MOTOROLA SOLUTIONS

CERTIFICATE 2518.08

MS ISO/IEC 17025
TESTING
SAMM NO. 0825

MOTOROLA PENANG ADV. COMM. LABORATORY
Motorola Solutions Malaysia SDN BHD,
Plot 2A, Medan Bayan Lepas,
Mukim 12 S.W.D, 11900 Bayan Lepas,
Penang, Malaysia.

TEST REPORT
Report Revision : **Rev.F**

Date/s Tested	:	29-JAN-2021 - 10-FEB-2021
Report Issue Date	:	5-OCT-2022
Manufacturer	:	Motorola Solutions Malaysia SDN BHD
Manufacturer Address	:	Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
Requestor	:	SZE KEAT NG
Product Type	:	Mobile
Product Version (PMN)	:	APX 6500
Model Number (HVIN)	:	M25VRS9PW1CN
Frequency Band	:	896-902MHz; 935-941MHz
Max RF Output Power	:	36, 4 Watts
Applicant Name	:	Motorola Solutions Inc
Applicant Address	:	8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322
ISED Registrations	:	MY0001
FCC Registrations	:	461337
Firmware Version (FVIN)	:	D23.50.04

The equipment was tested accordance to the requirement listed below:

(LMR)	
FCC 47 CFR Part 2 / 24 / 90	**PASS**
ISED RSS- Gen Issue 5 / 119 Issue 12 / 134 Issue 2	

Prepared By:

Putri Nur Sarah Sofia
Test Personnel

Approved Signatory:

Vincent Foong Chuen Kit
Responsible Engineer

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Report Revision History

Revision History	Description	Date	Originator
Rev. A	Initial Report	11-FEB-2021	Putri Nur Sarah Sofia
Rev. B	Update Model Number (HVIN)	22-JUL-2022	Putri Nur Sarah Sofia
Rev. C	Update FCC and ISED General Rules Part	11-AUG-2022	Putri Nur Sarah Sofia
Rev. D	Update Product Version (PMN)	19-AUG-2022	Putri Nur Sarah Sofia
Rev. E	Update 2.0 Summary of Test Results table with Rules Part 24D	23-SEPT-2022	Putri Nur Sarah Sofia
Rev. F	Include by similarity DSP chipset note under 2.0 Summary of Test Results table	5-OCT-2022	Putri Nur Sarah Sofia

1.0 General Information

EUT Description:

Technologies	Land Mobile Radio (LMR)
Modulation Type	Analog, C4FM, Phase II

The EUT contains following accessory devices and data cable:

Item	Brand	Model or P/N
ANTENNA, STAMPED METAL, VEHICLE MOUNT 3DB LOW PROFILE ANTENNA KIT 764-870 MHz(7800 BAND); 806-941 MHZ(8900 BAND)	MOTOROLA	HAF4013A
O7 Control Head (English)	MOTOROLA	PMHN4194C
Water Resistant Microphone	MOTOROLA	HMN1089C

General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, the EUT is to comply with the requirements of the following standards:

ANSI C63.4-2014
ANSI C63.26-2015

No modifications were done to the UUT to facilitate the tests in this report.

Deviation from standard

Not applicable as no deviation from standard test method

2.0 Summary of Test Results

FCC General Rules Part (47CFR)	ISED General Rules Part	Test Item	Result	Remarks	Serial number tested
2.1046, 90.541, 22.565, 74.461, 74.534, 80.215, 24.132	RSS-119	RF Power Output	Pass		471TXB1932
2.1055, 90.213, 22.355, 74.464, 74.561, 24.135	RSS-119	Frequency Stability	Pass		471TXB1932
2.1047, 74.463, 80.213	RSS-119	Audio Frequency Response	NA		
2.1047, 74.463, 80.213	RSS-119	Audio Low Pass Filter Response	NA		
2.1047, 74.463, 80.213	RSS-119	Modulation limiting	Pass		471TXB1932
90.210, 90.691, 24.133	RSS-119, RSS-134	Occupied Bandwidth	Pass	11K0F3E- 9.9705kHz 10K0F3E- 9.9709kHz 8K10F1D- 7.9738kHz 8K10F1E- 6.6834kHz 8K10F1W- 8.0666kHz	471TXB1932
-	-	Band Edge Conducted Spurious Emission	NA		
-	-	Transient Frequency Behavior	NA		
-	-	Adjacent Channel Power	NA		
Part 90	RSS-119	Conducted Spurious Emissions	Pass	Highest spur: -32.21dBm	471TXB1932
Part 90	RSS-119	Radiated Spurious Emission	Pass	Highest spur: -51.05dBm	471TXB1946
-	-	GNSS (EIRP for 1559 – 1610MHz)	NA		
-	-	Effective Radiated Power (ERP)	NA		

NA → **Not Applicable**

***Note:**
By similarity to 800MHz report, the DSP chipsets are identical.

3.0 Measurement Uncertainty

Measurement	Frequency	Expended Uncertainty (k=1.96) (±dB)
AC Power Line Conducted Spurious Emission	150KHz ~ 30MHz	3.43
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	5.01
	200MHz ~ 1000MHz	5.01
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.01
	18GHz ~ 25GHz	5.01
Conducted Spurious Emissions	9kHz ~ 12.75GHz	2.82

4.0 Equipment List

FCC Analog ATE#1: (SW version: 2.4.6 & FCC_Frequency Stability 1.0.3 rev.)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
CHAMBER	SH-641	92009188	06-Mar-20	06-Mar-21
DSA Dynamic Signal Analyzer	35670A	MY42507095	19-Jun-20	19-Jun-21
ANALYZER AUDIO	8903B	3514A15797	28-Oct-21	28-Oct-21
POWER METER	E4416A	MY45102699	26-Jun-20	26-Jun-21
POWER SENSOR	E9301B	MY41498918	12-Aug-20	12-Aug-21
POWER SUPPLY	6032A	US38323921	27-Nov-20	27-Nov-21
SIGNAL GENERATOR	2042	119718/063	24-Jun-20	24-Jun-21
ANALYZER MODULATION	8901B	3122A03662	08-Jul-20	08-Jul-21
N to N RF Cable # 1	M17/128-RG400	NA	NA	NA
BNC to N RF Cable # 1	RG 58	NA	NA	NA
BNC to BNC RF Cable # 1	RG 58	NA	NA	NA
BNC to BNC RF Cable # 2	RG 58	NA	NA	NA
BNC to BNC RF Cable # 3	RG 58	NA	NA	NA
BNC to BNC RF Cable # 4	RG 58	NA	NA	NA
BNC to BNC RF Cable # 5	RG 58	NA	NA	NA
BNC to BNC RF Cable # 6	RG 58	NA	NA	NA
BNC to BNC RF Cable # 7	RG 58	NA	NA	NA
N to SMA RF Cable # 1	RG 58	NA	NA	NA
N to SMA RF Cable # 2	RG 58	NA	NA	NA
N to SMA RF Cable # 3	RG 58	NA	NA	NA
Aeroflex Attenuator 30dB	49-30-34-LIM	NA	NA	NA

FCC Transient ATE #1: (SW version: FCC Transient ATE_R1.1.3)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
SWITCH CONTROL UNIT	3488A	2719A36210	CNR	CNR
ATTENUATOR / SWITCH DRIVER	11713A	2508A10141	CNR	CNR
POWER METER	E4416A	GB41293866	26-Feb-19	26-Feb-21
POWER SUPPLY	6033A	3004A05137	4-Aug-20	4-Aug-21
SIGNAL GENERATOR	8657A	3250A05137	19-Jun-20	19-Jun-21
STEP ATTENUATOR	8494G	MY42143006	12-Jun-20	12-Jun-21
STEP ATTENUATOR	8496G	MY42143012	13-Jun-20	13-Jun-21
OSCILLOSCOPE	MSO8104A	MY45002372	26-Jun-20	26-Jun-21
ANALYZER MODULATION	8901B	3438A05093	23-Jun-20	23-Jun-21
ANALYZER AUDIO	8903B	3011A12671	11-Mar-20	11-Mar-21
ANALYZER AUDIO	8903B	3011A08952	29-Jul-20	29-Jul-21
SPECTRUM ANAYLYZER	E4440A	MY46181974	2-Aug-20	2-Aug-21
N to N RF Cable # 1	SF126/11N/11N	NA	NA	NA
N to N RF Cable # 2	M17/128-RG400	NA	NA	NA
N to N RF Cable # 3	M17/128-RG400	NA	NA	NA
N to N RF Cable # 4	M17/128-RG400	NA	NA	NA
N to N RF Cable # 5	M17/128-RG400	NA	NA	NA
N to N RF Cable # 6	M17/128-RG400	NA	NA	NA
N to N RF Cable # 7	M17/128-RG400	NA	NA	NA
N to N RF Cable # 8	M17/128-RG400	NA	NA	NA
N to N RF Cable # 9	M17/128-RG400	NA	NA	NA
BNC to BNC RF Cable # 1	RG 58	NA	NA	NA
BNC to BNC RF Cable # 2	RG 58	NA	NA	NA
BNC to BNC RF Cable # 3	RG 58	NA	NA	NA
BNC to BNC RF Cable # 4	RG 58	NA	NA	NA
BNC to BNC RF Cable # 5	RG 58	NA	NA	NA
BNC to BNC RF Cable # 6	RG 58	NA	NA	NA
BNC to N RF Cable # 1	RG 58	NA	NA	NA
Aeroflex Attenuator 10dB	49-10-43-LIM	NA	NA	NA
Aeroflex Attenuator 10dB	33-10-34-LIM	NA	NA	NA
SWITCH CONTROL UNIT	3488A	2719A36210	CNR	CNR

FCC CONDUCTED SPUR EMISSION ATE # 1 (SW version: Conducted Spur ATE_rev 1.23.03)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
SWITCH CONTROL UNIT	3488A	2719A32735	CNR	CNR
ANALYZER SPECTRUM	E4440A	MY46185415	10-Jan-20	10-Jan-22
POWER SUPPLY	6031A	3543A03489	05-Jun-20	05-Jun-21
HIGH PASS FILTER SWITCH BOX	-	CS001	2-Jul-20	2-Jul-21
N to N RF Cable # 1	SF126/11N/11N	NA	NA	NA
N to N RF Cable # 2	SF126/11N/11N	NA	NA	NA
BNC to BNC RF Cable # 1	RG 58	NA	NA	NA
Aeroflex Attenuator 30dB	49-30-43-LIM	NA	NA	NA
Aeroflex Attenuator 10dB	33-10-34-LIM	NA	NA	NA

EMC Chamber 1

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
DRG HORN FREQ.	SAS-571	720	21-Mar-19	21-Mar-21
DRG HORN FREQ.	SAS-571	1143	14-Feb-19	14-Feb-21
POWER SUPPLY (0-60V / 0-50A, 1000W)	6032A	2615A01178	21-May-20	21-May-21
SIGNAL GENERATOR	SMB 100A	181117	8-Nov-18	8-Nov-21
EMI TEST RECEIVER	ESW44	101750	15-Jan-21	15-Jan-22
EMI TEST RECEIVER	ESIB26	100017	19-Jul-19	19-Mar-21
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	CNR	CNR
BILOG ANTENNA	CBL6112B	2964	23-Apr-19	23-Apr-21
BILOG ANTENNA	CBL6112B	2950	8-Jul-19	8-Jul-21
DATA LOGGER	SDL500	A.016776	4-Jun-20	4-Jun-21
SYSTEM CONTROLLER	SC104V	050806-1	CNR	CNR
TURNTABLE FLUSH MOUNT 2M	FM2011	NA	CNR	CNR
ANTENNA POSITIONING TOWER	TLT2	NA	CNR	CNR
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	15-Jul-20	15-Jul-21
18 - 40GHz PREAMPLIFIER	MITEQ Hi GAIN SUCOFLEX	2006313	CNR	CNR
PREAMPLIFIER	PAM-0118	269	24-May-19	24-May-22
LOOP ANTENNA	6502	00208416	15-Sep-20	15-Sep-21
TEST SOFTWARE	EMC_FCC_IC_BLUETOOTH_RE_TEST			
VERSION	EMC_FCC_RE_v1.6.2			

5.0 Test Condition

5.1. Transmitter Test Conditions

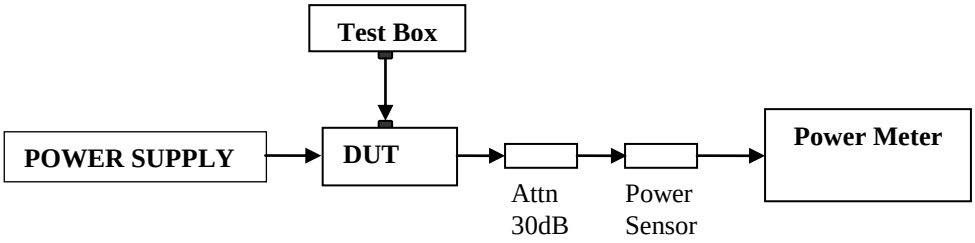
Test Item, (Channel Spacing)	Power (W)	Modulation	Test Frequency (MHz)	Tested By	Environmental conditions
RF Output Power	**Low & Max**	**Analog**	**896.0125, 900.9875, 935.0125, 939.9875, 901.5, 940.5**	**Putri**	**23.4°C, 50%RH**
Frequency Stability	**Max**	**Analog**	**940.5**	**Putri**	**25.1°C, 54.3%RH, 60.3°C, 50%RH, -30.1°C, 51.2%RH**
Audio Frequency Response (12.5kHz / 25kHz)	**Max**	**Analog**	**NA**		
Audio Low Pass Filter Response (12.5kHz / 25kHz)	**Max**	**Analog**	**NA**		
Modulation limiting (12.5kHz / 25kHz)	**Max**	**Analog**	**896.0125**	**Putri**	**23.4°C, 50%RH**
Occupied Bandwidth (12.5kHz / 20kHz / 25kHz)	**Max**	**Analog, C4FM, Phase II**	**896.0125, 900.9875, 935.0125, 939.0125, 901.5, 940.5**	**Putri**	**23.4°C, 50%RH**
Band Edge Conducted Spurious Emissions (Part 22) (12.5kHz / 20kHz / 25kHz)	**Max**	**Analog, C4FM, Phase II**	**NA**		
Transient Frequency Behavior *(UHF & VHF Band)* (12.5kHz / 25kHz)	**Max**	**Analog, C4FM, Phase II**	**NA**		
Adjacent Channel Power *(700MHz Band)* (12.5kHz / 25kHz)	**Max**	**Analog, C4FM, Phase II**	**NA**		
Conducted Spurious Emissions- (12.5kHz / 25kHz)	**Low / Max**	**Analog, C4FM, Phase II**	**896.0125, 900.9875, 935.0125, 939.9875, 901.5, 940.5**	**Putri**	**23.4°C, 50%RH**
Radiated Spurious Emission (12.5kHz / 25kHz)	**Low / Max**	**Analog, C4FM, Phase II**	**896.0125, 900.9875, 935.0125, 939.9875, 901.5, 940.5**	**Nazrin&Qawiman**	**23.4 Hum(%RH)**
GNSS (EIRP for 1559 - 1610MHz) (12.5kHz / 25kHz)	**Max**	**Analog**	**901.5, 940.5**	**Nazrin&Qawiman**	**23.4 Hum(%RH)**
Effective Radiated Power (ERP) (12.5kHz / 25kHz)	**Max**	**Analog**	**NA**		

NA → Not Applicable

6.0 Transmitter Test Parameters

6.1. RF Output Power

6.1.1. Test Setup



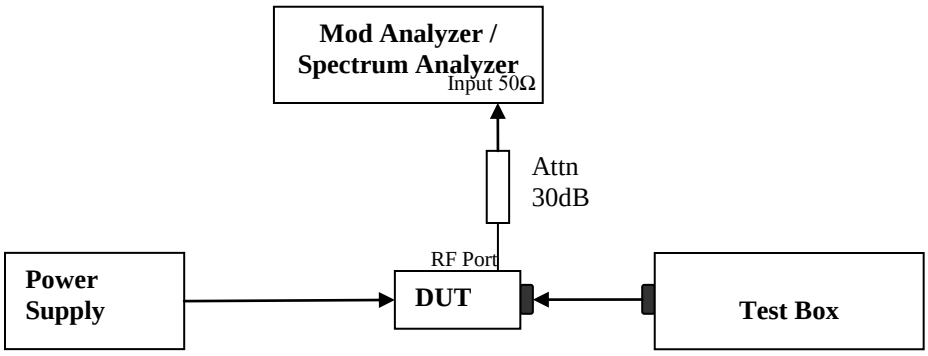
1) The DUT transmitter connected to Power Meter using the 30 dB attenuator and power sensor with above setup.
2) Path loss for the measurement included.
3) All the measurement was done at low, mid, high frequency for each band.
4) Record the power into the test report.

6.1.2. Test Result

Temperature	25˚C			
Voltage (V)	13.6V			
Frequency (MHz)	Low Power (W)	Current (A)	Max Power (W)	Current (A)
896.01250	0.98	1.08	35.20	7.76
900.98750	0.98	1.23	35.00	7.84
935.01250	0.96	1.17	35.00	7.26
939.01250	0.97	1.14	34.80	6.90
901.50000	0.98	1.14	3.97	2.96
940.50000	0.97	1.11	3.98	2.80

6.2. Frequency Stability

6.2.1. Test Setup



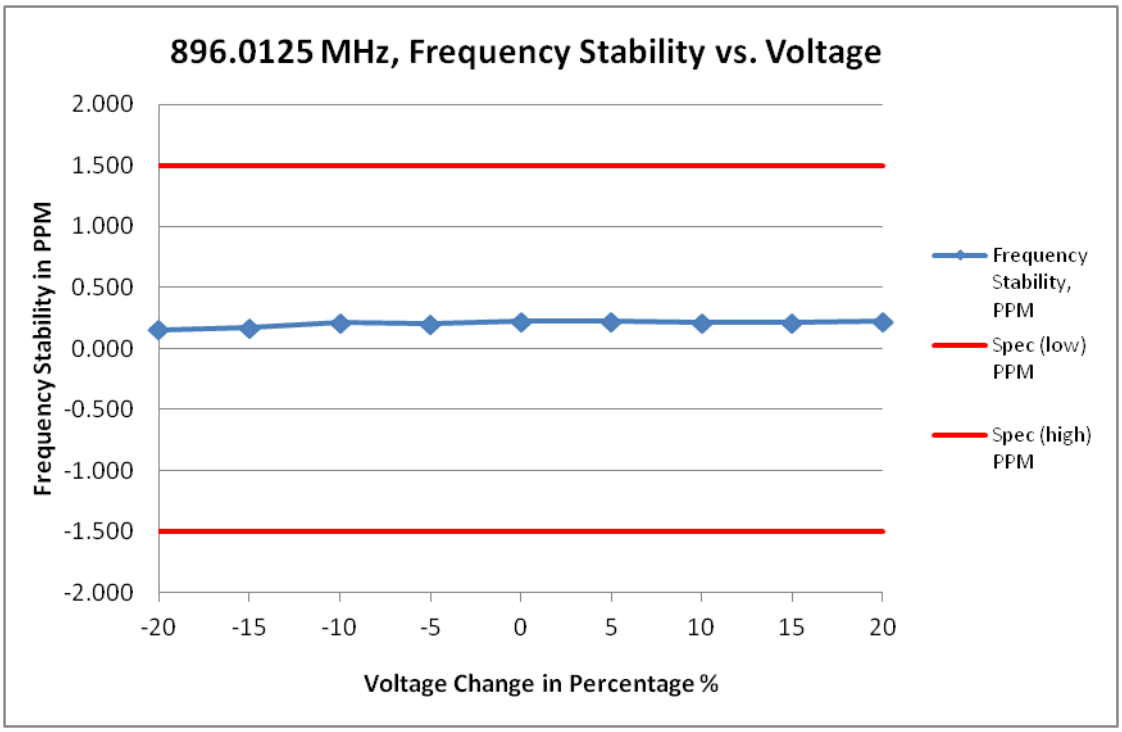
1) The DUT transmitter output port was connected to Modulation / Spectrum Analyzer.
2) Path loss for the measurement included.
3) Transmit the DUT and record the freq in MCF_{MHz}.
4) Test in 2 conditions:
   - Temperature: The frequency of the transmitter was measured from -30°C to 50°C.
   - Supply Voltage:
     -Mobile: The frequency of the transmitter was measured from 85% to 115% of the nominal operating input voltage.
     -Portable: The frequency of the transmitter was measured from nominal ± x % as specified by the manufacturer

5) Calculate the ppm frequency error by the following:

$$ppm\ error = \left(\frac{MCF_{MHz}}{ACF_{MHz}} - 1\right) * 10^6$$

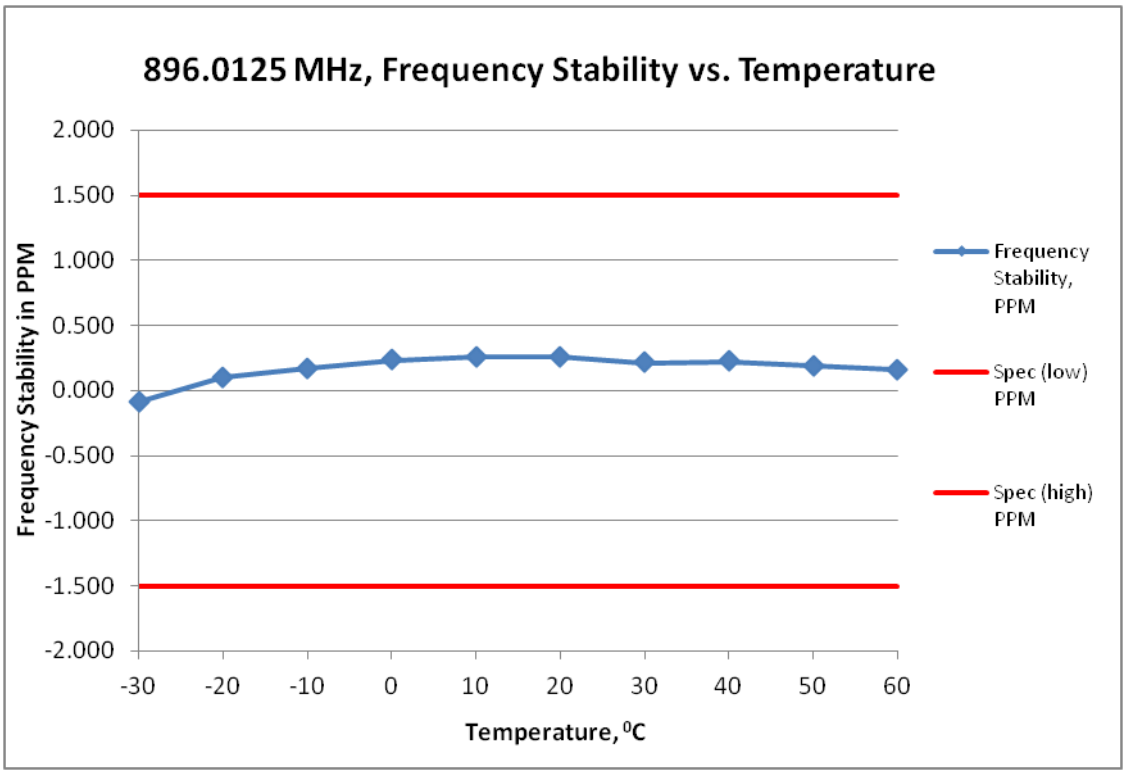
Where: MCF_{MHz} is the Measured Carrier Frequency in MHz
ACF_{MHz} is the Assigned Carrier Frequency in MHz

6.2.2. Test Result



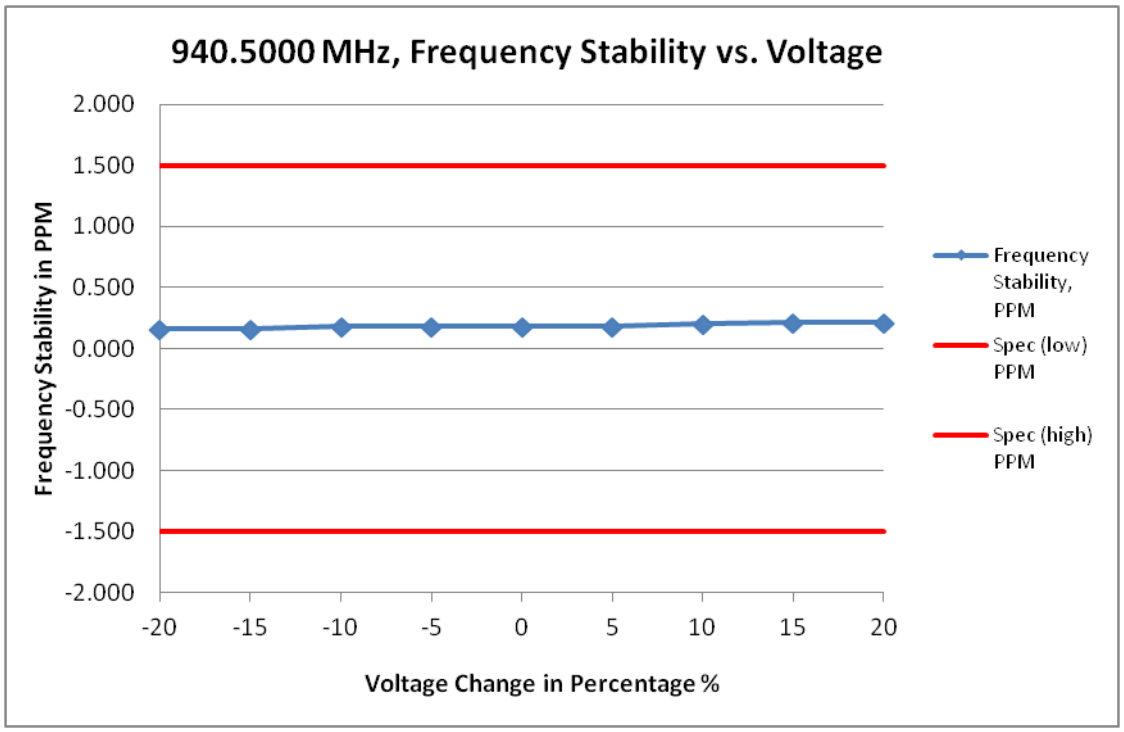
(i) Frequency Stability VS Voltage

Frequency / Channel Spacing	896.0125 MHz / 12.5 kHz				
Temperature, ^{0}C	25				
Voltage %	Voltage, V	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-20	10.880	896.012640	0.156	-1.500	1.500
-15	11.560	896.012650	0.167	-1.500	1.500
-10	12.240	896.012690	0.212	-1.500	1.500
-5	12.920	896.012680	0.201	-1.500	1.500
0	13.600	896.012700	0.223	-1.500	1.500
5	14.280	896.012700	0.223	-1.500	1.500
10	14.960	896.012690	0.212	-1.500	1.500
15	15.640	896.012690	0.212	-1.500	1.500
20	16.320	896.012700	0.223	-1.500	1.500



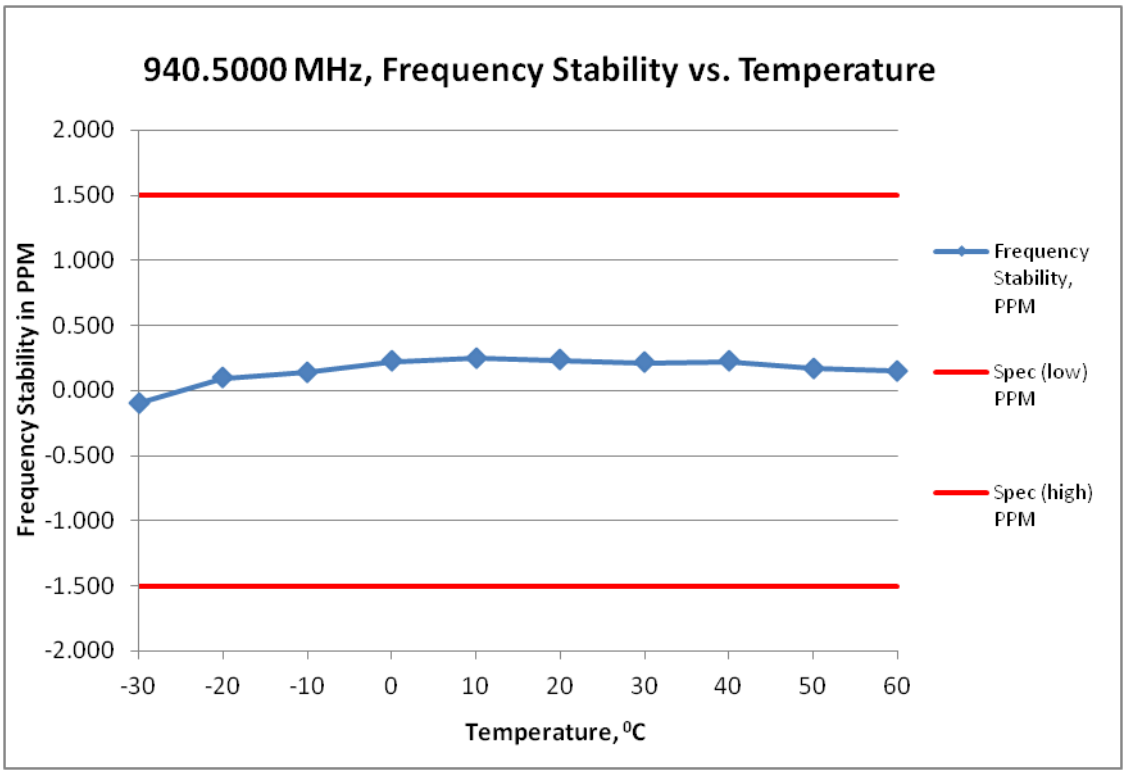
(ii) Frequency Stability VS temperature

Frequency / Channel Spacing	896.0125 MHz / 12.5 kHz			
Voltage, V	13.6			
Temperature, °C	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-30	896.012420	-0.089	-1.500	1.500
-20	896.012590	0.100	-1.500	1.500
-10	896.012650	0.167	-1.500	1.500
0	896.012710	0.234	-1.500	1.500
10	896.012730	0.257	-1.500	1.500
20	896.012730	0.257	-1.500	1.500
30	896.012690	0.212	-1.500	1.500
40	896.012700	0.223	-1.500	1.500
50	896.012670	0.190	-1.500	1.500
60	896.012640	0.156	-1.500	1.500



(i) Frequency Stability VS Voltage

Frequency / Channel Spacing	940.5000 MHz / 12.5 kHz				
Temperature, ^{0}C	25				
Voltage %	Voltage, V	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-20	10.880	940.500150	0.159	-1.500	1.500
-15	11.560	940.500150	0.159	-1.500	1.500
-10	12.240	940.500170	0.181	-1.500	1.500
-5	12.920	940.500170	0.181	-1.500	1.500
0	13.600	940.500170	0.181	-1.500	1.500
5	14.280	940.500170	0.181	-1.500	1.500
10	14.960	940.500190	0.202	-1.500	1.500
15	15.640	940.500200	0.213	-1.500	1.500
20	16.320	940.500200	0.213	-1.500	1.500



(ii) Frequency Stability VS temperature

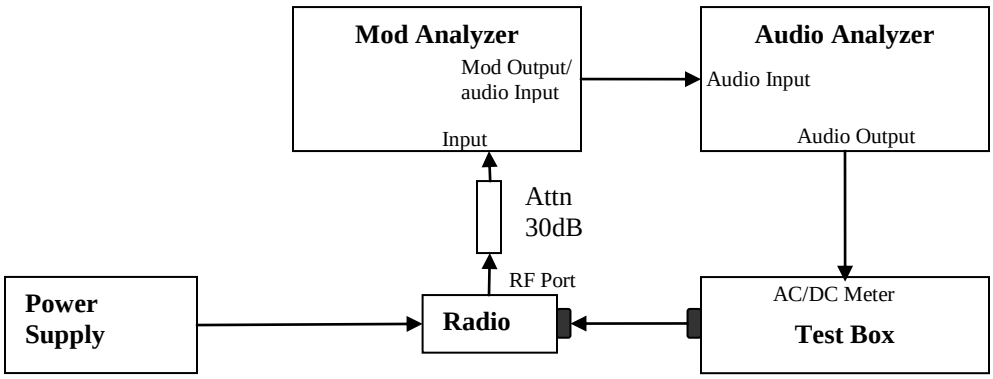
Frequency / Channel Spacing	940.5000 MHz / 12.5 kHz			
Voltage, V	13.6			
Temperature, °C	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-30	940.499910	-0.096	-1.500	1.500
-20	940.500090	0.096	-1.500	1.500
-10	940.500130	0.138	-1.500	1.500
0	940.500210	0.223	-1.500	1.500
10	940.500230	0.245	-1.500	1.500
20	940.500220	0.234	-1.500	1.500
30	940.500200	0.213	-1.500	1.500
40	940.500210	0.223	-1.500	1.500
50	940.500160	0.170	-1.500	1.500
60	940.500140	0.149	-1.500	1.500

6.2.3. Test Limit

As per manufacturer declared spec +/- 1.5ppm

6.3. Audio Frequency Response

6.3.1. Test Setup

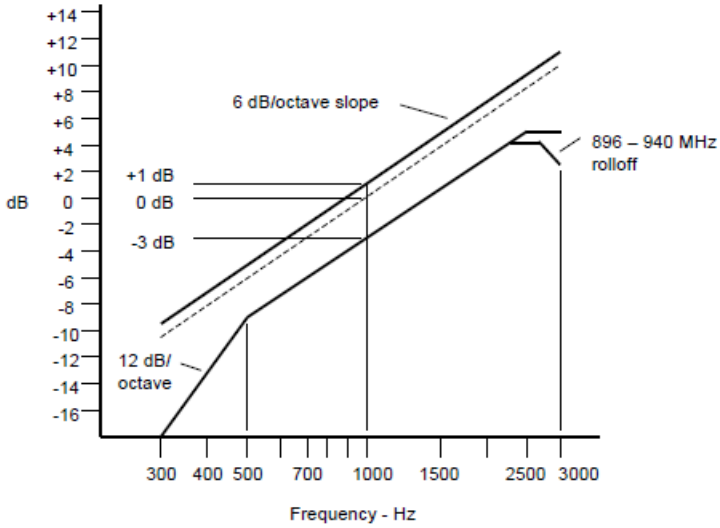


1) The DUT transmitter output port was connected to Modulation Analyzer.
2) Path loss for the measurement included.
3) Set the audio bandwidth filter to 15 kHz and 50 kHz.
4) Transmit the radio and set the audio analyzer to 1 kHz audio frequency and 20% of the Full rated system deviation.
5) On audio analyzer, set the rated level as reference to zero.
6) Vary the audio frequency from 300 Hz to 3 kHz. Record the change in dB on the audio analyzer.

6.3.2. Test Result

Not Applicable

6.3.3. Test Limit

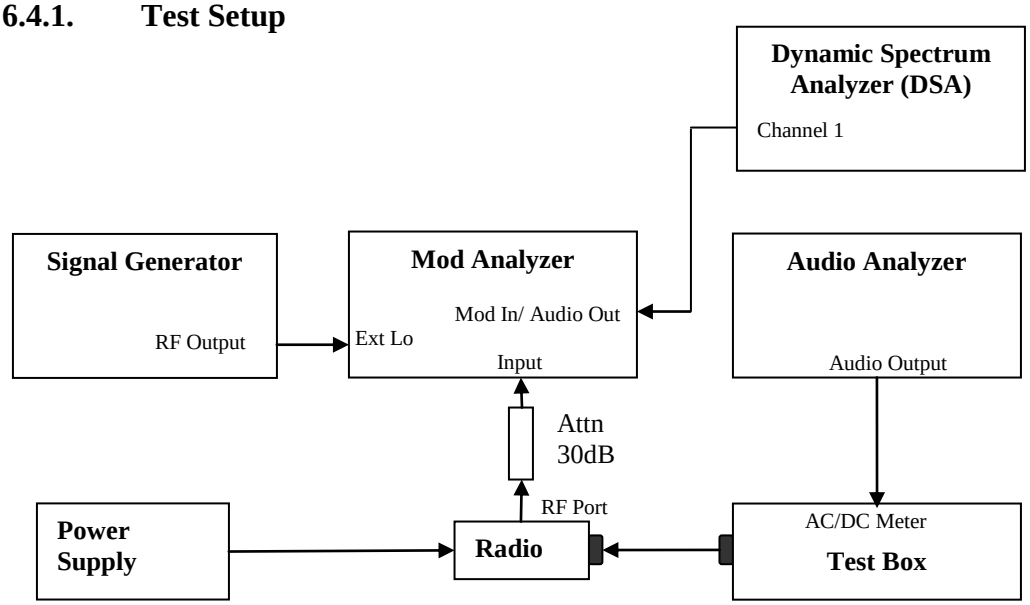


Note:

- *There are additional 6 dB per octave attenuation is allowed from 2.5KHz to 3KHz in equipment 25MHz to 869MHz radio.*
- *Additional 6 dB per octave attenuation is allowed from 2.3KHz to 2.7KHz & additional 12 dB per octave attenuation is allowed from 2.7KHz to 3KHz in equipment 896MHz to 940MHz radio.*

6.4. Audio Low Pass Filter Response

6.4.1. Test Setup

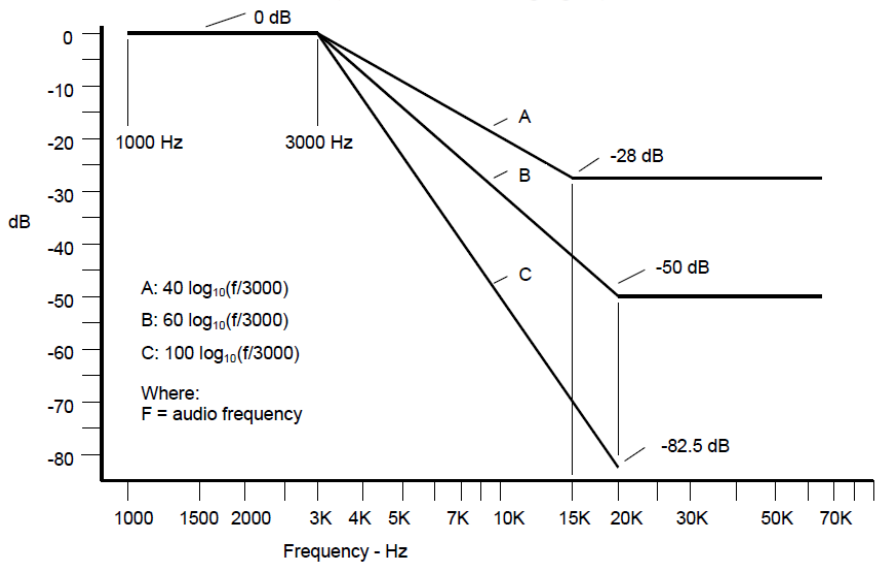


1) The DUT transmitter output port was connected to Modulation Analyzer.
2) Path loss for the measurement included.
3) Press 23.1SPCL on modulation analyzer to enable the external LO from Sigen.
4) Set the Sigen frequency to Fc + 1.5 MHz, RF output level to 0dBm without modulation.
5) Transmit the radio and set the audio analyzer to 1 kHz audio frequency and 60% of the Full rated system deviation.
6) Up the amplitude by 20dB.
7) On DSA, get the reference point to 0dB.
8) Vary the frequency on audio analyzer from 3 kHz to 20 kHz, record the audio tone from DSA.

6.4.2. Test Result

Not Applicable

6.4.3. Test Limit



For audio frequencies above 3000 Hz, the audio response of the post limiter low-pass filter shall meet or exceed the following requirements:

a) For equipment operating on 20, 25 or 30 kHz channel bandwidth in the 25 MHz to 174 MHz range:

At frequencies from 3000 Hz through 15,000 Hz the attenuation shall be greater than the attenuation at 1000 Hz by at least: $40 \log_{10}(f / 3000)$ dB

where: f is the audio frequency in Hz.

At frequencies above 15,000 Hz, the attenuation shall be greater than the attenuation at 1000 Hz, by at least: 28 dB.

b) For equipment operating with 25 kHz bandwidth channels between 406 and 512 MHz through 896 MHz, and between 929 MHz through 930 MHz:

At frequencies from 3000 Hz through 20,000 Hz, the attenuation shall be greater than the attenuation at 1000 Hz by at least: $60 \log_{10}(f / 3000)$ dB

where: f is the audio frequency in Hz.

At frequencies above 20,000 Hz the attenuation shall be greater than the attenuation at 1000 Hz by at least: 50 dB.

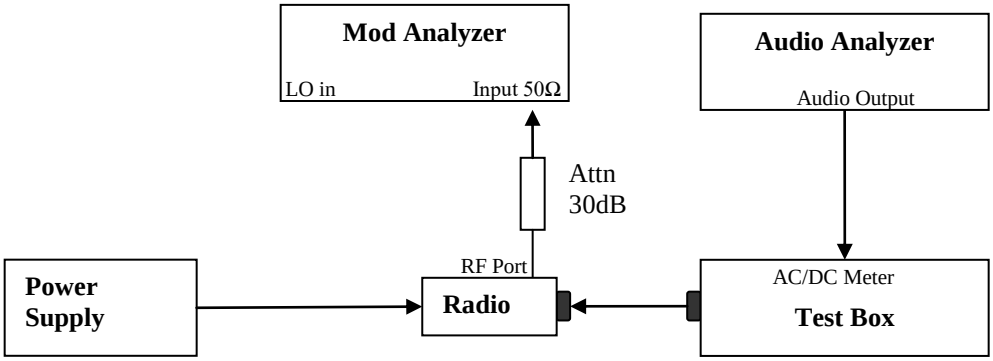
c) For equipment operating on channels between 896 MHz through 901 MHz, between 935 MHz through 940 MHz, and 12.5 or 15 kHz spaced channels in the frequency range 138-174 MHz and 406-512 MHz.

At frequencies from 3000 Hz through 20,000 Hz the attenuation shall be greater than the attenuation at 1000 Hz by at least: $100 \log_{10}(f / 3000)$ dB

where: f is the audio frequency in Hz.

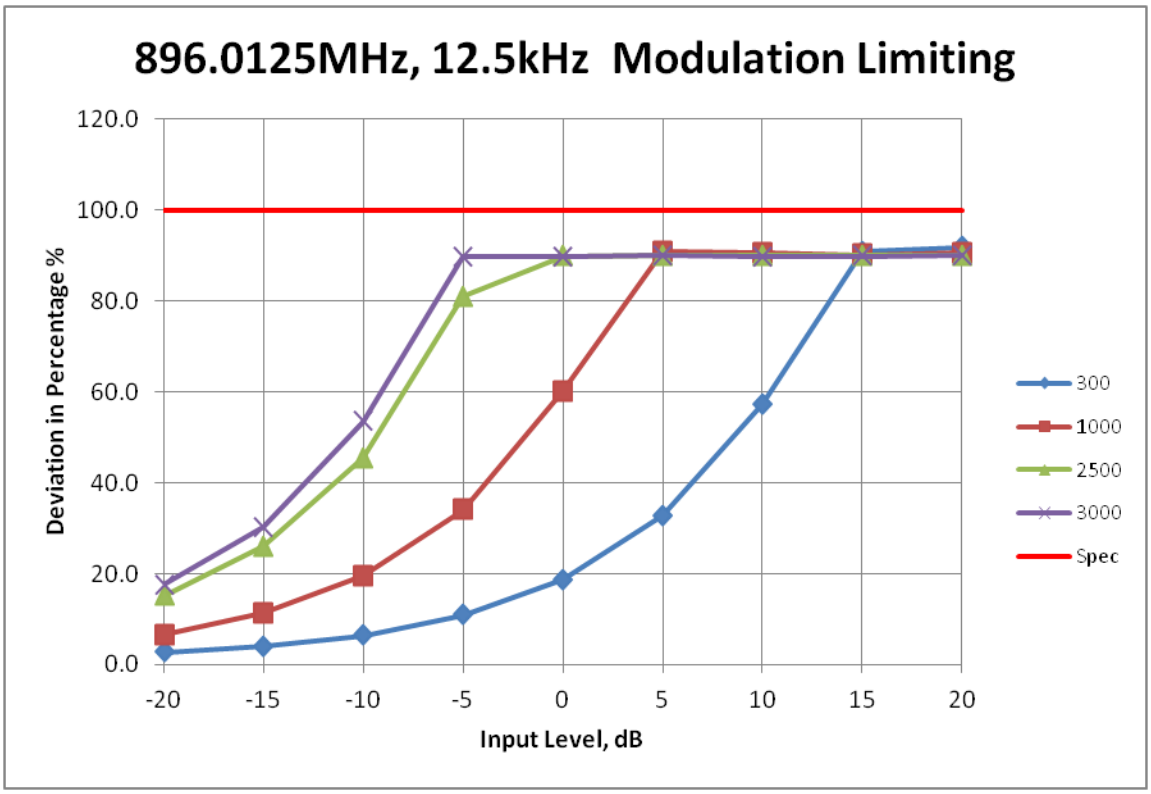
6.5. Modulation Limiting

6.5.1. Test Setup



1) The DUT transmitter output port was connected to Modulation Analyzer.
2) Path loss for the measurement included.
3) Set the audio bandwidth filter to 15 kHz.
4) Transmit the radio and set the audio analyzer to 1 kHz audio frequency and 60% of the Full rated system deviation.
5) Record the frequency deviation as 0dB input level at 1kHz audio frequency.
6) Repeat the step and record the frequency deviation from -20 dB to 20dB by 5 dB increments and different audio freq 300 Hz, 2.5 kHz and 3 kHz.

6.5.2. Test Result



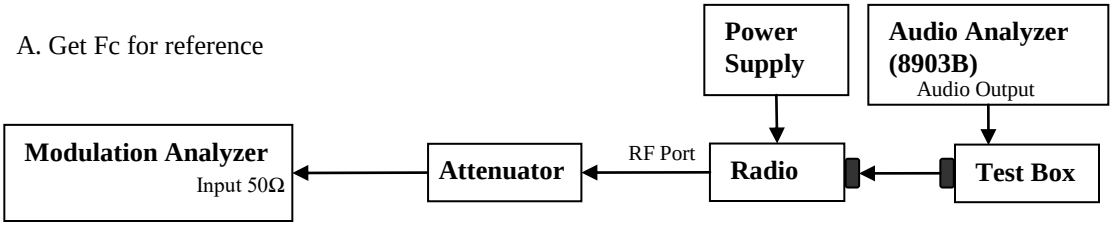
6.5.3. Test Limit

Modulation Limiting shall not exceed 100 percent.

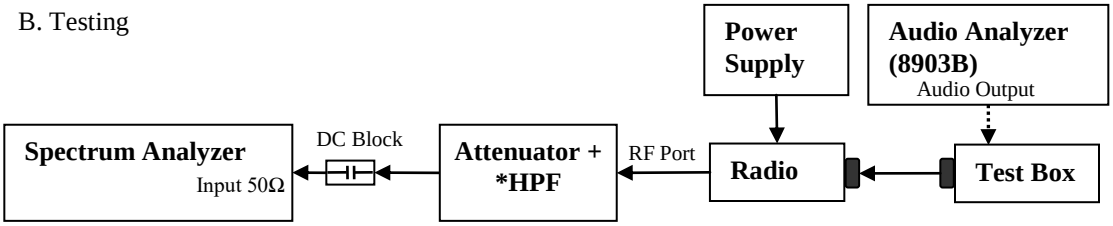
6.6. Occupied Bandwidth

6.6.1. Test Setup (Analog)

A. Get Fc for reference



B. Testing

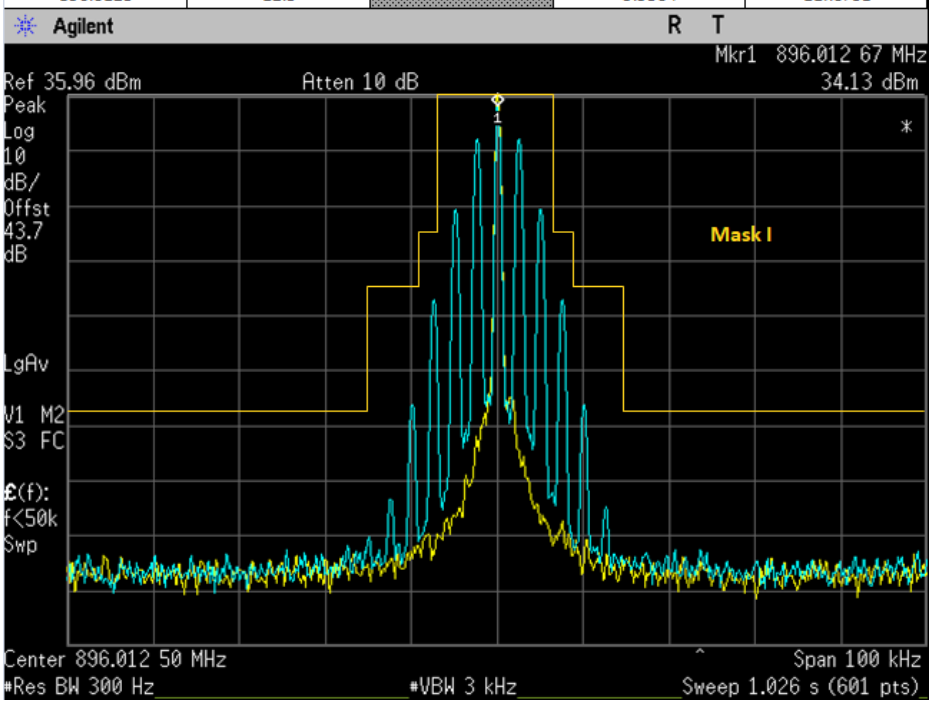


1) The DUT transmitter output port was connected to Modulation Analyzer.
2) Set the audio bandwidth filter to 15 kHz low pass filter and 50 kHz high pass filter.
3) Transmit the radio and set the audio analyzer to 2.5 kHz audio frequency and 50% of the rated deviation. Up the amplitude by 16 dB. Dekey the DUT.
4) Path loss for the measurement included.
5) Select the Occupied Bandwidth measurement for 99% Emissions Bandwidth Measurement.
6) Key in the Fc and Resolution Bandwidth (1 ~ 5 % of emission designator).
7) Transmit the DUT and record the occupied Bandwidth frequency.
8) Preset the spectrum analyzer for sideband spectrum measurement.
9) Set the span and Resolution Bandwidth (according to FCC/ ISED standard).
10) Save the screen shot as modulated signal
11) Remove the audio tone from audio analyzer to capture unmodulated signal.

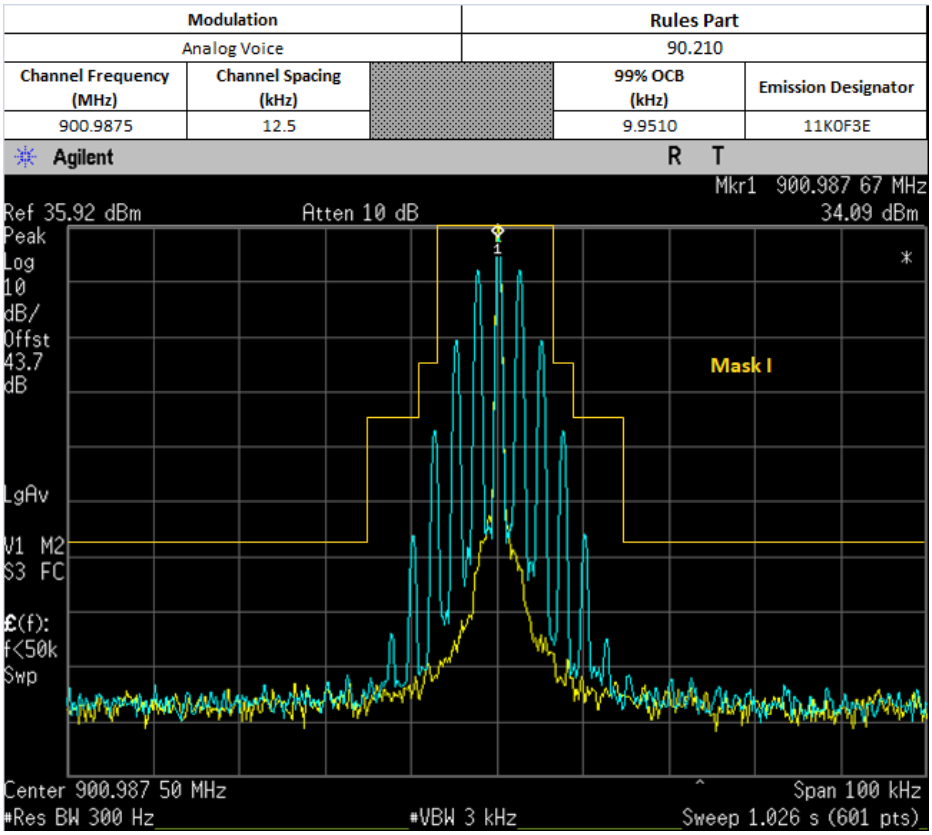
* Only HPF added for Mask 80.211 measurement with attenuator.

6.6.2. Test Result (Analog)

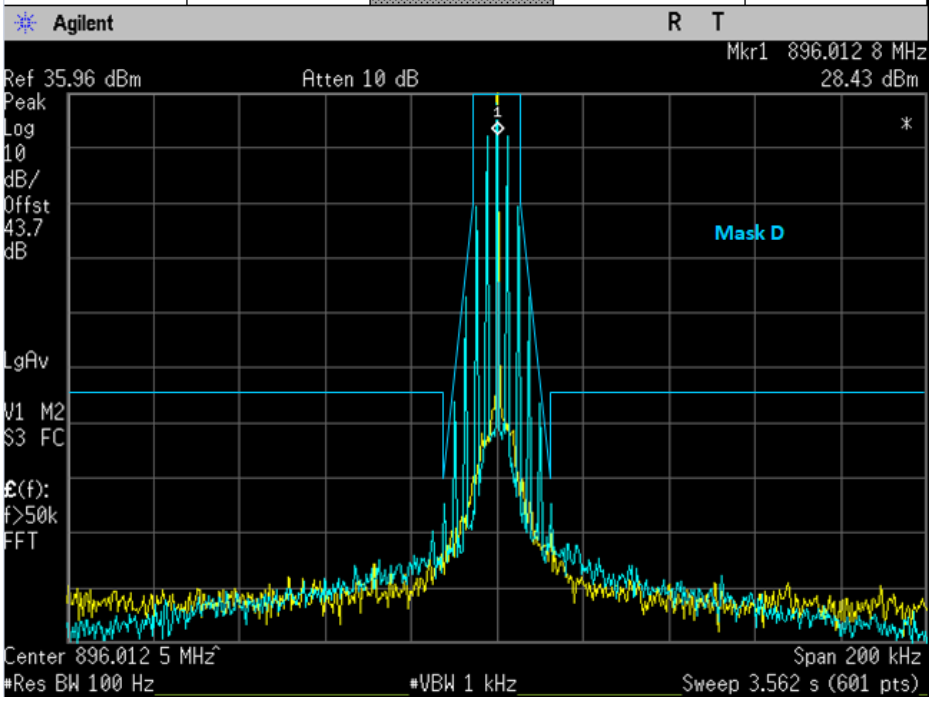
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	Channel Spacing (kHz)		99% OCB (kHz)	Emission Designator
896.0125	12.5		9.9504	11K0F3E



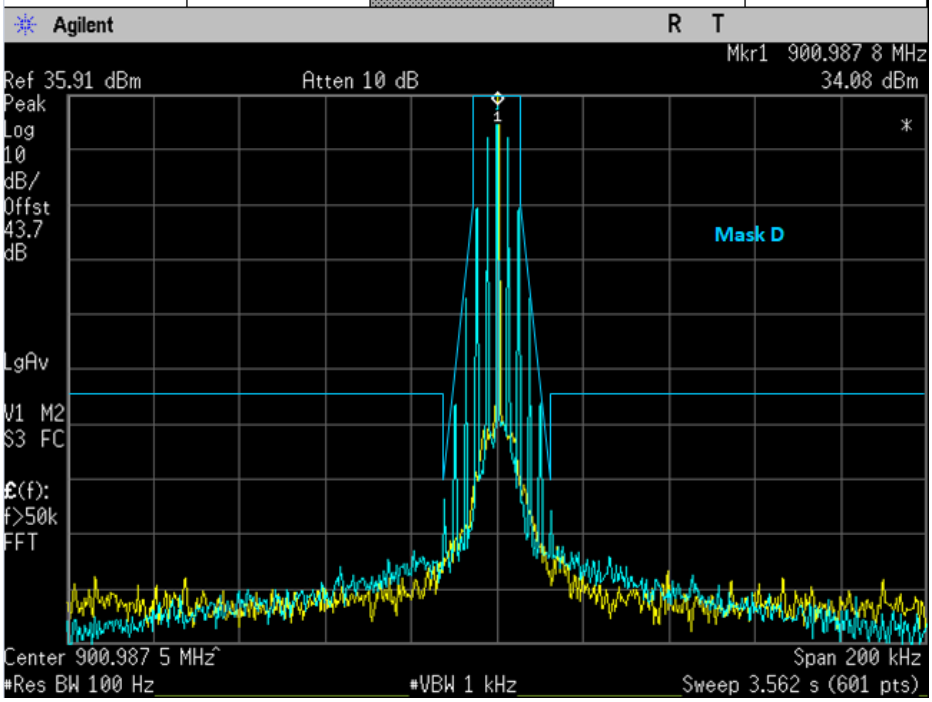
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	Channel Spacing (kHz)		99% OCB (kHz)	Emission Designator
900.9875	12.5		9.9510	11K0F3E



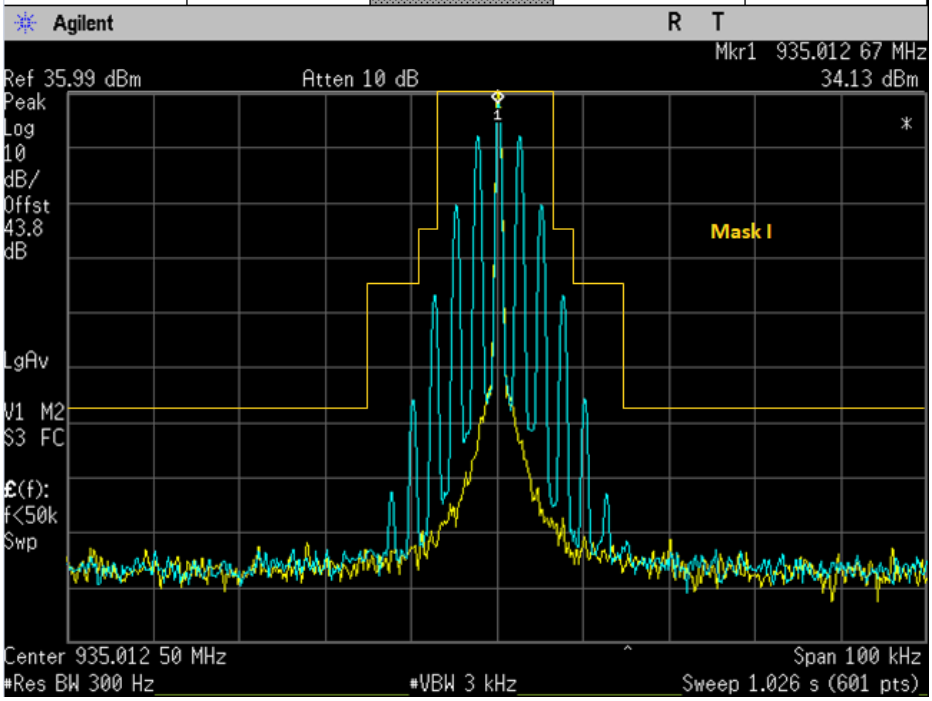
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		9.9498	11K0F3E



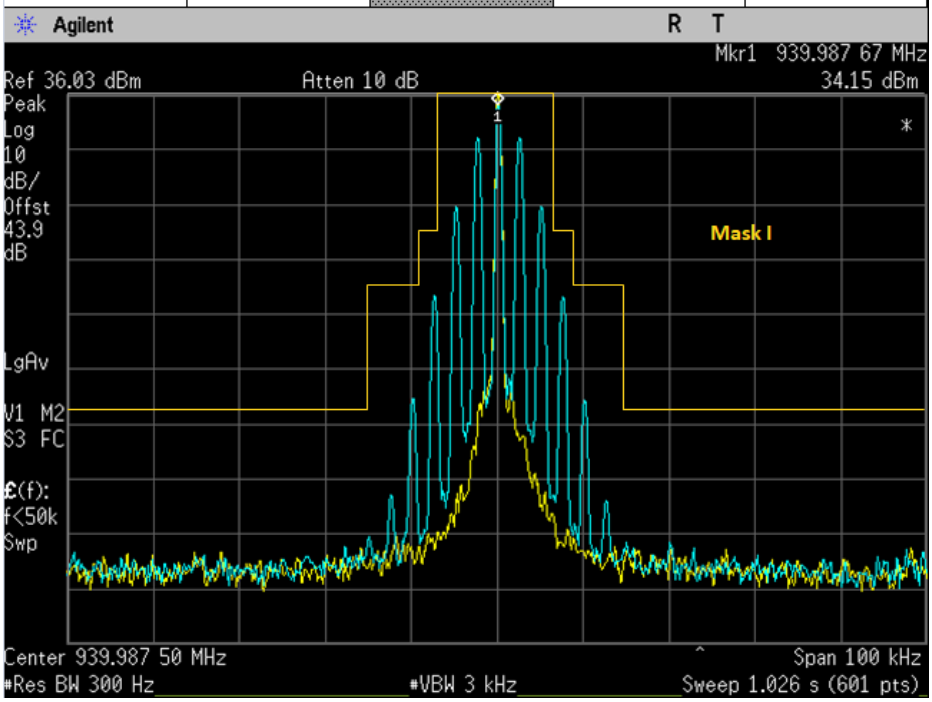
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		9.9536	11K0F3E



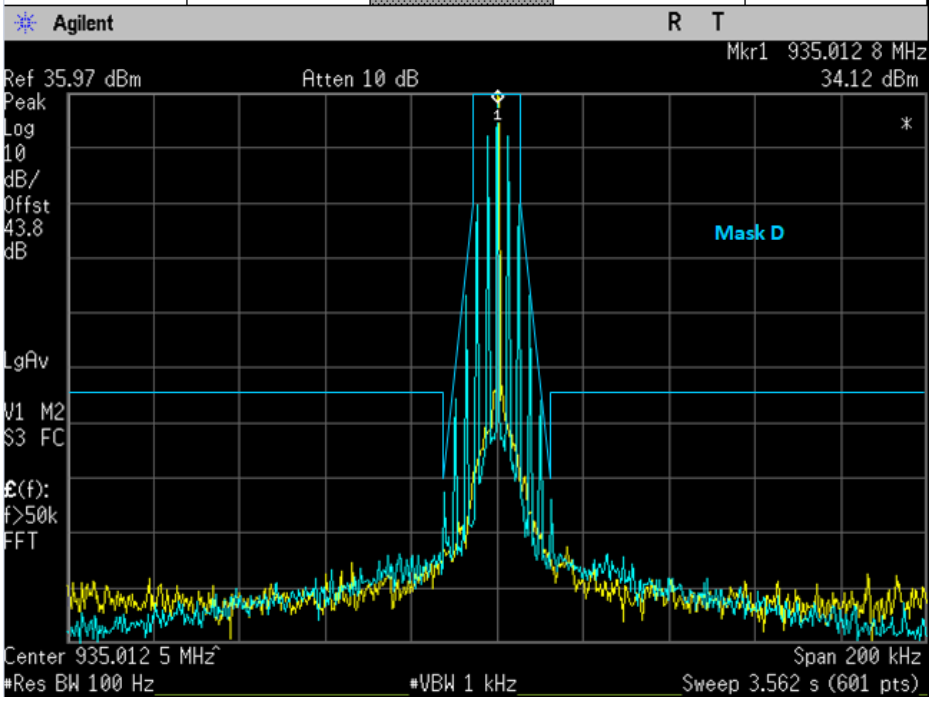
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		9.9635	11K0F3E



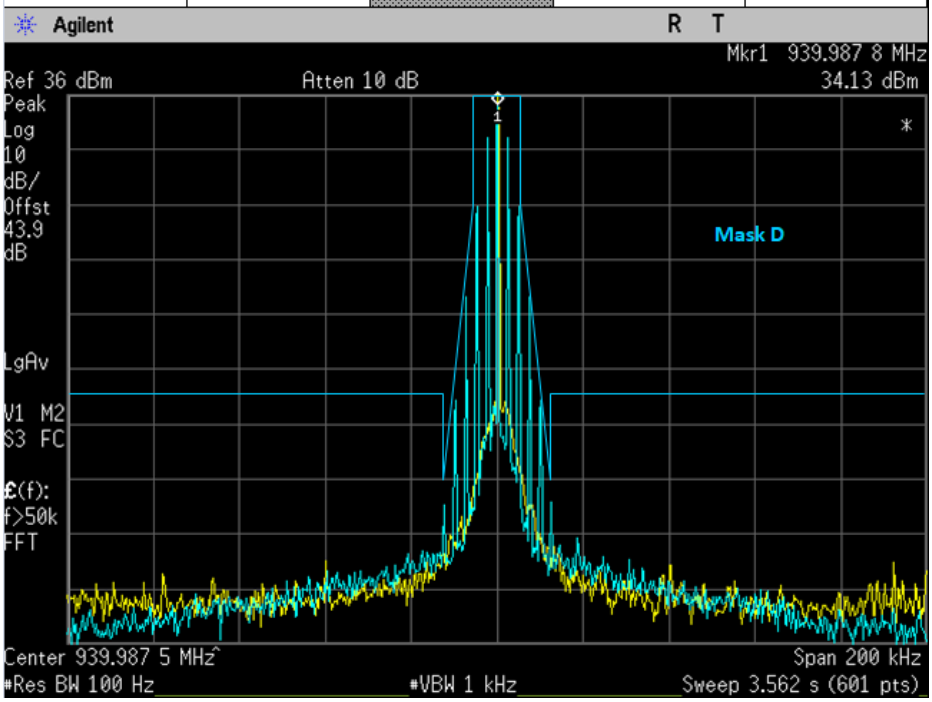
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		9.9705	11K0F3E



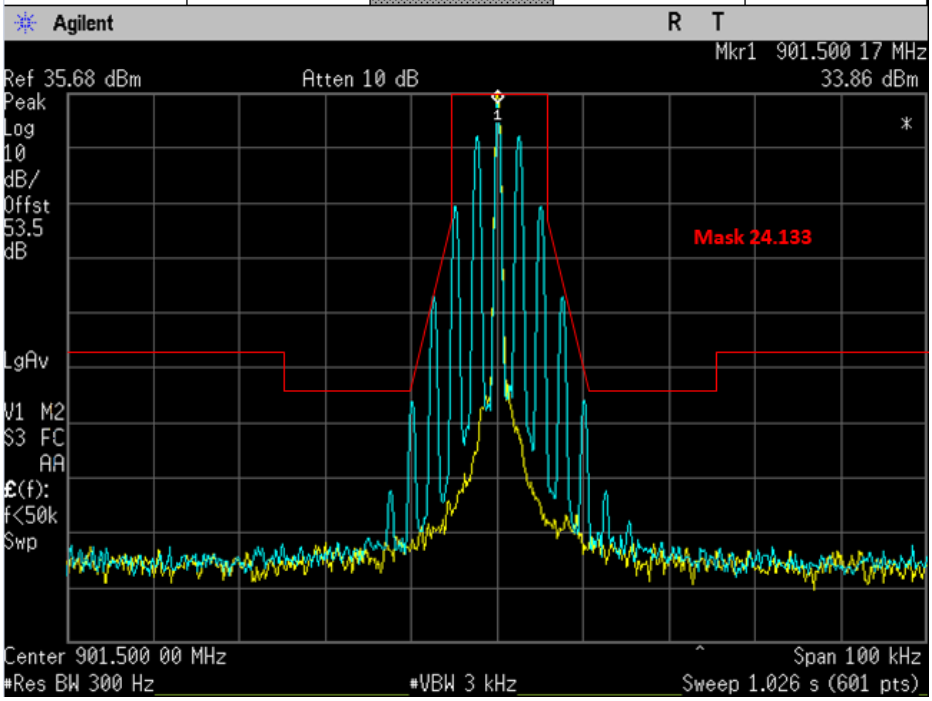
Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		9.9622	11K0F3E



Modulation			Rules Part	
Analog Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		9.9694	11K0F3E

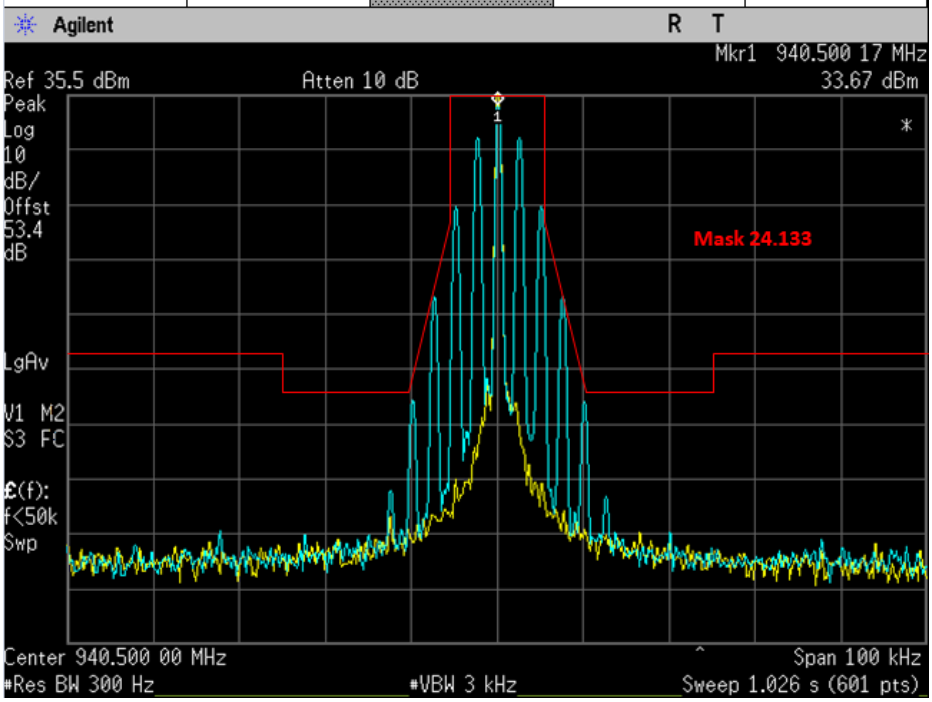


Modulation			Rules Part	
Analog Voice			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
901.5000	12.5		9.9709	10K0F3E



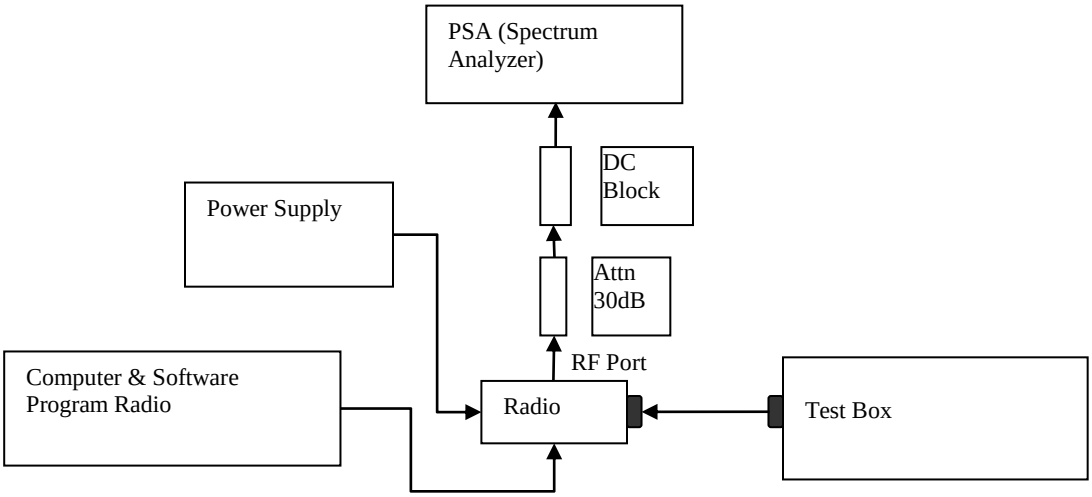
Part 24

Modulation			Rules Part	
Analog Voice			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
940.5000	12.5		9.9625	10K0F3E



Part 24

6.6.3. Test Setup (Digital)



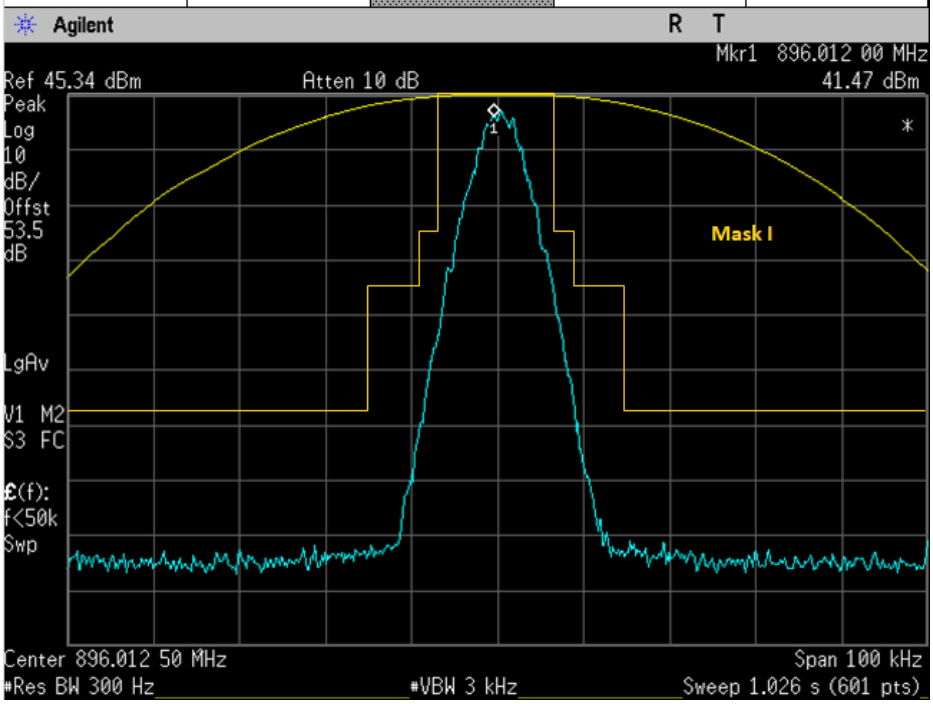
1) Program and set radio to operate in desire test frequency and digital mode with modulation. (*4FSK, C4FM or other digital modulation form).
2) Path loss for the measurement included.
3) Select the Occupied Bandwidth measurement for 99% Emissions Bandwidth Measurement.
4) Key in the Fc and Resolution Bandwidth (1 ~ 5 % of emission designator).
5) Transmit the DUT and record the occupied Bandwidth frequency.
6) Preset the spectrum analyzer for modulation emission spectrum measurement.
7) Set the span and Resolution Bandwidth (according to FCC/ ISED standard).
8) Capture the screen shot as modulated signal.

*Note:

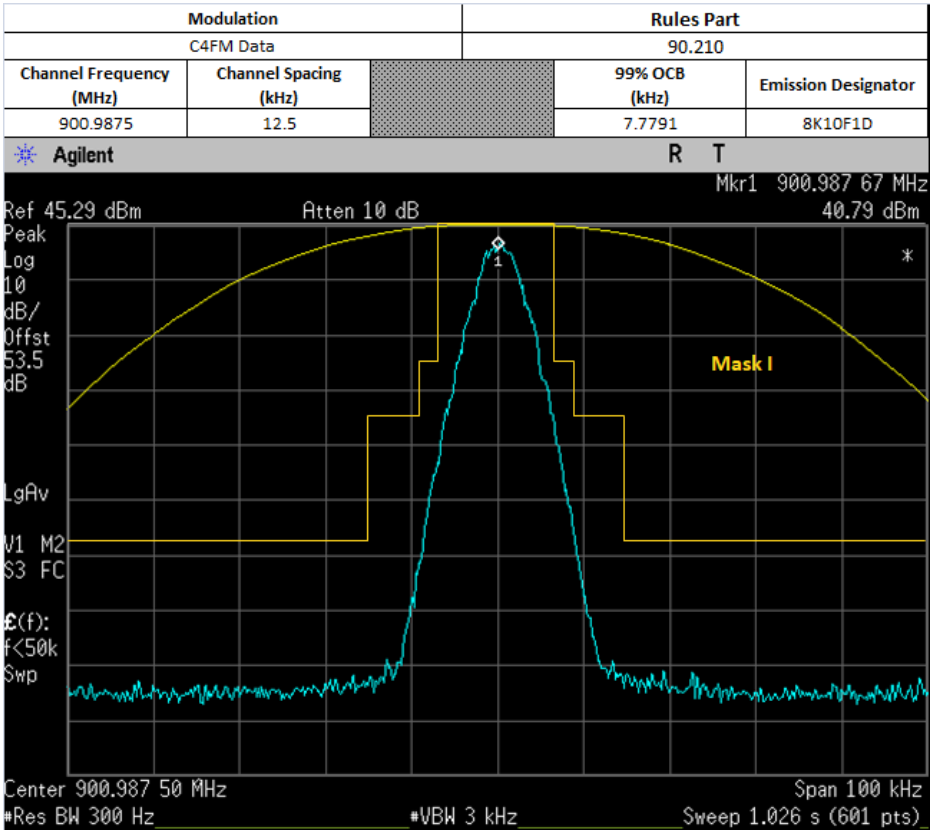
- For Digital Modulation, 12.5 kHz Data F1D & FXD would be the same. Therefore only measurements with F1D modulation shown below.
- For Digital Modulation, 12.5 kHz Data F1E & FXE would be the same. Therefore only measurements with F1E modulation shown below.

6.6.4. Test Result (Digital)

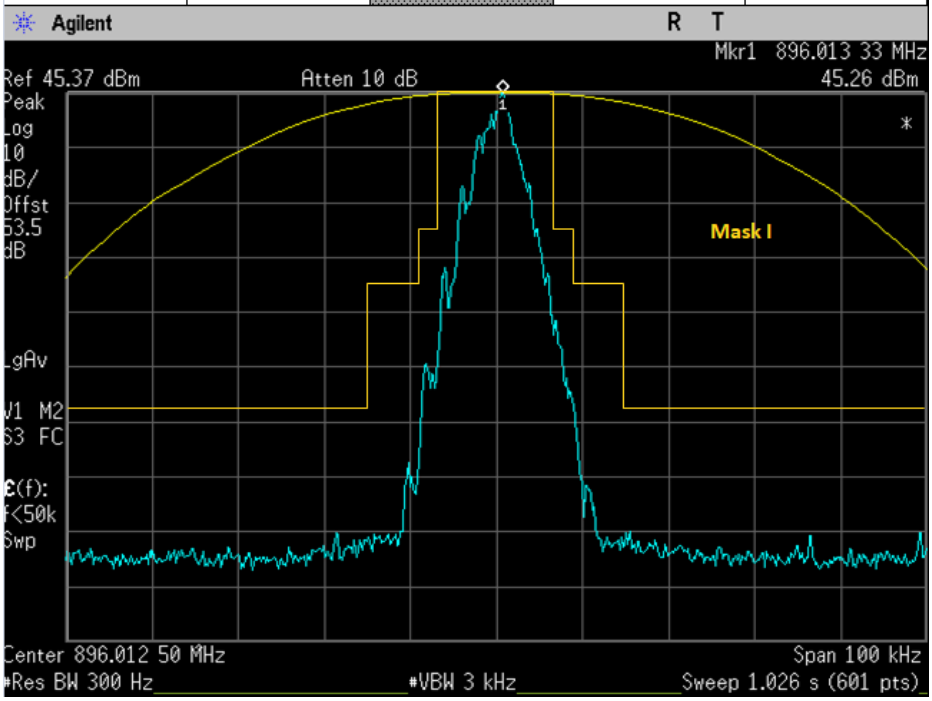
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	Channel Spacing (kHz)		99% OCB (kHz)	Emission Designator
896.0125	12.5		7.6267	8K10F1D



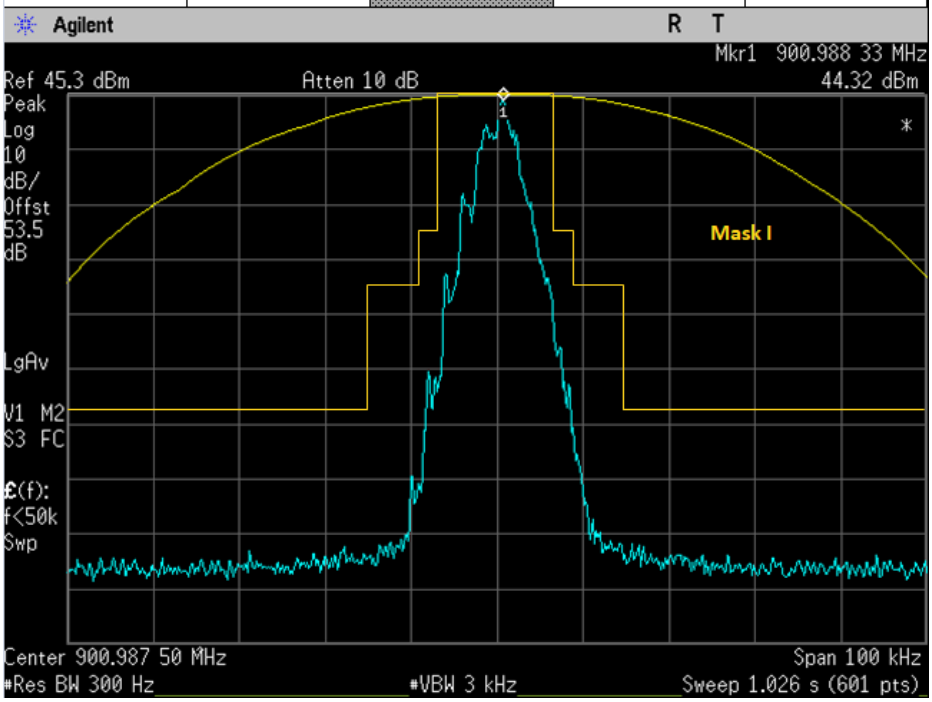
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	Channel Spacing (kHz)		99% OCB (kHz)	Emission Designator
900.9875	12.5		7.7791	8K10F1D



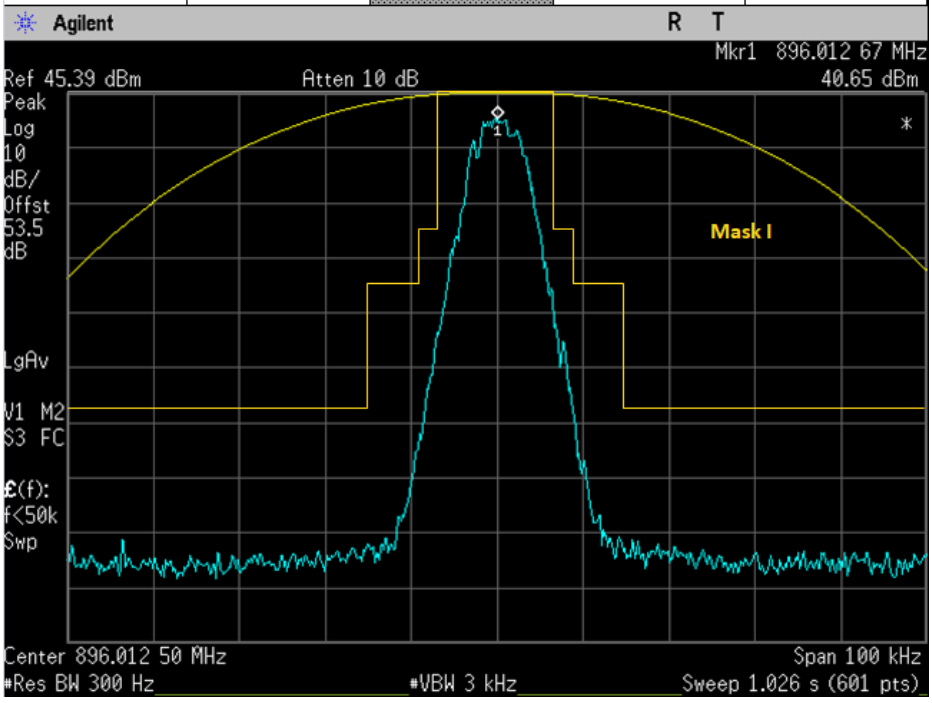
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		6.2156	8K10F1E



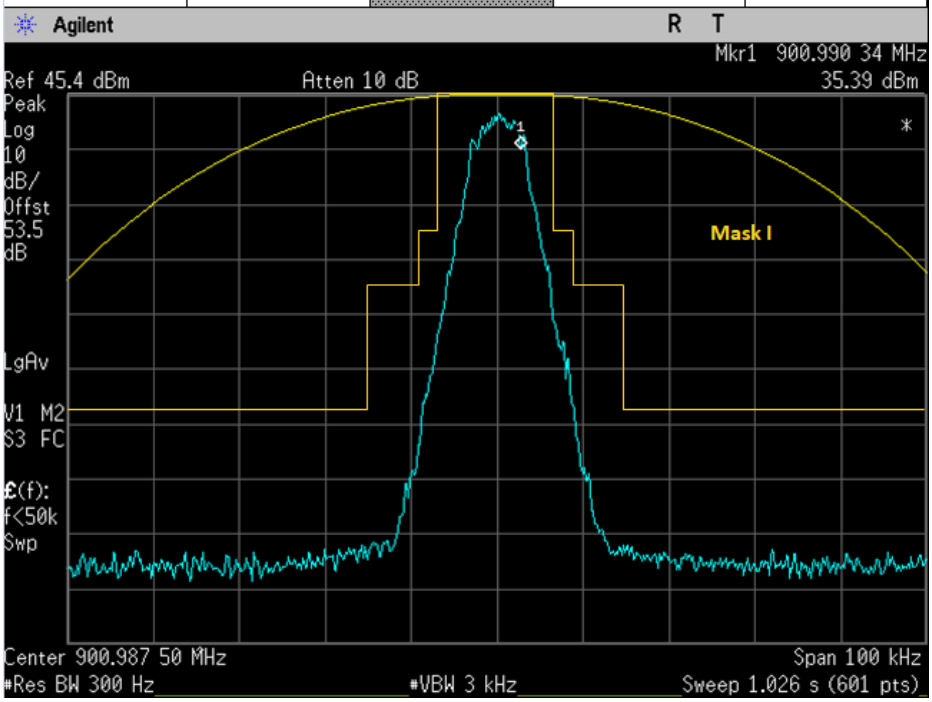
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		6.0910	8K10F1E



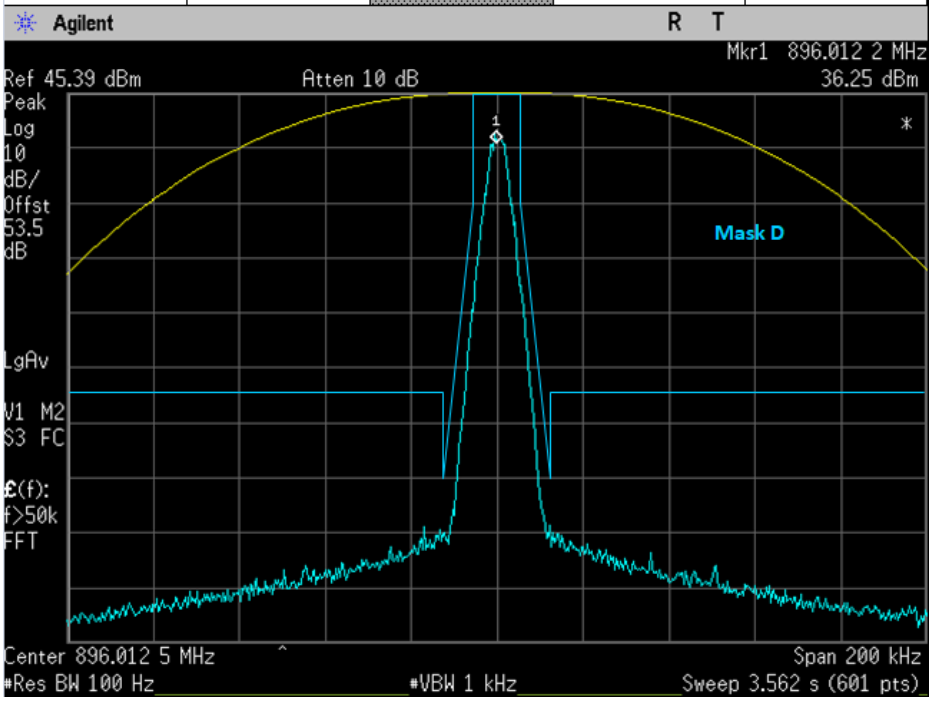
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		7.7298	8K10F1W



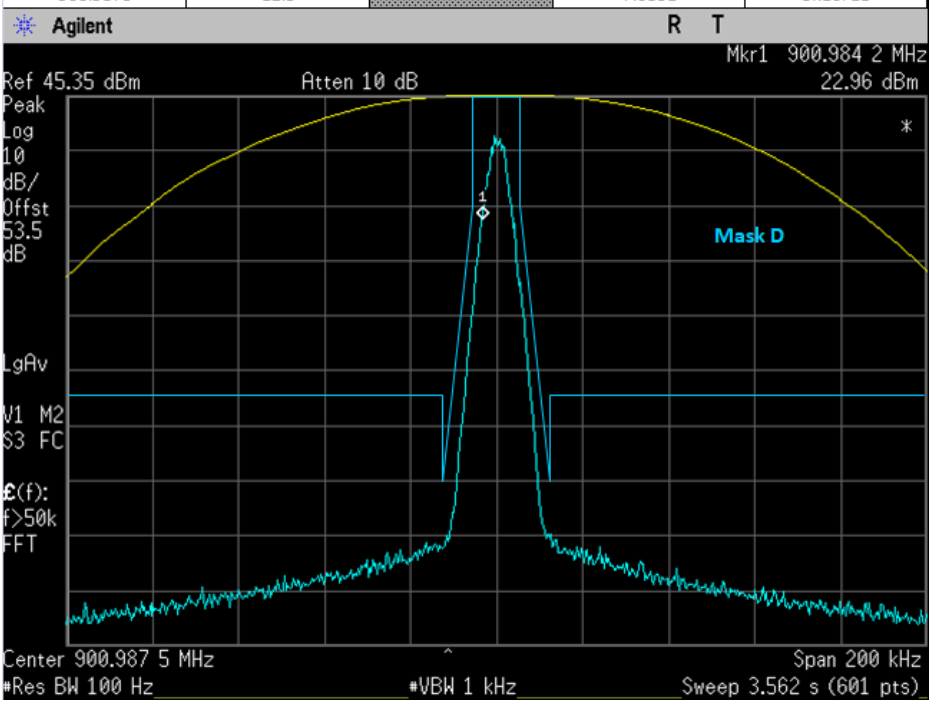
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		7.7050	8K10F1W



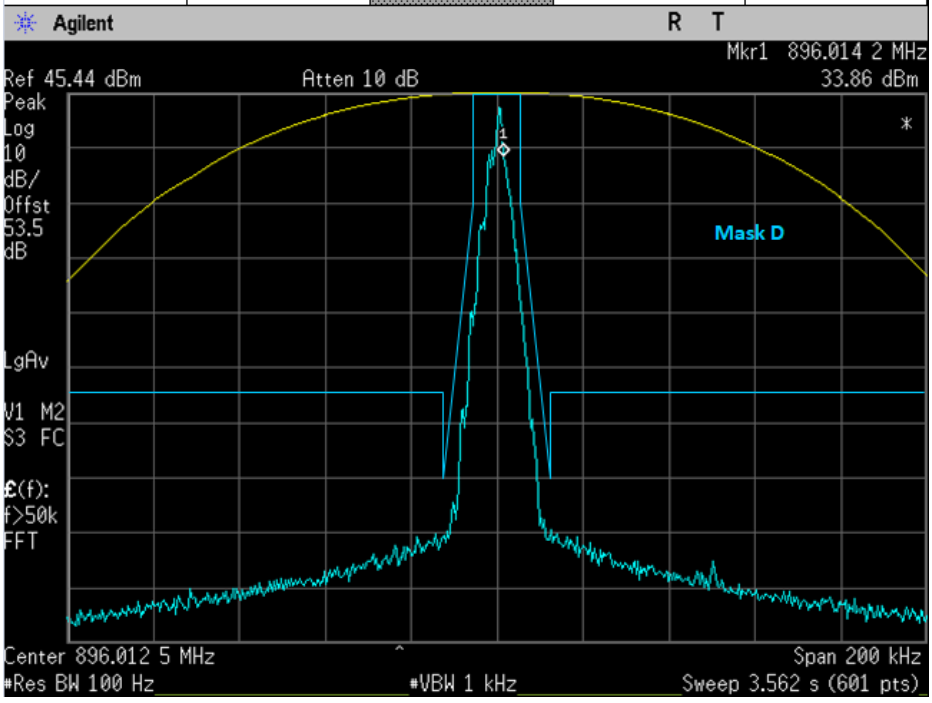
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		7.5807	8K10F1D



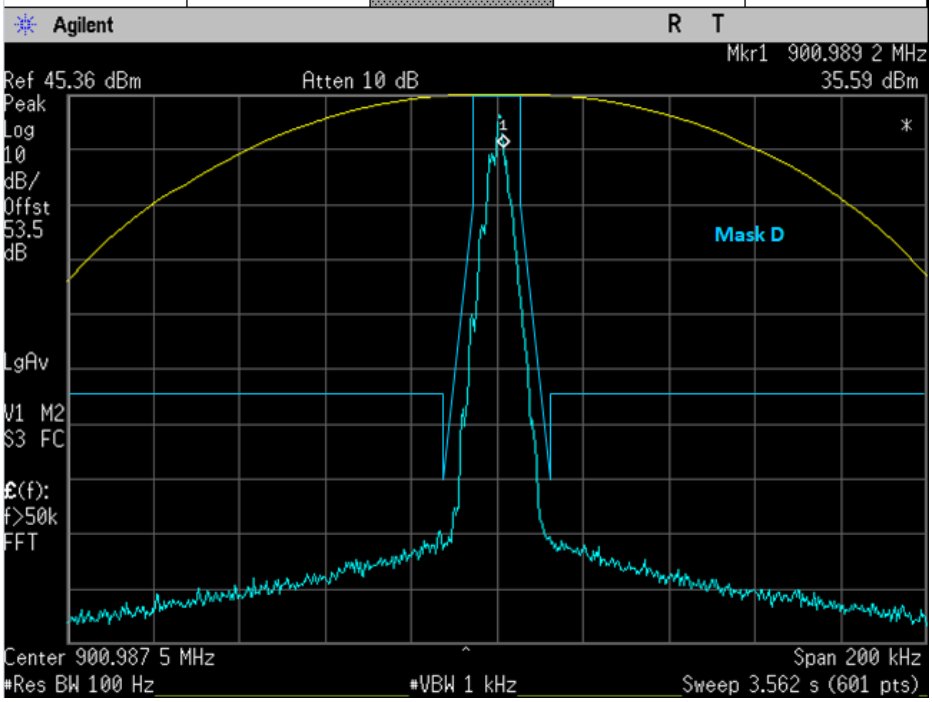
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		7.6831	8K10F1D



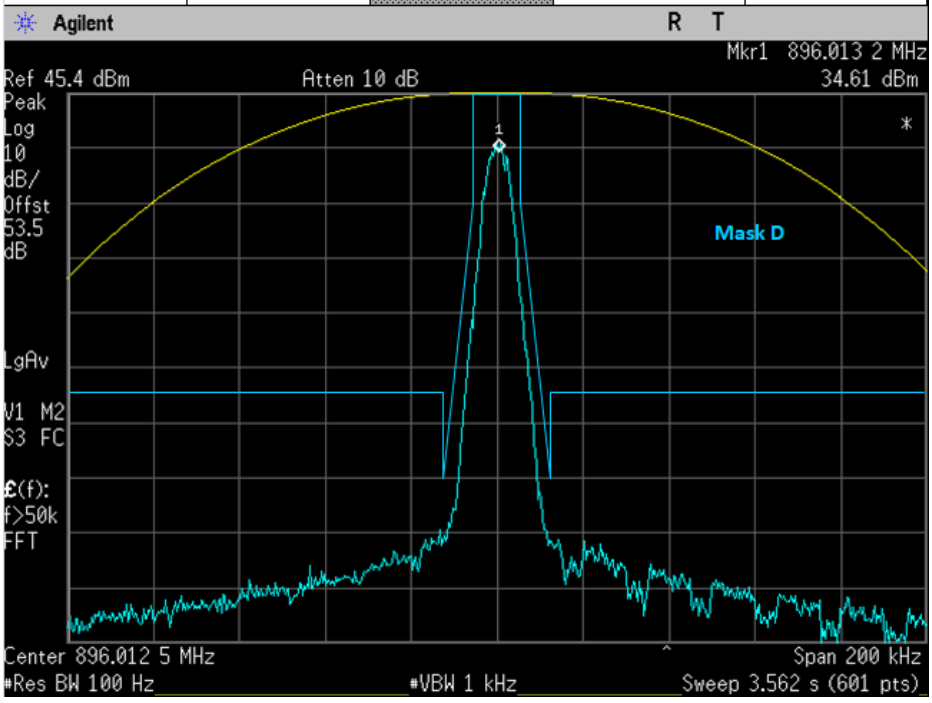
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		5.9600	8K10F1E



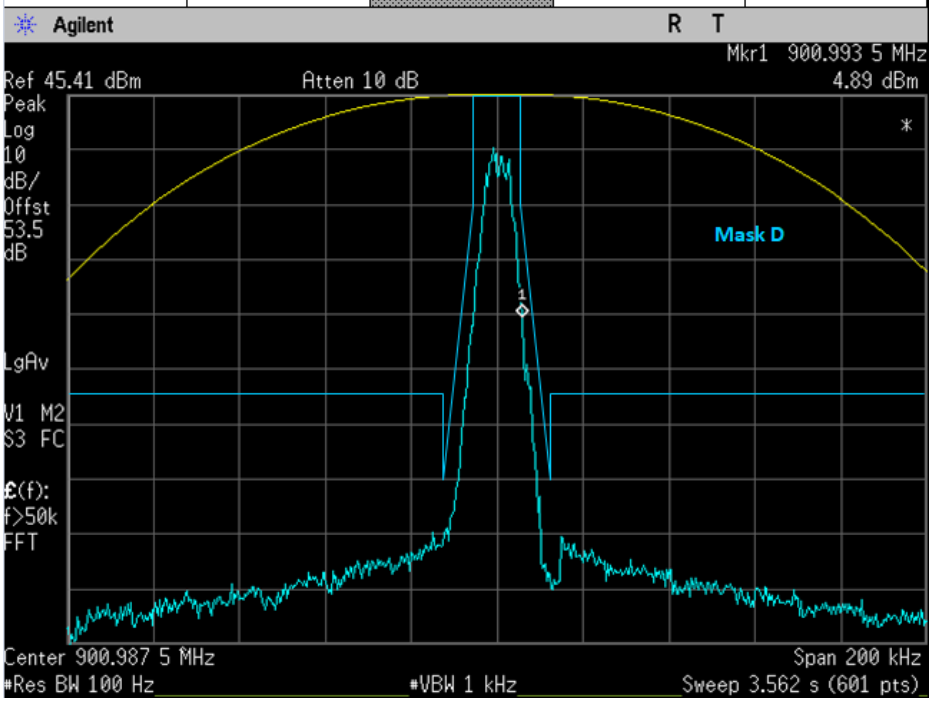
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		6.4450	8K10F1E



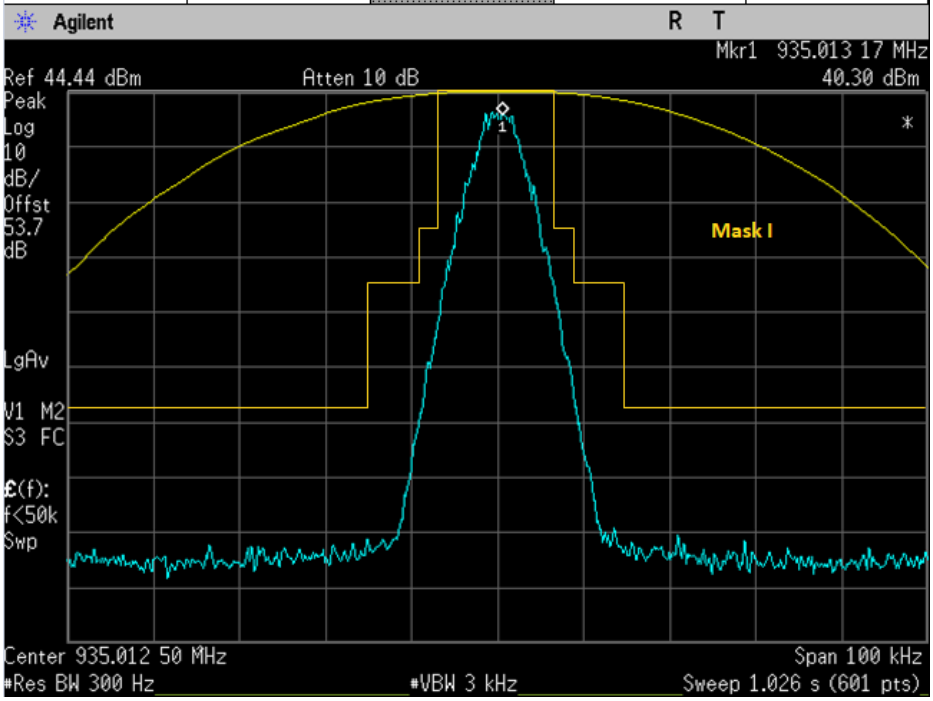
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
896.0125	12.5		7.8972	8K10F1W



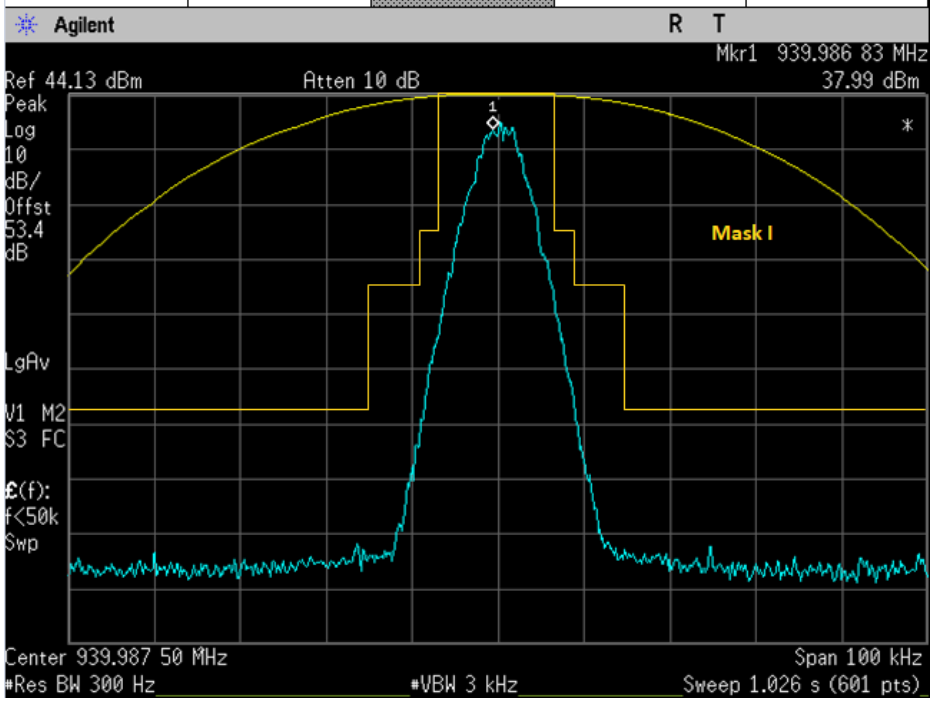
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
900.9875	12.5		7.6234	8K10F1W



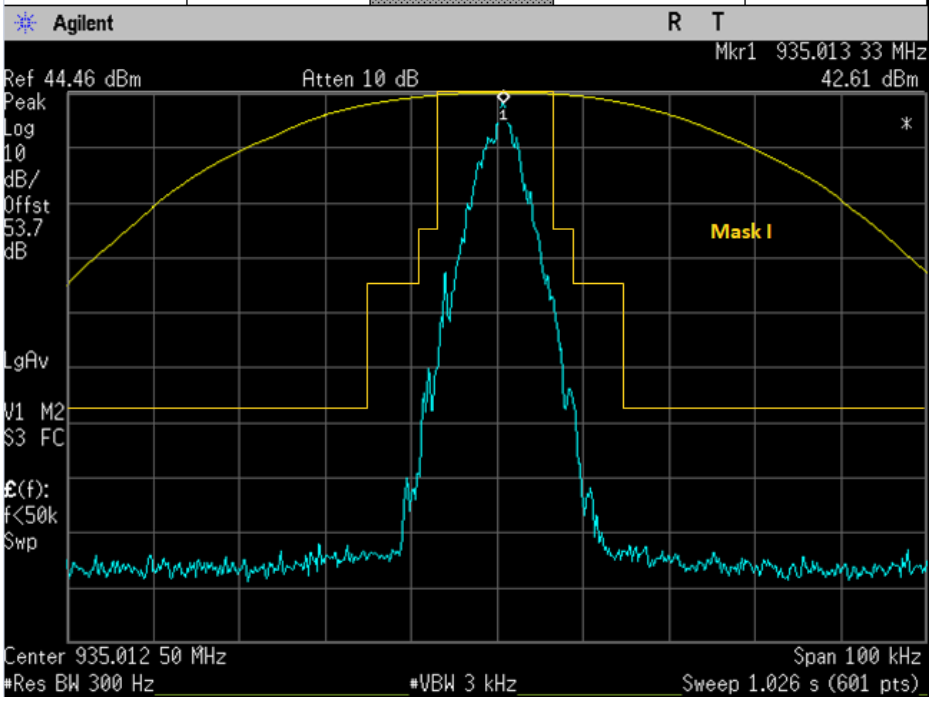
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		7.9509	8K10F1D



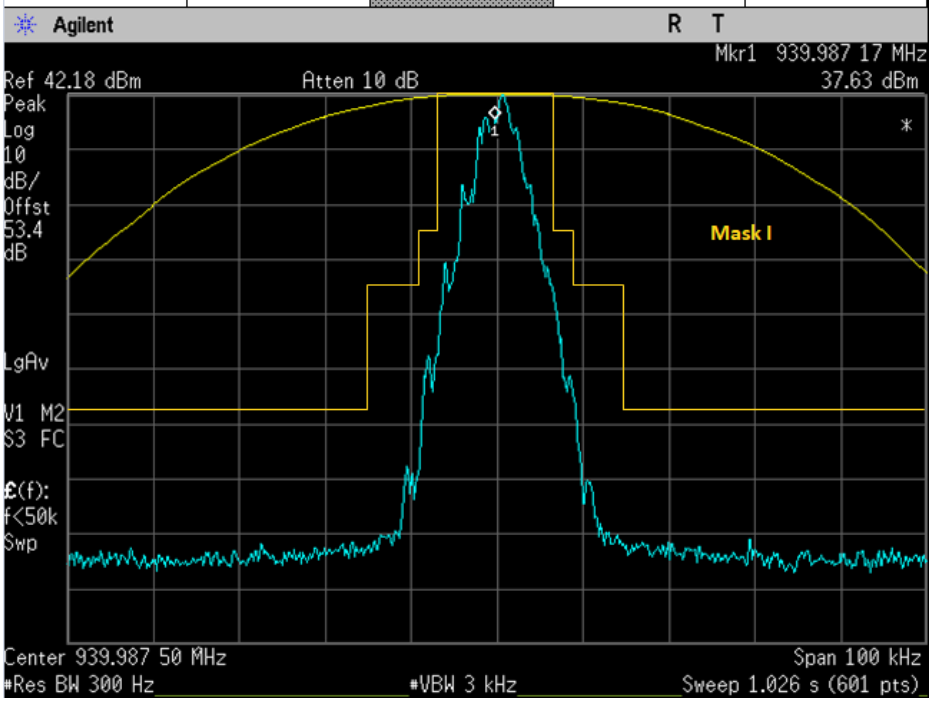
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		7.8598	8K10F1D



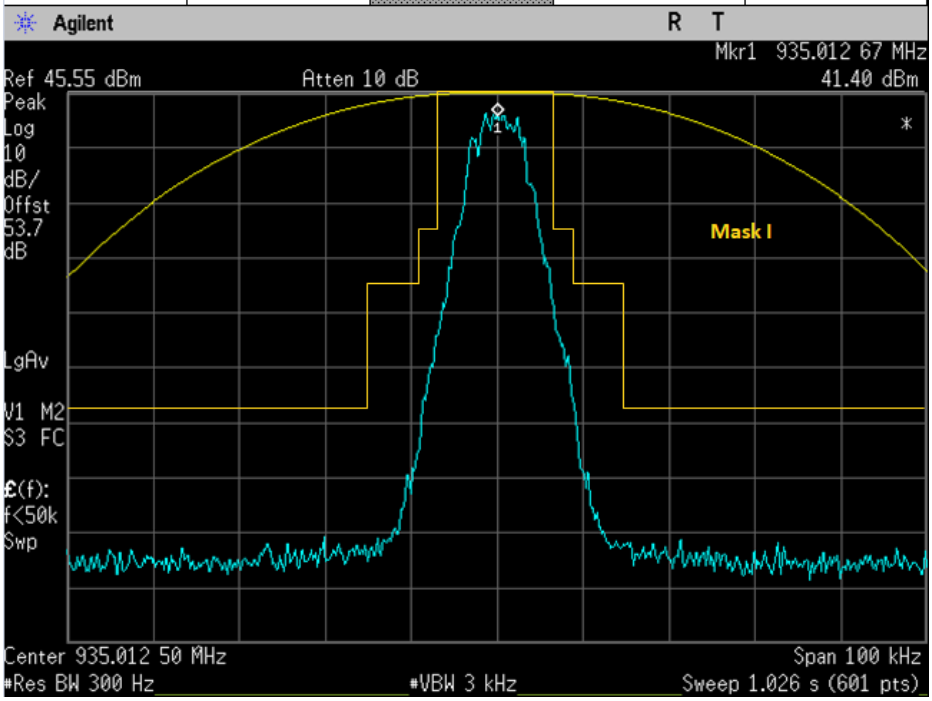
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		6.6114	8K10F1E



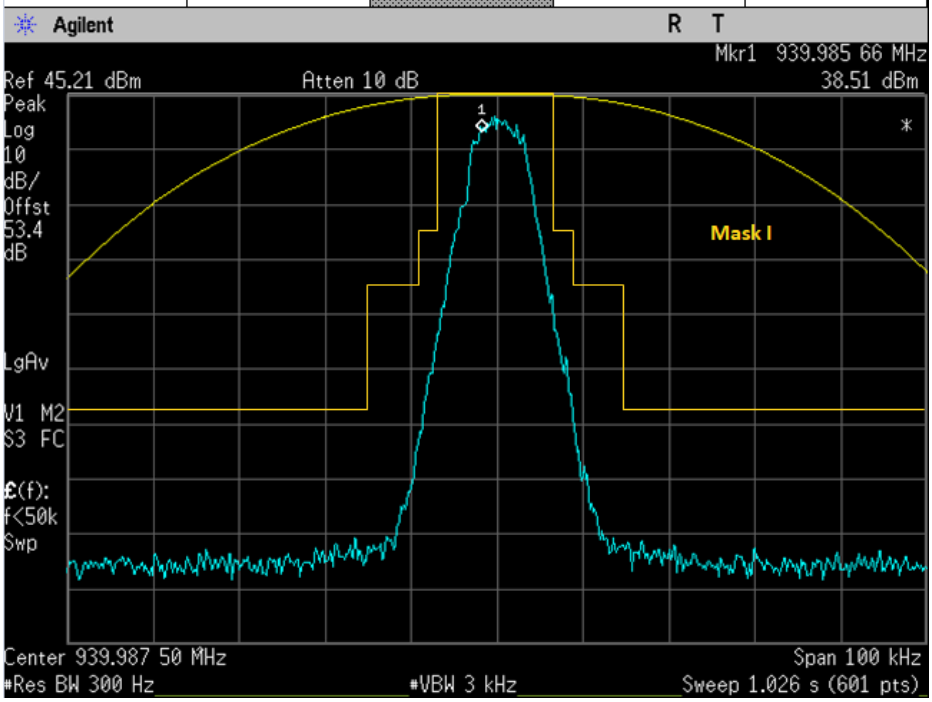
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		6.5593	8K10F1E



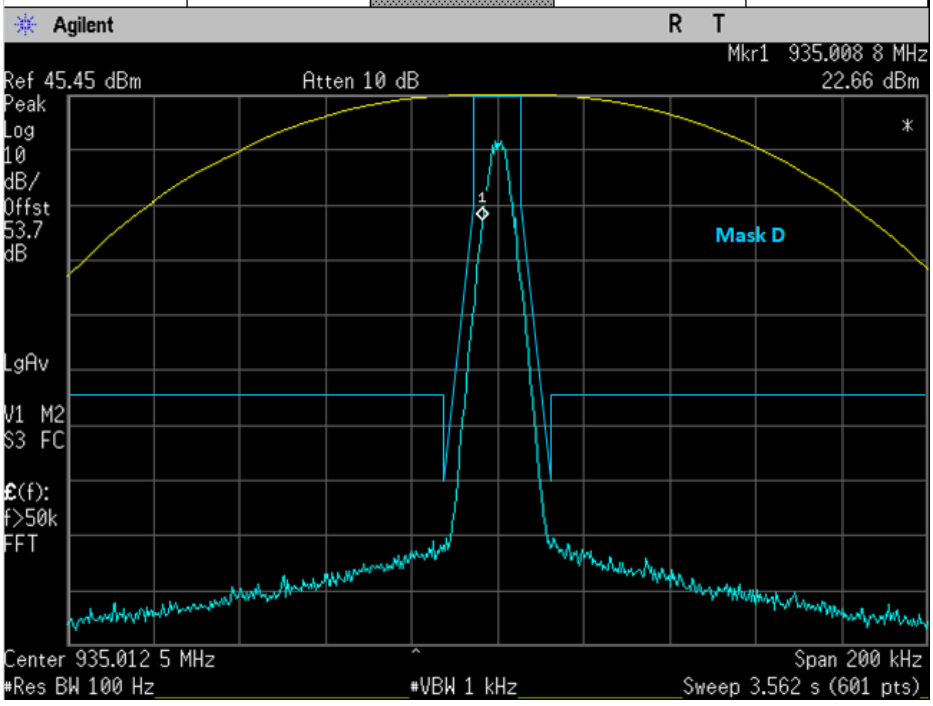
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		7.7587	8K10F1W



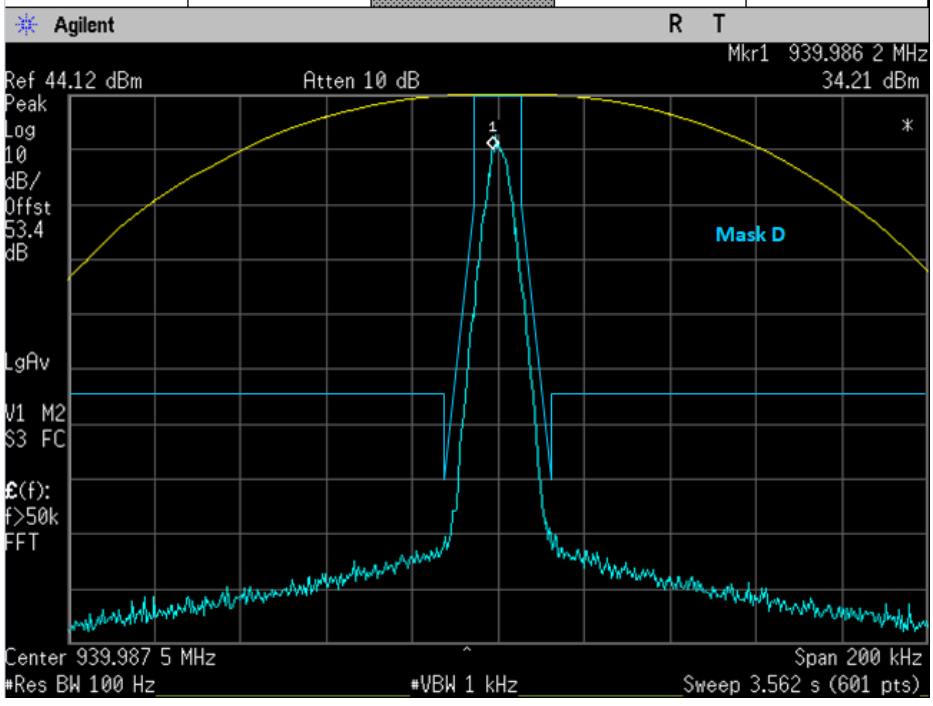
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		7.9875	8K10F1W



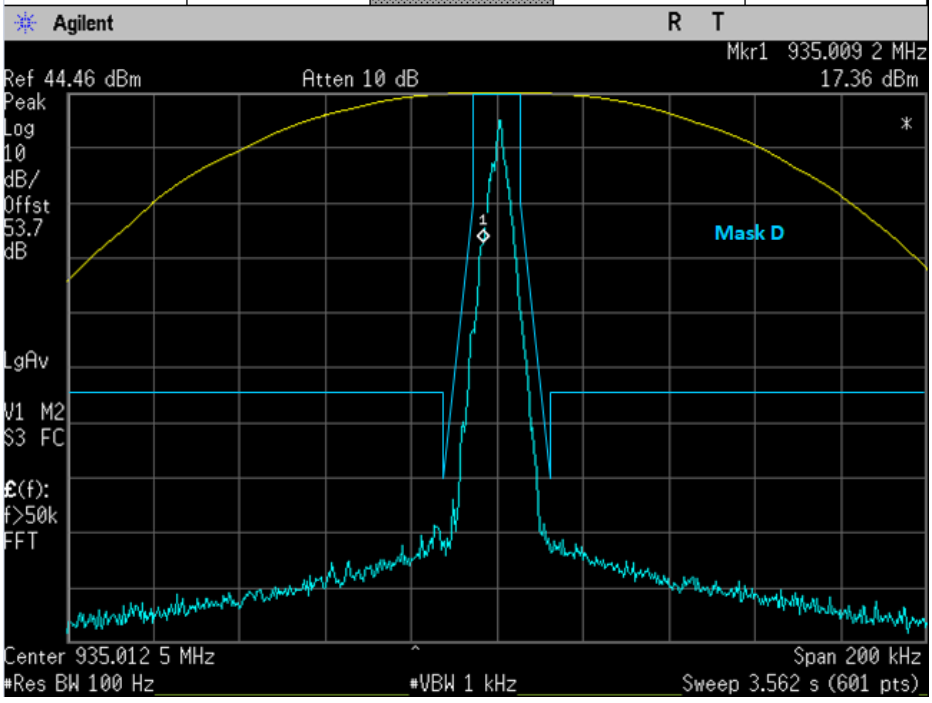
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		7.8784	8K10F1D



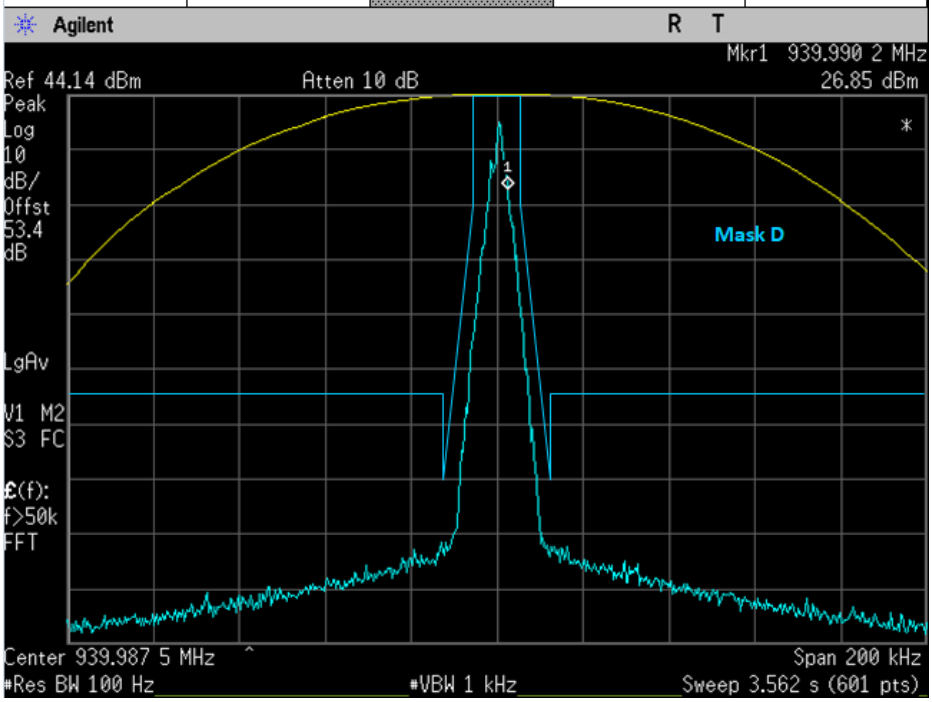
Modulation			Rules Part	
C4FM Data			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		7.9738	8K10F1D



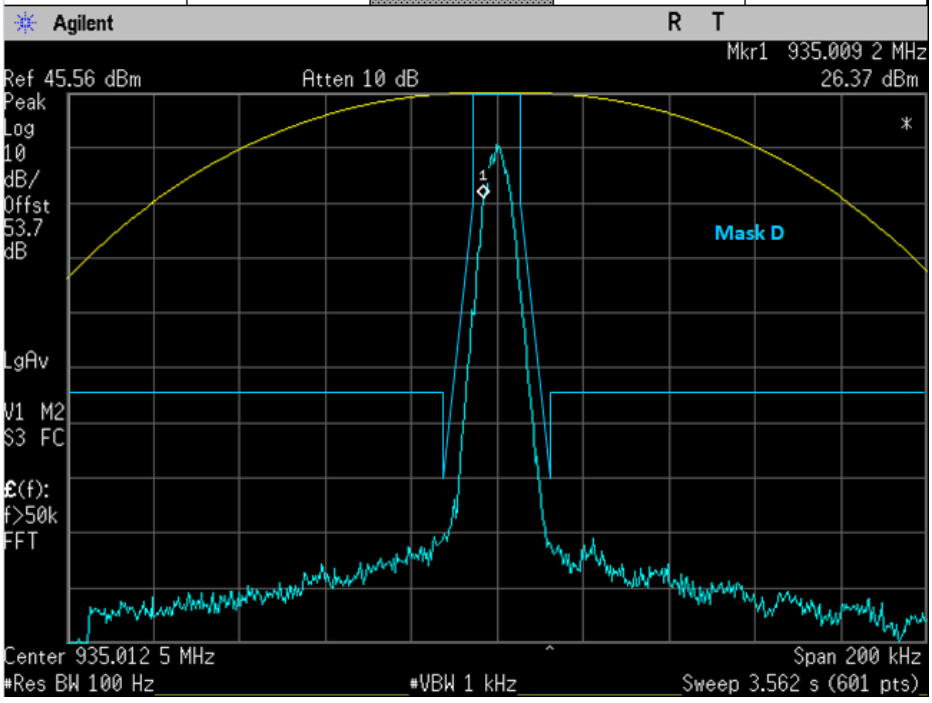
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		6.6834	8K10F1E



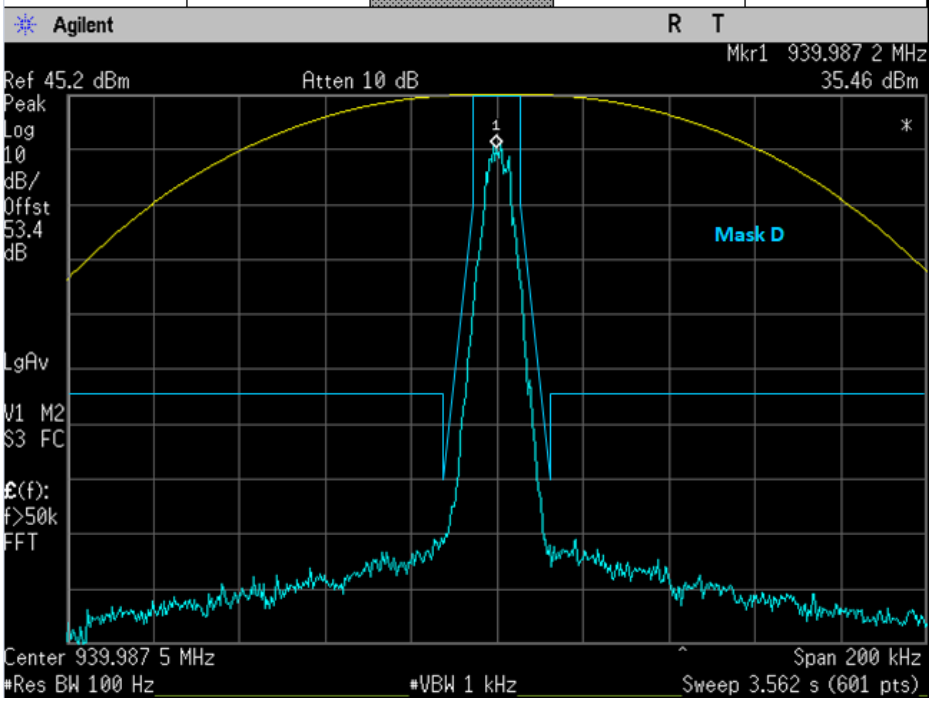
Modulation			Rules Part	
C4FM Voice			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		6.5545	8K10F1E



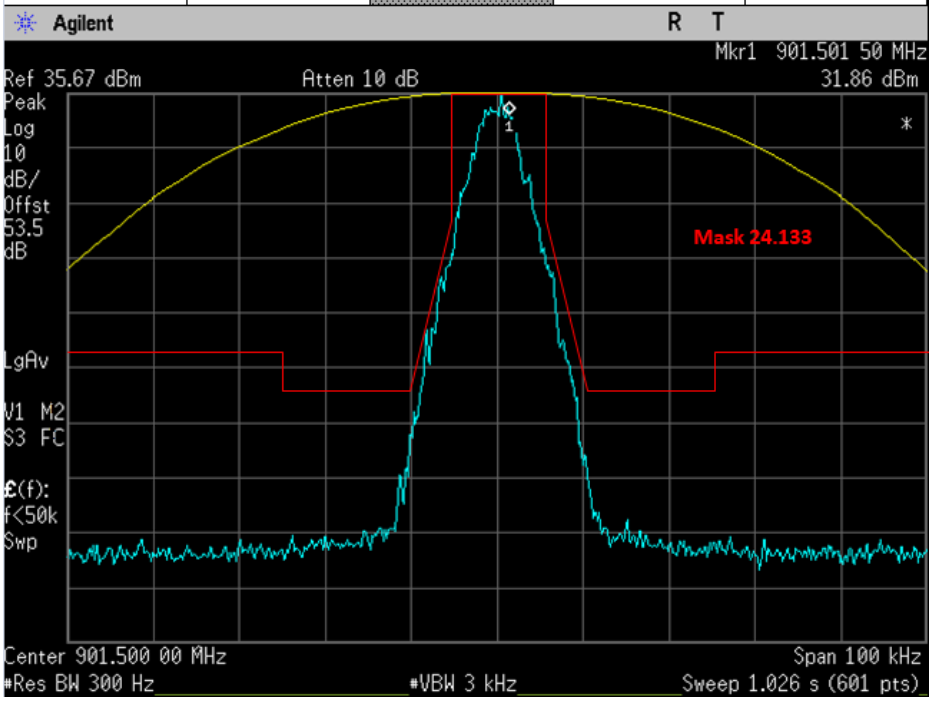
Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
935.0125	12.5		8.0666	8K10F1W



Modulation			Rules Part	
Phase II			90.210	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
939.9875	12.5		7.7805	8K10F1W

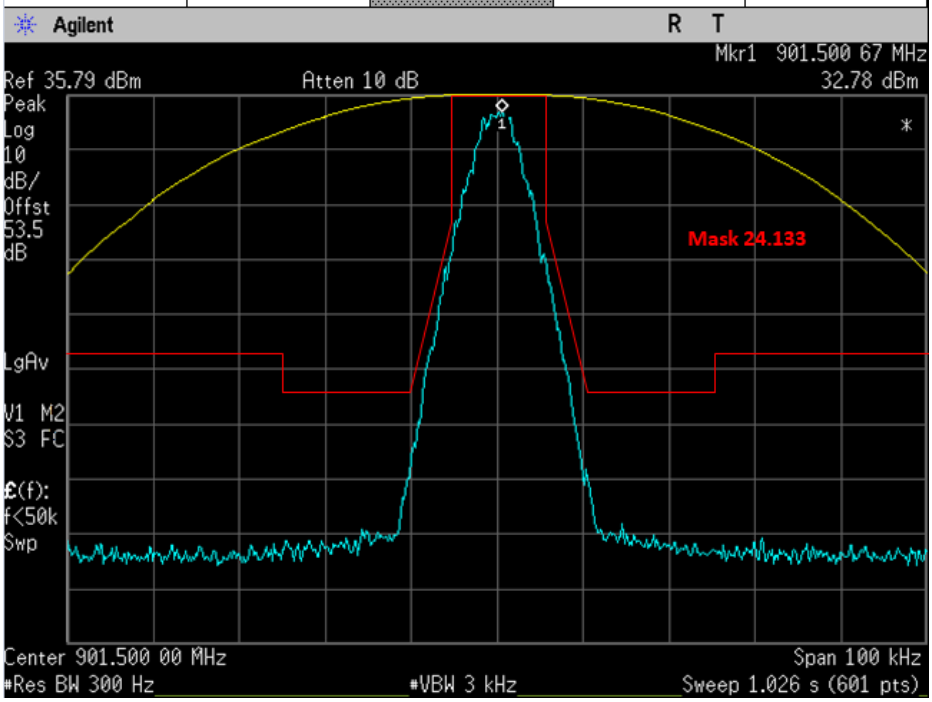


Modulation			Rules Part	
C4FM Voice Encyption			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
901.5000	12.5		7.4298	8K10F1E



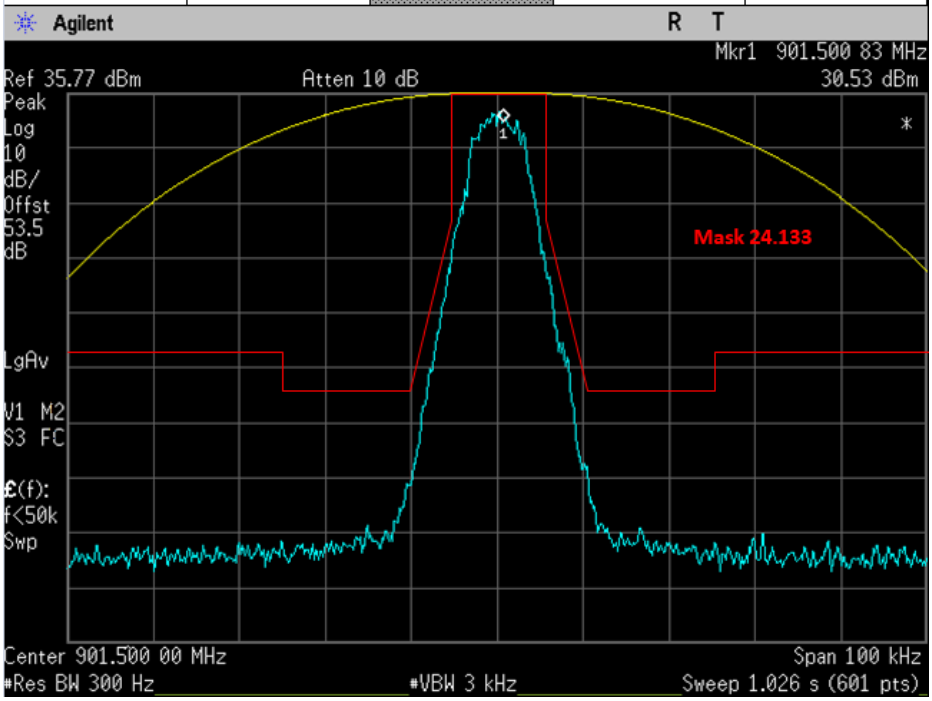
Part 24

Modulation			Rules Part	
C4FM Data			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
901.5000	12.5		7.6475	8K10F1D



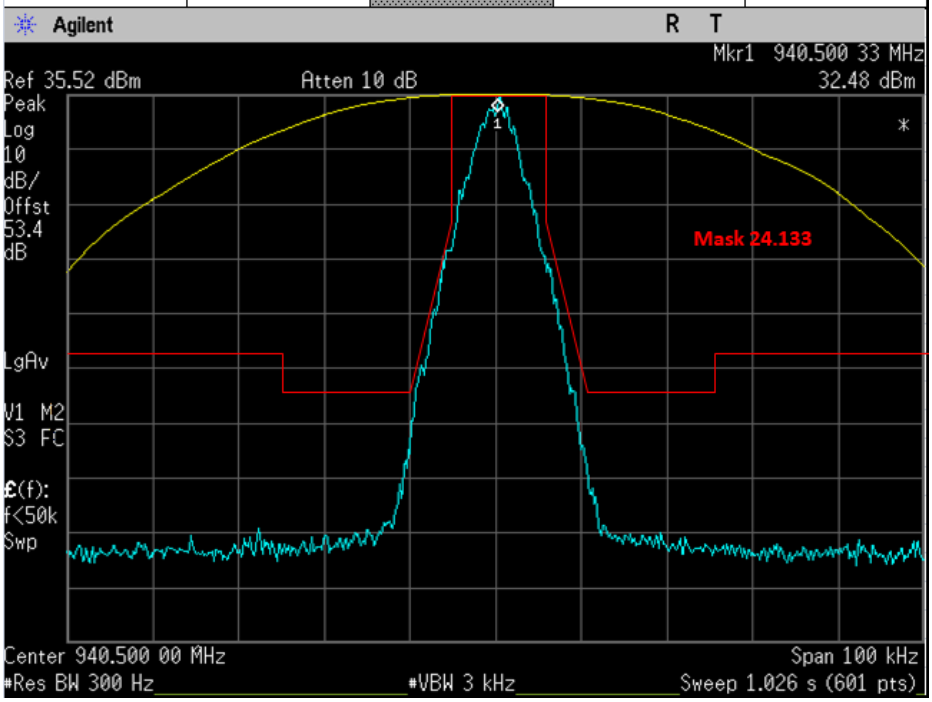
Part 24

Modulation			Rules Part	
Phase II			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
901.5000	12.5		7.9168	8K10F1W



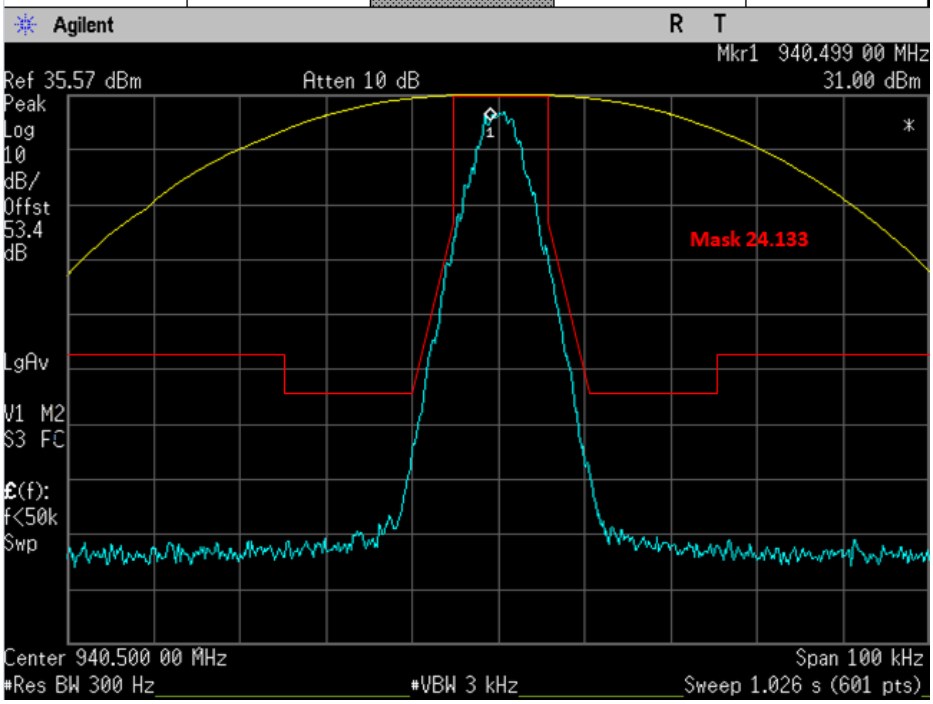
Part 24

Modulation			Rules Part	
C4FM Voice Encyption			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
940.5000	12.5		7.7899	8K10F1E



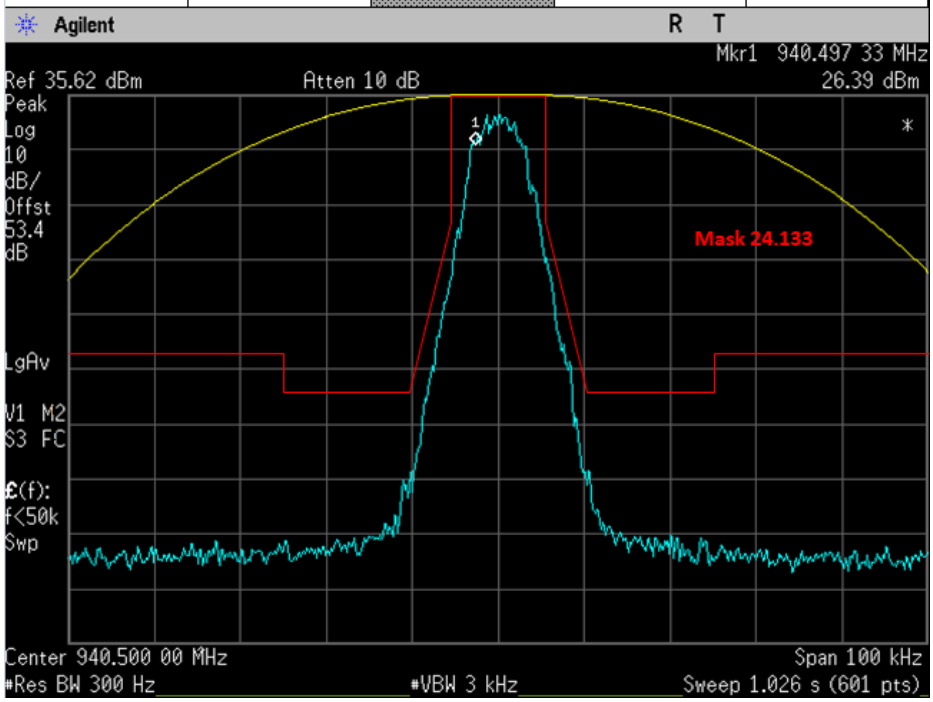
Part 24

Modulation			Rules Part	
C4FM Data			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
940.5000	12.5		7.6812	8K10F1D



Part 24

Modulation			Rules Part	
Phase II			24.133 / RSS-134	
Channel Frequency (MHz)	**Channel Spacing (kHz)**		**99% OCB (kHz)**	**Emission Designator**
940.5000	12.5		7.6550	8K10F1W



Part 24

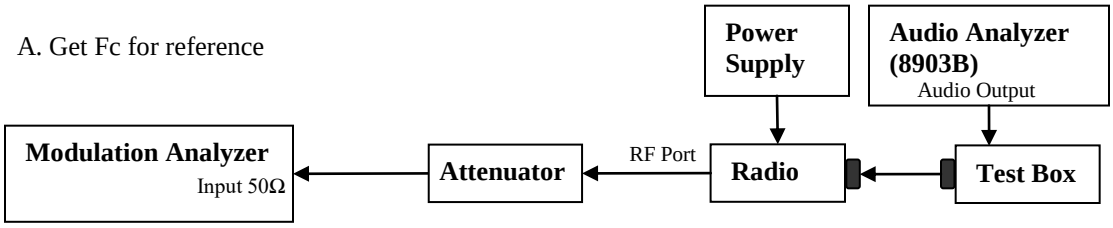
6.6.5. Test Limit

The 99% occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

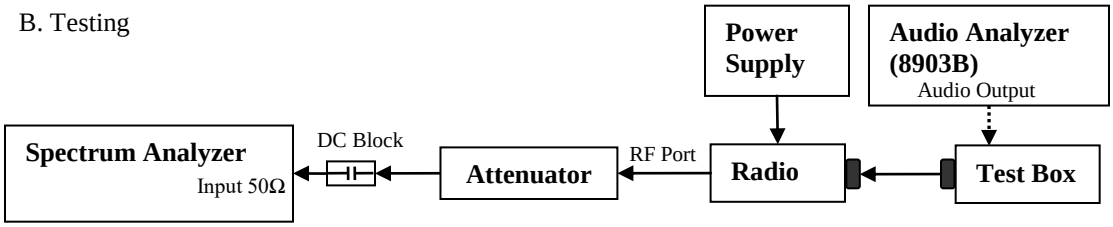
6.7. Band Edge Conducted Spurious Emission (Part 22)

6.7.1. Test Setup (Analog)

A. Get Fc for reference



B. Testing



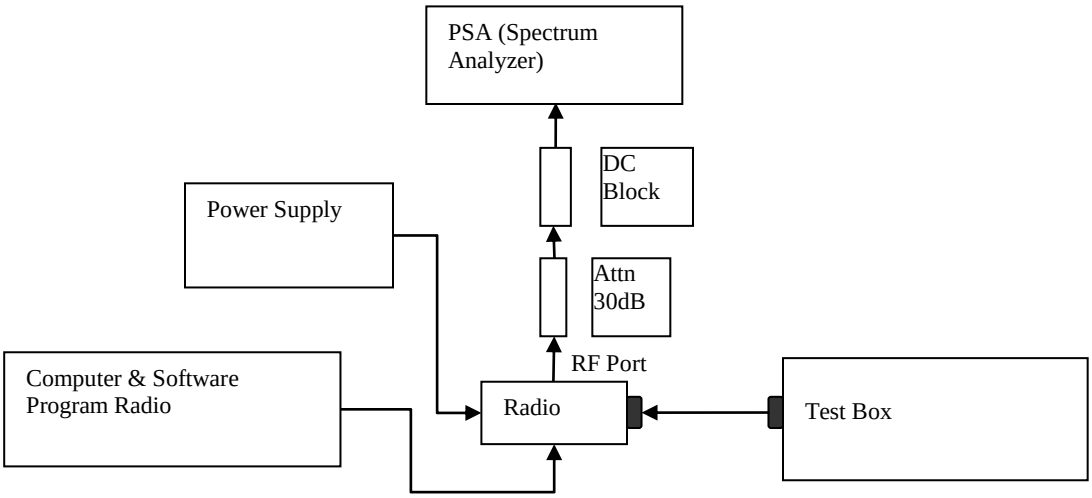
2) The DUT transmitter output port was connected to Modulation Analyzer.
3) Set the audio bandwidth filter to 15 kHz low pass filter and 50 kHz high pass filter.
4) Transmit the radio and set the audio analyzer to 2.5 kHz audio frequency and 50% of the rated deviation. Up the amplitude by 16 dB. Dekey the DUT.
5) Path loss for the measurement included.
6) Select the Occupied Bandwidth measurement for 99% and 26dB Emissions Bandwidth Measurement.
7) Key in the Fc and Resolution Bandwidth.
8) Transmit the DUT and record the occupied Bandwidth frequencies.
9) Preset the spectrum analyzer for band edge measurement.
10) The band edges of lowest and highest channels were measured.
11) Key in the Lowest and highest channel frequency, span is 60 kHz and Resolution Bandwidth is at least 1% of Emission Bandwidth.
12) Save the screen shot as modulated signal.
13) Remove the audio tone from audio analyzer to capture unmodulated signal.

*Note:
- For emission designator ending with F3E, 16K0F3E is the worst case and therefore only 16K0F3E will be shown.

6.7.2. Test Result (Analog)

Not Applicable.

6.7.3. Test Setup (Digital)



1) Program and set radio to operate in desire test frequency and digital mode with modulation. (*4FSK, C4FM or other digital modulation form).
2) Path loss for the measurement included.
3) Select the Occupied Bandwidth measurement for 99% and 26dB Emissions Bandwidth Measurement.
4) Key in the Fc and Resolution Bandwidth.
5) Transmit radio record the occupied Bandwidth frequencies.
6) Preset the spectrum analyzer for band edge measurement.
7) Key in the lowest and highest channels frequency, span is 60 kHz and Resolution Bandwidth is at least 1% of Emission Bandwidth.
8) Save the screen shot.

*Note:

- For Digital Modulation, 12.5 kHz Data F1D & FXD would be the same. Therefore only measurements with F1D modulation shown below.
- For Digital Modulation, 12.5 kHz Data F1E & FXE would be the same. Therefore only measurements with F1E modulation shown below.

6.7.4. Test Result (Digital)

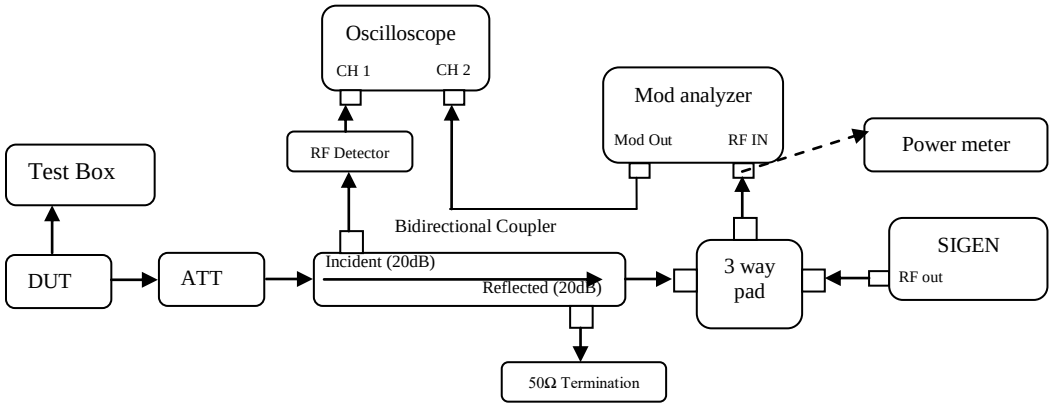
Not Applicable.

6.7.5. Test Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

6.8. Transient Frequency Behavior

6.8.1. Test Setup



1) Connect the setup as figure above.
2) Path loss for the measurement included.
3) Set on Sigen with the assigned center frequency, internal 1 kHz FM tone.
   FM Deviation: Analog 25kHz Channel Spacing = 25 kHz
   Analog 12.5 kHz Channel Spacing = 12.5 kHz
   C4FM = 12.5 kHz
4) Turn on 50 kHz high pass filter and 15 kHz low pass filter on modulation analyzer.
5) Supply sufficient attenuation ATT to provide the output power of ≤ -11dBm into power meter when DUT is keying up.
6) Note the power level on power meter and dekey the DUT.
7) Adjust the amplitude of the signal generator to the level power meter, maintained the amplitude throughout the rest of the measurement.
8) Connect the output to modulation analyzer.
9) Reduce 30dB attenuation and transmit the radio to get the trigger line.
10) Capture the screen shot for key-up (rising edge) and de-key (falling edge) mode.

6.8.2. Test Result

Not Applicable

6.8.3. Test Limit

Transmitters designed to operate in the 150-174 MHz and 421-512 MHz frequency bands must maintain transient frequencies within the maximum frequency difference limits during the time intervals indicated:

Time intervals[1] [2]	Maximum frequency difference[3]	All equipment	
		150 to 174 MHz	421 to 512 MHz
Transient Frequency Behavior for Equipment Designed to Operate on 25 kHz Channels			
t_1[4]	±25.0 kHz	5.0 ms	10.0 ms
t_2	±12.5 kHz	20.0 ms	25.0 ms
t_3[4]	±25.0 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 12.5 kHz Channels			
t_1[4]	±12.5 kHz	5.0 ms	10.0 ms
t_2	±6.25 kHz	20.0 ms	25.0 ms
t_3[4]	±12.5 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 6.25 kHz Channels			
t_1[4]	±6.25 kHz	5.0 ms	10.0 ms
t_2	±3.125 kHz	20.0 ms	25.0 ms
t_3[4]	±6.25 kHz	5.0 ms	10.0 ms

[1] t_{on} is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.
t_1 is the time period immediately following t_{on}.
t_2 is the time period immediately following t_1.
t_3 is the time period from the instant when the transmitter is turned off until t_{off}.
t_{off} is the instant when the 1 kHz test signal starts to rise.

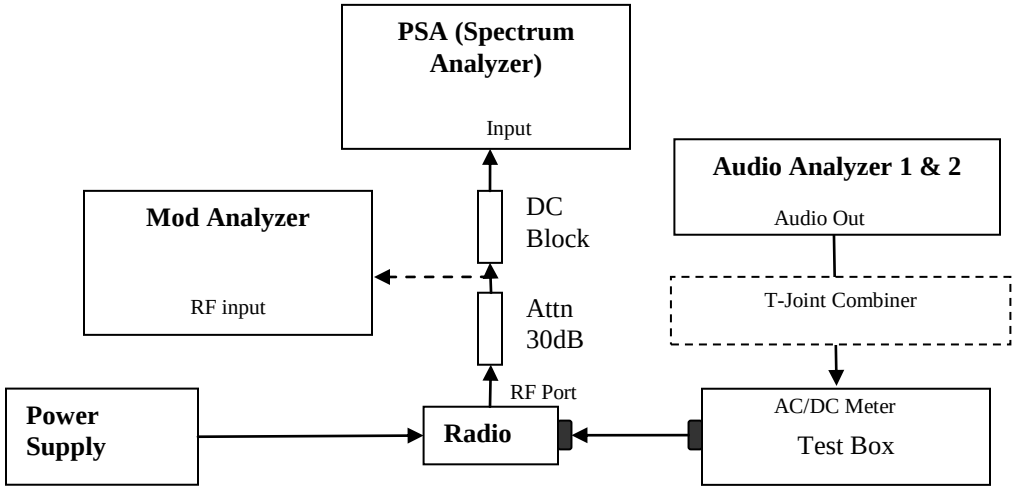
[2] During the time from the end of t_2 to the beginning of t_3, the frequency difference must not exceed the limits specified in §90.213.

[3] Difference between the actual transmitter frequency and the assigned transmitter frequency.

[4] If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

6.9. Adjacent Channel Power

6.9.1. Test Setup (Analog)

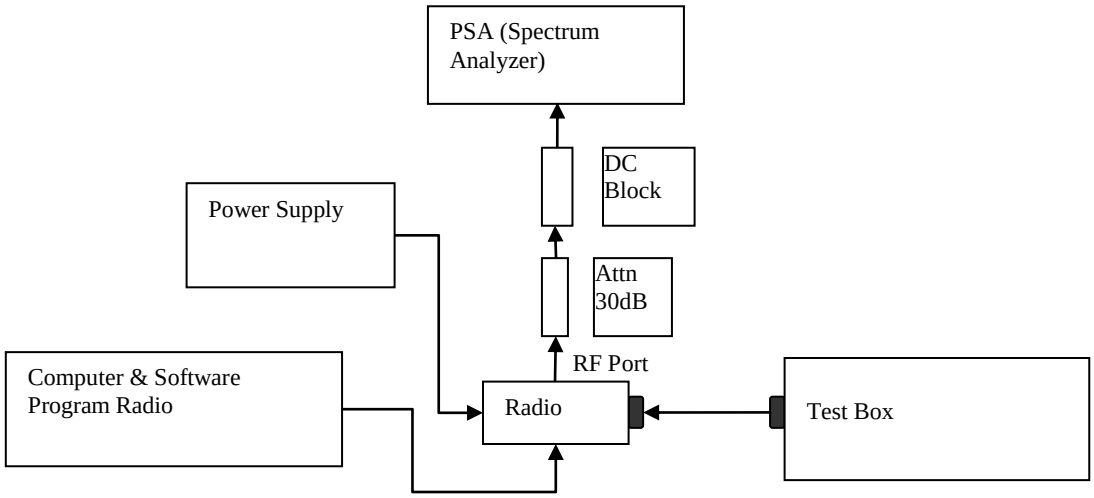


1) The DUT transmitter output port was connected to modulation analyzer.
2) Transmit the radio and turn on 1st audio analyzer with audio frequency 650Hz, 50% rated deviation, and record the amplitude value as AmpT1.
3) Turn off Audio analyzer 1 and turn on audio analyzer 2, set the audio frequency to 2.2 kHz and 50% deviation. Record the amplitude as AmpT2.
4) Turn both audio analyzers ON and up 10dB amplitude level.
5) Connect the output to PSA and set to assigned center frequency.
6) Set Span, Resolution Bandwidth and Video Bandwidth per rules part.
7) Transmit the radio and record the Adjacent Channel Power value in dBc.

6.9.2. Test Result

Not Applicable.

6.9.3. Test Setup (Digital)



1) Program and set radio to operate in desire test frequency and digital mode with modulation. (4FSK, C4FM or other digital modulation form).
2) Prepare setup as per picture.
3) Turn on the ACP Measurement – Press Measure, ACP.
4) Set Span, Resolution Bandwidth and Video Bandwidth as per rules part.
5) Transmit the radio and record the Adjacent Channel Power value in dBc.

6.9.4. Test Result

Not Applicable.

6.9.5. Test Limit

12.5 kHz Mobile Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP relative (dBc)
9.375	6.25	−40
15.625	6.25	−60
21.875	6.25	−60
37.50	25.00	−60
62.50	25.00	−65
87.50	25.00	−65
150.00	100	−65
250.00	100	−65
350.00	100	−65
>400 to 12 MHz	30 (s)	−75
12 MHz to paired receive band	30 (s)	−75
In the paired receive band	30 (s)	−100

25 kHz Mobile Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP relative (dBc)
15.625	6.25	−40
21.875	6.25	−60
37.50	25	−60
62.50	25	−65
87.50	25	−65
150.00	100	−65
250.00	100	−65
350.00	100	−65
>400 kHz to 12 MHz	30 (s)	−75
12 MHz to paired receive band	30 (s)	−75
In the paired receive band	30 (s)	−100

12.5 kHz Base Transmitter ACP Requirements

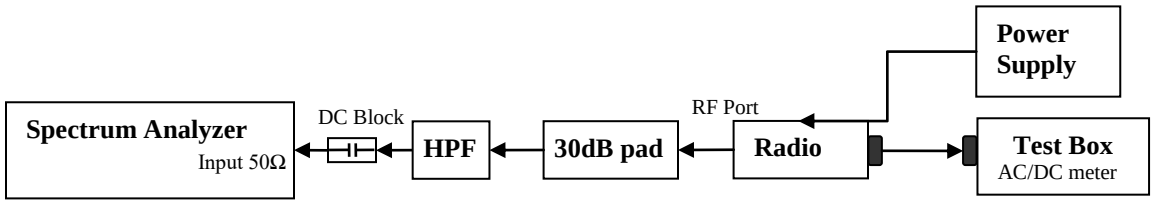
Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP (dBc)
9.375	6.25	−40
15.625	6.25	−60
21.875	6.25	−60
37.5	25	−60
62.5	25	−65
87.5	25	−65
150	100	−65
250	100	−65
350.00	100	−65
>400 kHz to 12 MHz	30 (s)	−80
12 MHz to paired receive band	30 (s)	−80
In the paired receive band	30 (s)	[1]-85

25 kHz Base Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP (dBc)
15.625	6.25	−40
21.875	6.25	−60
37.5	25	−60
62.5	25	−65
87.5	25	−65
150	100	−65
250	100	−65
350	100.00	−65
>400 kHz to 12 MHz	30 (s)	−80
12 MHz to paired receive band	30 (s)	−80
In the paired receive band	30 (s)	[1]-85

6.10. Conducted Spurious Emission

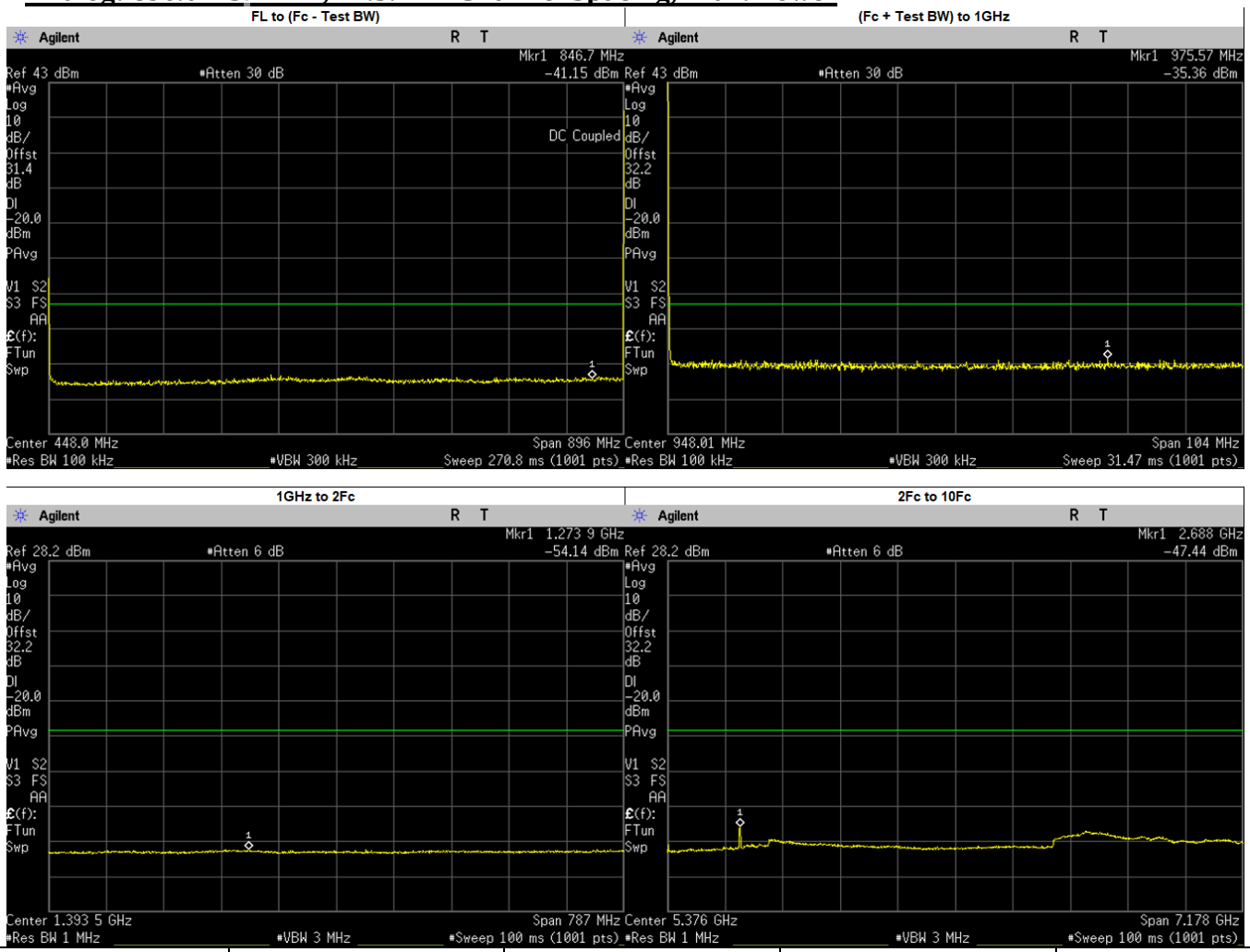
6.10.1. Test Setup



1) The DUT transmitter output port was connected to Spectrum Analyzer with above setup.
2) Program and set radio to operate in desire test frequency and mode. (Analog / digital modulation form).
3) Path loss for the measurement included.
4) Set the PSA Resolution Bandwidth as per rules part.
5) Set the Ref offset from the pathloss offset calibration file.
6) Adjust the center frequency of the spectrum analyzer for incremental coverage of the range from:
    a. 9 KHz to Fc – Test Bandwidth
    b. Fc + Test Bandwidth to 2Fc – 5MHz.
7) Key up the DUT, Peak Search the highest Spur and record the levels of spurious emissions
8) Dekey the DUT.
9) Turn On High Pass Filter path and Key up the DUT.
10) Adjust the PSA Freq for incremental coverage of range from 2Fc to 10Fc
11) Key up the DUT and record the highest spur levels of spurious emissions.

6.10.2. Test Result (Analog)

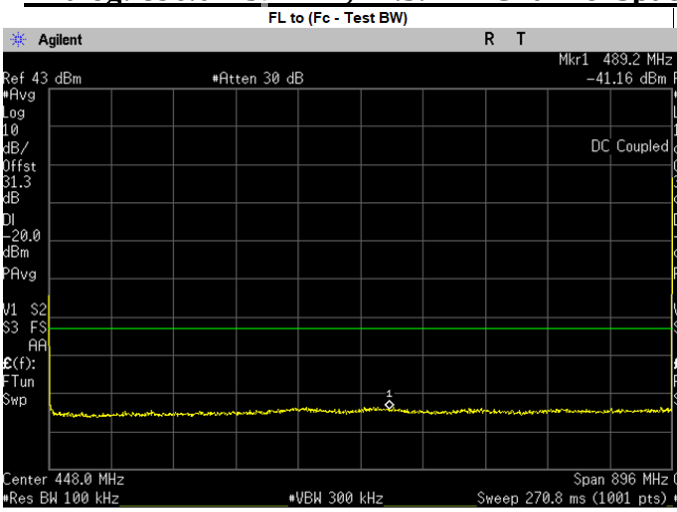
Analog: 896.0125, MHz, 12.5.kHz Channel Spacing, Max. Power



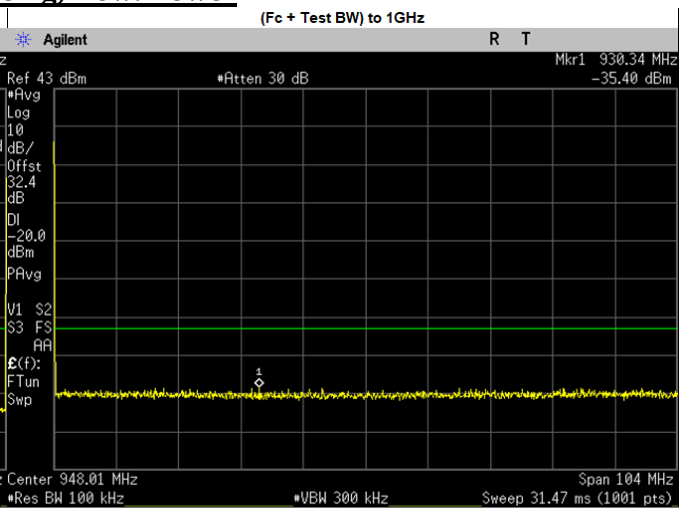
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	846.7000	-41.1460	-20.00	PASS
(Fc + Test BW) to 1GHz	975.5665	-35.3600	-20.00	PASS
1GHz to 2Fc	1273.8850	-54.1400	-20.00	PASS
2Fc to 10Fc	2688.0000	-47.4400	-20.00	PASS
	1792.0250	-53.2881	-20.00	PASS
	2688.0370	-47.7638	-20.00	PASS
	3584.0500	-52.6303	-20.00	PASS
	4480.0620	-53.2666	-20.00	PASS
	5376.0750	-53.9340	-20.00	PASS
	6272.0870	-53.3062	-20.00	PASS
	7168.1000	-49.5069	-20.00	PASS
	8064.1130	-51.7476	-20.00	PASS
	8960.1250	-52.0397	-20.00	PASS

Analog: 896.0125 MHz, 12.5.kHz Channel Spacing, Low. Power

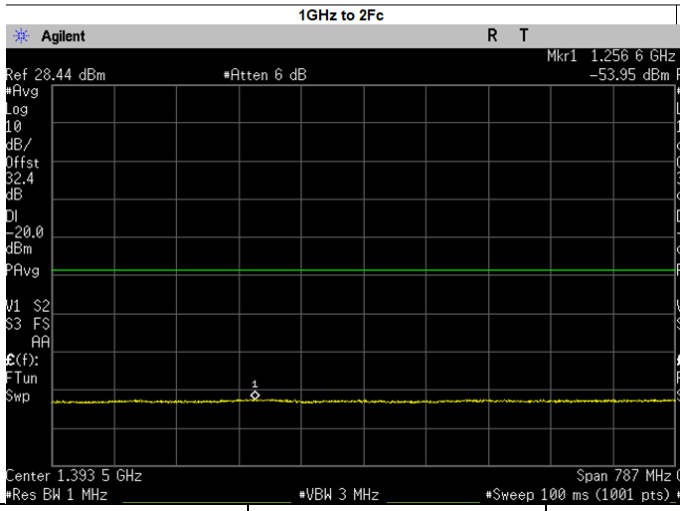
FL to (Fc - Test BW)



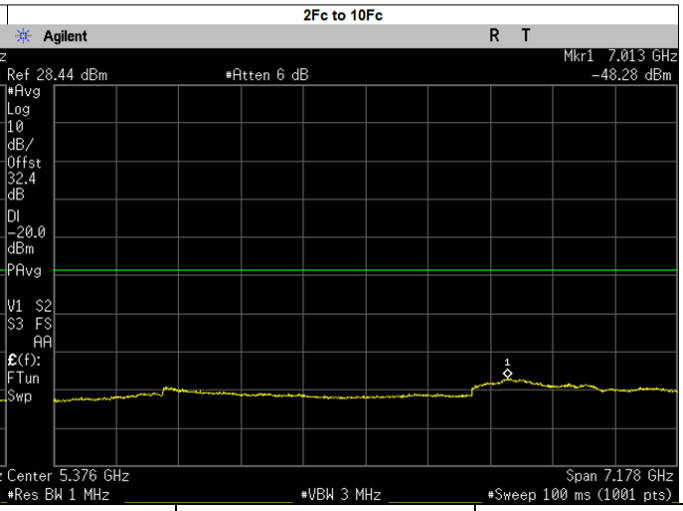
(Fc + Test BW) to 1GHz



1GHz to 2Fc



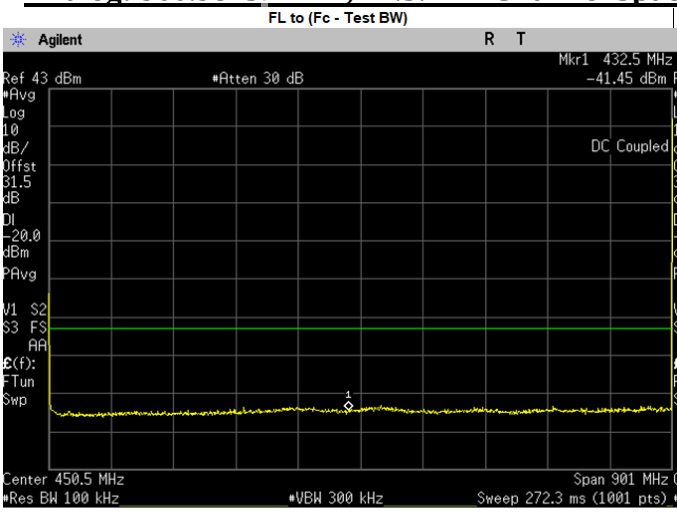
2Fc to 10Fc



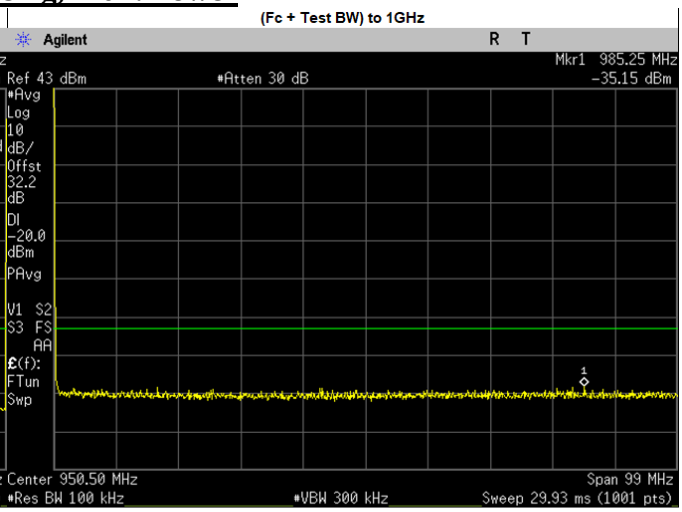
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	489.2000	-41.1580	-20.00	PASS
(Fc + Test BW) to 1GHz	930.3384	-35.4000	-20.00	PASS
1GHz to 2Fc	1256.5700	-53.9500	-20.00	PASS
2Fc to 10Fc	7013.0000	-48.2800	-20.00	PASS
	1792.0250	-54.4194	-20.00	PASS
	2688.0370	-53.0482	-20.00	PASS
	3584.0500	-52.2752	-20.00	PASS
	4480.0620	-53.1082	-20.00	PASS
	5376.0750	-53.4810	-20.00	PASS
	6272.0870	-53.0708	-20.00	PASS
	7168.1000	-49.1091	-20.00	PASS
	8064.1130	-51.4898	-20.00	PASS
	8960.1250	-51.8832	-20.00	PASS

Analog: 900.9875 MHz, 12.5.kHz Channel Spacing, Max. Power

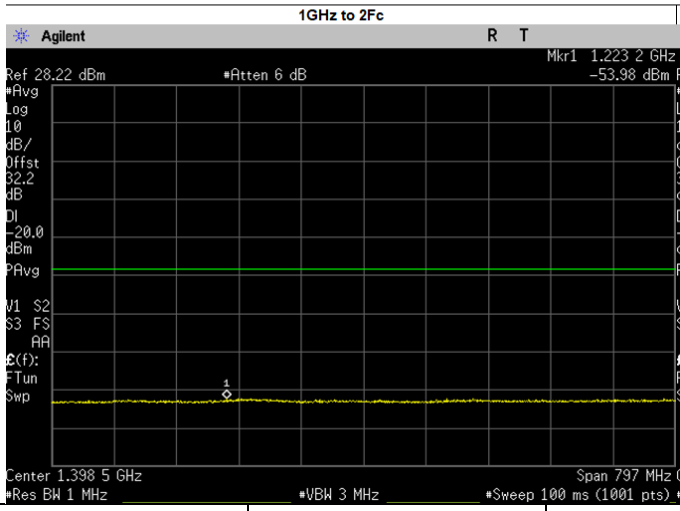
FL to (Fc - Test BW)



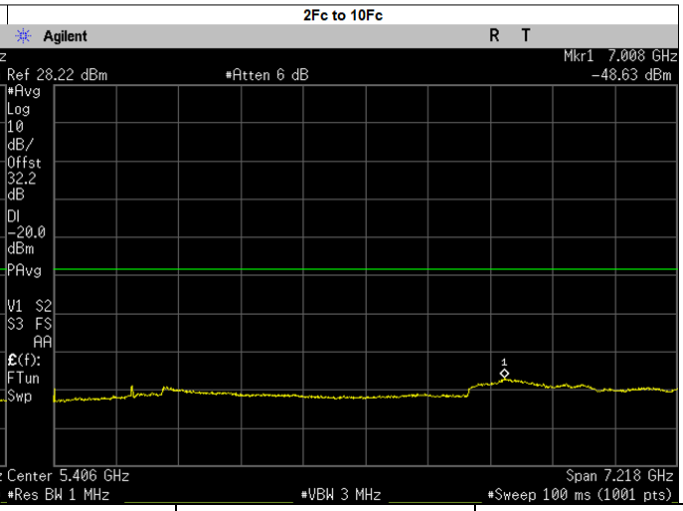
(Fc + Test BW) to 1GHz



1GHz to 2Fc

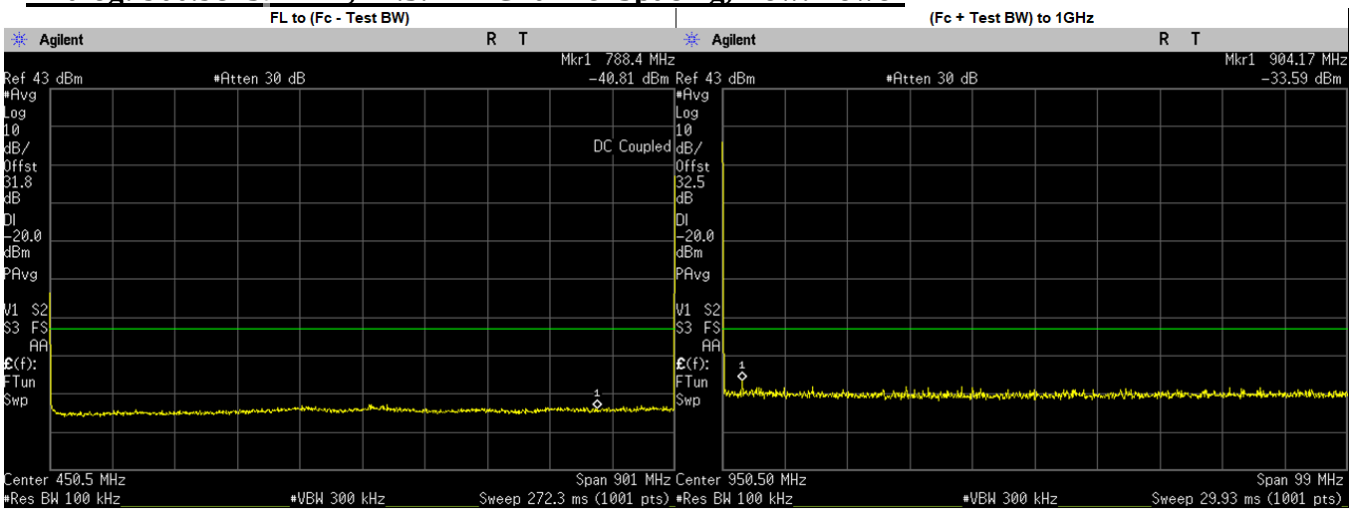


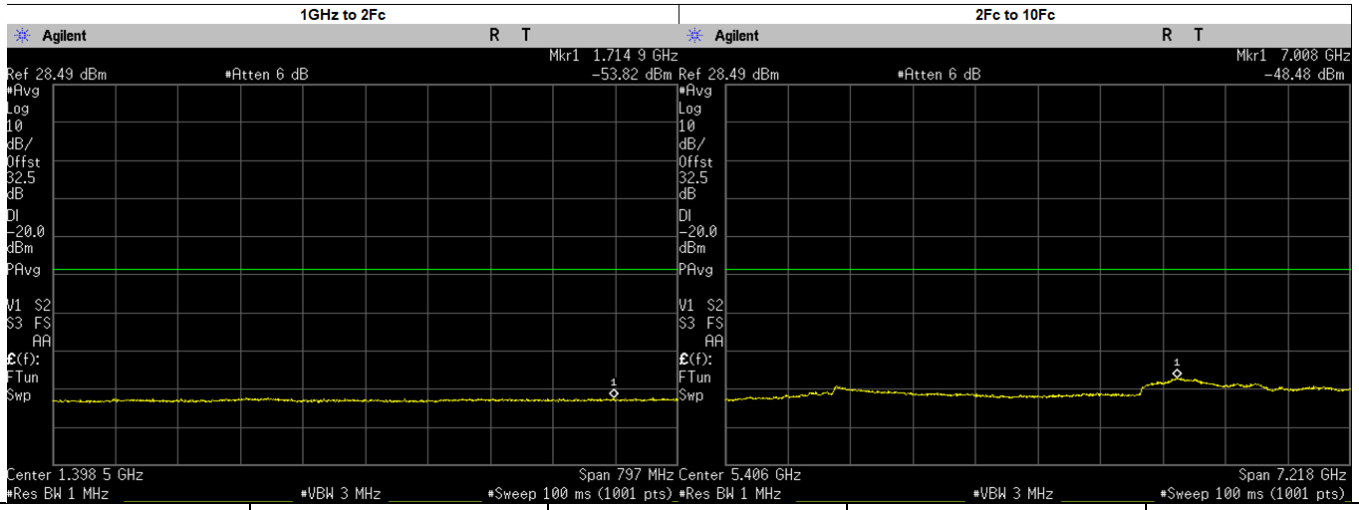
2Fc to 10Fc



Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	432.5000	-41.4510	-20.00	PASS
(Fc + Test BW) to 1GHz	985.2494	-35.1500	-20.00	PASS
1GHz to 2Fc	1223.1530	-53.9800	-20.00	PASS
2Fc to 10Fc	7008.2990	-48.6300	-20.00	PASS
	1801.9750	-52.3829	-20.00	PASS
	2702.9630	-50.7664	-20.00	PASS
	3603.9500	-52.6709	-20.00	PASS
	4504.9370	-53.2422	-20.00	PASS
	5405.9250	-53.7610	-20.00	PASS
	6306.9130	-53.2135	-20.00	PASS
	7207.9000	-49.4894	-20.00	PASS
	8108.8870	-52.1027	-20.00	PASS
	9009.8750	-51.5028	-20.00	PASS

Analog: 900.9875. MHz, 12.5.kHz Channel Spacing, Low. Power

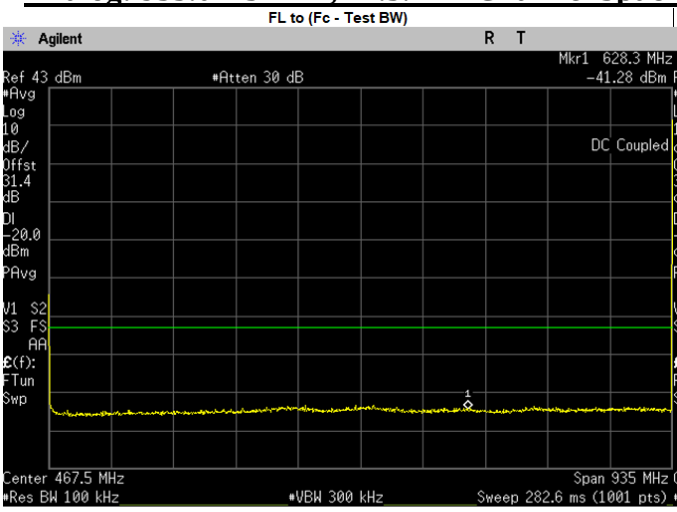




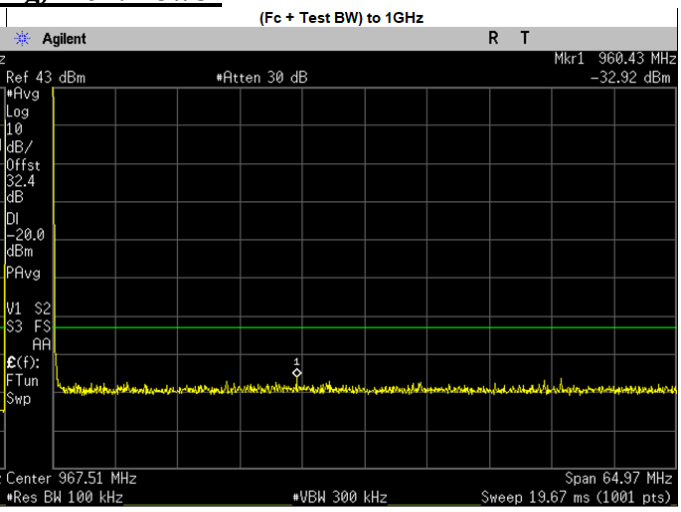
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	788.4000	-40.8130	-20.00	PASS
(Fc + Test BW) to 1GHz	904.1704	-33.5900	-20.00	PASS
1GHz to 2Fc	1714.8870	-53.8200	-20.00	PASS
2Fc to 10Fc	7008.2990	-48.4800	-20.00	PASS
	1801.9750	-54.2722	-20.00	PASS
	2702.9630	-52.9829	-20.00	PASS
	3603.9500	-52.3999	-20.00	PASS
	4504.9370	-52.8939	-20.00	PASS
	5405.9250	-53.3170	-20.00	PASS
	6306.9130	-52.7743	-20.00	PASS
	7207.9000	-49.1746	-20.00	PASS
	8108.8870	-51.9271	-20.00	PASS
	9009.8750	-51.4287	-20.00	PASS

Analog: 935.0125MHz, 12.5.kHz Channel Spacing, Max. Power

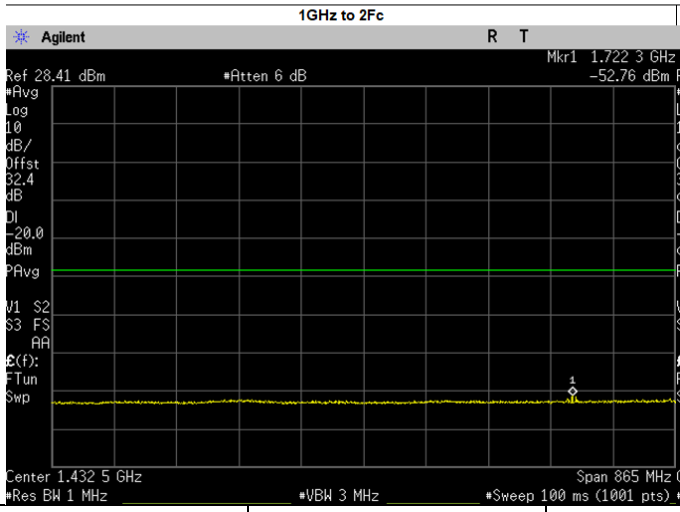
FL to (Fc - Test BW)



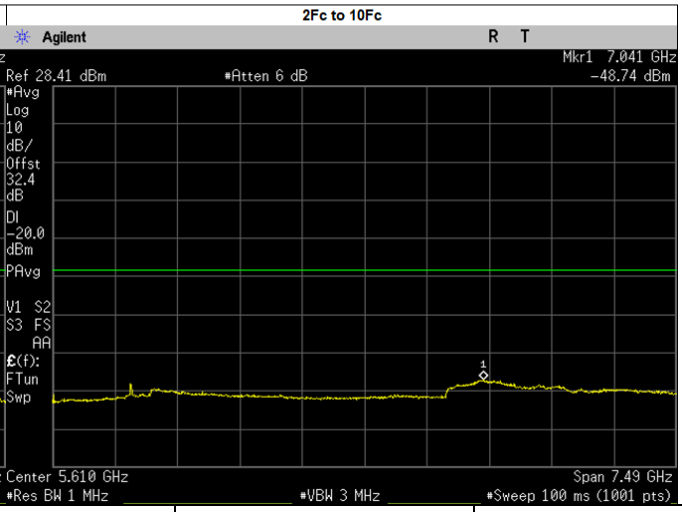
(Fc + Test BW) to 1GHz



1GHz to 2Fc



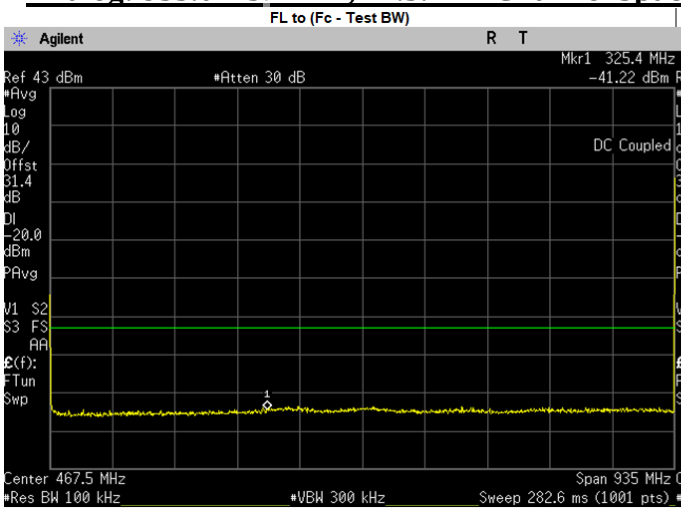
2Fc to 10Fc



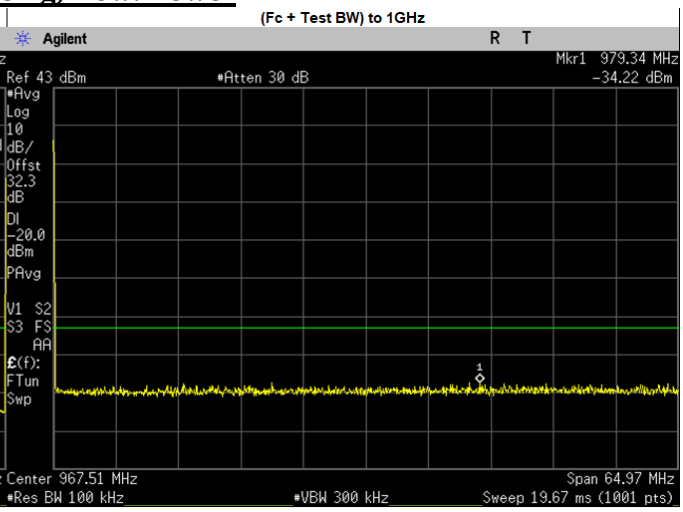
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	628.3000	-41.2830	-20.00	PASS
(Fc + Test BW) to 1GHz	960.4317	-32.9200	-20.00	PASS
1GHz to 2Fc	1722.2960	-52.7600	-20.00	PASS
2Fc to 10Fc	7040.6840	-48.7400	-20.00	PASS
	1870.0250	-53.1358	-20.00	PASS
	2805.0370	-49.7017	-20.00	PASS
	3740.0500	-52.4844	-20.00	PASS
	4675.0620	-53.1678	-20.00	PASS
	5610.0750	-53.3340	-20.00	PASS
	6545.0870	-53.2512	-20.00	PASS
	7480.1000	-50.5383	-20.00	PASS
	8415.1120	-51.8088	-20.00	PASS
	9350.1250	-52.2819	-20.00	PASS

Analog: 935.0125. MHz, 12.5.kHz Channel Spacing, Low. Power

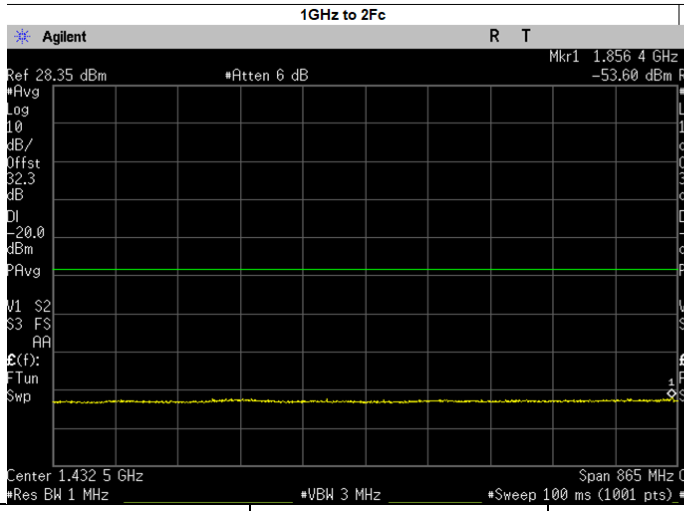
FL to (Fc - Test BW)



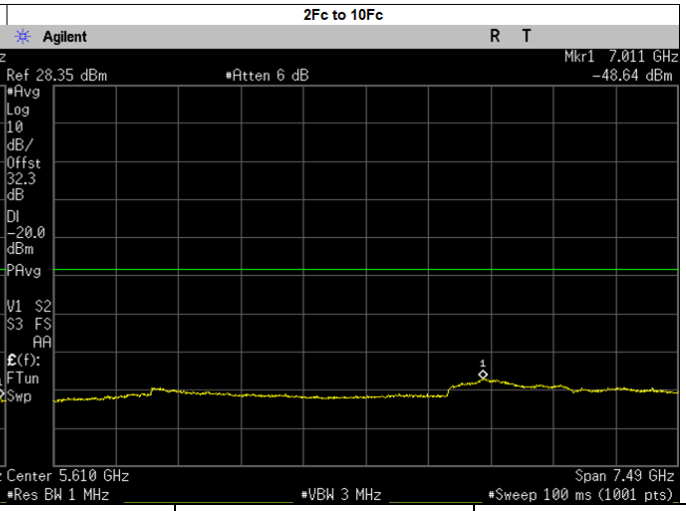
(Fc + Test BW) to 1GHz



1GHz to 2Fc



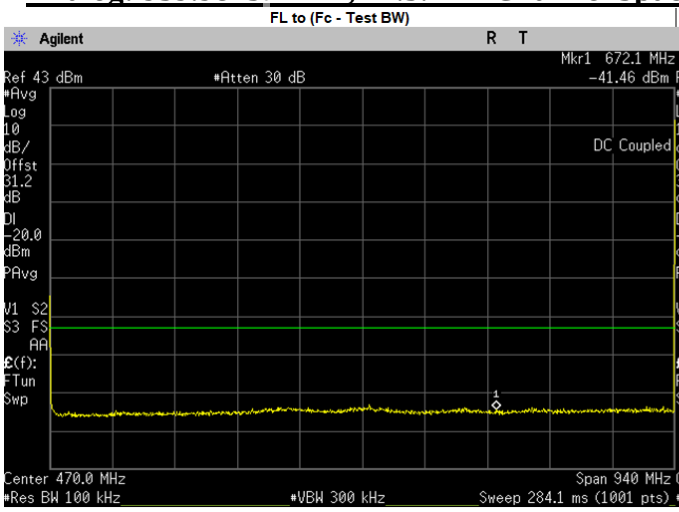
2Fc to 10Fc



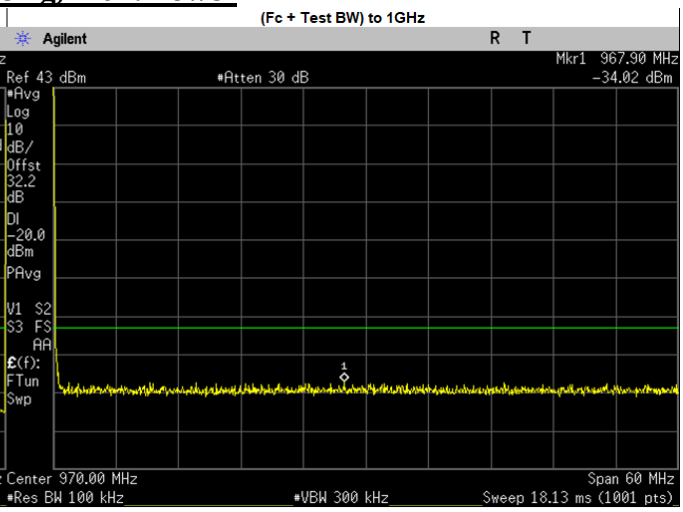
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	325.4000	-41.2210	-20.00	PASS
(Fc + Test BW) to 1GHz	979.3387	-34.2200	-20.00	PASS
1GHz to 2Fc	1856.3750	-53.5900	-20.00	PASS
2Fc to 10Fc	7010.7240	-48.6400	-20.00	PASS
	1870.0250	-54.4707	-20.00	PASS
	2805.0370	-52.9155	-20.00	PASS
	3740.0500	-52.5273	-20.00	PASS
	4675.0620	-53.0785	-20.00	PASS
	5610.0750	-53.5060	-20.00	PASS
	6545.0870	-53.1647	-20.00	PASS
	7480.1000	-50.5848	-20.00	PASS
	8415.1120	-51.7487	-20.00	PASS
	9350.1250	-52.2611	-20.00	PASS

Analog: 939.9875 MHz, 12.5.kHz Channel Spacing, Max. Power

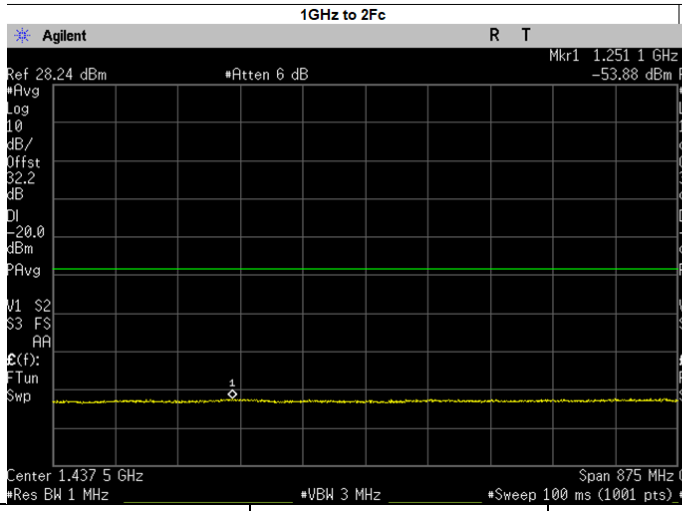
FL to (Fc - Test BW)



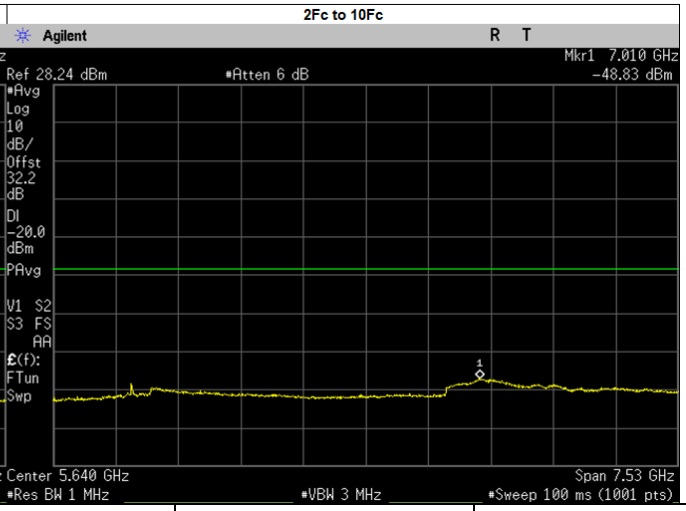
(Fc + Test BW) to 1GHz



1GHz to 2Fc



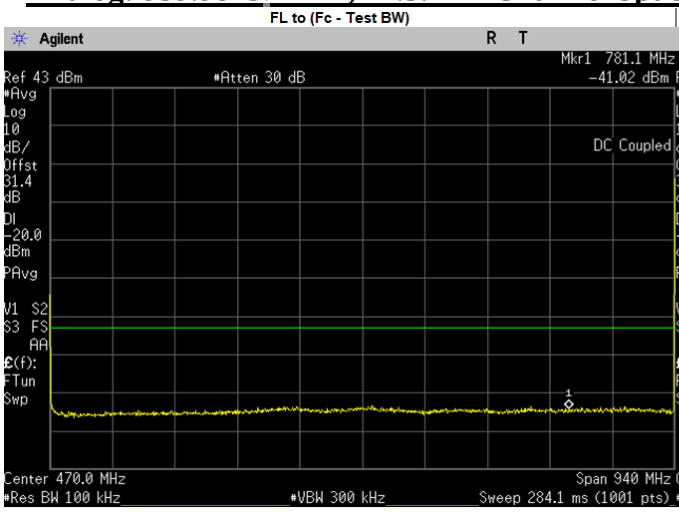
2Fc to 10Fc



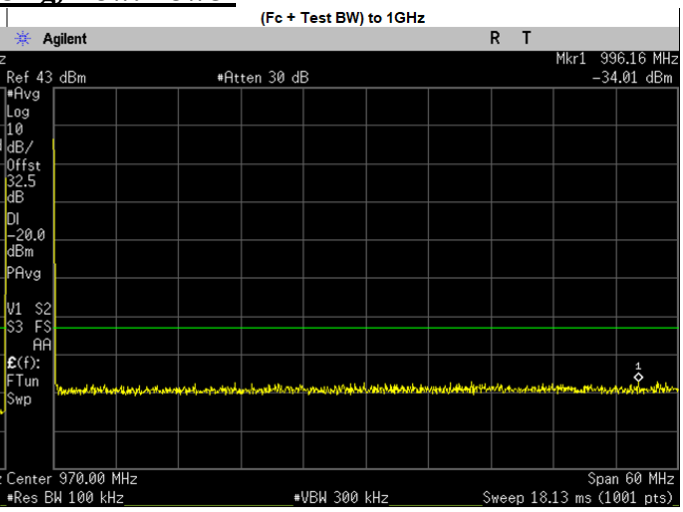
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	672.1000	-41.4550	-20.00	PASS
(Fc + Test BW) to 1GHz	967.9013	-34.0200	-20.00	PASS
1GHz to 2Fc	1251.1180	-53.8800	-20.00	PASS
2Fc to 10Fc	7010.3670	-48.8300	-20.00	PASS
	1879.9750	-53.9508	-20.00	PASS
	2819.9630	-50.5229	-20.00	PASS
	3759.9500	-52.6993	-20.00	PASS
	4699.9370	-53.4729	-20.00	PASS
	5639.9250	-53.5100	-20.00	PASS
	6579.9130	-53.1910	-20.00	PASS
	7519.9000	-50.9988	-20.00	PASS
	8459.8880	-51.7456	-20.00	PASS
	9399.8750	-52.3066	-20.00	PASS

Analog: 939.9875. MHz, 12.5.kHz Channel Spacing, Low. Power

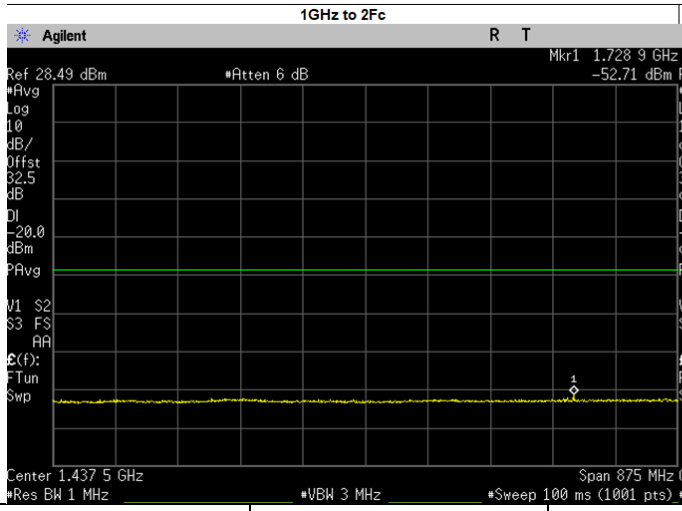
FL to (Fc - Test BW)



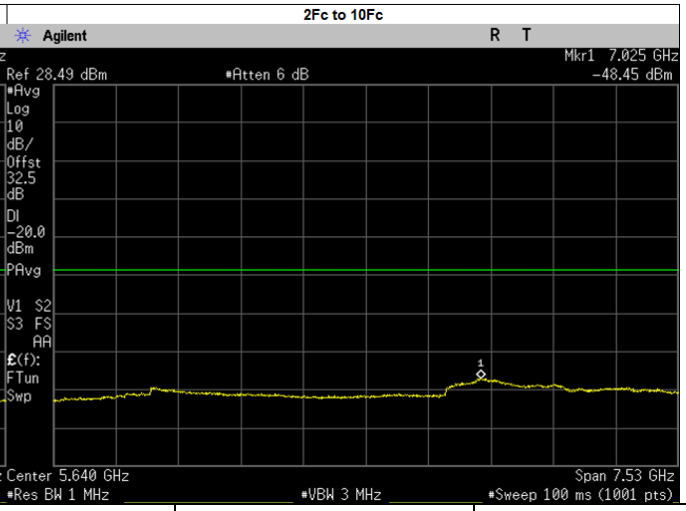
(Fc + Test BW) to 1GHz



1GHz to 2Fc



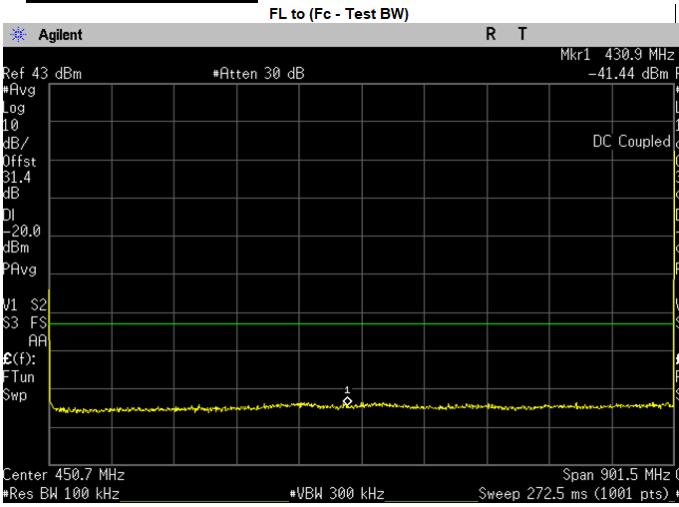
2Fc to 10Fc



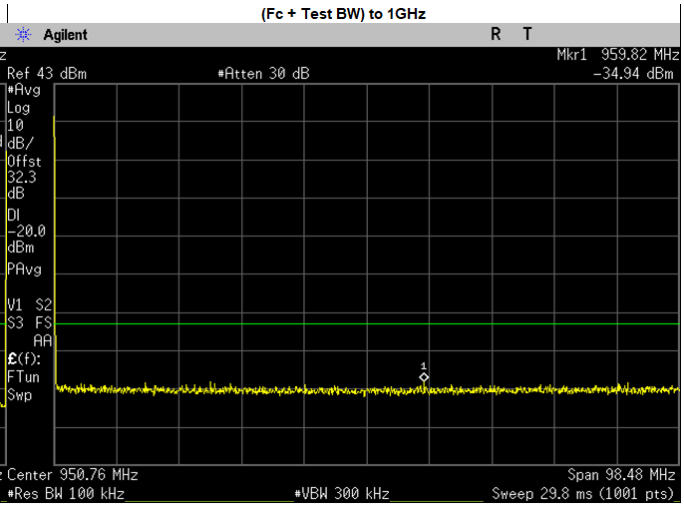
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	781.1000	-41.0220	-20.00	PASS
(Fc + Test BW) to 1GHz	996.1602	-34.0100	-20.00	PASS
1GHz to 2Fc	1728.8540	-52.7100	-20.00	PASS
2Fc to 10Fc	7025.4270	-48.4500	-20.00	PASS
	1879.9750	-54.2941	-20.00	PASS
	2819.9630	-52.7155	-20.00	PASS
	3759.9500	-52.2920	-20.00	PASS
	4699.9370	-53.2118	-20.00	PASS
	5639.9250	-53.2640	-20.00	PASS
	6579.9130	-52.7241	-20.00	PASS
	7519.9000	-50.7013	-20.00	PASS
	8459.8880	-51.4921	-20.00	PASS
	9399.8750	-52.1320	-20.00	PASS

Analog: 901.5. MHz, 12.5.kHz Channel Spacing, Max. Power
Part 24, RSS 119

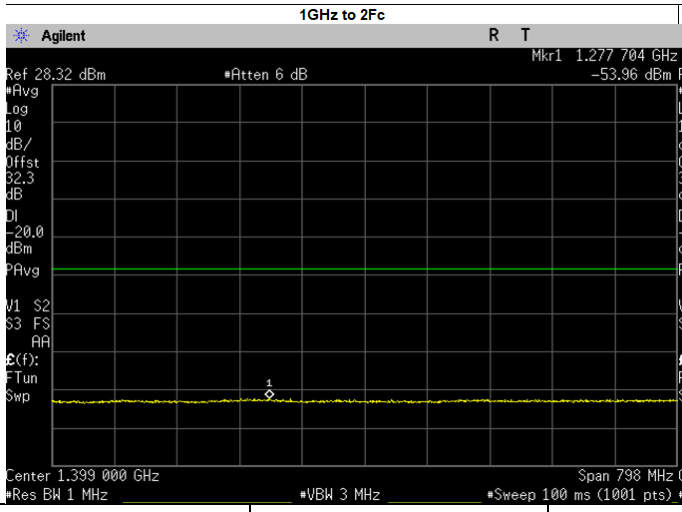
FL to (Fc - Test BW)



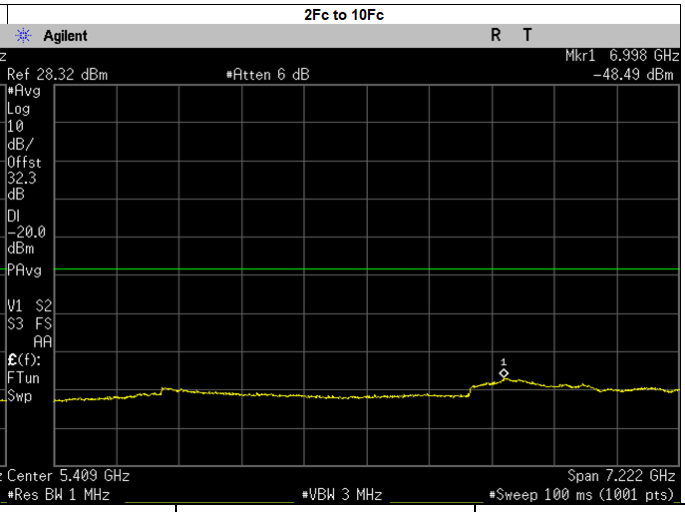
(Fc + Test BW) to 1GHz



1GHz to 2Fc



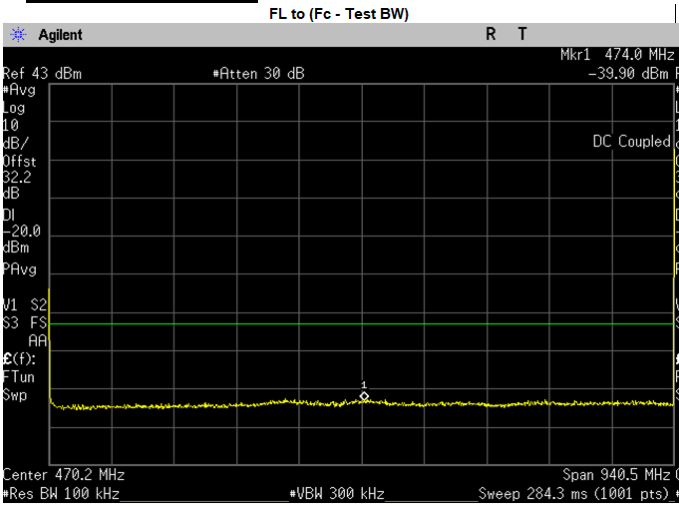
2Fc to 10Fc



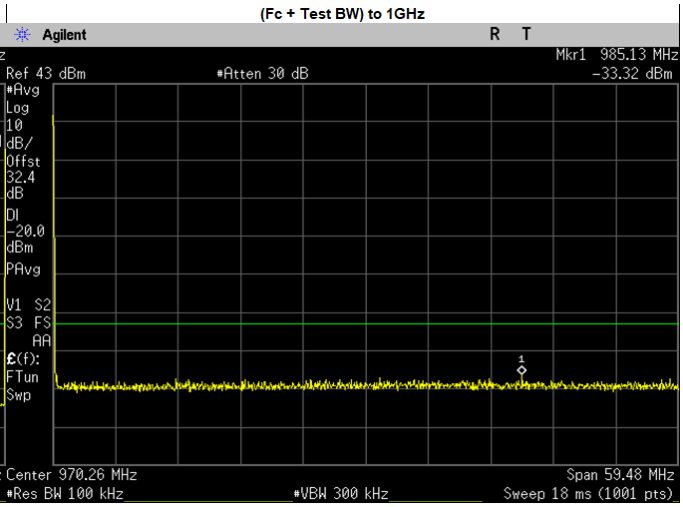
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	430.9000	-41.4420	-20.00	PASS
(Fc + Test BW) to 1GHz	959.8181	-34.9500	-20.00	PASS
1GHz to 2Fc	1277.7040	-53.9600	-20.00	PASS
2Fc to 10Fc	6997.8400	-48.4900	-20.00	PASS
	1803.0000	-54.4978	-20.00	PASS
	2704.5000	-53.4307	-20.00	PASS
	3606.0000	-52.6484	-20.00	PASS
	4507.5000	-53.2565	-20.00	PASS
	5409.0000	-53.5690	-20.00	PASS
	6310.5000	-53.3442	-20.00	PASS
	7212.0000	-49.3575	-20.00	PASS
	8113.5000	-52.0892	-20.00	PASS
	9015.0000	-51.6315	-20.00	PASS

Analog: 940.5. MHz, 12.5.kHz Channel Spacing, Max. Power Part 24, RSS 134

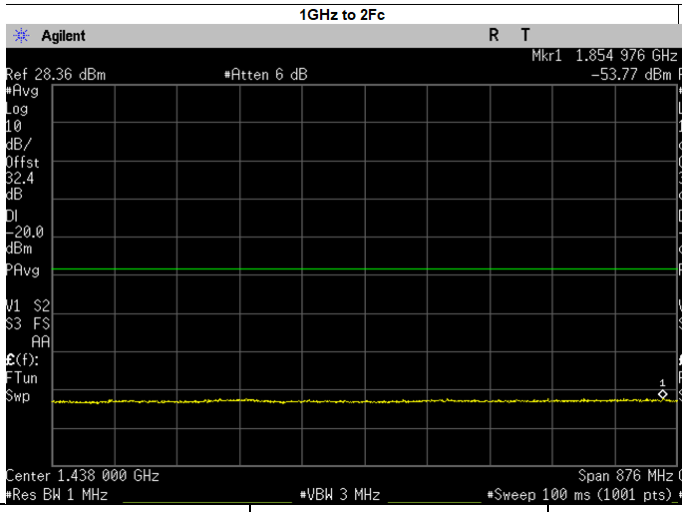
FL to (Fc - Test BW)



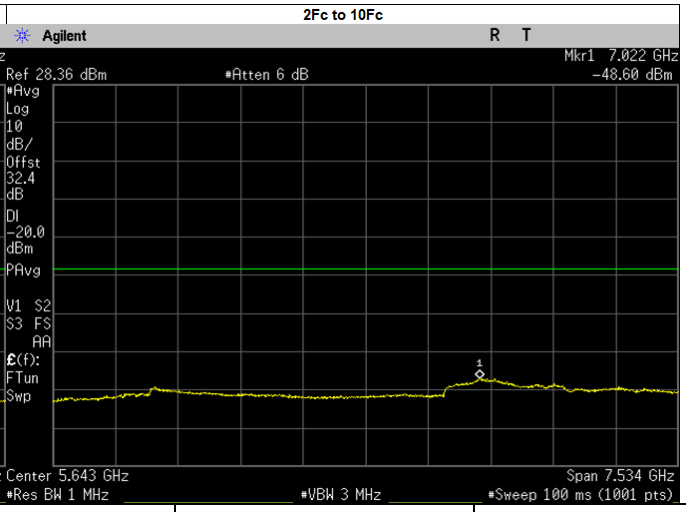
(Fc + Test BW) to 1GHz



1GHz to 2Fc



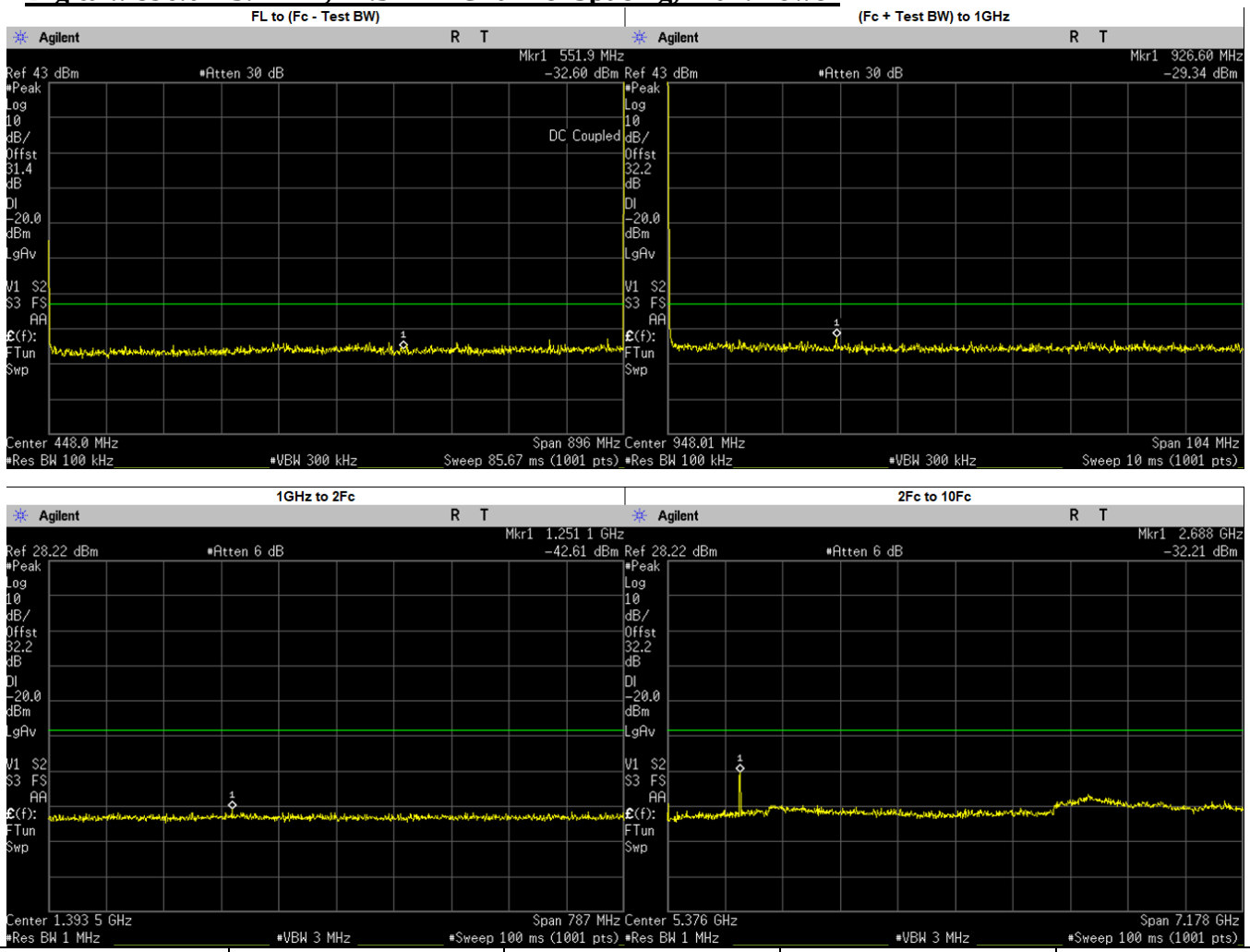
2Fc to 10Fc



Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	474.0000	-39.9000	-20	PASS
(Fc + Test BW) to 1GHz	985.1287	-33.3200	-20	PASS
1GHz to 2Fc	1854.9760	-53.7700	-20	PASS
2Fc to 10Fc	7021.7220	-48.6000	-20	PASS
	1881.0000	-54.4769	-20	PASS
	2821.5000	-52.7875	-20	PASS
	3762.0000	-52.4427	-20	PASS
	4702.5000	-53.4136	-20	PASS
	5643.0000	-53.3040	-20	PASS
	6583.5000	-53.2601	-20	PASS
	7524.0000	-50.8520	-20	PASS
	8464.5000	-51.6073	-20	PASS
	9405.0000	-52.1796	-20	PASS

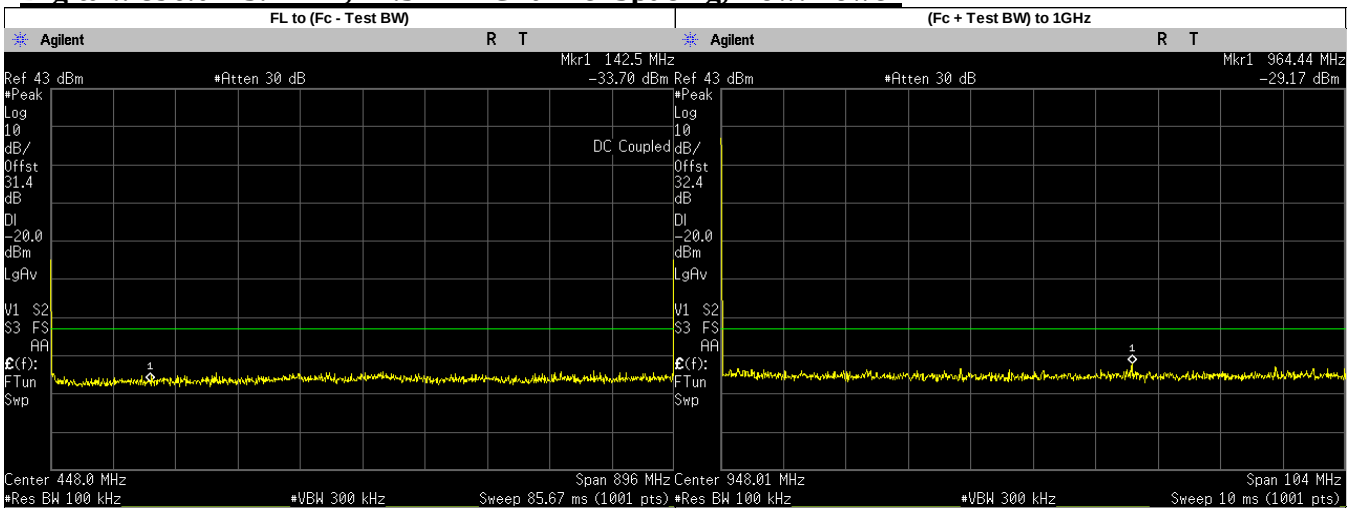
6.10.3. Test Result (Digital)

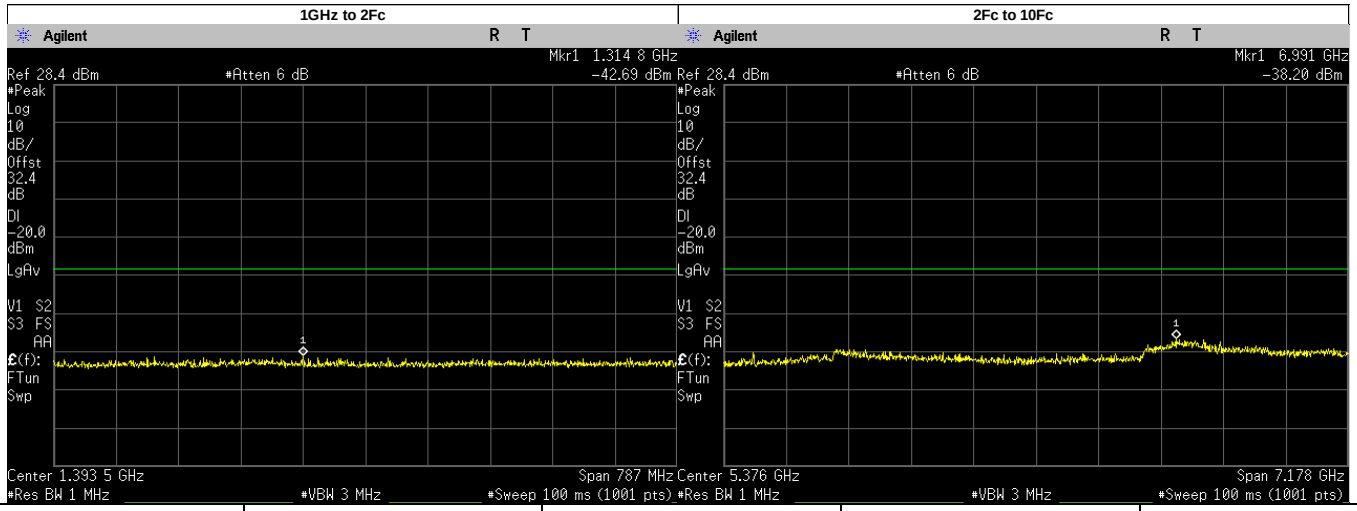
Digital.: 896.0125. MHz, 12.5 kHz Channel Spacing, Max. Power



Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	551.9000	-32.5980	-20.00	PASS
(Fc + Test BW) to 1GHz	926.5954	-29.3400	-20.00	PASS
1GHz to 2Fc	1251.0610	-42.6100	-20.00	PASS
2Fc to 10Fc	2688.0000	-32.2100	-20.00	PASS
	3584.0500	-43.2106	-20.00	PASS
	4480.0620	-43.4559	-20.00	PASS
	5376.0750	-44.6860	-20.00	PASS
	6272.0870	-44.4396	-20.00	PASS
	8064.1130	-41.9355	-20.00	PASS
	8960.1250	-42.2815	-20.00	PASS
	2684.2870	-33.5100	-20.00	PASS
	2688.0370	-32.8309	-20.00	PASS
	7168.1000	-39.9321	-20.00	PASS

Digital.: 896.0125. MHz, 12.5 kHz Channel Spacing, Low. Power





Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	142.5000	-33.6970	-20.00	PASS
(Fc + Test BW) to 1GHz	964.4414	-29.1700	-20.00	PASS
1GHz to 2Fc	1314.8100	-42.6900	-20.00	PASS
2Fc to 10Fc	6991.0000	-38.2000	-20.00	PASS
	2688.0370	-43.1353	-20.00	PASS
	3584.0500	-43.3371	-20.00	PASS
	4480.0620	-42.7237	-20.00	PASS
	5376.0750	-43.5810	-20.00	PASS
	6272.0870	-44.1333	-20.00	PASS
	7168.1000	-40.1779	-20.00	PASS
	8064.1130	-42.1629	-20.00	PASS
	8960.1250	-41.8990	-20.00	PASS
	6991.1480	-38.2000	-20.00	PASS