

Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.4 Emission outside the fundamental test results at mid carrier frequency

CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK



Spect	rum	Sp	ectrum 3	X	Spectrum 4	X		
Att	ever	20.00 UBH 10 dB	SWT	21.00 dB 500 ms	RBW 100 KH VBW 2 MH	12 12 Mode Swee	'n	
GAT:E>	ст тр	-	-				F	
⊖1Rm C	lrw							
						M1[1]		1.54 dBm
10 dBm								3.6247010 GHz
TO ODIII					M1	M2[1]		-34.89 dBm
0 dam-			_					3.6200000 GHz
o dom								
-10 dBm	-							
	·							
-20 dBr								
	·							
-30 dBm	-						-	
	·		<b>1</b>					
-40 dBm	n——							
m	m	mos						many many many many many many many many
-50 dBm	n							
-60 dBm	n							
-70 dBm	n-+-				+			
CE 3.6	25 GE	7			401 m	ts		Snan 20.0 MHz
Marker					101 p			
Type	Ref	Trc	X-value		Y-value	Eunction	Eun	ction Result
M1		1	3.62470	01 GHz	1.54 dBm		, i un	
M2		1	3.6	52 GHz	-34.89 dBm			
M3		1	3.6	53 GHz	-34.29 dBm			

### 10 MHz 2 Modulation: 256QAM

M2 M3







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.5 Emission outside the fundamental test results at high carrier frequency

CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK





Spectru	m	Spectrum 3	X SI	pectrum 4	X		
Ref Lev Att	el 20.00 1	dBm Offset 0 dB e SWT	21.00 dB 👄 500 ms 👄	VBW 2 MHz	Mode Sweep		
GAT:EXT	TDF						
⊖1Rm Clrw	/						
					M1[1]		1.39 dBm
10 d0m							3.6922570 GHz
TO OBIII-			M1		M2[1]		-35.30 dBm
0.40m							3.6900000 GHz
U UBIII							
-10 dBm-							
10 00111							
-20 dBm-							
20 0011		-   /				$-1\lambda$	
-30 dBm-							
00 00111		- M¥				N 19	
-40 dBm-							
	1	m				- V-	man
-50 dBm-	men and						- mannen ma
-60 dBm-							
-70 dBm-		_					
05.0.605	0112			401 mtm			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
01 0.090	0112			401 pts			3pail 20.0 MHz
Tuno	of I Teo I	V uslue	1	V usluo I	Function	Euro	ation Docult
M1	.er 1FC	3 60224	7 GHz	1 30 dBm	Function	Fun	ction Result
M2	1	3.6	9 GHz	-35.30 dBm			
M3	1	3	7 GHz	-35.63 dBm			

10 MHz







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vordiot	DASS
Date(s):	15-Feb-22	veruict.	PASS
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.6 Emission outside the fundamental test results at high carrier frequency







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

# Plot 7.4.7 Emission outside the fundamental test results at low carrier frequency







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.8 Emission outside the fundamental test results at low carrier frequency



20 MHz 2 **Modulation: 256QAM** 

-60 dBm -70 dBm

CF 3.56 GHz

 Marker

 Type
 Ref
 Trc

 M1
 1

 M2
 1

 M3
 1

X-value 3.5613 GHz 3.55 GHz 3.57 GHz



40:

-33.98 dBm -32.62 dBm

Z 3.64 dBm

Span 40.0 MHz

Function Result



Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.9 Emission outside the fundamental test results at mid carrier frequency







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.10 Emission outside the fundamental test results at mid carrier frequency







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	veraici.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.11 Emission outside the fundamental test results at high carrier frequency







Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.12 Emission outside the fundamental test results at high carrier frequency







Test specification:	Section 96.41(e), Emission mask		
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.13 Emission outside the fundamental test results at low carrier frequency

#### CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK



Spect	rum	5	pectrum 3	×	Spectrum 4	×			
Ref Le Att GAT:E)	evel 2	0.00 dB 15 d F	m Offset 2 B e SWT	1.00 dB 500 ms	<ul> <li>RBW 500 k</li> <li>VBW 2 M</li> </ul>	Hz Hz Mode	Sweep		1
● 1Rm 0	Sirw								
10 dBm	-					M1 N	11[1] 12[1]_~		7.57 dBm 3.571000 GHz -26.86 dBm 3.550000 GHz
0 dBm-	-		+				1		
-10 dBr	n-								
-20 dBr	n+		M2						
-30 dBr	n+		1					- M3	
-40 dBr	n -		~~~						
-50 dBr	-							_	
-60 dBr	n+		_					_	
-70 dBr	n+								
CF 3.5	7 GHz				401	pts			Span 80.0 MHz
Marker									
Туре	Ref	Trc	X-value		Y-value	Fund	tion	Fun	ction Result
M1		1	3.5	CH2	7.57 dB	m			
M3		1	3.:	59 GHz	-20.86 UB -28.90 dB	m			

# 40 MHz







Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.14 Emission outside the fundamental test results at low carrier frequency

#### CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK



Spect	rum	Ĩ	Spectrum 3	×	Spectrum 4	×					
Ref Le Att GAT:E>	Vel 2	0.00 d 15 F	IBm Offset dB 🖷 SWT	21.00 dB 500 ms	<ul> <li>RBW 500 kH;</li> <li>VBW 2 MH;</li> </ul>	Mode	Sweep				
⊖1Rm C	lrw										
10 dBm				M1		M1	[1] [1] _			3	7.30 dBm .558430 GHz -25.99 dBm
										3	.550000 GHz
0 dBm-											
-10 dBn	∩+									-	-
-20 dBn	-		M2					N	3		
-30 dBn	n+								<u> </u>		
-40 dBn	a										
-60 dBn											
00 000	"										
-70 dBn	n										
CF 3.5	7 GHz	:		1	401 p	ts				Spa	n 80.0 MHz
Marker											
Туре	Ref	Trc	X-valu	e	Y-value	Functi	on		Fun	ction Resu	lt
M1		1	3.558	43 GHz	7.30 dBm						
M2		1	3	55 GHz	-25.99 dBm						
M3		1	3	59 GHz	-27.17 dBm						

#### 40 MHz 2 Modulation: 256QAM



Spect	rum	S	pectrum 3	X	Spectrum 4	×				
Ref Le	vel 2	0.00 dBr	n Offset 2	1.00 dB	RBW 500 kH	łz				
Att		15 d	B 👄 SWT	500 ms	VBW 2 MH	Iz Mode	Sweep			
GAT:EX	T TDP	F								
⊖1Rm C	lrw									
						MI	[1]			7.28 dBm
10.10-				M1					3.5	56030 GHz
TO GRU-						M2	[1]		-	26.70 dBm
			1 (						3.5	50000 GHz
0 dBm-										
-10 dBm	+									
-20 dBm	1-1-1							N2		
			MILE I					`¥		
-30 dBm	<u>+</u>							+ ~		~
			1							
-40 dBp	$\leftarrow$		-					_		
50 dBm			_							
-60 dBm	-								-	
-70 dBm	<u> </u>									
10 000	·									
CF 3.5	7 GHz	:			401	pts			Span	80.0 MHz
Marker										
Туре	Ref	Trc	X-value		Y-value	Funct	ion	Fun	iction Result	
M1		1	3.556	3 GHz	7.28 dBr	m				
M2		1	3.	55 GHz	-26.70 dBr	m				
M3		1	3.	59 GHz	-26.38 dBr	m				



Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.15 Emission outside the fundamental test results at mid carrier frequency

CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK



Spect	rum		Spectrum 3	×	Spectrum 4	×				
Ref Le	vel 2	20.00 d	Bm Offset 3	21.00 dB	👄 RBW 500 k	Hz				
Att		15	dB 👄 SWT	500 ms	VBW 2 M	Hz Mode	Sweep			
GAT:EX	(T TD	F								
⊖1Rm C	lrw									
						M	1[1]			7.67 dBm
10 dBm				M1					3.6	13430 GHz
10 0.0111						M	2[1]		-	24.93 dBm
0 dame									3.6	05000 GHz
o abiii										
-10 dBm										
-10 000	' I.									
-20 day										
20 0.0.1	° 1.		MP							
-30 dBm								Ma		
50 0.5.1	' I.									
-40 dBm			~					~		
-40 0.011	' I.									
50 d9m										
-50 000	' I.									
nah 0a-	-									
00 000	`									
-70 dBm	-									
10 0.01	°									
CF 3.6	25 GI	lz			401	pts			Span	80.0 MHz
Marker										
Туре	Ref	Trc	X-value	)	Y-value	Func	tion	Fun	ction Result	
M1		1	3.613	43 GHz	7.67 dE	m				
M2		1	3.6	US GHZ	-24.93 dE	m				
M3		1	3.6	45 GHZ	-29.33 dE	m				

40 MHz



Spect	rum	Sp	ectrum 3	X	Spectrum 4	×					
Ref Le Att GAT:E>	<b>vel</b> 2	0.00 dBm 15 dB F	Offset 2 SWT	1.00 dB 500 ms	<ul> <li>RBW 500 ki</li> <li>VBW 2 Mi</li> </ul>	HZ HZ <b>Mode</b>	Sweep				
●1Rm C	lrw										
10 dBm	+				M1	M	1[1] 2[1]			3.0	7.77 dBm 522610 GHz -25.31 dBm 505000 GHz
U dBm-											
-10 dBn	n-+-										
-20 dBn	-		MP					N	3		
-30 dBn	-								t		
-40 dBn		~									
-50 dBn	-							_			
-60 dBn	∩——										
-70 dBn	+							-			
CF 3.6	25 G⊢	lz			401	pts				Spar	80.0 MHz
Marker											
Type	Ref	Trc	X-value	1	Y-value	Func	tion		Fund	tion Resul	t [
M1		1	3.6226	51 GHz	7.77 dB	m					
M2		1	3.60	05 GHz	-25.31 dB	m					
M3		1	3.64	15 GHz	-27.38 dB	m					



Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

# Plot 7.4.16 Emission outside the fundamental test results at mid carrier frequency



Spect	rum		Spectrum 3	Spectrum 4	X		
Ref Lev Att GAT:EX	<b>vel</b> 2	0.00 d 15	Bm Offset 21.0 dB <b>e SWT</b> 50	10 dB <b>e RBW</b> 500 k 0 ms <b>e VBW</b> 2 M	Hz Hz <b>Mode</b> Sweep	0	
• 1Rm Cl	Irw			M1	M1[1]		7.64 dBm 3.613430 GHz -25.35 dBm 3.605000 GHz
-10 dBm	-						
-20 dBm	+		MP			MB	
-30 dBm						Ľ	
-50 dBm	-						
-60 dBm	+						
-70 dBm	+						
CF 3.62	25 GH	z		401	pts		Span 80.0 MHz
Marker	- /			1	1		
Type	Ref	Irc	X-value	Y-value	Function	Func	tion Result
M2		1	3.01343 0	am2 7.04 08	m		
M2		1	3.005 0	-20.50 dB	m		
M3		1	3.645 (	amz   -29.58 0B	m		





Spectru	um	Sp	ectrum 3	×	Spectr	um 4	×					
Ref Lev Att GAT:EXT	el 20. TDF	00 dBm 15 dB	Offset 2 SWT	1.00 dB 500 ms	● RBW ● VBW	500 kHz 2 MHz	Mode	Sweep				
● 1Rm Cirr 10 dBm—	-					M1	M	1[1] 2[1]			3.1	7.63 dBm 522610 GHz -25.81 dBm 505000 GHz
0 dBm												
-20 dBm-			M2						h	3		
_40 dBm-									_	L		
-50 dBm-						_						
-70 dBm-	-											
CF 3.62	5 GHz					401 pt	s				Spar	1 80.0 MHz
Marker Type I M1 M2	Ref	1 1	X-value 3.6221 3.61	51 GHz 35 GHz	<b>Y-v</b> 7 -25	3lue .63 dBm .81 dBm	Func	tion		Fun	tion Resul	t



Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.17 Emission outside the fundamental test results at high carrier frequency

#### CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK

Spect	rum		Spectrum 3 🛛 🙁	Spectrum 4	×			
Ref Le	vel 2	20.00 de	m Offset 21.00 de	B BRBW 1 MHz				( =
Att		15	dB 😑 SWT 🛛 500 m:	5 👄 VBW 10 MHz	Mode Sweep			
GAT:E	KT TD	F						
∋1Rm (	lrw							
					M5[1]			-40.17 dBn
10 dBm	-						3.71	COUDU GH
					WILLI	1	0.60	-51.84 UBH
0 dBm-						1	1 0.00	1
10 dBr								
-10 UBI	"							
-20 dBr	n —							L
					- 11			1
-30 dBr	n-+-				- MB	Ma		
					M2	1 1	M5	1
-40 dBr	n		and the second se		and the second s		1	
-50 dBr	0	11	and the second sec				N	
-								1
-60 dBr	n-+-						_	
								1
-70 dBr	n-+-						-	
CF 3.6	3 GHz	z		4001 pt	s		Span :	260.0 MHz
4arker								
Туре	Ref	Trc	X-value	Y-value	Function	Fu	nction Result	t
M1		1	3.53 GHz	-51.84 dBm				
M2		1	3.65 GHz	-39.72 dBm				
MЗ		1	3.659 GHz	-33.40 dBm				
M4		1	3.701 GHz	-36.41 dBm				
MS		1	3.71 GHz	-40.17 dBm				
MР		1	3.72 GHZ	-50.31 dBm				

Spectr	um		Spectrum 3	×	Spectrum 4	×				
Ref Lev	<b>/el</b> 21	0.00 d	Bm Offset 2	1.00 dB	🖷 RBW 500 k	Hz				
Att		15	dB 👄 SWT	500 ms	VBW 2 M	Hz Mode	Sweep			
GAT:EX										
UTKIII CI						M	1[1]			6.08 dBm
10 dBm-	+			•11		M	2[1]		3.6	64640 GHz 28.13 dBm
0 dBm—	-								3.6	60000 GHz
-10 dBm	+									
-20 dBm	+				_					
-30 dBm	+		M¥					M3		
-40 dBm	+		-							
-50 dBm	_		_					_	~	<u> </u>
-60 dBm	+				_			_		
-70 dBm	+							_		
CF 3.68	CF 3.68 GHz 401 pts Span 80.0 MHz									
Marker										
Туре	Ref	Trc	X-value		Y-value	Func	tion	Fun	ction Result	
M1		1	3.6646	i4 GHz	6.08 dB	m				
M2 M3	-	1	3.6	7 GHZ	-28.13 dB	m				
		*		and a	4.0.01 06					

# 40 MHz







-39.35 dB 3.7100000 GF -51.58 dB 3.5300000 GF

Spar

Test specification:	Section 96.41(e), Emission	mask	
Test procedure:	Section 96.41(e)(3)		
Test mode:	Compliance	Vardiate	DASS
Date(s):	15-Feb-22	verdict.	FA33
Temperature: 24.2 °C	Relative Humidity: 49 %	Air Pressure: 1010 hPa	Power: 48 VAC
Remarks:			

### Plot 7.4.18 Emission outside the fundamental test results at high carrier frequency

40 MHz 2

Modulation: 256QAM

-60 dBm-

-70 dBm·

CF 3.63 GF

CHANNEL SPACING: ANTENNA CHAIN: Modulation: QPSK



Spectrun	n Sp	ectrum 3	XS	pectri	um 4	×		
Ref Level Att GAT:EXT T	20.00 dBm 15 dB DF	Offset e SWT	21.00 dB 👄 500 ms 👄	RBW VBW	1 MHz 10 MHz	Mode	Sweep	
●1Rm Clrw								
						м	5[1]	
10 dBm						м	1(1)	
0 dBm								
-10 dBm								-
-20 dBm								-
-30 dBm							4	
-40 dBm						M2	/	

Type	Ref	Trc	X-value	Y-value	Function	F	unction Result
M1		1	3.53 G	GHz -51.58 dBr	n		
M2		1	3.65 G	GHz -38.44 dBr	n		
MЗ		1	3.659 G	GHz -33.40 dBr	n		
M4		1	3.701 G	GHz -33.23 dBr	n		
M5		1	3.71 G	GHz -39.35 dBr	n		
M6		1	3.72 G	GHz -50.13 dBr	n		
Spect	rum		Spectrum 3	Spectrum 4	<b>(X)</b>		
Spects Ref Les Att GAT:EX	rum vel 2	0.00 c	Spectrum 3 1 Bm Offset 21.00 dB <b>e SWT</b> 500	Spectrum 4     o dB • RBW 500 kH     0 ms • VBW 2 MH	z Mode Sweep		(III)
Spects Ref Le <sup>*</sup> Att GAT: EX	rum vel 2 T TDF Irw	0.00 c 15	Spectrum 3 1 IBm Offset 21.00 dB <b>e SWT</b> 500	Spectrum 4     O dB      RBW 500 kH 0 ms      VBW 2 MH	tz Hz Mode Sweep		
Spects Ref Le Att GAT:EX 1Rm C	rum vel 2 T TDF Irw	0.00 d 15	Spectrum 3 1 IBm Offset 21.00 dB <b>swt</b> 500	Spectrum 4     O dB      RBW 500 kH 0 ms      VBW 2 MH	IZ IZ Mode Sweep M1[1]		6.87 dBr
Specti Ref Le Att GAT:EX 1Rm C	rum vel 2 T TDF Irw	0.00 d 15	Spectrum 3 1 IBm Offset 21.00 dB SWT 500	Spectrum 4           0 db • RBW 500 kr           0 ms • VBW 2 Mr	X Iz Mode Sweep M1[1]		6.87 dBr 3.678800 GH
Specta Ref Le Att GAT:EX IRm C	rum vel 2 T TDF Irw	0.00 c	Spectrum 3 1 IBm Offset 21.00 dB • SWT 500	Spectrum 4     ods e RBW 500 kr 0 ms e VBW 2 Mr	2 12 12 12 12 12 12 12 12 12 1		6.87 dBr 3.678800 GH - 27.99 dBr
Specti Ref Le Att GAT:EX IRm C	rum vel 2 T TDF Irw	0.00 c	Spectrum 3 1 Bm Offset 21.00 dB SWT 500	Spectrum 4     o db          RBW 500 k         0 ms         VBW 2 M	X 12 Mode Sweep M1[1] M2[1]		6.87 dBr 3.678800 GH -27.99 dBr 3.666000 GH
Specto Ref Ler Att GAT:EX IRm C 10 dBm-	rum vel 2 T TDF Irw	1.00 c 15	Spectrum 3 1 IBm Offset 21.00 dB SWT 500	Spectrum 4     o db          RBW 500 kr 0 ms          VBW 2 Mr         M1         M1	Mode Sweep     M1[1]     M2[1]		6.87 dBr 3.678800 dH -27.99 dBr 3.660000 GH
Spects Ref Ler Att GAT:EX IRm C 10 dBm-	rum vel 2 T TDF Irw	0.00 c	Spectrum 3 1 Bm Offset 21.00 dB SWT SOC	Spectrum 4     o db • RBW 500 kH 0 ms • VBW 2 MH     M1     M1	X3     K     K     Mode Sweep     M1[1]     M2[1]		6.87 dBr 3.678800 GH -27.99 dBr 3.66000 GH

Spect	rum		Spectrum 3	×	Spectrum 4	X			
Ref Le	vel 2	20.00 di	Bm Offset 2	21.00 dB	RBW 500 kH	2	C		
GAT:E>	кт тр	F 15	ub 🖶 awr	500 IIIS	- • BW 2 MH	a moue	Sweet	,	
●1Rm C	lrw								
						M	1[1]		6.80 dBm
10 dBm	_					1	0[1]		3.680600 GHz
						11	2[1]		-27.45 UBm 3.660000 GHz
0 dBm-	-						-		
-10 dBn	n —								
20 dBo									
-20 UBI	"		M2					Ma	
-30 dBn	n+		1						
-40.dBn	a							_ ~	
-50 dBn	n —								
-60 dBo									
00 00/	"								
-70 dBn	n —		_						
CF 3.6	8 GHz	,		I	401 г	ts			Span 80.0 MHz
Marker									
Туре	Ref	Trc	X-value	.	Y-value	Func	tion	Fur	iction Result
M1		1	3.68	06 GHz	6.80 dBn	1			
M2		1	3.	66 GHz	-27.45 dBn				
M3		1	3	.7 GHZ	-29.00 dBh				]

Spectrum		spectrum 3 Q	Spectrum 4	Č.		Δ
Ref Level 3	20.00 dE	m Offset 21.00	dB 👄 RBW 500 kHz			
Att	r 15 i	38 <b>e swi</b> 500	ms 👄 VBW 2 MHz	Mode Sweep	)	
GATEAT TU	۲					
UTULI CITW				M1[1]		6.87 dBm
						3.678800 GHz
10 dBm			M.I.	M2[1]		-27.99 dBm
						3.660000 GHz
0 dBm						
10 40 m						
-10 0800						
-20 dBm						
20 0011		MP			Ma	
-30 dBm					· · · · · · · · · · · · · · · · · · ·	
-40 dBm						
-50 dBm						
-60 dBm						
-70 dBm						
CF 3.68 GH	z		401 p	ts		Span 80.0 MHz
Marker						
Type Ref	Trc	X-value	Y-value	Function	Func	tion Result
M1	1	3.6788 GH	z 6.87 dBm			
M2	1	3.66 GH	z -27.99 dBm			
[ IV13	1	3.7 GH	z   -28.07 dBm	1	1	



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vordiot	DASS		
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					

# 7.5 Radiated spurious emission measurements

### 7.5.1 General

This test was performed to measure radiated spurious emissions from the EUT. Specification test limits are given in Table 7.5.1.

Table 7.5.1	Radiated	spurious	emission	test limits
	naulucu	Spurious	01111331011	COL IIIIIIO

Frequency, MHz	EIRP of spurious, dBm	Equivalent field strength limit @ 3m, dB(µV/m)***
0.09 - below 3530.0	-40.0	55.2
3720.0 – 10th harmonic*	-40.0	55.2

\*\*\* - Equivalent field strength limit was calculated from maximum allowed ERP of spurious as follows: E=sqrt(30xPx1.64)/r, where P is ERP in Watts, 1.64 is numeric gain of ideal dipole and r is antenna to EUT distance in meters

### 7.5.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

- 7.5.2.1 The EUT was set up as shown in Figure 7.5.1, energized and the performance check was conducted.
- **7.5.2.2** The specified frequency range was investigated with antenna connected to spectrum analyzer. To find maximum radiation the turntable was rotated 360<sup>o</sup> and the measuring antenna was rotated around its vertical axis.
- 7.5.2.3 The worst test results (the lowest margins) were recorded in Table 7.5.2 and shown in the associated plots.

#### 7.5.3 Test procedure for spurious emission field strength measurements above 30 MHz

- **7.5.3.1** The EUT was set up as shown in Figure 7.5.2, energized and the performance check was conducted.
- **7.5.3.2** The specified frequency range was investigated with antenna connected to spectrum analyzer. To find maximum radiation the turntable was rotated 360<sup>o</sup> and the measuring antenna height was swept from 1 to 4 m in both, vertical and horizontal, polarizations.
- 7.5.3.3 The worst test results (the lowest margins) were recorded in Table 7.5.2 and shown in the associated plots.



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vordiot	DAGG		
Date(s):	17-Feb-22	verdict:	PA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					

Figure 7.5.1 Setup for spurious emission field strength measurements in 9 kHz to 30 MHz band









Test specification:	Section 96.41(e)(2), Radiate	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)					
Test mode:	Compliance	Vordiot	DASS			
Date(s):	17-Feb-22	verdict:	PA33			
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC			
Remarks:						

# Table 7.5.2 Spurious emission field strength test results

ASSIGNED TEST DISTA TEST SITE: INVESTIGA DETECTOR VIDEO BAN TEST ANTE MODULATIO OCCUPIED TRANSMITT	FREQUENCY RA ANCE: TED FREQUENC USED: DWIDTH: NNA TYPE: DN: BANDWIDTH FER OUTPUT PO	NGE: Y RANGE: WER SETT	INGS:		3550 - 3700 3 m Semi anecho 0.009 – 1000 Peak > Resolution Active loop ( Biconilog (30 256 QAM 40 MHz (Out Maximum	MHz bic chamber ) MHz bandwidth 9 kHz – 30 M ) MHz – 1000 put power an	Hz) MHz) d PSD Worst case)	
Frequency,	Field strength,	Limit,	Margin,	RBW,	Antenna	Antenna	Turn-table	Verdict
MHz	dB(µV/m)	dB(μV/m)	dB*	kHz	polarization	height, cm	position**, degrees	Voraiot
Low carrier fre	equency 3570 MHz							
		No em	issions four	d 10 dB	under the limit			Pass
Mid carrier frequency 3625 MHz								
No emissions found 10 dB under the limit						Pass		
High carrier fr	equency 3680 MHz	1						
		No em	issions four	d 10 dB	under the limit			Pass

\*- Margin = Field strength of spurious – calculated field strength limit. \*\*- EUT front panel refers to 0 degrees position of turntable.



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vordiot	DASS		
Date(s):	17-Feb-22	veraici.	PASS		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					

### Table 7.5.3 Field strength of spurious emissions above 1 GHz within restricted bands

ASSIGNED FREQUENCY RANGE:3550 -TEST DISTANCE:3 mTEST SITE:Semi aINVESTIGATED FREQUENCY RANGE:0.009 -DETECTOR USED:PEAKVIDEO BANDWIDTH:> ResoTEST ANTENNA TYPE:DoubleMODULATION:256 Q.OCCUPIED BANDWIDTH40 MHTRANSMITTER OUTPUT POWER SETTINGS:Maxim				3550 - 3 3 m Semi and 0.009 - 3 PEAK / A > Resolu Double r 256 QAM 40 MHz ( Maximur	700 MHz echoic cha 37000 MH AVERAGE Ition band <sup>i</sup> idged guic <i>I</i> (Output po n	amber z width le (above 100 ower and PSI	00 MHz) D Worst cas	se)		
Frequency, MHz	Measured emission, dB(μV/m)	Peak Limit, dB(μV/m)	Margin, dB*	Measured emission, dB(μV/m)	Áverage Limit, dB(μV/m)	Margin, dB*	Antenna polarizatio n	Antenna height, m	Turn-table position**, degrees	Verdict
Low carrier fre	quency 3570 l	MHz								
1374.56	40.66	75.20	-34.54	40.66	55.20	-14.54	Horizontal	150	138	
Mid carrier frequency 3625 MHz							Page			
1374.56	40.15	75.20	-35.05	40.15	55.20	-15.05	Horizontal	150	70	r ass
High carrier fre	equency 3680	MHz				-				
1374.56	40.78	75.20	-34.42	40.78	55.20	-14.42	Horizontal	150	18	

\*- Margin = Field strength of spurious – calculated field strength limit.

\*\*- EUT front panel refers to 0 degrees position of turntable.

### Reference numbers of test equipment used

	HL 3903	HL 4360	HL 4933	HL 4956	HL 5112	HL 5288	HL 5908	
_								

Full description is given in Appendix A.



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vardiat: DASS			
Date(s):	17-Feb-22	verdict:	PA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					





Plot 7.5.2 Radiated emission measurements in 9 kHz - 30 MHz range





Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vardiate	DASS		
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					







Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance				
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					











Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance				
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					





Plot 7.5.7 Radiated emission measurements in 1000 - 18000 MHz range



Note: 3564.1 MHz is low fundamental frequency



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance				
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					





Note: 3633.8 MHz is mid fundamental frequency



Plot 7.5.9 Radiated emission measurements in 1000 - 18000 MHz range

Note: 3673.5 MHz is high fundamental frequency



Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance				
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					

# Plot 7.5.10 Radiated emission measurements in 18000 –37000 MHz range



#### Plot 7.5.11 Radiated emission measurements in 18000 – 37000 MHz range

TEST SITE: CARRIER FREQUENCY: ANTENNA POLARIZATION: TEST DISTANCE: Semi anechoic chamber Mid Vertical and Horizontal 3 m





Test specification:	Section 96.41(e)(2), Radiated spurious emissions				
Test procedure:	Section 96.41(e)(3)				
Test mode:	Compliance	Vordict	DAGG		
Date(s):	17-Feb-22	verdict.	FA33		
Temperature: 24 °C	Relative Humidity: 52 %	Air Pressure: 1011 hPa	Power: 48 VAC		
Remarks:					

# Plot 7.5.12 Radiated emission measurements in 18000 –37000 MHz range

TEST SITE: CARRIER FREQUENCY: ANTENNA POLARIZATION: TEST DISTANCE: Semi anechoic chamber High Vertical and Horizontal 3 m

