

Band	n261	Beam ID	11 + 139
Frequency Range	28.360GHz-40GHz	Channel	High
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			Marker •
KEYSIGHT Input: RF Input Z: Coupling: DC Correcti Align: Auto Freq Re	50 Ω #Atten: 20 dB PNO: Fast ions: Off μW Path: Standard Gate: Off ef. Int (S) Source: Off IF Gain: Low	#Avg Type: Power (RMS 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1
D07 PASS NFE: Addition 1 Spectrum V	daptive Sig Track: Off	Mkr1 29.121 0 GHz	Marker Frequency 29.120965000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-28.56 dBm	Peak Search Search
			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker
-40.0		adia dan ana ang madala ang mana kina data kanata kina data kanata ang ma	Minimum Peak Marker→
			Pk-Pk Search
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 28.360 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 40.000 GHz Sweep ~22.9 ms (24001 pts)	Continuous Peak Search On



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Band	n261	Beam ID	11 + 139
Frequency Range	28.360GHz-40GHz	Channel	High
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			Marker v 🔆
KEYSIGHT Input: RF Input: Coupling: DC Align: Auto	Z: 50 Ω #Atten: 20 dB PNO: Fast ctions: Off µW Path: Standard Gate: Off Ref: Int (S) Source: Off IF Gain: Low	#Avg Type: Power (RMS 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 ▼
Diff PASS NFE: 1 Spectrum v		Mkr1 28.364 4 GHz	Marker Frequency 28.364365000 GHz
	Ref Level 0.00 dBm	-29.44 dBiii	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0 (Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 28.360 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 40.000 GHz Sweep ~22.9 ms (24001 pts)	Continuous Peak Search On Off
	03, 2020 2:48 PM		



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-29.44	-28.56	-25.97	-13	-12.97	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



40GHz-50GHz (n261):

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Low
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			Marker 🔻 🔆
KEYSIGHT Input: RF Input: 2 RL Coupling: DC Correct Align: Off Freq F Freq F	: 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off ef: Int (S) Source: Off IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
1 Spectrum		Mkr1 47.748 5 GHz	Marker Frequency 47.748500000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.21 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	uku saaddadayyaan saa ay maa ugunaa adaa adaa aa ay aa uu		Next Pk Left Marker Function
			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz* 3, 2020	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off



Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Low
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			🗱 Marker 🔻 💥
KEYSIGHT Input: RF Input: R R L Coupling: DC Correct Align: Off Freq F	Z: 50 Ω #Atten: 20 dB PNO: Fast :tions: On μW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low Autorition Standard Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg[Hold:>100/100 M WWWWWW Trig: Free Run A N.N.N.N.N.	Select Marker Marker 1
1 Spectrum		Mkr1 48.885 0 GHz	Marker Frequency 48.885000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.35 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
	and the second		Next Pk Left Marker Function
-50.0	n a film and a state of the		Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search Off
	13, 2020 💬 🛆		



	1		r
Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Middle
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			Marker v
KEYSIGHT Input: RF Input: ZF RL Coupling: DC Correct Align: Off Freq F NEF: NEF:	2:50 Ω #Atten: 20 dB PNO: Fast tions: On µW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low Ardantive	Avg Type: Power (RMS) 12 3 4 Avg Hold:>100/100 Trig: Free Run A N N N	5 6 Select Marker
1 Spectrum V		Mkr1 47.714 0 G	Marker Frequency Settings 47.714000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.68 dE	Peak Search Peak Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
	an an Indian an a	1	Next Pk Left Marker Function
-50.0	and the set set of the	and a fifth from the contract of the second states and the contract of the second states in the	Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 C Sweep 33.3 ms (20001 p	Continuous Peak SHz Search off
	13, 2020		



Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Middle
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			Marker v 🔆
KEYSIGHT Input: RF Input: RF RL Coupling: DC Corre Align: Off Freq I NEF- NEF-	Z:50 Ω #Atten: 20 dB PNO: Fast ctions: On μW Path: Standard Gate: Off Ref: Int (S) Source: Off IF Gain: Low Adaptive	Avg Type: Power (RMS) 1 2 3 4 5 Avg Hold:>100/100 Trig: Free Run A N N N N	6 Select Marker ₩ Marker 1
1 Spectrum V		Mkr1 48.909 0 GH	Marker Frequency Settings 48.909000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.49 dB	M Peak Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0		u litte de seu des putentes a de muchadade	Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 G Sweep 33.3 ms (20001 p	Continuous Peak Hz Search (S) On Off



Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	High
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: RF Input: Z RL Coupling: DC Correct Align: Off Freq F NFE: V NFE: V	2:50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off &ef: Int (S) Source: Off IF Gain: Low Adaptive Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1
1 Spectrum		Mkr1 49.581 0 GHz	Marker Frequency 49.581000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-34.88 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	enter a presentation de la construction de la construction de la construction de la construction de la constru		Next Pk Left Marker Function
-50.0	er flinge som i slidde er ikken som som som beisen mårte som fra som fra som fra som som som som som som som so Till som		Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off



Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	High
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			🛟 Marker 🔻 🔆
KEYSIGHT Input: RF Coupling: DC Align: Off	Z: 50 Ω #Atten: 20 dB PNO: Fast :tions: On μW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low Autorition Standard Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
1 Spectrum	Nuaptive Sig Hack. Uit	Mkr1 48.903 0 GHz	Marker Frequency 48.903000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.06 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
	and the particular international processing in a section of the particular international processing of		Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvi
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off
	3, 2020		



Frequency Range 2 Polarity F Spectrum Analyzer 1 Imput RF Swept SA Coupling: DC KEYSIGHT Input RF Coupling: DC Freq Ref: NFE: Ada Scale/Div 10 dB Log Trace 1 Pass	40GHz-50GHz Horizontal 50 Ω #Atten: 20 dB PNO: Fast µW Path: Standard Gate: Off Source: Off IF Gain: Low Sig Track: Off Ref Level 0.00 dBm	Channel Test distance Avg Type: Power (RMS) Avg Hold:>100/100 Trg: Free Run 1 2 3 4 3 M WWWW A N N N Mkr1 47.685 0 GI -34.55 dE	Low 2m Select Marker V Select Marker I V Marker Frequency Settings 47.68500000 GHz Peak Peak Search Search
Frequency Range 2 Polarity H Spectrum Analyzer 1 + Swept SA + KEYSIGHT Input: RF RL Coupling: DC Align: Off Freq Ref. VT PASS 1 Spectrum Scale/Div 10 dB Log Trace 1 Pass	40GHz-50GHz Horizontal 50 Ω #Atten: 20 dB PNO: Fast µW Path: Standard Gate: Off Source: Off IF Gain: Low Sig Track: Off Ref Level 0.00 dBm	Avg Type: Power (RMS) 1 2 3 4 3 AvgHold>100/100 M WW WW Trig: Free Run M WW WW Mkr1 47.685 0 GI -34.55 dE	2m S 6 Select Marker Marker 1 Marker 1 Marker Frequency 47.68500000 GHz Peak Search Peak
Polarity	Horizontal 50 Ω ms: On int (S) aptive #Atten: 20 dB pW Path: Standard Source: Off IF Gain: Low Sig Track: Off Ref Level 0.00 dBm	Avg Type: Power (RMS) Avg Hold:>100/100 Trg: Free Run 1 2 3 4 3 M WW WW A N N N Mkr1 47.685 0 GI -34.55 dE	2m Marker V V Select Marker Marker 1 V Marker Frequency 47.68500000 GHz Peak Search Search
Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF R L PASS 1 Spectrum Scale/Div 10 dB Log Trace 1 Pass	50 Ω #Atten: 20 dB PNO: Fast Ins: On µW Path: Standard Gate: Off Source: Off IF Gain: Low Sig Track: Off Ref Level 0.00 dBm	Avg Type: Power (RMS) 1 2 3 4 3 Avg Hold>100/100 Trig: Free Run A N N N Mkr1 47.685 0 GI -34.55 dE	Marker Marker 5 6 Select Marker Marker 1 V Marker Frequency Settings 47.68500000 GHz Peak Peak Search Peak
KEYSIGHT Input: RF Input: 2: 5 RL Coupling: DC Align: Off Align: Off Freq Ref: NFE: Add Scale/Div 10 dB Log Trace 1 Pass	50 Ω #Atten: 20 dB PNO: Fast µW Path: Standard Gate: Off Source: Off IF Gain: Low Sig Track: Off Ref Level 0.00 dBm	Avg Type: Power (RMS) Avg Hold:>100/100 Trig: Free Run Mkr1 47.685 0 G -34.55 dE	5 6 Select Marker Marker 1 v Marker Frequency Settings 47.685000000 GHz Peak Peak Search Search
1 Spectrum v Scale/Div 10 dB Log Trace 1 Pass	Ref Level 0.00 dBm	Mkr1 47.685 0 Gl -34.55 dB	Hz Marker Frequency Settings 47.68500000 GHz Peak Peak Search Search
Scale/Div 10 dB	Ref Level 0.00 dBm	-34.55 dB	Peak Search Search
ridee i ridss			
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
	terrest enterthild beach, where patients and a first to a sentitic cherry of	n an hille that a present the galaxies of the second black of the	Next Pk Left Marker Function
	in , , , an a china indicata in terra per		Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 G Sweep 33.3 ms (20001 p	HZ Continuous Peak Search On Off



Band	n261	Beam ID	139
Dana			
Frequency Range	40GHz-50GHz	Channel	Low
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			Marker v 🔆
KEYSIGHT Input: RF Input: RF RL Coupling: DC Correct Align: Off Freq F NEE- NEE-	Z: 50 Ω #Atten: 20 dB PNO: Fast ctions: On μW Path: Standard Gate: Off kef: Int (S) Source: Off IF Gain: Low Ardantive Source: Off Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 Avg Hold:>100/100 Trig: Free Run	5 6 Select Marker ₩₩ Marker 1 ▼
1 Spectrum	Зід Паск. Он	Mkr1 49.122 0 G	Hz Marker Frequency Settings 49.122000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.22 dE	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	an a sharan a sharan a sa an		Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 C Sweep 33.3 ms (20001 p	BHz Search ots) On
	13, 2020		



Band	n261	Beam ID	120
Dallu	11201		159
Frequency Range	40GHz-50GHz	Channel	Middle
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: RF Input: RF RL Coupling: DC Corre Align: Off Freq I IM PASS	Z: 50 Ω #Atten: 20 dB PNO: Fast ctions: On μW Path: Standard Gate: Off Ref: Int (S) Source: Off IF Gain: Low Adaptive Sig Track: Off Sig Track: Off	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v
1 Spectrum		Mkr1 49.937 0 GHz	Marker Frequency Settings 49.937000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.16 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	ter th ought with the fact of the standard of the	1 1	Next Pk Left Marker Function
-50.0	and <mark>the sector and the sector sector sector sector sector sector and the sector best of the sector se</mark>		Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off



Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	Middle
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			Marker v
KEYSIGHT Input: RF Input: Z RL Coupling: DC Correct Align: Off Freq F	2:50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low detection:	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
1 Spectrum		Mkr1 47.687 5 GHz	Marker Frequency 47.687500000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-34.82 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
		1	Next Pk Left Marker Function
-40.0 The response of the response of the rest of the			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvi
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search Off
	13, 2020		



Band	n261	Beam ID	130	
			100	
Frequency Range	40GHz-50GHz	Channel	High	
Polarity	Horizontal	Test distance	2m	
Spectrum Analyzer 1			Marker 🔻 🔆	
KEYSIGHT Input: RF Input Z RL Coupling: DC Correc Align: Off Freq R INFE: A NFE: A	Ζ: 50 Ω #Atten: 20 dB PNO: Fast titons: On μW Path: Standard Gate: Off kef: Int (S) Source: Off IF Gain: Low Adaptive Sig Track: Off	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v	
1 Spectrum v		Mkr1 49.882 0 GHz	Marker Frequency Settings 49.882000000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.07 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0	an ^{the} second	n. 1. fill south and the stilling of the different land on the latter of little stilling of the state of the stilling of the state of t	Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
-60.0			Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvi	
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off	
	13, 2020 💬 🛆			



			100	
Band	n261	Beam ID	139	
Frequency Range	40GHz-50GHz	Channel	High	
Polarity	Vertical	Test distance	2m	
Spectrum Analyzer 1			🗱 Marker 🔻 💥	
KEYSIGHT Input: RF Input: RF RL Coupling: DC Correct Align: Off Freq 1	Z:50 Ω #Atten: 20 dB PNO: Fast ctions: On µW Path: Standard Gate: Off Ref. Int (S) Source: Off IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v	
Data PASS INFE. 1 Spectrum V	Adaptive Sig Track. Off	Mkr1 47.689 5 GHz	Marker Frequency 47.689500000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-34.97 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
	an de la calencia de la calencia como en la calencia como en la calencia de la calencia de como de como de como	ىرى ئۇتۇرۇر ئەتىرى بىلىرى يۇلىرىدىن بىرىلىرىدۇ بىرى ئىرىمىلىكى بىرى بىرى بىلىرىدۇ.	Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
-60.0			Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off	
	3:19 AM			



Band	n261	11 + 139	
Frequency Range	40GHz-50GHz	Channel	Low
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1			Marker v
KEYSIGHT Input RF RL Coupling: DC Align: Off Freq R	C 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off lef: Int (S) Source: Off IF Gain: Low Variable: Gate: Off Source: Off	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1
1 Spectrum		Mkr1 49.714 0 GHz	Marker Frequency 49.714000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.34 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	addig og freeder som som atter system om die Provider and system atter system.	T	Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off



Band	n261	Beam ID	11 + 139	
Frequency Range	40GHz-50GHz	Channel	Low	
Polarity	Vertical	Test distance	2m	
Spectrum Analyzer 1			🗱 Marker 🔻 🔆	
KEYSIGHT Input: RF Coupling: DC Align: Off Freq F	Z: 50 Ω #Atten: 20 dB PNO: Fast :tions: On µW Path: Standard Gate: Off kef: Int (S) Source: Off IF Gain: Low Adaptive Off Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v	
1 Spectrum		Mkr1 47.693 5 GHz	Marker Frequency 47.693500000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.42 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
	uk a data a second a second a second	and the second state of the state	Next Pk Left Marker Function	
-40.0 Interface of the second se	n a search ann an tha a I a bha ann an tha tha ann an tha ann an tha an tha an tha ann an th	and the second	Minimum Peak Marker→	
-60.0			Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (2001 pts)	Continuous Peak Search On Off	
	13, 2020			



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-35.42	-35.34	-32.37	-13	-19.37	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	40GHz-50GHz Channel	
Polarity	Horizontal	Test distance	2m
Spectrum Analyzer 1	Tionzontar		
	7·50 0 #Atton: 20 dB DNO: East		
RL Coupling: DC Correct Align: Off Freq F	tions: On µW Path: Standard Gate: Off Ref: Int (S) Source: Off IF Gain: Low	Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
1 Spectrum	Juapuive Jug Hack. Oil	Mkr1 47.695 0 GHz	Marker Frequency 47.695000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-34.04 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	a din ng dawal katan ng _{Demo} lak ga na ng kata katika sa tan katan sa tan katan sa		Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts	Continuous Peak Search On Off



Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	Middle
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: RF Input: RF RL Coupling: DC Correct Align: Off Freq F	Z: 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low Artantive Sn Track: Off Sn Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 M M WWWW Trig: Free Run A N	Select Marker Marker 1 v
1 Spectrum V		Mkr1 47.663 0 GHz	Marker Frequency 47.663000000 GHz
		-33.21 dBii	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0	dependent of the second s		Next Pk Left Marker Function
	n fillen som alle fillet som en skare som en starte som en skare som en skare som en skare som en skare som en En som en skare som e		Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvi
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On
	13, 2020 💬 🛆		



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-35.21	-34.04	-31.58	-13	-18.56	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Frequency Range Polarity Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF RL Coupling: DC Correct Freq RE	40GHz-50GHz Horizontal	Channel Test distance	High 2m Marker	
Polarity Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF RL Coupling: DC Correct Free R	Horizontal : 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off	Avg Type: Power (RMS) 12 24 5 6	2m	
Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF RL Coupling: DC Align: Off	: 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off	Ava Type: Power (RMS)	Marker y	
KEYSIGHT Input: RF Input Z R L Coupling: DC Correct Align: Off Freq R	:: 50 Ω #Atten: 20 dB PNO: Fast tions: On μW Path: Standard Gate: Off	Avg Type: Power (RMS) 12 3 4 5 6		2.5
DAL PASS NFE: A	ef: Int (S) Source: Off IF Gain: Low Adaptive Sig Track: Off	Avg Hold>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1	
1 Spectrum v		Mkr1 47.712 5 GHz	Marker Frequency Sett 47.712500000 GHz	tings
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.51 dBm	Peak Search Sea	ik arch
-10.0			Next Peak Cor	Search hfig
-20.0			Next Pk Right Pro	perties
		1	Next Pk Left Fun	rker action
-50.0	a Mine y sei and Mine (see a la participation of the Alline in the Allin	and a second	Minimum Peak Mar	rker→
-60.0			Pk-Pk Search Cou	unter
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (20001 pts)	Continuous Peak Search On Off	



Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	High
Polarity	Vertical	Test distance	2m
Spectrum Analyzer 1			Marker V
KEYSIGHT Input: RF Input: Coupling: DC RL Coupling: DC Correct Align: Off Freq F	Z: 50 Ω #Atten: 20 dB PNO: Fast tions: On µW Path: Standard Gate: Off tef: Int (S) Source: Off IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
Image: Spectrum Image: Spectrum		Mkr1 49.643 0 GHz	Marker Frequency 49.643000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-35.70 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
	an the properties in the state of the state	1 -	Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvi
Start 40.000 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 50.000 GHz Sweep 33.3 ms (2001 pts)	Continuous Peak Search On Off
	13, 2020 D:12 AM		



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-35.70	-35.51	-32.59	-13	-19.59	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



50GHz-75GHz (n261): 11 Band n261 Beam ID **Frequency Range** 50GHz-75GHz Channel Low Polarity Horizontal Test distance 3m Spectrum Analyzer 1 Swept SA + Ö Marker KEYSIGHT Input: Ext Mixer Signal ID: Off Corrections: On Freq Ref: Int (S) PNO: Fast Gate: Off Avg Type: Power (RMS) 12 3 4 5 6 Avg|Hold:>100/100 Select Marker MWWWW Marker 1 IF Gain: Low Sig Track: Off NFE: Adaptive Trig: Free Run ANNNN DATE PASS Marker Frequency Settings Mkr1 71.398 0 GHz 1 Spectrum ۷ 71.398000000 GHz Ref Level 0.00 dBm -45.04 dBm Scale/Div 10 dB Peak Search Log Peak Search Trace 1 Pass Pk Search Next Peak Config Properties Next Pk Right Marker Function Next Pk Left 1، Minimum Peak Marker→ Pk-Pk Search Counter Marker Delta Mkr→CF Mkr→Ref Lvl Continuous Peak Search Start 50.00 GHz #Res BW 1.0 MHz #Video BW 3.0 MHz* Stop 75.00 GHz On Off Sweep 33.3 ms (50001 pts) Oct 13, 2020 12:22:59 AM ? 1 2 **P** EV, \bigcirc) (



Ban	d			n261				Beam ID			11		
Fred	quency F	Range		50GHz	-75GHz			Channel			Low		
Pola	arity			Vertical				Test dista	nce		3m		
Spect Swep	rum Analyze t SA	er 1 🔻	+					1			🛟 Mar	ker 🔻 🔆	
KEY RL	SIGHT Ir	nput: Ext Mixer ignal ID: Off lign: Off	Correc Freq R NFE: A	tions: On ef: Int (S) \daptive		PNO: Gate: IF Ga	Fast Off in: Low	Avg Type: P Avg Hold:>1 Trig: Free R	ower (RMS 00/100 un	6) 1 2 3 4 5 6 M WW WW W	Select Marker Marker 1		
<i>ц</i> я 1 Spe	PASS	v				Sig Ir	ack: Off	Mk	r1 54.	552 5 GHz	Marker Frequency 54.552500000 GF	Settings	
Scale Log	/Div 10 dB	Pass			Ref Level 0.	00 dBm			-4	14.21 dBm	Peak Search	Peak Search	
-10.0		1 433									Next Peak	Pk Search Config	
-20.0											Next Pk Right	Properties	
-30.0		1									Next Pk Left	Marker Function	
-50.0								den land, de landet des antes de	N. And a station	aniffe all a sites still an	Minimum Peal	K Marker→	
-60.0											Pk-Pk Search	Counter	
-70.0											Marker Delta		
-80.0											Mkr→CF		
-90.0											Mkr→Ref Lvl		
Start #Res	50.00 GHz BW 1.0 MH			#	Video BW 3	.0 MHz*		Swe	S ep 33.3 n	top 75.00 GHz ns (50001 pts)	Continuous Peak Search On Off		
	5		Oct 1 12:26	3, 2020 5:07 AM	$\supset \triangle$								



Band			n261				Beam ID			11		
Frequ	uency Range		50GHz	-75GHz			Channel			Middle		
Polar	Polarity			Horizontal				nce		3m		
Spectru Swept S	ım Analyzer 1 SA	+								Marke	er v 👬	
KEYS RL	IGHT Input: Ext Mi Signal ID: Of Align: Off	xer Correct f Freq R NFE: A	tions: On ef: Int (S) daptive		PNO: Fa Gate: O IF Gain: Sig Trac	ast ff Low	Avg Type: Po Avg Hold:>1 Trig: Free Ru	ower (RMS) D0/100 un	123456 M WWWW ANNNNN	Select Marker Marker 1		
1 Specti	rum T					.K. Oli	Mk	r1 52.3	17 0 GHz	Marker Frequency 52.317000000 GHz	Settings	
Scale/E	Div 10 dB		F	Ref Level 0.0	00 dBm			-44	4.72 dBm	Peak Search	Peak Search	
-10.0										Next Peak	Pk Search Config	
-20.0 —										Next Pk Right	Properties	
-30.0	. 1									Next Pk Left	Marker Function	
-50.0										Minimum Peak	Marker→	
-60.0										Pk-Pk Search	Counter	
-70.0 —										Marker Delta		
-80.0										Mkr→CF		
-90.0										Mkr→Ref Lvl		
Start 50 #Res B	0.00 GHz W 1.0 MHz		#	Video BW 3.	.0 MHz*		Swe	Sto ep 33.3 ms	op 75.00 GHz s (50001 pts)	Continuous Peak Search On		
	5 0 -	? Oct 1 12:21	3, 2020 :15 AM									



Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	Middle
Polarity	Vertical	Test distance	3m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: Ext Mixer Correction R L Signal ID: Off Freq F Align: Off NFE:	ctions: On PNO: Fast Ref. Int (S) Gate: Off Adaptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
1 Spectrum V		Mkr1 69.999 0 GHz	Marker Frequency 69.999000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.79 aBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0		1	Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On
	13, 2020 8:58 AM		



Band			n261				Beam ID			11		
Frequen	icy Range		50GHz	-75GHz			Channel			High		
Polarity			Horizontal				Test dista	nce		3m		
Spectrum A Swept SA	Spectrum Analyzer 1									Marke	er 🔻 🔆	
	HT Input: Ext Mixer Signal ID: Off Align: Off	r Correct Freq R NFE: A	iions: On ef: Int (S) daptive		PNO: F Gate: 0 IF Gair Sig Tra	Fast Off h: Low ack: Off	Avg Type: P Avg Hold:>1 Trig: Free R	ower (RMS) 00/100 un) <mark>1</mark> 2 3 4 5 6 M WWWWW A N N N N N	Select Marker Marker 1		
1 Spectrum	3				0.9		Mk	r1 65.5	580 0 GHz	Marker Frequency 65.580000000 GHz	Settings	
Scale/Div 1	0 dB		F	Ref Level 0.0	0 dBm			-4	4.67 dBm	Peak Search	Peak Search	
-10.0										Next Peak	Pk Search Config	
-20.0										Next Pk Right	Properties	
-30.0						. 1				Next Pk Left	Marker Function	
-50.0							un en state de la findelitet de server a se d	And State		Minimum Peak	Marker→	
-60.0										Pk-Pk Search	Counter	
-70.0										Marker Delta		
-80.0										Mkr→CF		
-90.0										Mkr→Ref Lvl		
Start 50.00 #Res BW 1	GHz .0 MHz		#	Video BW 3.	0 MHz*		Swe	St ep 33.3 m	op 75.00 GHz is (50001 pts)	Continuous Peak Search On Off		
3		? 12:13	3, 2020 27 AM									

Note: The test results already include the correction factor (corrections: On).



Band	n261		Beam ID		11		
Frequency Range	50GHz-75GHz		Channel		High		
Polarity	Vertical		Test distan	се	3m		
Spectrum Analyzer 1					Marker	→ ∺	
KEYSIGHT Input: Ext Mixer Co R L Signal ID: Off Fre Align: Off NF	rrections: On P vq Ref: Int (S) G E: Adaptive IF	PNO: Fast Sate: Off Gain: Low	Avg Type: Pow Avg Hold:>100 Trig: Free Run	ver (RMS) 1 2 3 4 5 6 W100 M W W W W	Select Marker Marker 1		
1 Spectrum	و ا	ING TTACK. OII	Mkr	1 58.962 0 GHz	Marker Frequency 58.962000000 GHz	Settings	
Scale/Div 10 dB	Ref Level 0.00 dBm	1		-44.61 dBm	Peak Search	Peak Search	
-10.0					Next Peak	Pk Search Config	
-20.0					Next Pk Right	Properties	
-30.0	.1				Next Pk Left	Marker Function	
-50.0			tentled antibility of the sur	a him and the second state of the second second	Minimum Peak	Marker→	
-60.0					Pk-Pk Search	Counter	
-70.0					Marker Delta		
-80.0					Mkr→CF		
-90.0					Mkr→Ref Lvl		
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	*	Sweep	Stop 75.00 GHz 33.3 ms (50001 pts)	Continuous Peak Search On Off		
	ct 13, 2020 2:17:19 AM						



Devi	.004		400
Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Low
Polarity	Horizontal	Test distance	3m
Spectrum Analyzer 1			Marker v 🔆
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq F Align: Off NFE: /	tions: On PNO: Fast tef: Int (S) Gate: Off Adaptive IF Gain: Low Sing Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v
1 Spectrum v		Mkr1 52.806 0 GHz	Marker Frequency 52.806000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.96 aBm	Peak Search Search
-10.0			Next Peak Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On
	13, 2020 4:19 AM		



Band	n261	Beam ID	139		
Frequency Range	50GHz-75GHz	Channel	Low		
Polarity	Vertical	Test distance	3m		
Spectrum Analyzer 1			Marker 🔻 🔆		
KEYSIGHT Input: Ext Mixer Correct R L Signal ID: Off Freq R Align: Off NFE: A	tions: On PNO: Fast ef: Int (S) Gate: Off Idaptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v		
1 Spectrum V		Mkr1 50.737 0 GHz	Marker Frequency 50.737000000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.72 dBm	Peak Search Search		
-10.0			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
-30.0			Next Pk Left Marker Function		
-50.0			Minimum Peak Marker→		
-60.0			Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 50.00 GHz	#Video BW 3.0 MHz*	Stop 75.00 GHz	Continuous Peak Search		
#Res BW 1.0 MHz	3, 2020	Sweep 33.3 ms (50001 pts)	On Off		



Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Middle
Polarity	Horizontal	Test distance	3m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE: A	tions: On PNO: Fast tef: Int (S) Gate: Off Adaptive IF Gain: Low Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v
1 Spectrum v		Mkr1 50.951 0 GHz	Marker Frequency 50.951000000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.54 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
		kunstlerika zatelika nasla na katena dilik nasta dan zanasa zakan	Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On Off
	5:11 AM		



Band	n261	Beam ID	139		
Frequency Range	50GHz-75GHz	Channel	Middle		
Polarity	Vertical	Test distance	3m		
Spectrum Analyzer 1			Marker v 🔆		
KEYSIGHT Input: Ext Mixer Correct R L Signal ID: Off Freq F Align: Off NFE: J	ctions: On PNO: Fast Ref. Int (S) Gate: Off Adaptive IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1		
1 Spectrum	Sig Track: Off	Mkr1 50.894 5 GHz	Marker Frequency 50.894500000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.79 dBm	Peak Search Search		
-10.0			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
			Next Pk Left Marker Function		
		and a statistic second state of the second states of the second states of the second states of the second state	Minimum Peak Marker→		
-60.0			Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts	Continuous Peak Search On Off		



Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	High
Polarity	Horizontal	Test distance	3m
Spectrum Analyzer 1			🗱 Marker 🔻 🔆
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE: A	tions: On PNO: Fast lef: Int (S) Gate: Off Adaptive IF Gain: Low Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v
1 Spectrum		Mkr1 54.243 5 GHz	Marker Frequency 54.243500000 GHz
Log	Ref Level 0.00 dBm	-44.46 abm	Peak Search Search
-10.0			Next Peak Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvi
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On Off



Band		n261				Beam ID			139		
Frequency Range		50GHz	50GHz-75GHz						High		
Polarity		Vertica				Test dista	nce		3m		
Spectrum Analyzer 1 Swept SA	+								Marke	er v 💥	
KEYSIGHT Input: Ext Mix. RL Signal ID: Off Align: Off	er Correct Freq Ro NFE: A	ions: On ef: Int (S) daptive		PNO: Fa: Gate: Off IF Gain: I Sig Track	st : Low :: Off	Avg Type: Po Avg Hold:>1 Trig: Free Ru	ower (RMS) 00/100 In	123456 MWWWWW	Select Marker Marker 1		
1 Spectrum					. 011	Mk	r1 54.4	49 5 GHz	Marker Frequency 54.449500000 GHz	Settings	
Scale/Div 10 dB		F	Ref Level 0.00	dBm			-44	1.89 dBm	Peak Search	Peak Search	
-10.0									Next Peak	Pk Search Config	
-20.0									Next Pk Right	Properties	
-30.0	1								Next Pk Left	Marker Function	
-50.0								line in states the	Minimum Peak	Marker→	
-60.0									Pk-Pk Search	Counter	
-70.0									Marker Delta		
-80.0									Mkr→CF		
-90.0									Mkr→Ref Lvl		
Start 50.00 GHz #Res BW 1.0 MHz		#	Video BW 3.0	MHz*		Swe	Sto ep 33.3 ms	op 75.00 GHz s (50001 pts)	Continuous Peak Search On Off		
	? Oct 1: 12:41	3, 2020 :31 AM									



Ban	d			n261				Beam ID)			11 + 139		
Fred	quency l	Range		50GHz	-75GHz			Channel				Low		
Pola	arity		Horizor	lorizontal				ance)		3m			
Spect	rum Analyze t SA	er 1 🔻	+									Ö	Marker	, ₩
KEY RL		nput: Ext Mixer lignal ID: Off lign: Off	Correc Freq R NFE: A	tions: On ef: Int (S) Adaptive		PNO: Gate: IF Gai	Fast Off n: Low	Avg Type: Avg Hold:> Trig: Free	Power (>100/10 Run	(RMS) <mark>1</mark> 2 0 M +	3456 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Select Marke Marker 1	er	
Lya 1 Spe	PASS ctrum	•				Sig Tr	ack: Off	M	kr1 (69.977	5 GHz	Marker Freq 69.9775000	uency 100 GHz	Settings
Scale Log	/Div 10 dB	Pass			Ref Level 0.0	00 dBm				-45.5	0 dBm	Peak S	earch	Peak Search
-10.0		1 033										Next F	Peak	Pk Search Config
-20.0												Next Pk	Right	Properties
-30.0												Next P	k Left	Marker Function
-50.0						a dha at i aint i Mara Aile i				A man	. His de sala déta	Minimun	n Peak	Marker→
-60.0												Pk-Pk S	Search	Counter
-70.0												Marker	Delta	
-80.0												Mkr–	→CF	
-90.0												Mkr→R	lef Lvl	
Start #Res	50.00 GHz BW 1.0 MH			#	Video BW 3	.0 MHz*		Sv	veep 33	Stop 7 3.3 ms (5	5.00 GHz 0001 pts)	Continuous Search On Off	Peak	
	5		? Oct 1 12:58	3, 2020 3:25 AM	Δ									



Band	n261	Beam ID	11 + 139	
Frequency Range	50GHz-75GHz	Channel	Low	
Polarity	Vertical	Test distance	3m	
Spectrum Analyzer 1			🗱 Marker 🔻 🔆	
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq F Align: Off NFE: NFE:	ctions: On PNO: Fast Ref: Int (S) Gate: Off Adaptive IF Gain: Low Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1	
1 Spectrum		Mkr1 69.996 5 GHz	Marker Frequency 69.996500000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.79 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
-60.0			Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvi	
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On Off	
	1:08 AM			



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-44.79	-45.50	-42.12	-13	-29.12	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Middle
Polarity	Horizontal	Test distance	3m
Spectrum Analyzer 1			Marker
Swept SA KEYSIGHT Input: Ext Mixer RL Signal ID: Off Align: Off NFE: /	tions: On PNO: Fast tef. Int (S) Gate: Off Adaptive IF Gain: Low Sig Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold >100/100 Trig: Free Run	Select Marker Marker 1
1 Spectrum	Jig Hack. Of	Mkr1 59.355 5 GHz	Marker Frequency 59.355500000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-45.24 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
-50.0 0 -50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On Off
	3:11 AM		



	.004		44 - 400
Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Middle
Polarity	Vertical	Test distance	3m
Spectrum Analyzer 1			Marker v 🔆
KEYSIGHT Input: Ext Mixer RL Signal ID: Off Align: Off NFE: J	ctions: On PNO: Fast Ref: Int (S) Gate: Off Adaptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1 v
1 Spectrum V	org matrix on	Mkr1 52.225 5 GHz	Marker Frequency 52.225500000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.95 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
-50.0			Minimum Peak Marker→
-60.0			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On
	13, 2020		



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-44.95	-45.24	-42.08	-13	-29.08	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Ban	d			n261				Beam ID			11 + 139		
Frec	quency	Range		50GHz	-75GHz			Channel			High		
Pola	arity			Horizontal				Test dista	ince		3m		
Spect	rum Analyz t SA	er 1 🗸	+								Ç	Marker	- ₩
KEY RL		nput: Ext Mixer Signal ID: Off Nign: Off	Correc Freq R NFE: A	tions: On ef: Int (S) Adaptive		PNO Gate IF Ga	: Fast : Off ain: Low	Avg Type: F Avg Hold:> Trig: Free F	Power (RMS) 100/100 tun	123456 M WWWW	Select Marker Marker 1		
Lya 1 Spe	PASS ctrum	v				Sig I	rack: Off	M	r1 50.8	57 0 GHz	Marker Freque 50.85700000	ency) GHz	Settings
Scale Log	/Div 10 dB	1 Pass			Ref Level 0.	00 dBm			-44	4.78 dBm	Peak Sea	arch	Peak Search
-10.0		1 435									Next Pe	ak	Pk Search Config
-20.0											Next Pk R	light	Properties
-30.0	. 1										Next Pk I	_eft	Marker Function
-40.0		initia de la contra						A transfer og belår het beskere so	A dia manana ang ang ang ang ang ang ang ang an		Minimum F	Peak	Marker→
-60.0											Pk-Pk Sea	arch	Counter
-70.0											Marker D	elta	
-80.0											Mkr→C	F	
-90.0											Mkr→Ref	Lvl	
Start #Res	50.00 GHz BW 1.0 MH	lz		#	fVideo BW 3	3.0 MHz*		Swe	Sto eep 33.3 m	op 75.00 GHz s (50001 pts)	Continuous Pe Search On Off	eak	
	5		? Oct 1 12:48	3, 2020 3:20 AM									



Band	n261	Beam ID	11 + 139	
Frequency Range	50GHz-75GHz	Channel	High	
Polarity	Vertical	Test distance	3m	
Spectrum Analyzer 1			Marker v	
KEYSIGHT Input: Ext Mixer Corre RL Signal ID: Off Freq I Align: Off NFE: NFE:	ctions: On PNO: Fast Ref: Int (S) Gate: Off Adaptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run A N N N N N	Select Marker Marker 1	
1 Spectrum v		Mkr1 53.760 0 GHz	Marker Frequency 53.760000000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-44.55 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
			Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
-60.0			Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvi	
Start 50.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz*	Stop 75.00 GHz Sweep 33.3 ms (50001 pts)	Continuous Peak Search On Off	
	13, 2020 9:49 AM			



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-44.55	-44.78	-41.65	-13	-28.65	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



75GHz-100GHz (n261):

Ban	d			n261			E	Beam ID			11		
Frec	luency l	Range		75GHz	2-100GHz		C	Channel			Low		
Pola	rity			Horizontal Test distance					3m				
Spectr Swept	rum Analyze SA	er 1 🔻	+								₽	Marker	 ▼ ¹/₂
KEY RL		nput: Ext Mixer ignal ID: Off lign: Off	Correct Freq Re NFE: A	tions: On ef: Int (S) daptive		PNO: Fas Gate: Off IF Gain: L Sig Track:	t .ow	Avg Type: Pov Avg Hold:>100 Trig: Free Run	ver (RMS))/100	1 23456 MWWWWW	Select Marke Marker 1	r	
1 Spec	trum	V				Sig Hack.		Mkr	1 76.6	42 2 GHz	Marker Frequ 76.64220000	iency 00 GHz	Settings
Scale/	Div 10 dB	Pass			Ref Level 0.00	dBm			-0	8.82 aBM	Peak Se	arch	Peak Search
-10.0											Next P	eak	Pk Search Config
-20.0 -											Next Pk	Right	Properties
-30.0											Next Pk	Left	Marker Function
-50.0 -											Minimum	Peak	Marker→
-60.0	<mark>≬</mark> 1	ales alizes a data sud ber substati	Mildischatz et Kotatar	t art heite tilde tool aan.	յին, ու ու որի առաններ, միզի	terran al contraction in the little	and I ware price	ling and the second second second	and the part of the state	a far far fyr yr arfar yn gan y far yr y	Pk-Pk S	earch	Counter
-70.0	his and of printing a second		Managara and Andrew			All and a state of the state of the state	alan kenyin Mara		an an an an an an Albert Albert		Marker	Delta	
-80.0											Mkr→	CF	
-90.0											Mkr→R	əf Lvi	
Start 7 #Res	75.00 GHz BW 1.0 MH	IZ		0 2020	#Video BW 3.0	MHz		Sweep	Sto ∼23.9 m	p 110.00 GHz s (50001 pts)	Continuous F Search On Off	^v eak	
H	5		Oct 1 7:19:	0, 2020 20 AM	$O \triangle$								



Ban	d			n261				Beam ID			11	
Free	quency	Range		75GHz-100GHz				Channel			Low	
Pola	arity			Vertica	I			Test dista	nce		3m	
Spect Swep	rum Analyze t SA	er 1 🗸	+								Mark	
KEY RL		nput: Ext Mixe Signal ID: Off Nign: Off	r Correct Freq Re NFE: A	ions: On əf: Int (S) daptive		PNO: Gate: IF Ga	Fast Off in: Low	Avg Type: Pe Avg Hold:>1 Trig: Free Ri	ower (RMS) 00/100 un	123456 MWWWWW PNNNNP	Select Marker Marker 1	
1 Spe	CTRUM	v				JUS	ack. Oli	Mk	r1 77.0	04 8 GHz	Marker Frequency 77.004800000 GH	z Settings
Scale Log	/Div 10 dB	Pass			Ref Level 0.0	00 dBm			-58	5.21 dBm	Peak Search	Peak Search
-10.0	Thece	1 433									Next Peak	Pk Search Config
-20.0											Next Pk Right	Properties
-30.0											Next Pk Left	Marker Function
-40.0											Minimum Peak	Marker→
-60.0	the second statements of the second statement of the s	in the second placement of the second			افرون بالمراجع المراجع	the state to the	<mark>ىلىلەم رېغىرات ي</mark> ىغانى <mark>ب</mark> ىلە		-		Pk-Pk Search	Counter
-70.0	in the distance of the line of the second						n de la constituir de la c		ىر لەتەلەتە يەلەتەر باي يەمم (مىلەر). مەلەتەلەتە يەلەتەر باي يەمم (مىلەر).	an an air air an Anna a	Marker Delta	
-80.0											Mkr→CF	
-90.0											Mkr→Ref Lvl	
Start #Res	75.00 GHz BW 1.0 MH	lz		#	#Video BW 3	.0 MHz		Swee	Stop p ~23.9 ms	110.00 GHz (50001 pts)	Continuous Peak Search On Off	
H	5		? Oct 10 7:18:	0, 2020 16 AM ($\supset \bigtriangleup$							



Band	n261	Beam ID	11		
Frequency Range	75GHz-100GHz	Channel	Middle		
Polarity	Horizontal	Test distance	3m		
Spectrum Analyzer 1			🗱 Marker 🔻 🔆		
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE: A	ions: On PNO: Fast ef: Int (S) Gate: Off daptive IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v		
Draw PASS 1 Spectrum ▼	Sig Track: Off	Mkr1 77.349 2 GHz	Marker Frequency 77.349200000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-57.67 dBm	Peak Search Search		
			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
-30.0			Next Pk Left Marker Function		
-50.0			Minimum Peak Marker→		
			Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off		



Band	n261	Beam ID	11	
Frequency Range	75GHz-100GHz	Channel	Middle	
Polarity	Vertical	Test distance	3m	
Spectrum Analyzer 1			Marker •	
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE: A	tions: On PNO: Fast ef: Int (S) Gate: Off Adaptive IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v	
DVT PASS	Sig Track: Off	Mkr1 75.156 1 GHz	Marker Frequency 75.156100000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.20 dBm	Peak Search Search	
			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0 -			Minimum Peak Marker→	
		and the state of the	Pk-Pk Search Counter	
			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvi	
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off	
	0, 2020			



Band	n261	Room ID	
Frequency Pange		Deallin	11
riequency range	75GHz-100GHz	Channel	High
Polarity	Horizontal	Test distance	3m
Spectrum Analyzer 1			Marker V
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq F Align: Off NFE: .	tions: On PNO: Fast tef: Int (S) Gate: Off Adaptive IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v
DI PASS	Sig Track: Off	Mkr1 75.032 9 GHz	Marker Frequency 75.032900000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.04 dBm	Peak Search Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
50.0			Minimum Peak Marker→
-60.0 marginal and a set of a set of the set			Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Center 92.50 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Span 35.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off



				1									
Ban	d			n261				Beam ID			11		
Free	quency	Range		75GHz	2-100GH	z		Channel			High		
Pola	arity			Vertica	l			Test dista	ance		3m		
Spect Swep	rum Analyzo t SA	er 1 🔻	+								₽	Marker	
KEY RL	SIGHT	nput: Ext Mixe Signal ID: Off Jign: Off	r Correct Freq Re NFE: A	ions: On ef: Int (S) daptive		PNO: Gate: IF Ga	Fast Off in: Low	Avg Type: I Avg Hold:> Trig: Free I	Power (RMS 100/100 Run	5) 1 2 3 4 5 6 M WWWW	Select Marker Marker 1		
Lya 1 Spe	PASS ctrum	T				Sig Ir	ack: Off	M	kr1 77.	554 3 GHz	Marker Frequ 77.55430000	iency)0 GHz	Settings
Scale Log	/Div 10 dB	Daee			Ref Level 0.0	00 dBm				58.95 dBm	Peak Se	arch	Peak Search
-10.0	Thace	1 435									Next P	eak	Pk Search Config
-20.0											Next Pk	Right	Properties
-30.0											Next Pk	Left	Marker Function
-50.0											Minimum	Peak	Marker→
-60.0	1		Provide and the second second	و بر الماضانين	a	المراجع المراجع الم	a je na serie de la construction de la construction de la construcción de la construcción de la construcción de	North Minthly of Land	الله المتحدية (الأندو من ا	a a press to a state of the state of the property of the	Pk-Pk Se	earch	Counter
-70.0											Marker [Delta	
-80.0											Mkr→	CF	
-90.0											Mkr→Re	ef Lvl	
Cente #Res	er 92.50 GH BW 1.0 MH	iz iz		;	#Video BW 3	3.0 MHz		Swe	S ep ~23.9 n	pan 35.00 GHz ns (50001 pts)	Continuous F Search On Off	Peak	
	5		? Oct 10 7:16:	0, 2020 40 AM									



-													
Ban	ld			n261				Beam ID			139		
Fre	quency	Range		75GHz-100GHz				Channel			Low		
Pola	arity			Horizo	ntal			Test distance			3m		
Spect Swep	rum Analyz t SA	er 1 🗸	+								\$	Marker	- * ※
KEY RL		nput: Ext Mixe Signal ID: Off Nign: Off	er Correct Freq Re NFE: A	ions: On ef: Int (S) daptive		PNO: Gate: IF Gai Sig Tr	Fast Off in: Low	Avg Type: Avg Hold:> Trig: Free	Power (F 100/100 Run	RMS) 12 3 4 5 6 M WWWW P N N N N F	Select Marke Marker 1	ər	
1 Spe	PASS ectrum	•				Sig II		M	k r1 7	5.014 7 GH	Marker Freq 75.0147000	uency 100 GHz	Settings
Scale Log	Div 10 dB	1 Dace			Ref Level 0.0	0 dBm				-57.83 dBm	Peak S	earch	Peak Search
-10.0											Next F	Peak	Pk Search Config
-20.0											Next Pk	Right	Properties
-30.0											Next P	k Left	Marker Function
-40.0											Minimun	n Peak	Marker→
-60.0	<mark></mark>	den Landa and an Million	THE REAL PROPERTY AND	مر حر مالياليام رو	nta nakhana kak	ator kontenendaria	arahan irina irina	The state of the s	والمراجع والمراجع		Pk-Pk S	Search	Counter
-70.0	Anna bilanali dili bana.	and the second				The product of the		de based foi an side-offen in basen		na pana na pan Na pana na pana	Marker	Delta	
-80.0											Mkr–	→CF	
-90.0											Mkr→R	lef Lvl	
Start #Res	75.00 GHz BW 1.0 MH	lz	Oct 1	1 2020	#Video BW 3	.0 MHz		Swe	ep ~23.	Stop 110.00 GH .9 ms (50001 pts	Continuous Search On Off	Peak	
			7:30:	58 AM									



Ban	d			n261				Beam ID			139		
Free	quency	Range		75GHz	z-100GHz	Z		Channel			Low		
Pola	arity			Vertical Test distance					3m				
Spect Swep	rum Analyzo t SA	er 1 🔻	+									/larker	- 张
KEY RL	SIGHT I	nput: Ext Mixe Signal ID: Off Jign: Off	r Correct Freq Re NFE: A	ions: On ef: Int (S) daptive		PNO: Gate: IF Ga	Fast Off in: Low	Avg Type: Po Avg Hold:>1 Trig: Free Ri	ower (RMS) 00/100 un	123456 MWWWW	Select Marker Marker 1		•
Lya 1 Spe	PASS ctrum	T				Sig Ir	ack: Off	Mk	r1 75.0)23 8 GHz	Marker Frequer 75.023800000	ncy GHz	Settings
Scale Log	/Div 10 dB	Dace			Ref Level 0.0	0 dBm			-5	7.77 dBm	Peak Sear	ch	Peak Search
-10.0		1 435									Next Pea	k	Pk Search Config
-20.0											Next Pk Ri	ght	Properties
-30.0											Next Pk L	eft	Marker Function
-50.0											Minimum P	eak	Marker→
-60.0		and the supervision of the super	Abeliated a state	an at the later of the	لىرىم بىنىمى الى يى يى ي		<mark>r Fanja</mark> la Tilanarat	A MARKET OF THE PARTY DAMA REPORT.	January States	NE PERSONAL AND A PERSONAL AND	Pk-Pk Sea	rch	Counter
-70.0		a the sector of				dia da para tanya di da di si		and a second		al _{al de l} a de la desta de la competition de	Marker De	lta	
-80.0											Mkr→Cf	-	
-90.0											Mkr→Ref	Lvi	
Start #Res	75.00 GHz BW 1.0 MH	Iz		;	#Video BW 3	.0 MHz		Swee	Sto p ~23.9 m	p 110.00 GHz s (50001 pts)	Continuous Pea Search On	ak	
	5		? Oct 10 7:32:	0, 2020 29 AM									



Dand	-001	Beem ID	100		
Band	n261	Beam ID	139		
Frequency Range	75GHz-100GHz	Channel	Middle		
Polarity	Horizontal	Test distance	3m		
Spectrum Analyzer 1			Marker 🔹 🔀		
KEYSIGHT Input: Ext Mixer Correct R L Signal ID: Off Freq R Align: Off NFE: A	tions: On PNO: Fast ef: Int (S) Gate: Off daptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v		
1 Spectrum		Mkr1 77.266 6 GHz	Marker Frequency 77.266600000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.59 dBm	Peak Search Search		
-10.0			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
-30.0			Next Pk Left Marker Function		
-50.0			Minimum Peak Marker→		
	A CARACTERISTIC AND A CARACTERISTIC AND A CARACTERISTICS	an a	Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On		
	0, 2020 35 AM				



			1		
Band	n261	Beam ID	139		
Frequency Range	75GHz-100GHz	Channel	Middle		
Polarity	Vertical	'ertical Test distance			
Spectrum Analyzer 1			Marker v 🔆		
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE:	tions: On PNO: Fast Ref: Int (S) Gate: Off Adaptive IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1		
1 Spectrum		Mkr1 107.461 1 GHz	Marker Frequency 107.461100000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.35 dBm	Peak Search Search		
-10.0			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
-30.0			Next Pk Left Marker Function		
-50.0			Minimum Peak Marker→		
	. La administration (too a second statistic in successful provide book		Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off		
	7:57 AM				



Band	n261	Beam ID	139	
Frequency Range	75GHz-100GHz	Channel	High	
Polarity	Horizontal	Test distance	3m	
Spectrum Analyzer 1		- -	Marker V 🔆	
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq F Align: Off NFE: /	ttions: On PNO: Fast tef: Int (S) Gate: Off ddaptive IF Gain: Low Sin Track: Off	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 ▼	
1 Spectrum	Cig Huck. On	Mkr1 75.109 9 GHz	Marker Frequency 75.109900000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.76 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
	an make bete februik and a ment in a start second start in second and any weak if a start they were second	a ter a sense ha sense ha sense sense sense se s	Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off	
	:38 AM 5			



Ban	d			n261				Beam ID			139		
Free	quency	Range		75GHz	2-100GH	Z		Channel			High		
Pola	arity			Vertica	ıl			Test dista	nce		3m		
Spect Swep	rum Analyzo t SA	er 1 🗸	+									Marker	- * ※
KEY RL	SIGHT II SIGHT	nput: Ext Mixe Signal ID: Off Jign: Off	er Correct Freq Re NFE: A	ions: On ef: Int (S) daptive		PNO: Gate: IF Ga	Fast Off in: Low	Avg Type: Pe Avg Hold:>1 Trig: Free Ri	ower (RMS) 00/100 un	1 23456 MWWWW	Select Marker Marker 1		•
LXI 1 Spe	PASS ctrum	T				Sig Ti	rack: Off	Mk	r1 75.0	03 5 GHz	Marker Freque 75.003500000	ncy GHz	Settings
Scale Log	/Div 10 dB	Dass			Ref Level 0.0	00 dBm			-57	7.74 dBm	Peak Sea	rch	Peak Search
-10.0	Thace	1 433									Next Pea	ak	Pk Search Config
-20.0											Next Pk R	ight	Properties
-30.0											Next Pk L	.eft	Marker Function
-50.0											Minimum F	Peak	Marker→
-60.0	1 Handatakanang	an is south and a state		n dalamad din			and Sector States, Say London St.			ter - 11 Martin Construct when y	Pk-Pk Sea	arch	Counter
-70.0	The second second second										Marker De	elta	
-80.0											Mkr→C	F	
-90.0											Mkr→Ref	LvI	
Start #Res	75.00 GHz BW 1.0 MH	lz		2020	#Video BW 3	3.0 MHz		Swee	Stop p ~23.9 ms	o 110.00 GHz s (50001 pts)	Continuous Pe Search On Off	ak	
E	50		7:35:	03 AM	\mathcal{O}								



			ſ		
Band	n261	Beam ID	11 + 139		
Frequency Range	75GHz-100GHz	Channel	Low		
Polarity	Horizontal	Test distance	3m		
Spectrum Analyzer 1			Marker 🔻 🔆		
KEYSIGHT Input: Ext Mixer Cor R L Signal ID: Off Free Align: Off NFE	rections: On PNO: Fast q Ref: Int (S) Gate: Off :: Adaptive IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold: 72/100 M WWWWW Trig: Free Run M WWWWWW	Select Marker Marker 1 v		
1 Spectrum	Sig Track: Off	Mkr1 75.083 3 GHz	Marker Frequency 75.083300000 GHz		
Scale/Div 10 dB	Ref Level 0.00 dBm	-56.99 dBm	Peak Search Search		
-10.0			Next Peak Pk Search Config		
-20.0			Next Pk Right Properties		
-30.0			Next Pk Left Marker Function		
-40.0			Minimum Peak Marker→		
			Pk-Pk Search Counter		
-70.0			Marker Delta		
-80.0			Mkr→CF		
-90.0			Mkr→Ref Lvl		
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts	Continuous Peak Search On Off		
	t 10, 2020 47:20 AM				



			1
Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	Low
Polarity	Vertical	Test distance	3m
Spectrum Analyzer 1		1	Marker •
KEYSIGHT Input: Ext Mixer Cor RL Signal ID: Off Free Align: Off NFE	rections: On PNO: Fast a Ref: Int (S) Gate: Off : Adaptive IF Gain: Low	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1
DV PASS 1 Spectrum	Sig Track: Off	Mkr1 75.050 4 GHz	Marker Frequency 75.050400000 GHz
Scale/Div 10 dB	Ref Level 0.00 dBm	-58.23 dBm	Peak Search Peak Search
-10.0			Next Peak Pk Search Config
-20.0			Next Pk Right Properties
-30.0			Next Pk Left Marker Function
-50.0 -			Minimum Peak Marker→
	a still south and the state of		Pk-Pk Search Counter
-70.0			Marker Delta
-80.0			Mkr→CF
-90.0			Mkr→Ref Lvl
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off
	t 10, 2020		



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-58.23	-56.99	-54.56	-13	-41.56	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Band	n261	Beam ID	11 + 139	
Frequency Range	75GHz-100GHz	Channel	Middle	
Polarity	Horizontal	Test distance	3m	
Spectrum Analyzer 1			Marker V	
KEYSIGHT Input: Ext Mixer Correct R L Signal ID: Off Freq I Align: Off NFE: NFE:	ctions: On PNO: Fast tef: Int (S) Gate: Off Adaptive IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run	Select Marker Marker 1 v	
1 Spectrum	Sig Track: Off	Mkr1 75.218 4 GHz	Marker Frequency 75.218400000 GHz	
Log Trace 1 Pass	Ref Level 0.00 dBm	-57.91 dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0 -			Minimum Peak Marker→	
	a tolestore a second 1.1 advantant	ne i se mande andere en andere	Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off	
	3:20 AM			



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Band	n261	Beam ID	11 + 139	
Frequency Range	75GHz-100GHz	Channel	Middle	
Polarity	Vertical	Test distance	3m	
Spectrum Analyzer 1			Marker V 🔆	
KEYSIGHT Input: Ext Mixer Correct RL Signal ID: Off Freq R Align: Off NFE: //	tions: On PNO: Fast ef: Int (S) Gate: Off daptive IF Gain: Low	Avg Type: Power (RMS) 1 2 3 4 5 6 Avg Hold:>100/100 Trig: Free Run M₩₩₩₩₩₩	Select Marker Marker 1	
D/I PASS 1 Spectrum ▼	Sig Track: Off	Mkr1 75.317 1 GHz	Marker Frequency 75.317100000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-5/.// dBm	Peak Search Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
		el hann ar ann an	Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off	
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Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-57.77	-57.91	-54.83	-13	-41.83	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



Band	n261	Beam ID	11 + 139	
Frequency Range	50GHz-75GHz	Channel	High	
Polarity	Horizontal	Horizontal Test distance		
Spectrum Analyzer 1			Marker V	
KEYSIGHT Input: Ext Mixer Cc RL Signal ID: Off From Align: Off	errections: On PNO: Fast eq Ref: Int (S) Gate: Off EF: Adaptive IF Gain: Lov	Avg Type: Power (RMS) 12 3 4 5 6 Avg Hold:>100/100 MWWWWW	Select Marker Marker 1	
Uvit PASS 1 Spectrum V	Sig Track: C	Mkr1 75.067 2 GHz	Marker Frequency 75.067200000 GHz	
Scale/Div 10 dB	Ref Level 0.00 dBm	-57.54 dBm	Peak Search Peak Search	
-10.0			Next Peak Pk Search Config	
-20.0			Next Pk Right Properties	
-30.0			Next Pk Left Marker Function	
-50.0			Minimum Peak Marker→	
-60.0	- Local strange - and as from the organization		Pk-Pk Search Counter	
-70.0			Marker Delta	
-80.0			Mkr→CF	
-90.0			Mkr→Ref Lvl	
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3.0 MHz	Stop 110.00 GHz Sweep ~23.9 ms (50001 pts)	Continuous Peak Search On Off	
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Band	n261	n261		Beam ID		11 + 139	
Frequency Range	50GHz-75GHz	50GHz-75GHz		Channel		High	
Polarity	Vertical	Vertical		Test distance		3m	
Spectrum Analyzer 1					Marker	7 条	
KEYSIGHT Input: Ext Mixer C L Signal ID: Off F Align: Off N	Corrections: On Freq Ref: Int (S) NFE: Adaptive	PNO: Fast Gate: Off IF Gain: Low	Avg Type: Powe Avg Hold:>100/ Trig: Free Run	er (RMS) <mark>1 2 3 4 5 6</mark> 100 M W W W W	Select Marker Marker 1	•	
Data PASS 1 Spectrum V		Sig Track: Off	Mkr1	P N N N N P 75.202 3 GHz	Marker Frequency 75.202300000 GHz	Settings	
Scale/Div 10 dB	Ref Level 0.0	00 dBm		-57.88 dBm	Peak Search	Peak Search	
-10.0					Next Peak	Pk Search Config	
-20.0					Next Pk Right	Properties	
-30.0					Next Pk Left	Marker Function	
-50.0					Minimum Peak	Marker→	
	a and and the area of the second	and the second Departure products for market		re haar a faar dit i ^{te} rdel weerer fa	Pk-Pk Search	Counter	
-70.0				an ann an an Shine an Anna an A Anna an Anna an	Marker Delta		
-80.0					Mkr→CF		
-90.0					Mkr→Ref Lvl		
Start 75.00 GHz #Res BW 1.0 MHz	#Video BW 3	.0 MHz	Sweep ~	Stop 110.00 GHz 23.9 ms (50001 pts)	Continuous Peak Search On Off		
	Oct 10, 2020						



Summary of MIMO Beam Out-of Band Emission:

To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst-case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-57.88	-57.54	-54.70	-13	-41.7	Pass

Note: EIRP (V+H) = EIRP (V) + EIRP (H) = $10*Log10 (10^{(V_{dBm})} + 10^{(H_{dBm})})$ Margin (dB) = EIRP (V+H) - Limit.



4.5 Out-of-Band Spurious Emission Measurement

4.5.1 Limits of Out-of-Band Spurious Emission Measurement

The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be -13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.2.3 to get information of above instrument.



4.5.4 Test Procedure

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height 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.

- b. The substitution antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- c. EIRP = Output power level of S.G TX cable loss + Antenna gain of substitution horn.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power 2.15dBi.

Note:

- 1. The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth are 3 MHz.
- 2. When test frequency above 1GHz the detector function was use RMS (average) mode during the testing.
- 3. Measurements were taken in the far field of the mm-Wave test signal based on the formula: $R \ge (2D^2) / wavelength.$