

LABORATORY TEST REPORT

RADIO PERFORMANCE MEASUREMENTS

for the

TMCN0B Mobile Transceiver

Tested in accordance with:

FCC 47 CFR Parts 22, 27, 80 and 90

RSS-119 Issue 12
RSS-Gen Issue 5

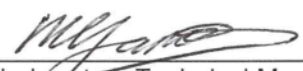
Report Revision: 1

Issue Date: 1 May 2025

PREPARED BY: I.D. Russell


Test Technician

CHECKED & APPROVED BY: M. C. James


Laboratory Technical Manager



FCC Registration: 838288
ISED Registration: 737A

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation.

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REVISION HISTORY

Date	Revision	Comments
1 May 2025	1	Initial test report

INTRODUCTION

Type approval testing of the TMCN0B, 50/40/35/30 Watt, Mobile Transceiver in order to demonstrate compliance with FCC 47 Parts 22, 27, 80 and 90, and RSS-119 Issue 12 & RSS-Gen Issue 5. This radio supports Analogue, Digital FFSK, Digital Mobile Radio (DMR), APCO P25 Phase-1 and APCO P25 Phase-2 modulations.

REPORT PREPARED FOR

Tait International Ltd
245 Wooldridge Road
Harewood
Christchurch 8051
New Zealand

DESCRIPTION OF SAMPLE

Manufacturer: Tait International Limited
Equipment: Mobile Transceiver
Type: TMCN0B
Product Code: T02-00014-UFZZ
Serial Number(s): 21708860 & 21708864

Modulation		Channel Spacing	Speech Channels	Symbol Rate (symbols/sec)	Data Rate (bps)
Analogue FM		12.5 kHz	1	-	-
Analogue FM		20.0 kHz	1		
Analogue FM		25.0 kHz	1	-	-
FFSK	Fast Frequency Shift Keying	12.5 kHz	-	1200	1200
		20.0 kHz	-	1200	1200
		25.0 kHz	-	1200	1200
		12.5 kHz	-	2400	2400
		20.0 kHz	-	2400	2400
		25.0 kHz	-	2400	2400
Digital Mobile Radio (DMR)	4 Level FSK (2 slot TDMA) ETSI TS102 361-1	12.5 kHz	2	4800	9600
APCO P25 Phase 1	C4FM (TIA 102)	12.5 kHz	1	4800	9600
APCO P25 Phase 2	H-CPM (2 slot TDMA) (TIA 102)	12.5 kHz	2	6000	12000

HARDWARE & SOFTWARE

Quantity: 2

	Head	Torso
Hardware ID	TMBC62-0100_0001	TMCB14-N010_0003
Firmware Package	QIDUAL_RFET7428x02.0007	QIDUAL_RFET7428x02.0007

TEST CONDITIONS

All testing was performed between 6 March → 30 April 2025, and under the following conditions:

Ambient temperature: 15°C → 30°C
Relative Humidity: 20% → 75%
Standard Test Voltage: 13.8 V_{DC}

PROGRAMMING APPLICATION NAME
DMR and P25 Terminals Programming Application

Version
Tait-ALL-20.25.14.118-Alpha (1)

TEST REQUIREMENTS AND RESULT SUMMARY

ISED Specification	FCC Specification	Test Name	Test Methods	Result
RSS-119 5.4	FCC 47 CFR 2.1046	Transmitter Output Power (Conducted)	ANSI C63.26 5.2.4.2	P
No specification	FCC 47 CFR 2.1047 (a)	Transmitter Audio Frequency Response – Pre-emphasis	ANSI C63.26 5.3.3.2	P
No specification	FCC 47 CFR 2.1047 (b)	Transmitter Modulation Limiting	ANSI C63.26 5.3.2	P
RSS-119 5.5	FCC 47 CFR 2.1049 (c)	Transmitter Occupied (99%) Bandwidth	ANSI C63.26 5.4.4	P
RSS-119 5.5	FCC 47 CFR 90.210	Transmitter Spectrum Masks	ANSI C63.26 5.7.3	P
RSS-119 5.8.9	FCC 47 CFR 90.543	Adjacent Channel Power Ratio	TIA-603-E 2.2.14 TIA-102.CAAA-E 2.2.8	P
RSS-119 5.8	FCC 47 CFR 2.1051	Transmitter Spurious Emissions (Conducted)	ANSI C63.26 5.7	P
RSS-119 5.8	FCC 47 CFR 2.1053	Transmitter Spurious Emissions (Radiated)	TIA-603-E 2.2.12	P
No specification	FCC CFR 90.543	Transmitter Radiated Emissions in the GNSS Band	TIA-603-E 2.2.12	P
RSS-119 5.8.9.2 rad	No specification	Transmitter Conducted Emissions in the GNSS Band	ANSI C63.26 6.5.2.7.4	P
RSS-119 5.9	FCC 47 CFR 90.214	Transient Frequency Behaviour	ANSI C63.26 6.5.2.2	P
RSS-119 5.3	FCC 47 CFR 2.1055, FCC 47 CFR 90.213	Transmitter Frequency Stability - Temperature	ANSI C63.26 5.6.4	P
RSS-119 5.3	FCC 47 CFR 2.1055 (d) (1), FCC 47 CFR 90.213	Transmitter Frequency Stability - Voltage	ANSI C63.26 5.6.5	P
RSS-Gen 7.4	FCC 47 CFR 15.111	Receiver Spurious Emissions (Conducted)	TIA-603-E 2.1.2	P

Test Case Result Definitions	
No test Performed	N
Test does not apply to the test object	N/A
Test object meets requirements	P (Pass)
Test object does not meet requirements	F (Fail)
Test object is not conclusive	I (Inconclusive)

Comments:
Sample B (serial number 21708864) was used for testing Frequency Stability Temperature, Audio Frequency Response, Modulation Limiting, and Spectrum Masks.
Sample A (serial number 21708860) was used for all other tests

STATEMENT OF COMPLIANCE

We, TELTEST LABORATORIES of 558 Wairakei Road, Christchurch, New Zealand, declare under our sole responsibility that the product:

Equipment: Mobile Transceiver
Type: TMCN0B
Product Code: T02-00014-UFZZ
Serial Number(s): 21708860 & 21708864
Quantity: 2

to which this declaration relates, is in conformity with the following standards:

FCC 47 CFR Parts 22, 27, 80 and 90

RSS-119 Issue 12 & RSS-Gen Issue 5

Signature:



M. C. James
Laboratory Technical Manager

Date:

8 May 2025

The results obtained in this test report pertain only to the item(s) tested. Teltest does not make any claims of compliance for samples or variants that were not tested.

95% measurement uncertainties are stated in this report but are not applied in the assessment of results.

CHANNEL TABLE

Group 1

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
138M 50W NB	1	138.050	138.025	50	12.5
138M 10W NB	2	138.050	138.025	10	12.5
143M 50W NB	3	143.950	143.975	50	12.5
143M 10W NB	4	143.950	143.975	10	12.5
148M 50W NB	5	148.050	148.025	50	12.5
148M 10W NB	6	148.050	148.025	10	12.5
150M 50W NB	7	150.050	150.025	50	12.5
150M 10W NB	8	150.050	150.025	10	12.5
151M 50W NB	9	150.075	150.050	50	12.5
151M 10W NB	10	150.075	150.050	10	12.5
156M 50W NB	11	156.050	156.025	50	12.5
156M 10W NB	12	156.050	156.025	10	12.5
161M 50W NB	13	161.950	161.975	50	12.5
161M 10W NB	14	161.950	161.975	10	12.5
162M 50W NB	15	162.050	162.025	50	12.5
162M 10W NB	16	162.050	162.025	10	12.5
173M 50W NB	17	173.950	173.975	50	12.5
173M 10W NB	18	173.950	173.975	10	12.5
138M 50W WB	19	138.050	138.025	50	25.0
138M 10W WB	20	138.050	138.025	10	25.0
143M 50W WB	21	143.950	143.975	50	25.0
143M 10W WB	22	143.950	143.975	10	25.0
148M 50W WB	23	148.050	148.025	50	25.0
148M 10W WB	24	148.050	148.025	10	25.0
150M 50W WB	25	150.050	150.025	50	25.0
150M 10W WB	26	150.050	150.025	10	25.0
151M 50W WB	27	150.075	150.050	50	25.0
151M 10W WB	28	150.075	150.050	10	25.0
156M 50W WB	29	156.050	156.025	50	25.0
156M 10W WB	30	156.050	156.025	10	25.0
161M 50W WB	31	161.950	161.975	50	25.0
161M 10W WB	32	161.950	161.975	10	25.0
162M 50W WB	33	162.050	162.025	50	25.0
162M 10W WB	34	162.050	162.025	10	25.0
173M 50W WB	35	173.950	173.975	50	25.0
173M 10W WB	36	173.950	173.975	10	25.0

Group 2

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
378M 40W NB	1	378.150	378.125	40	12.5
378M 10W NB	2	378.150	378.125	10	12.5
406M 40W NB	3	406.150	406.125	40	12.5
406M 10W NB	4	406.150	406.125	10	12.5
418M 40W NB	5	418.050	418.025	40	12.5
418M 10W NB	6	418.050	418.025	10	12.5
429M 40W NB	7	429.950	429.975	40	12.5
429M 10W NB	8	429.950	429.975	10	12.5
438M 40W NB	9	439.050	438.025	40	12.5
438M 10W NB	10	438.050	438.025	10	12.5
450M 40W NB	11	450.050	450.025	40	12.5
450M 10W NB	12	450.050	450.025	10	12.5
460M 40W NB	13	460.050	460.025	40	12.5
460M 10W NB	14	460.050	460.025	10	12.5
469M 40W NB	15	469.950	469.975	40	12.5
469M 10W NB	16	469.950	469.975	10	12.5
491M 40W NB	17	491.050	491.025	40	12.5
491M 10W NB	18	491.050	491.025	10	12.5
511M 40W NB	19	511.950	511.975	40	12.5
511M 10W NB	20	511.950	511.975	10	12.5
378M 40W WB	21	378.150	378.125	40	25.0
378M 10W WB	22	378.150	378.125	10	25.0
406M 40W WB	23	406.150	406.125	40	25.0
406M 10W WB	24	406.150	406.125	10	25.0
418M 40W WB	25	418.050	418.025	40	25.0
418M 10W WB	26	418.050	418.025	10	25.0
429M 40W WB	27	429.950	429.975	40	25.0
429M 10W WB	28	429.950	429.975	10	25.0
438M 40W WB	29	439.050	438.025	40	25.0
438M 10W WB	30	438.050	438.025	10	25.0
450M 40W WB	31	450.050	450.025	40	25.0
450M 10W WB	32	450.050	450.025	10	25.0
460M 40W WB	33	460.050	460.025	40	25.0
460M 10W WB	34	460.050	460.025	10	25.0
469M 40W WB	35	469.950	469.975	40	25.0
469M 10W WB	36	469.950	469.975	10	25.0
491M 40W WB	37	491.050	491.025	40	25.0
491M 10W WB	38	491.050	491.025	10	25.0
511M 40W WB	39	511.950	511.975	40	25.0
511M 10W WB	40	511.950	511.975	10	25.0

Group 3

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
757M 30W NB	1	757.525	757.500	30	12.5
757M 2W NB	2	757.525	757.500	2	12.5
768M 30W NB	3	768.050	768.025	30	12.5
768M 2W NB	4	768.050	768.025	2	12.5
769M 30W NB	5	769.050	769.075	30	12.5
769M 2W NB	6	769.050	769.075	2	12.5
774M 30W NB	7	774.925	774.900	30	12.5
774M 2W NB	8	774.925	774.900	2	12.5
775M 30W NB	9	775.950	775.975	30	12.5
775M 2W NB	10	775.950	775.975	2	12.5
798M 30W NB	11	776.000	798.025	30	12.5
789M 2W NB	12	776.000	798.025	2	12.5
799M 30W NB	13	850.000	799.075	30	12.5
799M 2W NB	14	850.000	799.075	2	12.5
804M 30W NB	15	850.000	804.900	30	12.5
804M 2W NB	16	850.000	804.900	2	12.5
805M 30W NB	17	850.000	805.975	30	12.5
805M 2W NB	18	850.000	805.975	2	12.5
757M 30W MB	19	757.525	757.500	30	20.0
757M 2W MB	20	757.525	757.500	2	20.0
768M 30W MB	21	768.050	768.025	30	20.0
768M 2W MB	22	768.050	768.025	2	20.0
769M 30W MB	23	769.050	769.075	30	20.0
769M 2W MB	24	769.050	769.075	2	20.0
774M 30W MB	25	774.925	774.900	30	20.0
774M 2W MB	26	774.925	774.900	2	20.0
775M 30W MB	27	775.950	775.975	30	20.0
775M 2W MB	28	775.950	775.975	2	20.0
798M 30W MB	29	776.000	798.025	30	20.0
789M 2W MB	30	776.000	798.025	2	20.0
799M 30W MB	31	850.000	799.075	30	20.0
799M 2W MB	32	850.000	799.075	2	20.0
804M 30W MB	33	850.000	804.900	30	20.0
804M 2W MB	34	850.000	804.900	2	20.0
805M 30W MB	35	850.000	805.975	30	20.0
805M 2W MB	36	850.000	805.975	2	20.0
757M 30W WB	37	757.525	757.500	30	25.0
757M 2W WB	38	757.525	757.500	2	25.0
768M 30W WB	39	768.050	768.025	30	25.0
768M 2W WB	40	768.050	768.025	2	25.0

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
769M 30W WB	41	769.050	769.075	30	25.0
769M 2W WB	42	769.050	769.075	2	25.0
774M 30W WB	43	774.925	774.900	30	25.0
774M 2W WB	44	774.925	774.900	2	25.0
775M 30W WB	45	775.950	775.975	30	25.0
775M 2W WB	46	775.950	775.975	2	25.0
798M 30W WB	47	776.000	798.025	30	25.0
789M 2W WB	48	776.000	798.025	2	25.0
799M 30W WB	49	850.000	799.075	30	25.0
799M 2W WB	50	850.000	799.075	2	25.0
804M 30W WB	51	850.000	804.900	30	25.0
804M 2W WB	52	850.000	804.900	2	25.0
805M 30W WB	53	850.000	805.975	30	25.0
805M 2W WB	54	850.000	805.975	2	25.0

Group 4

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
806M 35W NB	1	850.000	806.025	35	12.5
806M 2W NB	2	850.000	806.025	2	12.5
815M 35W NB	3	850.000	815.025	35	12.5
815M 2W NB	4	850.000	815.025	2	12.5
823M 35W NB	5	850.000	823.975	35	12.5
823M 2W NB	6	850.000	823.975	2	12.5
851M 35W NB	7	851.050	851.025	35	12.5
851M 2W NB	8	851.050	851.025	2	12.5
861M 35W NB	9	860.050	860.025	35	12.5
861M 2W NB	10	860.050	860.025	2	12.5
868M 35W NB	11	868.950	868.975	35	12.5
868M 2W NB	12	868.950	868.975	2	12.5
806M 35W MB	13	850.000	806.025	35	20.0
806M 2W MB	14	850.000	806.025	2	20.0
815M 35W MB	15	850.000	815.025	35	20.0
815M 2W MB	16	850.000	815.025	2	20.0
823M 35W MB	17	850.000	823.975	35	20.0
823M 2W MB	18	850.000	823.975	2	20.0
851M 35W MB	19	851.050	851.025	35	20.0
851M 2W MB	20	851.050	851.025	2	20.0
861M 35W MB	21	860.050	860.025	35	20.0
861M 2W MB	22	860.050	860.025	2	20.0
868M 35W MB	23	868.950	868.975	35	20.0

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watt	Channel Spacing
868M 2W MB	24	868.950	868.975	2	20.0
806M 35W WB	25	850.000	806.025	35	25.0
806M 2W WB	26	850.000	806.025	2	25.0
815M 35W WB	27	850.000	815.025	35	25.0
815M 2W WB	28	850.000	815.025	2	25.0
823M 35W WB	29	850.000	823.975	35	25.0
823M 2W WB	30	850.000	823.975	2	25.0
851M 35W WB	31	851.050	851.025	35	25.0
851M 2W WB	32	851.050	851.025	2	25.0
861M 35W WB	33	860.050	860.025	35	25.0
861M 2W WB	34	860.050	860.025	2	25.0
868M 35W WB	35	868.950	868.975	35	25.0
868M 2W WB	36	868.950	868.975	2	25.0

Group 5

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watts	Channel Spacing
896M 30W NB	1	935.000	896.025	30	12.5
896M 2W NB	2	935.000	896.025	2	12.5
900M 30W NB	3	935.000	900.975	30	12.5
900M 2W NB	4	935.000	900.975	2	12.5
902M 30W NB	5	935.000	902.025	30	12.5
902M 2W NB	6	935.000	902.025	2	12.5
915M 30W NB	7	935.000	915.025	30	12.5
915M 2W NB	8	935.000	915.025	2	12.5
928M 30W NB	9	935.000	928.025	30	12.5
928M 2W NB	10	935.000	928.025	2	12.5
931M 30W NB	11	935.000	931.525	30	12.5
931M 2W NB	12	935.000	931.525	2	12.5
935M 30W NB	13	935.050	935.025	30	12.5
935M 2W NB	14	935.050	935.025	2	12.5
939M 30W NB	15	939.850	939.875	30	12.5
939M 2W NB	16	939.850	939.875	2	12.5
896M 30W WB	17	935.000	896.025	30	25.0
896M 2W WB	18	935.000	896.025	2	25.0
900M 30W WB	19	935.000	900.975	30	25.0
900M 2W WB	20	935.000	900.975	2	25.0
902M 30W WB	21	935.000	902.025	30	25.0
902M 2W WB	22	935.000	902.025	2	25.0

Label	Channel Number	Receive Frequency MHz	Transmit Frequency MHz	Power Watt	Channel Spacing
915M 30W WB	23	935.000	915.025	30	25.0
915M 2W WB	24	935.000	915.025	2	25.0
928M 30W WB	25	935.000	928.025	30	25.0
928M 2W WB	26	935.000	928.025	2	25.0
931M 30W WB	27	935.000	931.525	30	25.0
931M 2W WB	28	935.000	931.525	2	25.0
935M 30W WB	29	935.050	935.025	30	25.0
935M 2W WB	30	935.050	935.025	2	25.0
939M 30W WB	31	939.850	939.875	30	25.0
939M 2W WB	32	939.850	939.875	2	25.0

Although not a frequency allocated by FCC or ISSED for these rule parts, selected tests were performed at a transmit frequency of 378.125 MHz by customer request.

LIST OF ANTENNAS INTENDED FOR USE WITH THIS DEVICE

The equipment tested has a 50 Ω coaxial antenna connection. Except for the measurement of radiated emissions in the GNSS band, no antenna was fitted to the EUT during testing the parameters in this report.

The radio manufacturer (Tait) does not manufacture specific antennas for this equipment but suggests the following from other suppliers.

Manufacturer	Part Number	Tuning Bandwidth and / or Frequency Range - MHz	Gain - dBi
RFI	LM04-GA30 / 007-00104-00	138-170 MHz 480-505 MHz	1 4.5
RFI	LM04-GA31 / 007-00105-00	138-166 MHz	4.5
RFI	LM04-GA36 / 007-00111-00	138-174 MHz	3.15
RFI	LM04-GA32 / 007-00106-00	380-470 MHz	4.15
RFI	LM04-GA35 / 007-00109-00	380-400 MHz	2
RFI	LM04-GA30 / 007-00104-00	138-170 MHz 480-505 MHz	4.5
RFI	SW1495 - MB14	824-896 MHz	5.15
RFI	DSW1402 - MB14	118 - 1000 MHz	2

MODULATION TYPES, NECESSARY BANDWIDTH & EMISSION DESIGNATORS

MODULATION TYPES:

F3E	Analogue Frequency Modulation (FM)	
G3E	Analogue Phase Modulation (FM)	
F2D	FFSK	1200 bps and 2400 bps
FXW	DMR Digital Voice	9600 bps
FXD	DMR Digital Data	9600 bps
F1E	P25 phase 1 Digital Voice	9600 bps
F1D	P25 phase 1 Digital Data	9600 bps
F1W	P25 phase 2 Digital Voice / Data	12000 bps

CHANNEL SPACING: 12.5 kHz 25.0 kHz

EMISSION DESIGNATORS:

	12.5 kHz	20.0 kHz	25.0 kHz
Analogue FM	11K0F3E	14K0F3E	16K0F3E, 16K0G3E
FFSK Data 1200 bps	6K60F2D	8K40F2D	9K60F2D
FFSK Data 2400 bps	7K80F2D	9K60F2D	10K8F2D
Digital Voice DMR	8K00FXW		
Digital Data DMR	8K00FXD		
Digital Voice P25 phase 1	8K10F1E		
Digital Data P25 phase 1	8K10F1D		
Digital Data and Voice P25 phase 2	8K10F1W		

CALCULATIONS

Equation: $B_n = 2M + 2Dk$

(M is highest modulating frequency; D is peak allowable deviation; k is a constant of 1 for FM)

Analogue Voice: 12.5 kHz Bandwidth

Necessary bandwidth

M = 3.0 kHz

D = 2.5 kHz

$$B_n = (2 \times 3.0) + (2 \times 2.5) \times 1$$

$$= 11.0 \text{ kHz}$$

Emission Designator

11K0F3E

F3E represents an FM voice transmission

Analogue Voice: 20.0 kHz Bandwidth

Necessary bandwidth

M = 3.0 kHz

D = 4.0 kHz

$$B_n = (2 \times 3.0) + (2 \times 4.0) \times 1$$

$$= 14.0 \text{ kHz}$$

Emission Designator

14K0F3E

F3E represents an FM voice transmission

Analogue Voice: 25.0 kHz Bandwidth

Necessary bandwidth

M = 3.0 kHz

D = 5.0 kHz

$$B_n = (2 \times 3.0) + (2 \times 5.0) \times 1$$

$$= 16.0 \text{ kHz}$$

Emission Designators

16K0F3E, 16K0G3E

F3E represents an FM voice transmission

G3E represents a PM voice transmission

Emission Designators – Continued

Fast Frequency Shift Keying (FFSK – 1200 bps): 12.5 kHz Channel Spacing

Necessary bandwidth

M = 1.8 kHz

D = 1.5 kHz (60% of peak deviation)

$$B_n = (2 \times 1.8) + (2 \times 1.5) \times 1 \\ = 6.6 \text{ kHz}$$

Emission Designator

6K60F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Fast Frequency Shift Keying (FFSK – 1200 bps): 20.0 kHz Channel Spacing

Necessary bandwidth

M = 1.8 kHz

D = 2.4 kHz (60% of peak deviation)

$$B_n = (2 \times 1.8) + (2 \times 2.4) \times 1 \\ = 8.4 \text{ kHz}$$

Emission Designator

8K40F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Fast Frequency Shift Keying (FFSK – 1200 bps): 25.0 kHz Channel Spacing

Necessary bandwidth

M = 1.8 kHz

D = 3.0 kHz (60% of peak deviation)

$$B_n = (2 \times 1.8) + (2 \times 3.0) \times 1 \\ = 9.6 \text{ kHz}$$

Emission Designator

9K60F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Fast Frequency Shift Keying (FFSK – 2400 bps): 12.5 kHz Channel Spacing

Necessary bandwidth

M = 2.4 kHz

D = 1.5 kHz (60% of peak deviation)

$$B_n = (2 \times 2.4) + (2 \times 1.5) \times 1 \\ = 7.8 \text{ kHz}$$

Emission Designator

7K80F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Fast Frequency Shift Keying (FFSK – 2400 bps): 20.0 kHz Channel Spacing

Necessary bandwidth

M = 2.4 kHz

D = 2.4 kHz (60% of peak deviation)

$$B_n = (2 \times 2.4) + (2 \times 2.4) \times 1 \\ = 9.6 \text{ kHz}$$

Emission Designator

9K60F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Fast Frequency Shift Keying (FFSK – 2400 bps): 25.0 kHz Channel Spacing

Necessary bandwidth

M = 2.4 kHz

D = 3.0 kHz (60% of peak deviation)

$$B_n = (2 \times 2.4) + (2 \times 3.0) \times 1 \\ = 10.8 \text{ kHz}$$

Emission Designator

10K80F2D

F2D represents a FM data transmission with the use of a modulating sub carrier

Emission Designators – Continued

DMR: Digital Voice, 12.5 kHz Channel Spacing

99% bandwidth
= 8.0 kHz

Emission Designator

8K00FXW

FXW represents an FM Time Division Multiple
Access (TDMA) combination of data and telephony

DMR: Digital Data, 12.5 kHz Channel Spacing

99% bandwidth
= 8.0 kHz

Emission Designator

8K00FXD

FXD represents FM Time Division Multiple Access (TDMA) data only

APCO P25 Phase 1: Digital Voice 12.5 kHz Channel Spacing

99% bandwidth
= 8.1 kHz

Emission Designator

8K10F1E

F1E represents a digital FM voice transmission

APCO P25 Phase 1: Digital Data 12.5 kHz Channel Spacing

99% bandwidth
= 8.1 kHz

Emission Designator

8K10F1D

F1D represents a digital FM data transmission

APCO P25 Phase 2: Digital Voice 12.5 kHz Channel Spacing

99% bandwidth
= 8.1 kHz

Emission Designator

8K10F1W

F1W represents a single FM telephony channel

APCO P25 Phase 2: Digital Data 12.5 kHz Channel Spacing

99% bandwidth
= 8.1 kHz

Emission Designator

8K10F1W

F1W represents digital FM data transmission

TEST RESULTS

TRANSMITTER OUTPUT POWER (CONDUCTED)

SPECIFICATION: FCC 47 CFR 2.1046

RSS-119 5.4

GUIDE: ANSI C63.26 5.2.4.2

MEASUREMENT PROCEDURE:

1. Refer Annex A for Equipment set up.
2. The coaxial attenuator has an impedance of 50 Ohms.
3. The unmodulated output power was measured with an average responding RF Power meter. (all modulations are constant envelope).

EXAMPLE CALCULATION:

Power in dBm =	Measured power (dBm) + attenuator and cable loss (dB)
Chan 1 power (dBm) =	20.22 dBm + 30.1 dB
	= 50.32 dBm
Power in Watts =	$(10^{(50.32 \text{ dBm})/10})/1000$
	= 107.7 W

MEASUREMENT UNCERTAINTY: $\pm 0.6\text{dB}$

MEASUREMENT RESULTS:

Manufacturer's Rated Output Power:

Switchable: 50 W and 10 W

Nominal 50 W	Measured (W)	Variation (%)	Variation (dB)
138.025 MHz	50.7	1.5	0.1
143.975 MHz	48.6	-2.7	-0.1
148.025 MHz	48.7	-2.7	-0.1
150.025 MHz	51.5	3.0	0.1
150.050 MHz	51.6	3.2	0.1
156.025 MHz	54.6	9.2	0.4
161.975 MHz	55.1	10.1	0.4
162.025 MHz	54.9	9.9	0.4
173.975 MHz	50.8	1.7	0.1

Nominal 10 W	Measured (W)	Variation (%)	Variation (dB)
138.025 MHz	10.5	4.6	0.2
143.975 MHz	10.1	0.7	0.0
148.025 MHz	9.9	-1.1	0.0
150.025 MHz	10.2	2.0	0.1
150.050 MHz	10.3	3.0	0.1
156.025 MHz	10.1	0.8	0.0
161.975 MHz	10.0	0.4	0.0
162.025 MHz	10.1	0.7	0.0
173.975 MHz	10.5	4.8	0.2

Transmitter Output Power (Conducted) – Continued

Manufacturer's Rated Output Power:

Switchable: 40 W and 10 W

Nominal 40 W	Measured (W)	Variation (%)	Variation (dB)
378.125 MHz	41.0	2.6	0.1
406.125 MHz	40.0	-0.1	0.0
418.025 MHz	39.3	-1.9	-0.1
429.975 MHz	40.1	0.3	0.0
438.025 MHz	40.7	1.7	0.1
450.025 MHz	41.4	3.4	0.1
460.025 MHz	40.1	0.3	0.0
469.975 MHz	38.7	-3.2	-0.1
491.025 MHz	43.8	9.4	0.4
511.975 MHz	40.7	1.9	0.1

Nominal 10 W	Measured (W)	Variation (%)	Variation (dB)
378.125 MHz	9.7	-3.1	-0.1
406.125 MHz	10.1	1.1	0.0
418.025 MHz	9.5	-5.0	-0.2
429.975 MHz	9.9	-0.9	0.0
438.025 MHz	10.6	5.5	0.2
450.025 MHz	10.3	3.2	0.1
460.025 MHz	9.9	-1.1	0.0
469.975 MHz	9.9	-1.4	-0.1
491.025 MHz	10.4	3.8	0.2
511.975 MHz	10.5	5.5	0.2

Transmitter Output Power (Conducted) – Continued

Manufacturer's Rated Output Power:

Switchable: 30 W and 2 W

Nominal 30 W	Measured (W)	Variation (%)	Variation (dB)
757.500 MHz	30.6	2.0	0.1
768.025 MHz	31.0	3.3	0.1
769.075 MHz	30.9	2.8	0.1
774.900 MHz	31.8	6.1	0.3
775.975 MHz	32.1	7.1	0.3
798.025 MHz	33.3	11.1	0.5
799.075 MHz	32.5	8.4	0.4
804.900 MHz	31.6	5.4	0.2
805.975 MHz	30.7	2.4	0.1

Nominal 2 W	Measured (W)	Variation (%)	Variation (dB)
757.500 MHz	2.1	2.7	0.1
768.025 MHz	2.1	4.7	0.2
769.075 MHz	2.1	3.1	0.1
774.900 MHz	2.1	3.4	0.1
775.975 MHz	2.3	15.3	0.6
798.025 MHz	2.2	12.4	0.5
799.075 MHz	2.2	9.4	0.4
804.900 MHz	2.2	11.7	0.5
805.975 MHz	2.2	8.9	0.4

Manufacturer's Rated Output Power:

Switchable: 35 W and 2 W

Nominal 35 W	Measured (W)	Variation (%)	Variation (dB)
806.025 MHz	35.0	0.0	0.0
815.025 MHz	35.4	1.2	0.1
823.975 MHz	36.6	4.7	0.2
851.025 MHz	35.7	2.0	0.1
860.025 MHz	35.0	0.0	0.0
868.975 MHz	35.8	2.1	0.1

Nominal 2 W	Measured (W)	Variation (%)	Variation (dB)
806.025 MHz	2.2	8.5	0.4
815.025 MHz	2.2	11.7	0.5
823.975 MHz	2.2	10.1	0.4
851.025 MHz	2.1	7.1	0.3
860.025 MHz	2.1	7.1	0.3
868.975 MHz	2.2	9.0	0.4

Transmitter Output Power (Conducted) – Continued

Manufacturer's Rated Output Power:

Switchable: 30 W and 2 W

Nominal 30 W	Measured (W)	Variation (%)	Variation (dB)
896.025 MHz	31.3	4.5	0.2
900.975 MHz	31.1	3.5	0.2
902.025 MHz	30.6	2.0	0.1
915.025 MHz	29.8	-0.5	0.0
928.025 MHz	31.9	6.4	0.3
931.525 MHz	32.7	9.0	0.4
935.025 MHz	33.1	10.4	0.4
939.875 MHz	33.4	11.3	0.5

Nominal 2 W	Measured (W)	Variation (%)	Variation (dB)
896.025 MHz	1.9	-3.1	-0.1
900.975 MHz	2.0	0.3	0.0
902.025 MHz	2.0	-0.6	0.0
915.025 MHz	2.0	2.0	0.1
928.025 MHz	2.0	-0.9	0.0
931.525 MHz	2.0	0.1	0.0
935.025 MHz	2.0	1.4	0.1
939.875 MHz	2.1	3.2	0.1

LIMIT CLAUSES:

FCC 47 CFR 90.205 (s)

The output power shall not exceed by more than 20%... the manufacturer's rated output power for the particular transmitter specifically listed on the authorization.

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The output power shall be within ± 1.0 dB of the manufacturer's rated power.

TRANSMITTER AUDIO FREQUENCY RESPONSE - PRE-EMPHASIS

SPECIFICATION: FCC 47 CFR 2.1047 (a)

GUIDE: ANSI C63.26 5.3.3.2

MEASUREMENT PROCEDURE:

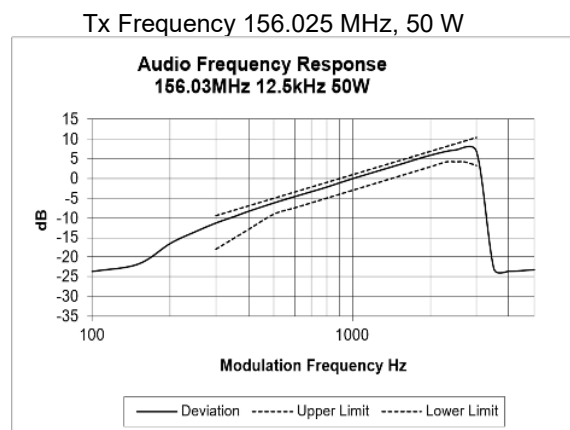
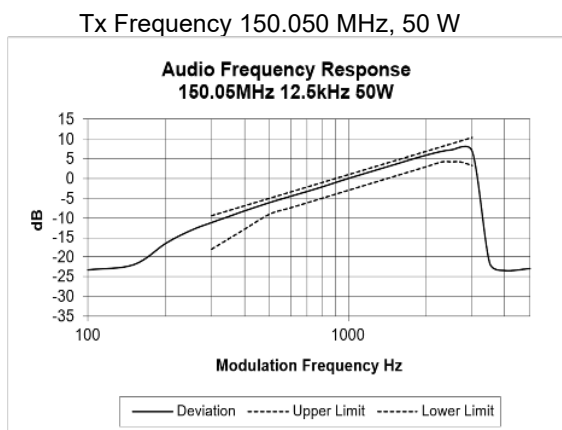
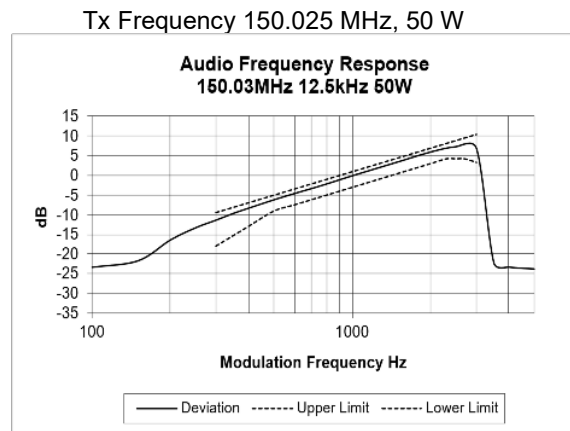
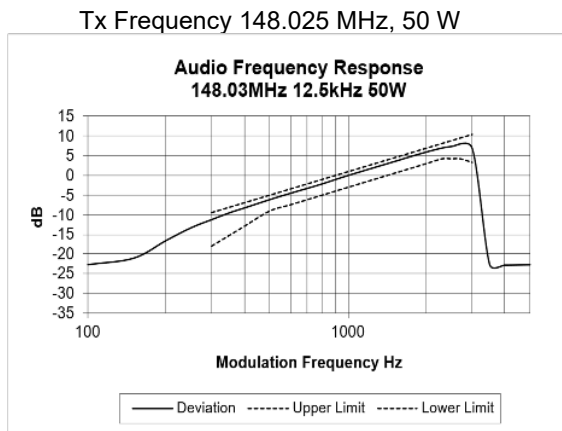
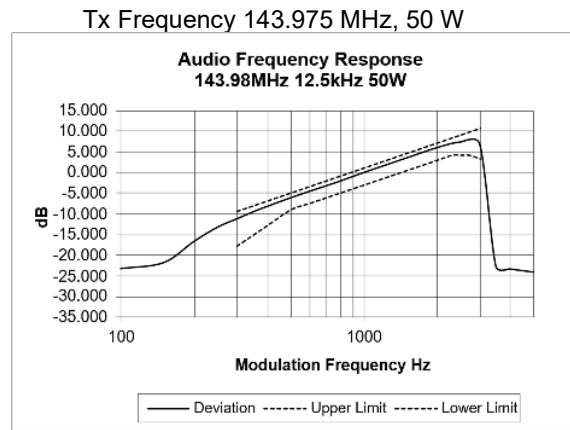
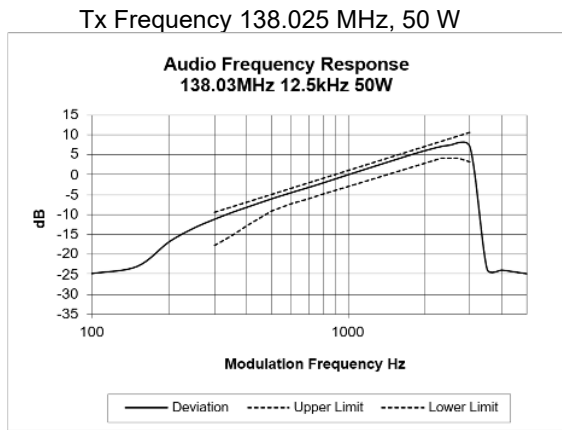
1. Refer Annex A for Equipment set up.
2. An audio input tone of 1000 Hz was applied with the level set to obtain 20% of maximum deviation. This was used as the 0 dB reference point.
3. The AF was varied while the audio level was held constant.
4. The response in dB relative to 1000 Hz was measured.

MEASUREMENT UNCERTAINTY: $\pm 1.5 \%$

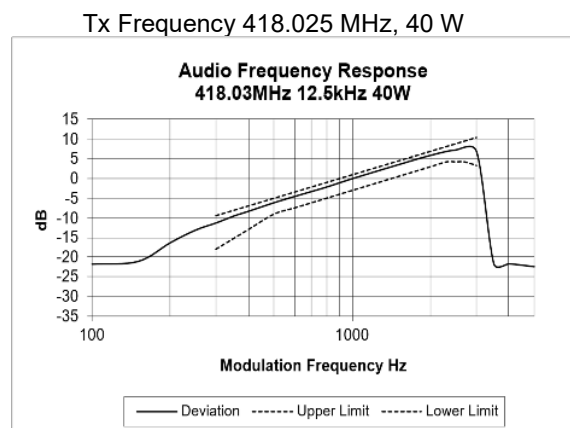
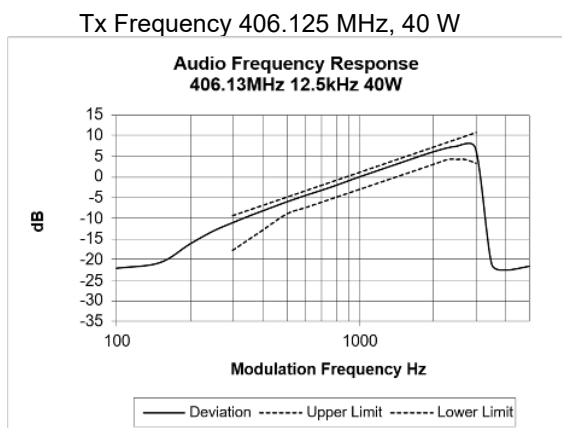
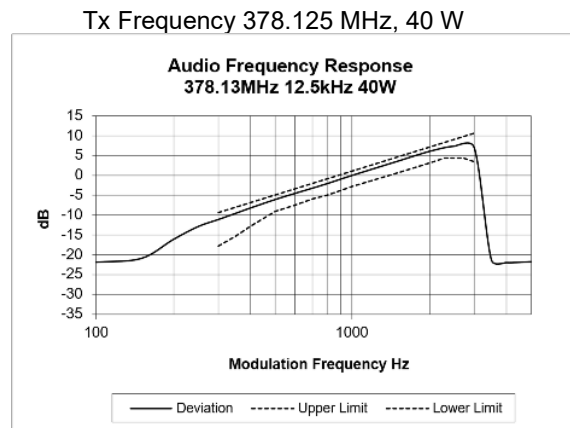
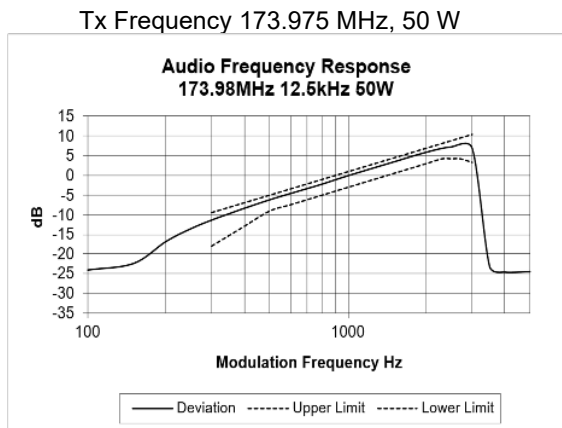
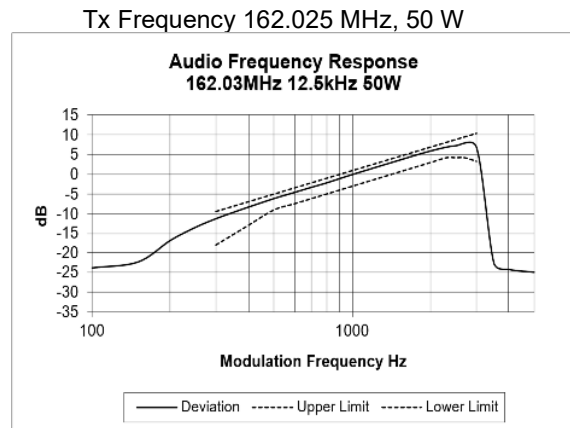
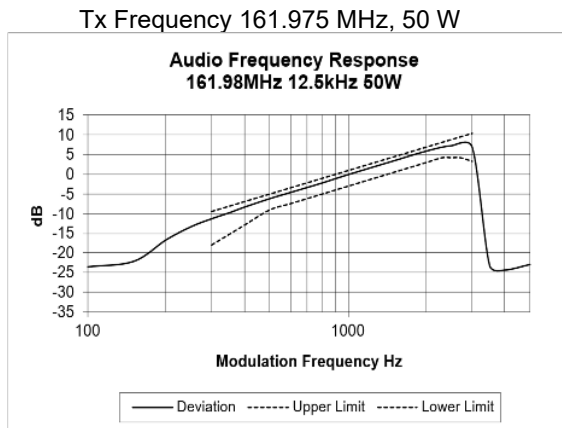
MEASUREMENT RESULTS:

See the plots on the following pages.

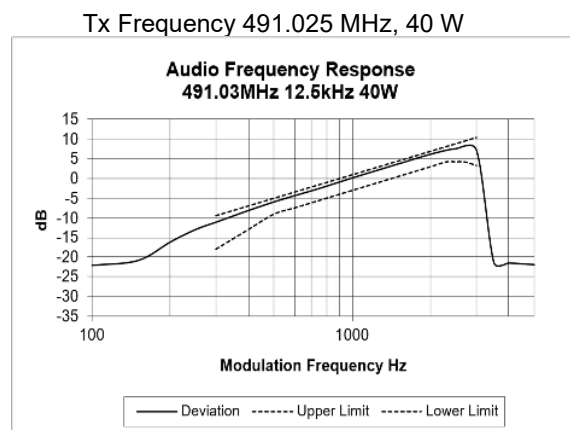
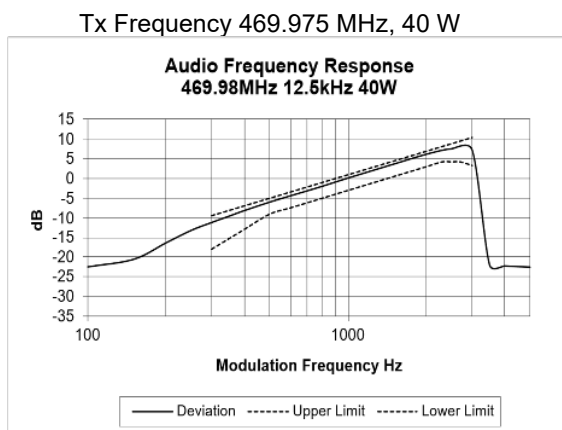
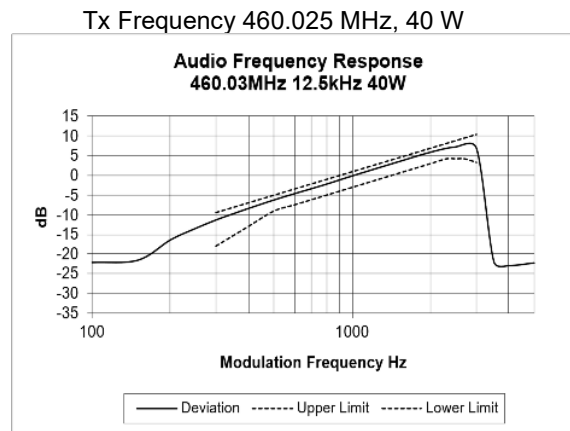
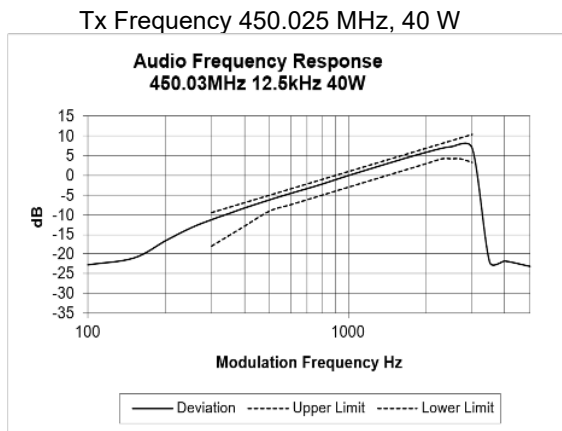
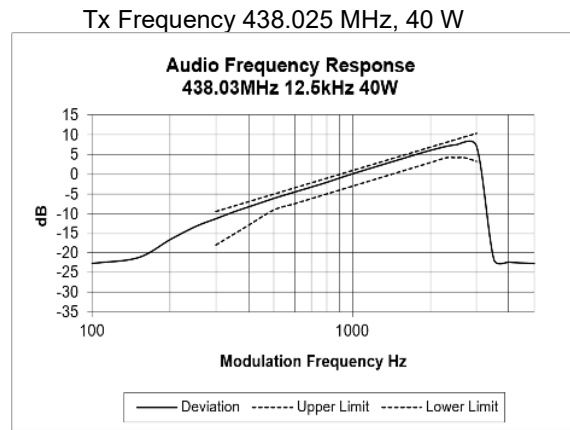
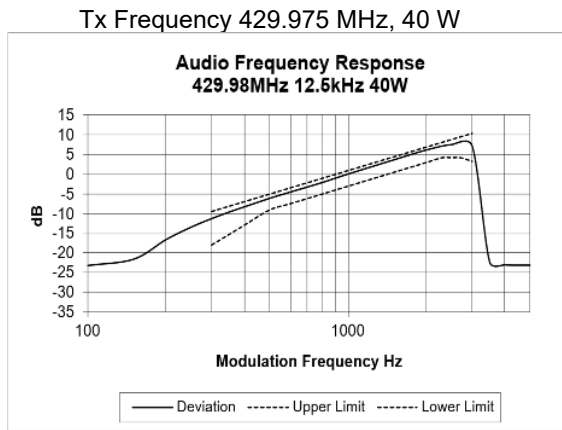
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



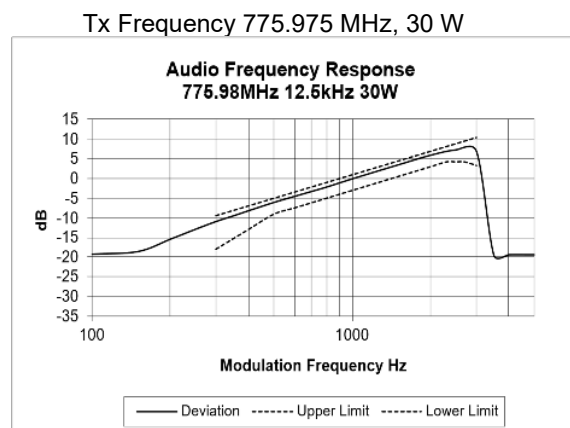
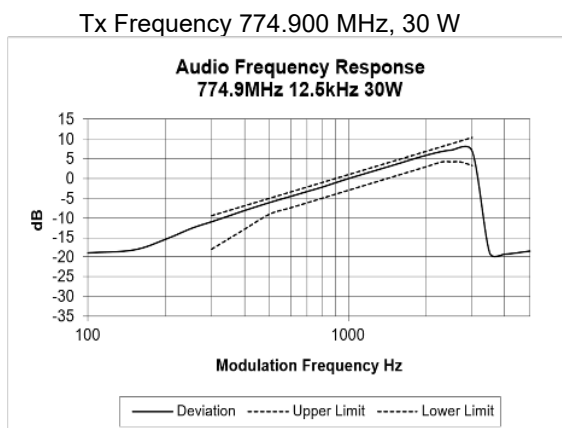
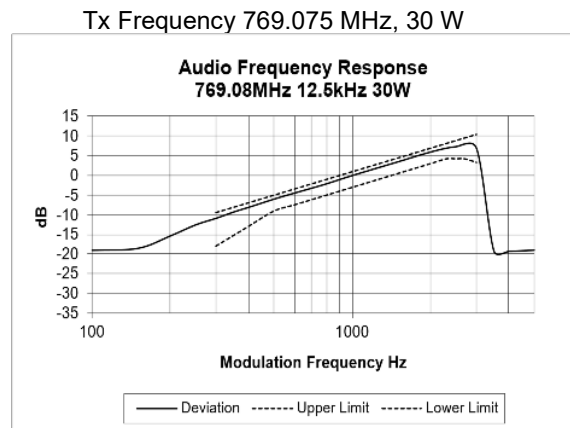
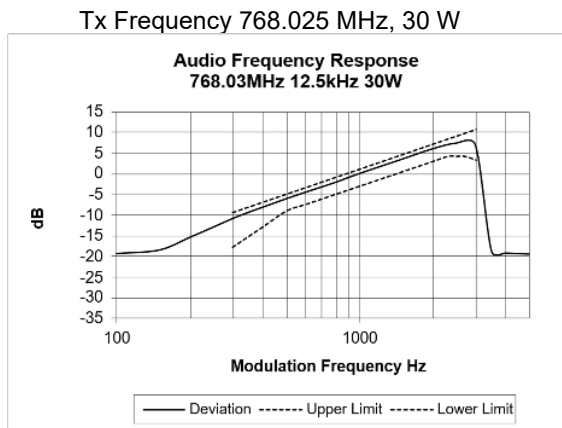
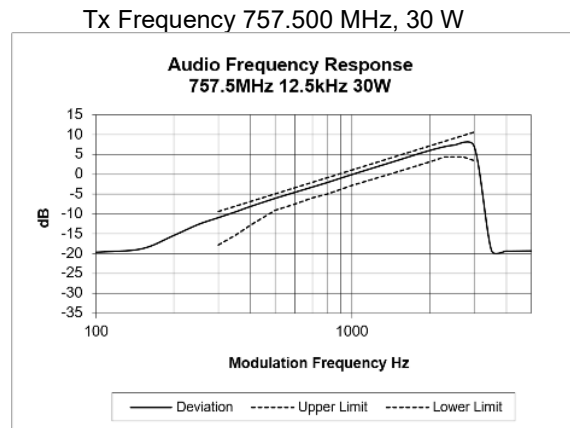
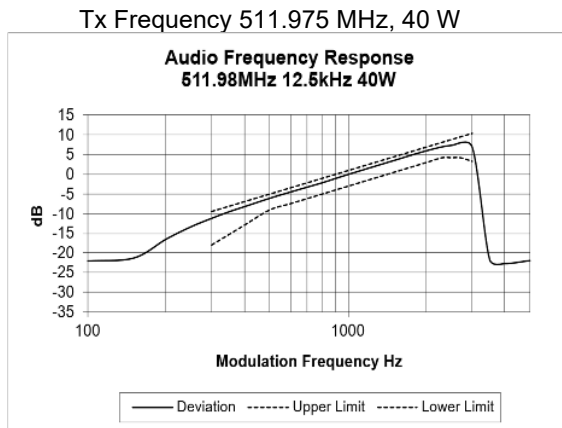
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



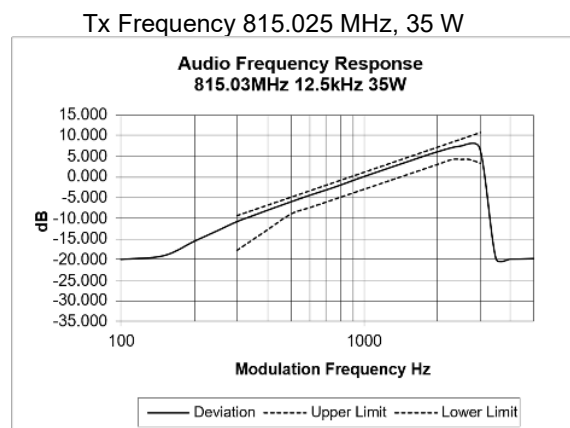
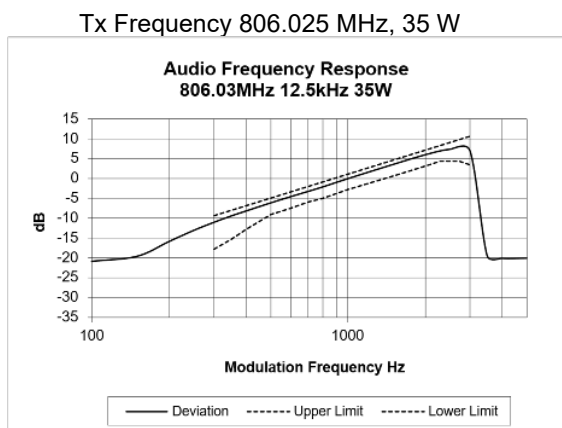
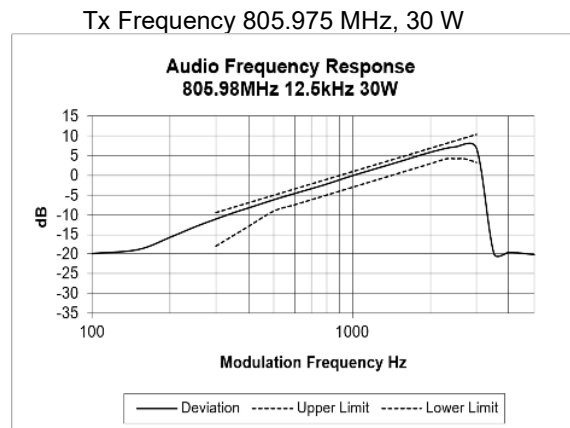
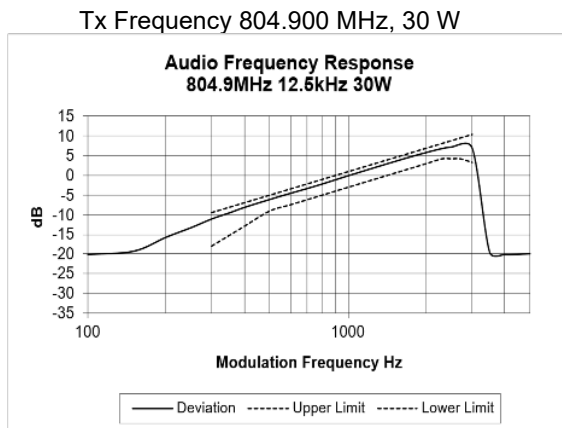
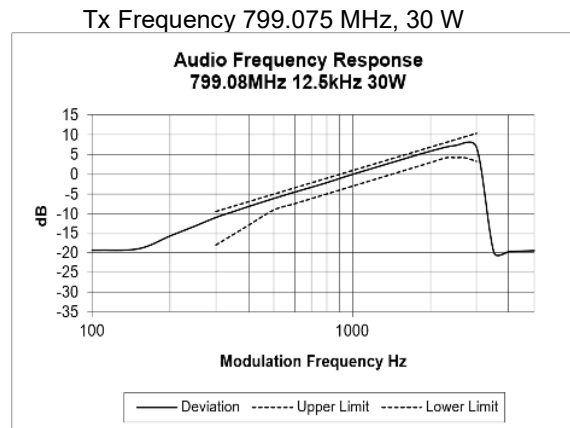
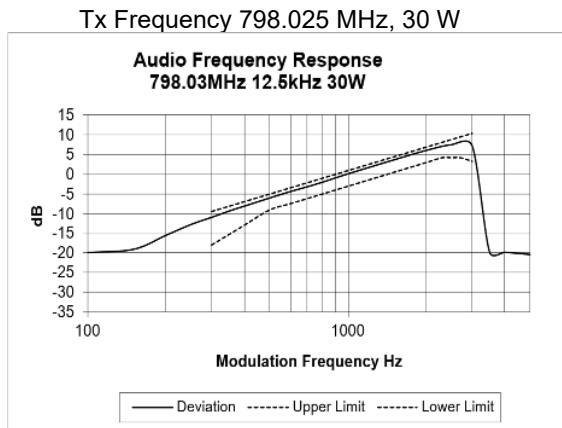
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



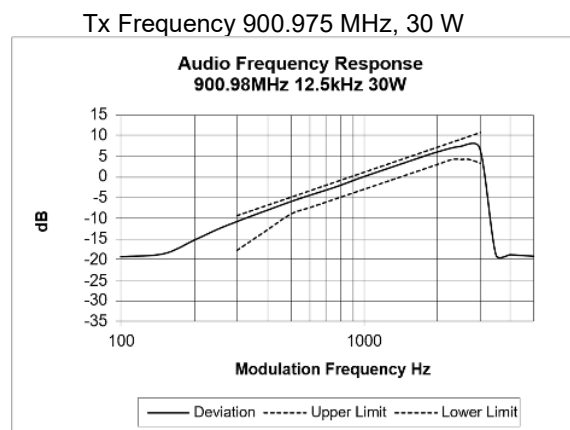
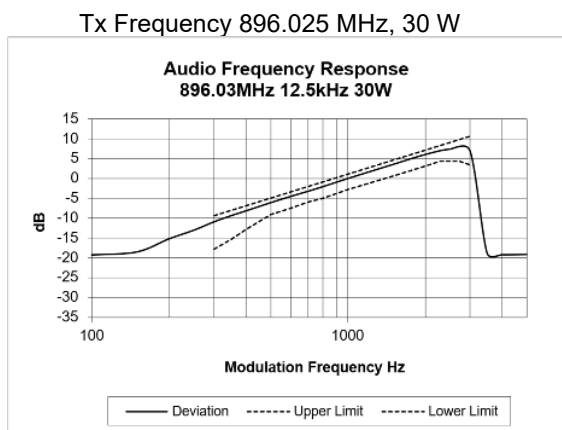
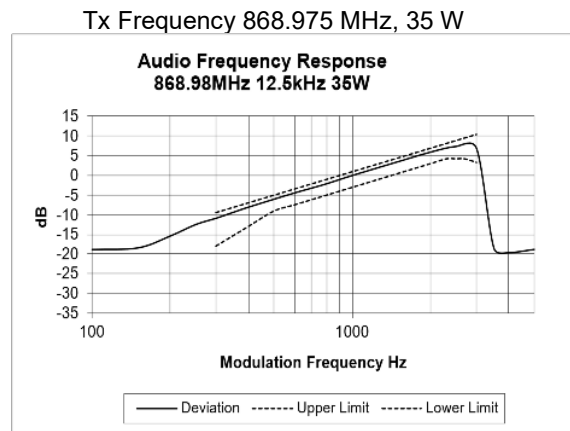
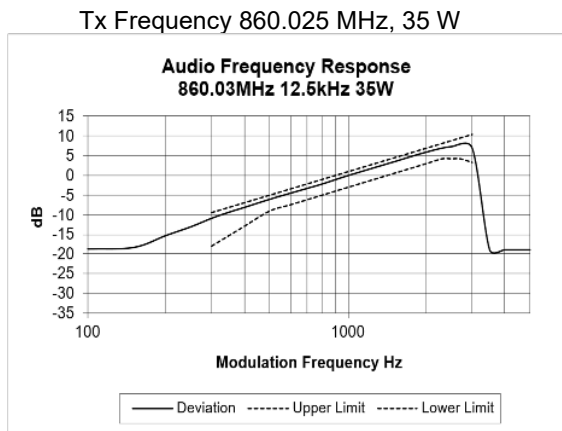
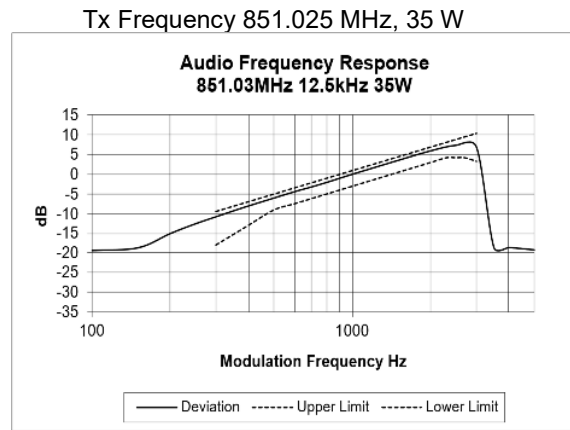
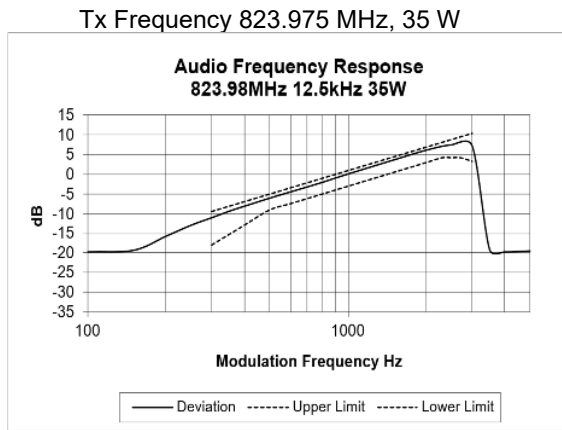
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



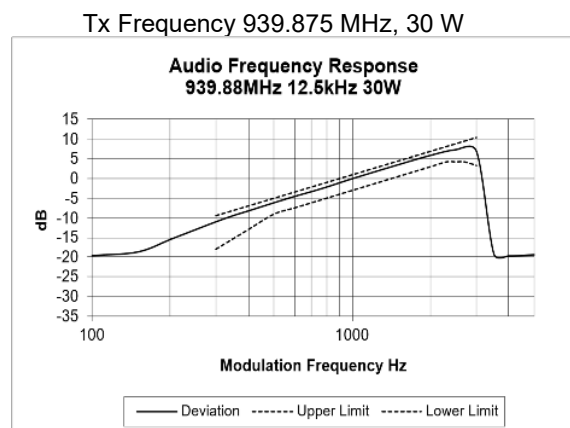
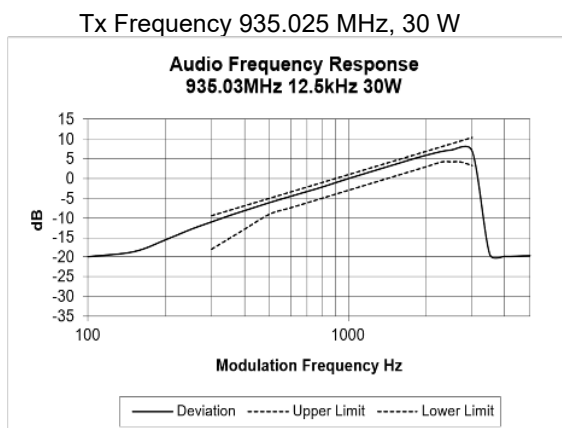
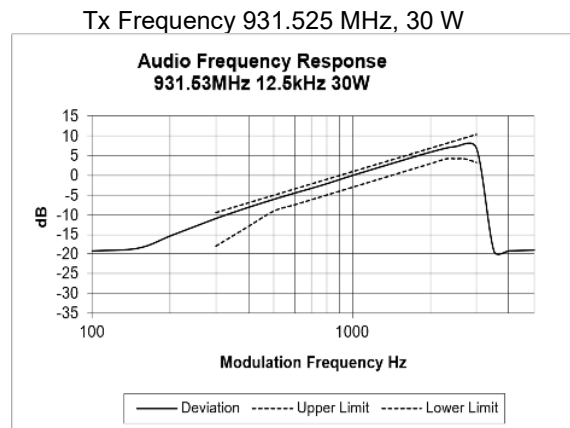
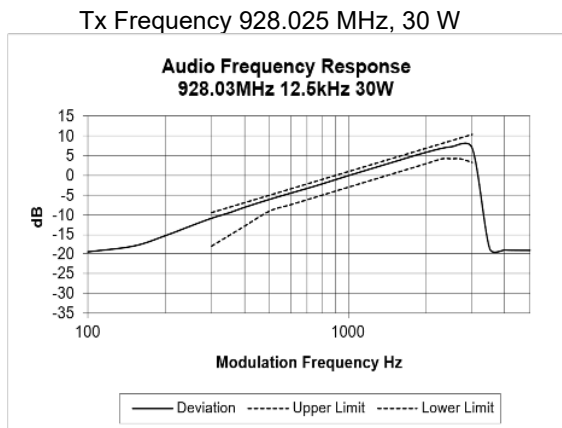
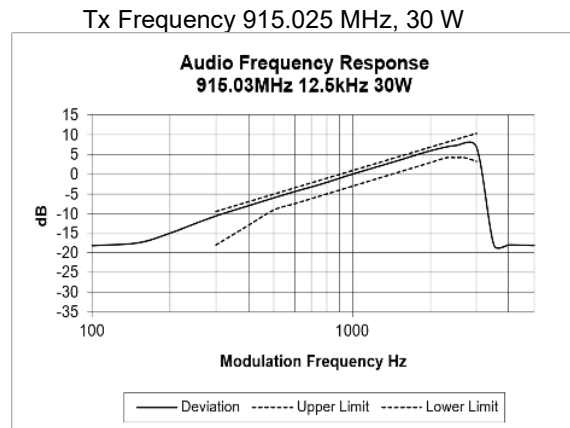
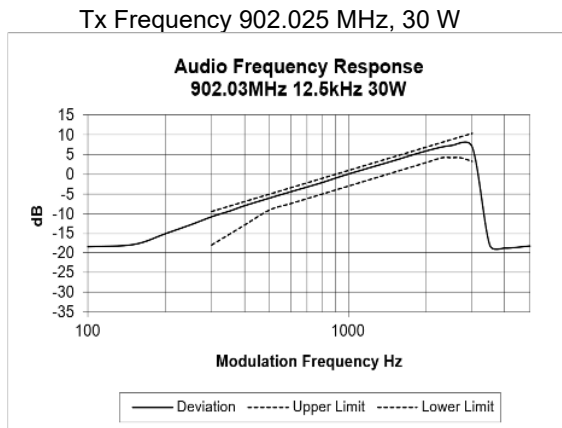
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



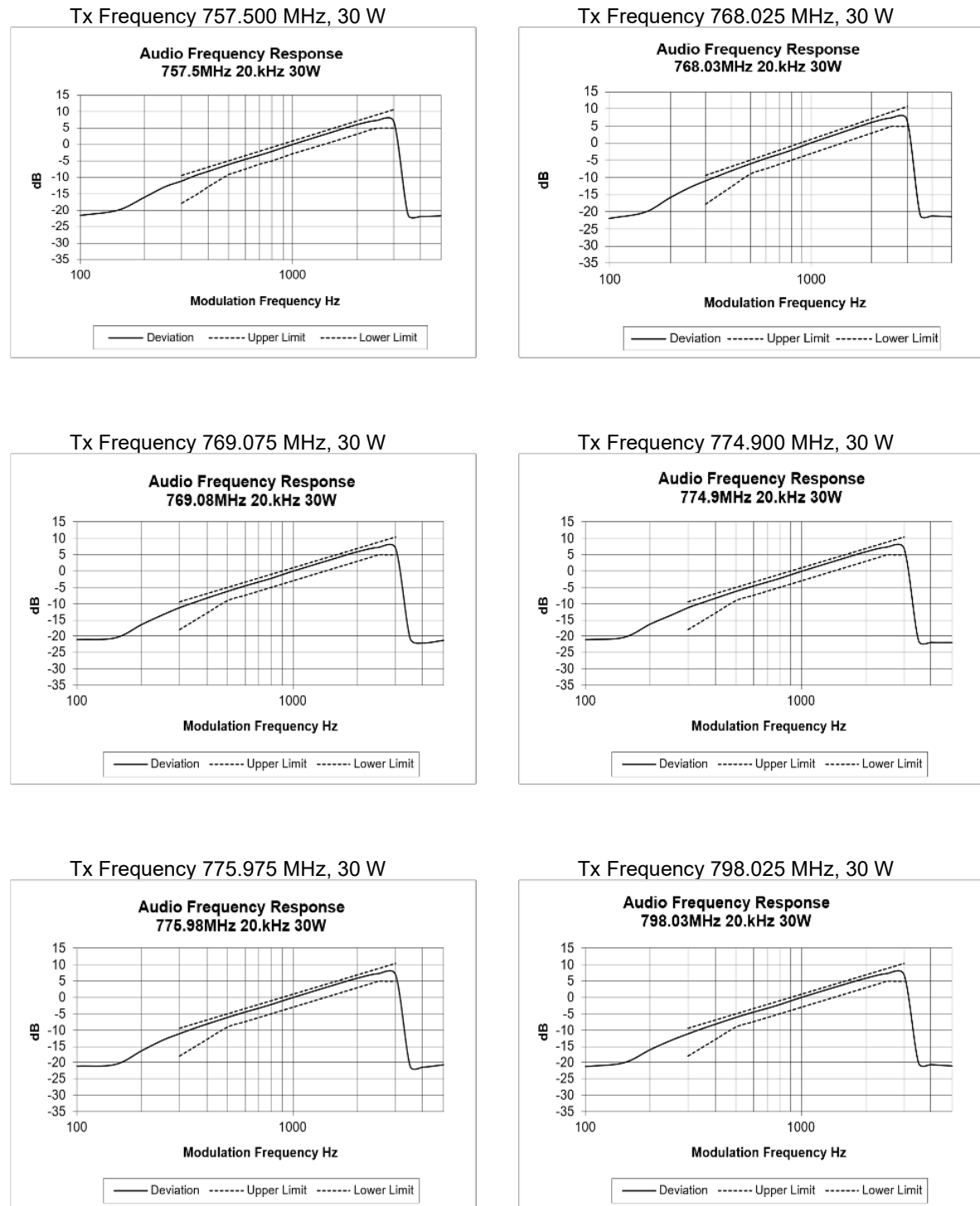
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



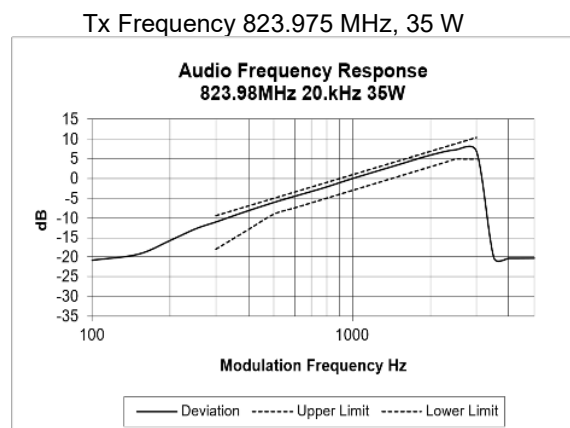
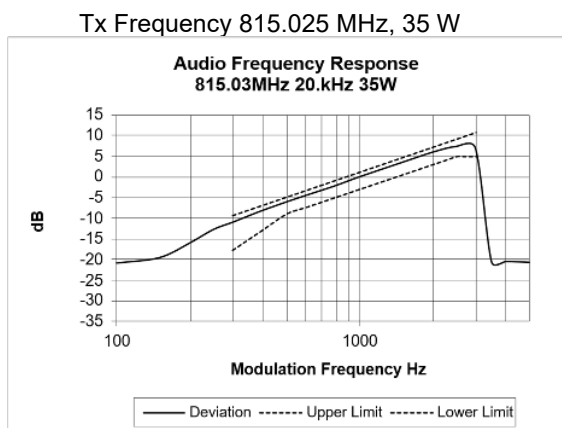
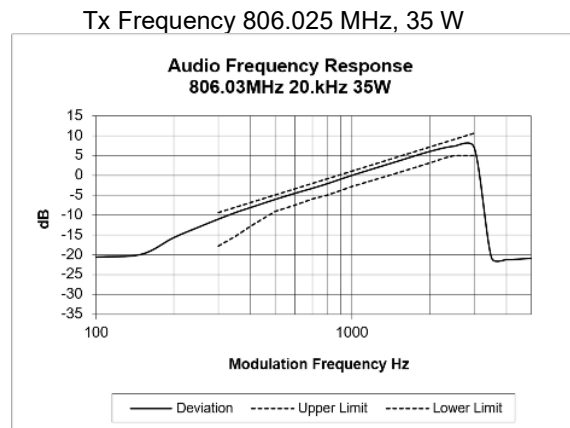
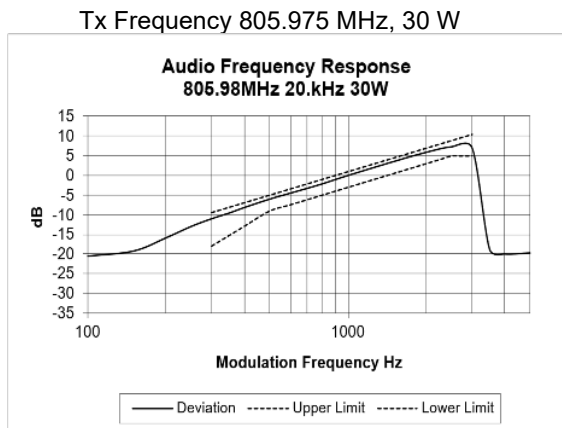
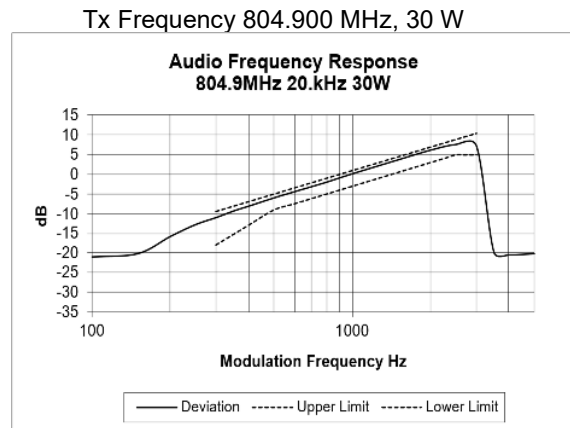
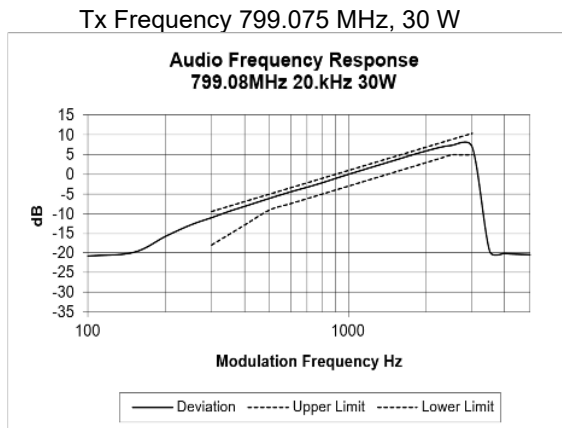
Transmitter Audio Frequency Response – Pre-emphasis (12.5 kHz Channel Spacing)



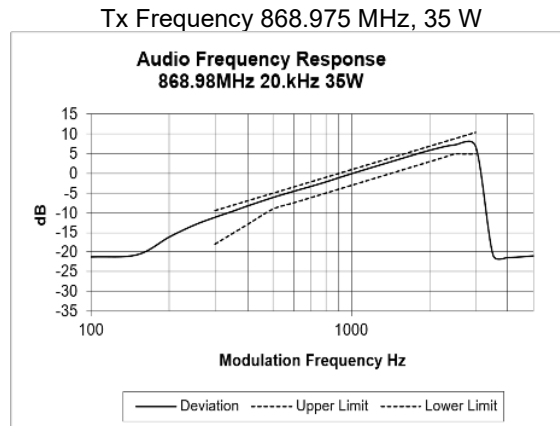
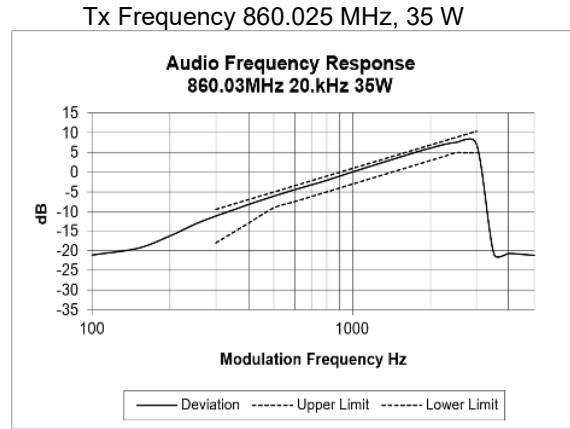
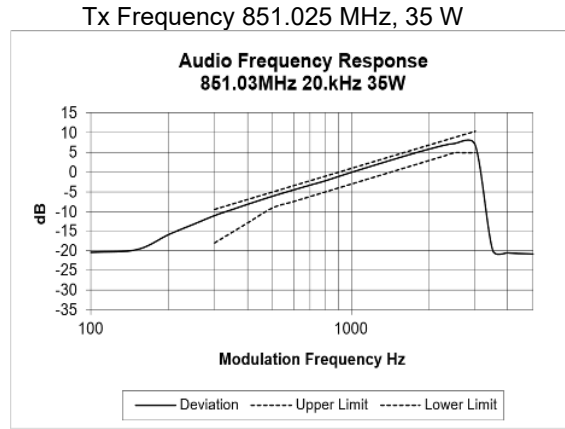
Transmitter Audio Frequency Response – Pre-emphasis (20 kHz Channel Spacing)



Transmitter Audio Frequency Response – Pre-emphasis (20 kHz Channel Spacing)

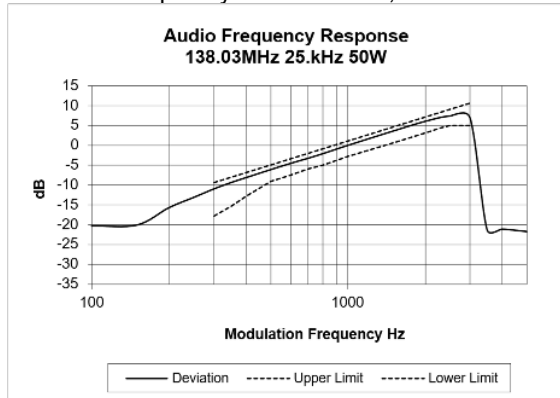


Transmitter Audio Frequency Response – Pre-emphasis (20 kHz Channel Spacing)

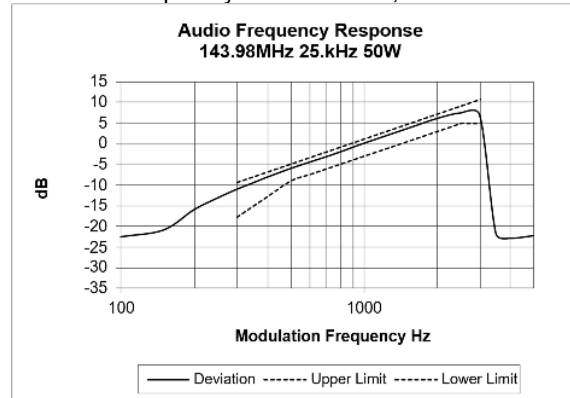


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

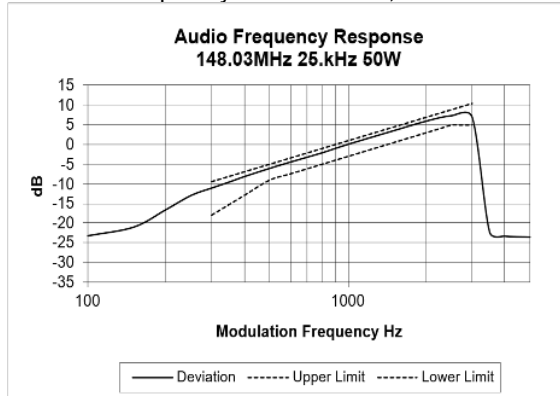
Tx Frequency 138.025 MHz, 50 W



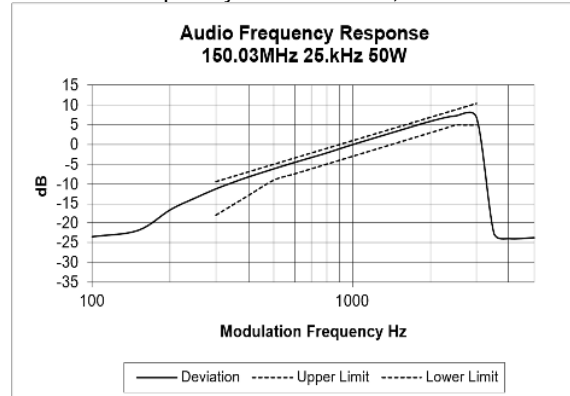
Tx Frequency 143.975 MHz, 50 W



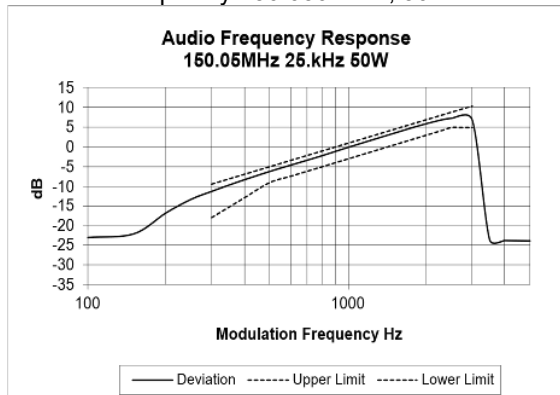
Tx Frequency 148.025 MHz, 50 W



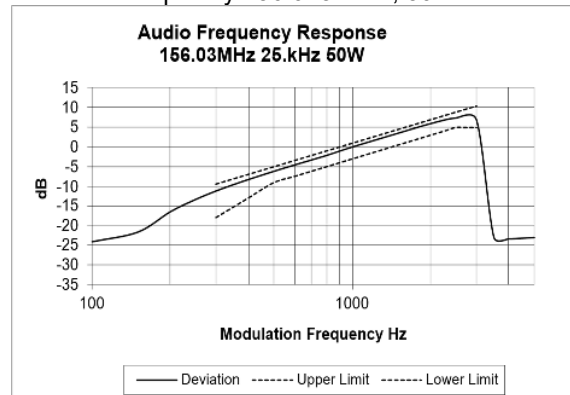
Tx Frequency 150.025 MHz, 50 W



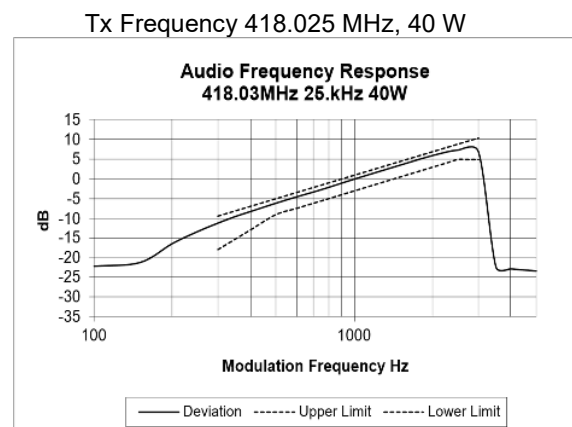
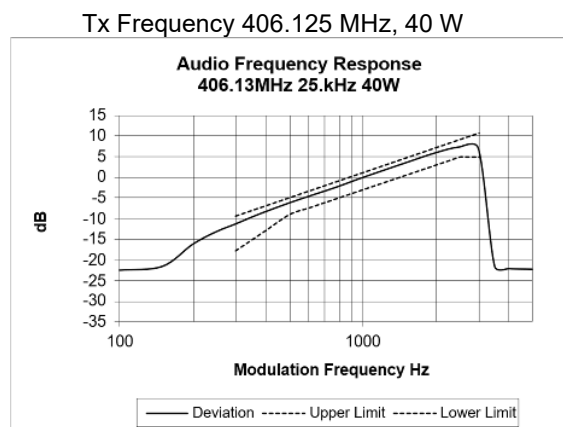
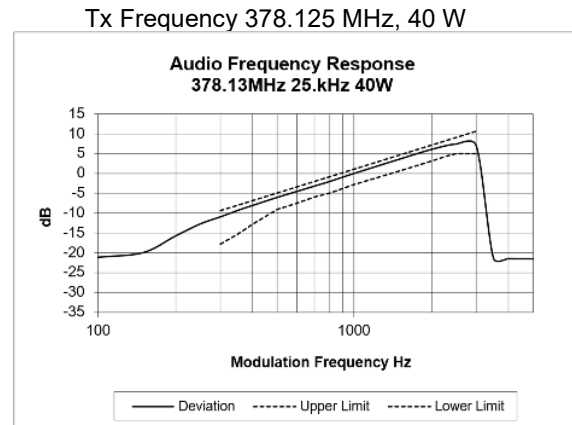
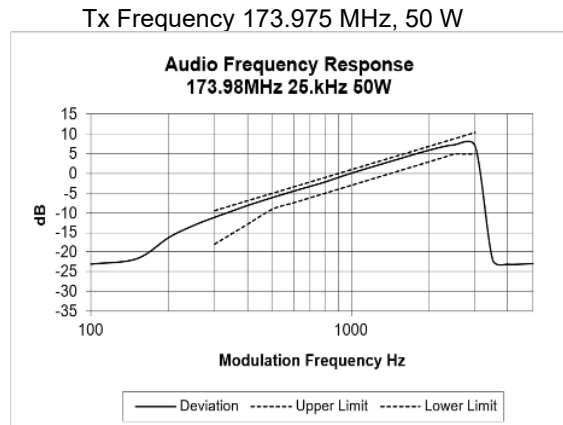
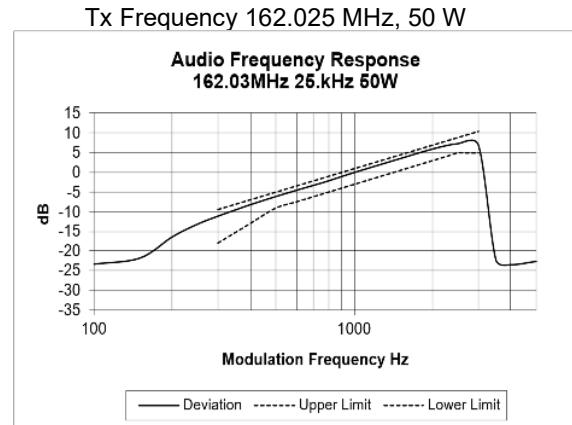
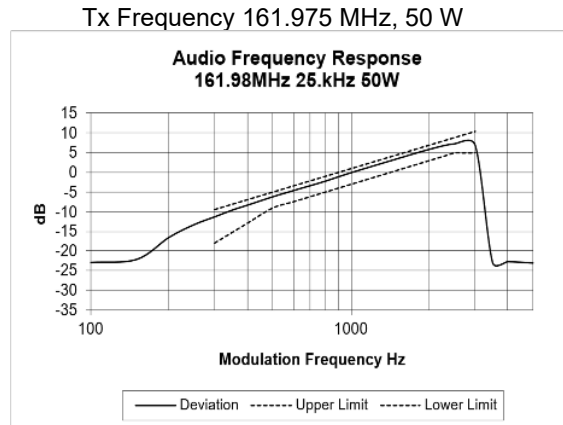
Tx Frequency 150.050 MHz, 50 W



Tx Frequency 156.025 MHz, 50 W

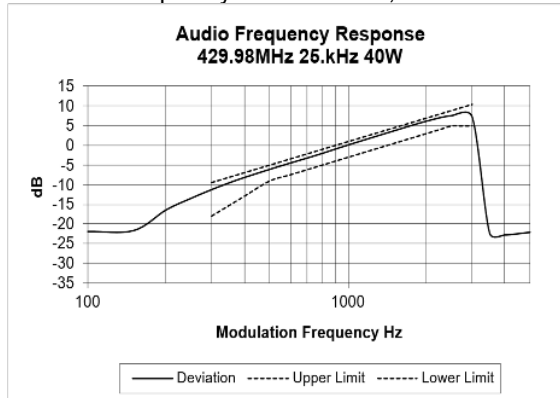


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

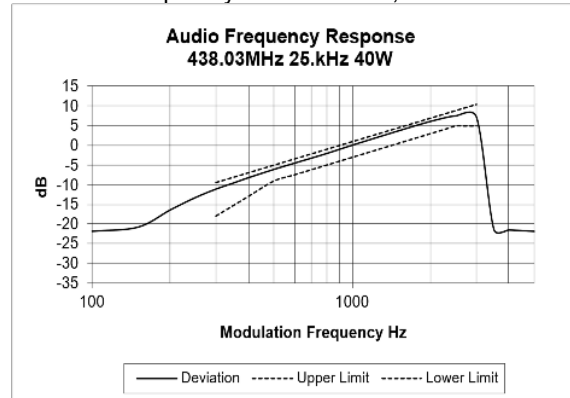


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

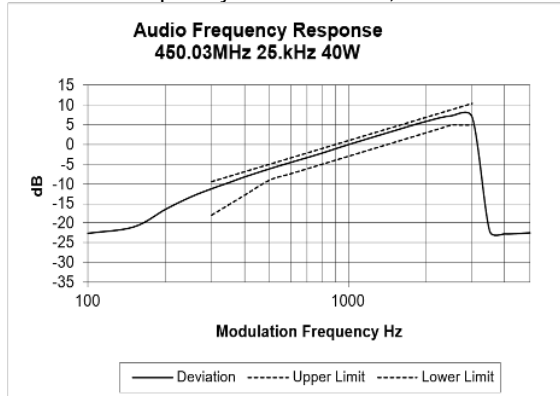
Tx Frequency 429.975 MHz, 40 W



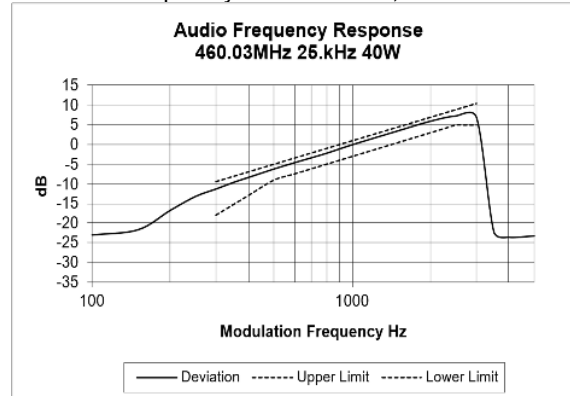
Tx Frequency 438.025 MHz, 40 W



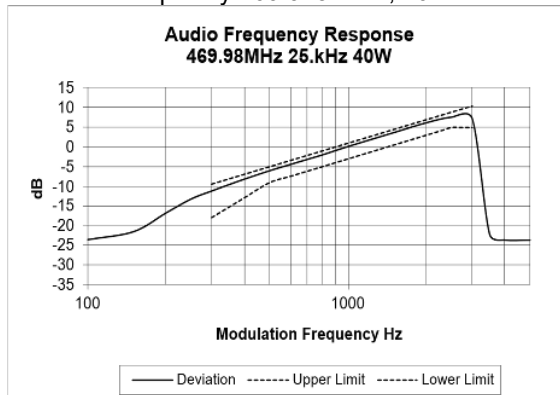
Tx Frequency 450.025 MHz, 40 W



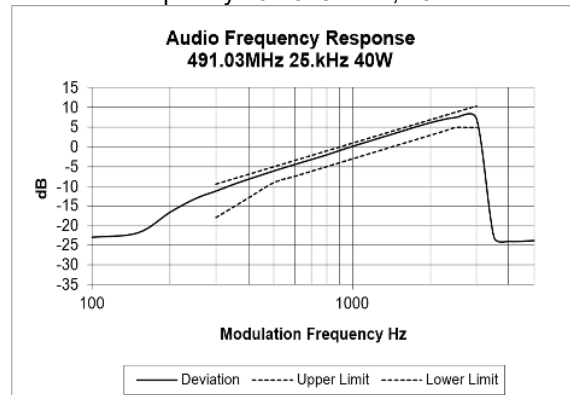
Tx Frequency 460.025 MHz, 40 W



Tx Frequency 469.975 MHz, 40 W

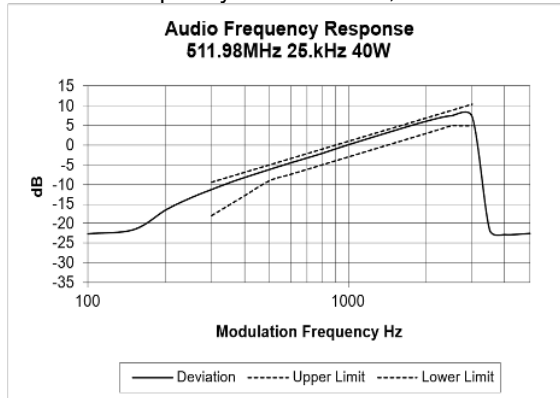


Tx Frequency 491.025 MHz, 40 W

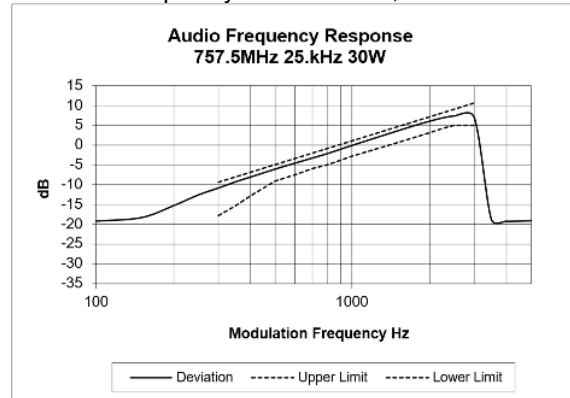


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

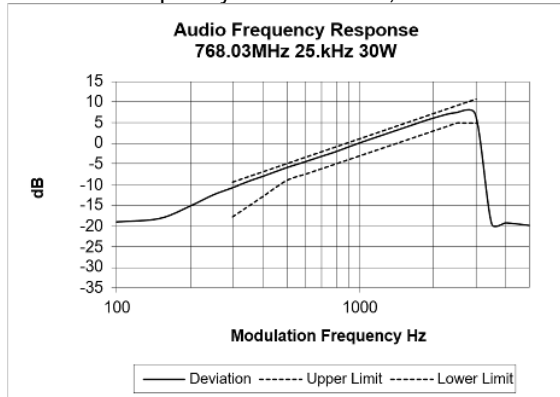
Tx Frequency 511.975 MHz, 40 W



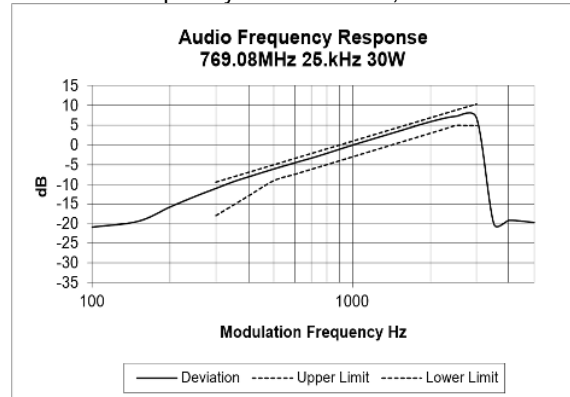
Tx Frequency 757.500 MHz, 30 W



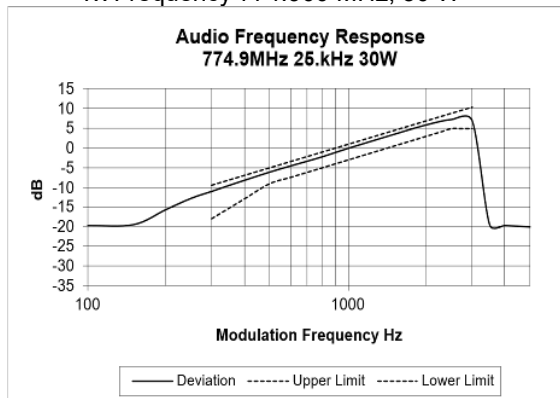
Tx Frequency 768.025 MHz, 30 W



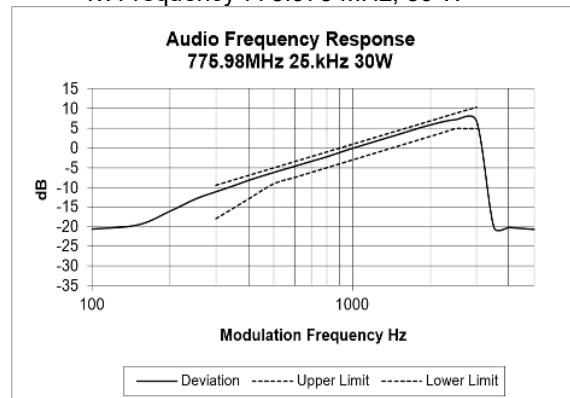
Tx Frequency 769.075 MHz, 30 W



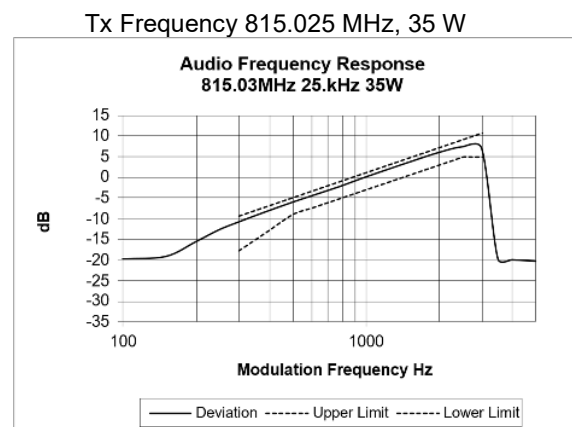
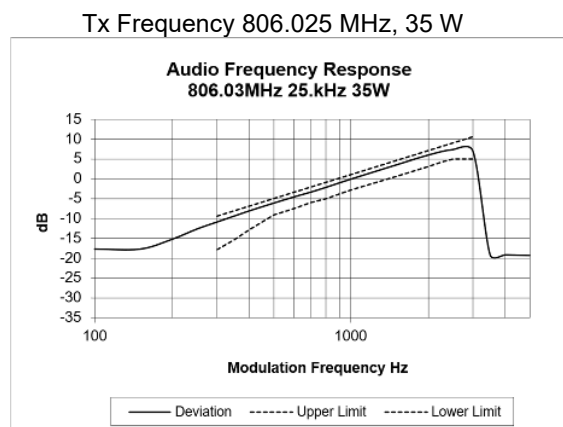
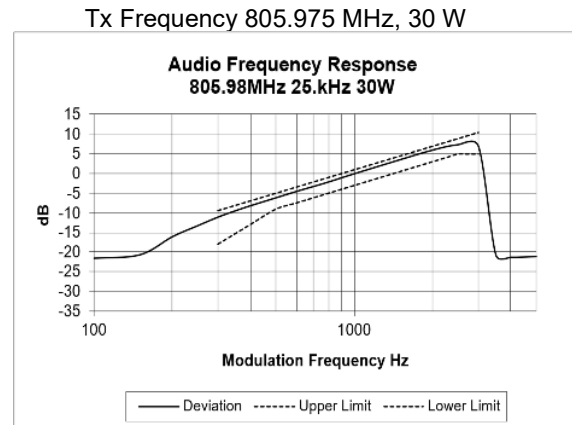
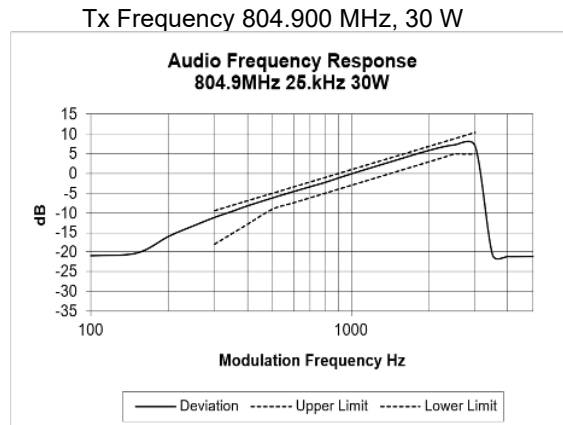
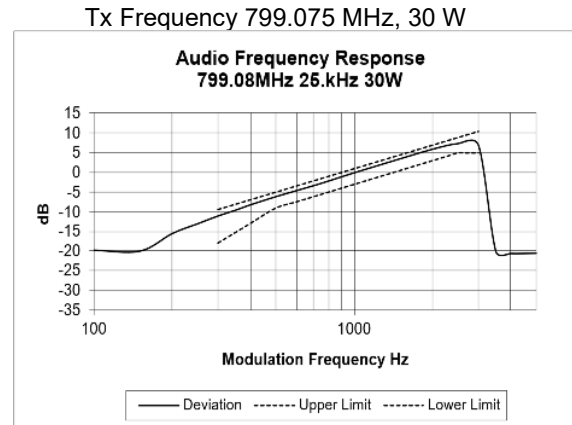
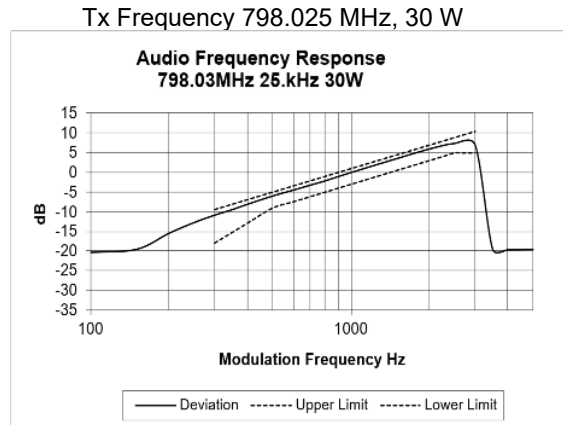
Tx Frequency 774.900 MHz, 30 W



Tx Frequency 775.975 MHz, 30 W

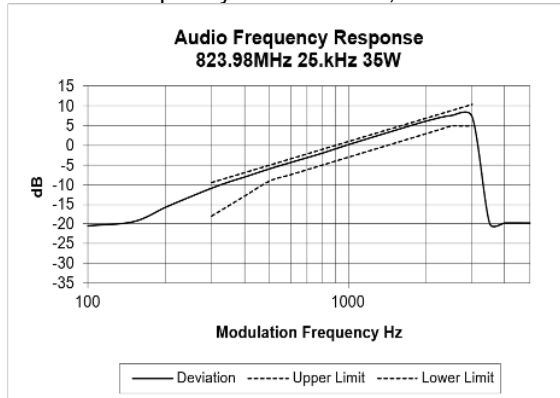


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

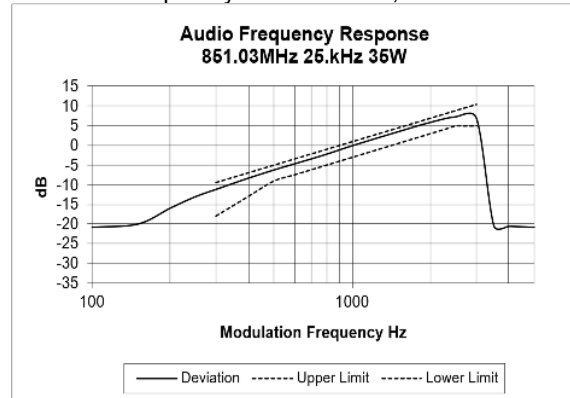


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

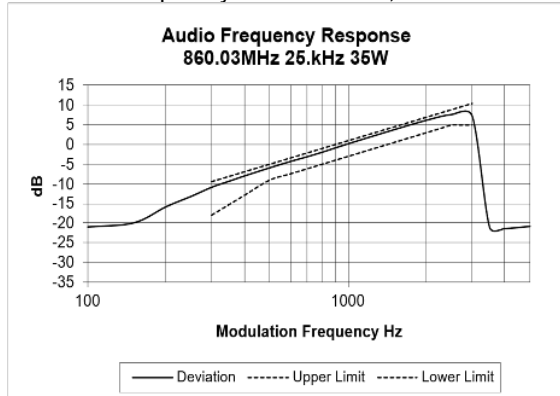
Tx Frequency 823.975 MHz, 35 W



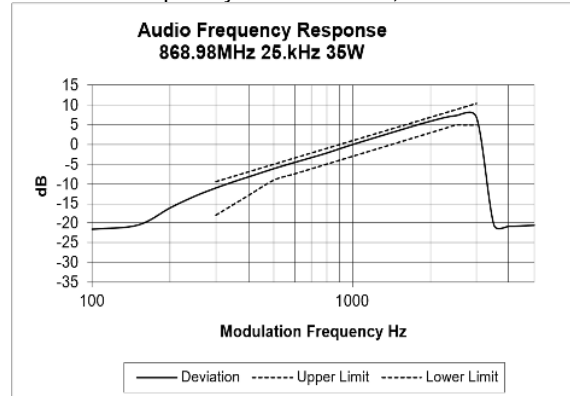
Tx Frequency 851.025 MHz, 35 W



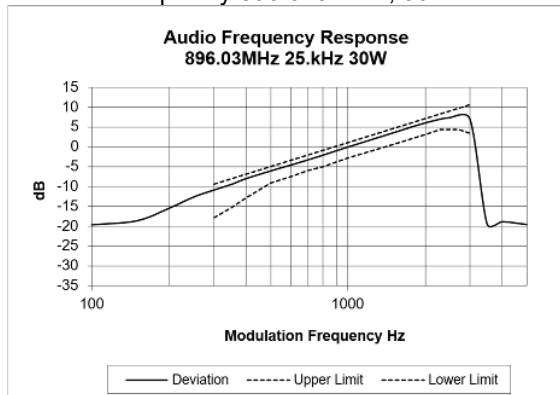
Tx Frequency 860.025 MHz, 35 W



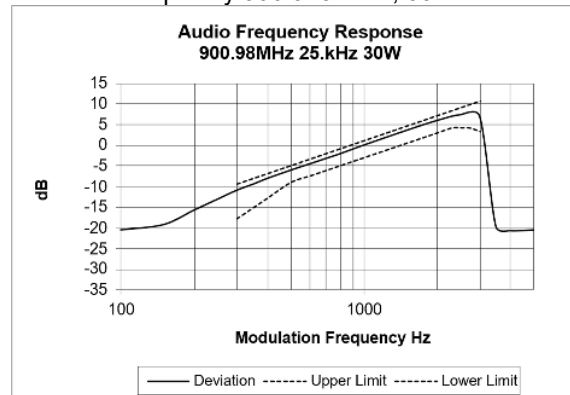
Tx Frequency 868.975 MHz, 35 W



Tx Frequency 896.025 MHz, 30 W

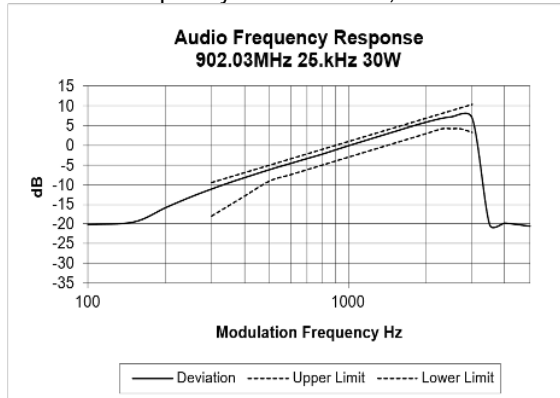


Tx Frequency 900.975 MHz, 30 W

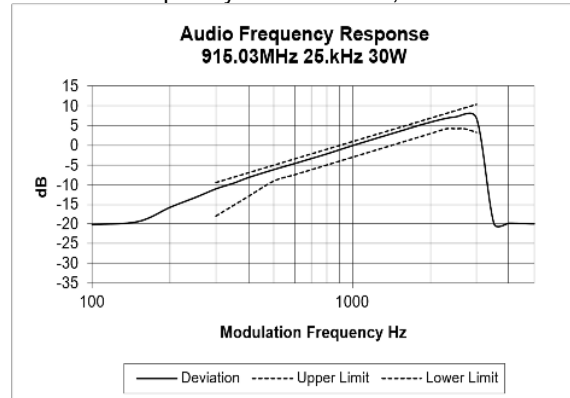


Transmitter Audio Frequency Response – Pre-emphasis (25 kHz Channel Spacing)

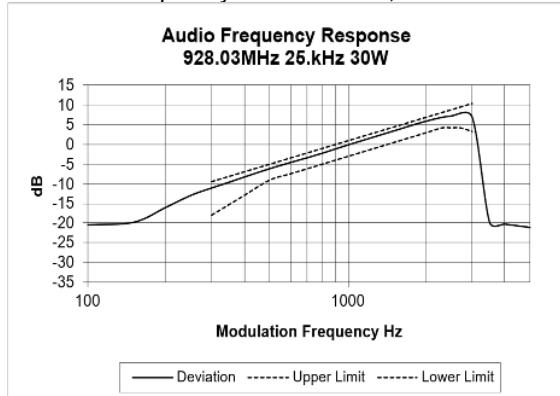
Tx Frequency 902.025 MHz, 30 W



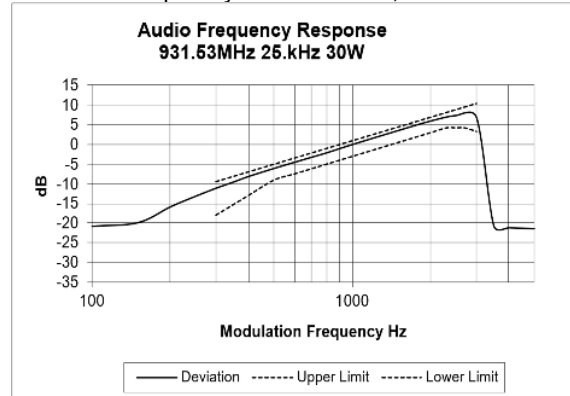
Tx Frequency 915.025 MHz, 30 W



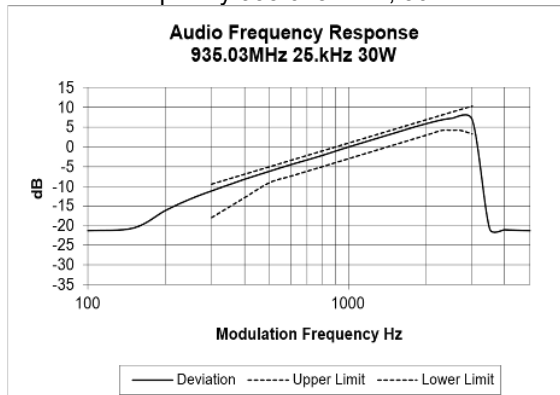
Tx Frequency 928.025 MHz, 30 W



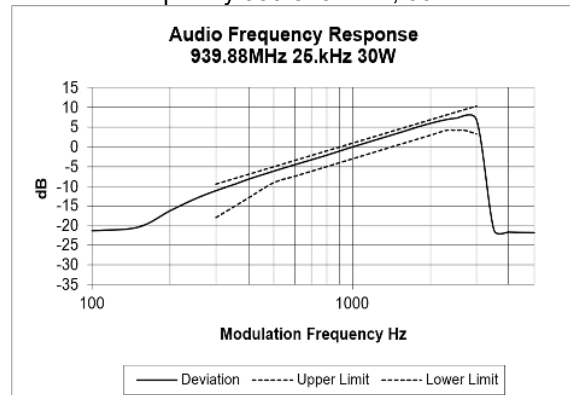
Tx Frequency 931.525 MHz, 30 W



Tx Frequency 935.025 MHz, 30 W



Tx Frequency 939.875 MHz, 30 W



TELTEST Laboratories
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TRANSMITTER MODULATION LIMITING

SPECIFICATION: FCC 47 CFR 2.1047 (b)

GUIDE: ANSI C63.26 5.3.2

MEASUREMENT PROCEDURE:

1. Refer Annex A for Equipment set up.
2. An audio input tone of 1000 Hz was applied with the level set to obtain 60% of maximum deviation. This was used as the 0 dB reference point.
3. The modulation response was measured at four audio frequencies while increasing the input level in 5dB steps.
4. Additionally, the level used to measure sideband spectrum (occupied bandwidth) was included in the level sweep.
5. Measurements were made for both Positive and Negative Deviation.

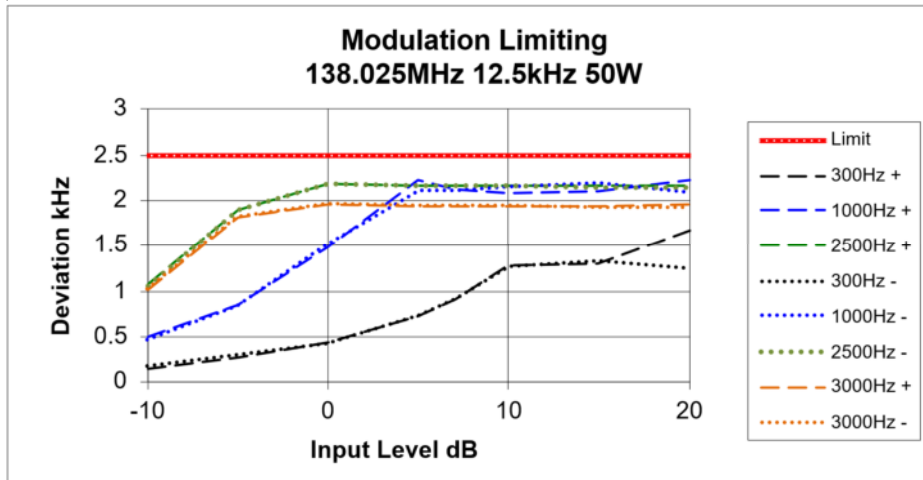
MEASUREMENT RESULTS:

See the plots on the following pages.

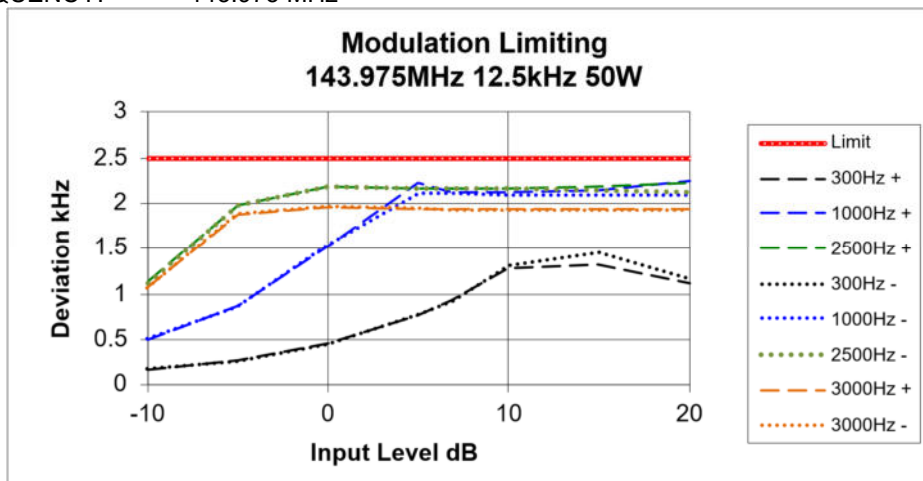
MEASUREMENT UNCERTAINTY: $\pm 1.5 \%$

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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

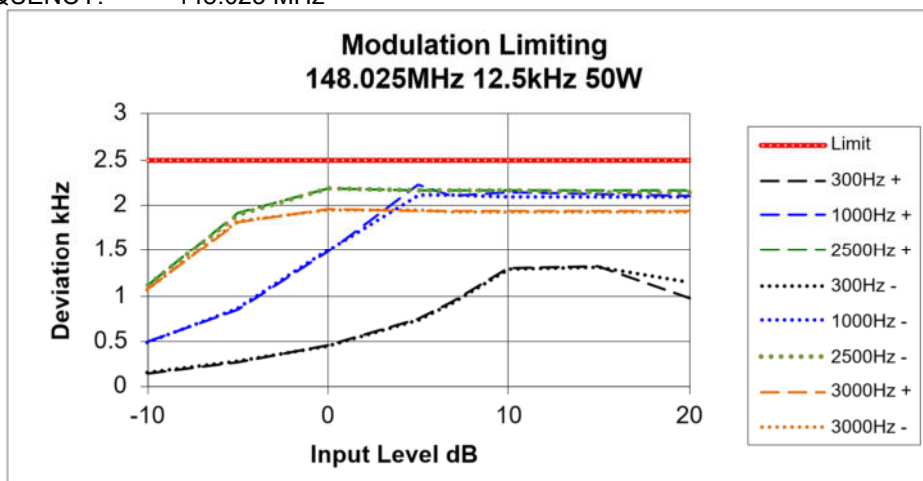
Tx FREQUENCY: 138.025 MHz



Tx FREQUENCY: 143.975 MHz

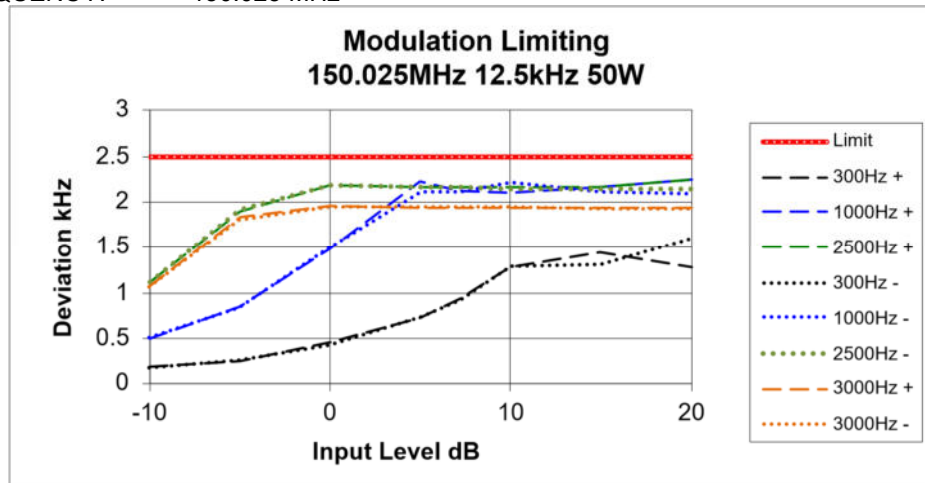


Tx FREQUENCY: 148.025 MHz

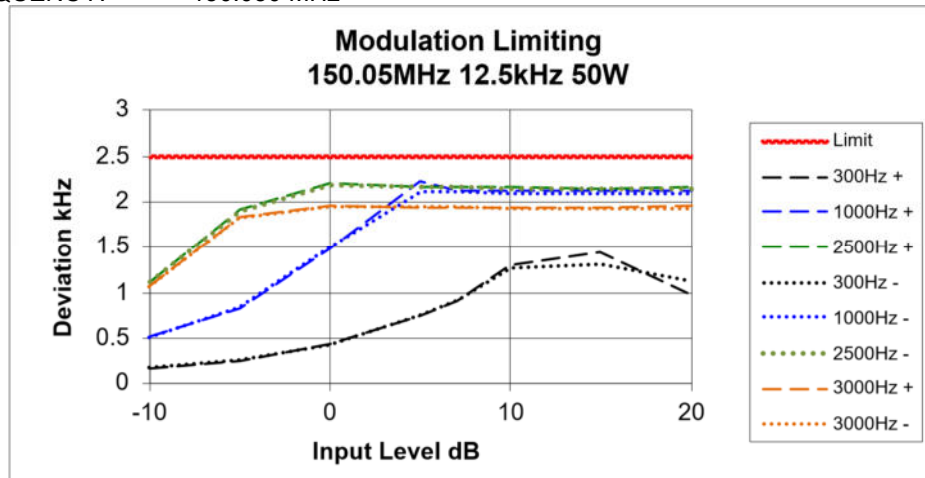


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

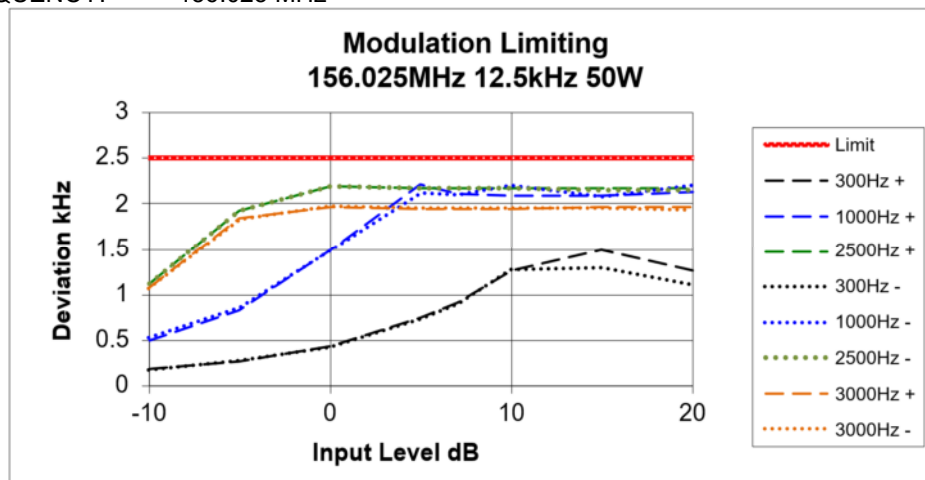
Tx FREQUENCY: 150.025 MHz



Tx FREQUENCY: 150.050 MHz

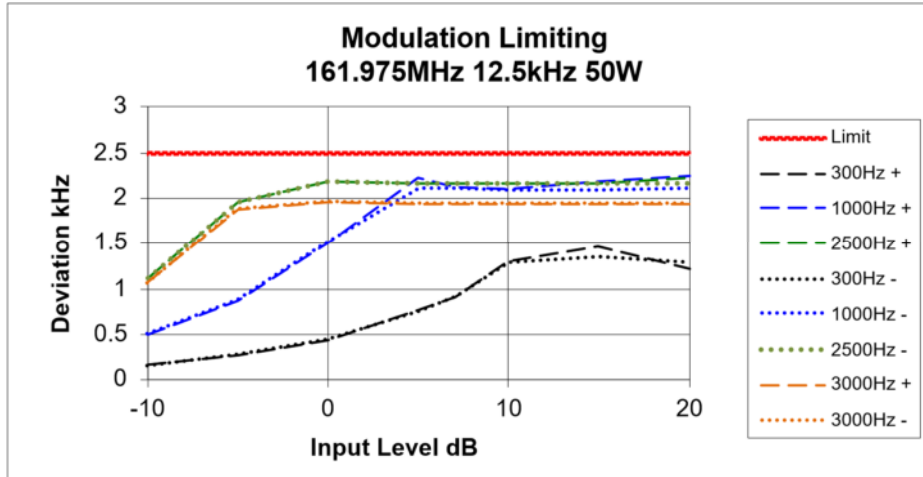


Tx FREQUENCY: 156.025 MHz

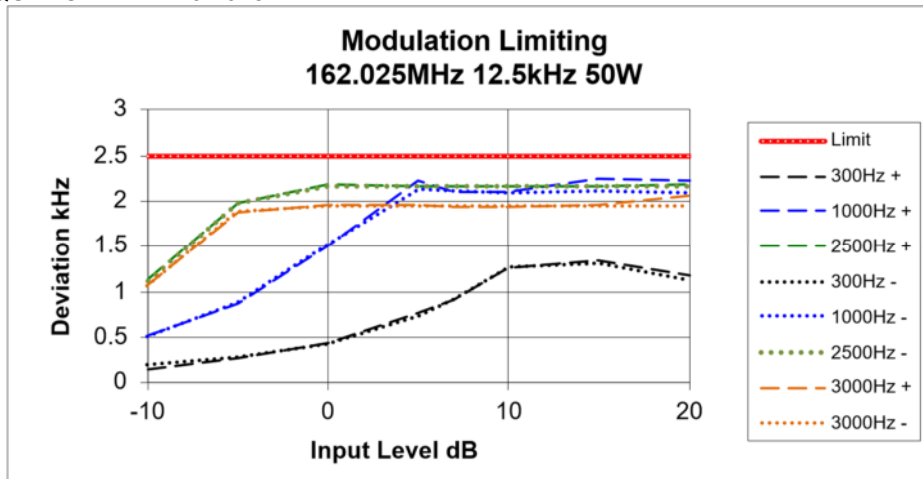


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

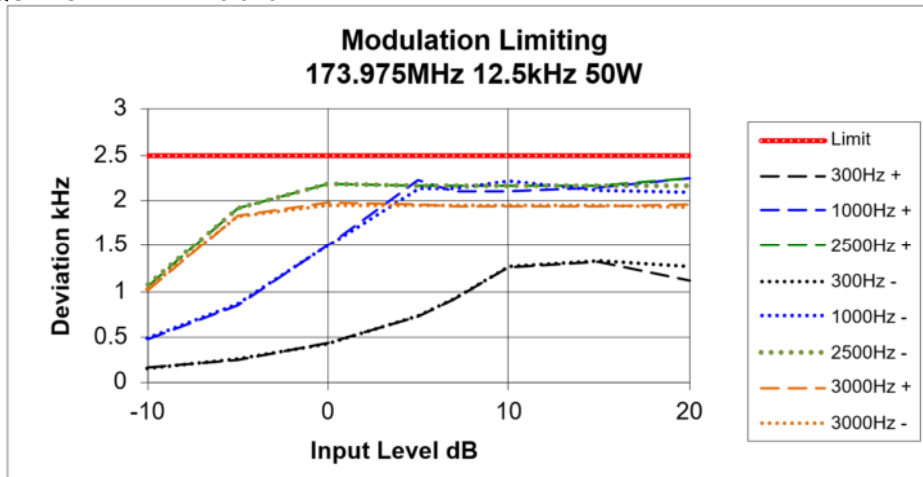
Tx FREQUENCY: 161.975 MHz



Tx FREQUENCY: 162.025 MHz

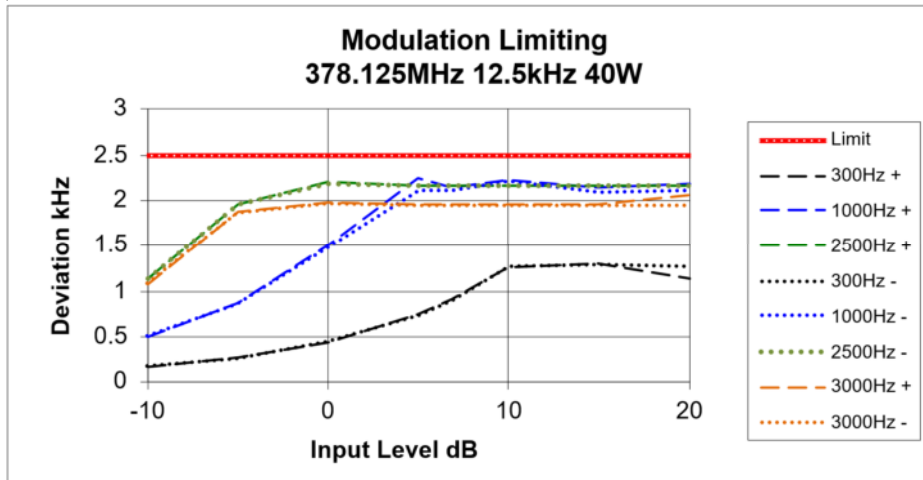


Tx FREQUENCY: 173.975 MHz

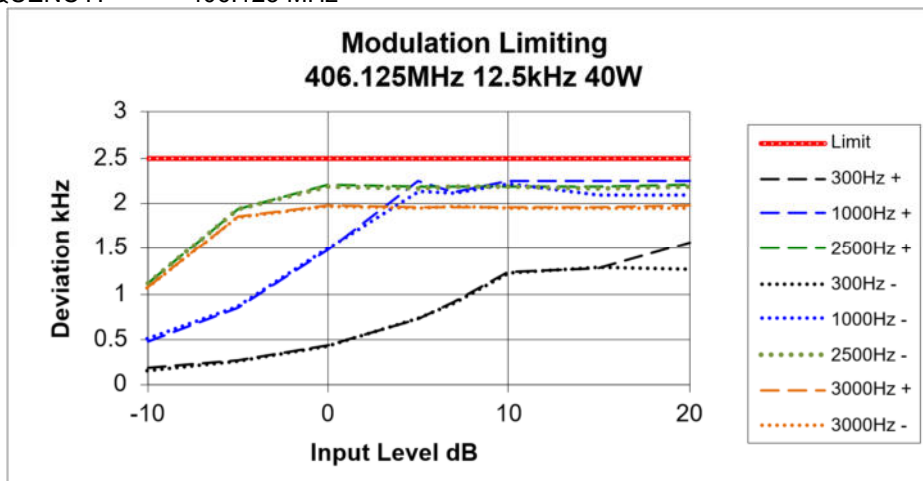


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

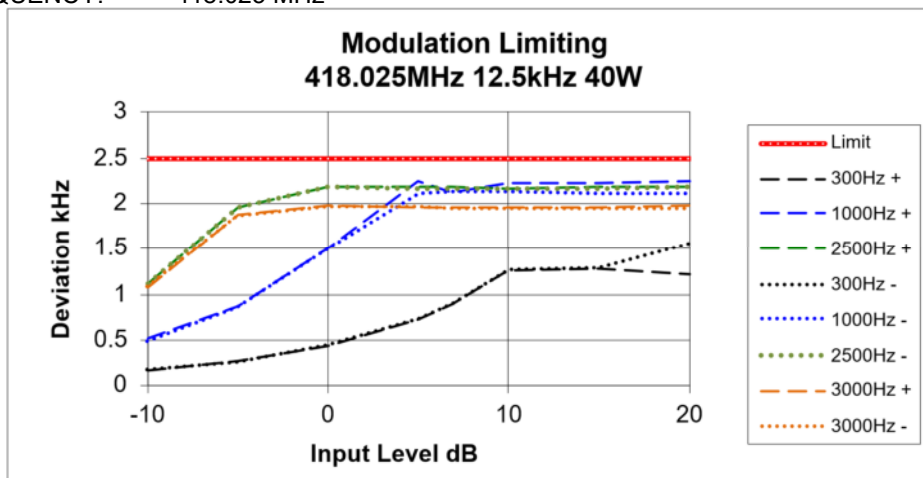
Tx FREQUENCY: 378.125 MHz



Tx FREQUENCY: 406.125 MHz

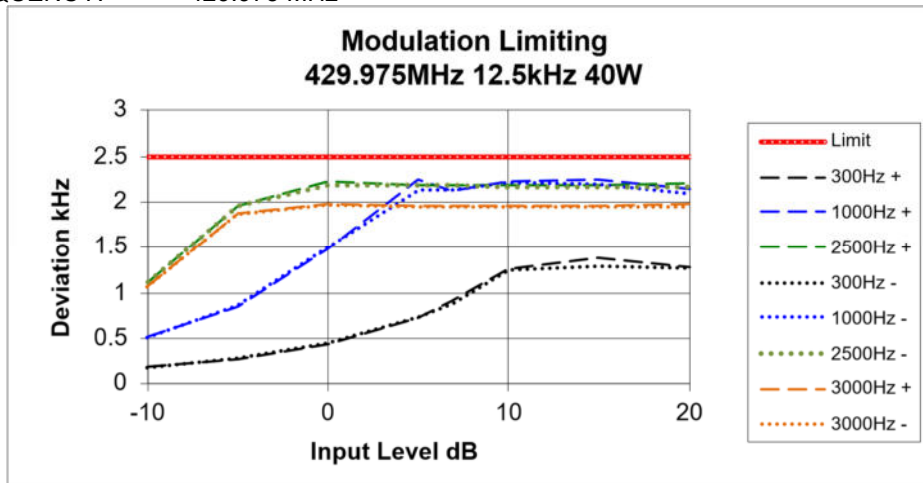


Tx FREQUENCY: 418.025 MHz

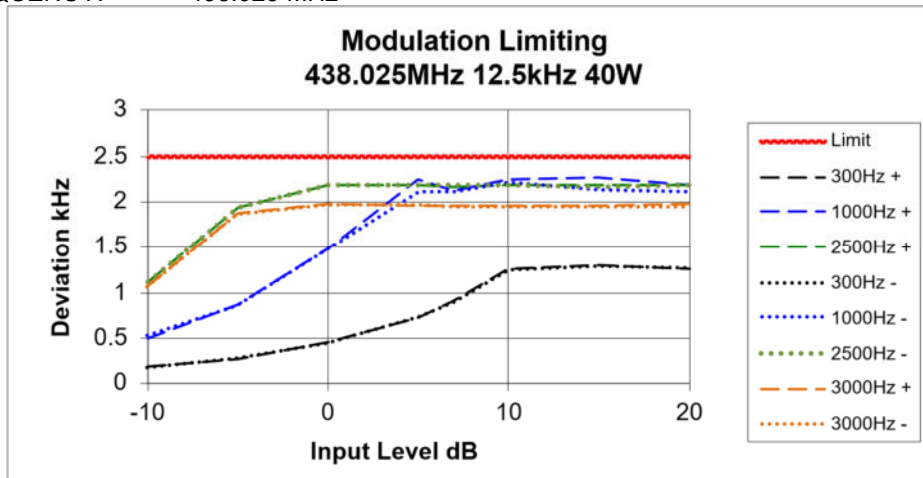


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

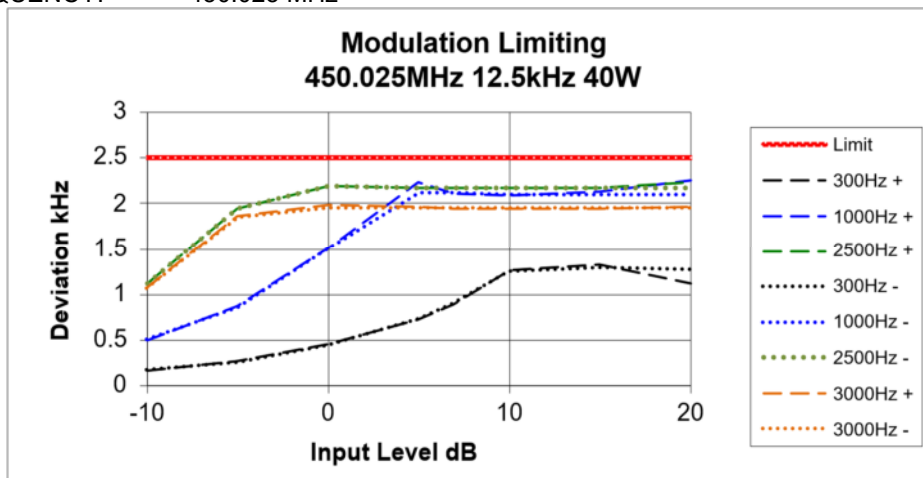
Tx FREQUENCY: 429.975 MHz



Tx FREQUENCY: 438.025 MHz

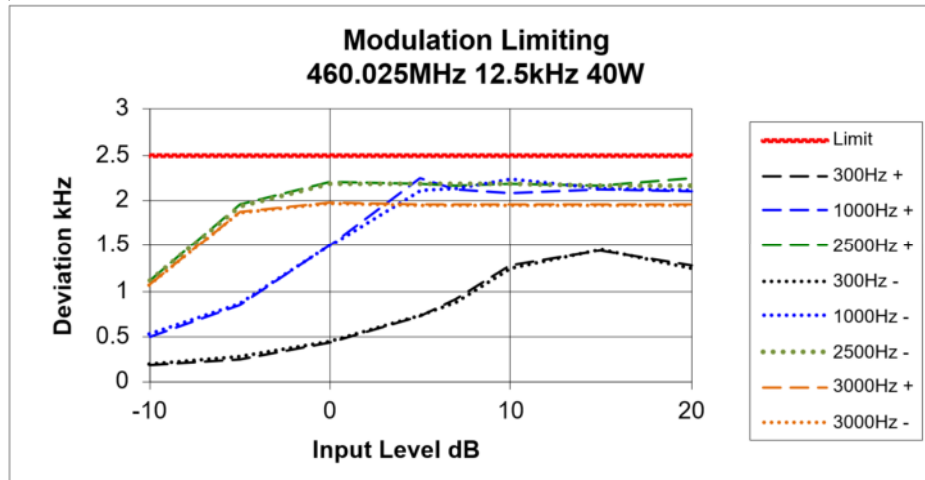


Tx FREQUENCY: 450.025 MHz

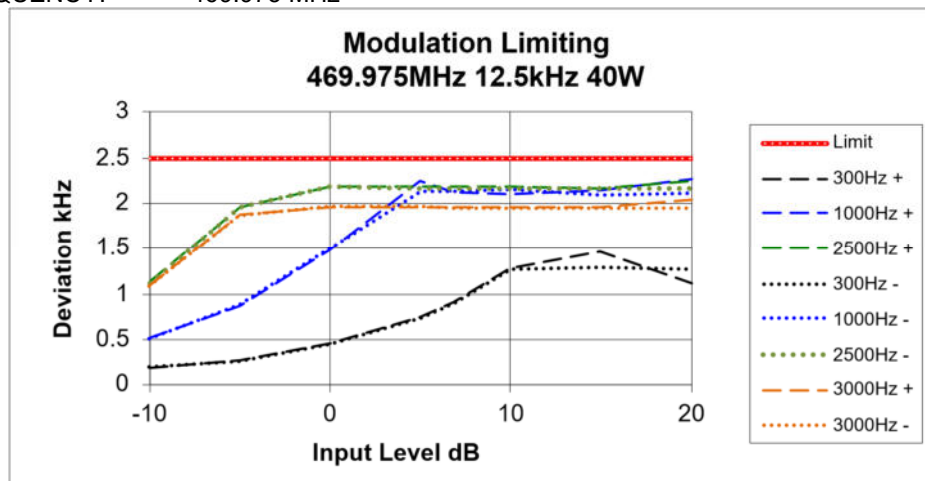


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

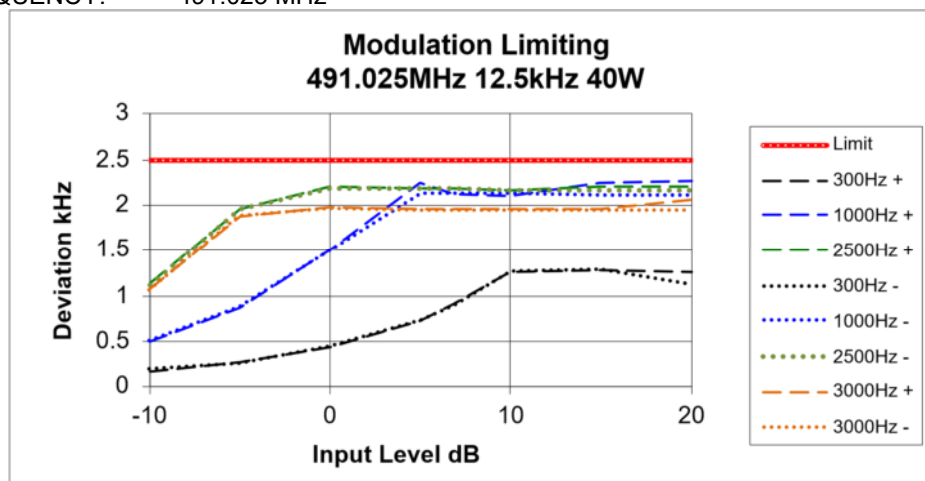
Tx FREQUENCY: 460.025 MHz



Tx FREQUENCY: 469.975 MHz

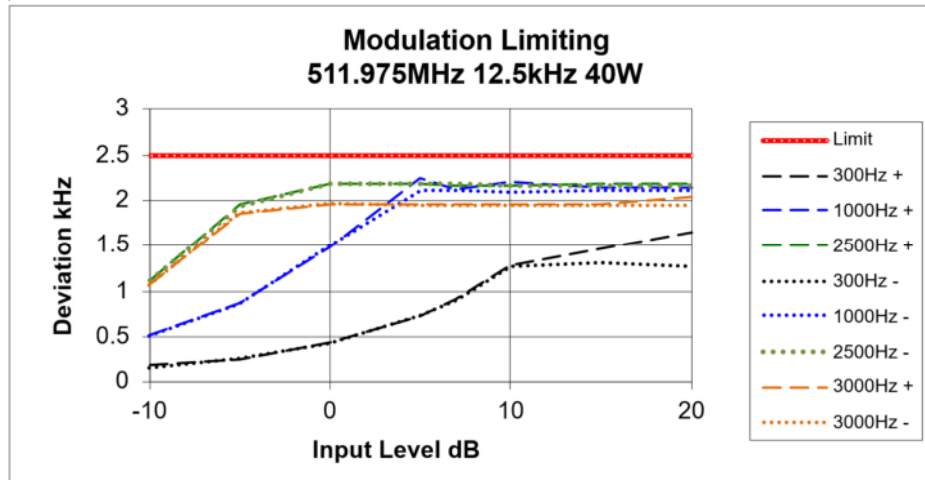


Tx FREQUENCY: 491.025 MHz

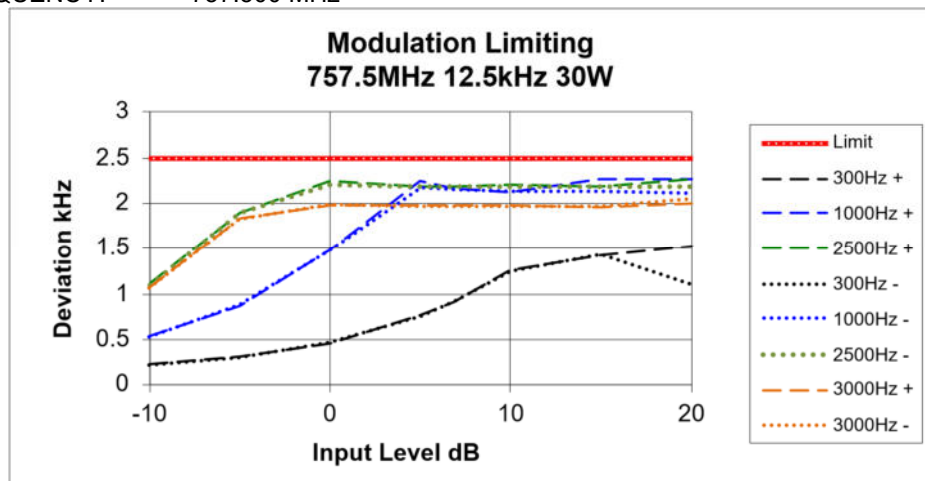


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

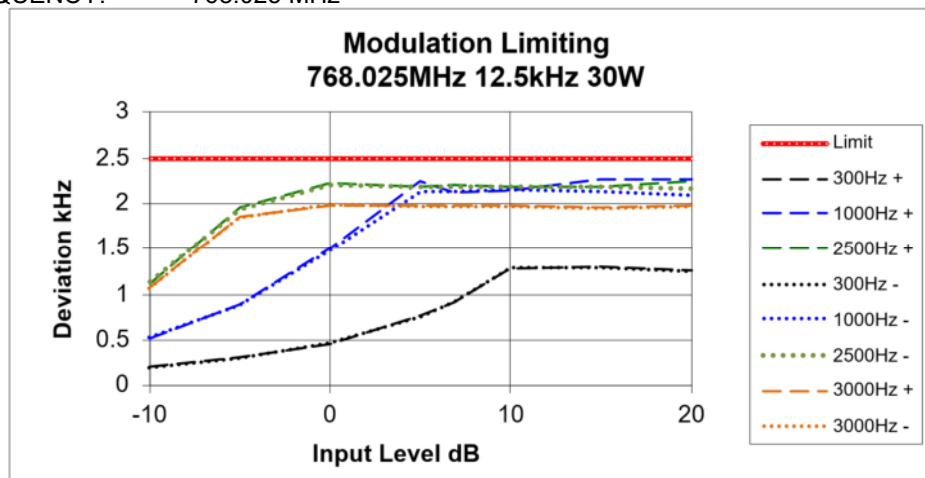
Tx FREQUENCY: 511.975 MHz



Tx FREQUENCY: 757.500 MHz

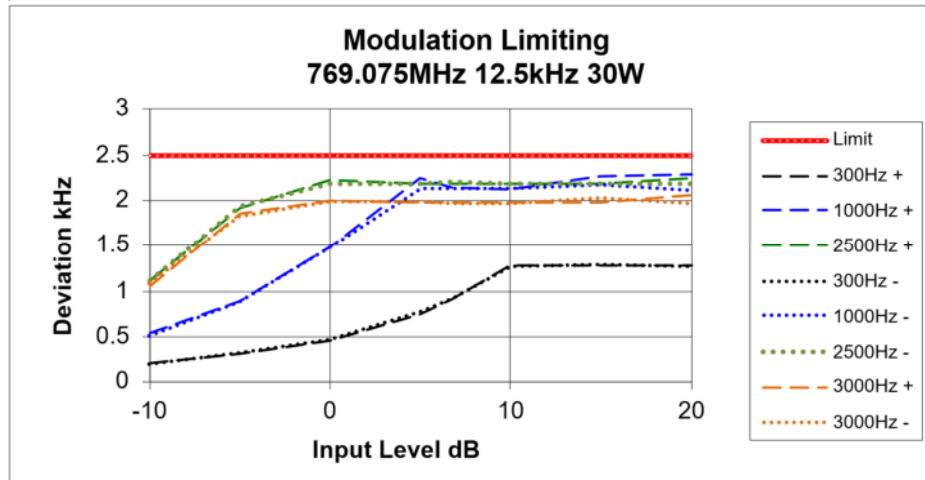


Tx FREQUENCY: 768.025 MHz

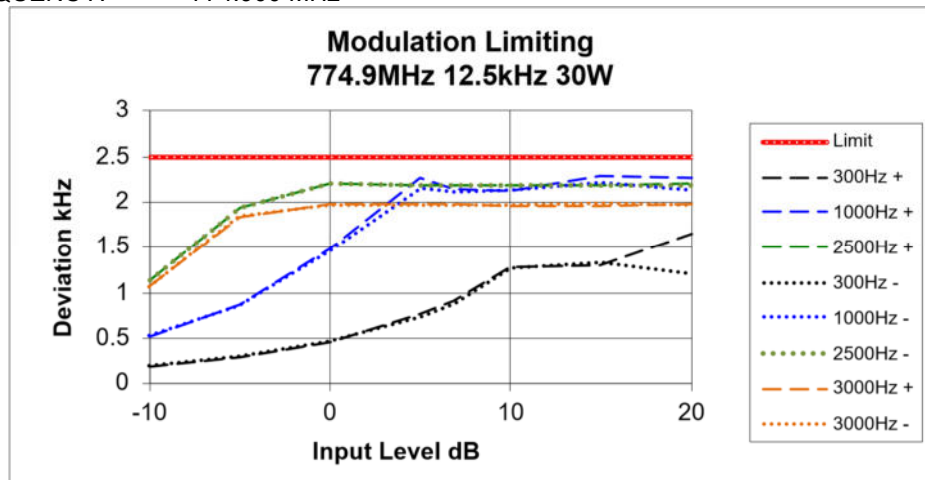


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

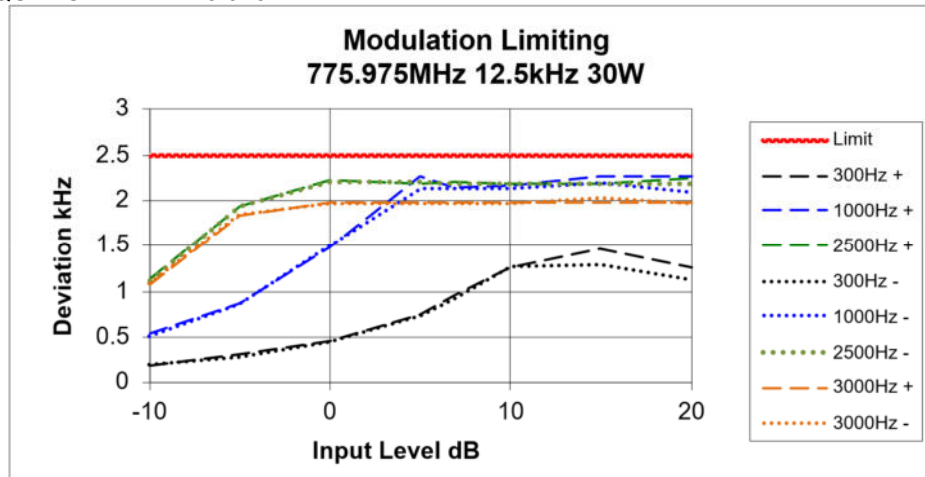
Tx FREQUENCY: 769.075 MHz



Tx FREQUENCY: 774.900 MHz

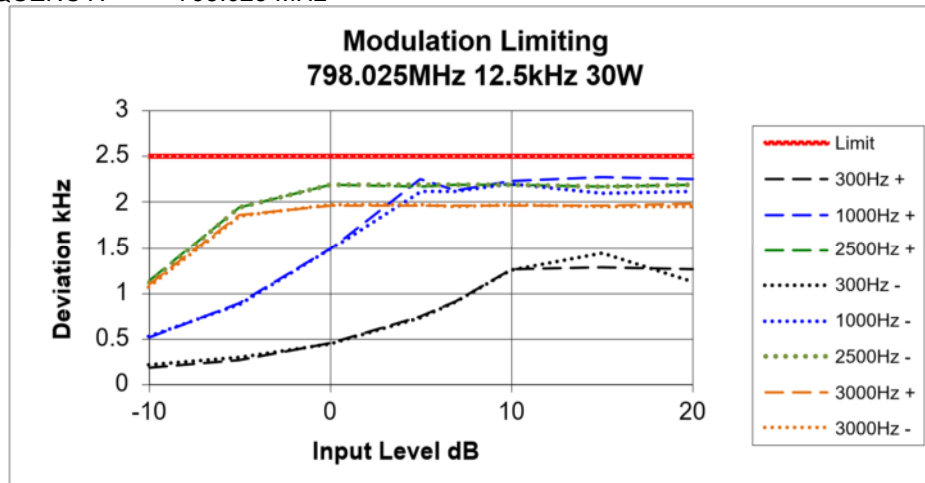


Tx FREQUENCY: 775.975 MHz

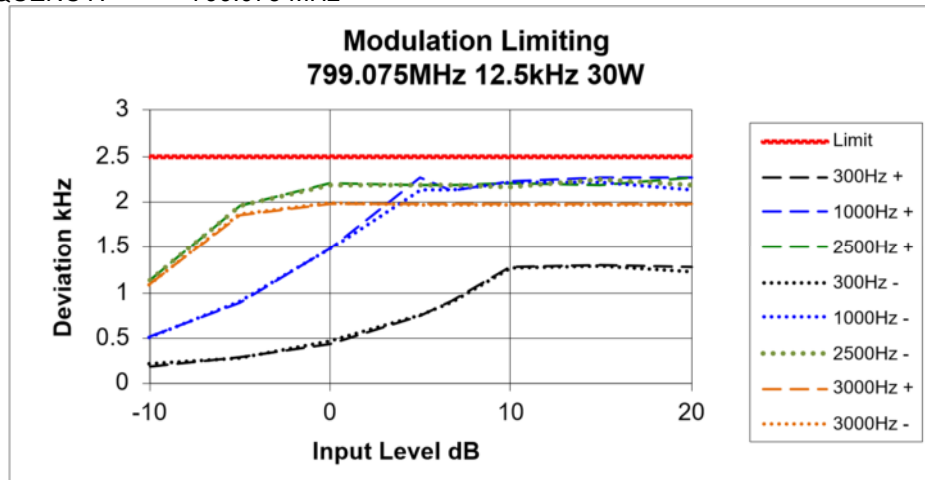


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

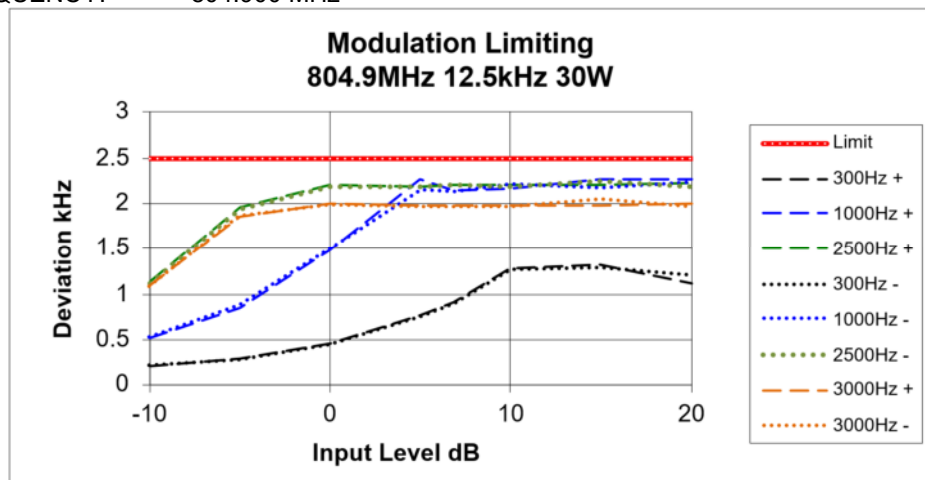
Tx FREQUENCY: 798.025 MHz



Tx FREQUENCY: 799.075 MHz

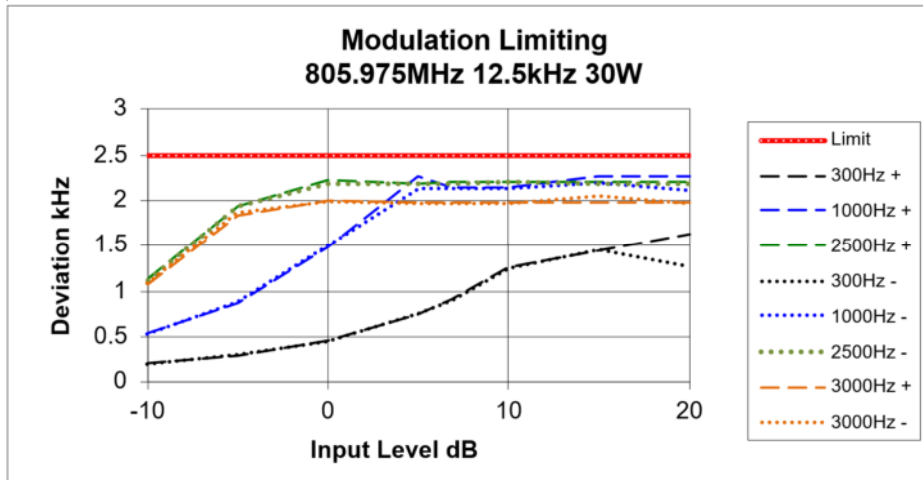


Tx FREQUENCY: 804.900 MHz

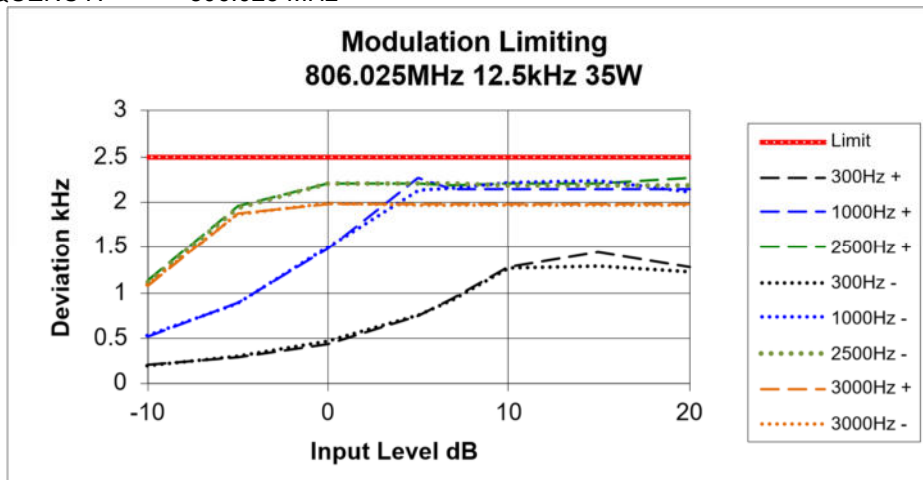


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

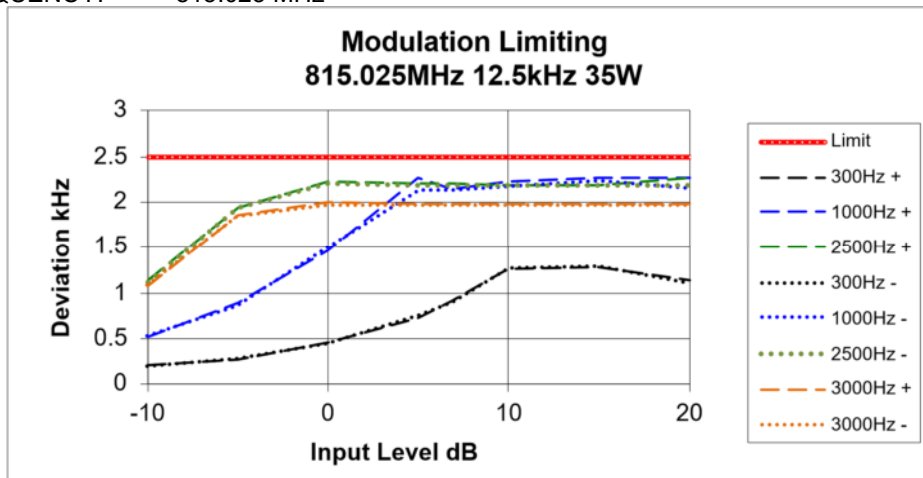
Tx FREQUENCY: 805.975 MHz



Tx FREQUENCY: 806.025 MHz

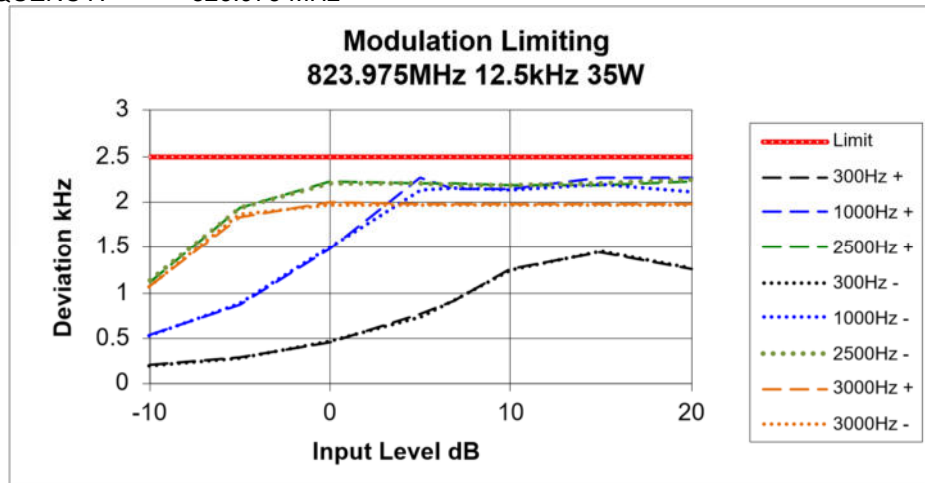


Tx FREQUENCY: 815.025 MHz

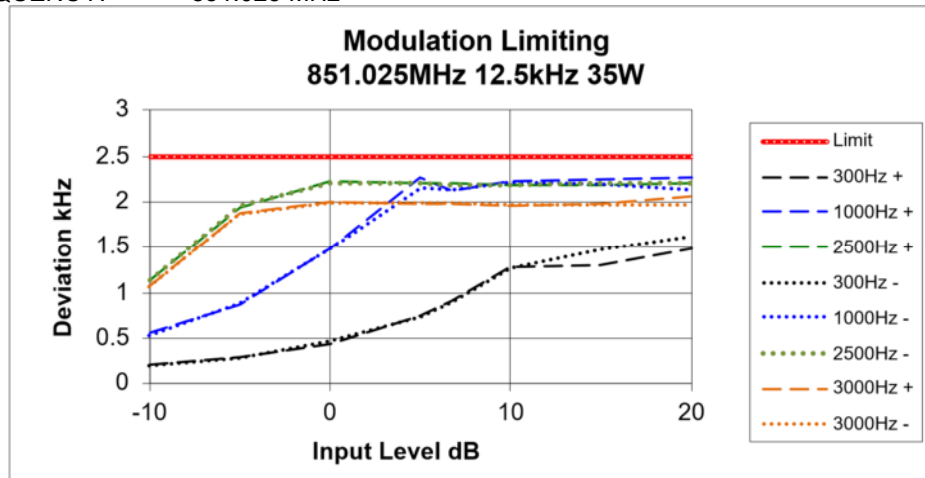


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

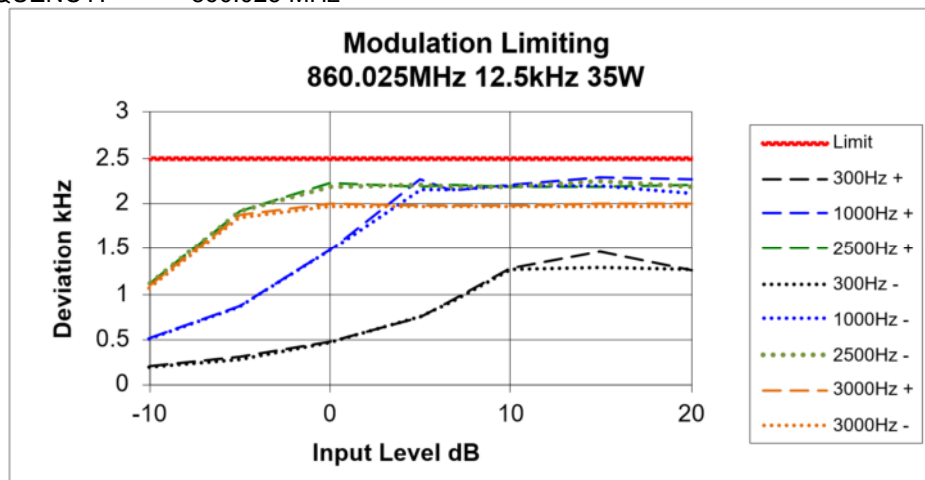
Tx FREQUENCY: 823.975 MHz



Tx FREQUENCY: 851.025 MHz

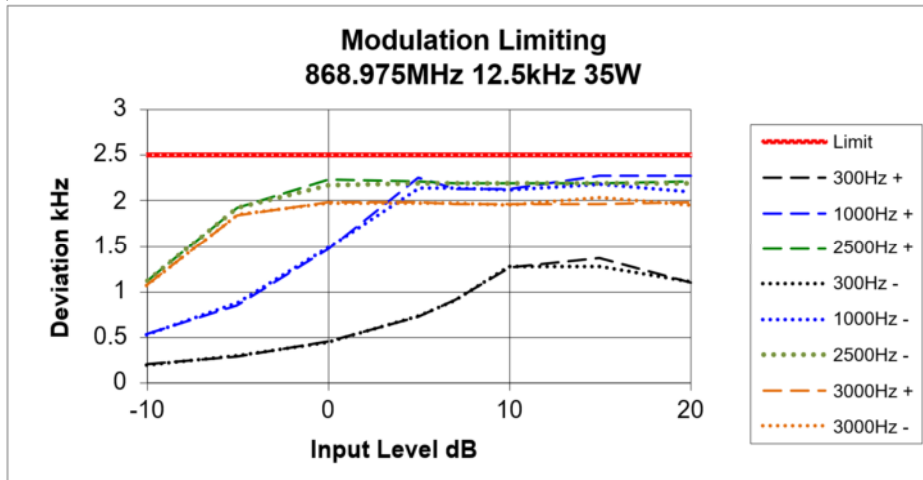


Tx FREQUENCY: 860.025 MHz

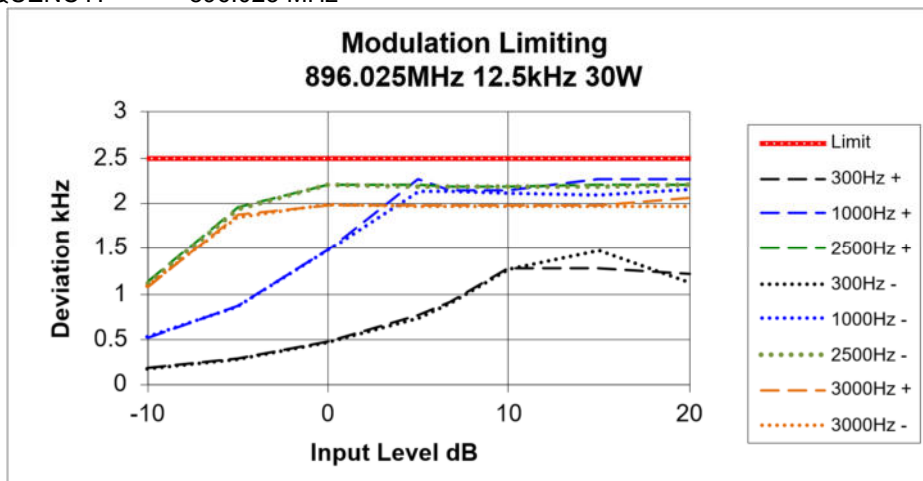


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Report Number 4402
Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

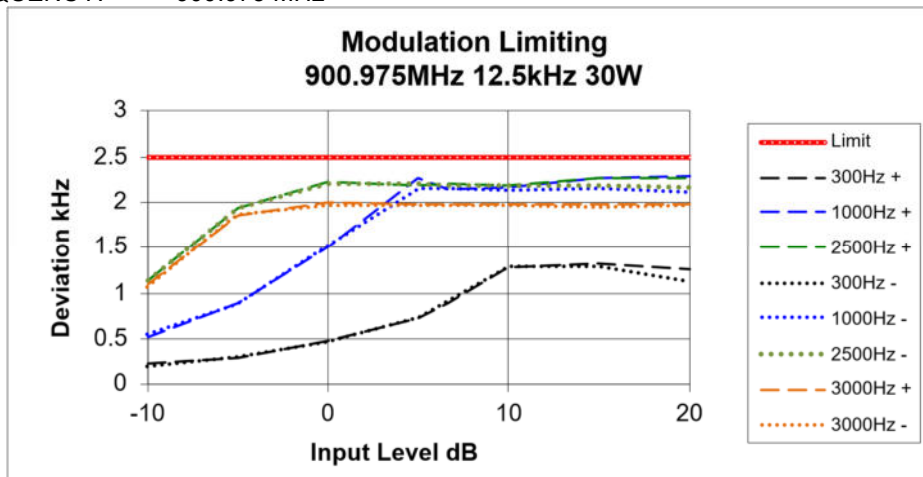
Tx FREQUENCY: 868.975 MHz



Tx FREQUENCY: 896.025 MHz

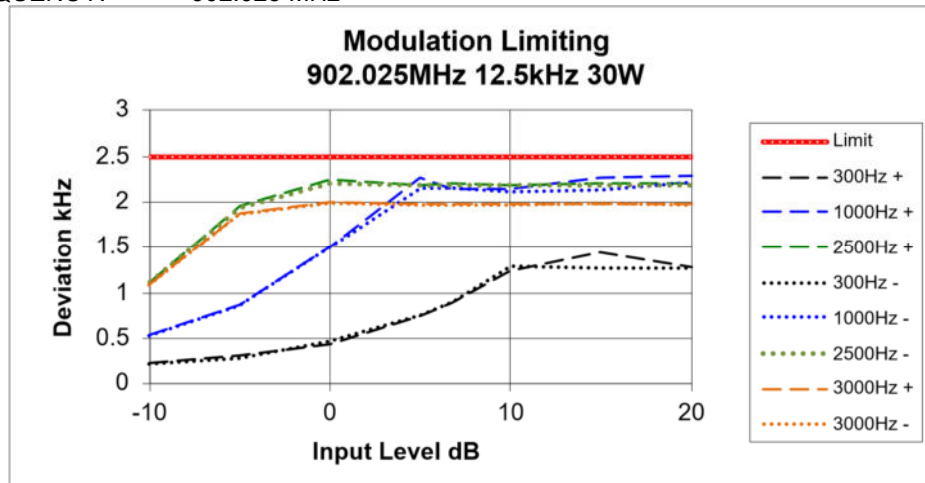


Tx FREQUENCY: 900.975 MHz

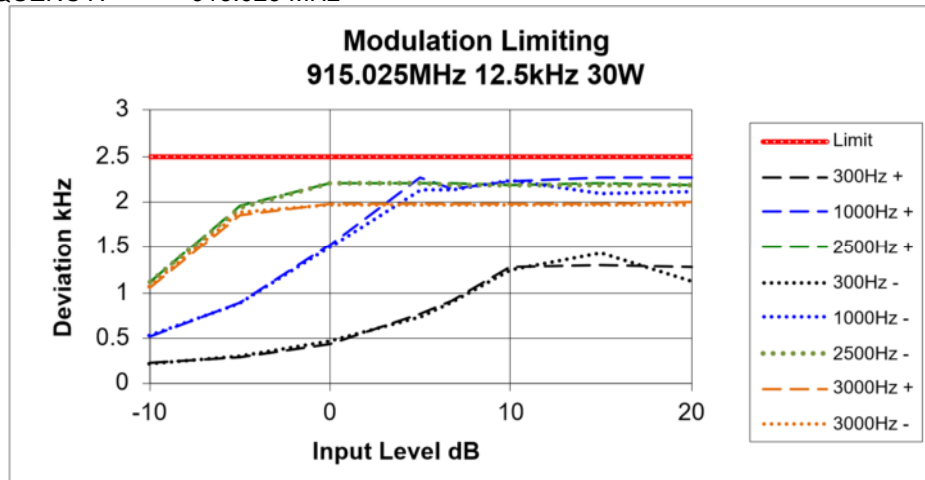


Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

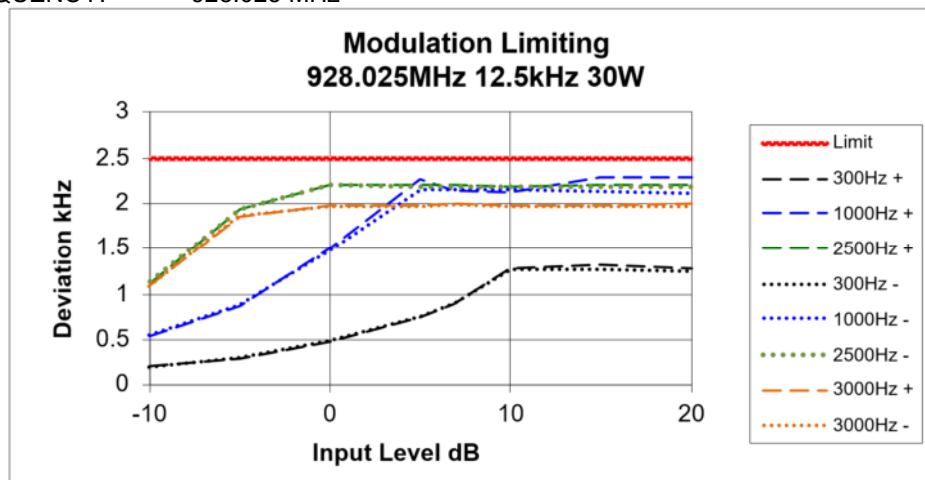
Tx FREQUENCY: 902.025 MHz



Tx FREQUENCY: 915.025 MHz

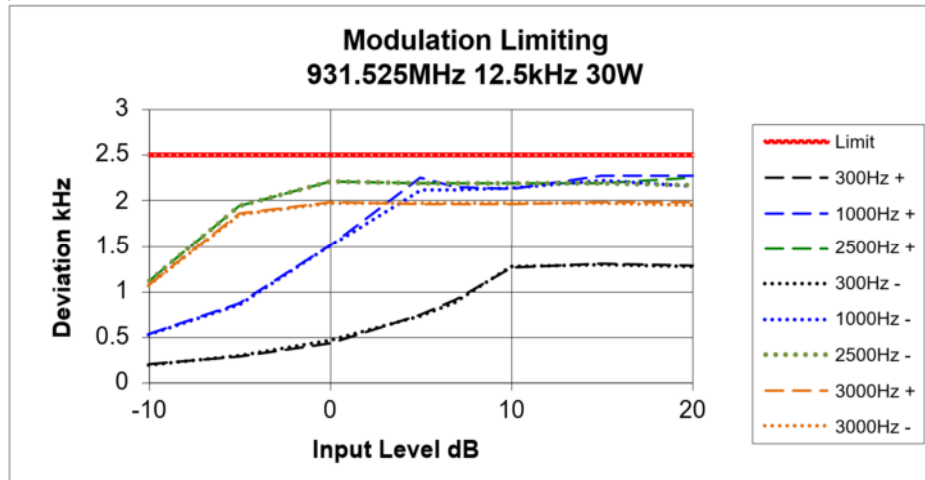


Tx FREQUENCY: 928.025 MHz

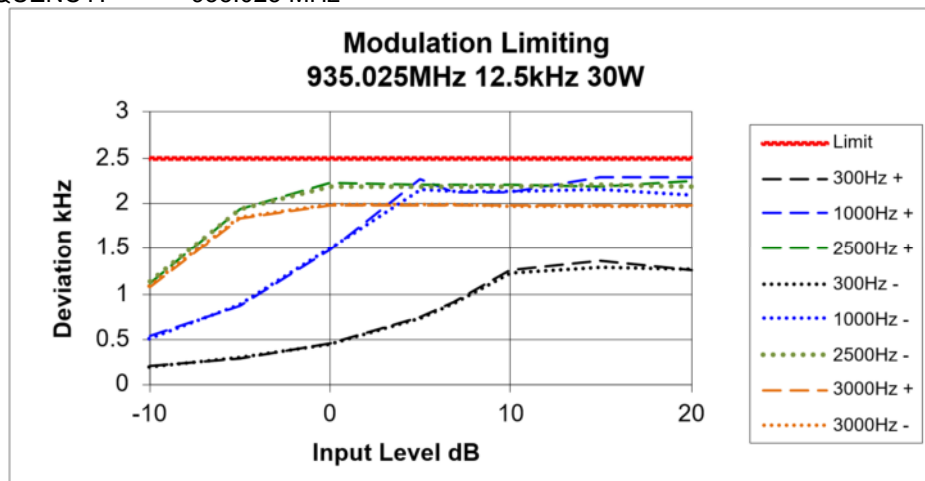


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Transmitter Modulation Limiting – 12.5 kHz Channel Spacing

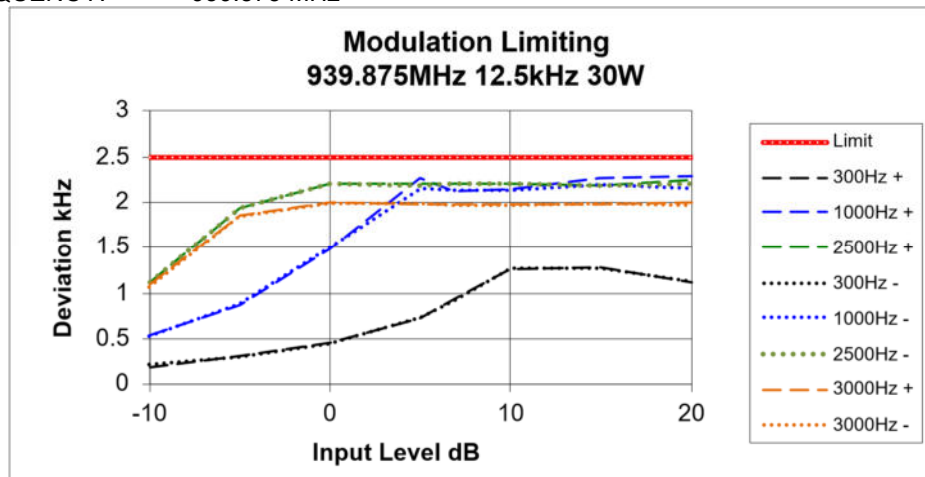
Tx FREQUENCY: 931.525 MHz



Tx FREQUENCY: 935.025 MHz

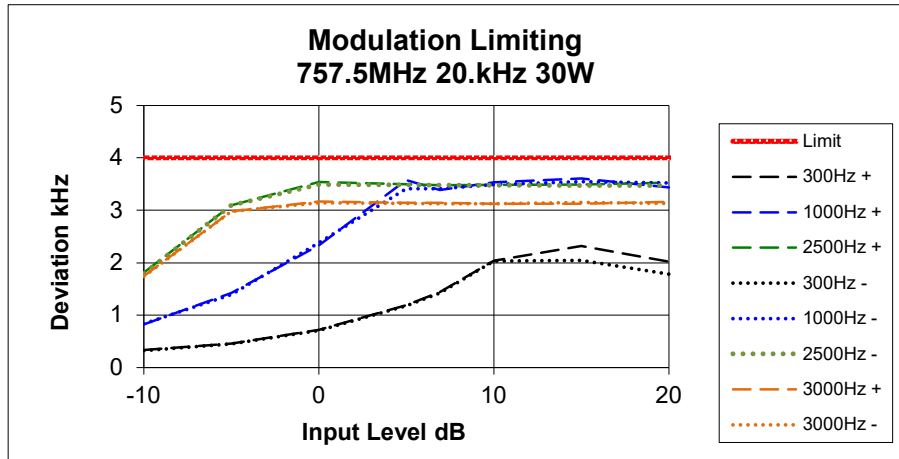


Tx FREQUENCY: 939.875 MHz

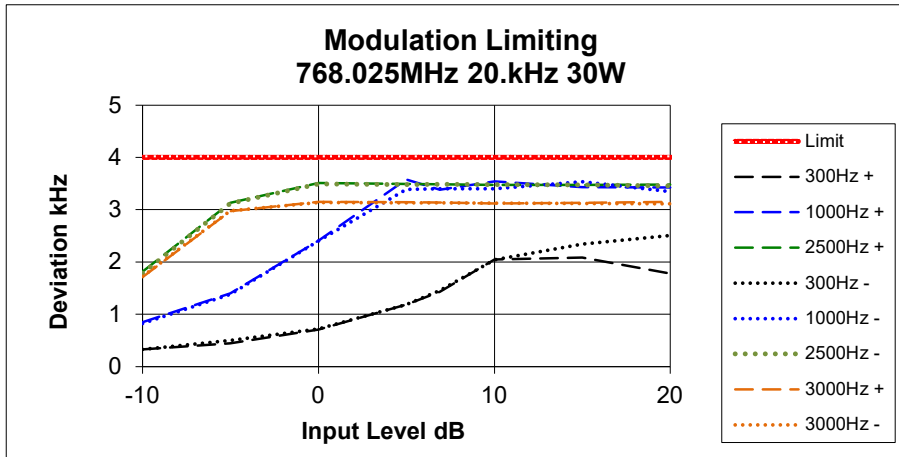


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Transmitter Modulation Limiting – 20 kHz Channel Spacing

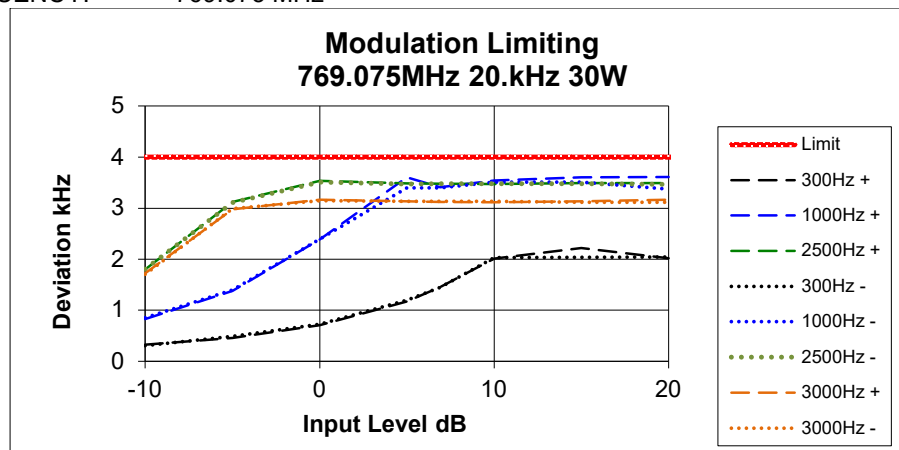
Tx FREQUENCY: 757.500 MHz



Tx FREQUENCY: 768.025 MHz

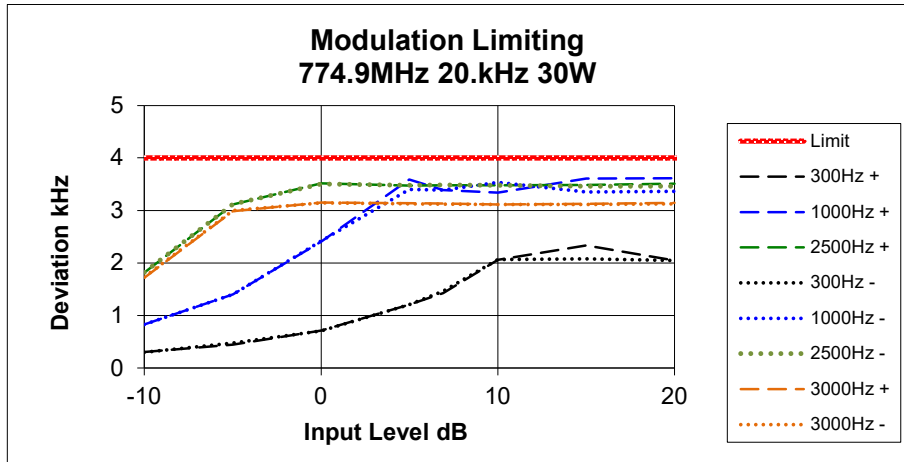


Tx FREQUENCY: 769.075 MHz

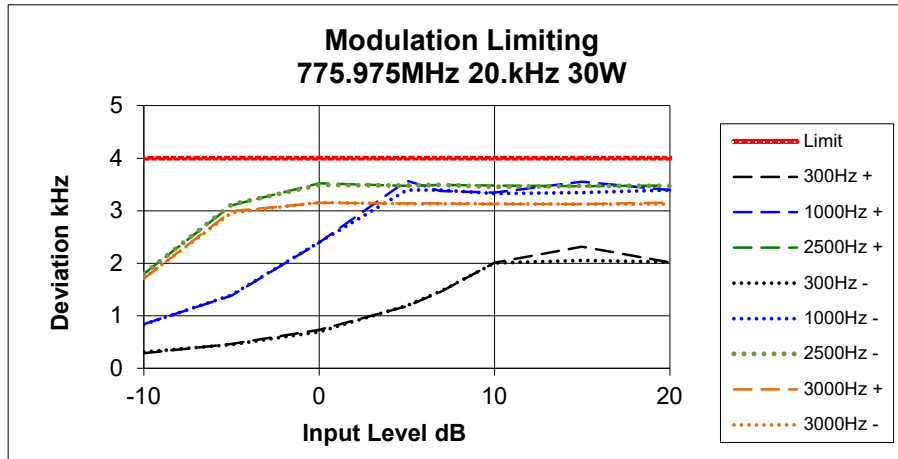


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Report Number 4402
Transmitter Modulation Limiting – 20 kHz Channel Spacing

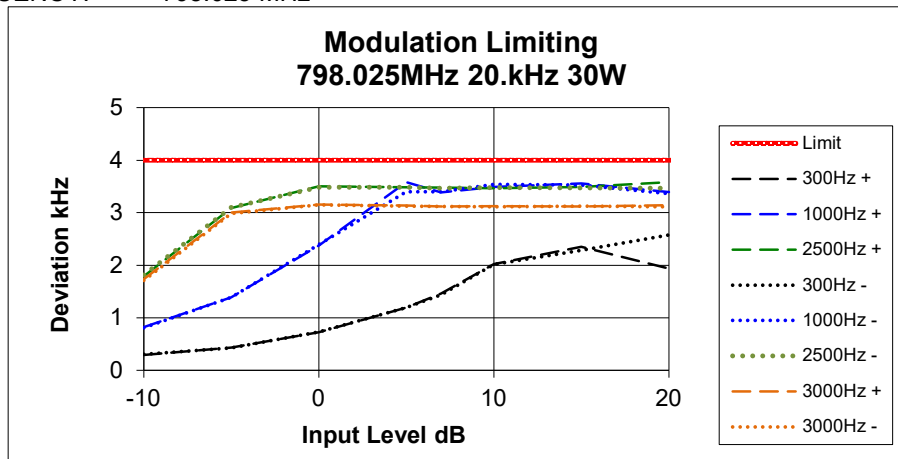
Tx FREQUENCY: 774.900 MHz



Tx FREQUENCY: 775.975 MHz

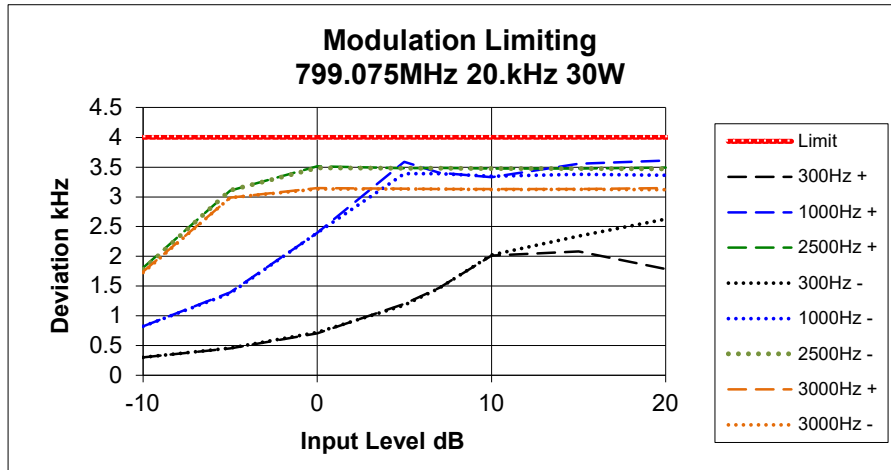


Tx FREQUENCY: 798.025 MHz

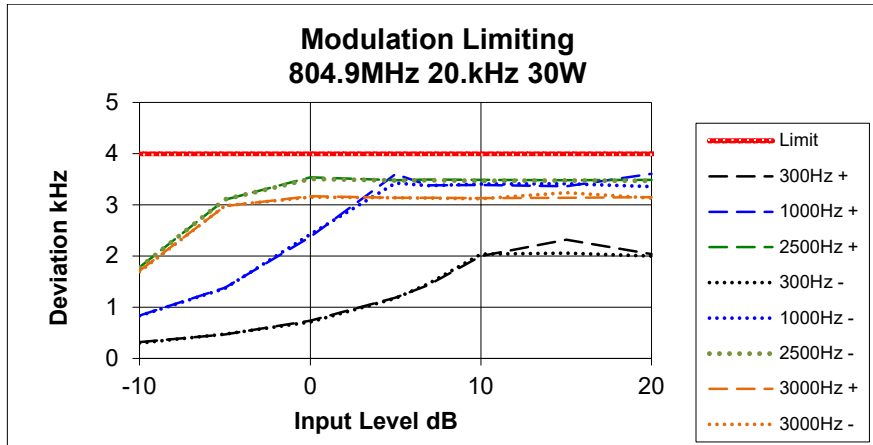


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Transmitter Modulation Limiting – 20 kHz Channel Spacing

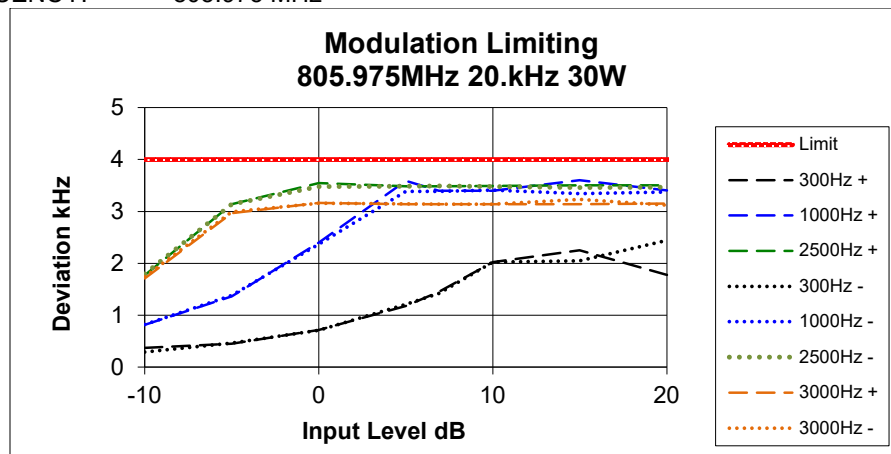
Tx FREQUENCY: 799.075 MHz



Tx FREQUENCY: 804.900 MHz

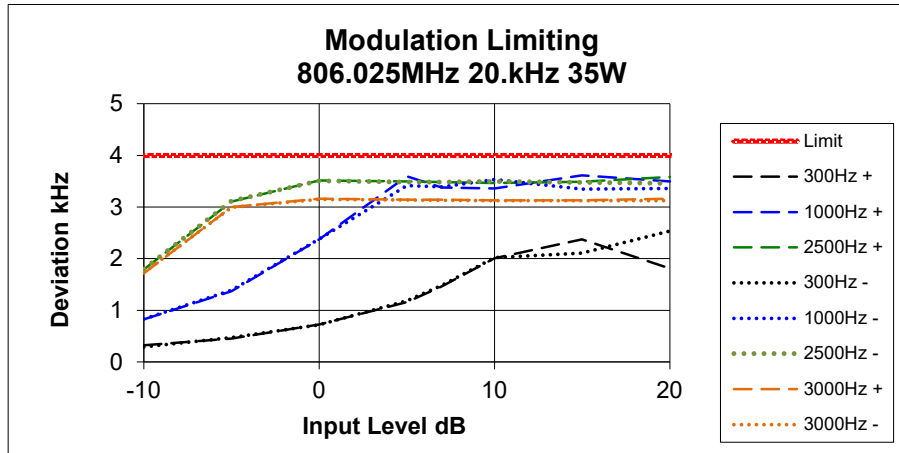


Tx FREQUENCY: 805.975 MHz

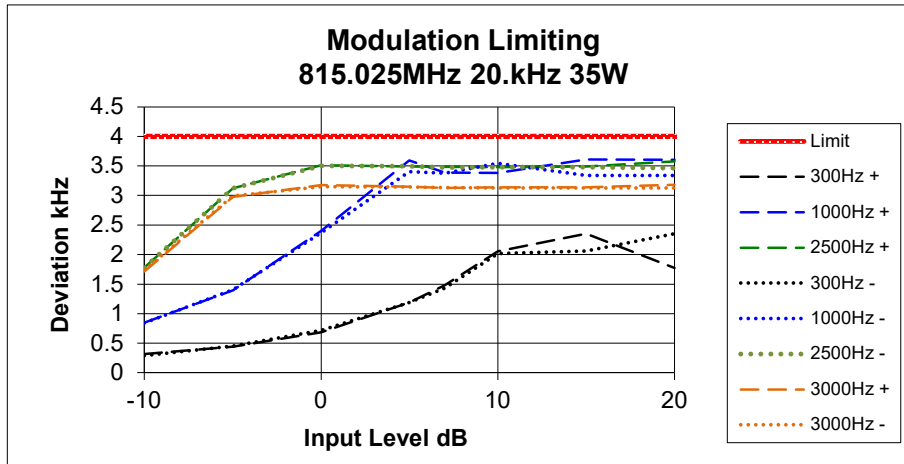


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Report Number 4402
Transmitter Modulation Limiting – 20 kHz Channel Spacing

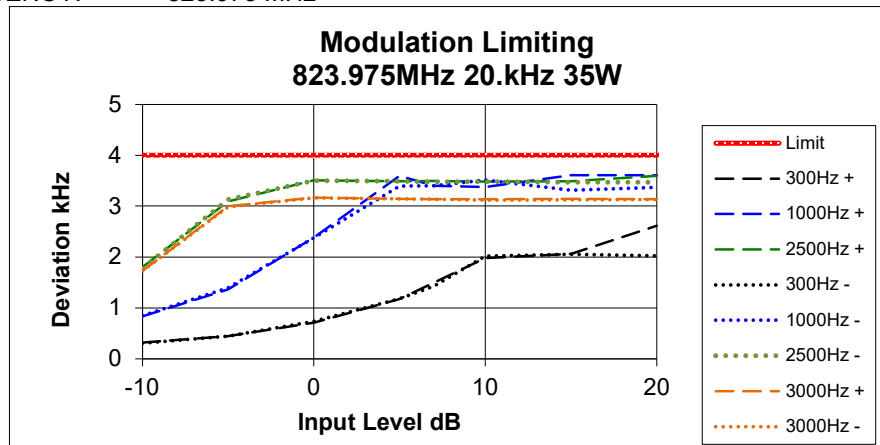
Tx FREQUENCY: 806.025 MHz



Tx FREQUENCY: 815.025 MHz

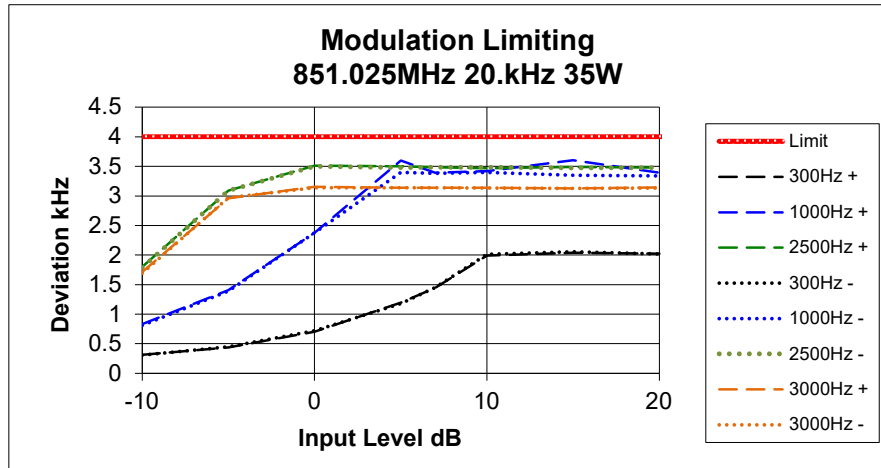


Tx FREQUENCY: 823.975 MHz

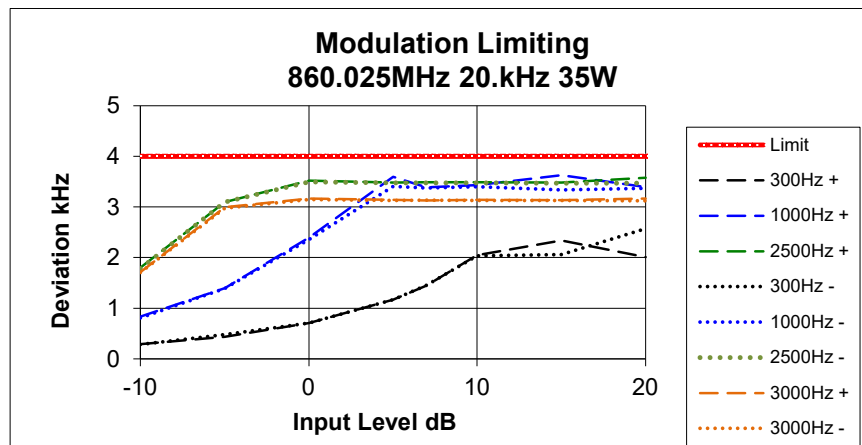


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Transmitter Modulation Limiting – 20 kHz Channel Spacing

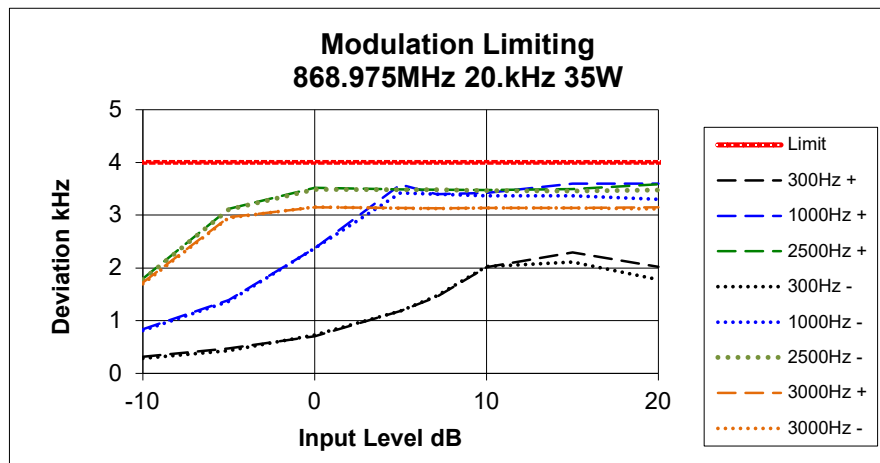
Tx FREQUENCY: 851.025 MHz



Tx FREQUENCY: 860.025 MHz

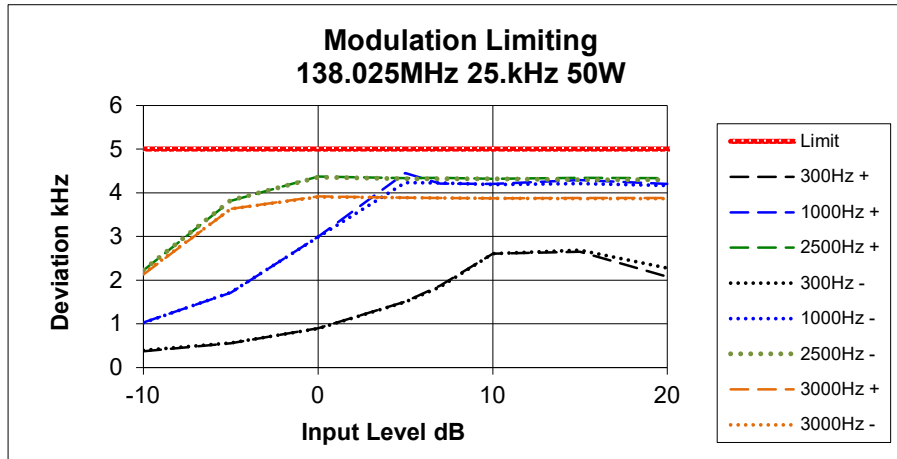


Tx FREQUENCY: 868.975 MHz

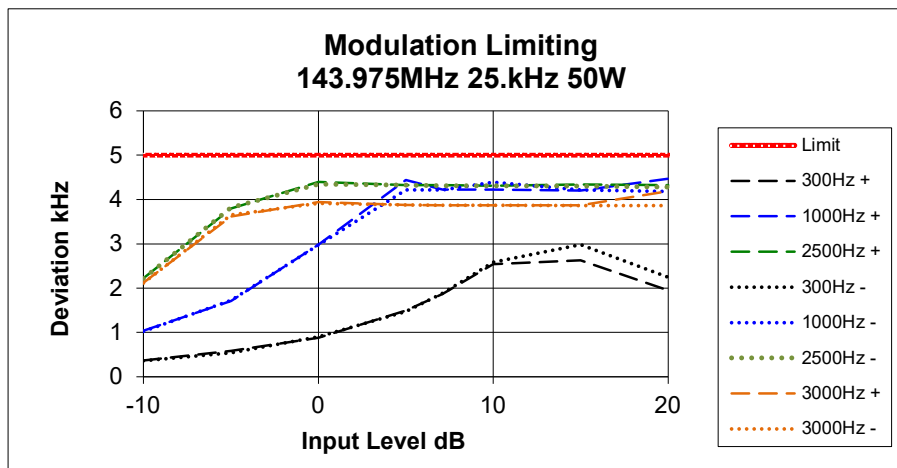


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

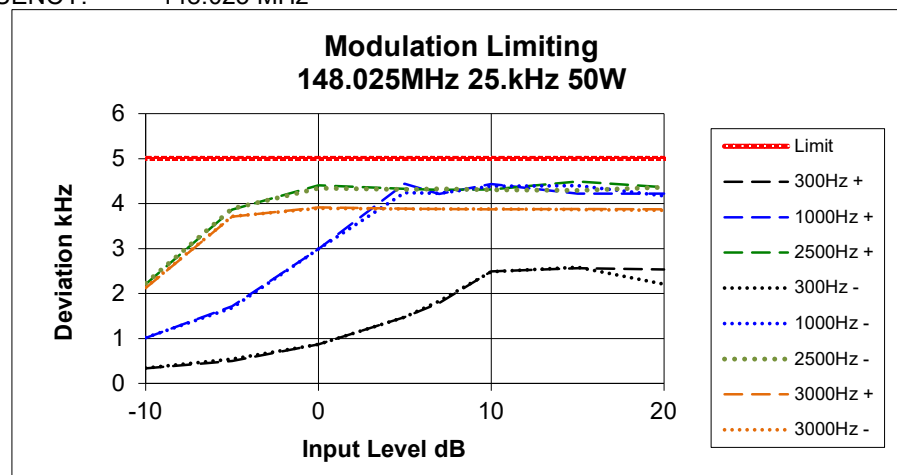
Tx FREQUENCY: 138.025 MHz



Tx FREQUENCY: 143.975 MHz

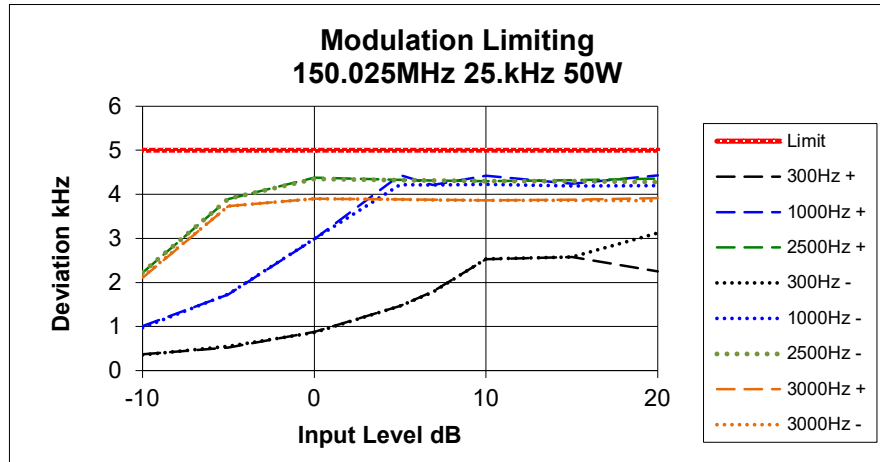


Tx FREQUENCY: 148.025 MHz

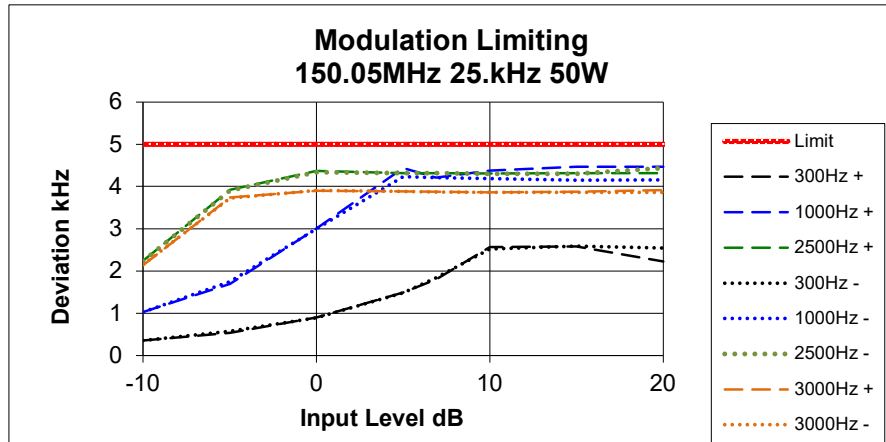


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Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

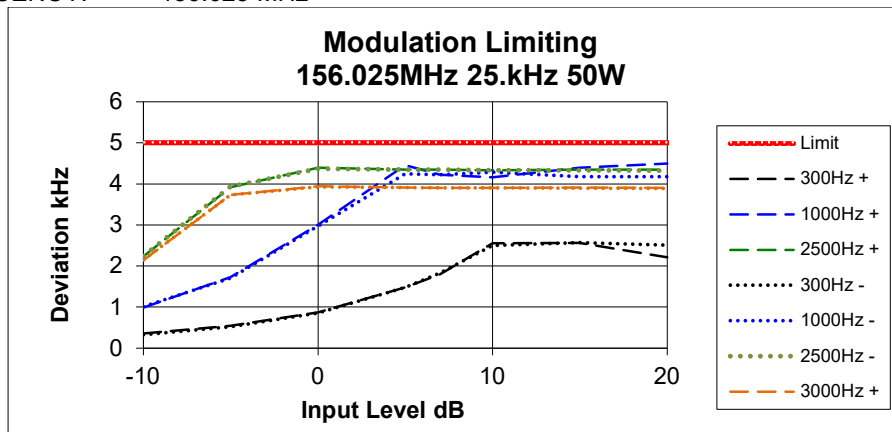
Tx FREQUENCY: 150.025 MHz



Tx FREQUENCY: 150.050 MHz

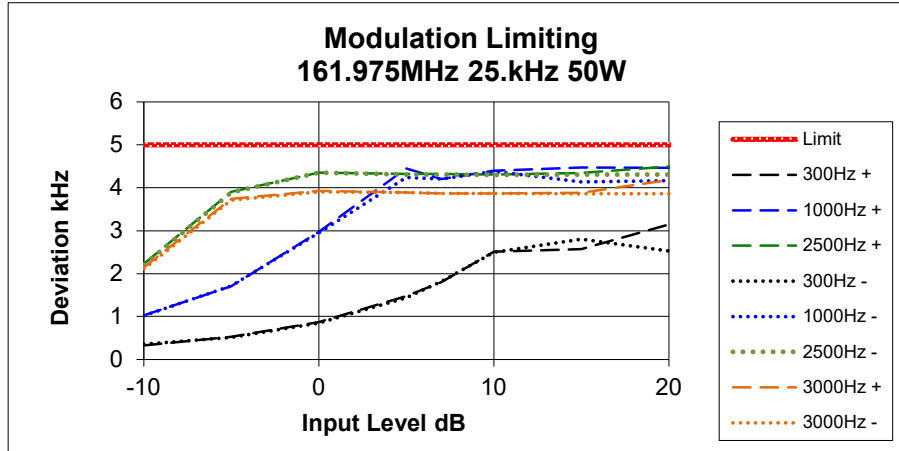


Tx FREQUENCY: 156.025 MHz

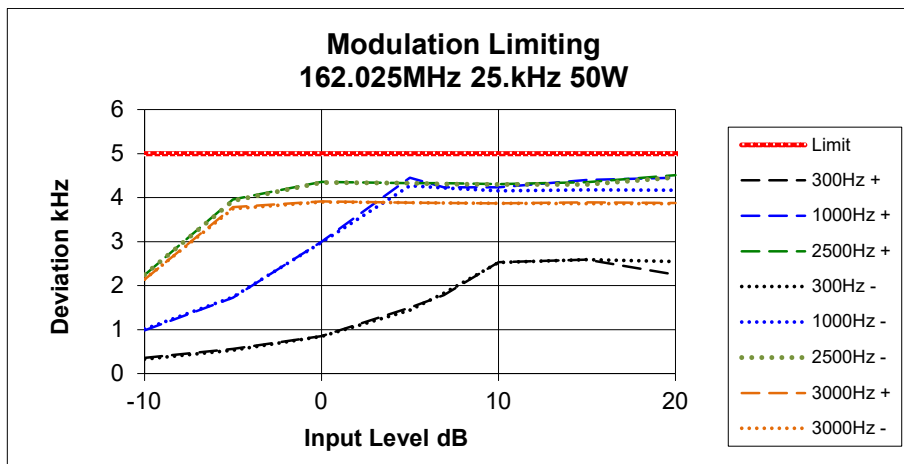


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Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

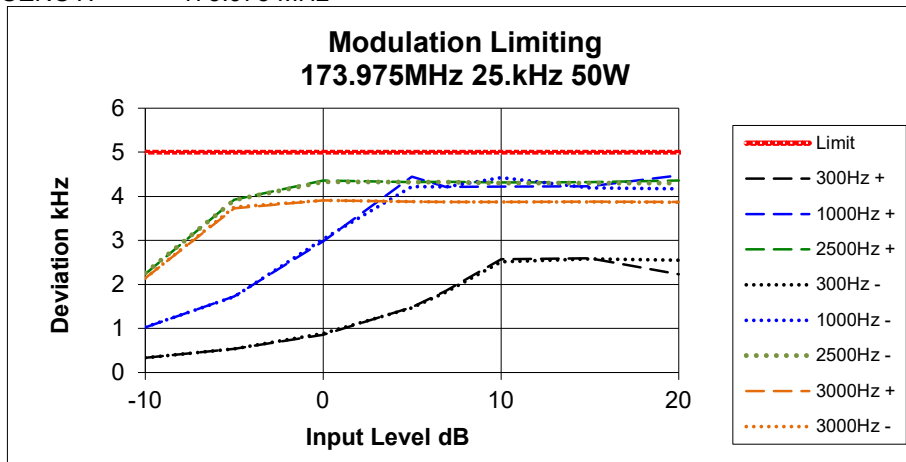
Tx FREQUENCY: 161.975 MHz



Tx FREQUENCY: 162.025 MHz

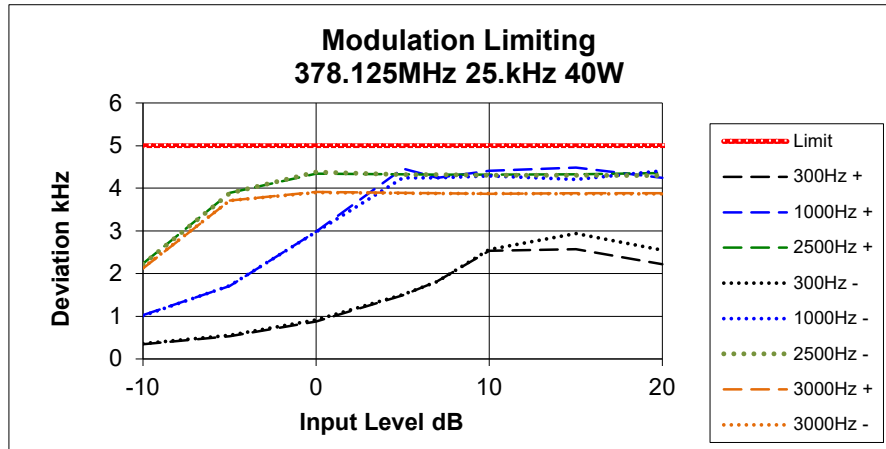


Tx FREQUENCY: 173.975 MHz

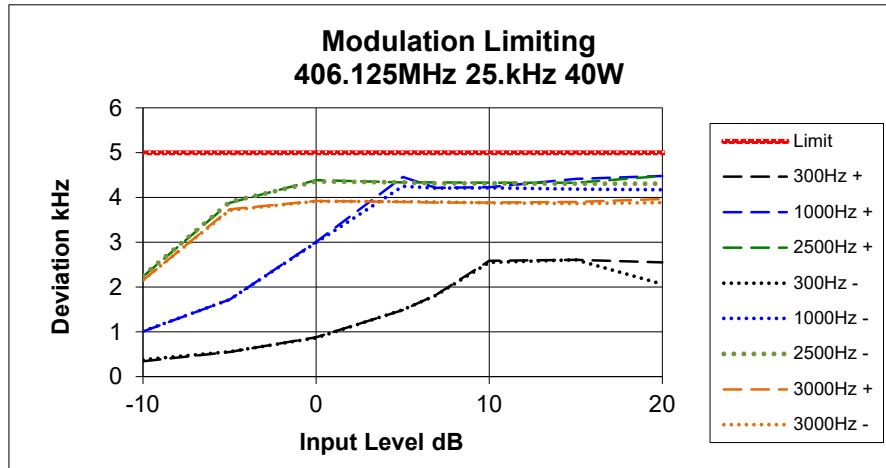


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Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

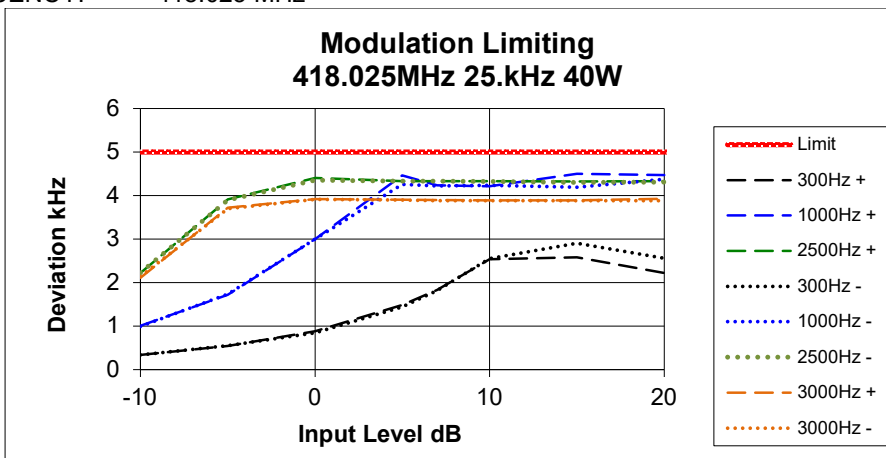
Tx FREQUENCY: 378.125 MHz



Tx FREQUENCY: 406.125 MHz

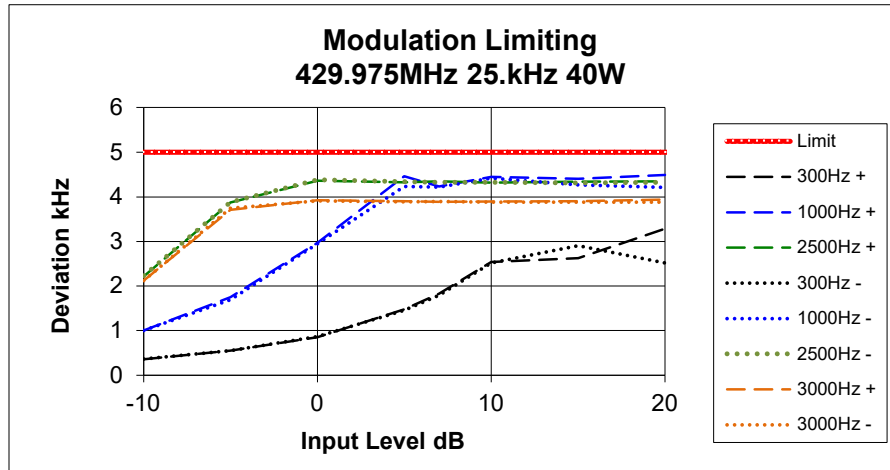


Tx FREQUENCY: 418.025 MHz

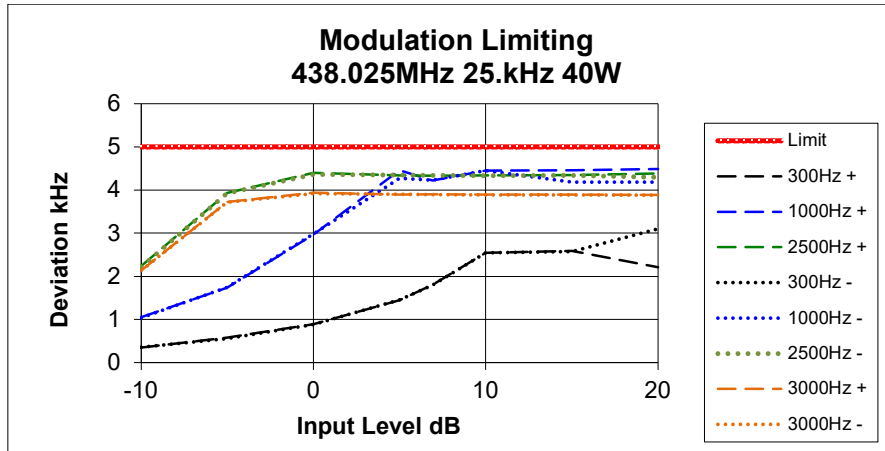


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Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

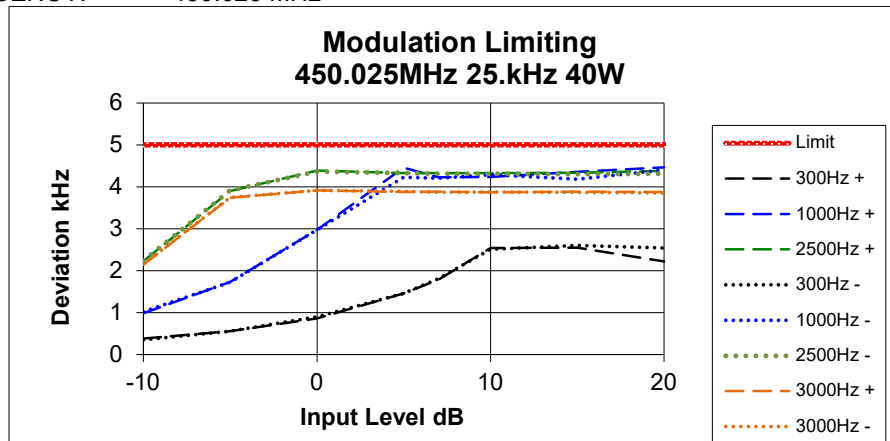
Tx FREQUENCY: 429.975 MHz



Tx FREQUENCY: 438.025 MHz

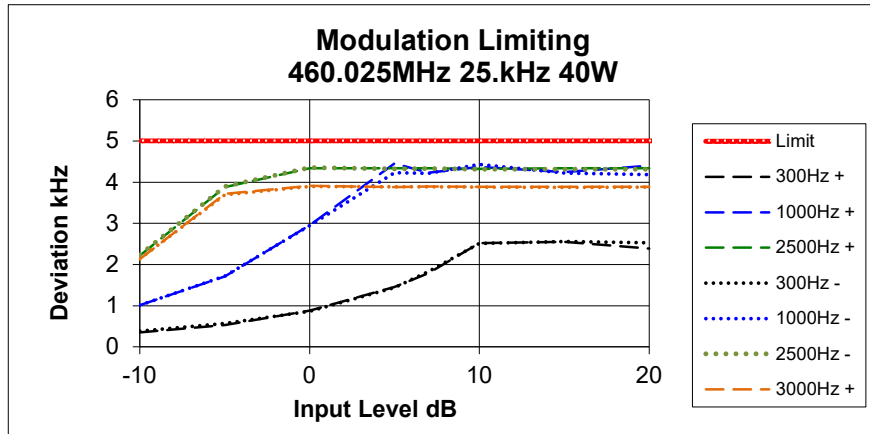


Tx FREQUENCY: 450.025 MHz

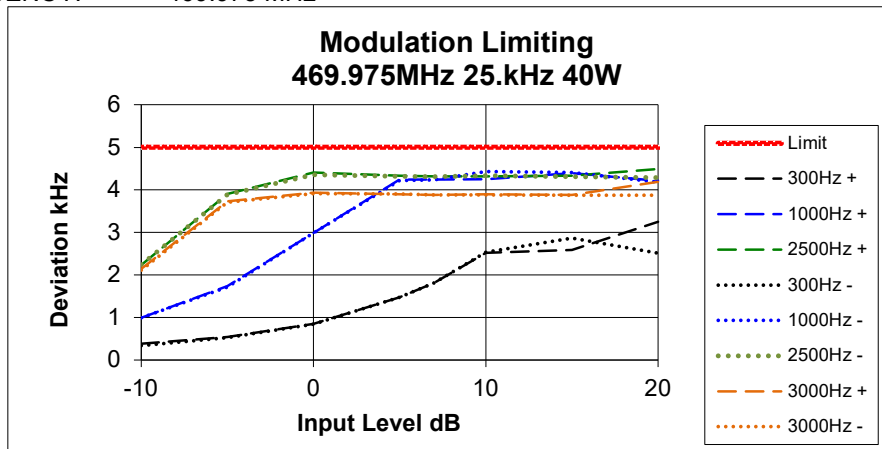


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Tait International Ltd
Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

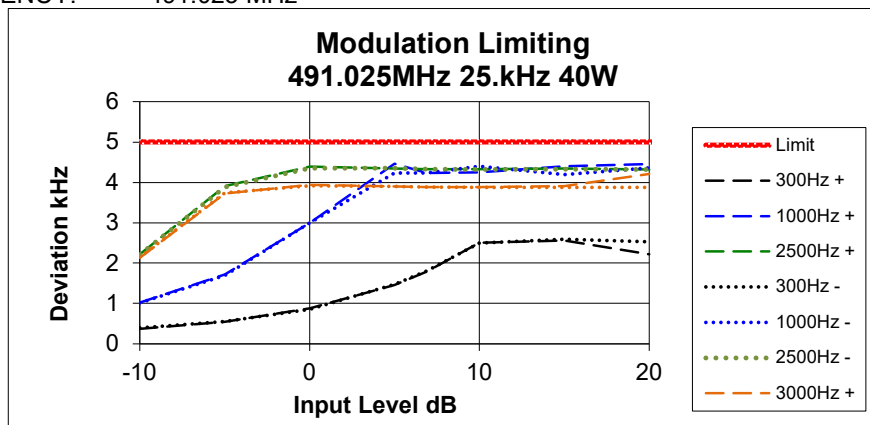
Tx FREQUENCY: 460.025 MHz



Tx FREQUENCY: 469.975 MHz

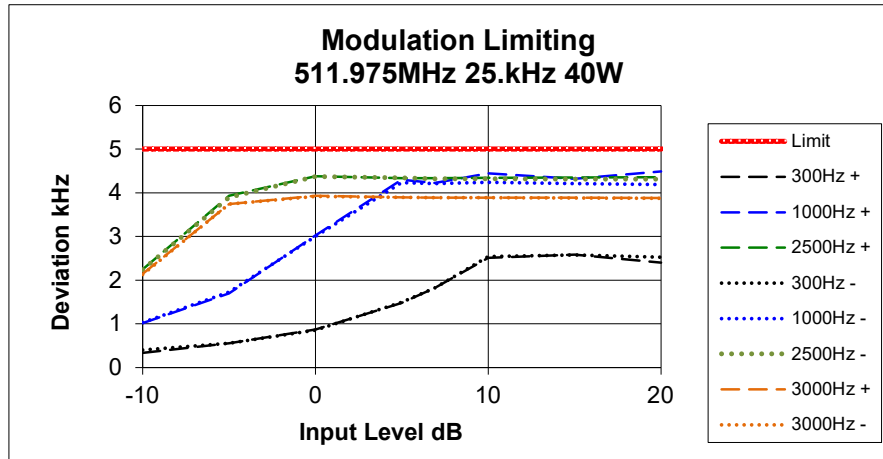


Tx FREQUENCY: 491.025 MHz

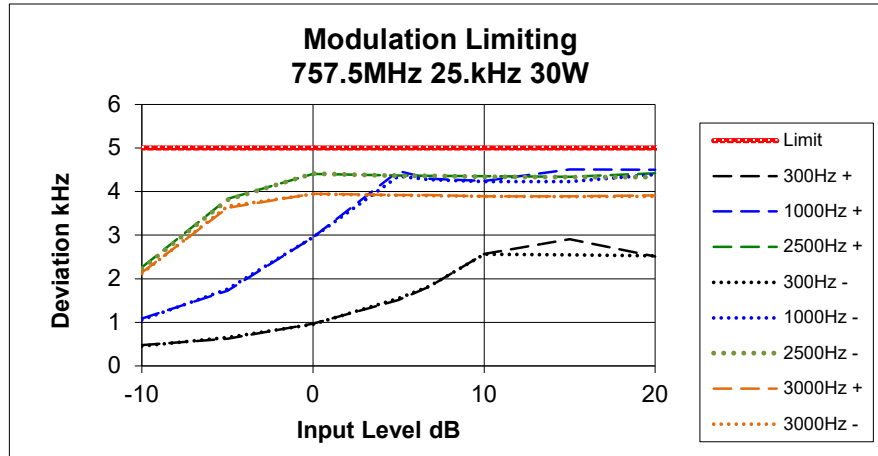


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Report Number 4402
Transmitter Modulation Limiting – 25 kHz Channel Spacing

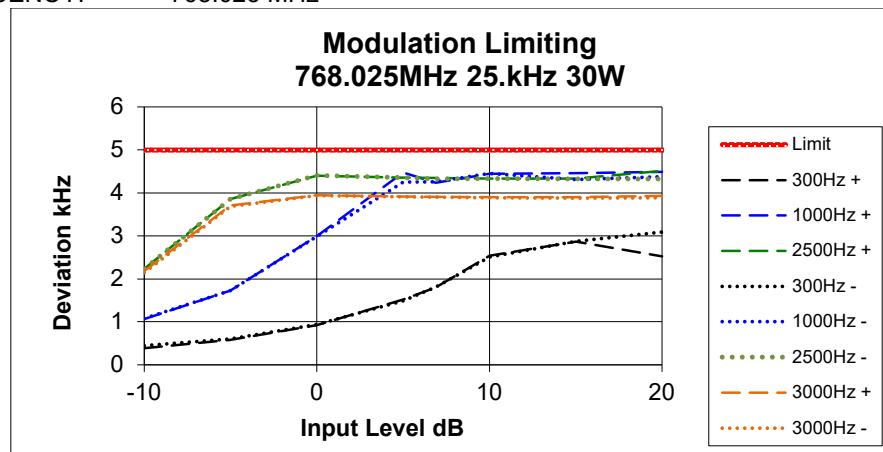
Tx FREQUENCY: 511.975 MHz



Tx FREQUENCY: 757.500 MHz

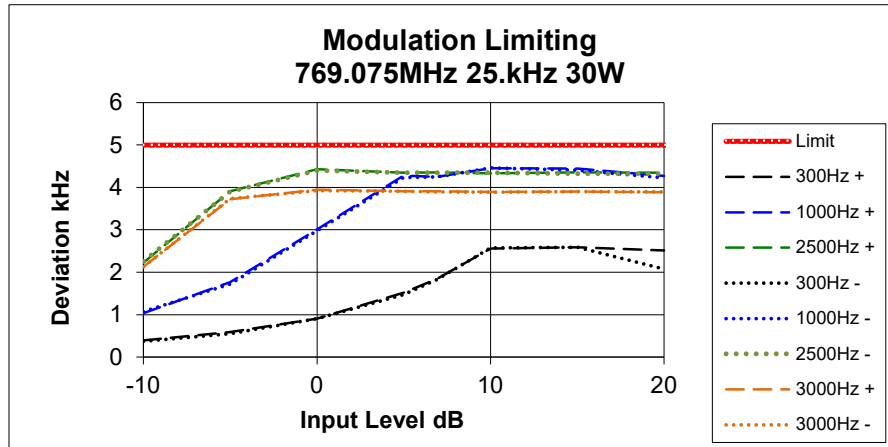


Tx FREQUENCY: 768.025 MHz

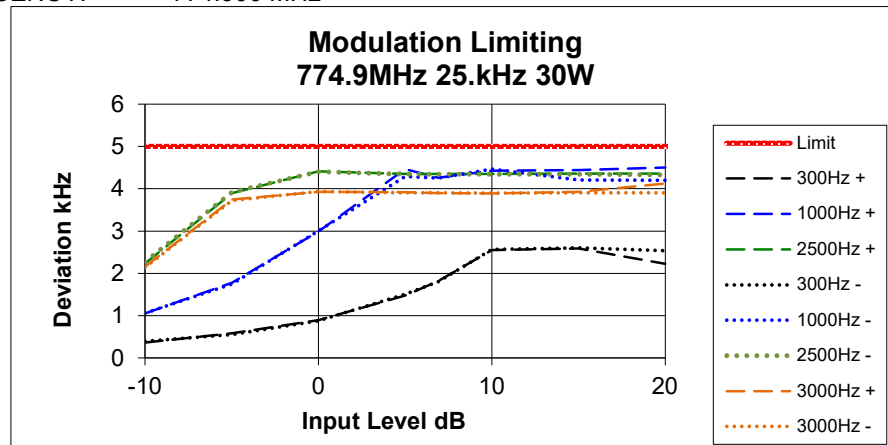


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

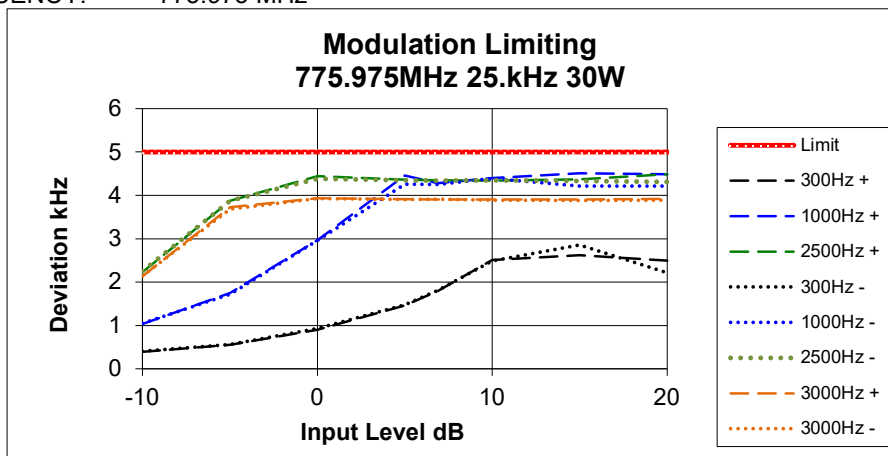
Tx FREQUENCY: 769.075 MHz



Tx FREQUENCY: 774.900 MHz

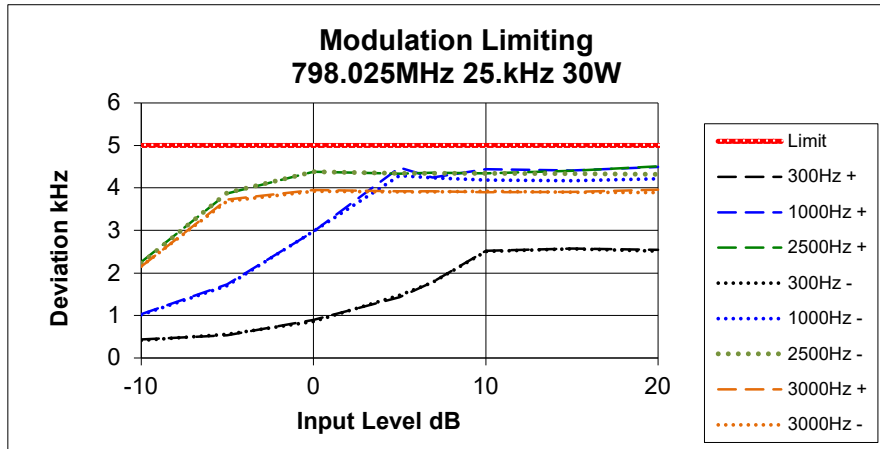


Tx FREQUENCY: 775.975 MHz

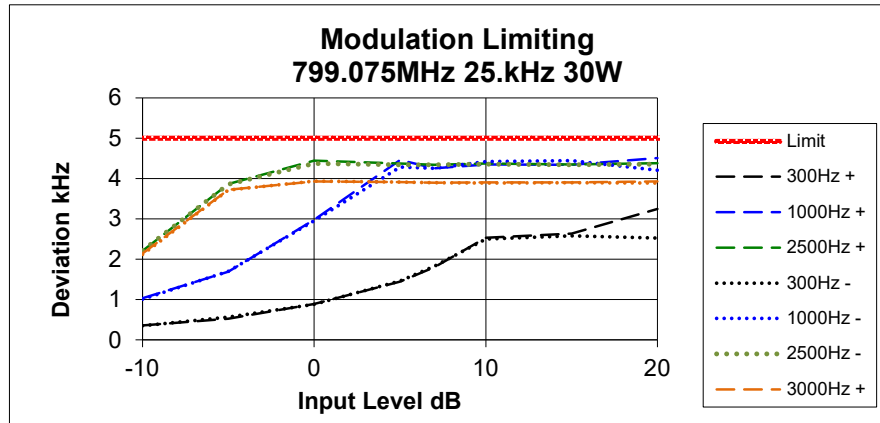


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

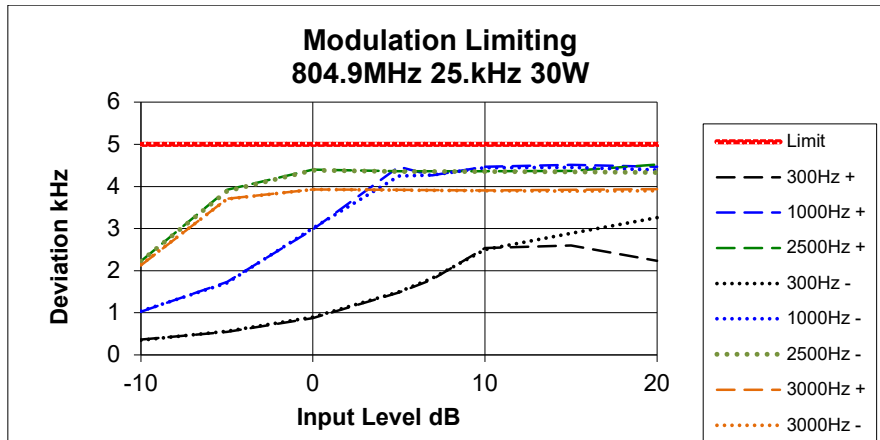
Tx FREQUENCY: 798.025 MHz



Tx FREQUENCY: 799.075 MHz

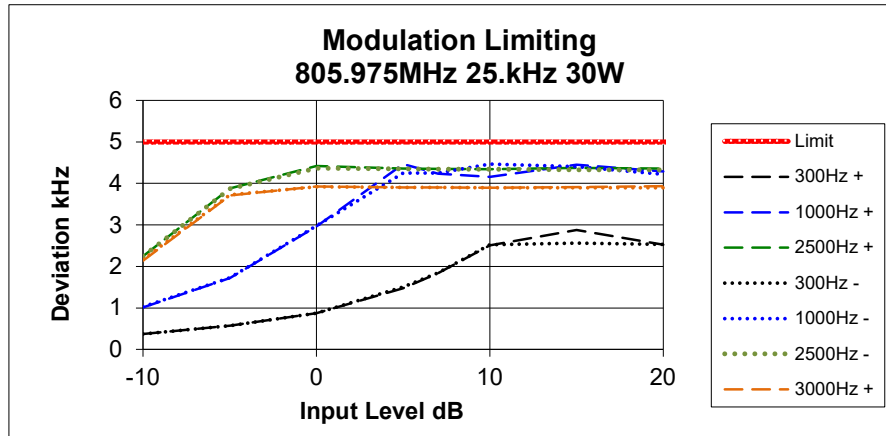


Tx FREQUENCY: 804.900 MHz

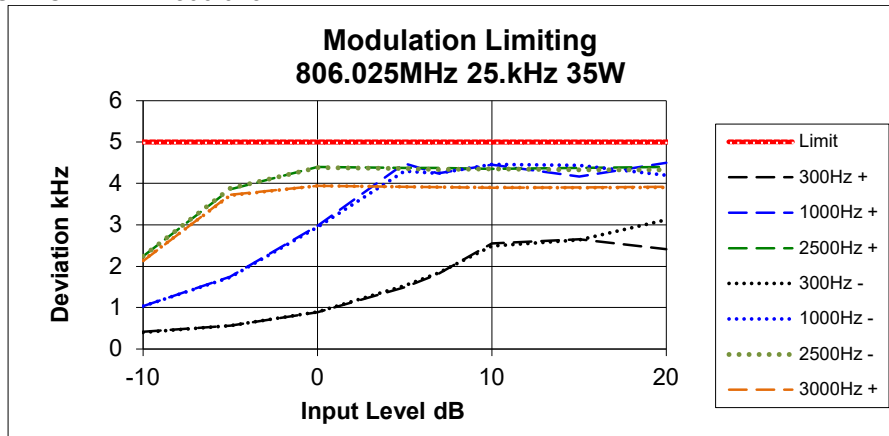


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

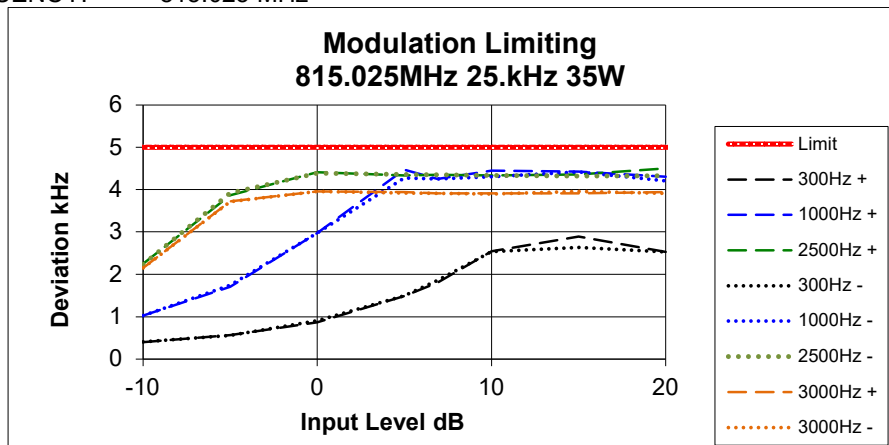
Tx FREQUENCY: 805.975 MHz



Tx FREQUENCY: 806.025 MHz

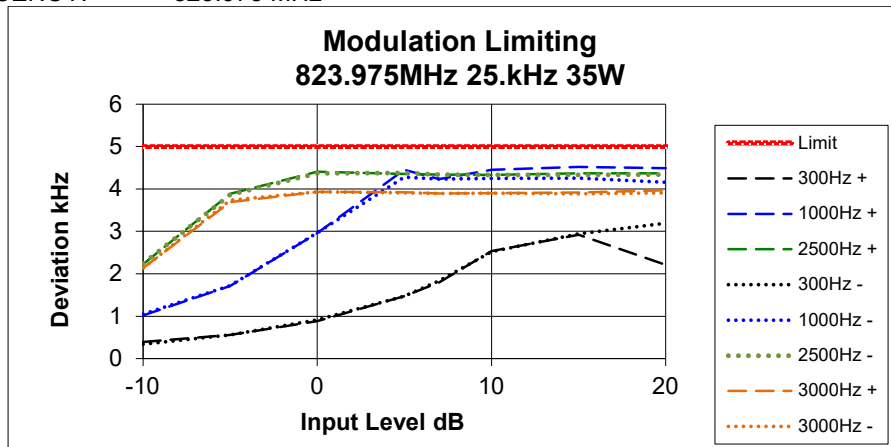


Tx FREQUENCY: 815.025 MHz

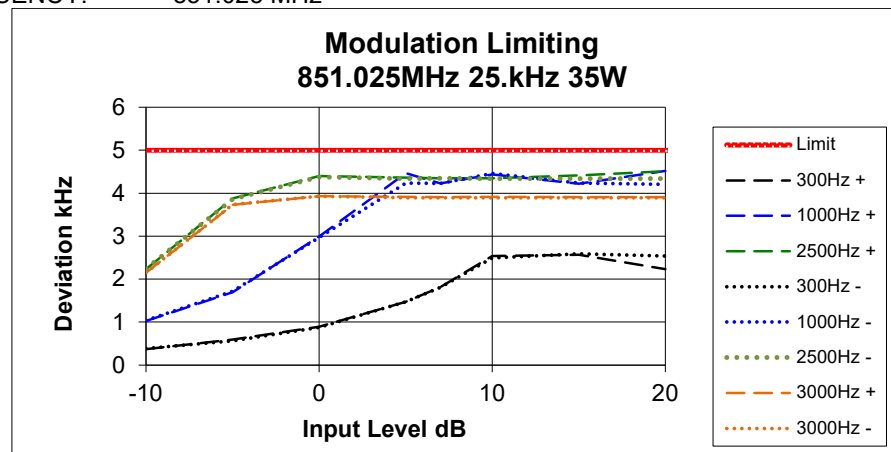


Transmitter Modulation Limiting – 25 kHz Channel Spacing

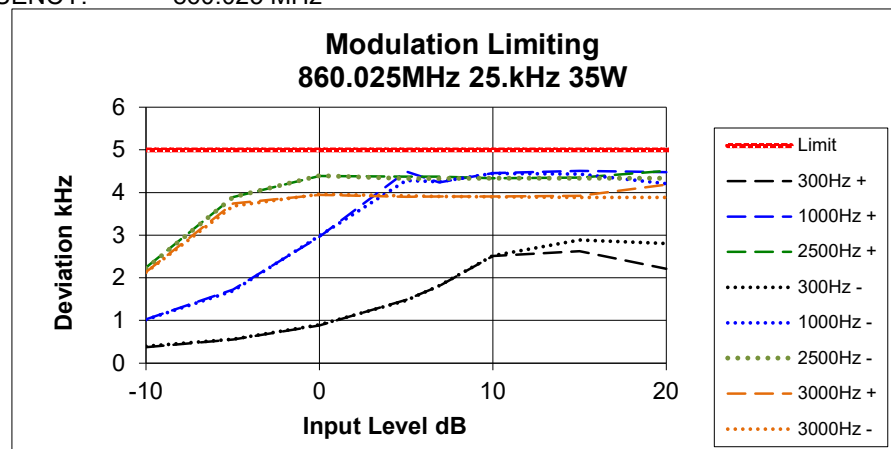
Tx FREQUENCY: 823.975 MHz



Tx FREQUENCY: 851.025 MHz

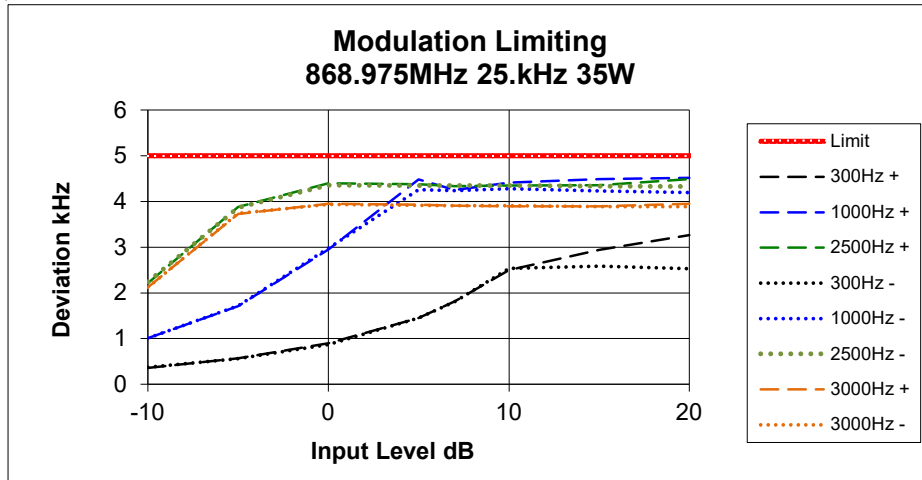


Tx FREQUENCY: 860.025 MHz

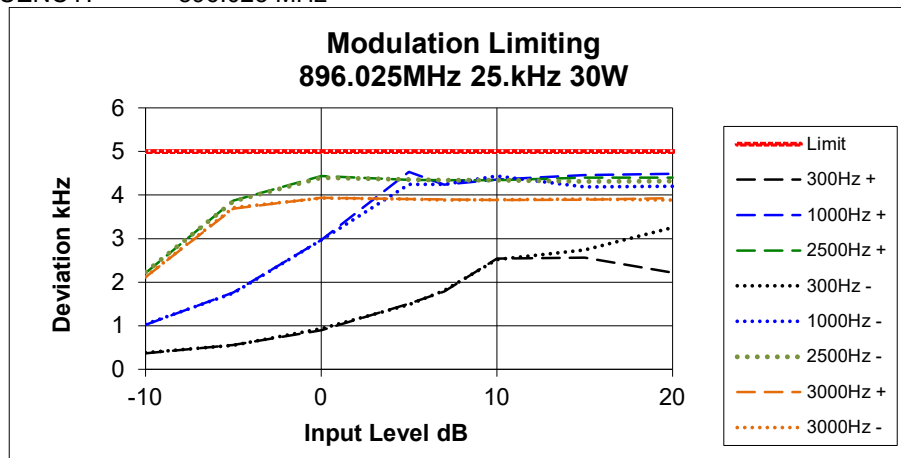


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

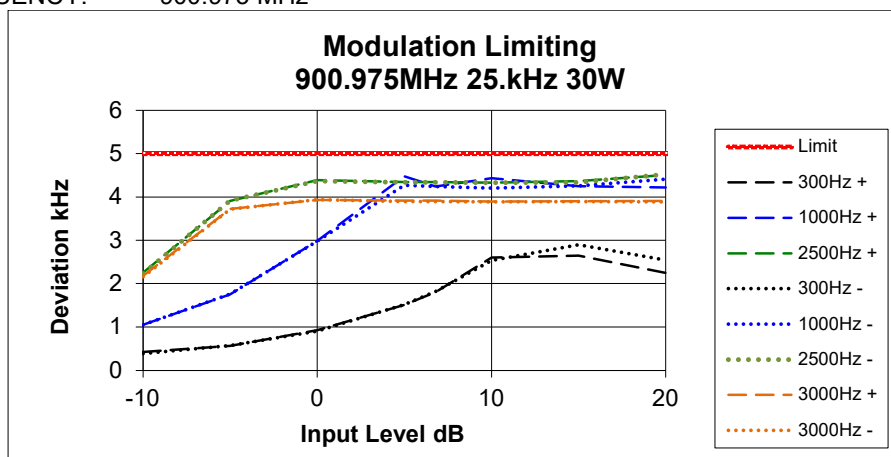
Tx FREQUENCY: 868.975 MHz



Tx FREQUENCY: 896.025 MHz

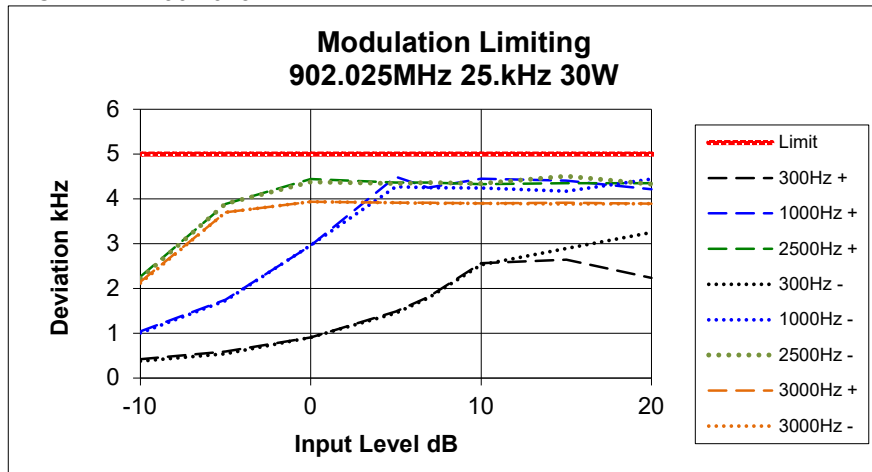


Tx FREQUENCY: 900.975 MHz

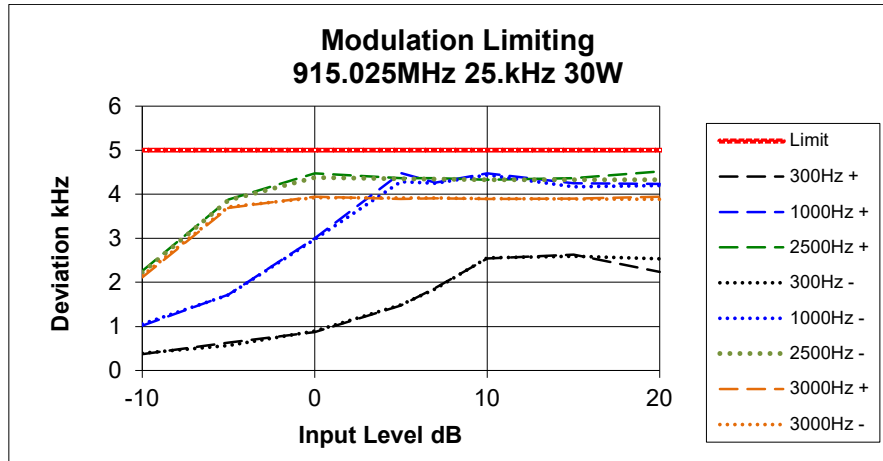


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Transmitter Modulation Limiting – 25 kHz Channel Spacing

Tx FREQUENCY: 902.025 MHz



Tx FREQUENCY: 915.025 MHz



Tx FREQUENCY: 928.025 MHz

