MOTOROLA SOLUTIONS

CERTIFICATE 2518.08

SAMM 825

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.

FCC/ISED TEST REPORT

Report Revision : **Rev.A**

Date/s Tested	:	8-OCT-2024 - 7-NOV-2024
Report Issue Date	:	7-NOV-2024
Manufacturer	:	Motorola Solutions Malaysia SDN BHD
Manufacturer Address	:	Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
Requestor	:	SIEW HENRY SHENG HOONG
Product Type	:	Portable
Product Marketing Name (PMN)	:	MTP8550Ex
Hardware Version Identification Number (HVIN)	:	AZH17UCH6TZ5AN
Frequency Band	:	806-825MHz , 851-870MHz
Max RF Output Power	:	1.55 Watts (MSPD) / 1.55 Watt (SSPD)
Applicant Name	:	Motorola Solutions Inc
Applicant Address	:	Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
ISED Registrations	:	MY0001
FCC Registrations	:	461337
Firmware Version Identification Number (FVIN)	:	D36.100.10086

The equipment was tested accordance to the requirement listed below:

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

Prepared By:

MUHAMMAD HAZIM
Test Personnel

Approved Signatory:

MAHESHVARAN A/L RAJAGOPAL
Responsible Engineer

Table of Contents

Report Revision History

Revision History	Description	Date	Originator
Rev. A	Initial Report	7-Nov-24	Hazim

1.0 General Information

EUT Description:

Technologies	Land Mobile Radio (LMR)
Modulation Type	**π** / 4DQPSK

The EUT contains following accessory devices and data cable:

Item	Brand	Model or P/N
BATT IMPRES LIION IECEX/ATEX IP66/67 1250T	MOTOROLA	NNTN8570C

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 C63.26-2015

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

Antenna gain disclaimer
Antenna gain information is provided by customer. The validity of the results is dependent upon this information. The lab will not be held accountable in the event the supplied information affects compliance.

Test configuration of EUT
All relevant configurations involving radio models and accessories (including chargers, batteries, and antennas) were assessed. Only worst case configurations will be included in this report.

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	RSS-Gen, RSS-119	RF Power Output	Pass		123TAT1241
2.1047, 90.213	RSS-119	Frequency Stability	Pass		123TAT1241
-	-	Occupied Bandwidth	NA		
-	-	Transient Frequency Behavior	NA		
-	-	Adjacent Channel Power	NA		
2.1051, 90.210	RSS-Gen, RSS-119	Conducted Spurious Emissions	Pass	Worst case : -51.73 dBm	123TAT1241
2.1051, 90.210	RSS-Gen, RSS-119	Radiated Spurious Emission	Pass	Worst case Emission : -41.5257 dBm (Margin : 28.5257 dB, Noise Floor)	123TAT1245
-	-	Effective Radiated Power (ERP)	NA		

NA → **Not Applicable**

3.0 Measurement Uncertainty

Measurement	Frequency	Expended Uncertainty (k=1.96) (±)
AC Power Line Conducted Spurious Emission	150KHz ~ 30MHz	3.48 dB
Radiated Emissions up to 1 GHz dBµV/m (Field Strength)	30MHz ~ 1000MHz	5.88 dB
Radiated Emissions above 1 GHz dBµV/m (Field Strength)	1GHz ~ 18GHz	5.84 dB
	18GHz ~ 40GHz	6.02 dB
Radiated Emissions dBm (ERP/EiRP)	30MHz ~ 18GHz	4.03 dB
Conducted Spurious Emissions	9kHz ~ 12.75GHz	2.82 dB
Frequency Stability	9kHz ~ 12.75GHz	0.0085 ppm
Occupied Bandwidth	9kHz ~ 12.75GHz	2.82 dB
Transient Frequency Behavior	9kHz ~ 12.75GHz	5.4 ms
Adjacent Channel Power	9kHz ~ 12.75GHz	2.82 dB

4.0 Equipment List

FCC Analog ATE#1: (SW version: FCC_Analog_v2.5.0 & TetraCom)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
CHAMBER	SH-641	92009188	04-Mar-24	04-Mar-25
POWER SUPPLY	6031A	2729A00711	08-Jun-24	08-Jun-25
POWER SENSOR	E4412A	MY50000141	16-Aug-24	16-Aug-25
POWER METER	E4416A	MY45101448	23-Aug-24	23-Aug-25
AUDIO ANALYZER	8903B	3729A17409	08-Aug-24	08-Aug-25
CXA SIGNAL ANALYZER	N9000B	MY60250581	08-Jun-24	08-Jun-25
AUDIO ANALYZER	U8903B	MY61070007	17-Aug-24	17-Aug-25
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_R1.2.1 & TetraCom)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
SWITCH CONTROL UNIT	3488A	2719A36210	CNR	CNR
ATTENUATOR / SWITCH DRIVER	11713A	3748A09090	CNR	CNR
POWER METER	E4416A	GB41293866	09-Jan-24	09-Jan-25
AUDIO ANALYZER	8903B	3011A12380	29-Dec-23	29-Dec-24
CXA SIGNAL ANALYZER	N9000B	MY60250530	12-Dec-23	12-Dec-24
AUDIO ANALYZER	8903B	2836A05866	09-Feb-24	09-Feb-25
POWER SENSOR	E9301B	MY50180003	19-Jul-24	19-Jul-25
POWER SUPPLY	6623A	3305A02648	31-Jul-24	31-Jul-25
SPECTRUM ANALYZER	E4445A	MY46181513	04-Jul-24	04-Jul-25
ATTENUATOR/11DB	8494G	MY52300223	15-Aug-24	15-Aug-25
ATTENUATOR/110DB	8496G	MY52300088	15-Aug-24	15-Aug-25
MODULATION ANALYZER	8901B	2920A02173	21-Nov-23	21-Nov-24
N to N RF Cable # 1	SF126/11N/11N	NA	NA	NA
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

FCC CONDUCTED SPUR EMISSION ATE # 1 (SW version: Conducted Spur ATE_rev 1.23.06 & TetraCom)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
SWITCH CONTROL UNIT	3488A	2719A32735	CNR	CNR
POWER SUPPLY	6032A	2723A02219	21-Aug-24	21-Aug-25
SPECTRUM ANALYZER	E4440A	MY48250919	06-Jun-24	06-Jun-25
INTERFACE BOX - FILTER	CNR	CS001	CNR	CNR
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

Radiated Emission

EMC Chamber 1

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
DRG HORN FREQ.	SAS-571	1143	08-Mar-23	08-Mar-25
DRG HORN FREQ.	SAS-571	720	18-Apr-23	18-Apr-25
DC Power Supply	6623A	3302A02585	30-Jul-24	30-Jul-25
SIGNAL GENERATOR	SMB 100A	182511	04-Sep-21	04-Dec-24
EMI TEST RECEIVER	ESW44	101750	08-Aug-24	07-Aug-25
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	No Cal. Req'd	No Cal. Req'd
BILOG ANTENNA	CBL6112B	2950	14-Dec-23	14-Dec-24
BILOG ANTENNA	CBL6112B	55546	05-Jun-24	05-Jun-25
DATA LOGGER THERMOHYGROMETER	SDL500	A.016800	26-Jun-24	26-Jun-25
SYSTEM CONTROLLER	SC104V	050806-1	No Cal. Req'd	No Cal. Req'd
TURNTABLE FLUSH MOUNT 2M	FM2011	NA	No Cal. Req'd	No Cal. Req'd
ANTENNA POSITIONING TOWER	TLT2	NA	No Cal. Req'd	No Cal. Req'd
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170255	13-Mar-2024	13-Mar-2025
PREAMPLIFIER 18-40GHz	Miteq Hi Gain Sucoflex	002	No Cal. Req'd	No Cal. Req'd
PREAMPLIFIER	PAM-0118P	574	19-Mar-24	19-Mar-25
LOOP ANTENNA	6502	00203479	06-Mac-24	06-Mac-25
TEST SOFTWARE	EMC_FCC_IC_BLUETOOTH_RE_TEST			
VERSION	EMC_FCC_RE_v1.6.5			

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	**Max** Mode1&2	**π / 4DQPSK**	**806.0125, 809.0125, 814.9875, 823.9875, 851.0125, 854.0125 860.0125, 868.8875**	**Hazim**	**23.4°C, 50%RH**
Frequency Stability	**Max** Mode2	**π / 4DQPSK**	**814.9875, 860.0125**	**Hazim**	**25.1°C, 54.3%RH, 60.3°C, 50%RH, -30.1°C, 51.2%RH**
Occupied Bandwidth (12.5kHz / 20kHz / 25kHz)	**Max** Mode2	**π / 4DQPSK**	**NA**		
Transient Frequency Behavior *(UHF & VHF Band)* (12.5kHz / 25kHz)	**Max** Mode2	**π / 4DQPSK**	**NA**		
Adjacent Channel Power *(700MHz Band)* (12.5kHz / 25kHz)	**Max** Mode1&2	**π / 4DQPSK**	**NA**		
Conducted Spurious Emissions- (12.5kHz / 25kHz)	**Max** Mode1&2	**π / 4DQPSK**	**806.0125, 809.0125, 814.9875, 823.9875, 851.0125, 854.0125 860.0125, 868.8875**	**Hazim**	**23.4°C, 50%RH**
Radiated Spurious Emission (12.5kHz / 25kHz)	**Max** Mode1	**π / 4DQPSK**	**806.0125, 809.0125, 814.9875, 823.9875, 851.0125, 854.0125 860.0125, 868.8875**	**Rezza & Fuad**	**23.5°C, 68.7%RH**
Effective Radiated Power (ERP) (12.5kHz / 25kHz)	**Max**	**NA**	**NA**		

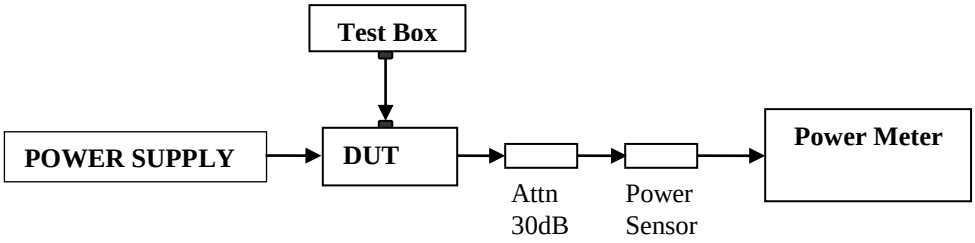
NA → Not Applicable
Mode1: TXNDC test mode is transmit at max power (1.55W), duty cycle 100% which is the worst case mode.
Mode2: MSPD test mode is transmit at max power 1.55W, duty cycle 62.5%.
Mode3: SSPD test mode is transmit at max power 1.55W, duty cycle 22%.

***SSPD test mode is not cover in the testing as the testing is conducted in the worst case condition.**

6.0 Transmitter Test Parameters

6.1. RF Output Power

6.1.1. Test Setup



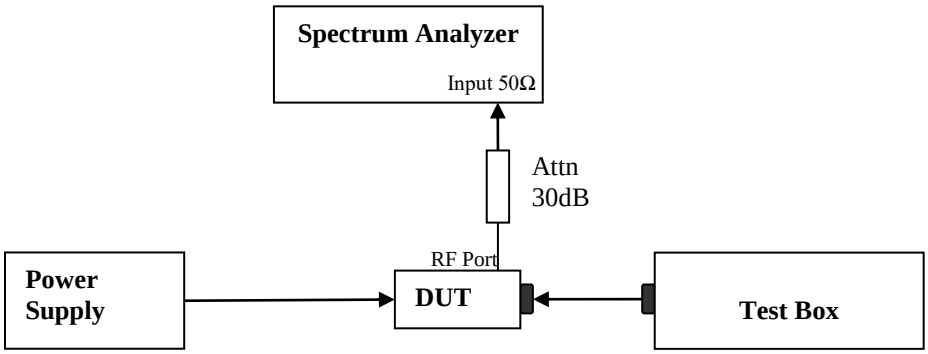
1) The DUT transmitter connected to Power Meter using the 30 dB attenuator and power sensor with above setup.
2) Path loss for the measurement included.
3) All the measurement was done at low, mid, high frequency for each band.
4) Record the power into the test report.

6.1.2. Test Result

Temperature	25˚C		
Voltage (V)	7.5V		
Frequency (MHz)	Max Power (W)	Current (A)	Remark
806.0125	1.54	1.41	TXNDC
809.0125	1.55	1.39	
814.9875	1.52	1.34	
823.9875	1.55	1.34	
851.0125	1.52	1.32	
854.0125	1.53	1.29	
860.0125	1.55	1.35	
868.8875	1.54	1.34	
806.0125	1.50	1.42	MSPD
809.0125	1.53	1.39	
814.9875	1.55	1.43	
823.9875	1.51	1.44	
851.0125	1.53	1.26	
854.0125	1.53	1.32	
860.0125	1.54	1.29	
868.8875	1.53	1.34	

6.2. Frequency Stability

6.2.1. Test Setup



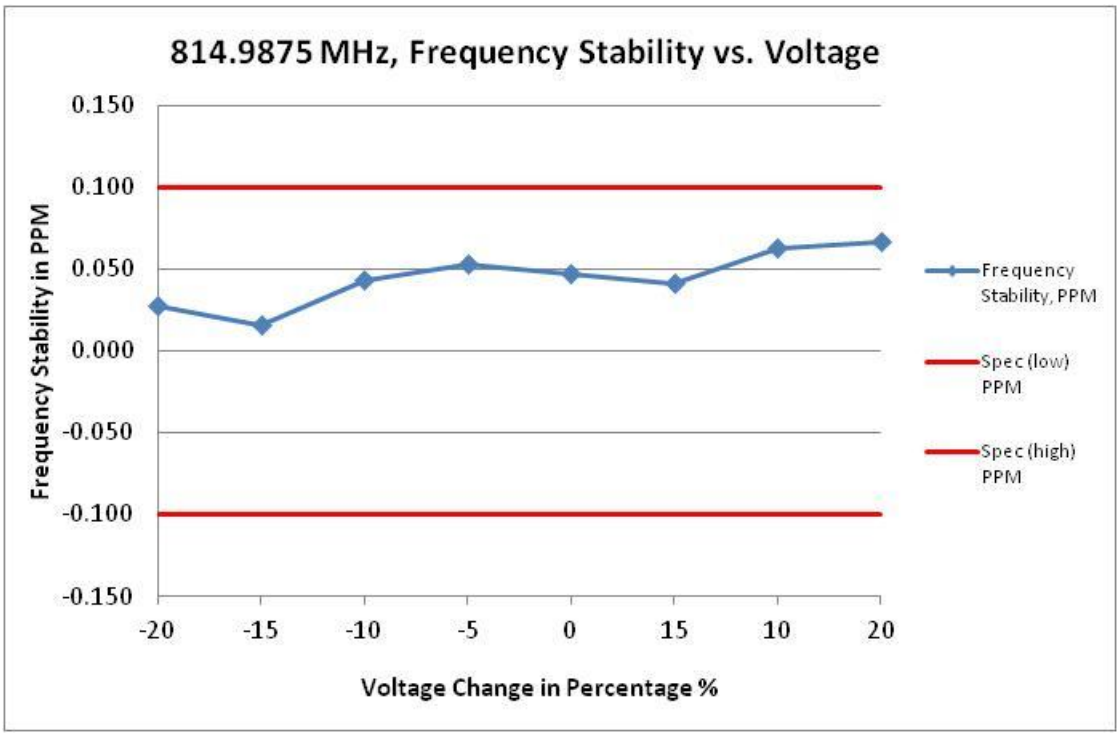
1) The DUT transmitter output port was connected to Modulation / Spectrum Analyzer.
2) Path loss for the measurement included.
3) Transmit the DUT and record the freq in MCF_{MHz}.
4) Test in 2 conditions:
   - Temperature: The frequency of the transmitter was measured from -30°C to 50°C.
   - Supply 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:

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

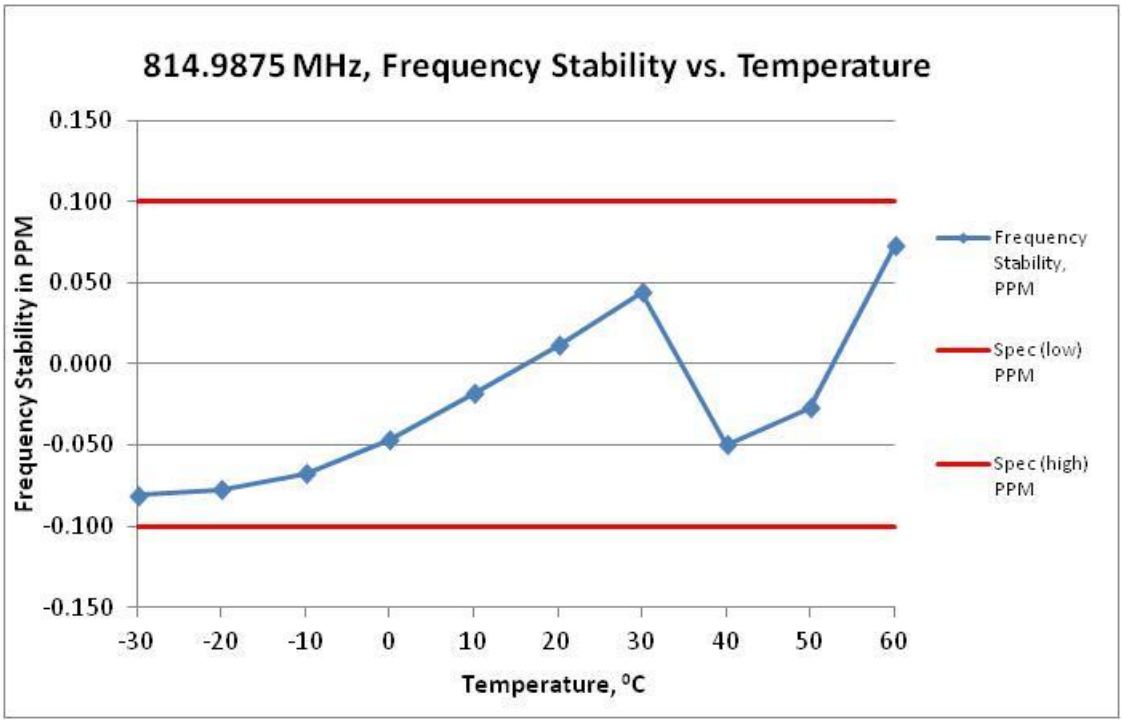
Where: MCF_{MHz} is the Measured Carrier Frequency in MHz
ACF_{MHz} is the Assigned Carrier Frequency in MHz

6.2.1. Test Result



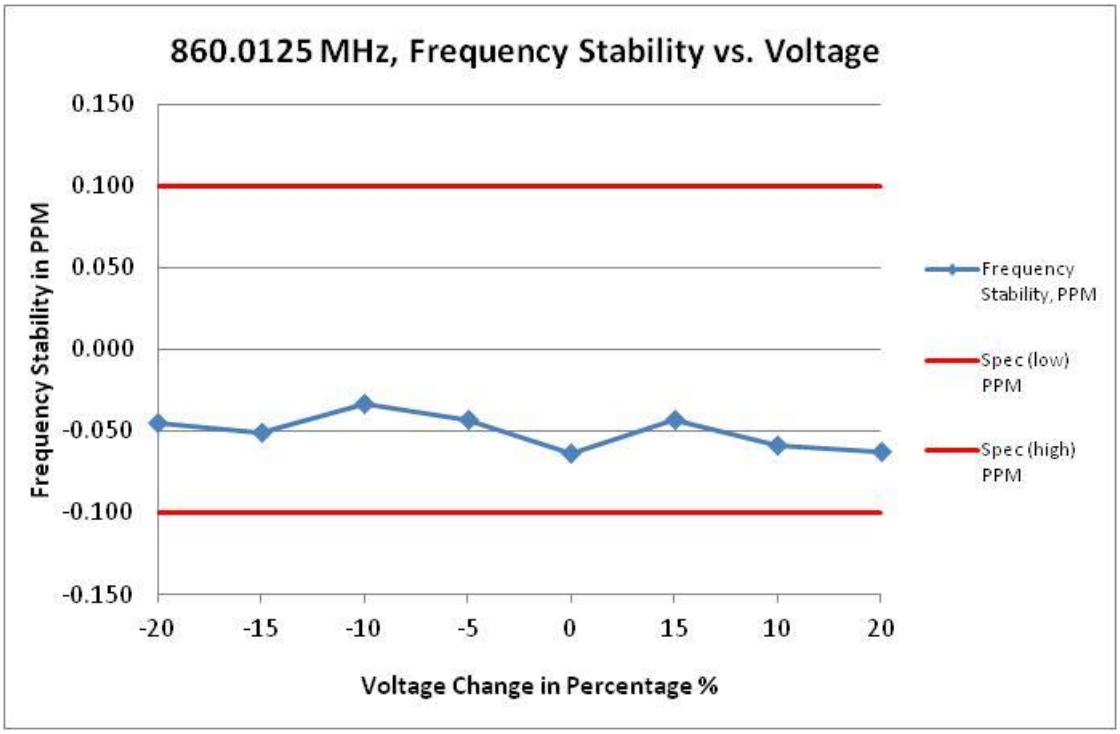
(i) Frequency Stability VS Voltage

Frequency / Channel Spacing	814.9875 MHz / 25.0 kHz				
Temperature, ^{0}C	25				
Voltage %	Voltage, V	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-20	6.200	814.987522	0.027	-0.100	0.100
-15	6.460	814.987513	0.016	-0.100	0.100
-10	6.840	814.987535	0.043	-0.100	0.100
-5	7.220	814.987543	0.053	-0.100	0.100
0	7.600	814.987538	0.047	-0.100	0.100
15	7.980	814.987533	0.040	-0.100	0.100
10	8.360	814.987551	0.063	-0.100	0.100
20	8.740	814.987554	0.066	-0.100	0.100



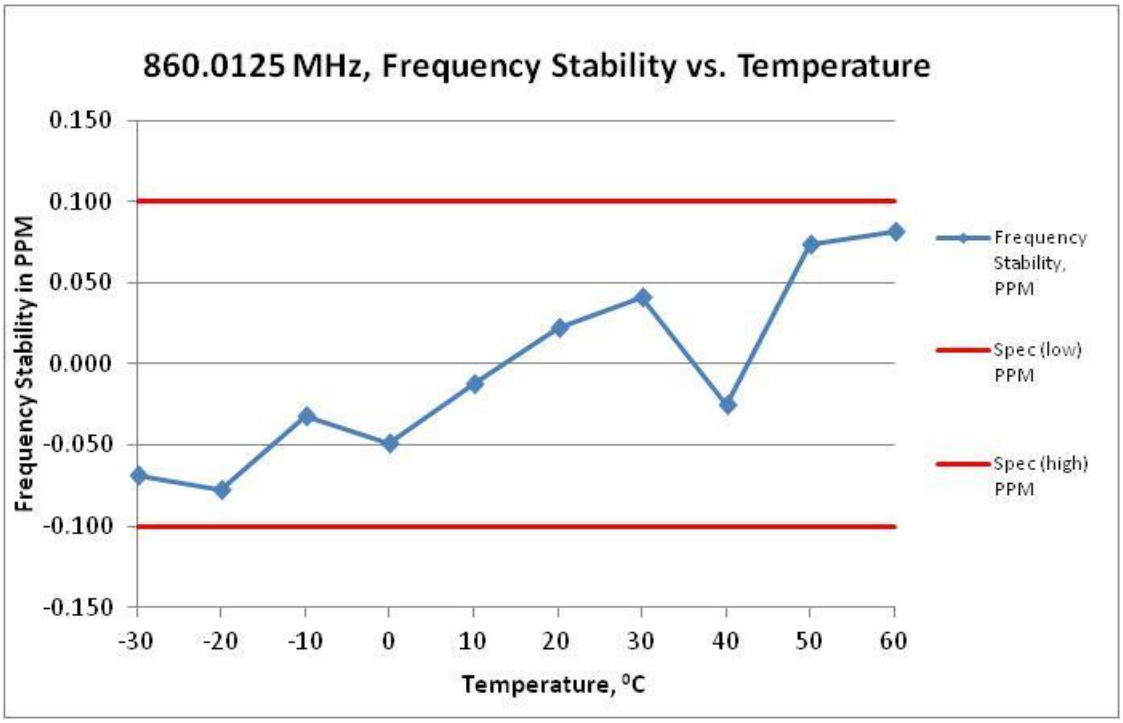
(ii) Frequency Stability VS temperature

Frequency / Channel Spacing	814.9875 MHz / 25.0 kHz			
Voltage, V	7.6			
Temperature, °C	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-30	814.987434	-0.081	-0.100	0.100
-20	814.987437	-0.077	-0.100	0.100
-10	814.987445	-0.067	-0.100	0.100
0	814.987462	-0.047	-0.100	0.100
10	814.987485	-0.018	-0.100	0.100
20	814.987509	0.011	-0.100	0.100
30	814.987536	0.044	-0.100	0.100
40	814.987459	-0.050	-0.100	0.100
50	814.987478	-0.027	-0.100	0.100
60	814.987559	0.072	-0.100	0.100



(i) Frequency Stability VS Voltage

Frequency / Channel Spacing	860.0125 MHz / 25.0 kHz				
Temperature, ^{0}C	25				
Voltage %	Voltage, V	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-20	6.200	860.012461	-0.045	-0.100	0.100
-15	6.460	860.012456	-0.051	-0.100	0.100
-10	6.840	860.012471	-0.034	-0.100	0.100
-5	7.220	860.012463	-0.043	-0.100	0.100
0	7.600	860.012445	-0.064	-0.100	0.100
15	7.980	860.012463	-0.043	-0.100	0.100
10	8.360	860.012449	-0.059	-0.100	0.100
20	8.740	860.012446	-0.063	-0.100	0.100



(ii) Frequency Stability VS temperature

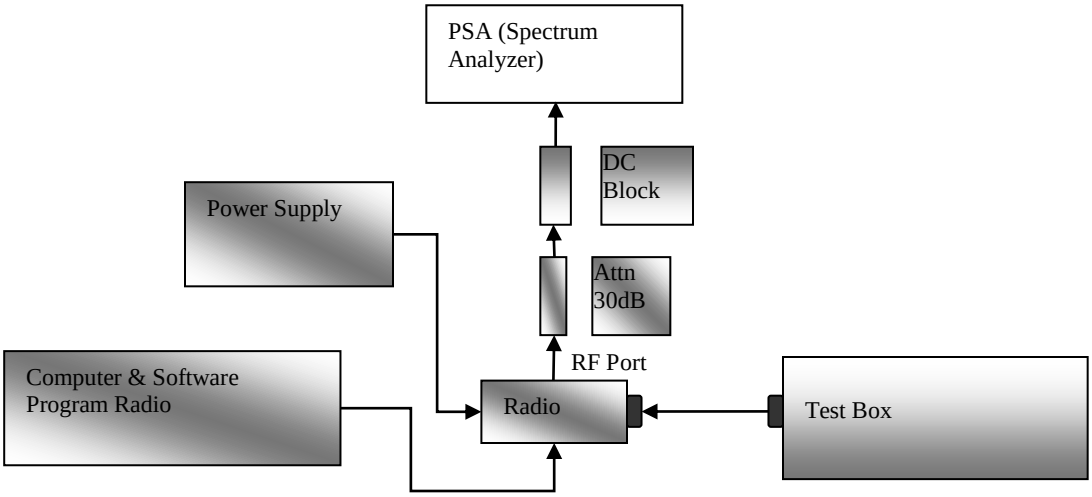
Frequency / Channel Spacing	860.0125 MHz / 25.0 kHz			
Voltage, V	7.6			
Temperature, °C	Frequency, MHz	Frequency Stability, PPM	Spec (low) PPM	Spec (high) PPM
-30	860.012441	-0.069	-0.100	0.100
-20	860.012433	-0.078	-0.100	0.100
-10	860.012472	-0.033	-0.100	0.100
0	860.012458	-0.049	-0.100	0.100
10	860.012489	-0.013	-0.100	0.100
20	860.012519	0.022	-0.100	0.100
30	860.012535	0.041	-0.100	0.100
40	860.012478	-0.026	-0.100	0.100
50	860.012563	0.073	-0.100	0.100
60	860.012570	0.081	-0.100	0.100

6.2.2. Test Limit

As per rules part spec +/- 0.1ppm

6.3. Occupied Bandwidth

6.3.1. 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.

* 99% Bandwidth measurement is computed by the spectrum analyzer and is consistent with the C63.26 5.4.4 method.

*Note1 (For C4FM, FSK):

- 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.

*Note2 (For π/ 4DQPSK, QAM):

- For Digital Modulation, 25 kHz Data D1D, D1E & D1W would be the same. Therefore only measurements with D1W modulation shown below.

6.3.2. Test Result (Digital)

Digital (12.5 kHz Channelization, Digital Voice):
Emission Designator 22K0D1D/E/W

The 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X kHz, in this case, 22kHz.
D1D/E/W portion of the designator indicates digital voice/data/voice+data.

Therefore, the entire designator for 25 kHz channelization digital voice is 22K0D1D/E/W.

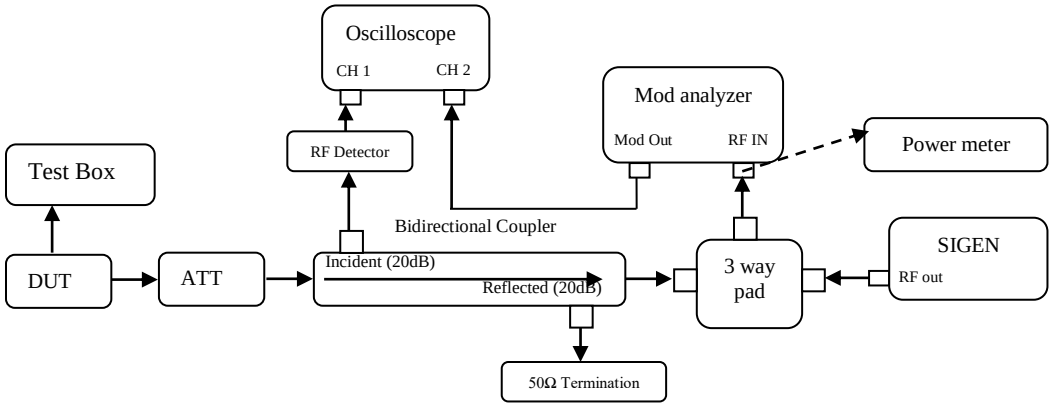
Not Applicable.

6.3.3. 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.

6.4. Transient Frequency Behavior

6.4.1. 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.

6.4.2. Test Result

Not Applicable.

6.4.3. 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.

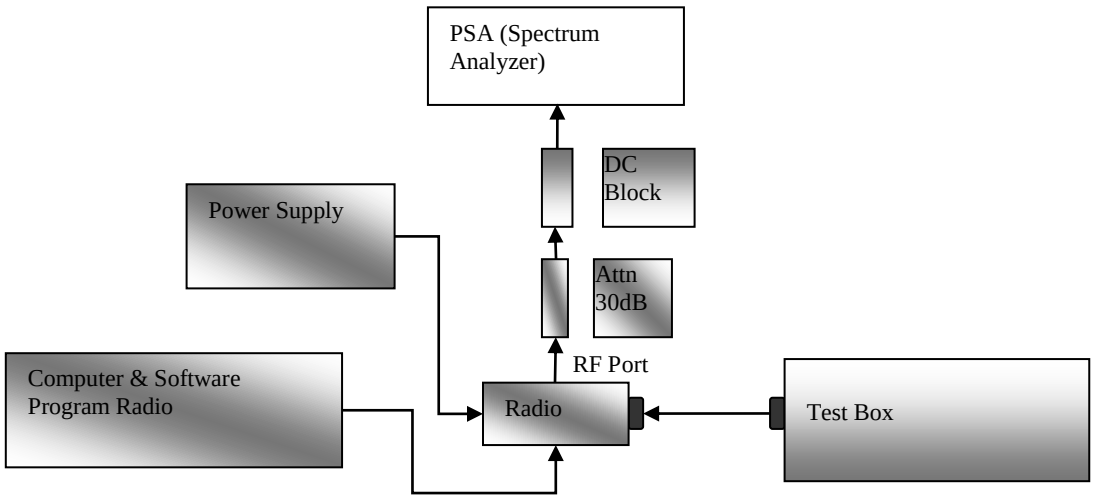
[2] During the time from the end of t_2 to the beginning of t_3, the frequency difference must not exceed the limits specified in §90.213.

[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.

6.5. Adjacent Channel Power

6.5.1. 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.

6.5.2. Test Result

Not Applicable.

6.5.3. Test Limit

Maximum adjacent power levels for frequencies in the 450–470 MHz band:

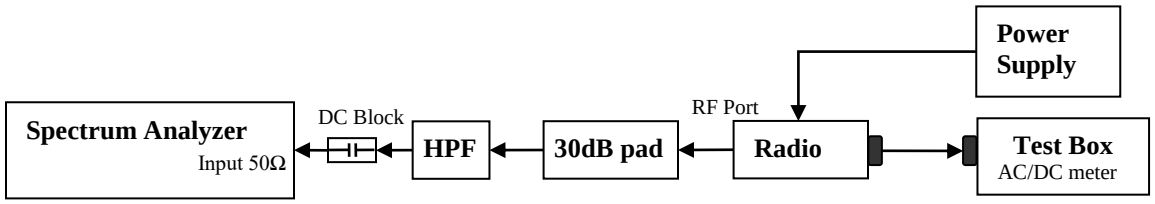
Frequency offset (kHz)	Maximum ACP (dBc) for devices 1 watt and less	Maximum ACP (dBc) for devices above 1 watt
25	−55	−60
50	−70	−70
75	−70	−70

Maximum adjacent power levels for frequencies in the 809–824/854–869 MHz band:

Frequency offset (kHz)	Maximum ACP (dBc) for devices less than 15 watts	Maximum ACP (dBc) for devices 15 watts and above
25	−55	−55
50	−65	−65
75	−65	−70

6.6. Conducted Spurious Emission

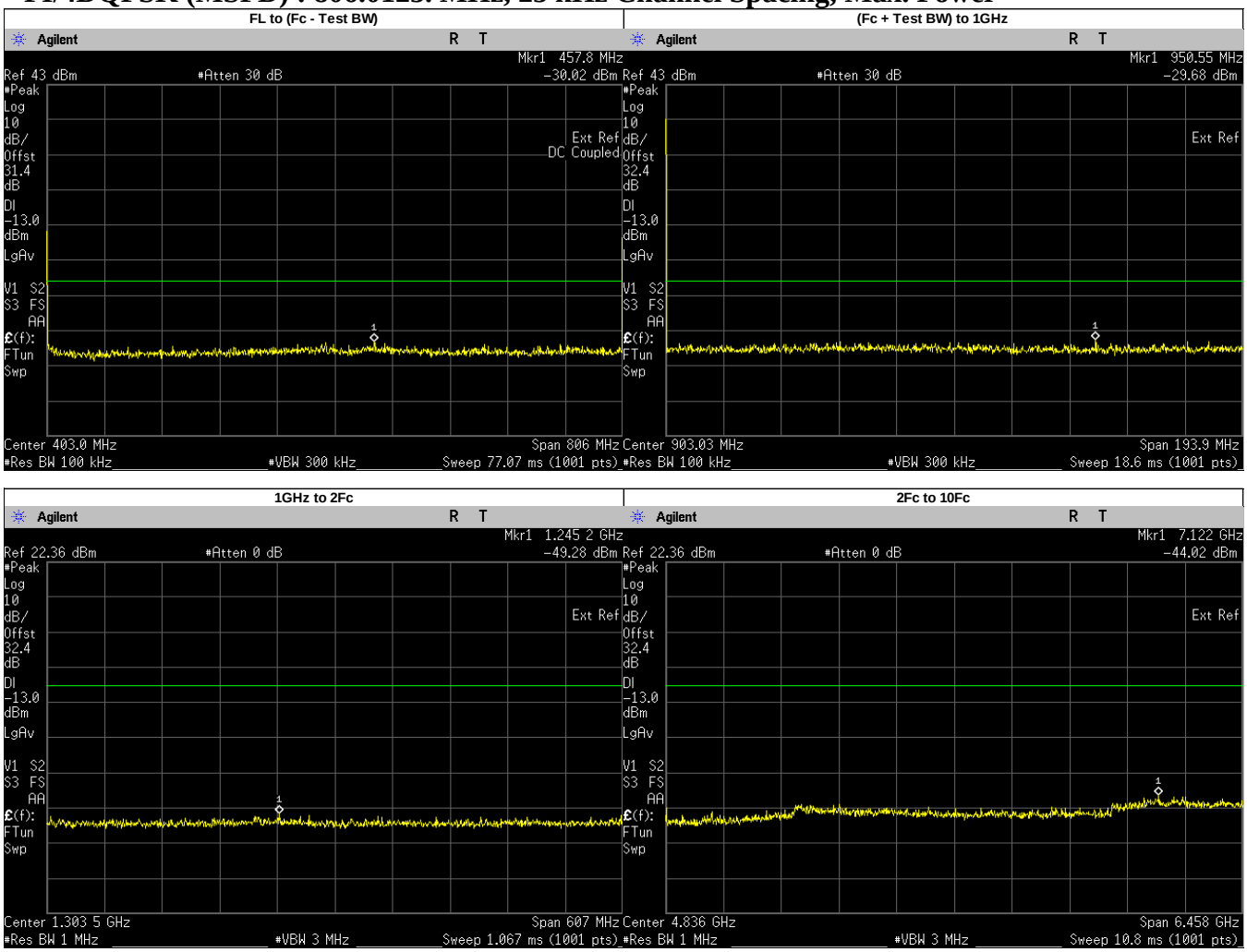
6.6.1. Test Setup



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.

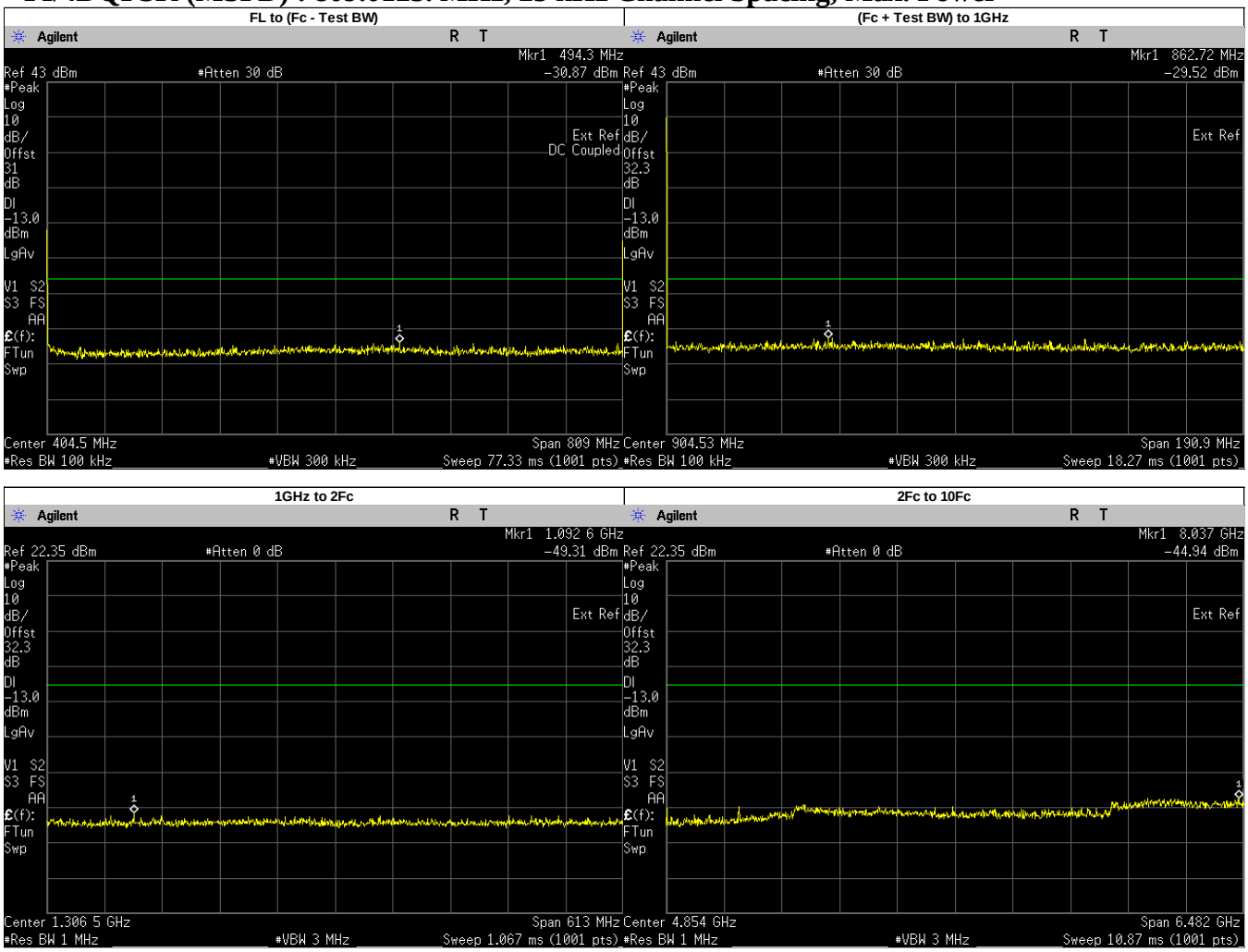
6.6.2. Test Result (Digital)

PI/4DQPSK (MSPD) : 806.0125. MHz, 25 kHz Channel Spacing, Max. Power



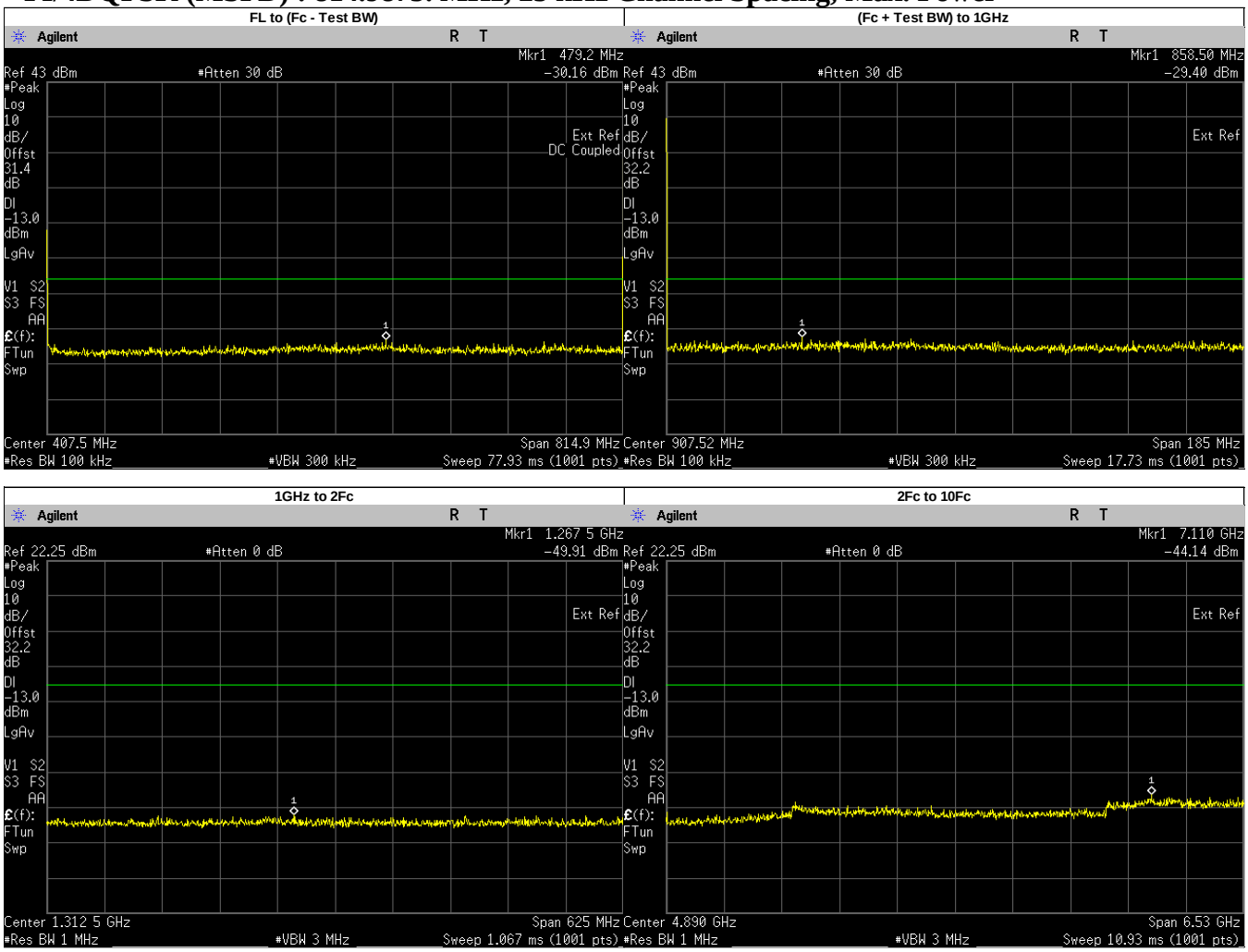
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	457.8000	-30.0220	-13	PASS
(Fc + Test BW) to 1GHz	950.5459	-29.6800	-13	PASS
1GHz to 2Fc	1245.2380	-49.2800	-13	PASS
2Fc to 10Fc	7122.2420	-44.0200	-13	PASS
	1612.0250	-48.5021	-13	PASS
	2418.0370	-51.2075	-13	PASS
	3224.0500	-47.2985	-13	PASS
	4030.0620	-48.2312	-13	PASS
	4836.0750	-49.0300	-13	PASS
	5642.0870	-49.4764	-13	PASS
	6448.1000	-49.1913	-13	PASS
	7254.1130	-46.2959	-13	PASS
	8060.1250	-46.5656	-13	PASS

PI/4DQPSK (MSPD) : 809.0125. MHz, 25 kHz Channel Spacing, Max. Power



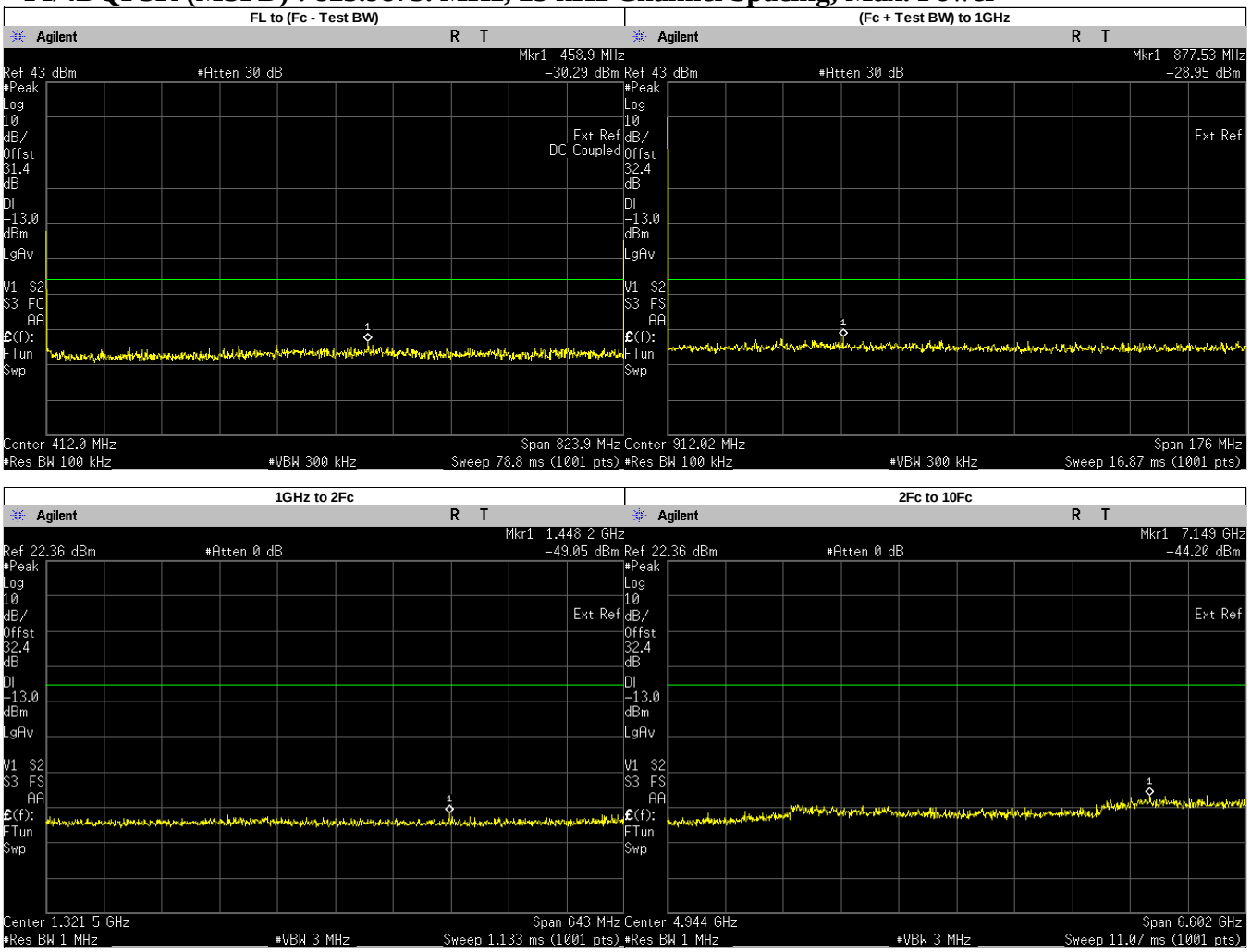
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	494.3000	-30.8720	-13	PASS
(Fc + Test BW) to 1GHz	862.7159	-29.5200	-13	PASS
1GHz to 2Fc	1092.5670	-49.3100	-13	PASS
2Fc to 10Fc	8036.7860	-44.9400	-13	PASS
	1618.0250	-48.9374	-13	PASS
	2427.0370	-48.6550	-13	PASS
	3236.0500	-48.3938	-13	PASS
	4045.0620	-49.0838	-13	PASS
	4854.0750	-48.9660	-13	PASS
	5663.0870	-49.3121	-13	PASS
	6472.1000	-49.4278	-13	PASS
	7281.1130	-46.0794	-13	PASS
	8090.1250	-47.3956	-13	PASS

PI/4DQPSK (MSPD) : 814.9875. MHz, 25 kHz Channel Spacing, Max. Power



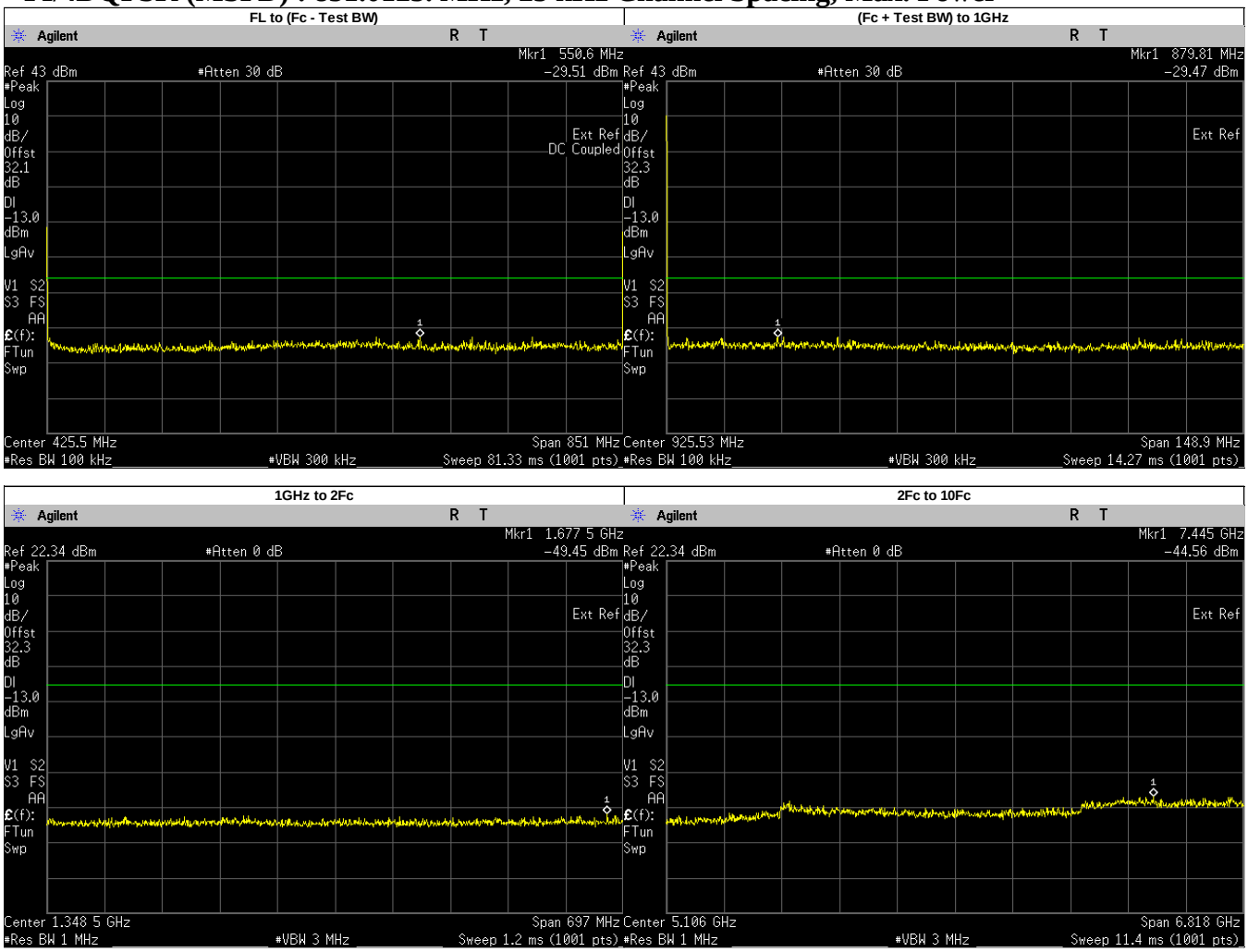
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	479.2000	-30.1630	-13	PASS
(Fc + Test BW) to 1GHz	858.5037	-29.4000	-13	PASS
1GHz to 2Fc	1267.4890	-49.9100	-13	PASS
2Fc to 10Fc	7110.0910	-44.1400	-13	PASS
	1629.9750	-49.5660	-13	PASS
	2444.9630	-51.3916	-13	PASS
	3259.9500	-48.5096	-13	PASS
	4074.9370	-48.8071	-13	PASS
	4889.9250	-50.1260	-13	PASS
	5704.9130	-49.9741	-13	PASS
	6519.9000	-49.4510	-13	PASS
	7334.8870	-46.6734	-13	PASS
	8149.8750	-46.9485	-13	PASS

PI/4DQPSK (MSPD) : 823.9875. MHz, 25 kHz Channel Spacing, Max. Power



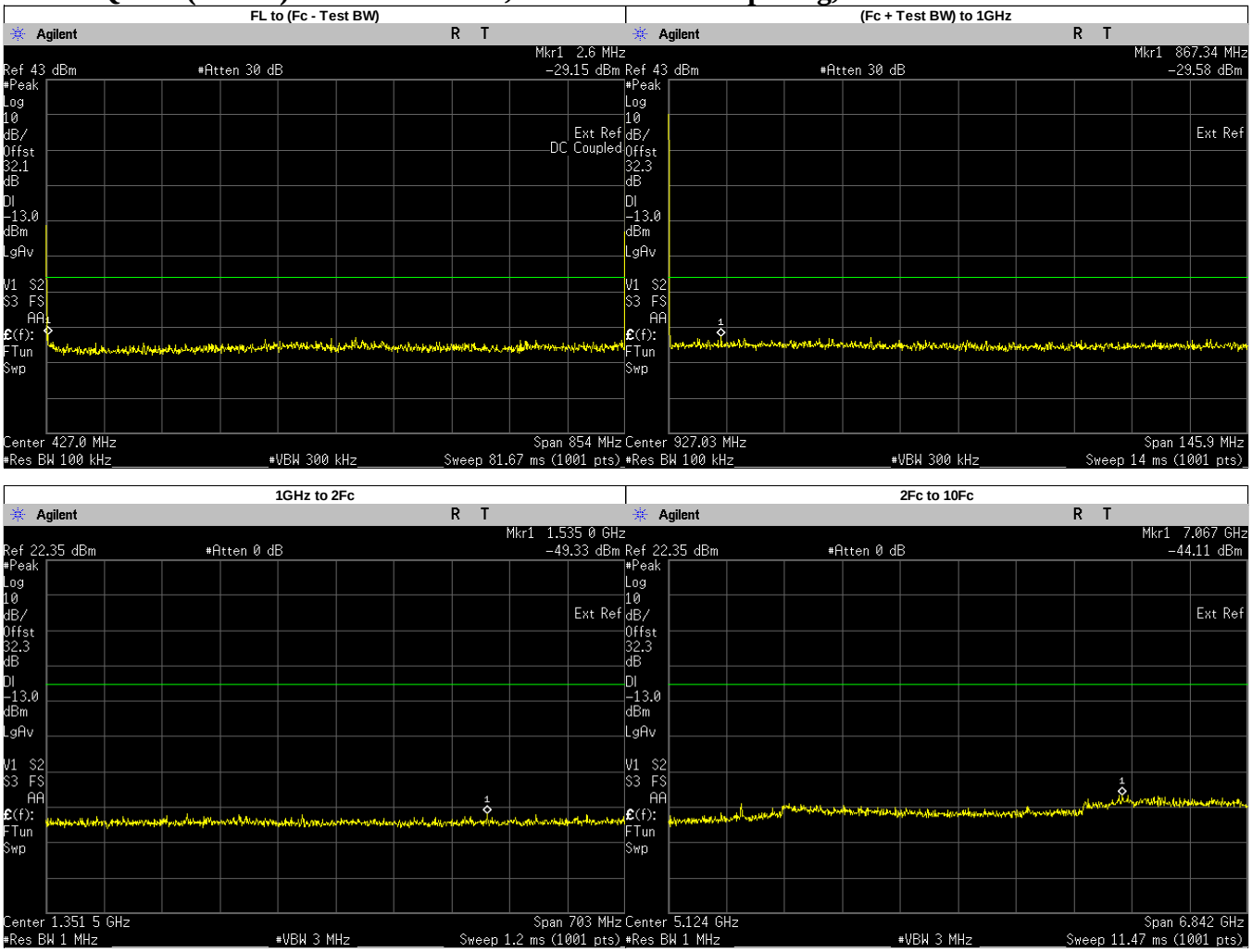
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	633.6000	-30.2900	-13	PASS
(Fc + Test BW) to 1GHz	877.5301	-28.9500	-13	PASS
1GHz to 2Fc	1448.1540	-49.0500	-13	PASS
2Fc to 10Fc	7148.9600	-44.2000	-13	PASS
	1647.9750	-50.6670	-13	PASS
	2471.9630	-51.3865	-13	PASS
	3295.9500	-48.0344	-13	PASS
	4119.9370	-47.7801	-13	PASS
	4943.9250	-49.5620	-13	PASS
	5767.9130	-48.6428	-13	PASS
	6591.9000	-48.8174	-13	PASS
	7415.8870	-46.3484	-13	PASS
	8239.8750	-46.8434	-13	PASS

PI/4DQPSK (MSPD) : 851.0125. MHz, 25 kHz Channel Spacing, Max. Power



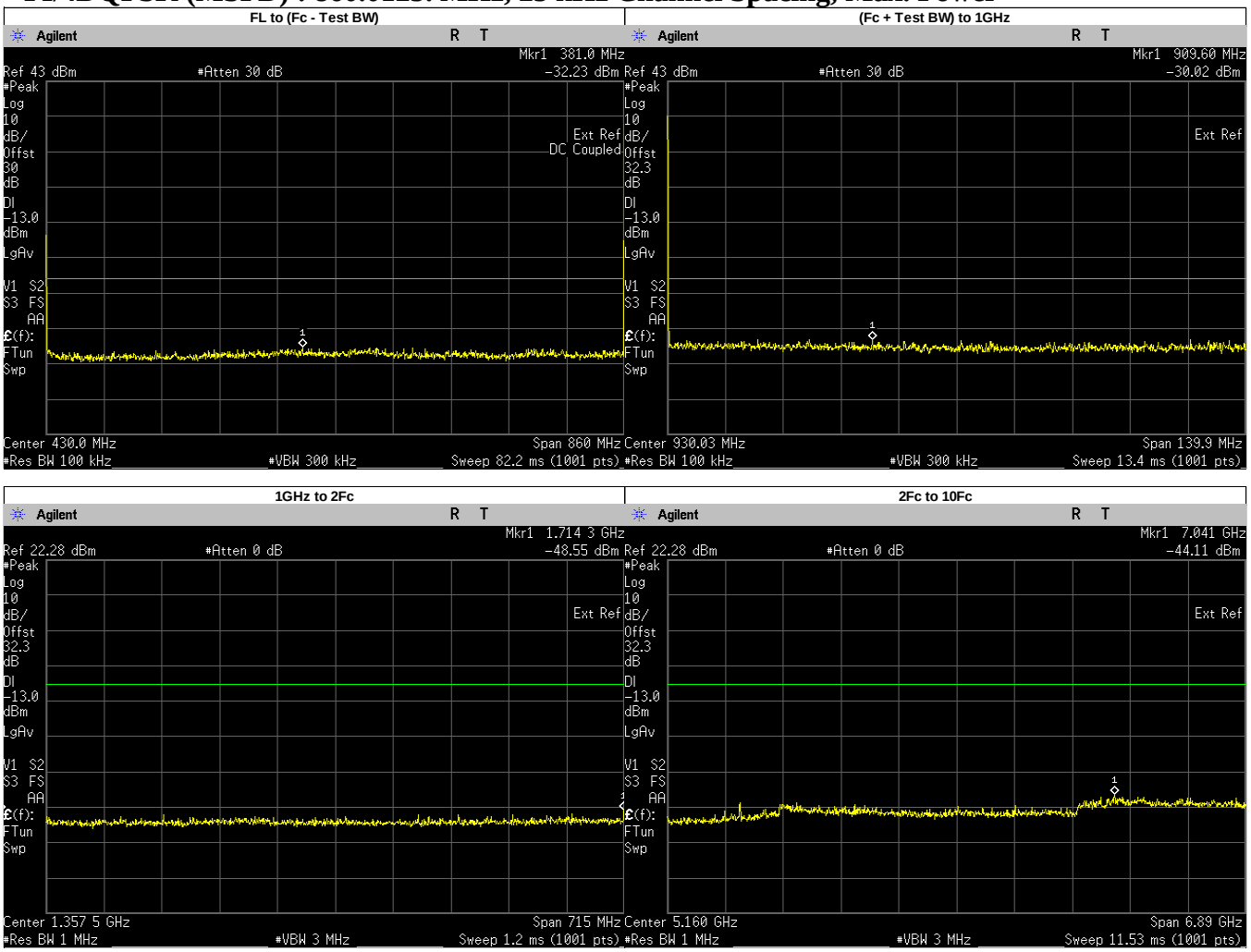
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	550.6000	-29.5110	-13	PASS
(Fc + Test BW) to 1GHz	879.8074	-29.4700	-13	PASS
1GHz to 2Fc	1677.5080	-49.4500	-13	PASS
2Fc to 10Fc	7444.6830	-44.5600	-13	PASS
	1702.0250	-51.2919	-13	PASS
	2553.0370	-50.7645	-13	PASS
	3404.0500	-48.2388	-13	PASS
	4255.0620	-49.3608	-13	PASS
	5106.0750	-48.2010	-13	PASS
	5957.0870	-50.1820	-13	PASS
	6808.1000	-46.5025	-13	PASS
	7659.1130	-47.4906	-13	PASS
	8510.1250	-47.1401	-13	PASS

PI/4DQPSK (MSPD) : 854.0125. MHz, 25 kHz Channel Spacing, Max. Power



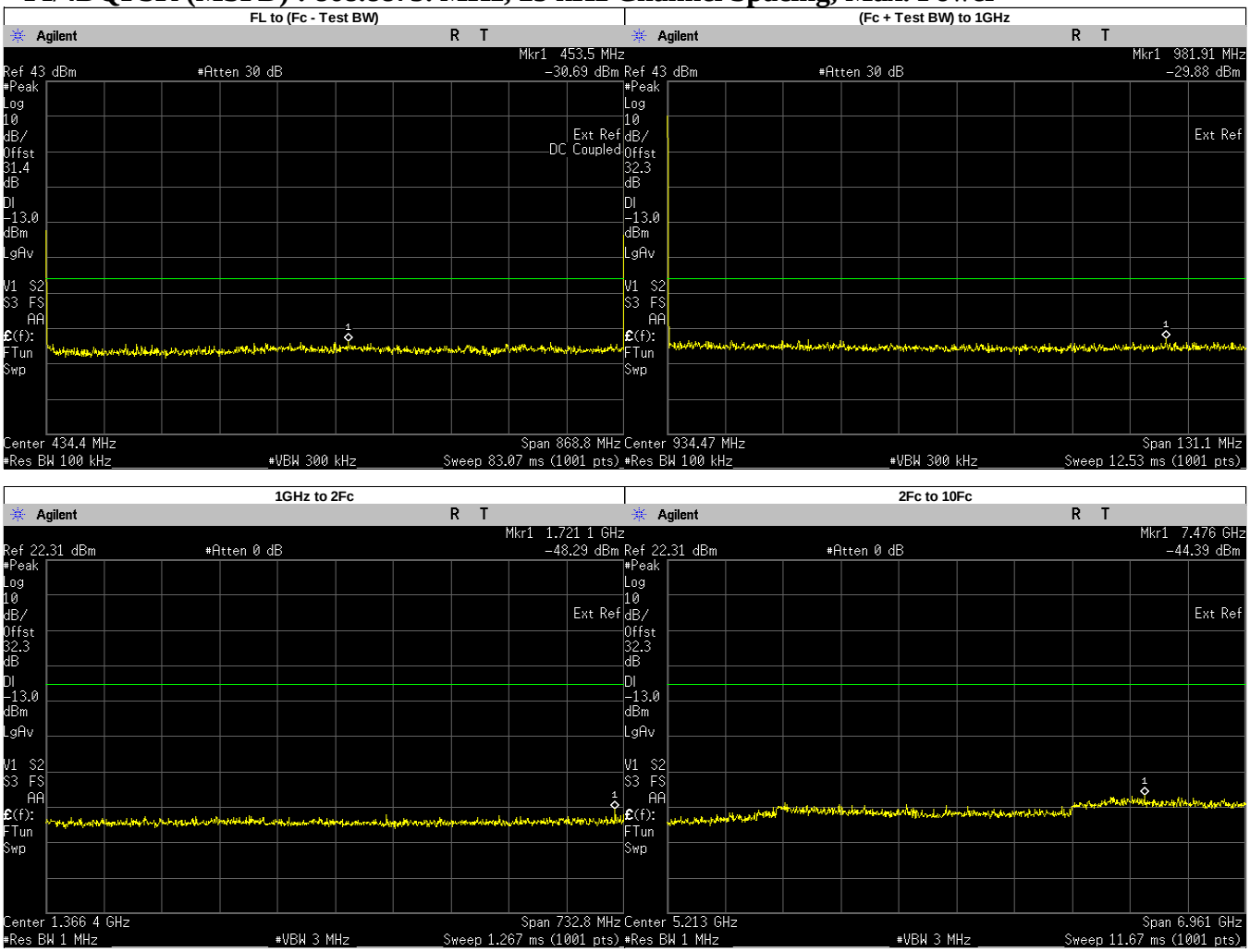
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	2.6000	-29.1530	-13	PASS
(Fc + Test BW) to 1GHz	867.3428	-29.5800	-13	PASS
1GHz to 2Fc	1535.0020	-49.3300	-13	PASS
2Fc to 10Fc	7067.2310	-44.1100	-13	PASS
	1708.0250	-51.3852	-13	PASS
	2562.0370	-47.3428	-13	PASS
	3416.0500	-48.4314	-13	PASS
	4270.0620	-49.6336	-13	PASS
	5124.0750	-50.1840	-13	PASS
	5978.0870	-49.2394	-13	PASS
	6832.1000	-47.1762	-13	PASS
	7686.1130	-46.6947	-13	PASS
	8540.1250	-47.4161	-13	PASS

PI/4DQPSK (MSPD) : 860.0125. MHz, 25 kHz Channel Spacing, Max. Power



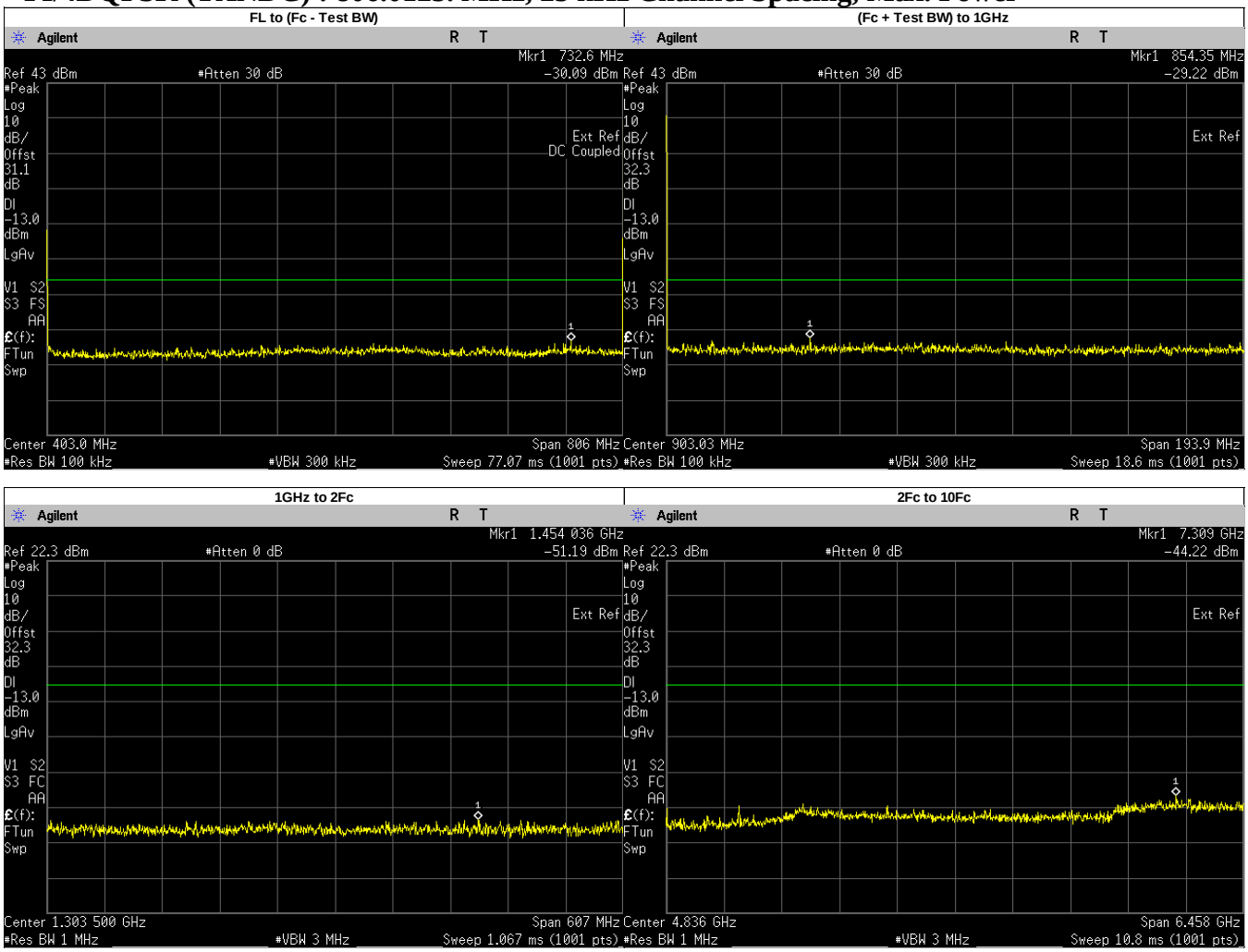
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	381.0000	-32.2320	-13	PASS
(Fc + Test BW) to 1GHz	909.6004	-30.0200	-13	PASS
1GHz to 2Fc	1714.3100	-48.5500	-13	PASS
2Fc to 10Fc	7041.0720	-44.1100	-13	PASS
	1720.0250	-51.0705	-13	PASS
	2580.0370	-46.7369	-13	PASS
	3440.0500	-48.9775	-13	PASS
	4300.0620	-49.4780	-13	PASS
	5160.0750	-49.8260	-13	PASS
	6020.0870	-49.0408	-13	PASS
	6880.1000	-45.9981	-13	PASS
	7740.1130	-46.7561	-13	PASS
	8600.1250	-47.3881	-13	PASS

PI/4DQPSK (MSPD) : 868.8875. MHz, 25 kHz Channel Spacing, Max. Power



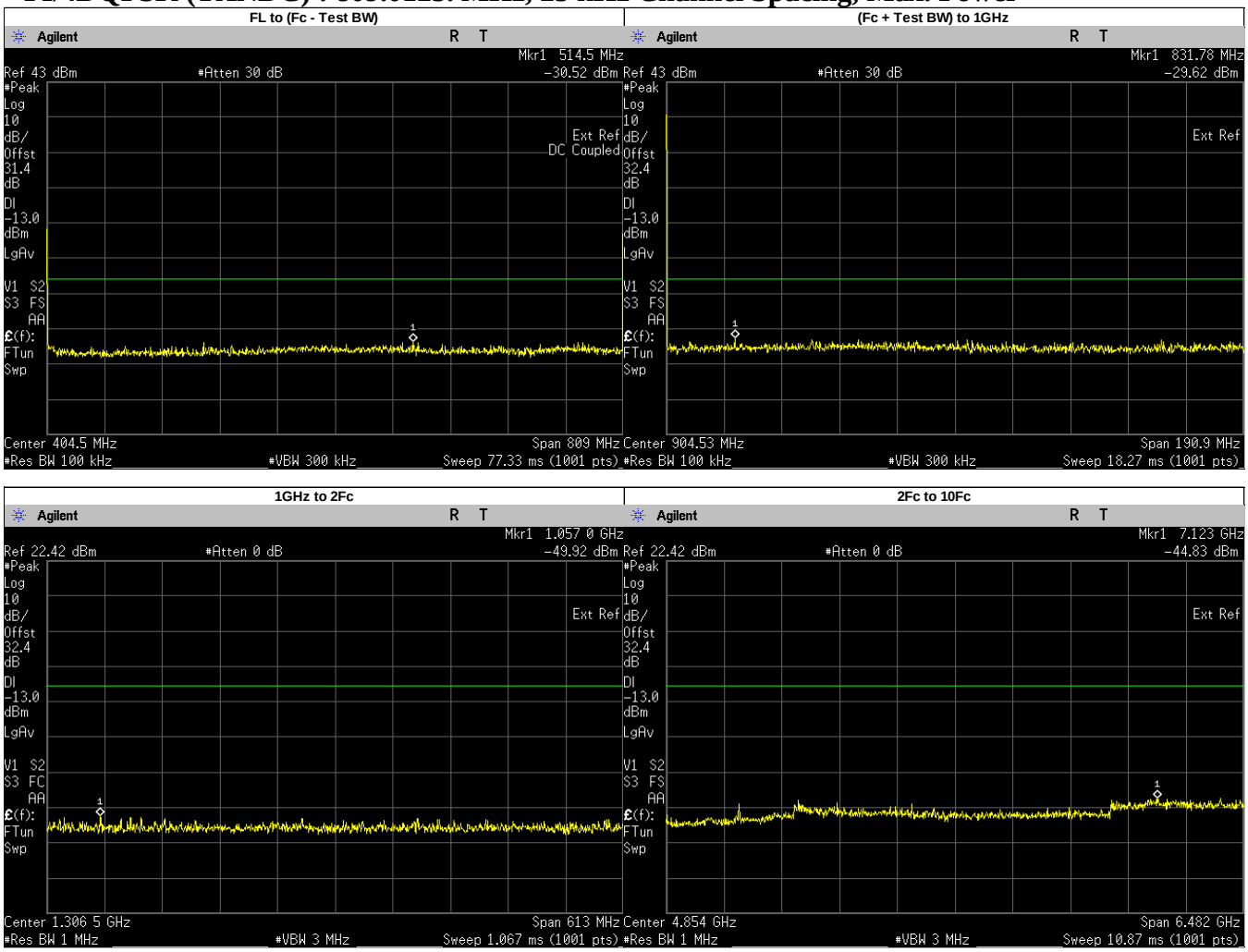
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	453.5000	-30.6920	-13	PASS
(Fc + Test BW) to 1GHz	981.9134	-29.8800	-13	PASS
1GHz to 2Fc	1721.0510	-48.2900	-13	PASS
2Fc to 10Fc	7475.6820	-44.3900	-13	PASS
	1737.7750	-52.4111	-13	PASS
	2606.6620	-50.5302	-13	PASS
	3475.5500	-47.9879	-13	PASS
	4344.4370	-49.5600	-13	PASS
	5213.3250	-49.4790	-13	PASS
	6082.2120	-49.5021	-13	PASS
	6951.1000	-47.0358	-13	PASS
	7819.9880	-47.1661	-13	PASS
	8688.8750	-46.4149	-13	PASS

PI/4DQPSK (TXNDC) : 806.0125. MHz, 25 kHz Channel Spacing, Max. Power



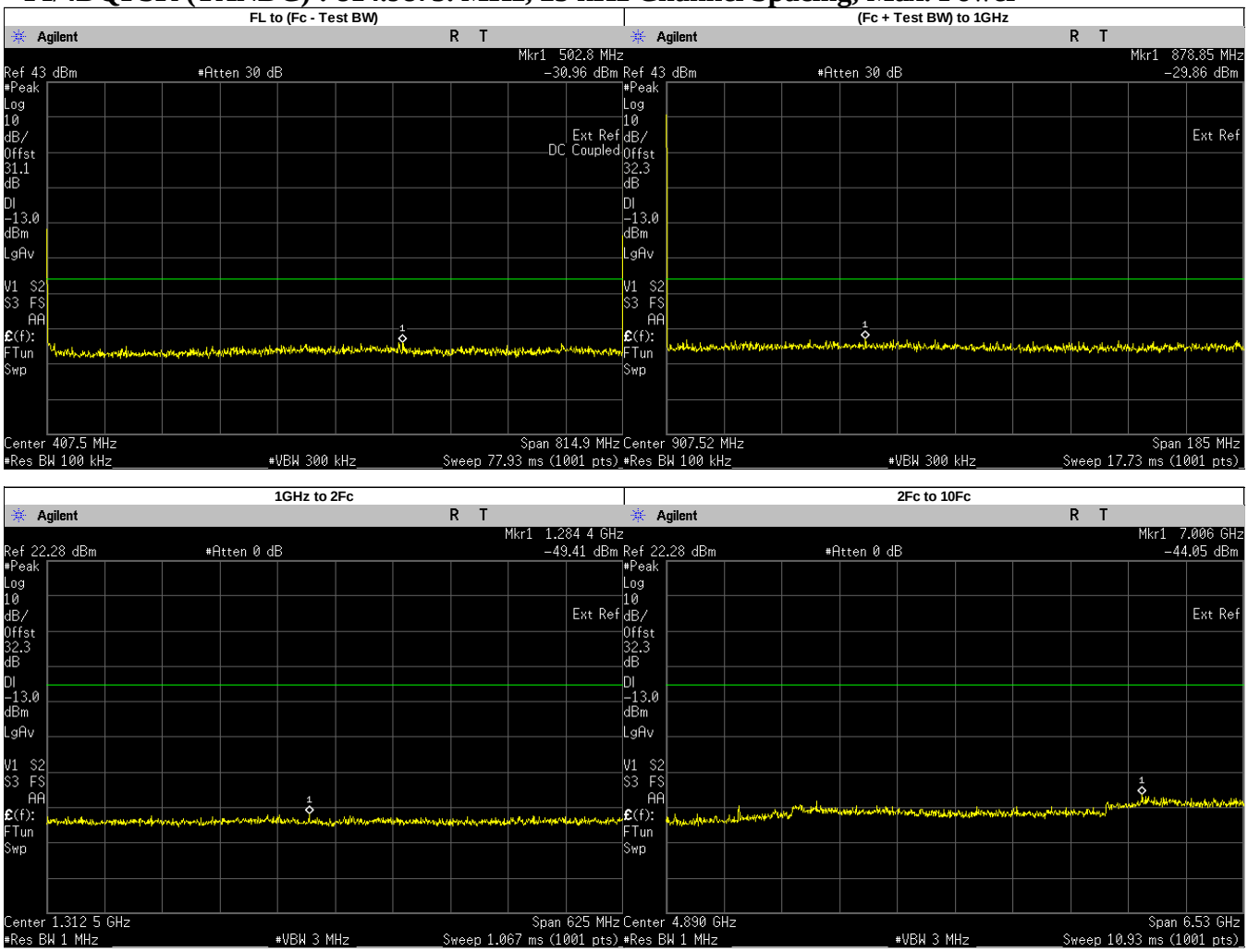
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	732.6000	-30.0870	-13	PASS
(Fc + Test BW) to 1GHz	854.3529	-29.2200	-13	PASS
1GHz to 2Fc	1588.2070	-51.1900	-13	PASS
2Fc to 10Fc	7361.1920	-45.2200	-13	PASS
	1612.0250	-48.6858	-13	PASS
	2418.0370	-53.3597	-13	PASS
	3224.0500	-50.3618	-13	PASS
	4030.0620	-50.1779	-13	PASS
	4836.0750	-52.0750	-13	PASS
	5642.0870	-52.4991	-13	PASS
	6448.1000	-51.6389	-13	PASS
	7254.1130	-47.5902	-13	PASS
	8060.1250	-48.3825	-13	PASS

PI/4DQPSK (TXNDC) : 809.0125. MHz, 25 kHz Channel Spacing, Max. Power



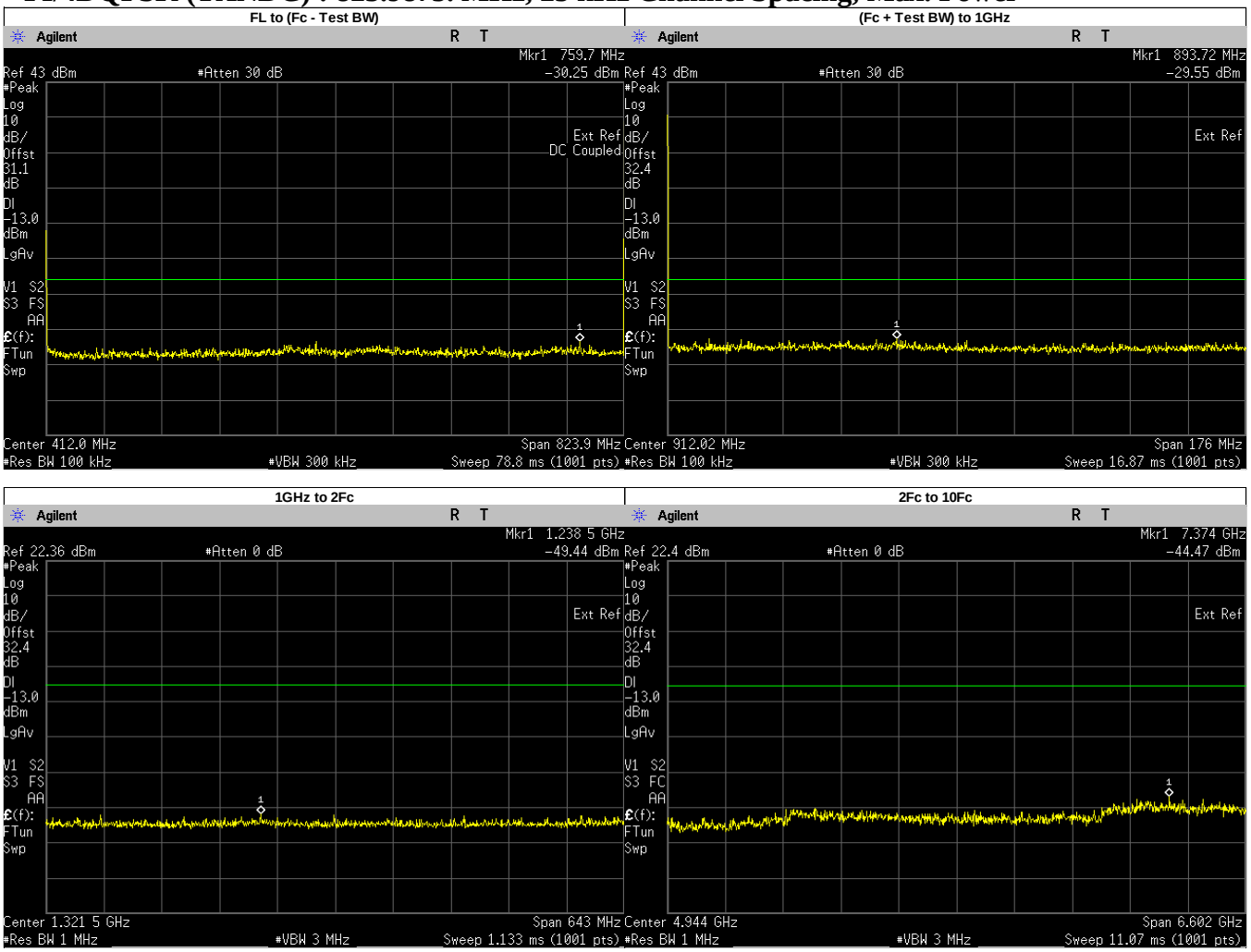
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	514.5000	-30.5180	-13	PASS
(Fc + Test BW) to 1GHz	831.7841	-29.6200	-13	PASS
1GHz to 2Fc	1543.1400	-59.9200	-13	PASS
2Fc to 10Fc	7122.8100	-44.8300	-13	PASS
	1618.0250	-50.0989	-13	PASS
	2427.0370	-48.0492	-13	PASS
	3236.0500	-48.4710	-13	PASS
	4045.0620	-48.8027	-13	PASS
	4854.0750	-49.3070	-13	PASS
	5663.0870	-50.4994	-13	PASS
	6472.1000	-49.7656	-13	PASS
	7281.1130	-46.2959	-13	PASS
	8090.1250	-46.7767	-13	PASS

PI/4DQPSK (TXNDC) : 814.9875. MHz, 25 kHz Channel Spacing, Max. Power



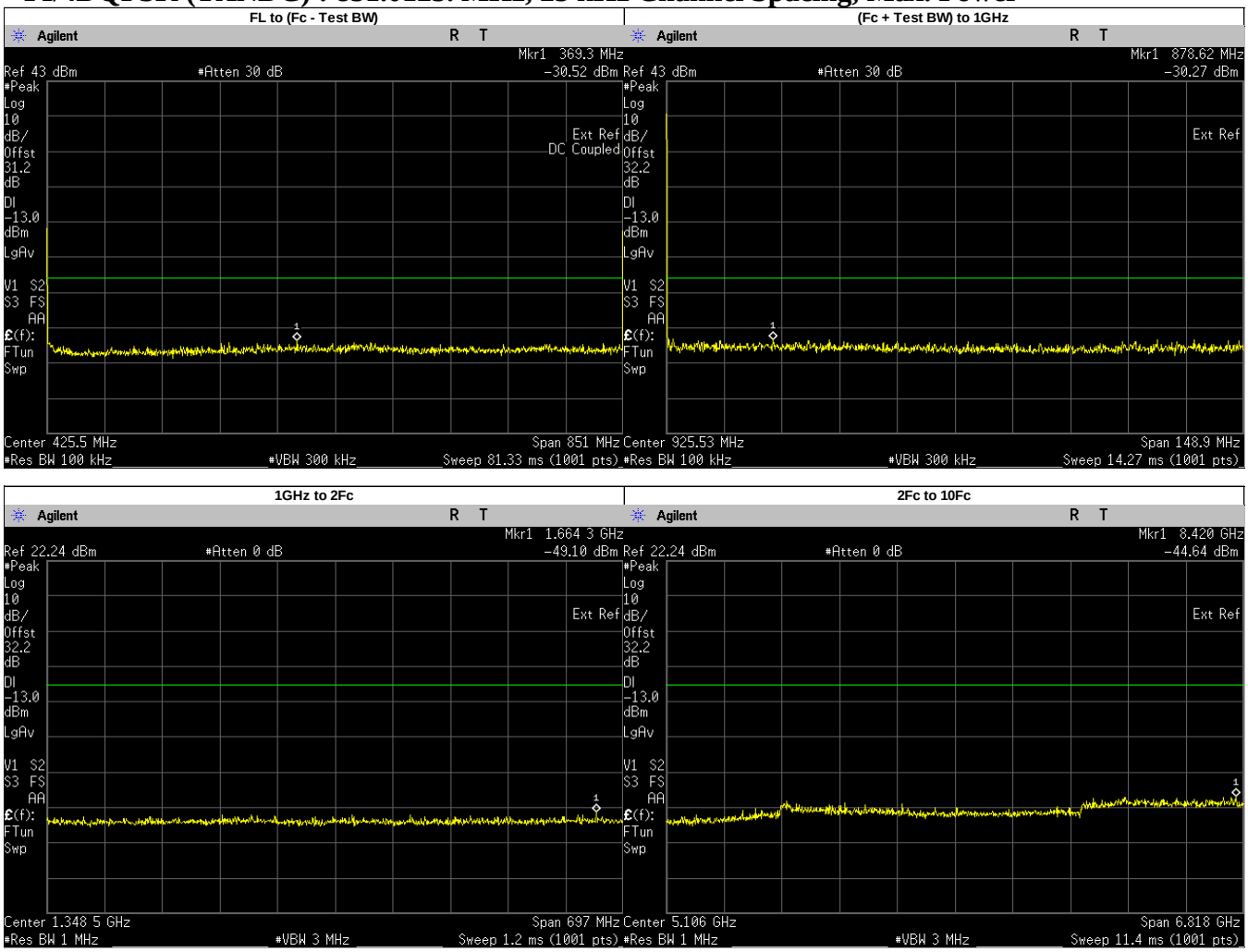
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	502.8000	-30.9620	-13	PASS
(Fc + Test BW) to 1GHz	878.8496	-29.8600	-13	PASS
1GHz to 2Fc	1284.3640	-49.4100	-13	PASS
2Fc to 10Fc	7005.6130	-44.0500	-13	PASS
	1629.9750	-50.5170	-13	PASS
	2444.9630	-47.7652	-13	PASS
	3259.9500	-48.1269	-13	PASS
	4074.9370	-48.3382	-13	PASS
	4889.9250	-49.3870	-13	PASS
	5704.9130	-49.2966	-13	PASS
	6519.9000	-49.1042	-13	PASS
	7334.8870	-45.8881	-13	PASS
	8149.8750	-46.3606	-13	PASS

PI/4DQPSK (TXNDC) : 823.9875. MHz, 25 kHz Channel Spacing, Max. Power



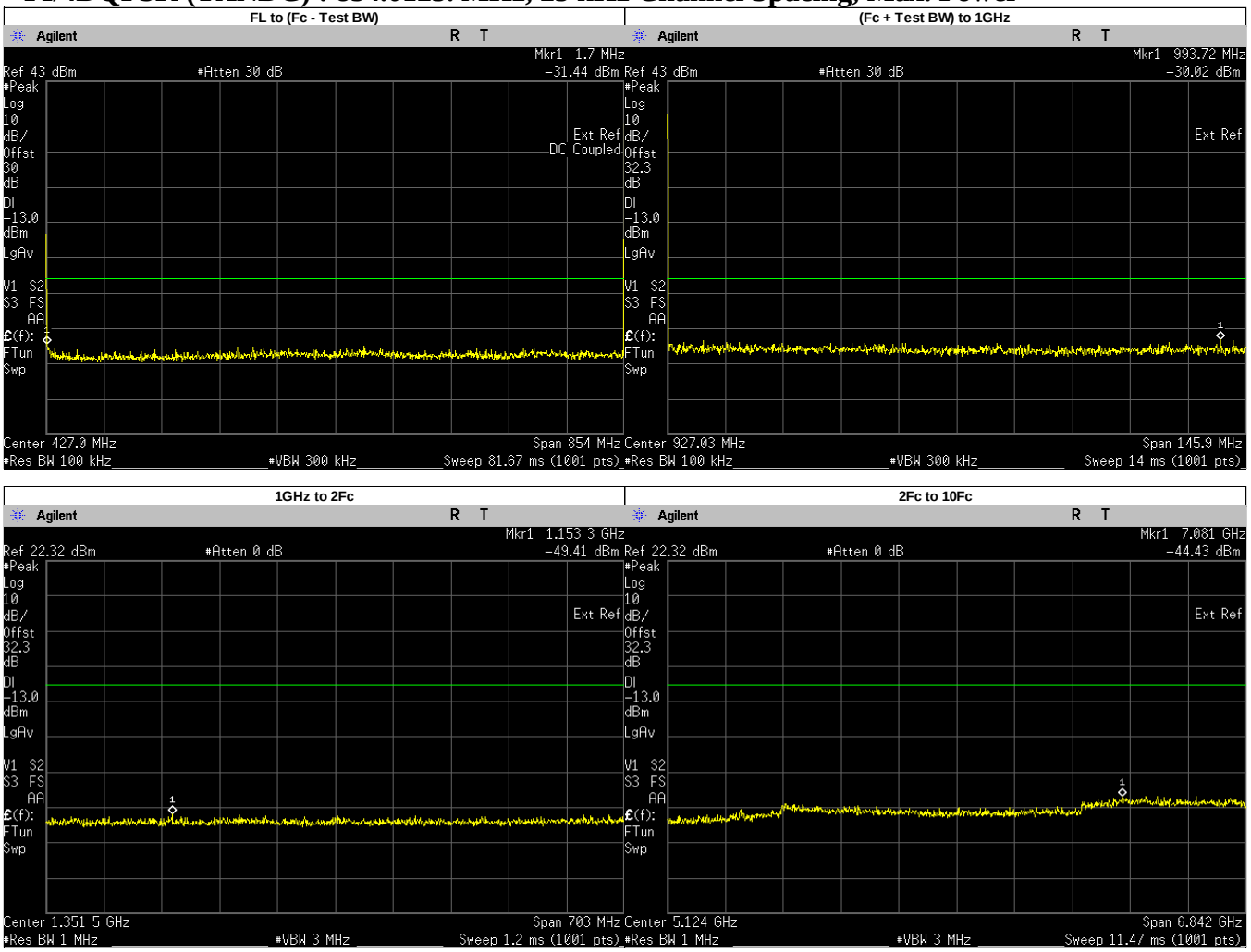
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	759.7000	-30.2550	-13	PASS
(Fc + Test BW) to 1GHz	893.7187	-29.5500	-13	PASS
1GHz to 2Fc	1238.5440	-49.4400	-13	PASS
2Fc to 10Fc	7307.4050	-44.4700	-13	PASS
	1647.9750	-50.9296	-13	PASS
	2471.9630	-50.3992	-13	PASS
	3295.9500	-47.7669	-13	PASS
	4119.9370	-48.7541	-13	PASS
	4943.9250	-48.9330	-13	PASS
	5767.9130	-48.9687	-13	PASS
	6591.9000	-49.2304	-13	PASS
	7415.8870	-46.5295	-13	PASS
	8239.8750	-46.7798	-13	PASS

PI/4DQPSK (TXNDC) : 851.0125. MHz, 25 kHz Channel Spacing, Max. Power



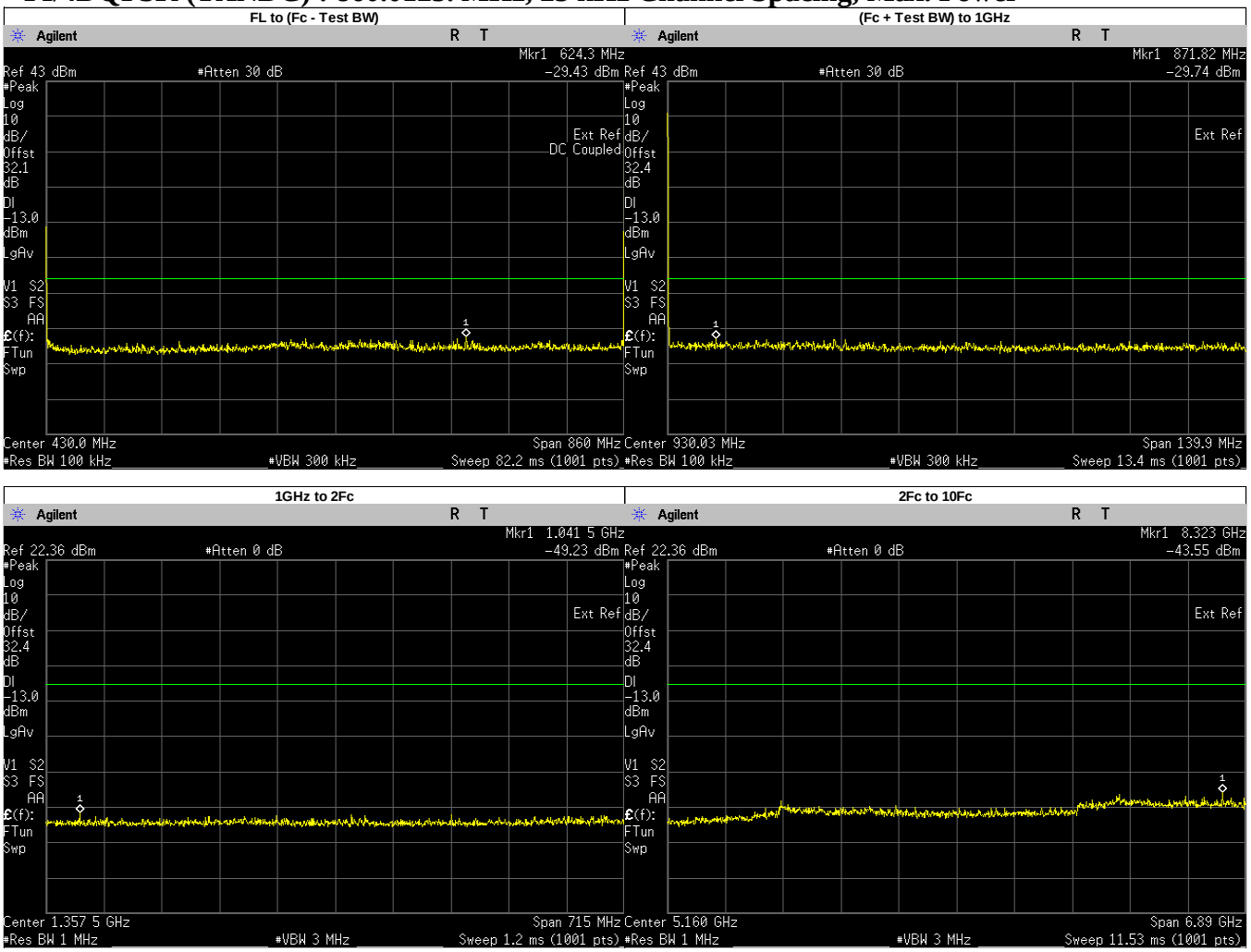
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	369.3000	-30.5240	-13	PASS
(Fc + Test BW) to 1GHz	878.6159	-30.2700	-13	PASS
1GHz to 2Fc	1664.2650	-49.1000	-13	PASS
2Fc to 10Fc	8419.6720	-44.6400	-13	PASS
	1702.0250	-51.7445	-13	PASS
	2553.0370	-50.9668	-13	PASS
	3404.0500	-47.7530	-13	PASS
	4255.0620	-48.5167	-13	PASS
	5106.0750	-50.0060	-13	PASS
	5957.0870	-49.2821	-13	PASS
	6808.1000	-47.5524	-13	PASS
	7659.1130	-47.1387	-13	PASS
	8510.1250	-46.9140	-13	PASS

PI/4DQPSK (TXNDC) : 854.0125. MHz, 25 kHz Channel Spacing, Max. Power



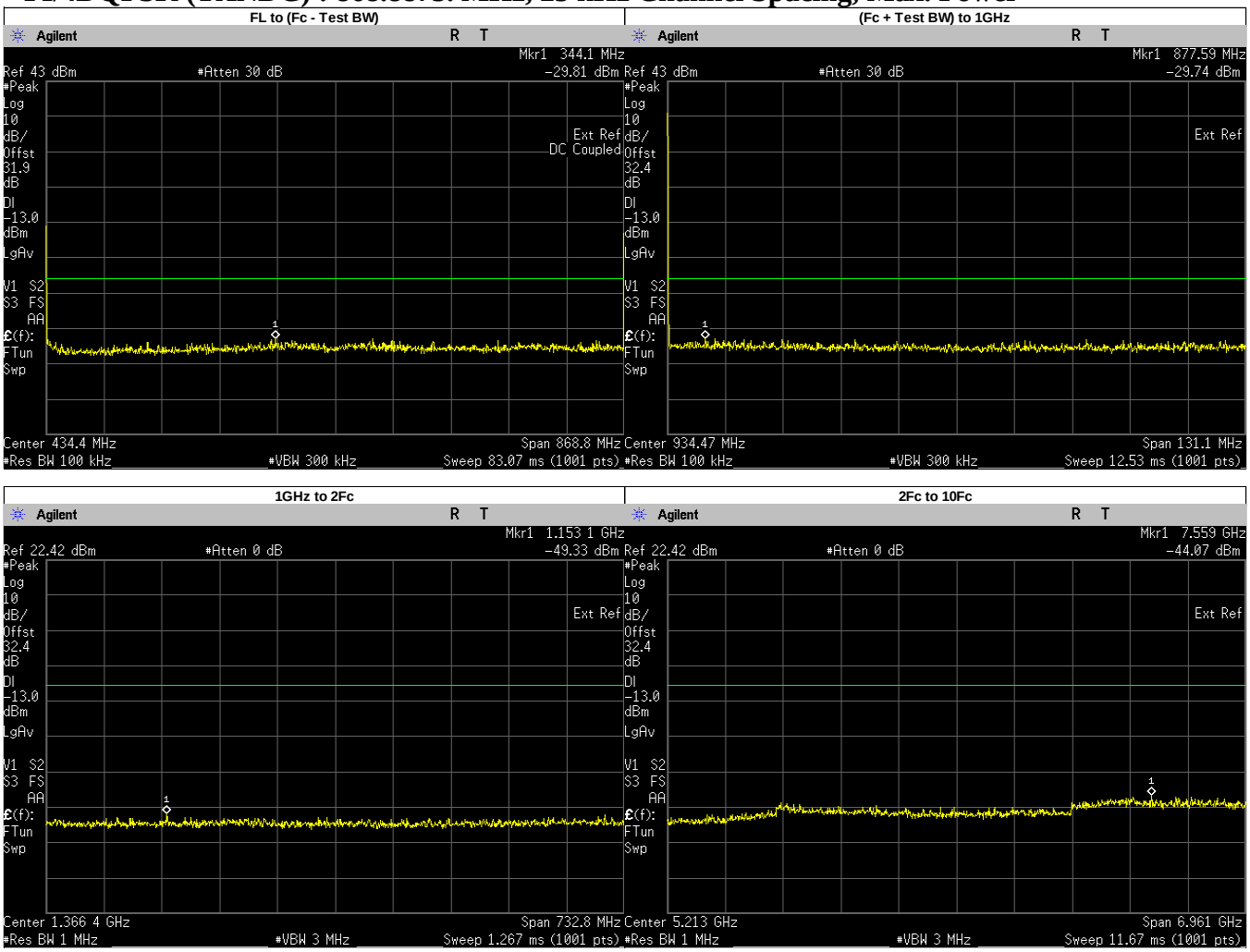
Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	1.7000	-31.4430	-13	PASS
(Fc + Test BW) to 1GHz	993.7247	-30.0200	-13	PASS
1GHz to 2Fc	1153.2590	-49.4100	-13	PASS
2Fc to 10Fc	7080.9160	-44.4300	-13	PASS
	1708.0250	-50.8115	-13	PASS
	2562.0370	-49.0412	-13	PASS
	3416.0500	-48.1522	-13	PASS
	4270.0620	-48.8410	-13	PASS
	5124.0750	-49.6270	-13	PASS
	5978.0870	-49.0611	-13	PASS
	6832.1000	-47.0554	-13	PASS
	7686.1130	-46.5977	-13	PASS
	8540.1250	-47.6613	-13	PASS

PI/4DQPSK (TXNDC) : 860.0125. MHz, 25 kHz Channel Spacing, Max. Power



Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	624.3000	-29.4330	-13	PASS
(Fc + Test BW) to 1GHz	871.8172	-29.7400	-13	PASS
1GHz to 2Fc	1041.4720	-49.2300	-13	PASS
2Fc to 10Fc	8322.6310	-43.5500	-13	PASS
	1720.0250	-51.9689	-13	PASS
	2580.0370	-50.0220	-13	PASS
	3440.0500	-48.9279	-13	PASS
	4300.0620	-48.8611	-13	PASS
	5160.0750	-49.7940	-13	PASS
	6020.0870	-49.2270	-13	PASS
	6880.1000	-47.0782	-13	PASS
	7740.1130	-46.6567	-13	PASS
	8600.1250	-46.4067	-13	PASS

PI/4DQPSK (TXNDC) : 868.8875. MHz, 25 kHz Channel Spacing, Max. Power



Frequency Range	Highest Spur Frequency (MHz)	Spurious Level (dBm)	Failing Limit (dBm)	Results
FL to (Fc - Test BW)	344.1000	-29.8080	-13	PASS
(Fc + Test BW) to 1GHz	877.5876	-29.7300	-13	PASS
1GHz to 2Fc	1153.1500	-49.3300	-13	PASS
2Fc to 10Fc	7559.2160	-44.0700	-13	PASS
	1737.7750	-50.9566	-13	PASS
	2606.6620	-50.2000	-13	PASS
	3475.5500	-48.2589	-13	PASS
	4344.4370	-49.5679	-13	PASS
	5213.3250	-49.0610	-13	PASS
	6082.2120	-49.8756	-13	PASS
	6951.1000	-46.7714	-13	PASS
	7819.9880	-46.8550	-13	PASS
	8688.8750	-47.1423	-13	PASS

6.6.3. Test Limit

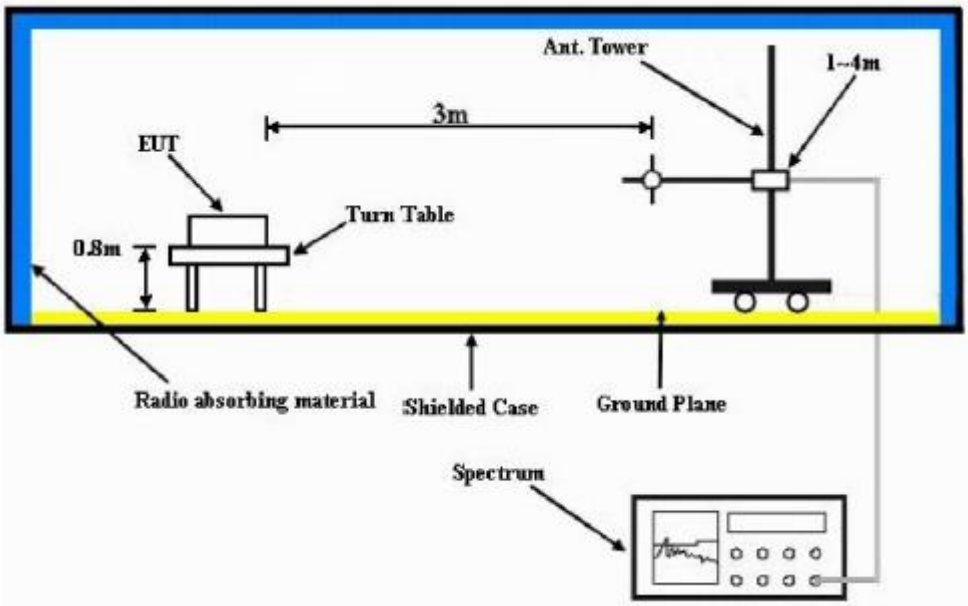
Table below summarized the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least

Channel Spacing	Part 22	Part 24D	Part 74	Part 80	Part 90 (UHF, VHF, 800, 900)	Part 90 (700)
12.5kHz	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	Not Applicable	50 + log10(P) (-20 dBm)	43 + log10(P) (-13 dBm)
25kHz		Not Applicable		43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)

Channel Spacing	RSS 134	RSS 182	RSS 119 (UHF, VHF, 800, 900)	RSS 119 (700)
12.5kHz	43 + log10(P) (-13 dBm)	Not Applicable	50 + log10(P) (-20 dBm)	43 + log10(P) (-13 dBm)
25kHz	Not Applicable	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)

6.7. Radiated Spurious Emission

6.7.1. Test Setup



1) The Resolution Bandwidth for scanning Radiated Emission below 1 GHz is 100 kHz with Video Bandwidth = 300 kHz and Resolution Bandwidth for above 1 GHz is 1 MHz with Video Bandwidth = 3 MHz. Detector mode is positive peak.
2) In the semi- anechoic chamber, setup as illustrated above the DUT placed on the 0.8m height (for Fc < 1GHz) or 1.5m height (for Fc > 1GHz) of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
3) The substitution antenna is substituted for DUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
4) Final Radiated Spurious Emission = "Read Value" + Measured substitution value.

6.7.2. Test Result (Analog)

Not Applicable.

6.7.3. Test Result (Digital)

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

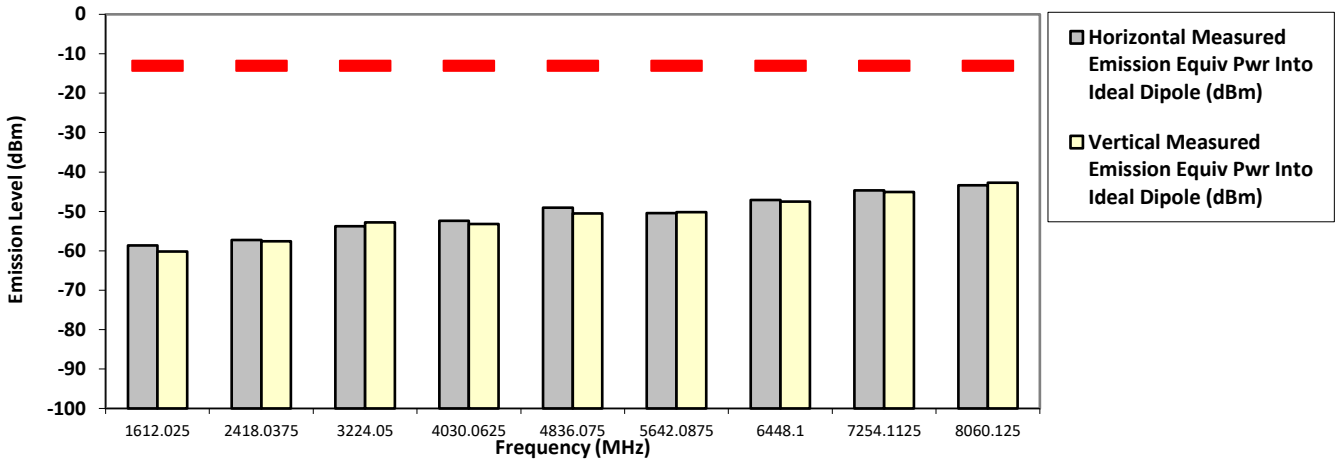
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

806.012500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1612.0250	-13.0000	-58.6510 **	-60.1436 **
2418.0375	-13.0000	-57.2459 **	-57.5617 **
3224.0500	-13.0000	-53.7349 **	-52.7603 **
4030.0625	-13.0000	-52.3447 **	-53.1680 **
4836.0750	-13.0000	-49.0266 **	-50.5047 **
5642.0875	-13.0000	-50.4287 **	-50.1514 **
6448.1000	-13.0000	-47.0757 **	-47.4884 **
7254.1125	-13.0000	-44.6848 **	-45.0655 **
8060.1250	-13.0000	-43.3328 **	-42.7312 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks: Passed Results | **Marginal Results** | **Failed Results**

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

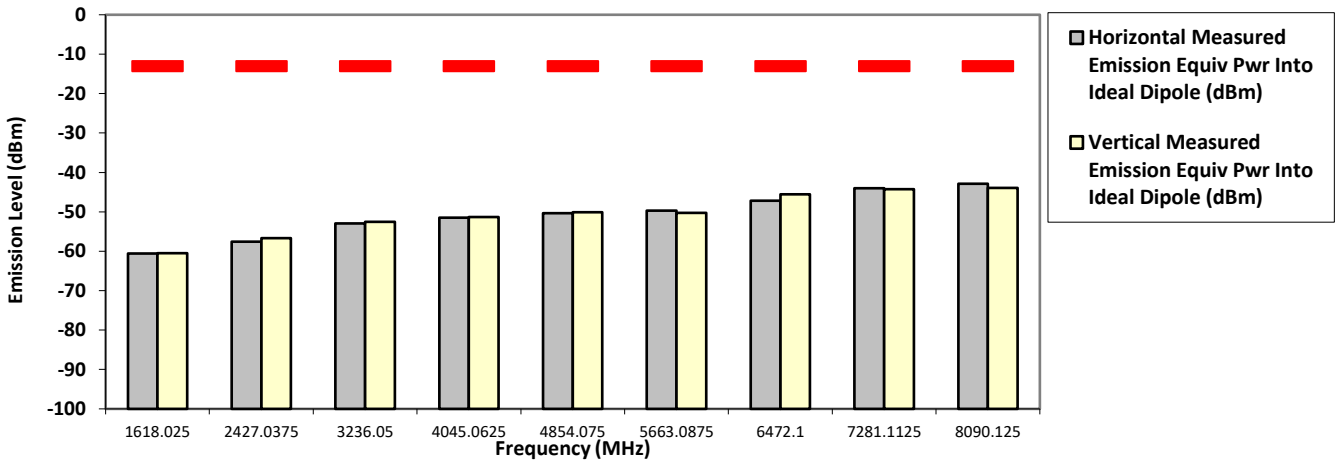
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

809.012500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1618.0250	-13.0000	-60.5641 **	-60.4989 **
2427.0375	-13.0000	-57.5902 **	-56.7234 **
3236.0500	-13.0000	-52.9742 **	-52.5431 **
4045.0625	-13.0000	-51.4887 **	-51.3264 **
4854.0750	-13.0000	-50.3463 **	-50.0685 **
5663.0875	-13.0000	-49.6614 **	-50.2562 **
6472.1000	-13.0000	-47.1865 **	-45.5963 **
7281.1125	-13.0000	-43.9839 **	-44.2261 **
8090.1250	-13.0000	-42.8490 **	-43.9077 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	**Marginal Results**	**Failed Results**

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

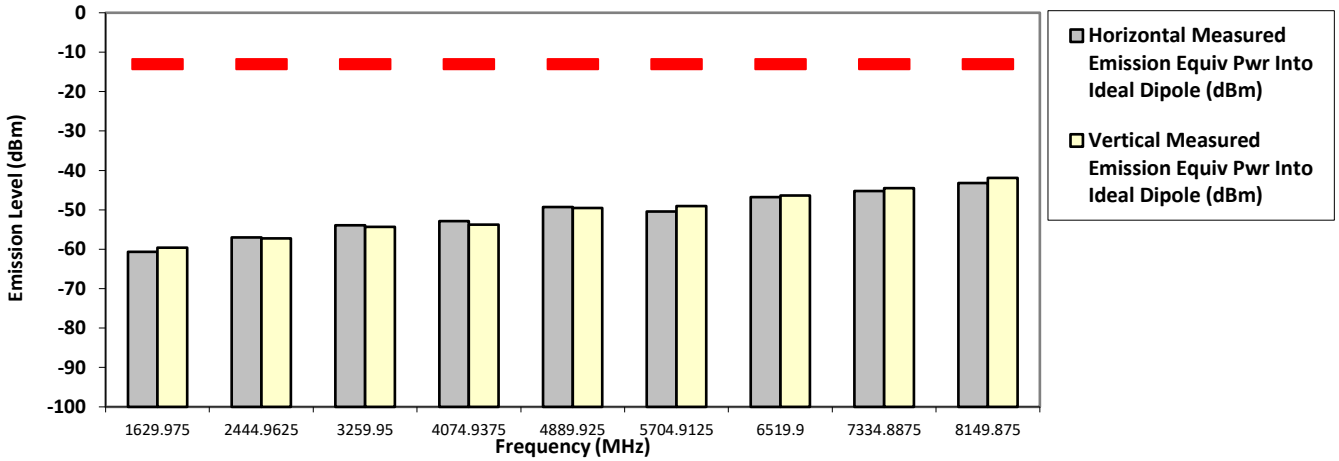
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

814.987500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1629.9750	-13.0000	-60.6304 **	-59.5703 **
2444.9625	-13.0000	-57.0348 **	-57.2485 **
3259.9500	-13.0000	-53.9587 **	-54.3680 **
4074.9375	-13.0000	-52.8444 **	-53.7707 **
4889.9250	-13.0000	-49.2639 **	-49.5194 **
5704.9125	-13.0000	-50.4298 **	-49.0402 **
6519.9000	-13.0000	-46.8039 **	-46.3978 **
7334.8875	-13.0000	-45.2371 **	-44.5129 **
8149.8750	-13.0000	-43.2194 **	-41.8995 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	Marginal Results	Failed Results

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

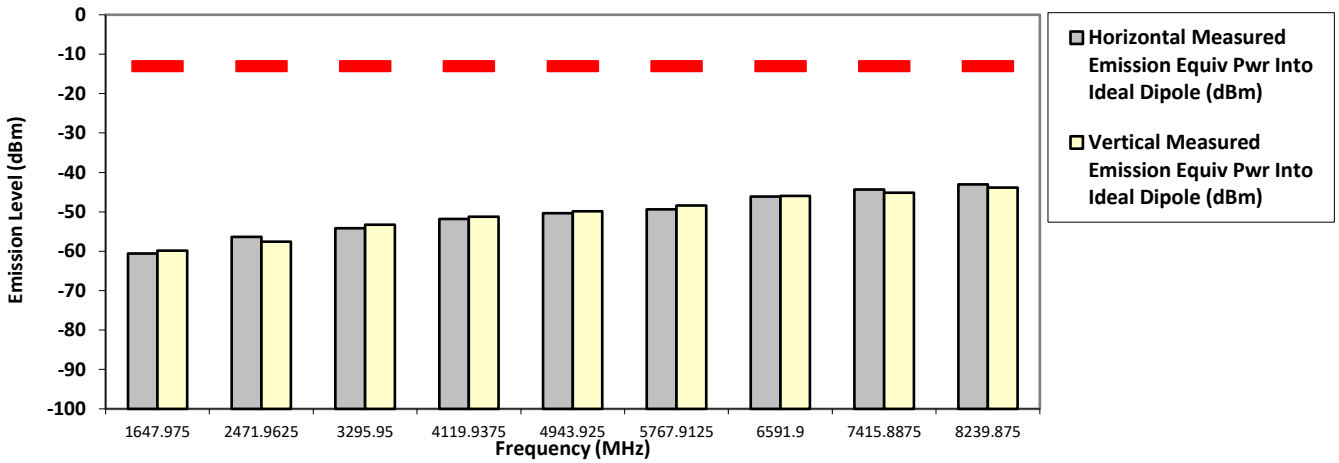
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

823.987500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1647.9750	-13.0000	-60.6207 **	-59.8820 **
2471.9625	-13.0000	-56.3730 **	-57.5576 **
3295.9500	-13.0000	-54.1771 **	-53.2751 **
4119.9375	-13.0000	-51.7885 **	-51.2746 **
4943.9250	-13.0000	-50.3490 **	-49.8862 **
5767.9125	-13.0000	-49.3701 **	-48.3622 **
6591.9000	-13.0000	-46.0919 **	-45.9891 **
7415.8875	-13.0000	-44.3639 **	-45.1901 **
8239.8750	-13.0000	-43.0821 **	-43.8881 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	Marginal Results	Failed Results

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

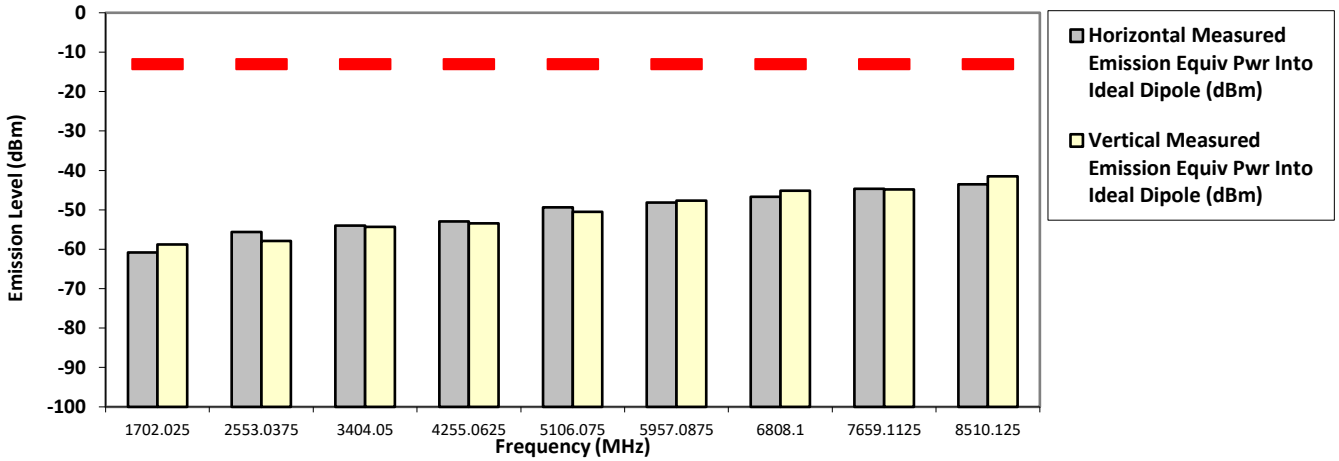
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

851.012500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1702.0250	-13.0000	-60.8268 **	-58.8076 **
2553.0375	-13.0000	-55.6651 **	-57.8754 **
3404.0500	-13.0000	-54.0058 **	-54.3195 **
4255.0625	-13.0000	-52.9208 **	-53.4046 **
5106.0750	-13.0000	-49.3839 **	-50.5265 **
5957.0875	-13.0000	-48.1417 **	-47.6730 **
6808.1000	-13.0000	-46.6932 **	-45.1668 **
7659.1125	-13.0000	-44.6466 **	-44.8213 **
8510.1250	-13.0000	-43.5474 **	-41.5257 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	**Marginal Results**	**Failed Results**

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

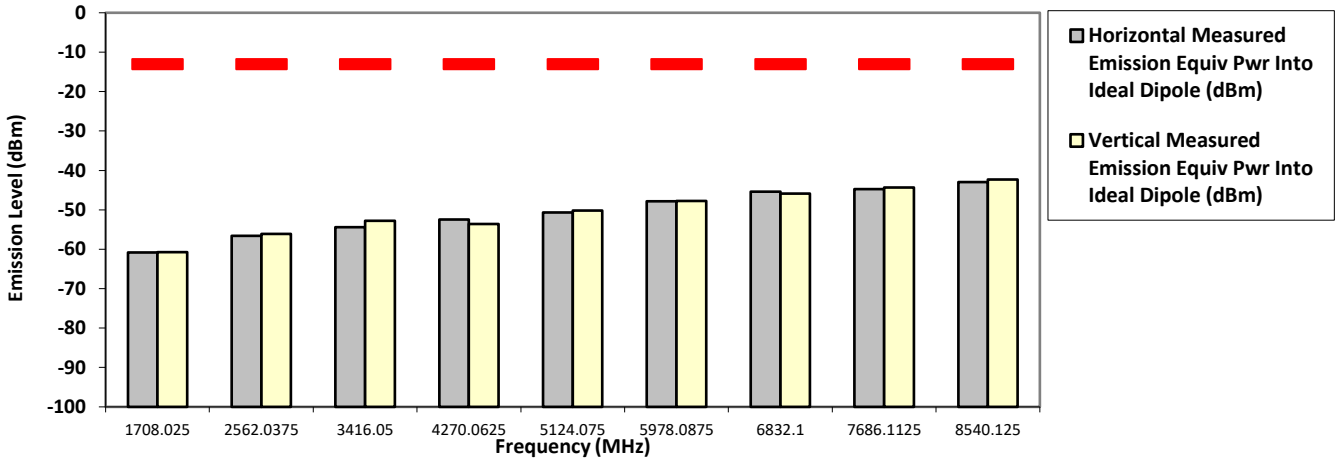
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

854.012500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1708.0250	-13.0000	-60.7933 **	-60.7172 **
2562.0375	-13.0000	-56.5723 **	-56.1373 **
3416.0500	-13.0000	-54.3706 **	-52.8043 **
4270.0625	-13.0000	-52.4997 **	-53.6042 **
5124.0750	-13.0000	-50.6682 **	-50.1596 **
5978.0875	-13.0000	-47.7956 **	-47.7706 **
6832.1000	-13.0000	-45.4180 **	-45.8657 **
7686.1125	-13.0000	-44.7467 **	-44.3458 **
8540.1250	-13.0000	-42.9241 **	-42.3444 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	Marginal Results	Failed Results

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

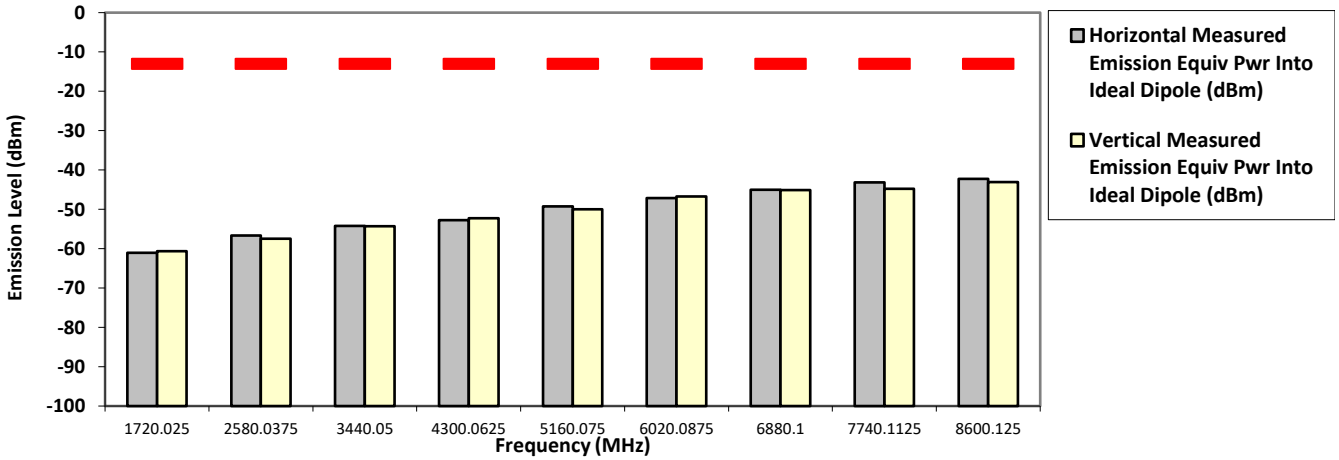
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

860.012500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1720.0250	-13.0000	-61.0746 **	-60.6415 **
2580.0375	-13.0000	-56.6583 **	-57.4744 **
3440.0500	-13.0000	-54.2472 **	-54.3192 **
4300.0625	-13.0000	-52.7439 **	-52.2313 **
5160.0750	-13.0000	-49.2702 **	-49.9499 **
6020.0875	-13.0000	-47.1045 **	-46.7374 **
6880.1000	-13.0000	-45.0323 **	-45.1303 **
7740.1125	-13.0000	-43.1329 **	-44.7972 **
8600.1250	-13.0000	-42.2826 **	-43.0621 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	Marginal Results	Failed Results

SAC Transmitter Radiated Emission:

Model Number: AZH17UCH6TZ5AN **S/N: 123TAT1245** **SR:1152P00-EMC-00002**

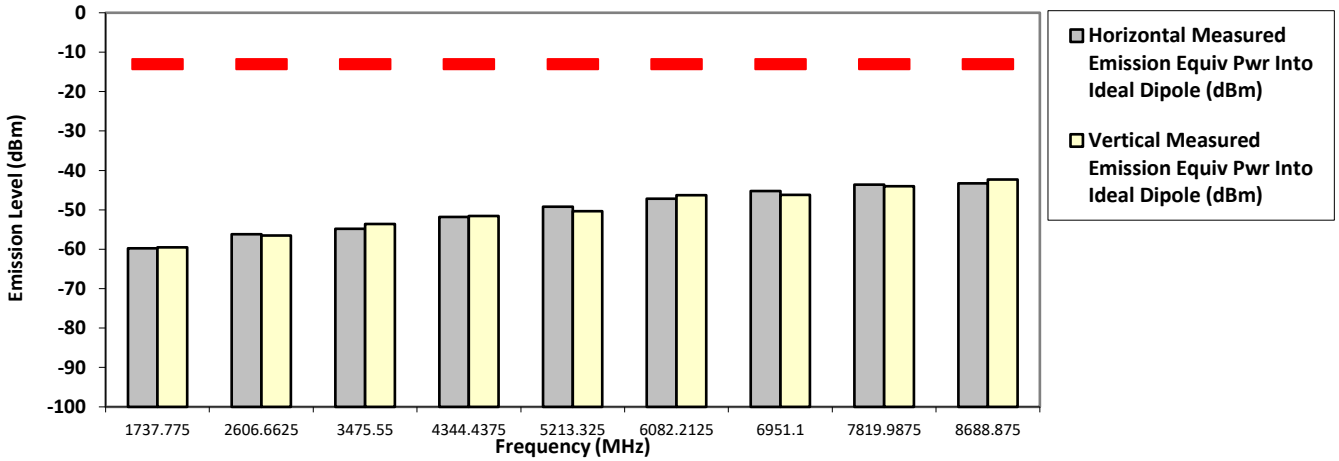
Battery Part No: NNTN8570C **Accy Part No: NA**

Test Mode: TX Digital

868.887500 MHz **25 kHz** **1.550 Watt(s) /Max Power**

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1737.7750	-13.0000	-59.8022 **	-59.5053 **
2606.6625	-13.0000	-56.1964 **	-56.5089 **
3475.5500	-13.0000	-54.8374 **	-53.6246 **
4344.4375	-13.0000	-51.8185 **	-51.6067 **
5213.3250	-13.0000	-49.2039 **	-50.3324 **
6082.2125	-13.0000	-47.1700 **	-46.3109 **
6951.1000	-13.0000	-45.2358 **	-46.1825 **
7819.9875	-13.0000	-43.6508 **	-43.9829 **
8688.8750	-13.0000	-43.3017 **	-42.3456 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Rezza & Fuad **Sun, 13 Oct, 2024**

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported**

Temp(Deg): 23.5 Hum(%RH): 68.7

Remarks:

Passed Results	Marginal Results	Failed Results

6.7.4. Test Limit

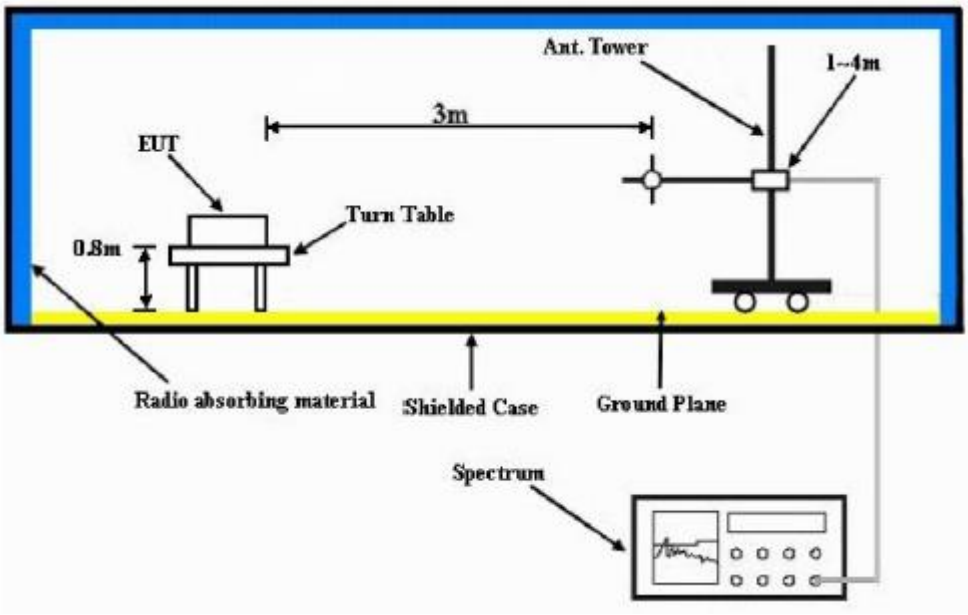
Table below summarized the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least

Channel Spacing	Part 22	Part 24D	Part 74	Part 80	Part 90 (UHF, VHF, 800, 900)	Part 90 (700)
12.5kHz	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	Not Applicable	50 + log10(P) (-20 dBm)	43 + log10(P) (-13 dBm)
25kHz		Not Applicable		43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)

Channel Spacing	RSS 134	RSS 182	RSS 119 (UHF, VHF, 800, 900)	RSS 119 (700)
12.5kHz	43 + log10(P) (-13 dBm)	Not Applicable	50 + log10(P) (-20 dBm)	43 + log10(P) (-13 dBm)
25kHz	Not Applicable	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)	43 + log10(P) (-13 dBm)

6.8. Effective Radiated Power (ERP)

6.8.1. Test Setup



1) The Resolution Bandwidth for Equivalent Radiated Power (ERP) below 1 GHz is 100 kHz with Video Bandwidth = 300 kHz and Resolution Bandwidth for EIRP above 1 GHz is 1 MHz with Video Bandwidth = 3 MHz. Detector Mode is RMS.
2) In the semi-anechoic chamber, setup as illustrated above the DUT placed on the 0.8m height (for Fc < 1GHz) or 1.5m (for Fc > 1GHz) of Turn Table, rotated the table 45 degree each interval to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power for each degree interval. The "Read Value" is the spectrum reading of maximum power value.
3) The substitution antenna is substituted for DUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the Measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.

6.8.2. Test Result

Not Applicable.

6.8.3. Test Limit

The maximum output power of the transmitter for mobile stations is 100 watts (20 dB). Power is given in terms of effective radiated power (ERP).

~ End of Test Report ~