



		n71, Chanr	el Bandwidth	5MHz				
Olympia		26dB Bandwidth (MHz)						
Channel	Frequency (MHz)	$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM		
133100	665.5	4.96	4.82	4.81	4.77	4.79		
136100	680.5	4.89	4.82	4.81	4.77	4.79		
139100	695.5	4.91	4.81	4.79	4.76	4.77		
		n71, Chann	el Bandwidth 1	0MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)						
Channel		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM		
133600	668.0	9.89	9.68	9.69	9.64	9.69		
136100	680.5	9.85	9.27	9.70	9.64	9.71		
138600	693.0	9.76	9.69	9.71	9.63	9.70		
		n71 Channe	el Bandwidth 1	5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)						
Channel		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM		
134100	670.5	14.65	14.59	14.61	14.62	14.63		
136100	680.5	14.65	14.62	14.62	14.63	14.63		
138100	690.5	14.62	14.61	14.62	14.61	14.65		
		n71, Chann	el Bandwidth 2	0MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)						
Channel		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM		
134600	673.0	19.68	19.61	19.59	19.61	19.61		
136100	680.5	19.81	19.66	19.61	19.66	19.64		
137600	688.0	19.65	19.64	19.60	19.64	19.63		





# 4.5 Band Edge / Out-of-Band Emissions Measurement

## 4.5.1 Limits of Band Edge / Out-of-Band Emissions Measurement

### For n41:

According to FCC 27.53(m)(4) specified that power of any emission outside of the channel edge must be attenuated below the transmitting power (P) by a factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5MHz. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed.

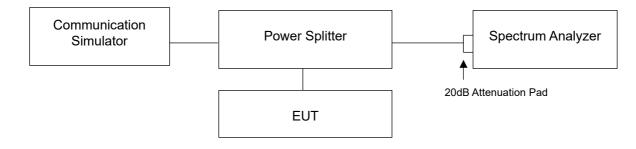
### For n66:

According to FCC 27.53(h) for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780 MHz, 1915-1920MHz, 1995-2000 MHz, 2000-2020MHz, 2110-2155MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log (P) dB$ .

#### For n71:

According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

### 4.5.2 Test Setup



### 4.5.3 Test Procedures

- a. The testing follows ANSI C63.26 section 5.7
- b. The EUT was connected to spectrum analyzer and system simulator via a power divider.
- c. The band edges of low and high channels for the highest RF powers were measured.
- d. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
- e. Beyond the 1 MHz band from the band edge, RBW=100kHz or 1MHz was used.
- f. Set spectrum analyzer with RMS detector.
- g. Checked that all the results comply with the emission limit line.



# 4.5.4 Test Results





	Bandwidth 15M	HZ		01 1 500 400			
hannel 500700 503.50MHz) π/2 BPSK 1 RB / 0 RB Offset		Offset	Channel 536496 (2682.48MHz)		1 RB / 37 RB Offset		
Spectrum Analyzer 1 Spectrum Analyzer 1 Spectrum Analyzer 1 Spectrum Analyzer Stat. C Prover Sta		Arrite Freq. 250802000 GHz AnjHdar 100100 addo Std Nore Mkr1 2.4968 GHz 17.79 dBm	Meas Setup	Couping: DC Corr CCorr RCail I Align: Auto Freq Ref. Int (S) IVI PASS NFE: Adaptive 3 All Range Graph Ref. Ref. Ref. Ref. Ref. Ref. Ref. Ref.	Atten: 30 dB Trig: Free Run C	Intum Analyzet 4 intus Emissions enter Freq. 2.506020000 CH2 withod 100100 adto Sid Norte Mkr1 2.6895 GHz 12.99 dBm	Meas Setup         Meas           Avg Hold Number         Settings           100         Meas           Ori         Advano           Averaging         Advano           Average Mode         Exponential           Exponential         Global           Meas Type         Global
17 2475 OHz IF 2475 OHz IF 2475 OHz Spar Range Start Free Stor 1 2 2475 OHz 244 2 2 2 2406 OHz 244 2 2 2 2406 OHz 244	05 GHz 1.000 MHz 2.490190000 GHz -41	Stop 2.502 GHz Stop 2.502 GHz Trace Average (AdSve) geliude - Artoli di So differ - Artoli di So differ - Artoli di	varinino v pur ango uur Report Mode finimum Margin v ( Range Settings v Maas Setup Summay Table	100 300 300 300 300 300 300 300 300 300	300.0 kHz 2.689466667 GHz 12	Stop 2.720 GHz Trace Average (Adre) plute allef 89 dBm - 47 01 dB 01 dBm - 701 dB	Examine v Spur 1 Range 1
4 5 24990 GHz 2 50 5 Channel 50070 2503.50MHz)	$\pi/2$ BPSK	.#9dBm1221 dBl	Auto Couple Meas Preset B Offset	4 4 2 2000 GHz 27000 GHz 5 27000 GHz 5 27000 GHz 5 27000 GHz 6 27000 GHz 7 27	$\pi/2$ BPSK	<sup>79 dBm</sup> - <sup>34,79 dB</sup> - 30,15 dB - 38 RB / 0 F	Auto Couple Meas Preset
Spectrum Analyzer Spectrum Ana	CDF Spurious Emissions Spu Ω Atten: 30 dB Trig: Free Run C RCal Preamo: Off Gate: Off A	Aref Fire 2.50000000 GHz adde Ski Nove Mkr1 2.5008 GHz 3.42 dBm 41	Meas Setup • • • • • • • • • • • • • • • • • • •	Confidence (R)     Confiden	Atlen: 30 dB Trig: Free Run 0	Ctrum Adaysed + + + + + + + + + + + + + + + + + + +	Anagrida Namber         Execution           Angrida Namber         Execution           100         Angrida Namber           Angrida Namber         Execution           Execution         Execution           Sport         1           Namae         Execution
2 2 2.4905 GHz 2.49 3 4 2.4950 GHz 2.49	05 GHz 1.000 MHz 2.490500000 GHz -31 50 GHz 1.000 MHz 2.494992500 GHz -28 50 GHz 300.0 kHz 2.495940000 GHz -30	5 Stop 2.502 CHz s Trace 1 Trace Average (Active) pittude ΔLimit .44 dBm .6.440 cB .20 dBm .15.20 dB	ange pur Report Mode finimum Margin • Range Settings Mass Setup Summary Table Auto Couple	200         Start 2,660 GHz           4 AF Rango Table         *           Spur         Range         Start Freq         Stop Freq           2         2 2 8000 GHz         2.8010 GHz         2.8010 GHz           2         2 4 2 8000 GHz         2.8010 GHz         2.8010 GHz           4         4         2.4200 GHz         2.8010 GHz         2.8010 GHz	Measure Trace         Trace Trace           RBW         Frequency         An           300.0 EHz         2.650/163333         GH         30           300.0 EHz         2.650/163333         GH         30           300.0 EHz         2.650/16333         GH         30           300.0 EHz         2.650/16333         GH         30           300.0 EHz         2.650/16827         GH         30           300.0 MHz         2.650/2000         GHz         30           300.0 MHz         2.750/2000         GHz         30	.64 dBm -25.64 dB .39 dBm -23.39 dB .75 dBm -24.75 dB	1



n41, Channel Bar	ndwidth 20Mł	Ηz					
2506.02MHZ)	506.02MHz) $\pi/2$ BPSK 1 RB / 0 RB Offset		8 Offset	Channel 535998 (2679.99MHz)	$\pi/2$ BPSK	1 RB / 50 RB Offset	
Control Cont Cont Cont PASS     PASS	Adem 30 all Trig Free Man Ar Prevence Of Cale Off Ar Br Sam Low Pt V-10 Offset 11.00 dB Pt Value 30.00 dBm Measure Trace Type	mer Freis 250000000 GHz genes Thoroso Mitri 2,4970 GHz 19,98 dBm 19,98 dBm 19,98 dBm 19,09 dBm 19,09 dBm 19,09 dBm 19,09 dBm 19,09 dBm 19,09 dBm 19,09 dBm	Meas Setup     Verain Setup	Concernent         Concloar Rice           C2         PASS         Concloar Rice           C3         PASS         Free Adapta           C4         Render Rice         Render Rice           C5         Start Rices Cash         Render Rice           C6         Render Rice         Render Rice           C7         Render Rice         Render Rice           C8         Render Rice         Render Rice           C90         Render Rice         Render Rice           C90 <th>Isourous Empagns Ser Next 20 dB Try Fave Run Teamp Off To Run Run Lui Offset 11.00 dB Value 35.00 dBm</th> <th>Cover Fue 2 20000000 Ore Rate Stil Novo Mkr1 2.6590 GHz 13.88 dBm Stop 2.729 GHz Stop 2.729 GHz Trace Average (Active) phillide aJunt Trace Average (Active) phillide aJunt 7 Trace Average (Active) phillide aJunt 7 Trace Average 7.77 eB</th> <th>Meas Setup     Meas Setup</th>	Isourous Empagns Ser Next 20 dB Try Fave Run Teamp Off To Run Run Lui Offset 11.00 dB Value 35.00 dBm	Cover Fue 2 20000000 Ore Rate Stil Novo Mkr1 2.6590 GHz 13.88 dBm Stop 2.729 GHz Stop 2.729 GHz Trace Average (Active) phillide aJunt Trace Average (Active) phillide aJunt 7 Trace Average (Active) phillide aJunt 7 Trace Average 7.77 eB	Meas Setup
Channel 501204 2506.02MHz)		51 RB / 0 R	B Offset	Channel 535998 (2679.99MHz)	$\pi/2$ BPSK	51 RB / 0 F	RB Offset
Byochtum Analyzer 1         Spectrum Analyzer 1           Spectrum Analyzer 1         Spectrum Analyzer 1 <td>Controls Environment Mann 20 B Try Free Run Chan 20 B Try Free Run Cale DB Try Free Run Pri Villo Offset 11.00 dB rt Value 30.00 dB nt Measure Trace Trace Type</td> <td>enter Files 250000000 cite growt Thortoo dol Ski Noro Mikri 2.5008 GHz 3.56 dBm 4 56 dBm 4 100 growt 2.5002 GHz 50 growt 2.500</td> <td>Meas Setty     Version     Version</td> <td>Specific PASS         Core Coar Road         Core Coar Road         Core Coar Road         Core Coar Road         C</td> <td>ISources Emissions Services Se</td> <td>5.10 dBm -25.10 dB 3.76 dBm -23.76 dB 5.12 dBm -22.12 dB</td> <td>Meas Setup     Argindad Number     Argind</td>	Controls Environment Mann 20 B Try Free Run Chan 20 B Try Free Run Cale DB Try Free Run Pri Villo Offset 11.00 dB rt Value 30.00 dB nt Measure Trace Trace Type	enter Files 250000000 cite growt Thortoo dol Ski Noro Mikri 2.5008 GHz 3.56 dBm 4 56 dBm 4 100 growt 2.5002 GHz 50 growt 2.500	Meas Setty     Version     Version	Specific PASS         Core Coar Road         Core Coar Road         Core Coar Road         Core Coar Road         C	ISources Emissions Services Se	5.10 dBm -25.10 dB 3.76 dBm -23.76 dB 5.12 dBm -22.12 dB	Meas Setup     Argindad Number     Argind