

Agilen	t Spectru	ım Analyze	r - Swept S	5A								
Cen	ter Fr	^{RF} eq 2.49	50Ω A 917500	⊂ 00 GH	z	SE	NSE:INT	Avg Type	ALIGNAUTO : Log-Pwr	06:40:34 P	MDec 16, 2016 E <mark>1 2 3 4 5 6</mark>	Frequency
10 dE	3/div	Ref Offs Ref 20	et 7 dB .00 dBr	PN IFG M	IO: Fast 🖵 ain:Low	Trig: Free #Atten: 30	e Run) dB	Avg Hold:	Mkr1	2.492 2 -51.2	73 GHz 79 dBm	Auto Tune
Log 10.0												Center Freq 2.491750000 GHz
0.00 -10.0											-8.65 dBm	Start Freq 2.483500000 GHz
-20.0 -30.0												Stop Freq 2.500000000 GHz
-40.0 -50.0							∮ ¹					CF Step 1.650000 MHz <u>Auto</u> Man
-60.0	VMnnham (fr	M-Antony He	W. Anny Wat	style="text-form: 10;"	hysard yn frydd yn der	يعارياهم المراسية ال	_~~?#{\#~#^\#\#~	petterstation	ᡊᢧᡨᢞᡑᠰ᠈ᢤ ᢐ ᠿᠹᠬᡐᡐ᠁	yheetheente to have be	ᡃᢧᡃᢉᡵ᠋ᡗᡤ᠋ᢩᢙᡃᢩᡘᡐ ᢌ ᡑᡌᠶᡮᡴ	Freq Offset 0 Hz
-70.0	+ 2 4 9	2500 CL								ton 2 500		
#Re	s BW 1	100 kHz			#VBW	300 kHz			Sweep	1.67 ms (5000 GH2	
MSG									STATUS			







2.8 TM3_3DH5_Ch39

2.8.1 Pref

Agilent	Spectrum Analyzer - Swe	ept SA					
LX/ RL Cent	er Freq 2.44100	AC 00000 GHz	SENSE:	INT Avg Type	ALIGNAUTO	07:10:15 PM Dec 16, 201 TRACE 1 2 3 4 5	Frequency
10 dB	Ref Offset 7.4 /div Ref 20.00 c	PNO: Wide - IFGain:Low I dB IBM	#Atten: 30 dE	in Avg Hold: 3 N	/kr1 2.4	41 167 40 GH 11.928 dBn	Auto Tune
Log -							Center Freq 2.441000000 GHz
0.00 - - -10.0 -							Start Freq 2.440325000 GHz
-20.0 - -30.0 -							Stop Freq 2.441675000 GHz
-40.0 - -50.0 -							CF Step 135.000 kHz <u>Auto</u> Man
-60.0 -							Freq Offset 0 Hz
-70.0 - Cent	er 2.4410000 GHz	2				Span 1.350 MH	z
#Res	BW 100 kHz	#VB	W 300 kHz		#Sweep	1.00 s (1001 pts	
MSG					STATUS		



2.8.2 Puw

Agilent Spectro	um Analyzer - Sv	vept SA									
Center Fr	RF 50 S			SE	NSE:INT	Ava Type	ALIGNAUTO	07:10:36 P TRAC	MDec 16, 2016	F	requency
	cq 73.300	KH2	PNO: Wide 😱 FGain:Low	Trig: Free #Atten: 30	e Run)dB	AvgiHoid:	>100/100	TYF De			
10 dB/div	Ref Offset 7 Ref 20.00	dB dBm						Mkr1 9 -42.6	.99 kHz 09 dBm		Auto Tune
10.0											Center Freq 79.500 kHz
-10.0											Start Freq 9.000 kHz
-20.0									-28.07 dBm		Stop Freq 150.000 kHz
-40.0 1 -50.0	Индари.									<u>Auto</u>	CF Step 14.100 kHz Man
-60.0	and the supply of the second s	hwww.	Kenny Charles	£4/~10~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Whynnu	Amana	አጫዋሚ የታይ	mmmu lu	(h./h		Freq Offset 0 Hz
-70.0									4 T. Maxim. M		
Start 9.00 #Res BW	kHz 1.0 kHz		#VBW	3.0 kHz			Sween	Stop 15	0.00 kHz 1000 pts)		
MSG							STATUS	DC Cou	ipled		



Agilen	t Spectru	ım An	alyzer - Swe	ept SA									
LXI RL	tor Er	RF	50Ω			SE	NSE:INT	Ava Type		07:10:57 P	MDec 16, 2016	F	requency
Cen	ler Fr	eq	15.0750	P P	NO: Fast 😱	Trig: Free	Run	Avg Hold:	59/100	TYF			
				IF	Gain:Low	#Atten: 30) dB			DE			
		Ref	Offset7c	lВ						Mkr1	65 kHz		Auto Tune
10 dE Loa	3/div	Rei	f 20.00 c	lBm						-40.5	ьэ авт		
Ŭ													Center Fred
10.0												1	5 075000 MHz
												_	
0.00													
													Start Fred
-10.0													150.000 kHz
											-18.07 dBm		
-20.0													Stop Fred
												3	0.000000 MHz
-30.0													
													CESton
-40.0	1												2.985000 MHz
50.0	<u> </u>											<u>Auto</u>	Mar
-30.0													
-60.0	L												Freq Offset
	V.	<u>ا ال ا</u>	le cu culture	kan ta ha ara		at local discus	المراجع المراجع والم		ما را را را ر	at Lease means	hida an an		0 Hz
-70.0	חואאוןיייד	u <mark>, 1</mark> 7			an a					a freedom and the state of the	an a		
Star	f 150 k	/4/7								Ston 3			
#Res	S BW 1	10 k	Hz		#VBW	30 kHz			Sweep	285 ms (2000 pts)		
MSG									STATUS	DC Cou	pled		
		_								- 00 000	.p.54		







Agilent	Spectrun	n Analyzer - Sw	ept SA								
LXI RL	or Ero	RF 50 Ω		J-,	SEN	VSE:INT			07:11:39 P	MDec 16, 2016	Frequency
Cent	er Fre	q 2.35000	00000 G	12 NO: Fast 🖵	Trig: Free	Run	Avg Hold:	>100/100	TYF		
			IF	Gain:Low	#Atten: 30	dB			DE		
		Ref Offset 7	dB					Mkr1	2.365 6	13 GHz	Autorune
10 dB Loa -	/div	Ref 20.00 (dBm						-01.70	лавт	
Ĩ											Center Freq
10.0											2.350000000 GHz
0.00											
										-8.07 dBm	Start Freq
-10.0											2.300000000 GHz
-20.0											Stop Freq
											2.400000000 GHz
-30.0 -											
40.0											CE Sten
-40.0											10.000000 MHz
-50.0							1				<u>Auto</u> Man
,	الدروالغ والأوط	a dia amin'ny dia	and the state of the	and the last de	الماجالين أبوأ أذاؤها			والمارد المراجر والمراجر	ويعار الجرير بالجري	بالمالية أفالية المحاصر والمسا	
-60.0		of a state of the									Freq Offset
											0 Hz
-70.0											
	2 2000								Stop 2.4(
#Res	BW 1	00 kHz		#VBW	300 kHz			Sweep	9.66 ms (5000 pts)	
MSG								STATU	s		



Agilent Spectrum Analyzer - Swept SA	A				
RL RF 50 Ω AC Center Freq 2.49175000	DO GHz	AVG Type:	LIGNAUTO 07 Log-Pwr	7:12:01 PMDec 16, 2016 TRACE 1 2 3 4 5 6	Frequency
Ref Offset 7 dB 10 dB/div Ref 20.00 dBm	PNO: Fast Trig: Free IFGain:Low #Atten: 30	Run Avg Hold:> dB	100/100 Mkr1 2.4 -	188 537 GHz 51.440 dBm	Auto Tune
10.0					Center Freq 2.491750000 GHz
-10.0				-8.07 dBm	Start Freq 2.483500000 GHz
-20.0					Stop Freq 2.500000000 GHz
-40.0	1				CF Step 1.650000 MHz <u>Auto</u> Man
-60.0	Valera Artise Contractor and Contents	slohdedsevenskalere	www.unmunydhady	http://www.horenanewhy.co/	Freq Offset 0 Hz
-70.0 Start 2.483500 GHz			Stop	2.500000 GHz	
#Res BW 100 kHz	#VBW 300 kHz		Sweep 1.67	7 ms (5000 pts)	







2.9 TM3_3DH5_Ch78

2.9.1 Pref

Agilent Spe	ectrum Analyzer - Swept SA					
LXI RL	RF 50 Ω AC	SEI	NSE:INT Ava 1		07:31:48 PM Dec 16, 2016	Frequency
Center	Freq 2.48000000	PNO: Wide +++ IFGain:Low #Atten: 30	eRun Avg H)dB	lold: 40/100		
10 dB/div	Ref Offset 7.4 dB Ref 20.00 dBm			Mkr1 2.4	80 170 10 GHz 12.633 dBm	Auto Tune
10.0						Center Freq 2.480000000 GHz
0.00						Start Fred
-10.0						2.479325000 GHz
-20.0						Stop Freq 2.480675000 GHz
-30.0						CE Stop
-40.0						135.000 kHz Auto Man
-50.0						Freg Offset
-70.0						0 Hz
Center : #Res Bi	2.4800000 GHz W 100 kHz	#VBW 300 kHz		#Sweep	Span 1.350 MHz 1.00 s (1001 pts)	
MSG				STATUS		



2.9.2 Puw

Agilen	t Spectr	um Ai	nalyzer - Sv	vept SA									
LXI RI Cen	ter Ei	RI	⊧ 50 Ω 79 500			SE	NSE:INT	Avg Type	ALIGNAUTO : Log-Pwr	07:32:09 P TRAC	MDec 16, 2016	F	requency
CON		σq	10.000	KI 12	PNO: Wide 🖵 IFGain:Low	Trig: Free #Atten: 30	e Run)dB	Avg Hold:	>100/100	TYF De			Auto Tuno
10 dE	3/div	Re Re	f Offset 7 f 20.00	dB dBm						Mkr1 9 -42.4	.14 kHz 09 dBm		Auto Tune
10.0													Center Freq 79.500 kHz
0.00 -10.0													Start Freq 9.000 kHz
-20.0 -30.0											-27.37 dBm		Stop Freq 150.000 kHz
-40.0 -50.0	1 ~~/ _{wb}	โกรงารใ	8 - 1									<u>Auto</u>	CF Step 14.100 kHz Man
-60.0		- 1	* ₩₩₩	nwhwydyy	Mar Marrie	hrwight	Yory Thy or the	ᠬᡅᢥᠧᠵᢦ᠋᠋᠕ᡔᠰᡁᢧᡟ	᠂᠕ᠬᢧᡙᡁ᠓ᡘᠴᢪ	λ_{m}	Law And the second s		Freq Offset 0 Hz
-70.0										04am 45			
star #Res	5 BW	кна 1.0	<u>.</u> kHz		#VBW	3.0 kHz			Sweep	135 ms (1000 kHz 1000 pt <u>s)</u>		
MSG									STATUS	上 DC Cou	pled		



Agilen	t Spectru	m Ana	alyzer - Swe	ept SA									
LXI RI	tor Er	RF	50 Ω			SEI	NSE:INT	Ava Type	ALIGNAUTO	07:32:30 P	MDec 16, 2016	F	requency
Gen		54	15.0750	PI	10: Fast 😱	Trig: Free	Run	Avg Hold:	59/100	TYF			
	_			IFO	Gain:Low	#Atten: 30	dB						Auto Tune
		Ref	Offset 7 d	IB							150 KHZ		ruco runo
10 dE Log	3/div	Ref	20.00 0	IBM						-40.0			
													Center Frea
10.0		_										1	5.075000 MHz
0.00													
													Start Freq
-10.0		+											150.000 KHZ
		_									-17.37 dBm		
-20.0													Stop Freq
30.0												3	0.000000 MHz
-30.0													
-40.0	1												CF Step
	<u>}</u>												2.985000 MHz
-50.0												Auto	Man
	1												
-60.0	\	\rightarrow											Freq Offset
	Witness	Linus	had a like with the ex-	العقابلية والسرطية	ran hahn an da sha sha sha sha sha sha sha sha sha sh	. I. safimalis a suba	ىرىلى بۇرىيا يېلىغان يەرىپار. 1941-يىلى بۇرىيا يېزىرى		adustic de la	a maan waalinda a	a na atat da la tara		0 Hz
-70.0			. Alter a start	a na ana ang ang ang ang ang ang ang ang	an hundred		an an an the state of the state	na na mangangan ng kang kang kang kang kang kan	i in the second		Harada Mohalilanan		
Star	t 150 k	Hz								Stop 3	0.00 MHz		
#Res	s BW 1	0 k	Hz		#VBW	30 kHz			Sweep	285 ms (2000 pts)		
MSG									STATUS	LDC Coι	pled		



Agilent	t Spectru	m Analyzer - Sv	vept SA								
LXI RL	tor Er	RF 50:			SEI	NSE:INT	Ava Type	ALIGNAUTO	07:32:51 P	MDec 16, 2016	Frequency
Cern		eq 1. 1050	P	NO: Fast 🖵	Trig: Free	Run	Avg Hold:	78/100	TYP		
	_		IF	Gain:Low	#Atten: 30	dB					Auto Tune
		Ref Offset 7	dB					IVIKI	1 2.158	11 GHZ	
10 dE Log r	3/div	Ref 20.00	dBm						-01.0	o ubiii	
											Center Freg
10.0											1.165000000 GHz
0.00											
										-7.37 dBm	Start Freq
-10.0											30.000000 MHz
-20.0											Stop Freq
											2.300000000 GHz
-30.0											
-40.0											CF Step
-40.0											227.000000 MHz
-50.0										1	<u>Auto</u> Man
	i Mili casa di como	والمتحديد والمحدية محالة الرار	وماريب الفرايين المأليان ور	And a long led from	the fills been been and the	and a state of the second	uthe order to have be	abilities at the state	n di shahibi a da		
-60.0			and the subset of the set	a said a fear an an tha baile and an	a se a la serie de la serie	المحمد الكالا أحماد مسالي عن الم					Freq Offset
											0 Hz
-70.0											
Stari	20 M								Stop 2	300 CHz	
#Res	SBW 1	00 kHz		#VBW	300 kHz			Sweep	217 ms (8192 pts)	
MSG								STATUS	3		



Agilen	t Spectrun	n Analyzer - Sw	/ept SA								
LXI RL	ter Era	RF 50 Ω		1-	SEI	NSE:INT	Δυσ Τνρο	ALIGNAUTO	07:33:12 P	MDec 16, 2016	Frequency
Cen	ler Fre	q 2.3500	00000 Gr P	12 NO: Fast 😱	Trig: Free	Run	Avg Hold:	>100/100	TYP		
	_		IF	Gain:Low	#Atten: 30	dB			DE		
		Ref Offset 7	dB					Mkr1	2.335 5	27 GHz	Autorune
10 dE	3/div	Ref 20.00	dBm						-01.04	18 aBm	
9											Conter Fred
10.0											2 35000000 GHz
											2.330000000 GH2
0.00											
										-7 37 dBm	Start Freq
-10.0											2.300000000 GHz
-20.0											Oton From
											Stop Freq
-30.0											2.40000000 GH2
-40.0											CF Step
				▲1							Auto Man
-50.0						ala n				Log Ltrack	
	Adversion	united and the second second					en el estat de la compo				Erea Offeet
-60.0											
											0 H2
-70.0											
Star	t 2.300	00 GHz							Stop 2.40	000 GHz	
#Res	s BW 1	00 kHz		#VBW	300 kHz			Sweep	9.66 ms (5000 pts)	
MSG								STATU	s		



Agilen	t Spectru	ım Analyzer -	Swept SA								
LXI RI	ter Er	RF 5	10 Ω AC	GHz	SEI	NSE:INT	Ava Type	ALIGNAUTO	07:33:33 P TRAC	MDec 16, 2016	Frequency
CCI		cq 2.43	130000	PNO: Fast G IFGain:Low	Trig: Free #Atten: 30	e Run) dB	Avg Hold:	>100/100	tyf De		
10 dE	3/div	Ref Offset Ref 20.0	:7 dB 0 dBm					Mkr1	2.483 5 -49.5	53 GHz 36 dBm	Auto Tune
10.0											Center Freq 2.491750000 GHz
0.00 -10.0										-7.37 dBm	Start Freq 2.483500000 GHz
-20.0 -30.0											Stop Freq 2.50000000 GHz
-40.0	1										CF Step 1.650000 MHz <u>Auto</u> Man
-60.0	m hour h	www.m	ren Marin in Inger	whenter	WWwwwwww	vnuhunguntuntul	hanna Marana	nnennahal	Martan Mart	workynwelw	Freq Offset
-70.0											0 HZ
Star	t 2 481	3500 GHz						2	ton 2 500	000 GHz	
#Res	s BW 1	100 kHz		#VBW	300 kHz			Sweep	1.67 m <u>s (</u>	5000 pts)	
MSG								STATUS			







Appendix H: Radiated Emissions in the Restricted Bands



1 Result Table

The whole testing range is from "30 MHz to 26.5 GHz (10th harmonics)" is divided into 4 parts according to the test site settings, which are:

- (Part 1): Test range of "30 MHz to 1 GHz",
- (Part 2): Test range of "18 GHz to 26.5 GHz".
- (Part 3): Test range of "3 GHz to 18 GHz", and
- (Part 4): Test range of "1 GHz to 3 GHz".

In this Appendix, only the test results and plots under the worst case can be reported. In the result table, the "< Limit" denotes that "Not found obvious spikes or see marked spikes on plots and listed emissions records".

Test Range	EUT Conf.	Emissions	Verdict
30 MHz to 1 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
1 GHz to 3 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
3 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass



2 Result Plot

2.1 Test range of "9KHz MHz to 30MHz"

NOTE1: No peak found in the Test Range of "9 kHz to 30MHz"

2.2 Test range of "30 MHz to 1 GHz"

- Note 1: The test results and plot for testing range of "30 MHz to 1 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).

2.2.1 TM1_DH5_Ch0 (Worst Conf.)



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Trans d. (dB)
47.141142	28.32	40.00	11.68	119.0	V	149.0	15.3
64.277429	31.73	40.00	8.27	100.0	V	149.0	11.7
70.479142	30.76	40.00	9.24	100.0	V	220.0	10.5
154.064000	22.72	43.50	20.78	100.0	V	282.0	10.1
282.270000	23.13	46.00	22.87	117.0	Н	64.0	15.0
902.425714	36.44	46.00	9.56	177.0	Н	261.0	25.2

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain) The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level



2.3 Test range of "1 GHz to 3 GHz"

- Note 1: The testing range of "1 GHz to 3 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).
- Note 3: The peak spike exceeds the limit line is EUT's operating frequency.

2.3.1 TM1_DH5_Ch0



MEASUREMENT RESULT: AV Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(cm)		h	(dB)
2390.000000	31.22	54.00	22.78	100.0	V	313.0	-7.6

MEASUREMENT RESULT: PK Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(cm)		h (deg)	(dB)
2390.000000	56.73	74.00	17.27	100.0	V	315.0	-7.6

Note2:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss - preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

2.3.2 TM1_DH5_Ch78



Full Spectrum



MEASUREMENT RESULT: AV Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dB	(dB	(dB)	(cm)		h	(dB)
2483.500000	31.76	54.00	22.24	100.0	V	253.0	-5.4

MEASUREMENT RESULT: PK Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dB	(dB	(dB)	(cm)		h (deg)	(dB)
2483.500000	51.84	74.00	22.16	100.0	V	252.0	-5.4

Note2:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss - preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

2.4 Test range of "3 GHz to 18 GHz"

- Note 1: The test results and plot for testing range of "3 GHz to 18 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of "3 GHz to 18 GHz" is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).

Level in dBµV/m 80 70 60 50 40 30 20 10 0 3G 5G 7 8 Frequency in Hz 9 10G 18G 6

2.4.1 TM1_DH5_Ch0 (Worst Conf.)

2.5 Test range of "18 GHz to 26.5 GHz"

NOTE1: No peak found in the Test Range of "18 GHz to 26.5GHz"



Appendix I: AC Power Line Conducted Emissions



1 Result Table

In this Appendix, only the test results and plots under the worst case can be reported.

EUT Conf.	Maximum Emissions	Verdict
TM1_DH5_Ch39	Not found obvious spikes or see marked spikes on plots and listed	Pass
	emissions records.	



2 Result Plot

2.1 TM1_DH5_Ch39



Channel 39

Frequency (MHz)	Level (dB µ V)	Limit (dB µ V)	Transd. (dB)	Margin (dB)	Line	PE
0.151902	26.94	55.9	9.7	28.96	L1	FLO
0.224757	22.57	52.64	9.7	30.07	L1	FLO
0.326159	33.28	49.55	9.7	16.27	L1	FLO
0.689562	29.94	46	9.7	16.06	L1	FLO
11.219021	36.35	50	10	13.65	Ν	FLO
12.09759	35.77	50	10	14.23	Ν	FLO

MEASUREMENT RESULT: AV Detector

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dB µ V)	Limit (dB µ V)	Transd. (dB)	Margin (dB)	Line	PE
0.15412	43.99	65.78	9.7	21.79	N	FLO
0.245234	42.72	61.92	9.7	19.2	N	FLO
0.329274	40.54	59.47	9.7	18.93	Ν	FLO
0.683306	37.78	56	9.7	18.22	L1	FLO
11.077846	47.94	60	10	12.06	Ν	FLO
11.838109	45.88	60	10	14.12	Ν	FLO

Note2:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss - preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END