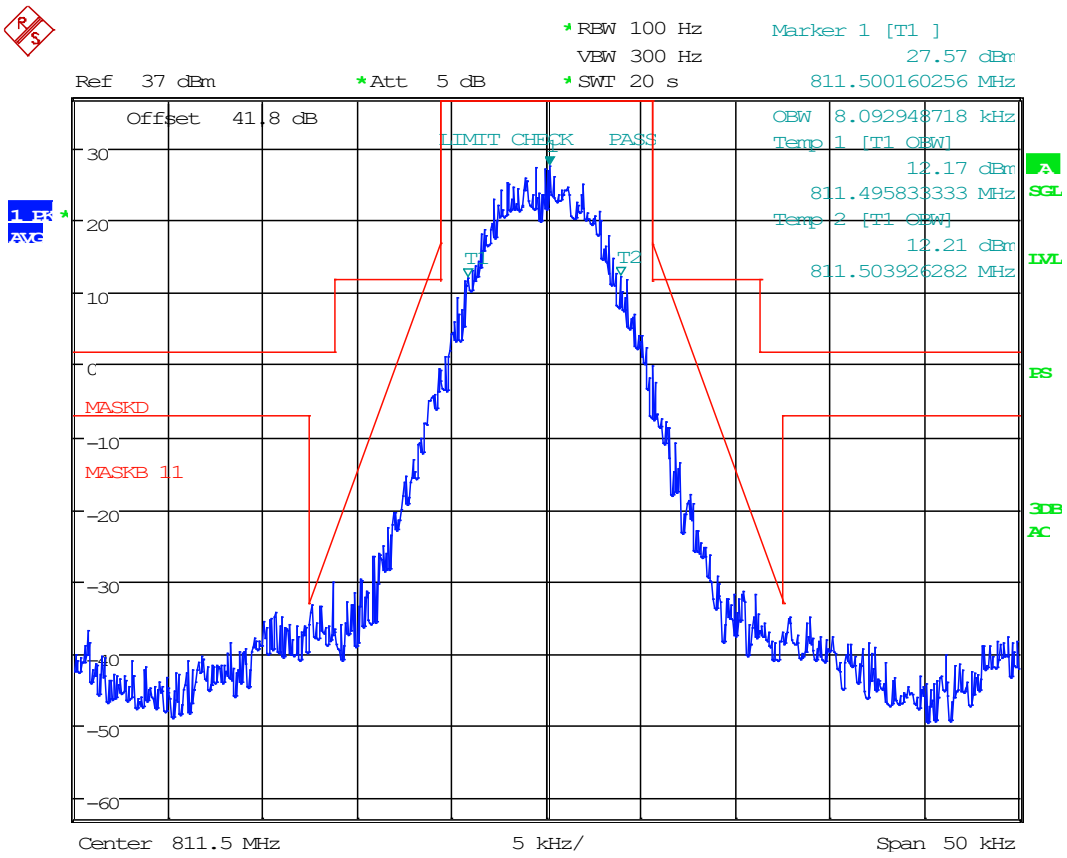
EMISSION MASK & IVO

800 MHz Band, Uplink, H-CPM, AGC +3 DB



Date: 29.JUL.2020 18:37:57

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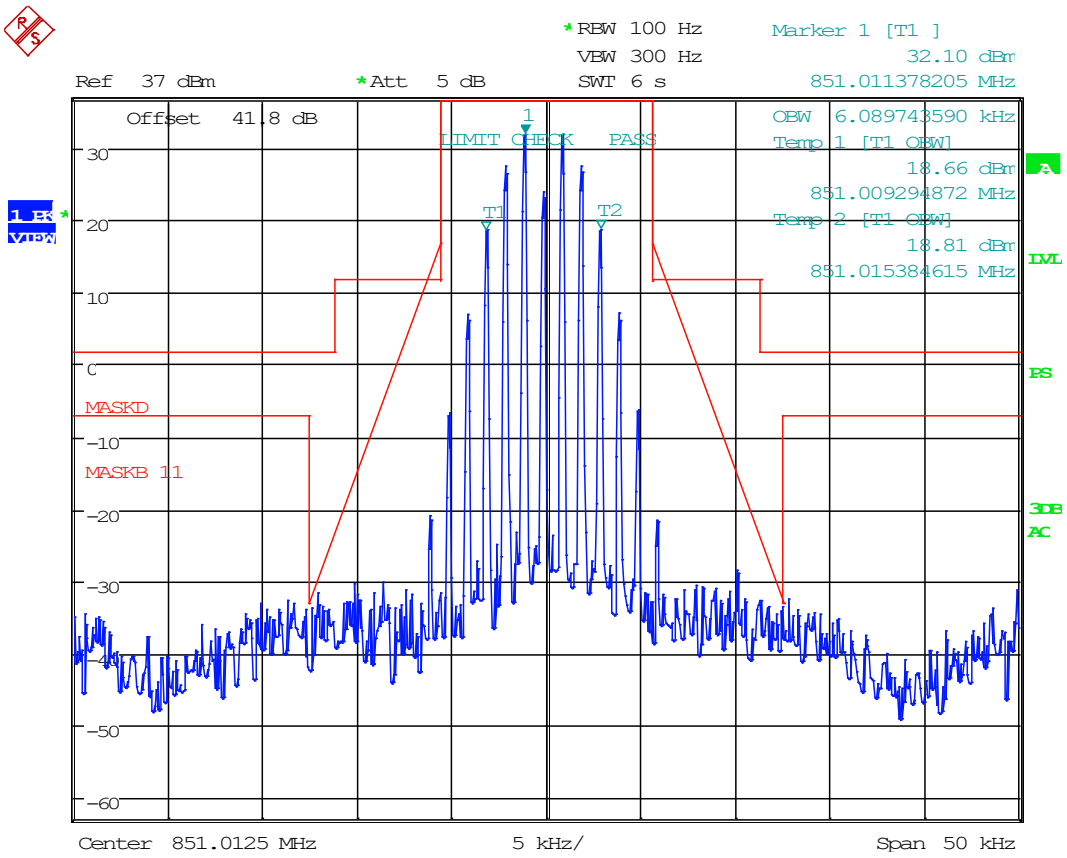
EMISSION MASK & IVO

800 MHz Band, Downlink, 12.5k FM, AGC



Date: 29.JUL.2020 15:26:56

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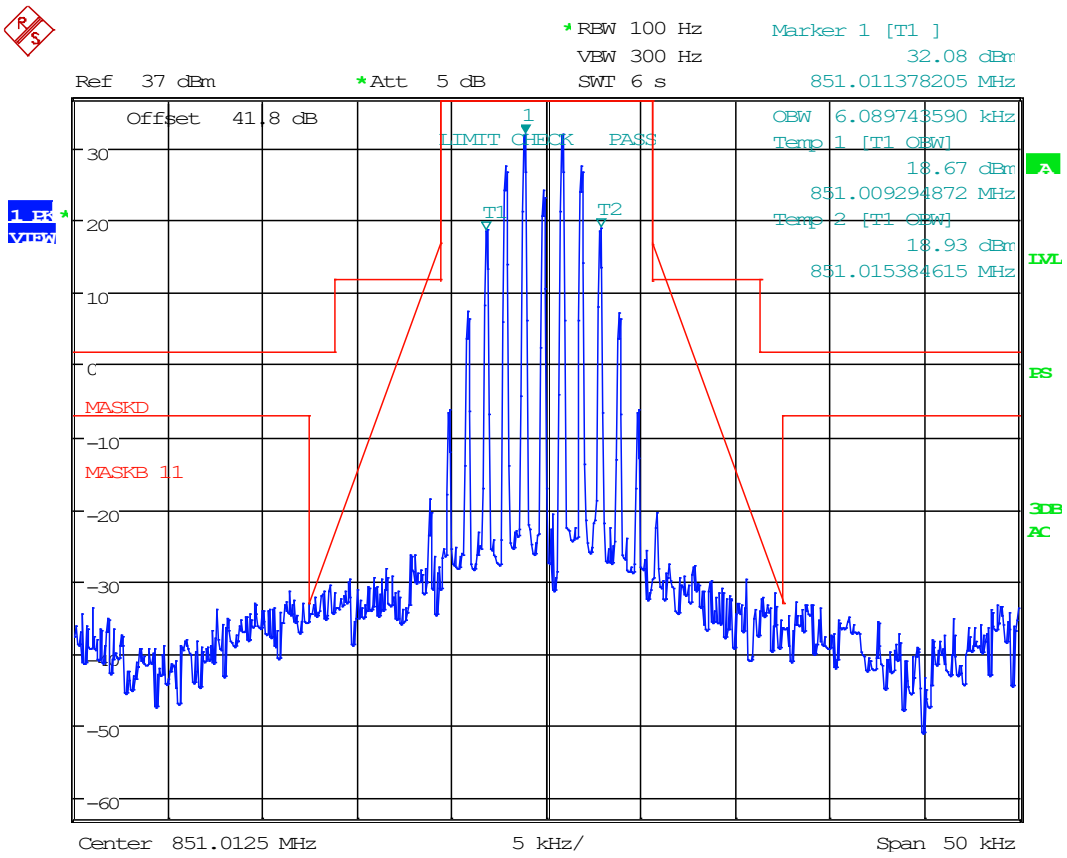
EMISSION MASK & IVO

800 MHz Band, Downlink, 12.5k FM, AGC +3 dB



Date: 29.JUL.2020 15:27:49

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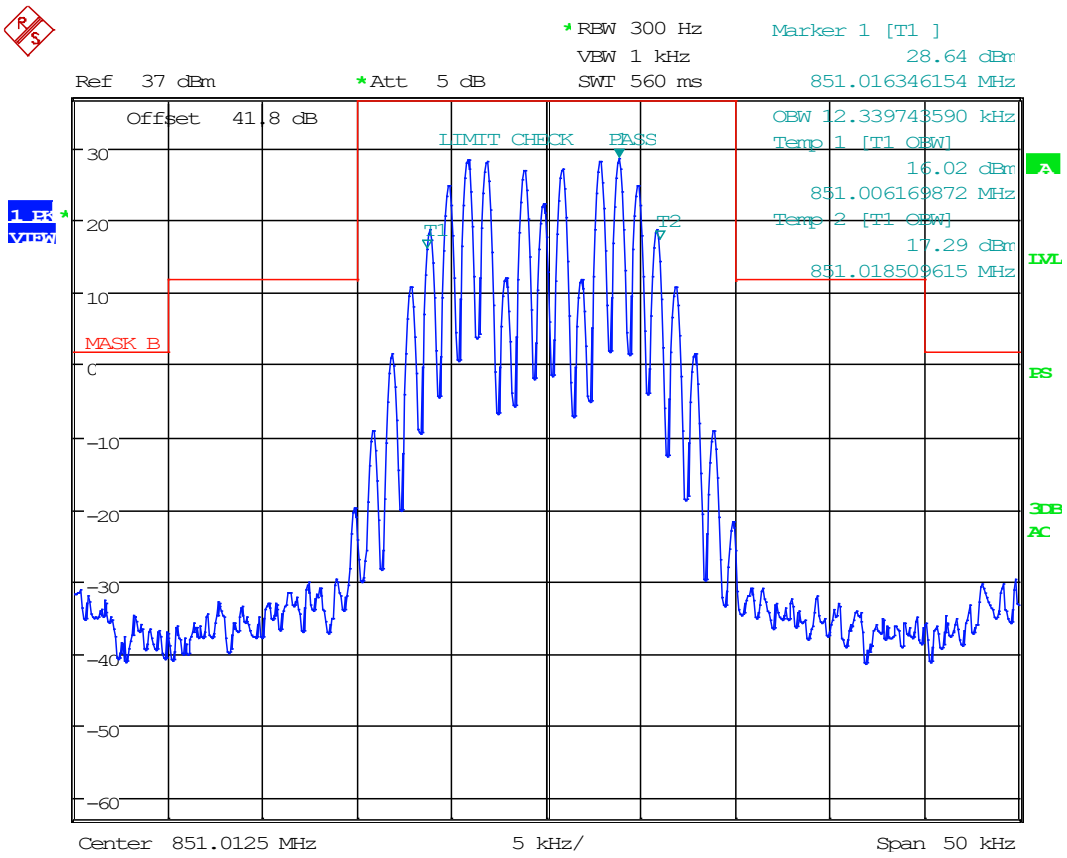
EMISSION MASK & IVO

800 MHz Band, Downlink, 25k FM, AGC



Date: 29.JUL.2020 15:31:04

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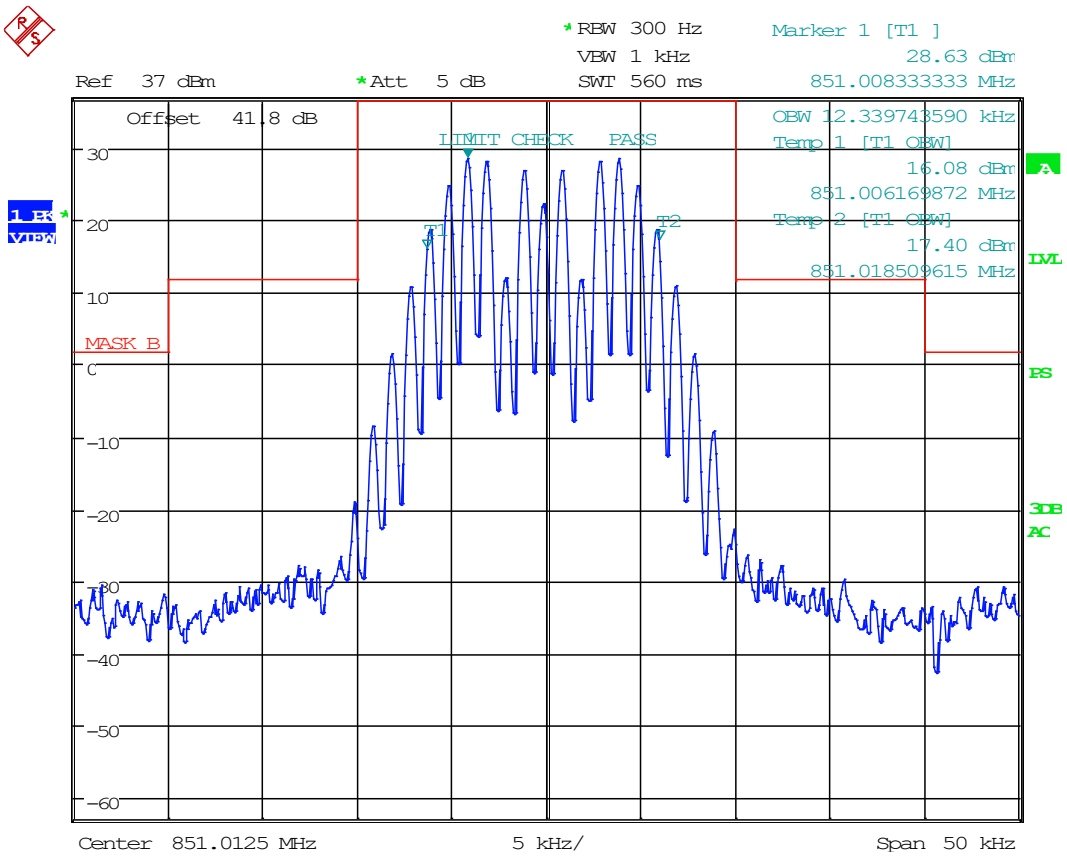
EMISSION MASK & IVO

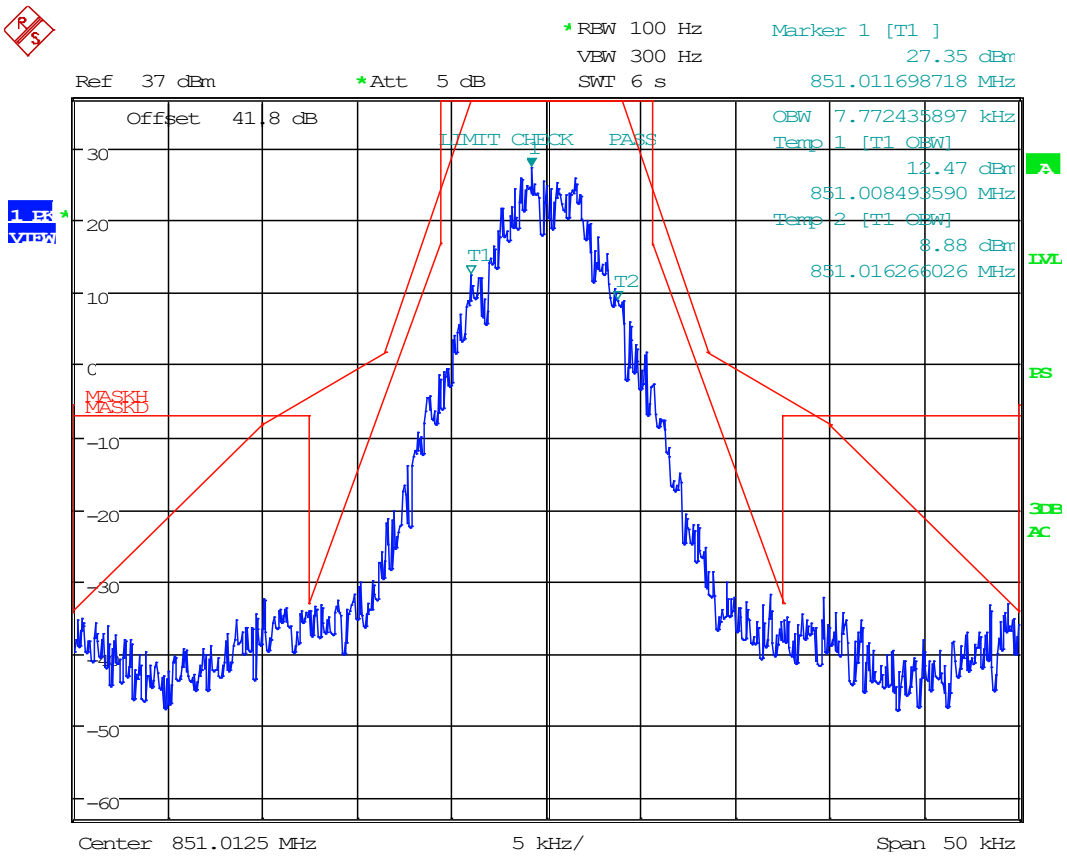
800 MHz Band, Downlink, 25k FM, AGC +3 dB



Date: 29.JUL.2020 15:30:05

EMISSION MASK & IVO

800 MHz Band, Downlink, C4FM, AGC



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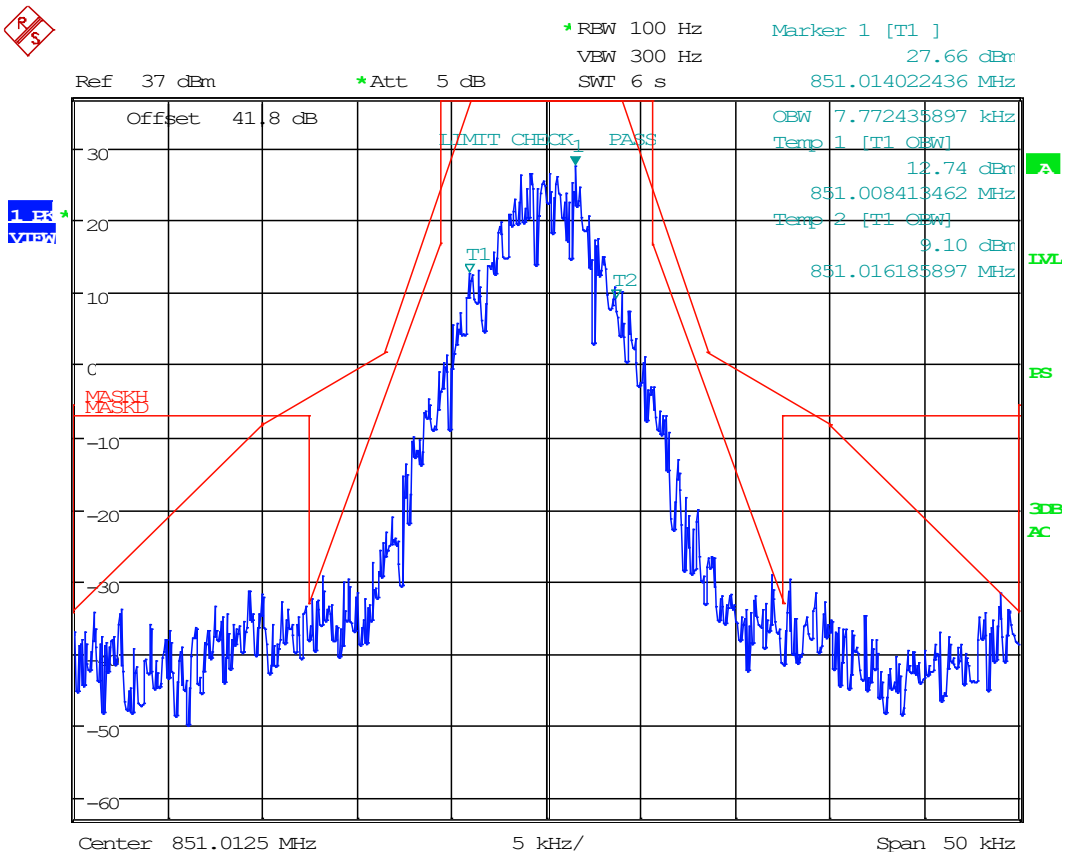
EMISSION MASK & IVO

800 MHz Band, Downlink, C4FM, AGC +3 dB



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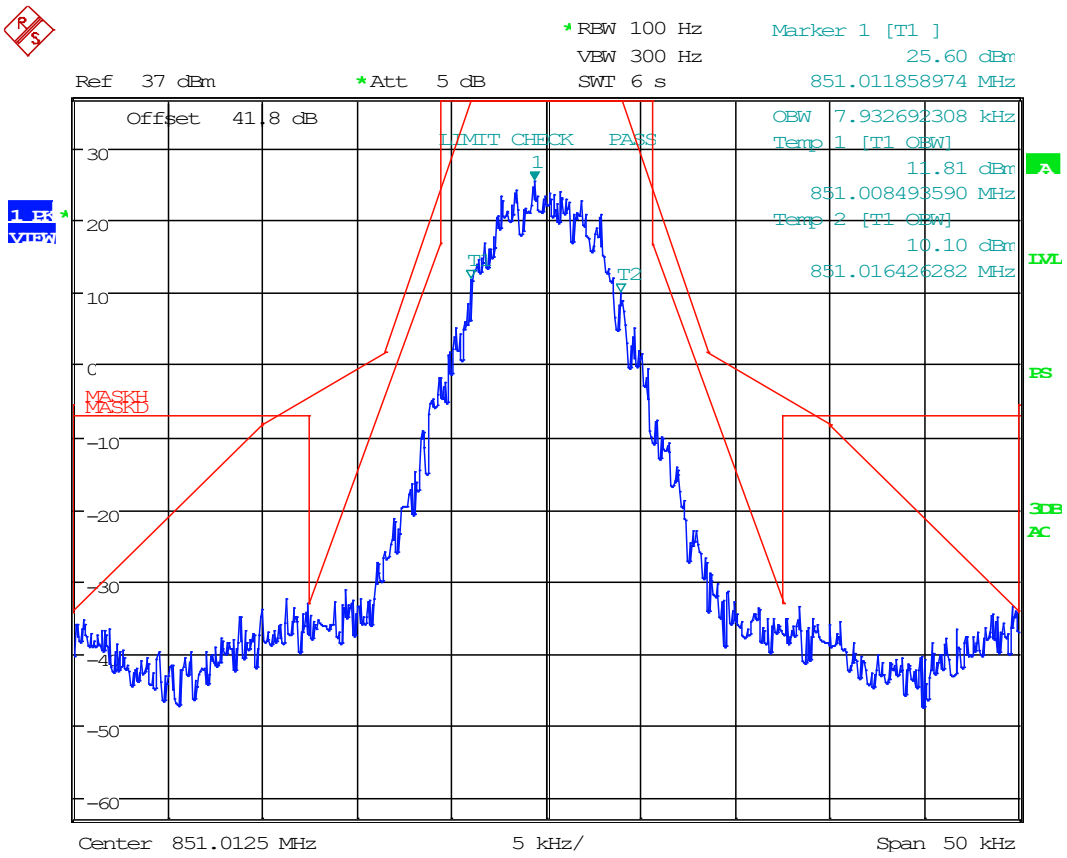
EMISSION MASK & IVO

800 MHz Band, Downlink, H-CPM, AGC



Date: 29.JUL.2020 15:21:59

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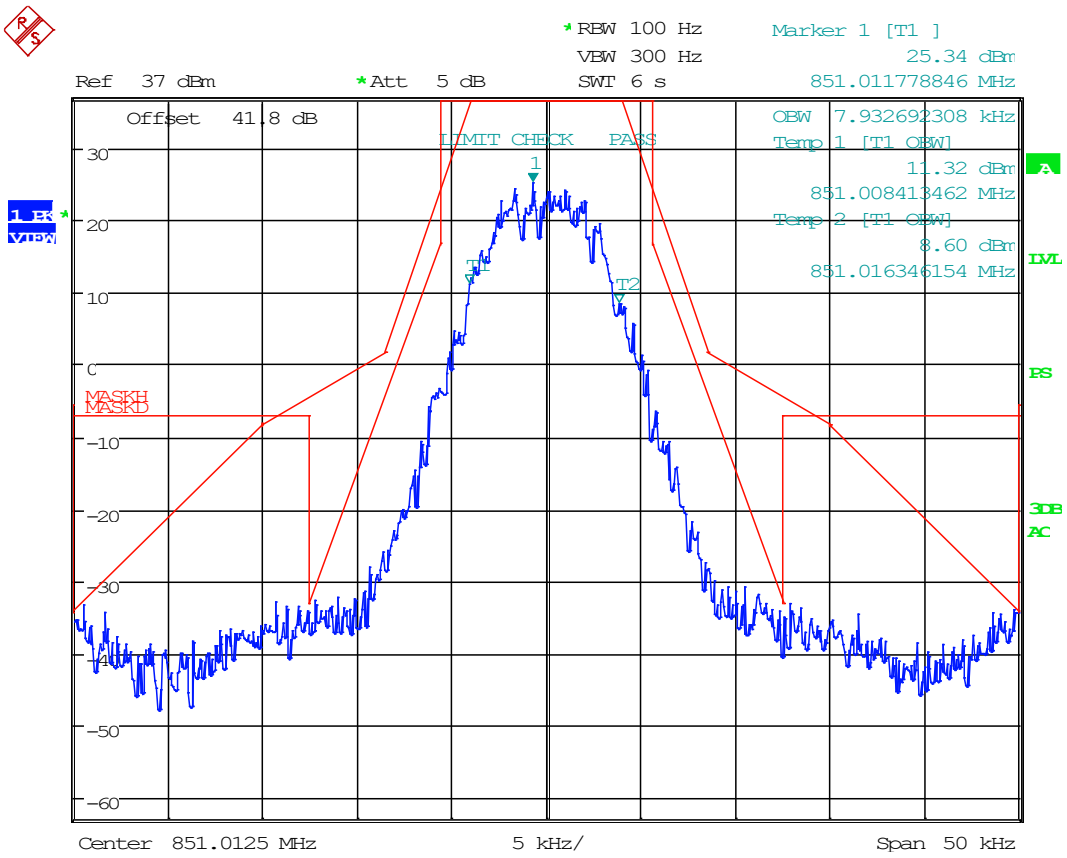
EMISSION MASK & IVO

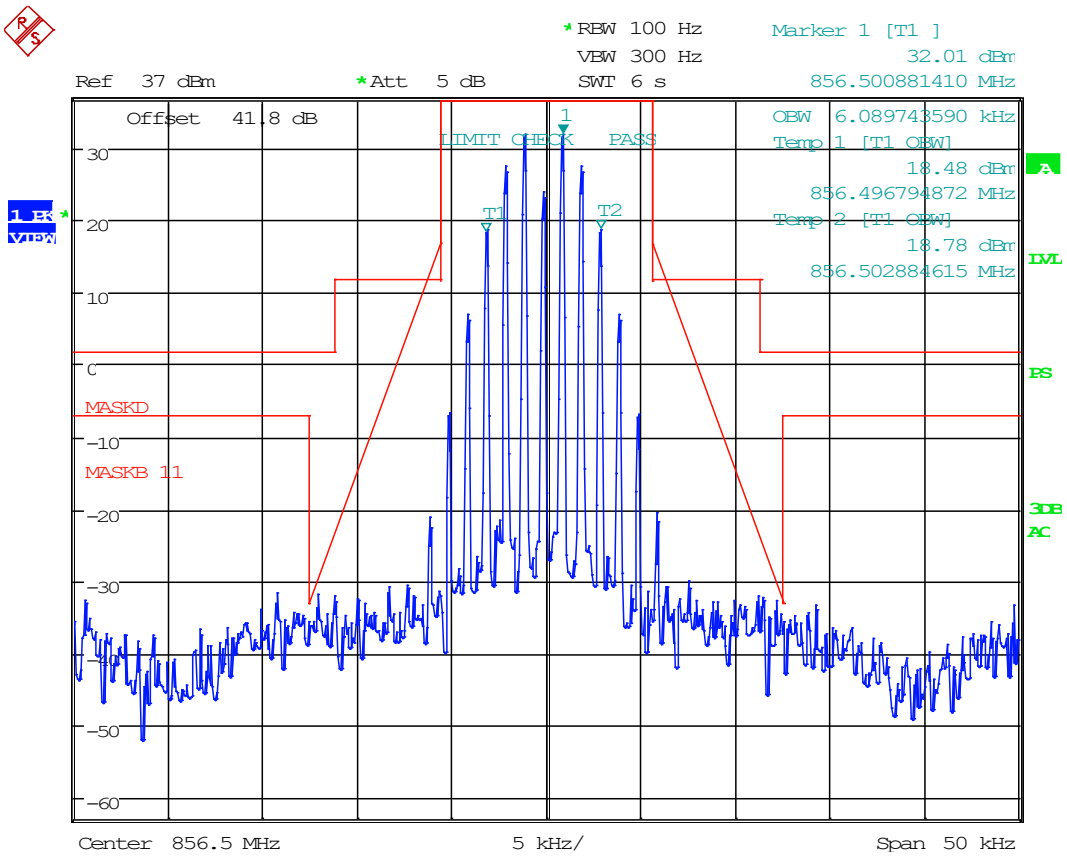
800 MHz Band, Downlink, H-CPM, AGC +3 DB



Date: 29.JUL.2020 15:20:41

EMISSION MASK & IVO

800 MHz Band, Downlink, 12.5k FM, AGC



Date: 29.JUL.2020 15:36:10

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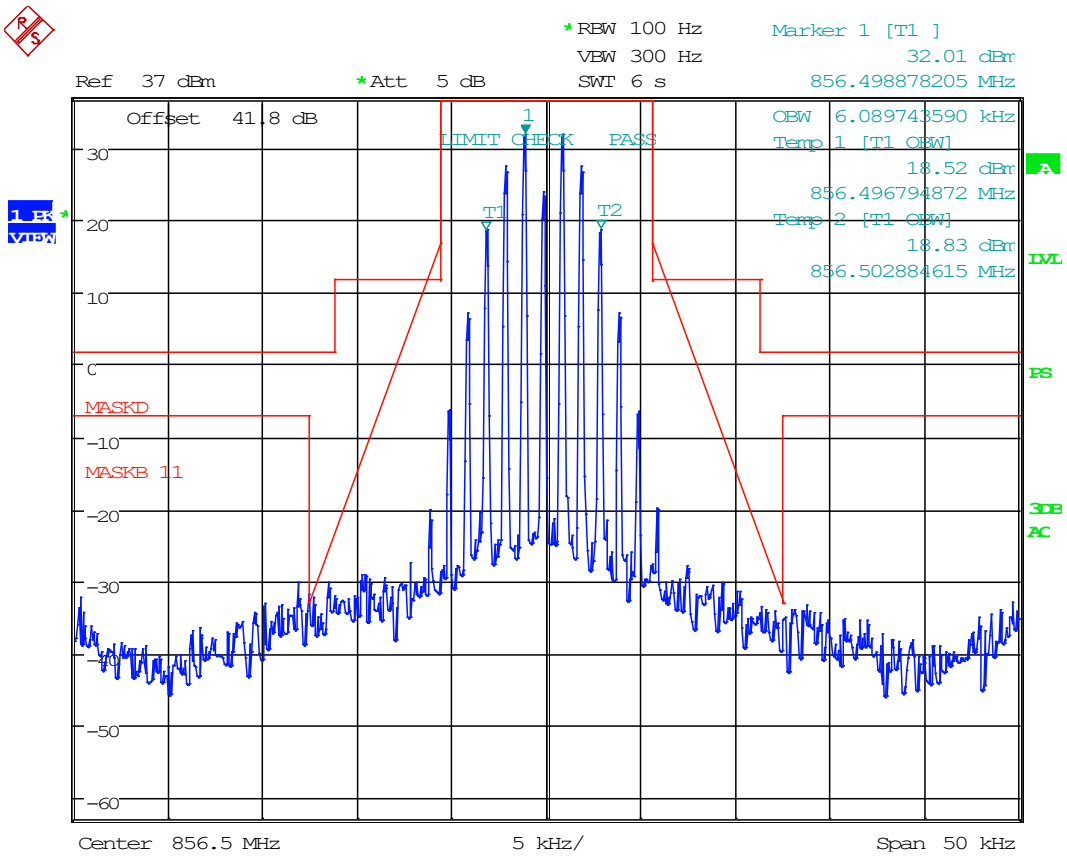
EMISSION MASK & IVO

800 MHz Band, Downlink, 12.5k FM, AGC +3 dB



Date: 29.JUL.2020 15:36:57

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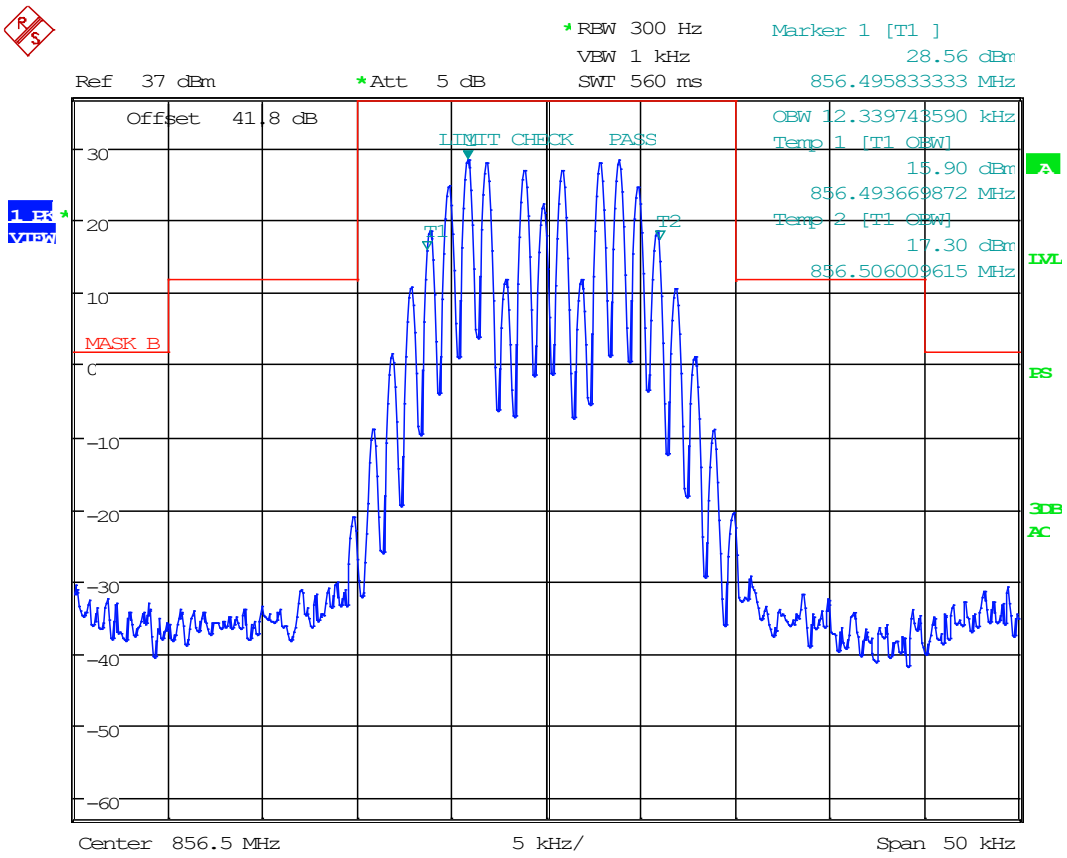
EMISSION MASK & IVO

800 MHz Band, Downlink, 25k FM, AGC



Date: 29.JUL.2020 15:32:01

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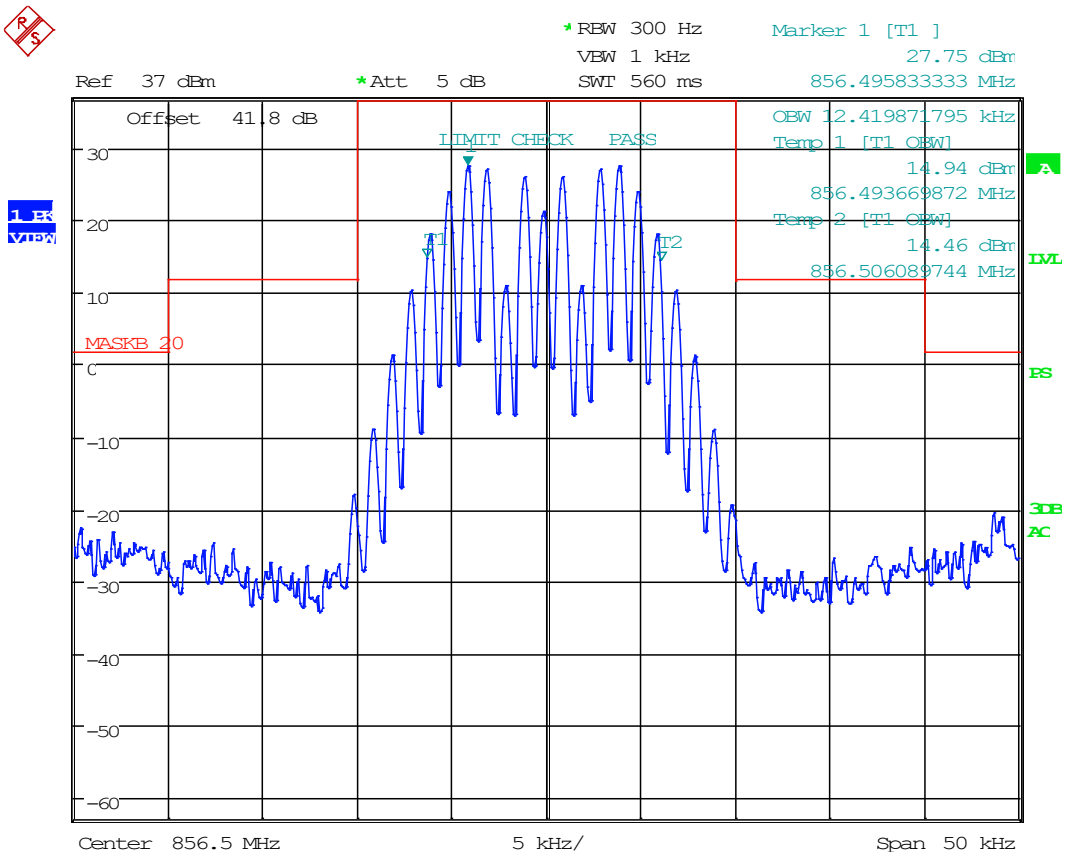
EMISSION MASK & IVO

800 MHz Band, Downlink, 25k FM, AGC +3 dB



Date: 31.JUL.2020 13:40:51

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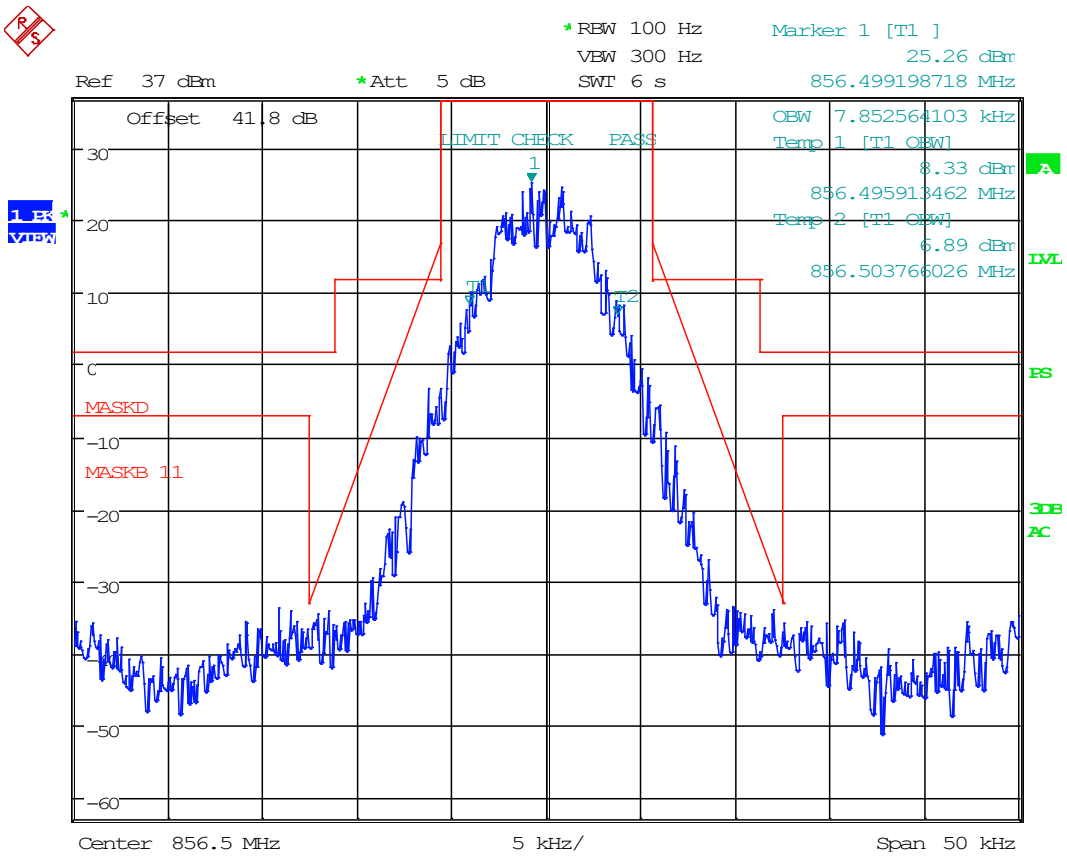
EMISSION MASK & IVO

800 MHz Band, Downlink, C4FM, AGC

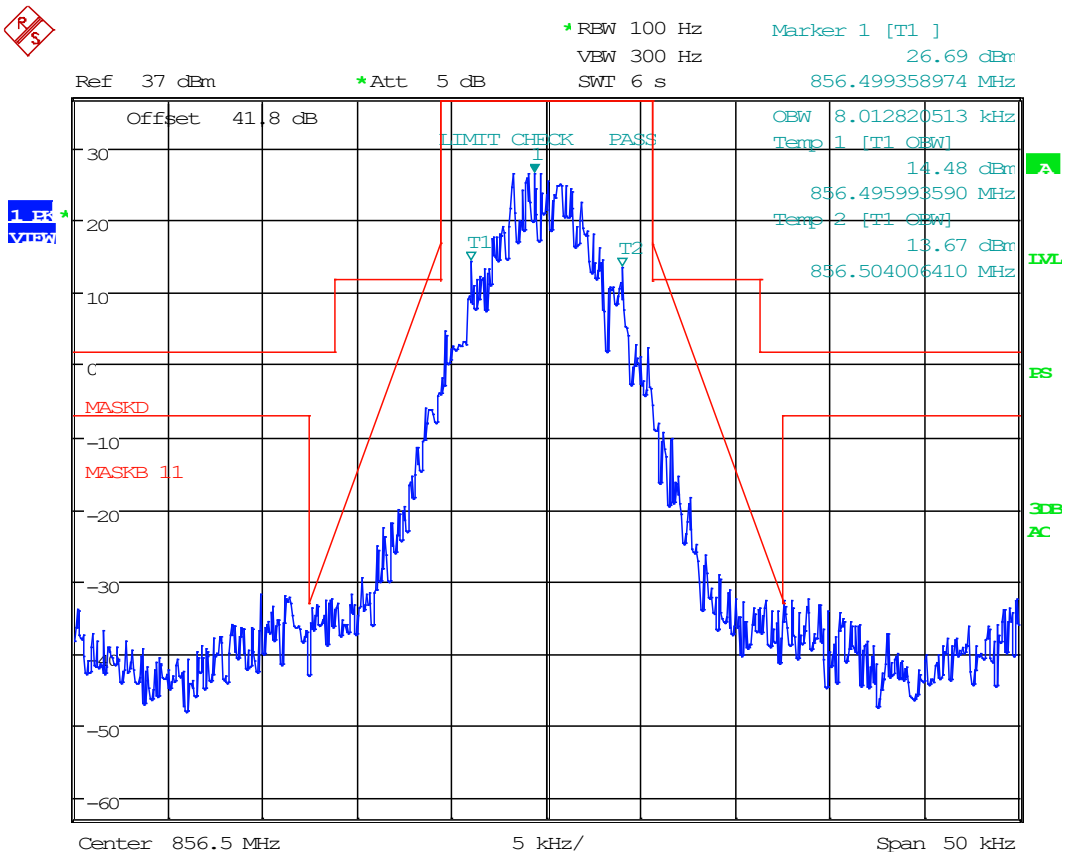


Date: 29.JUL.2020 15:41:57

849 NW STATE ROAD 45 NEWBERRY, FL 32669 USA | PHONE: 888.472.2424 | EMAIL: INFO@TIMCOENGR.COM | WEB: HTTP://WWW.TIMCOENGR.COM

EMISSION MASK & IVO

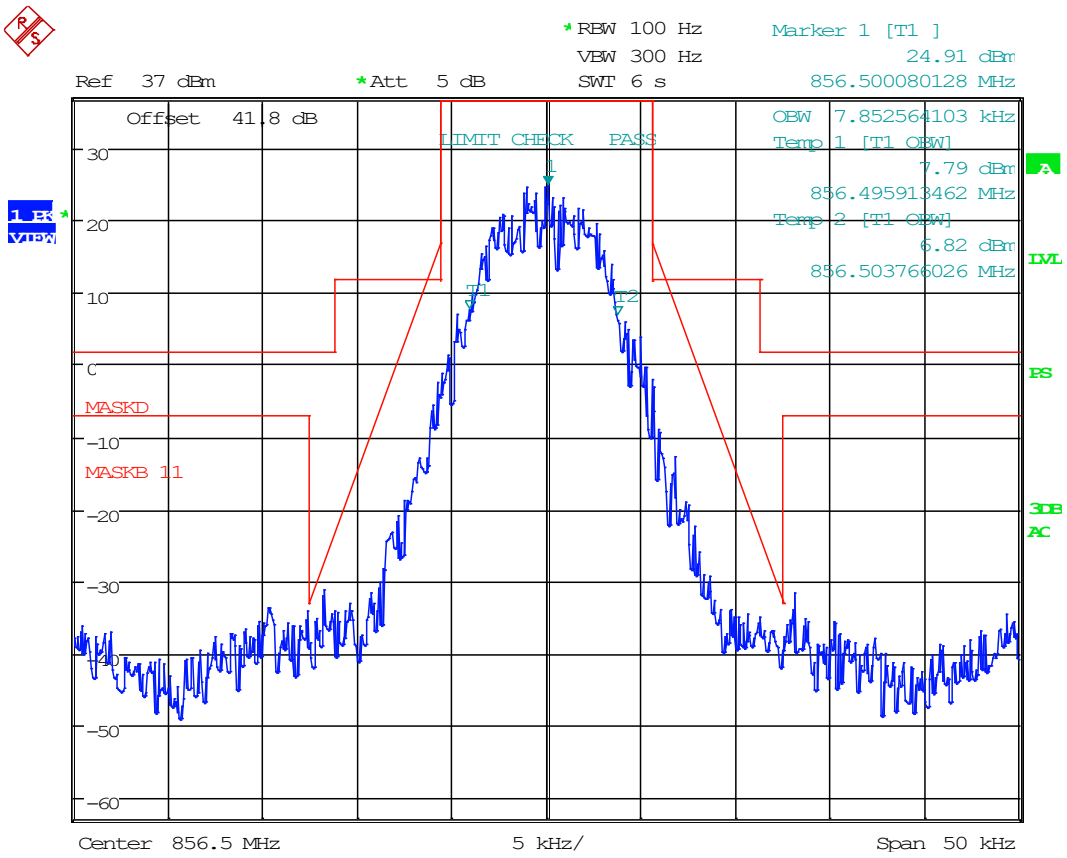
800 MHz Band, Downlink, C4FM, AGC +3 dB



Date: 29.JUL.2020 15:37:46

EMISSION MASK & IVO

800 MHz Band, Downlink, H-CPM, AGC



Date: 29.JUL.2020 15:43:25

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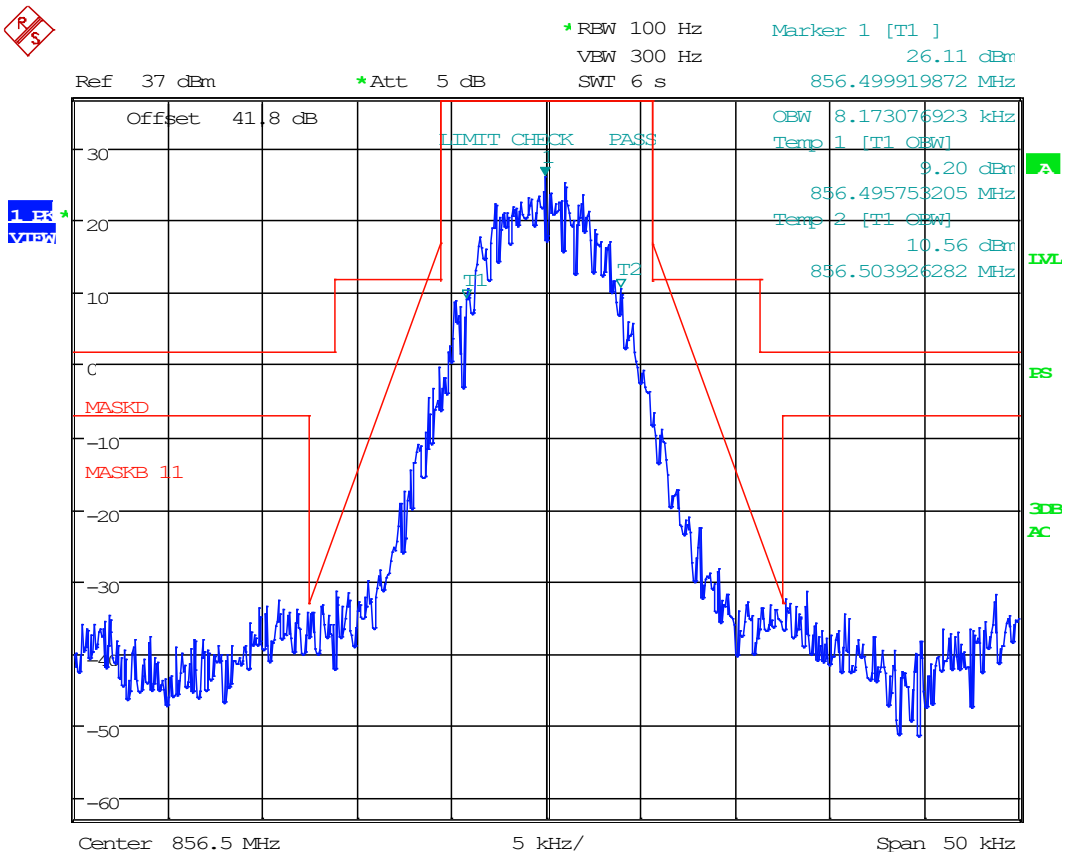
EMISSION MASK & IVO

800 MHz Band, Downlink, H-CPM, AGC +3 DB



Date: 29.JUL.2020 15:44:19

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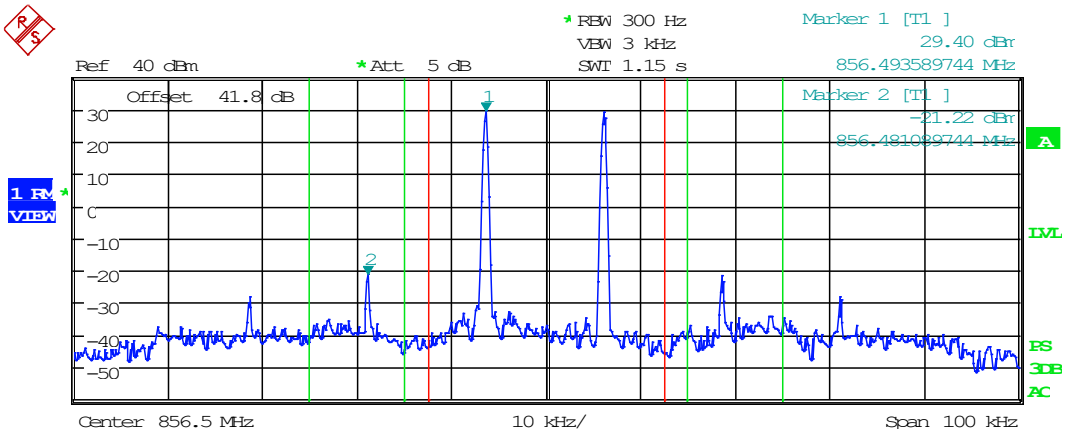
KDB 935210 4.7.2 INTERMODULATION

(Data is re-used from test report "2543-20_PT90 7800 Booster CLB TestReport" per KDB 484596)

Test Engineer: FR
Test Date: JUL 30, 2020

800 MHz Band, 12.5k, At AGC



Tx Channel			
Bandwidth	25 kHz	Power	32.59 dBm
Adjacent Channel			
Bandwidth	10 kHz	Lower	-19.34 dBm
Spacing	20 kHz	Upper	-19.42 dBm

Date: 29.JUL.2020 15:59:40

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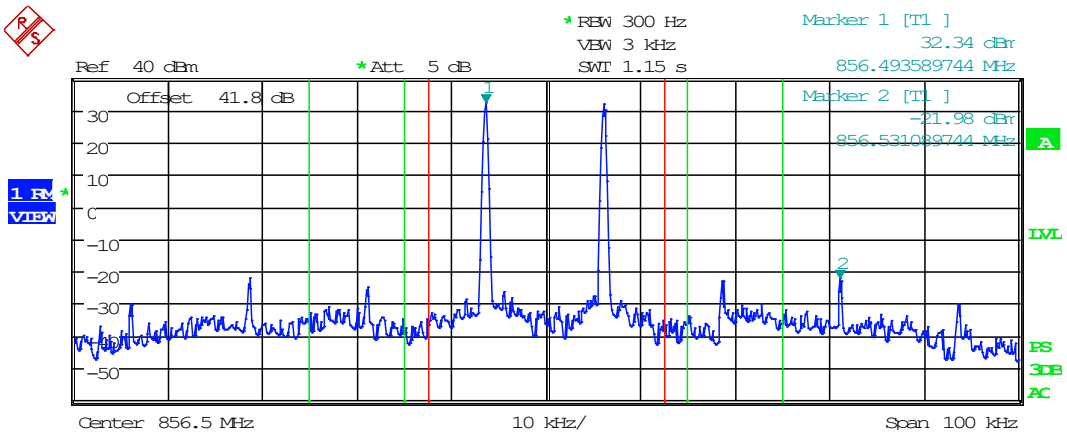
INTERMODULATION

800 MHz Band, 12.5k, At AGC +3 dB



Tx Channel
Bandwidth 25 kHz

Power 35.47 dBm

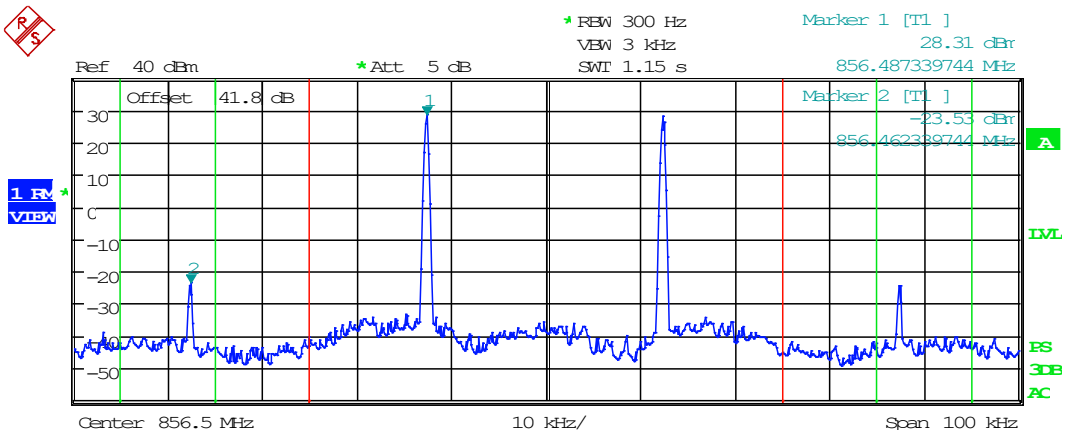
Adjacent Channel
Bandwidth 10 kHz
Spacing 20 kHz

Lower -18.78 dBm
Upper -18.01 dBm

Date: 29.JUL.2020 16:02:36

INTERMODULATION

800 MHz Band, 25K, At AGC



Tx Channel			
Bandwidth	50 kHz	Power	31.46 dBm
Adjacent Channel			
Bandwidth	10 kHz	Lower	-21.65 dBm
Spacing	40 kHz	Upper	-22.25 dBm

Date: 29.JUL.2020 16:04:34

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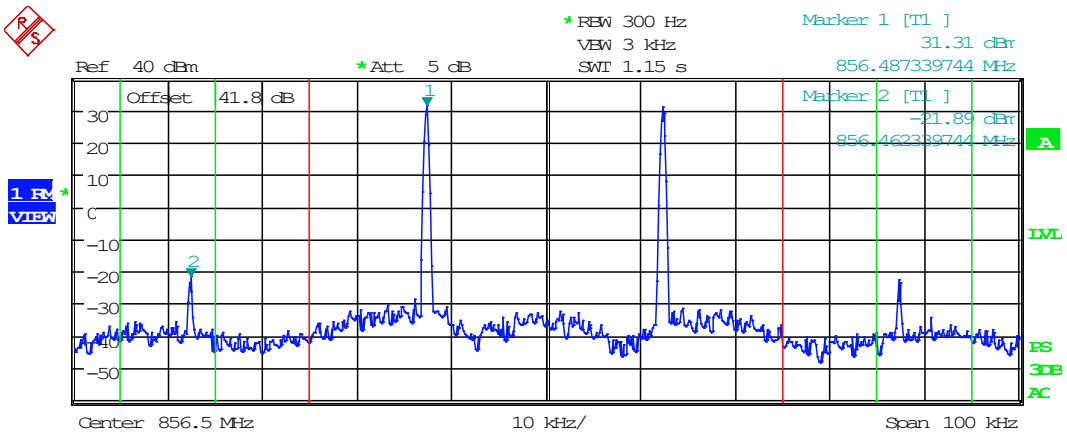
INTERMODULATION

800 MHz Band, 25K, At AGC +3 dB



Tx Channel
Bandwidth 50 kHz

Power 34.47 dBm

Adjacent Channel
Bandwidth 10 kHz
Spacing 40 kHz

Lower -19.63 dBm
Upper -20.39 dBm

Date: 29.JUL.2020 16:05:03

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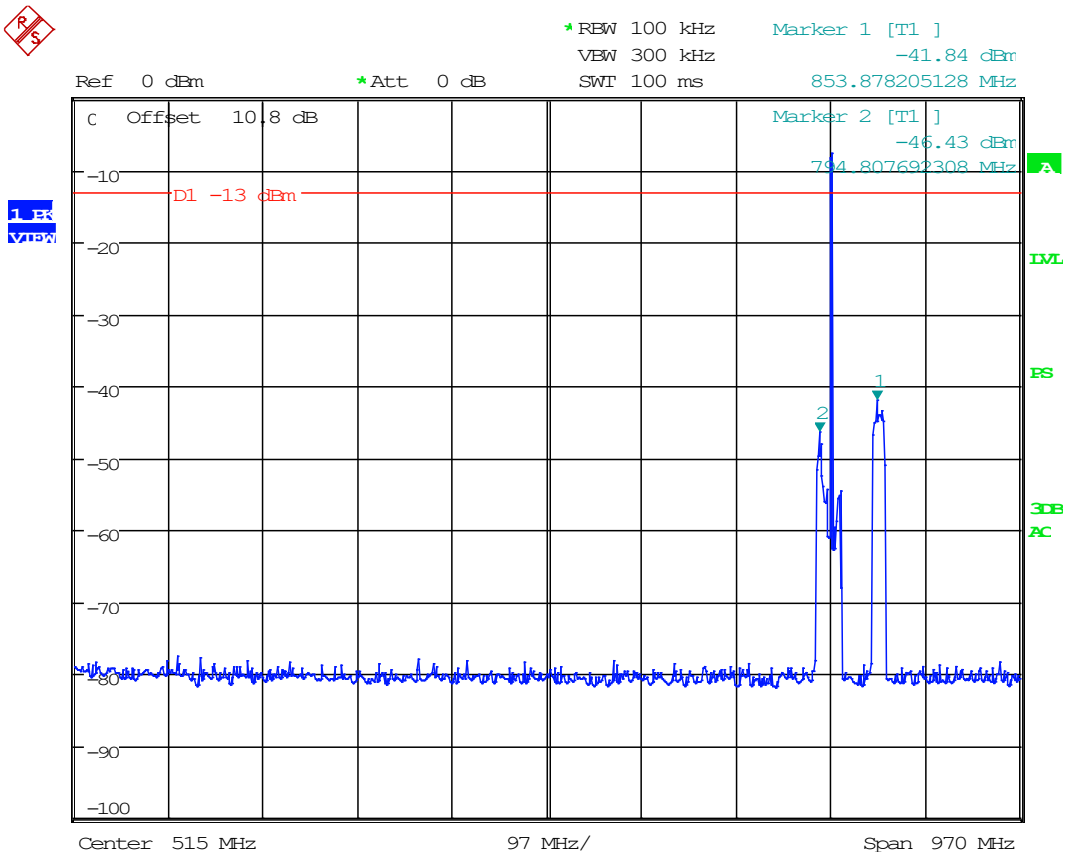
2.1051 CONDUCTED SPURIOUS EMISSIONS

KDB 935210 4.7.3 CONDUCTED SPURIOUS EMISSIONS

Test Engineer: FR
Test Date: JUL 31 2020

Spot-Check of Class A 800 MHz Uplink



Date: 31.JUL.2020 13:30:22

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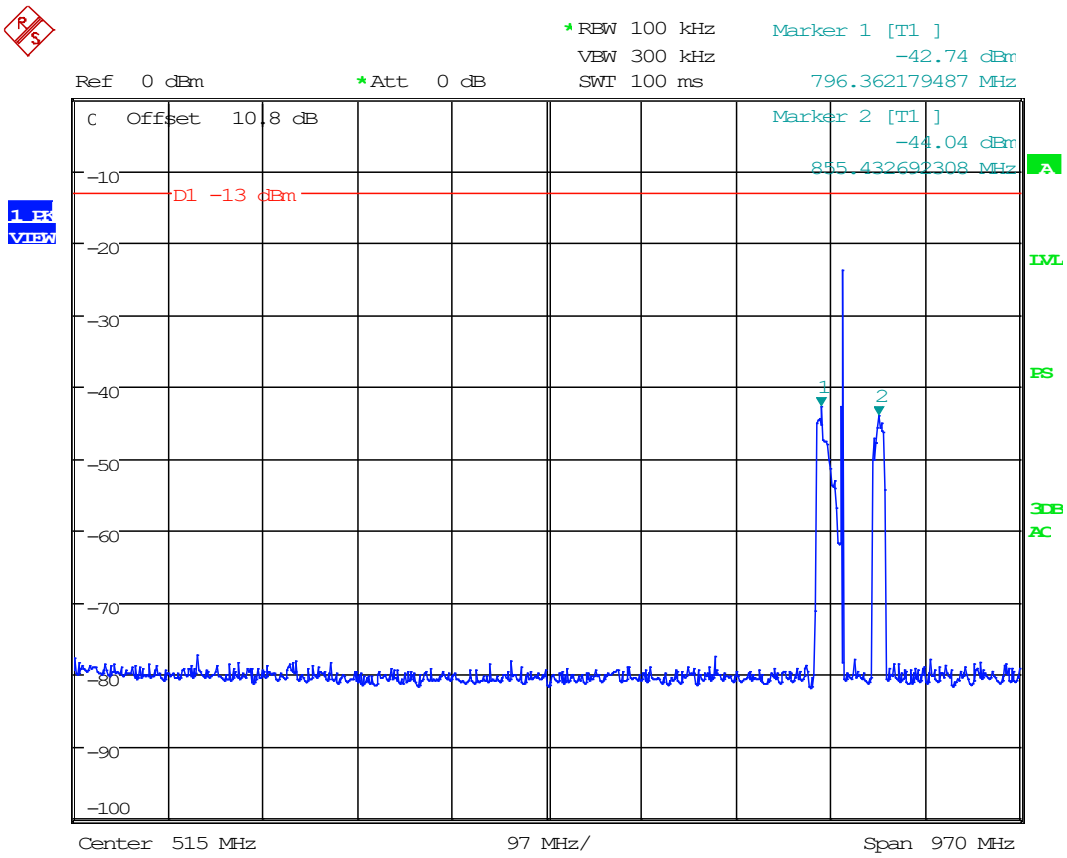
Conducted Spurious Emissions

Spot-Check of Class A 800 MHz Uplink



Date: 31.JUL.2020 13:23:29

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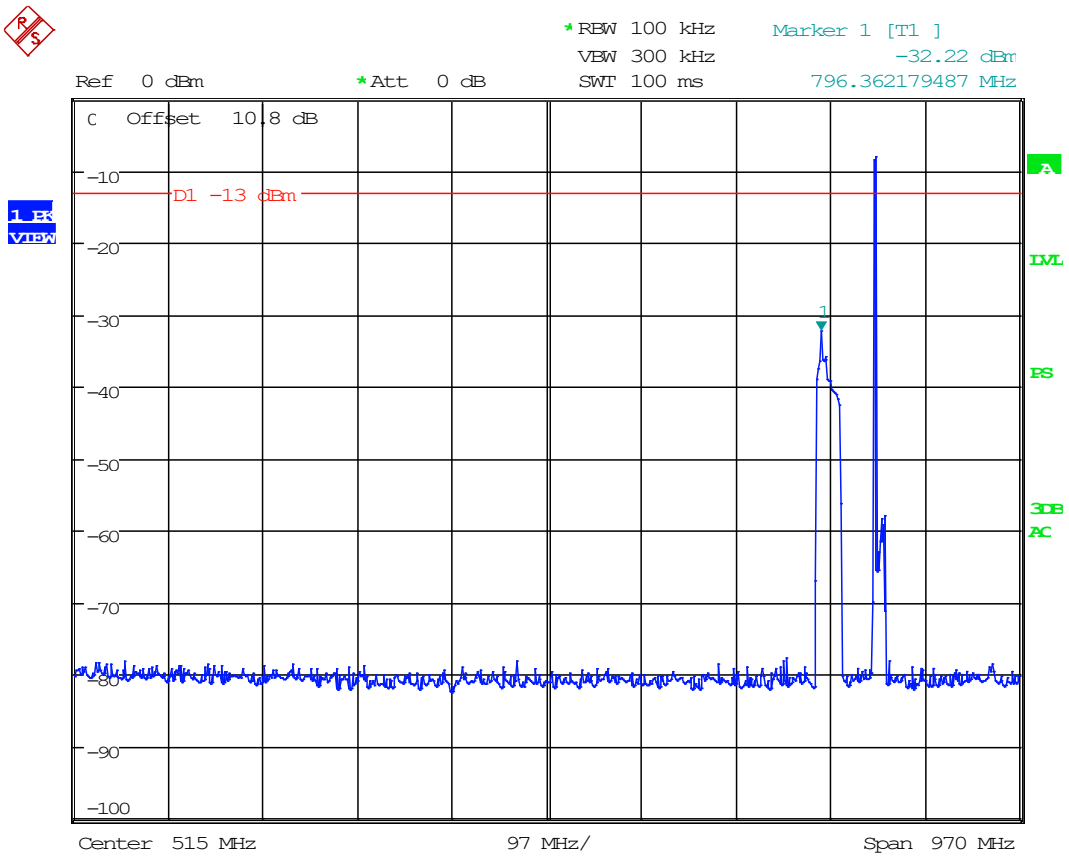
Conducted Spurious Emissions

Spot-Check of Class A 800 MHz Downlink



Date: 31.JUL.2020 13:19:14

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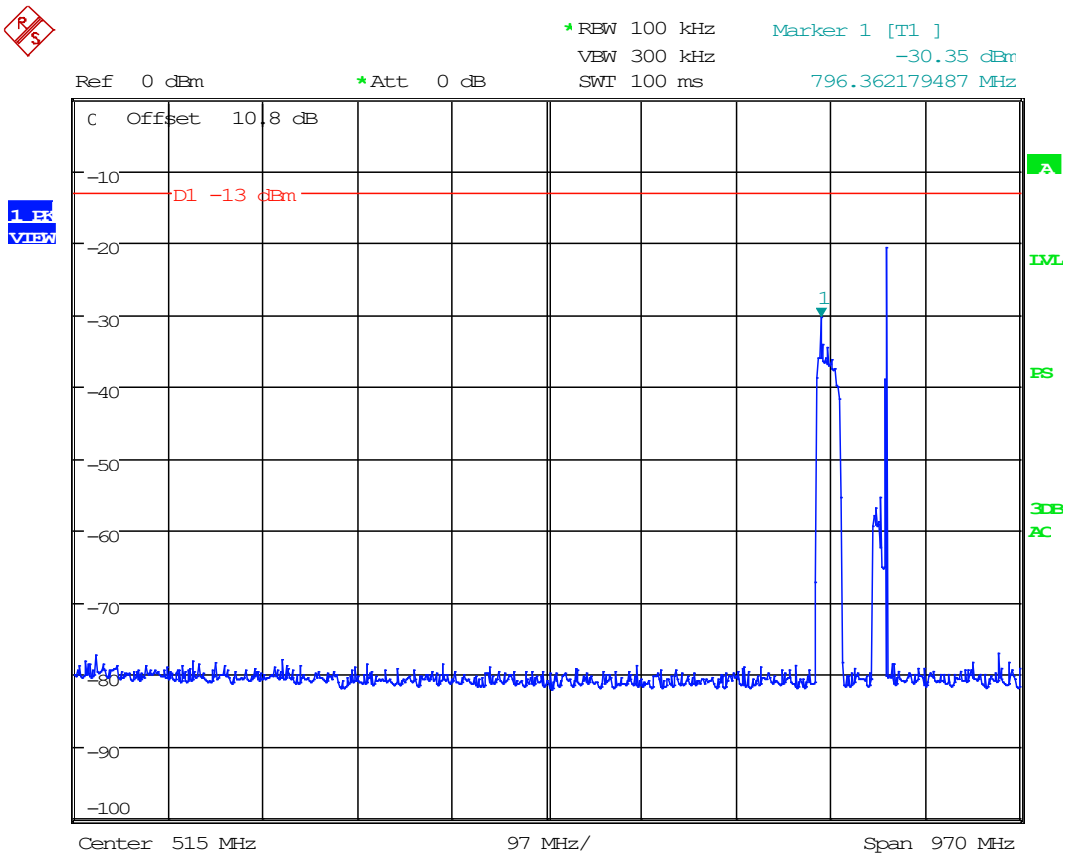
Conducted Spurious Emissions

Spot-Check of Class A 800 MHz Downlink



Date: 31.JUL.2020 13:14:23

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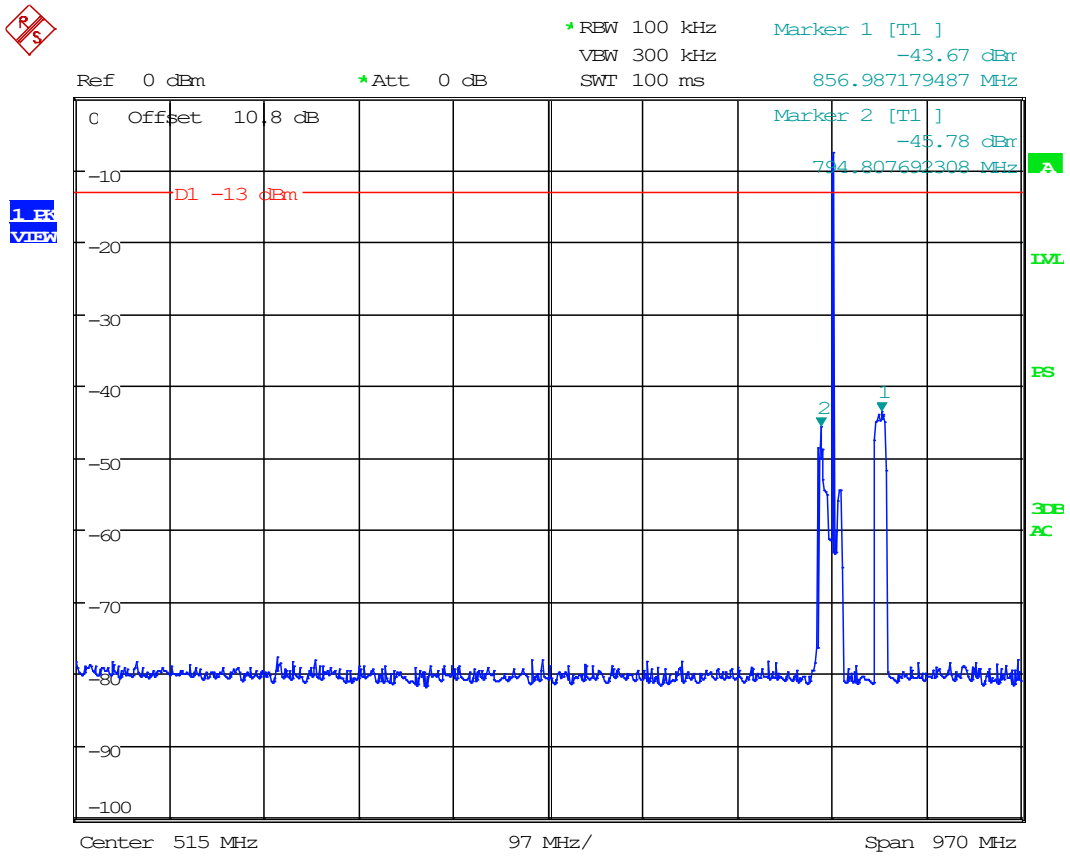
Conducted Spurious Emissions

(Data is re-used from test report "2707-20_PT90 800 Booster CLB TestReport" per KDB 484596)

806.0125 MHz, Uplink, Below 1 GHz



Date: 31.JUL.2020 13:31:32

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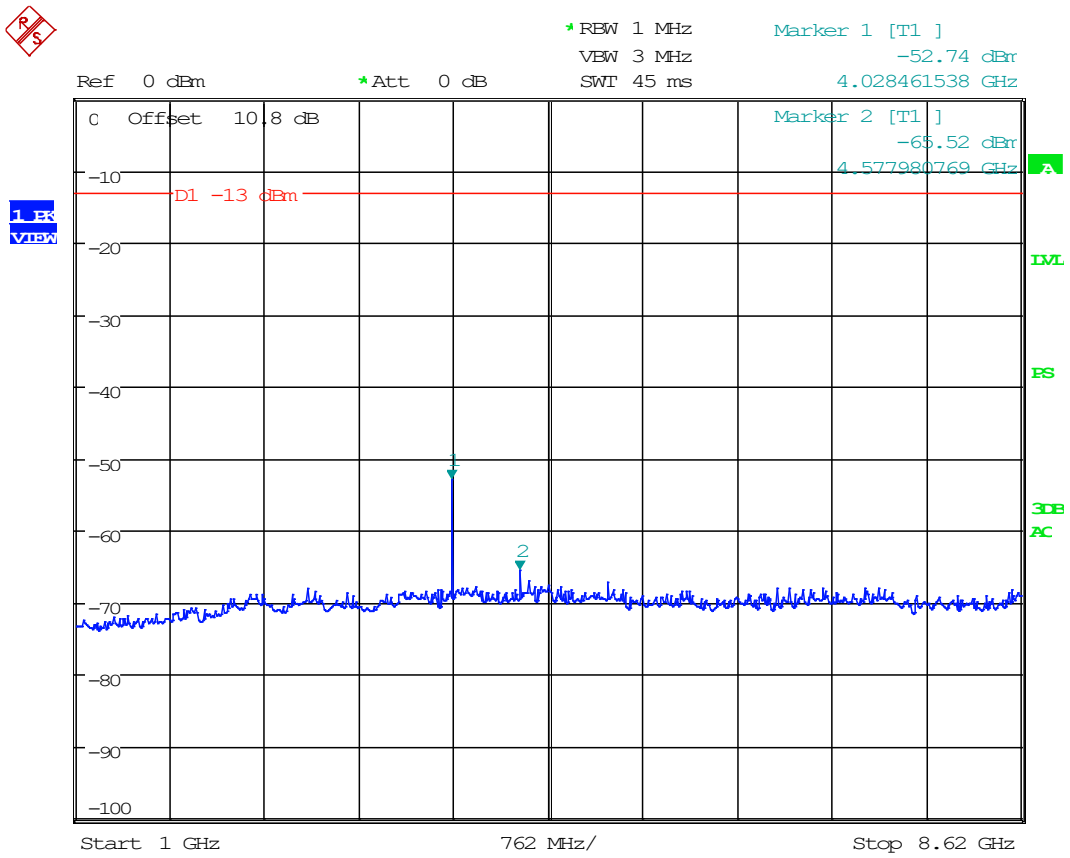
Conducted Spurious Emissions

806.0125 MHz, Uplink, Above 1 GHz



Date: 31.JUL.2020 13:32:25

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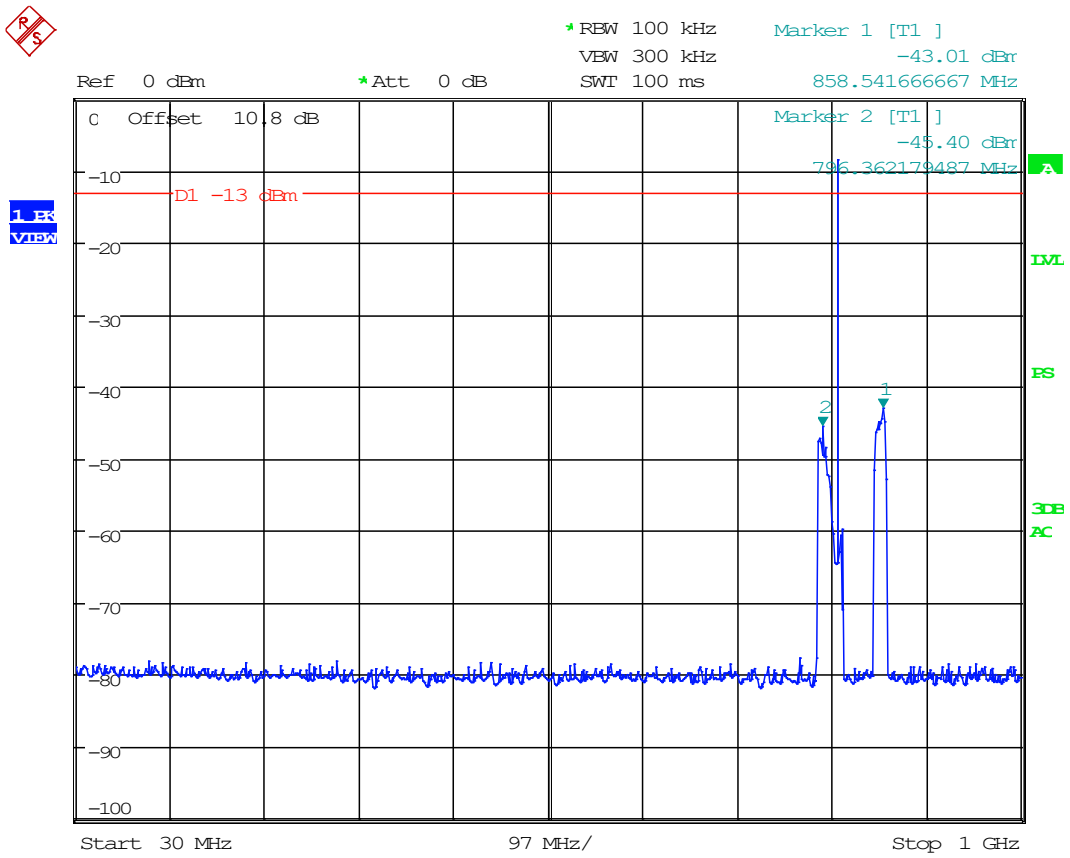
Conducted Spurious Emissions

811.5 MHz, Uplink, Below 1 GHz

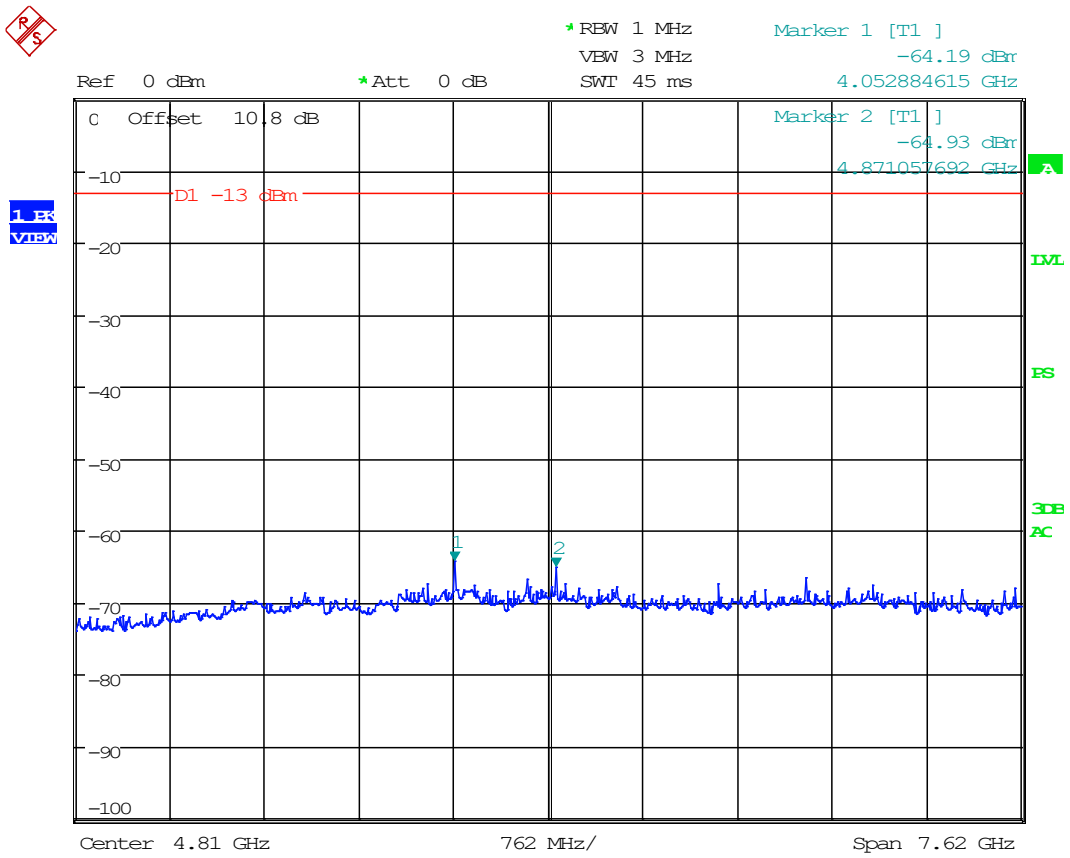


Date: 31.JUL.2020 13:27:41

849 NW STATE ROAD 45 NEWBERRY, FL 32669 USA | PHONE: 888.472.2424 | EMAIL: INFO@TIMCOENGR.COM | WEB: HTTP://WWW.TIMCOENGR.COM

Conducted Spurious Emissions

811.5 MHz, Uplink, Above 1 GHz



Date: 31.JUL.2020 13:26:46

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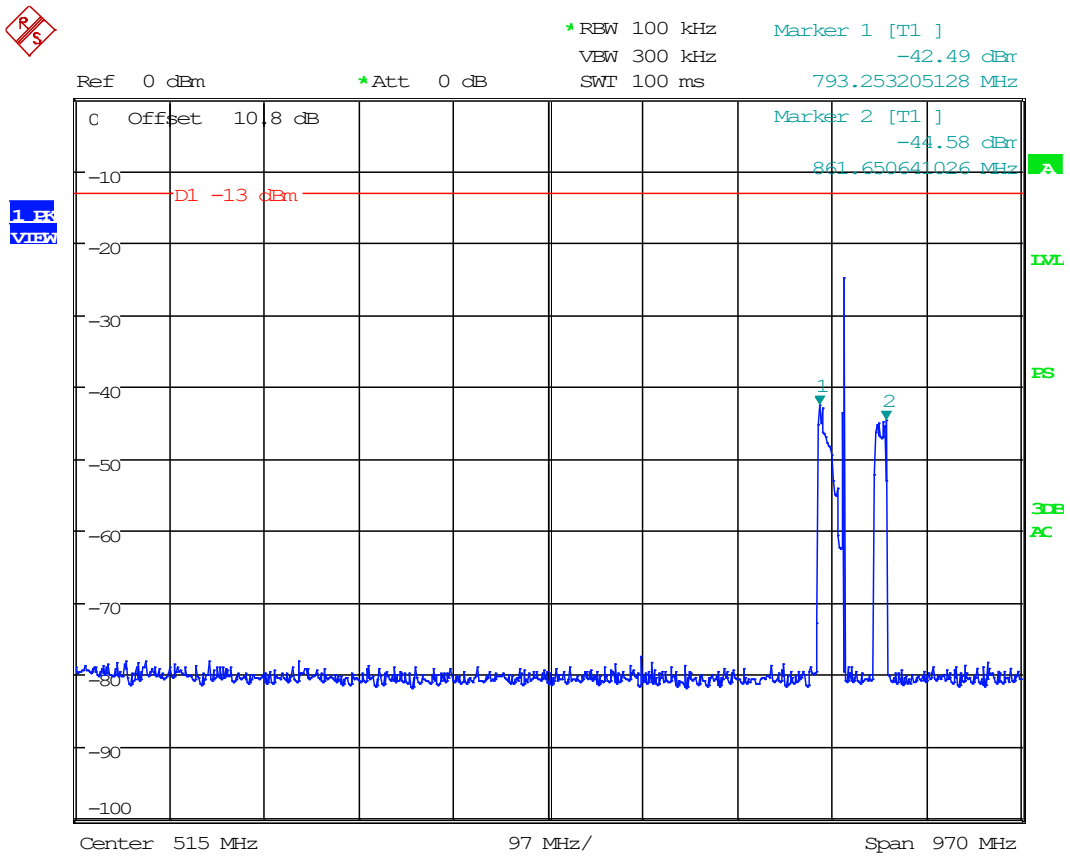
Conducted Spurious Emissions

816.9875 MHz, Uplink, Below 1 GHz



Date: 31.JUL.2020 13:24:14

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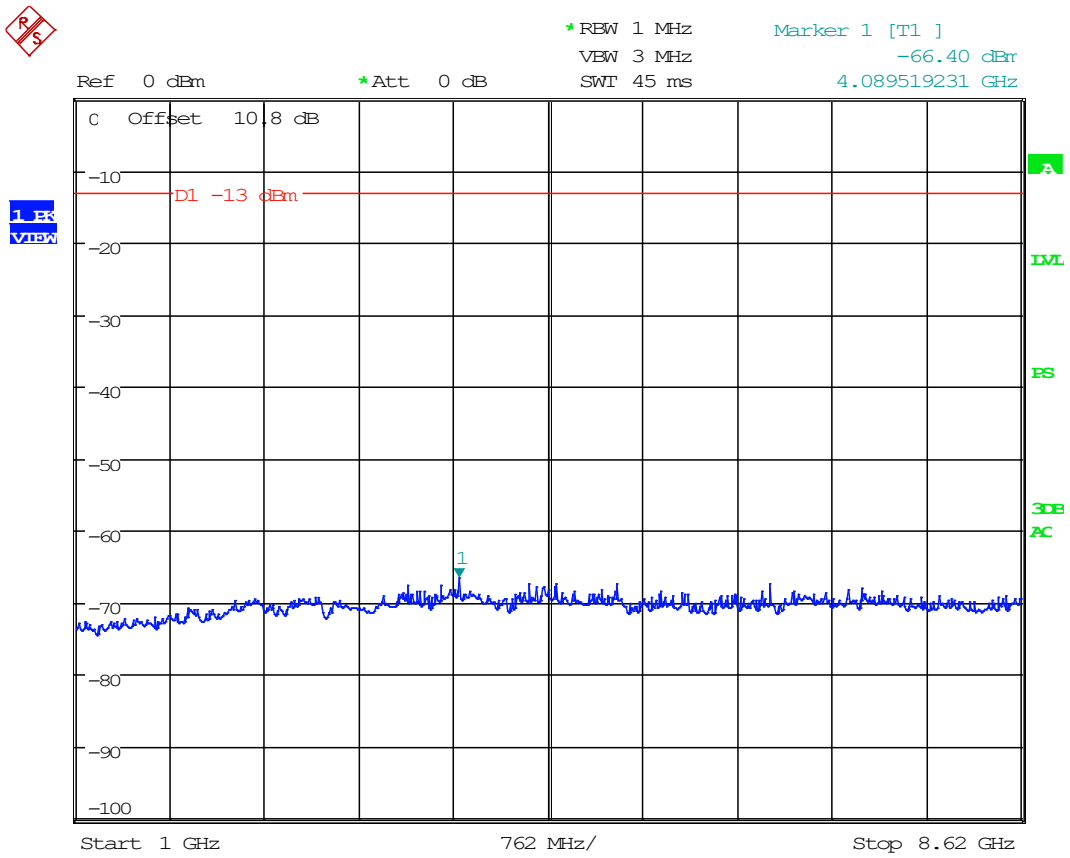
Conducted Spurious Emissions

816.9875 MHz, Uplink, Above 1 GHz



Date: 31.JUL.2020 13:24:49

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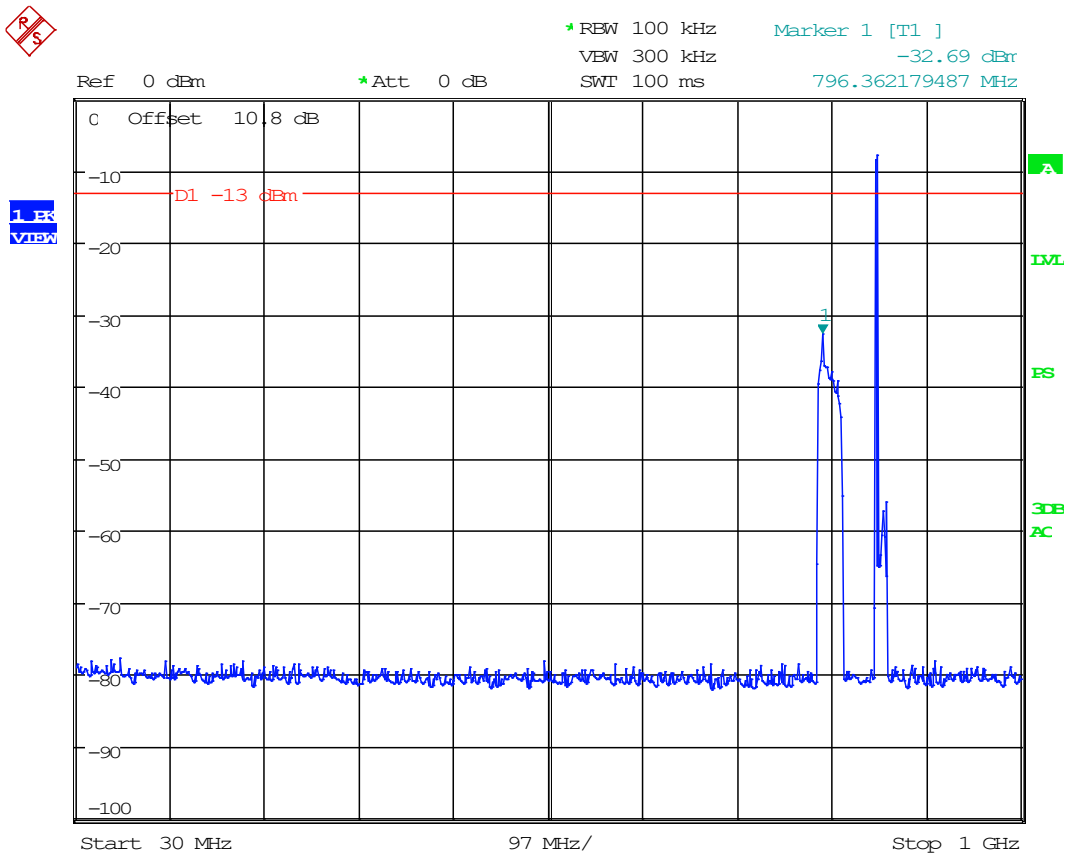
Conducted Spurious Emissions

851.0125 MHz, Downlink, Below 1 GHz



Date: 31.JUL.2020 13:18:46

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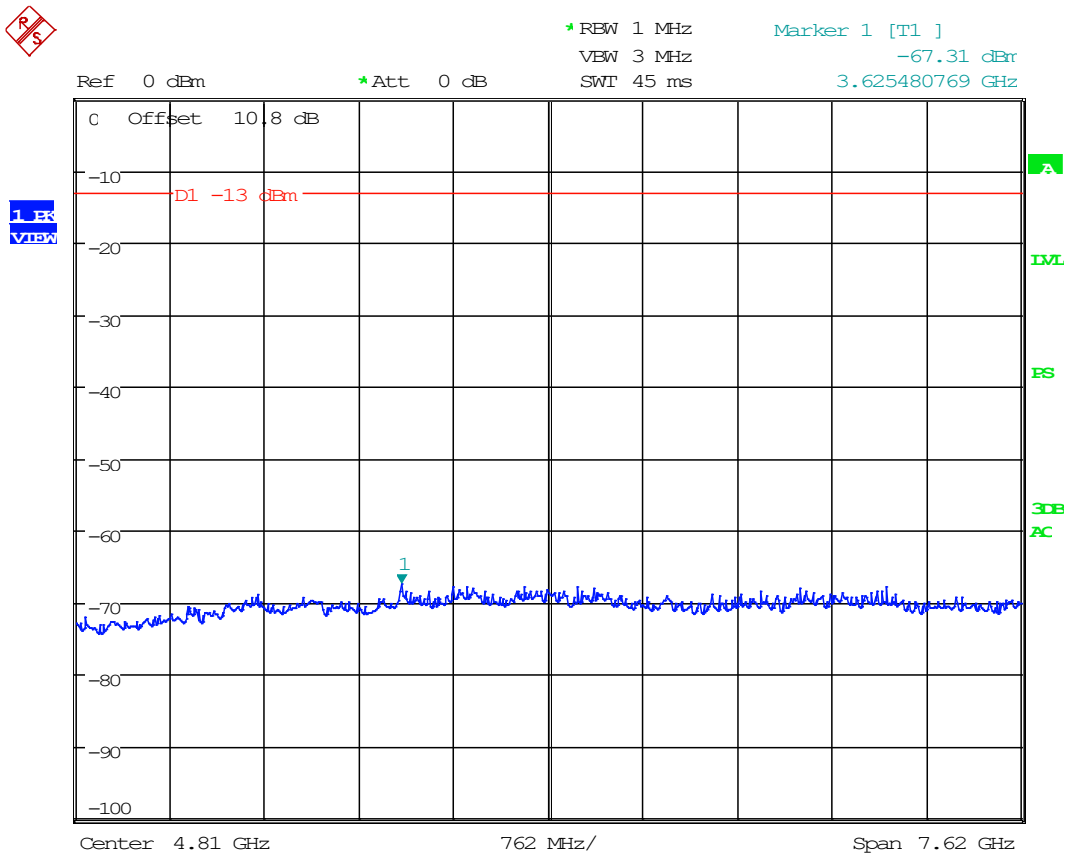
Conducted Spurious Emissions

851.0125 MHz, Downlink, Above 1 GHz



Date: 31.JUL.2020 13:18:11

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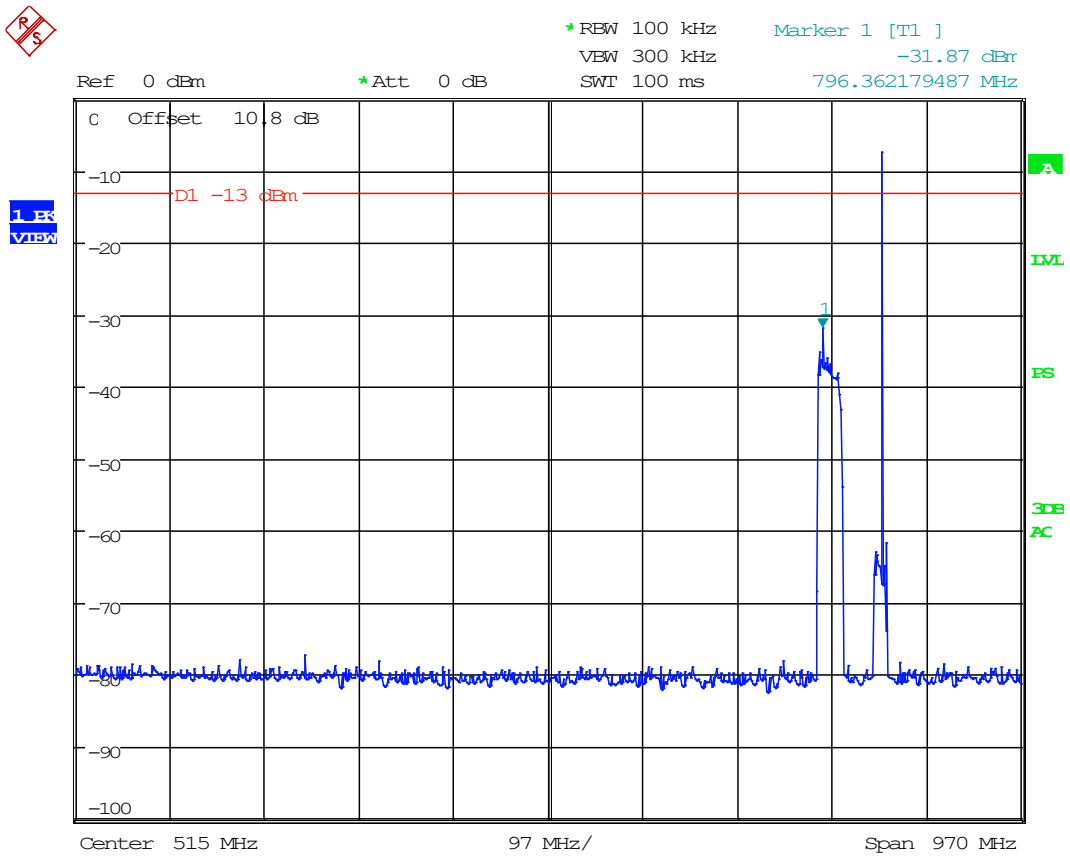
Conducted Spurious Emissions

856.5 MHz, Downlink, Below 1 GHz



Date: 31.JUL.2020 13:16:11

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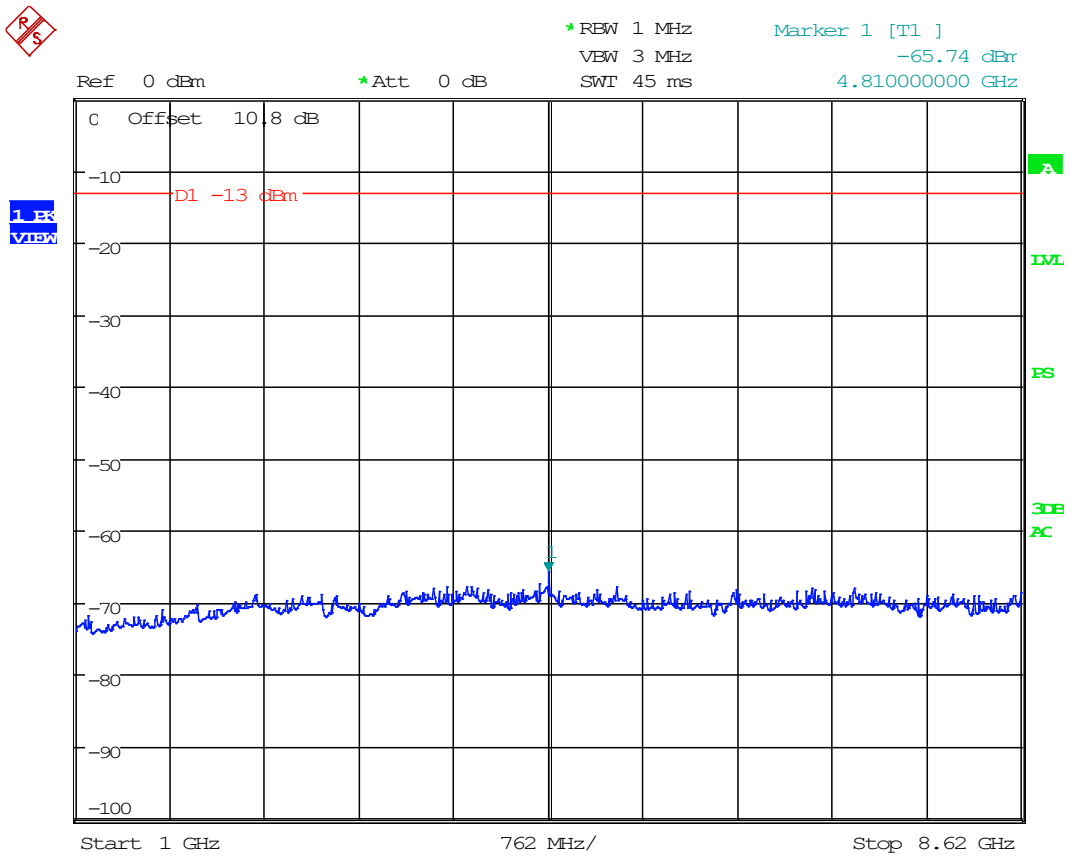
Conducted Spurious Emissions

856.5 MHz, Downlink, Above 1 GHz



Date: 31.JUL.2020 13:16:58

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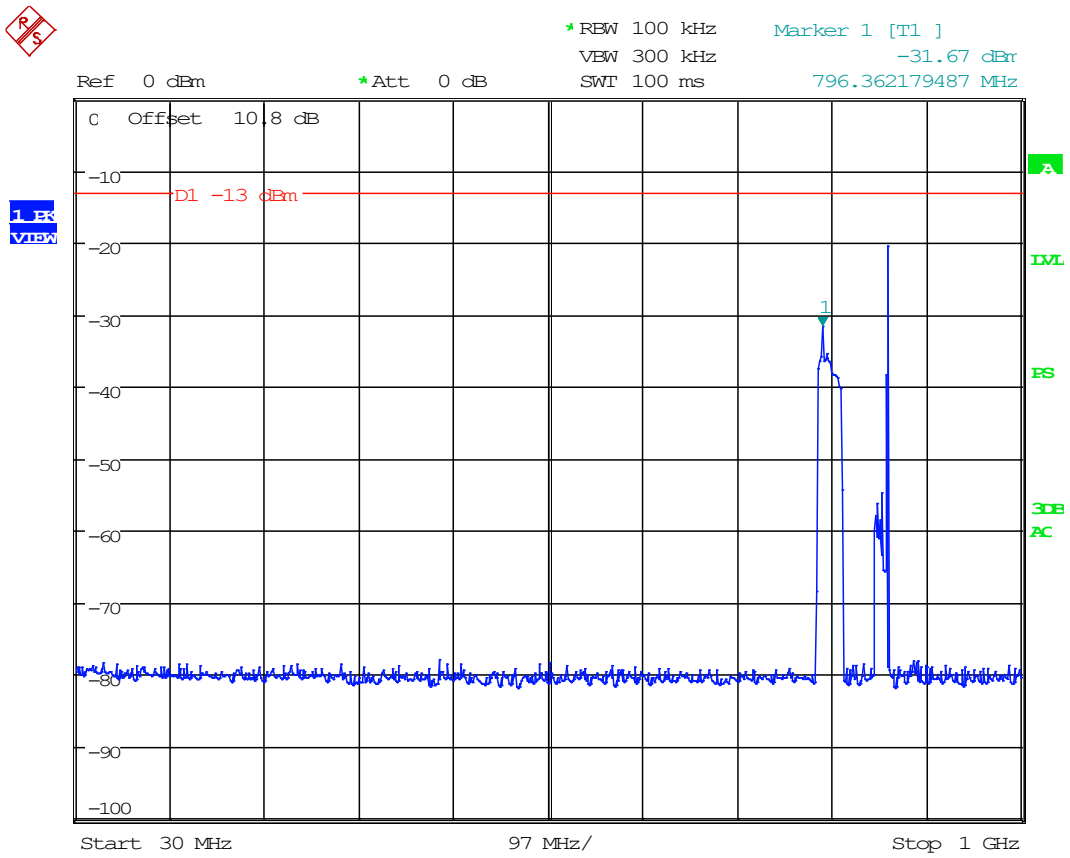
Conducted Spurious Emissions

861.9875 MHz, Downlink, Below 1 GHz



Date: 31.JUL.2020 13:13:51

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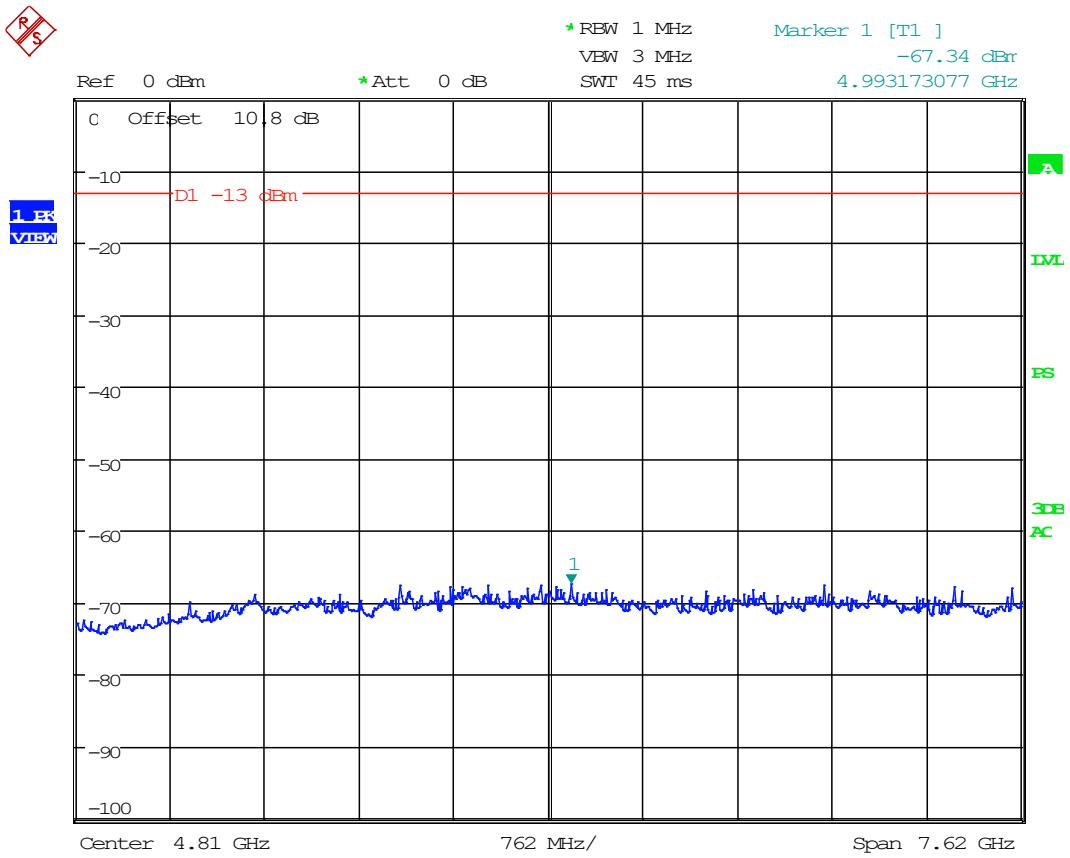
Conducted Spurious Emissions

861.9875 MHz, Downlink, Above 1 GHz



Date: 31.JUL.2020 13:12:29

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2.1053 FIELD STRENGTH OF SPURIOUS EMISSIONS

KDB 935210 4.9 FIELD STRENGTH OF SPURIOUS EMISSIONS

Test Engineer: FR, TR
Test Date: AUG 3 2020

Note: For all measurements greater than 20 dB below limits, at least the 6 highest emissions were shown.

Spot-Check of Class A 800 MHz Uplink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•806.01	1612.03	PK	12.17	H	4.68	28.20	3.00	45.05	-52.33	-13.00	39.33
806.01	1612.03	PK	12.49	V	4.68	28.20	3.00	45.37	-52.01	-13.00	39.01
806.01	2418.04	PK	11.99	H	5.61	31.86	3.00	49.47	-47.91	-13.00	34.91
806.01	2418.04	PK	12.18	V	5.61	31.86	3.00	49.66	-47.72	-13.00	34.72
806.01	3224.05	PK	12.15	H	6.64	32.68	3.00	51.46	-45.91	-13.00	32.91
806.01	3224.05	PK	13.54	V	6.64	32.68	3.00	52.85	-44.52	-13.00	31.52
806.01	4030.06	PK	10.33	H	7.22	33.39	3.00	50.93	-46.44	-13.00	33.44
806.01	4030.06	PK	10.61	V	7.22	33.39	3.00	51.21	-46.16	-13.00	33.16
806.01	4836.08	PK	11.50	H	7.18	33.94	3.00	52.63	-44.75	-13.00	31.75
806.01	4836.08	PK	11.59	V	7.18	33.94	3.00	52.72	-44.66	-13.00	31.66

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•811.50	1623.00	PK	10.63	H	4.70	28.32	3.00	43.64	-53.73	-13.00	40.73
811.50	1623.00	PK	10.65	V	4.70	28.32	3.00	43.66	-53.71	-13.00	40.71
811.50	2434.50	PK	11.97	H	5.61	31.85	3.00	49.43	-47.95	-13.00	34.95
811.50	2434.50	PK	11.18	V	5.61	31.85	3.00	48.64	-48.74	-13.00	35.74
811.50	3246.00	PK	11.97	H	6.65	32.68	3.00	51.30	-46.08	-13.00	33.08
811.50	3246.00	PK	14.54	V	6.65	32.68	3.00	53.87	-43.51	-13.00	30.51
811.50	4057.50	PK	9.85	H	7.18	33.38	3.00	50.41	-46.97	-13.00	33.97
811.50	4057.50	PK	10.37	V	7.18	33.38	3.00	50.93	-46.45	-13.00	33.45
811.50	4869.00	PK	13.35	H	7.27	33.93	3.00	54.56	-42.82	-13.00	29.82
811.50	4869.00	PK	10.85	V	7.27	33.93	3.00	52.06	-45.32	-13.00	32.32

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•816.99	1633.98	PK	12.09	H	4.71	28.44	3.00	45.23	-52.14	-13.00	39.14
816.99	1633.98	PK	10.78	V	4.71	28.44	3.00	43.92	-53.45	-13.00	40.45
816.99	2450.96	PK	12.52	H	5.61	31.85	3.00	49.98	-47.40	-13.00	34.40
816.99	2450.96	PK	12.54	V	5.61	31.85	3.00	50.00	-47.38	-13.00	34.38
816.99	3267.95	PK	11.55	H	6.67	32.66	3.00	50.88	-46.50	-13.00	33.50
816.99	3267.95	PK	10.77	V	6.67	32.66	3.00	50.10	-47.28	-13.00	34.28
816.99	4084.94	PK	9.91	H	7.14	33.39	3.00	50.44	-46.94	-13.00	33.94
816.99	4084.94	PK	10.61	V	7.14	33.39	3.00	51.14	-46.24	-13.00	33.24
816.99	4901.93	PK	10.66	H	7.51	33.92	3.00	52.08	-45.30	-13.00	32.30
816.99	4901.93	PK	10.63	V	7.51	33.92	3.00	52.05	-45.33	-13.00	32.33

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Radiated Emissions

Spot-Check of Class A 800 MHz Downlink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•851.01	335.90	PK	34.35	H	2.11	13.70	3.00	50.16	-47.22	-13.00	34.22
851.01	370.51	PK	32.06	V	2.21	14.12	3.00	48.39	-48.99	-13.00	35.99
851.01	1702.03	PK	12.42	H	4.78	29.10	3.00	46.30	-51.08	-13.00	38.08
851.01	1702.03	PK	10.53	V	4.78	29.10	3.00	44.41	-52.97	-13.00	39.97
851.01	2553.04	PK	11.55	H	5.70	32.60	3.00	49.84	-47.53	-13.00	34.53
851.01	2553.04	PK	10.79	V	5.70	32.60	3.00	49.08	-48.29	-13.00	35.29
851.01	3404.05	PK	12.02	H	6.80	32.65	3.00	51.46	-45.91	-13.00	32.91
851.01	3404.05	PK	12.02	V	6.80	32.65	3.00	51.46	-45.91	-13.00	32.91
851.01	4255.06	PK	11.30	H	7.22	33.35	3.00	51.87	-45.51	-13.00	32.51
851.01	4255.06	PK	9.33	V	7.22	33.35	3.00	49.90	-47.48	-13.00	34.48

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•856.50	335.90	PK	34.22	V	2.11	13.70	3.00	50.03	-47.35	-13.00	34.35
856.50	370.51	PK	31.03	H	2.21	14.12	3.00	47.36	-50.02	-13.00	37.02
856.50	1713.00	PK	11.07	H	4.80	29.24	3.00	45.11	-52.27	-13.00	39.27
856.50	1713.00	PK	10.33	V	4.80	29.24	3.00	44.37	-53.01	-13.00	40.01
856.50	2569.50	PK	10.76	H	5.73	32.53	3.00	49.02	-48.36	-13.00	35.36
856.50	2569.50	PK	10.07	V	5.73	32.53	3.00	48.33	-49.05	-13.00	36.05
856.50	3426.00	PK	11.57	H	6.85	32.62	3.00	51.04	-46.34	-13.00	33.34
856.50	3426.00	PK	12.44	V	6.85	32.62	3.00	51.91	-45.47	-13.00	32.47
856.50	4282.50	PK	9.91	H	7.38	33.42	3.00	50.70	-46.67	-13.00	33.67
856.50	4282.50	PK	10.21	V	7.38	33.42	3.00	51.00	-46.37	-13.00	33.37

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•861.99	335.90	PK	34.00	V	2.11	13.70	3.00	49.81	-47.57	-13.00	34.57
861.99	370.51	PK	30.85	H	2.21	14.12	3.00	47.18	-50.20	-13.00	37.20
861.99	1723.98	PK	11.91	H	4.81	29.38	3.00	46.11	-51.27	-13.00	38.27
861.99	1723.98	PK	10.85	V	4.81	29.38	3.00	45.05	-52.33	-13.00	39.33
861.99	2585.96	PK	10.38	H	5.76	32.46	3.00	48.60	-48.77	-13.00	35.77
861.99	2585.96	PK	11.49	V	5.76	32.46	3.00	49.71	-47.66	-13.00	34.66
861.99	3447.95	PK	12.69	H	6.88	32.60	3.00	52.17	-45.21	-13.00	32.21
861.99	3447.95	PK	10.50	V	6.88	32.60	3.00	49.98	-47.40	-13.00	34.40
861.99	4309.94	PK	13.08	H	7.54	33.48	3.00	54.10	-43.28	-13.00	30.28
861.99	4309.94	PK	10.53	V	7.54	33.48	3.00	51.55	-45.83	-13.00	32.83

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Radiated Emissions

(Data is re-used from test report "2707-20_PT90 800 Booster CLB TestReport" per KDB 484596)

Note: For all measurements greater than 20 dB below limits, at least the 6 highest emissions were shown.

806.0125 MHz, Uplink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•806.01	43.40	PK	28.56	V	0.74	12.82	3.00	42.12	-55.26	-13.00	42.26
806.01	64.33	PK	24.11	H	0.94	6.33	3.00	31.39	-65.99	-13.00	52.99
806.01	335.90	PK	33.48	H	2.11	13.70	3.00	49.29	-48.09	-13.00	35.09
806.01	370.50	PK	28.72	V	2.21	14.12	3.00	45.05	-52.33	-13.00	39.33
806.01	1612.03	PK	10.54	H	4.68	28.20	3.00	43.42	-53.96	-13.00	40.96
806.01	1612.03	PK	10.69	V	4.68	28.20	3.00	43.57	-53.81	-13.00	40.81
806.01	2418.04	PK	10.61	H	5.61	31.86	3.00	48.09	-49.29	-13.00	36.29
806.01	2418.04	PK	10.85	V	5.61	31.86	3.00	48.33	-49.05	-13.00	36.05
806.01	3224.05	PK	11.51	H	6.64	32.68	3.00	50.82	-46.55	-13.00	33.55
806.01	3224.05	PK	12.70	V	6.64	32.68	3.00	52.01	-45.36	-13.00	32.36
806.01	4030.06	PK	8.50	H	7.22	33.39	3.00	49.10	-48.27	-13.00	35.27
806.01	4030.06	PK	9.76	V	7.22	33.39	3.00	50.36	-47.01	-13.00	34.01
806.01	4836.08	PK	10.33	H	7.18	33.94	3.00	51.46	-45.92	-13.00	32.92
806.01	4836.08	PK	11.73	V	7.18	33.94	3.00	52.86	-44.52	-13.00	31.52

811.5 MHz, Uplink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
811.50	42.50	PK	29.13	V	0.73	13.00	3.00	42.86	-54.52	-13.00	41.52
811.50	63.78	PK	25.42	H	0.94	6.44	3.00	32.80	-64.57	-13.00	51.57
811.50	335.90	PK	33.76	H	2.11	13.70	3.00	49.57	-47.81	-13.00	34.81
811.50	364.10	PK	29.12	V	2.18	14.34	3.00	45.64	-51.74	-13.00	38.74
811.50	1623.00	PK	12.12	H	4.70	28.32	3.00	45.13	-52.24	-13.00	39.24
811.50	1623.00	PK	11.71	V	4.70	28.32	3.00	44.72	-52.65	-13.00	39.65
811.50	2434.50	PK	12.62	H	5.61	31.85	3.00	50.08	-47.30	-13.00	34.30
811.50	2434.50	PK	11.51	V	5.61	31.85	3.00	48.97	-48.41	-13.00	35.41
811.50	3246.00	PK	13.50	H	6.65	32.68	3.00	52.83	-44.55	-13.00	31.55
811.50	3246.00	PK	13.06	V	6.65	32.68	3.00	52.39	-44.99	-13.00	31.99
811.50	4057.50	PK	10.97	H	7.18	33.38	3.00	51.53	-45.85	-13.00	32.85
811.50	4057.50	PK	10.10	V	7.18	33.38	3.00	50.66	-46.72	-13.00	33.72
811.50	4869.00	PK	10.81	H	7.27	33.93	3.00	52.02	-45.36	-13.00	32.36
811.50	4869.00	PK	10.40	V	7.27	33.93	3.00	51.61	-45.77	-13.00	32.77

816.9875 MHz, Uplink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
•816.99	43.62	PK	27.65	V	0.74	12.78	3.00	41.17	-56.21	-13.00	43.21
816.99	64.33	PK	25.98	H	0.94	6.33	3.00	33.26	-64.12	-13.00	51.12
816.99	335.90	PK	33.66	H	2.11	13.70	3.00	49.47	-47.91	-13.00	34.91
816.99	373.00	PK	28.85	V	2.22	14.22	3.00	45.29	-52.09	-13.00	39.09
816.99	1633.98	PK	11.25	H	4.71	28.44	3.00	44.39	-52.98	-13.00	39.98
816.99	1633.98	PK	10.82	V	4.71	28.44	3.00	43.96	-53.41	-13.00	40.41
816.99	2450.96	PK	11.52	H	5.61	31.85	3.00	48.98	-48.40	-13.00	35.40
816.99	2450.96	PK	12.04	V	5.61	31.85	3.00	49.50	-47.88	-13.00	34.88
816.99	3267.95	PK	12.59	H	6.67	32.66	3.00	51.92	-45.46	-13.00	32.46
816.99	3267.95	PK	13.28	V	6.67	32.66	3.00	52.61	-44.77	-13.00	31.77
816.99	4084.94	PK	11.86	H	7.14	33.39	3.00	52.39	-44.99	-13.00	31.99
816.99	4084.94	PK	10.64	V	7.14	33.39	3.00	51.17	-46.21	-13.00	33.21
816.99	4901.93	PK	10.62	H	7.51	33.92	3.00	52.04	-45.34	-13.00	32.34
816.99	4901.93	PK	10.37	V	7.51	33.92	3.00	51.79	-45.59	-13.00	32.59

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Radiated Emissions

851.0125 MHz, Downlink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
851.01	43.07	PK	28.17	V	0.74	12.89	3.00	41.79	-55.58	-13.00	42.58
851.01	64.60	PK	26.84	H	0.95	6.28	3.00	34.07	-63.31	-13.00	50.31
851.01	335.90	PK	31.17	H	2.11	13.70	3.00	46.98	-50.40	-13.00	37.40
851.01	375.64	PK	30.04	V	2.23	14.36	3.00	46.63	-50.75	-13.00	37.75
851.01	1702.03	PK	11.10	H	4.78	29.10	3.00	44.98	-52.40	-13.00	39.40
851.01	1702.03	PK	11.28	V	4.78	29.10	3.00	45.16	-52.22	-13.00	39.22
851.01	2553.04	PK	11.22	H	5.70	32.60	3.00	49.51	-47.86	-13.00	34.86
851.01	2553.04	PK	11.15	V	5.70	32.60	3.00	49.44	-47.93	-13.00	34.93
851.01	3404.05	PK	11.58	H	6.80	32.65	3.00	51.02	-46.35	-13.00	33.35
851.01	3404.05	PK	11.26	V	6.80	32.65	3.00	50.70	-46.67	-13.00	33.67
851.01	4255.06	PK	10.59	H	7.22	33.35	3.00	51.16	-46.22	-13.00	33.22
851.01	4255.06	PK	10.27	V	7.22	33.35	3.00	50.84	-46.54	-13.00	33.54

856.5 MHz, Downlink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
856.50	63.78	PK	27.38	H	0.94	6.44	3.00	34.76	-62.61	-13.00	49.61
856.50	63.78	PK	30.00	V	0.94	6.44	3.00	37.38	-59.99	-13.00	46.99
856.50	335.90	PK	31.36	H	2.11	13.70	3.00	47.17	-50.21	-13.00	37.21
856.50	374.36	PK	30.50	V	2.22	14.27	3.00	47.00	-50.38	-13.00	37.38
856.50	1713.00	PK	12.63	H	4.80	29.24	3.00	46.67	-50.71	-13.00	37.71
856.50	1713.00	PK	11.77	V	4.80	29.24	3.00	45.81	-51.57	-13.00	38.57
856.50	2569.50	PK	11.23	H	5.73	32.53	3.00	49.49	-47.89	-13.00	34.89
856.50	2569.50	PK	11.76	V	5.73	32.53	3.00	50.02	-47.36	-13.00	34.36
856.50	3426.00	PK	11.56	H	6.85	32.62	3.00	51.03	-46.35	-13.00	33.35
856.50	3426.00	PK	11.63	V	6.85	32.62	3.00	51.10	-46.28	-13.00	33.28
856.50	4282.50	PK	9.66	H	7.38	33.42	3.00	50.45	-46.92	-13.00	33.92
856.50	4282.50	PK	10.55	V	7.38	33.42	3.00	51.34	-46.03	-13.00	33.03

861.9875 MHz, Downlink

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBm)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dBm)
861.99	43.35	PK	29.13	V	0.74	12.83	3.00	42.70	-54.68	-13.00	41.68
861.99	63.78	PK	29.28	H	0.94	6.44	3.00	36.66	-60.71	-13.00	47.71
861.99	335.90	PK	30.90	V	2.11	13.70	3.00	46.71	-50.67	-13.00	37.67
861.99	335.90	PK	33.80	H	2.11	13.70	3.00	49.61	-47.77	-13.00	34.77
861.99	1723.98	PK	10.84	H	4.81	29.38	3.00	45.04	-52.34	-13.00	39.34
861.99	1723.98	PK	12.40	V	4.81	29.38	3.00	46.60	-50.78	-13.00	37.78
861.99	2585.96	PK	11.58	H	5.76	32.46	3.00	49.80	-47.57	-13.00	34.57
861.99	2585.96	PK	11.61	V	5.76	32.46	3.00	49.83	-47.54	-13.00	34.54
861.99	3447.95	PK	12.49	H	6.88	32.60	3.00	51.97	-45.41	-13.00	32.41
861.99	3447.95	PK	11.74	V	6.88	32.60	3.00	51.22	-46.16	-13.00	33.16
861.99	4309.94	PK	10.11	H	7.54	33.48	3.00	51.13	-46.25	-13.00	33.25
861.99	4309.94	PK	10.04	V	7.54	33.48	3.00	51.06	-46.32	-13.00	33.32

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2.1055 FREQUENCY STABILITY

KDB 935210 4.8 FREQUENCY STABILITY

90.213 FREQUENCY STABILITY

Test Engineer:_____
Test Date:_____

N/A. Device does not use a frequency determining element and is exempt.

N/A. There is no Transient Frequency Response compliance requirement for devices which operate in the 800 MHz bands.

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END OF TEST REPORT

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