Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, Low Channel 1940 MHz (4G LTE) Upper Extreme Voltage: 57.0VDC

MultiView	Spectrum	Spectrum	2 🔳	Spectrum 3	(Z) Spectr	um 4 🕱			1
RefLevel . Att TDF		T 83.5 µs (~29 ms)	 RBW 200 VBW 1 	NHZ Mode Auto	PFT				
Occupied I	3andwidth				_				1Pk Max
1000		-						NATE 17	9,31 dBr
10 d8m-		An	mann	monum	1 mm	Mariana Mariana	mon		1.9400000 GH
LO GOIN		1							
0 dBm		1	_				1		
	1			1	1.1		1		
10 dam-	1		_				1		-
-20 dBm							1		-
	-						1		
-30 dBm	AA	mm			-	-	two	1 monto	A Away NV
m	of A			1					- and a
við dam							-		
					-				
-su dam-	-			-	-	-	-		-
-60 dBm		-							
-70 dBm									
	100							-	1
CF 1.94 GHz			10000	pts	4	1.0 MHz/			Span 40.0 MH
2 Marker Ta Type R		X-Value	1	Y-Value	1	Function	- 1	Function F	Descult
M1	1 1	1.94 G	iz	9.31 dBm	Occ Bw	Function	1	7.8228304	
11	1	1.93111451 G		9.94 dBm	Occ Bw Ce				2592 GHz
T2	I.	1.94893734 G	-12	10.77 dBm	Occ Bw Fre	eq Offset	In concerning the second se		42669 kHz
							Measuring		15:13:28

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, High 1980 MHz (4G LTE) Upper Extreme Voltage: 57.0VDC

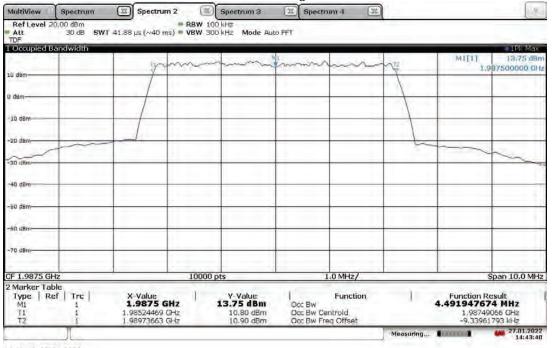
MultiView	Spectrum	Spectru	m 2 [Spectrum 3	Spectra	um 4 🛛 🖾			14
Ref Level : Att TDF	20.00 dBm 30 dB SW	T 83.5 µs (~29 m	= RBW 2 s) = VBW	1 MHz Mode Auto	FFT				
Occupied B	3andwidth								IPk Max
10 dBm-		The second	man	mmmmm	howar	manner	57	MITIT I	10.16 dBn 96000000 GH
	1 1 1		11						
0 dBm	-	1	-				1		
10 dem	-			-	-				-
-20 dam	-			_					_
-30 dBm	amont	mont					how	Annon	min
40 dBm	0.00	1.0					1		mun
50 d8m-									
-60 dBm					1.000		11.000.1		
-70 dBm				_	-				
CF 1.98 GHz		-4-	1000	0 pts	4	.0 MHz/	-	1	Span 40.0 MHz
2 Marker Ta Type R M1 T1 T2		X-Value 1.98 (1.97106586 1.98892914	GHz	Y-Value 10.16 dBm 10.83 dBm 10.55 dBm	Occ Bw Occ Bw Ce Occ Bw Fre		1 .,		
							Measuring		27.01.2022

15:17:57 27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz (5G nR) Lower Extreme Voltage: 41.1VDC

TDF L Occupied Bandwidt								1Pk Max
Occupied Bahdwidt		10					M1[1]	13.73 dBn
	13	m	mon	m	mm			82500000 GH
10 dBm	1	-	-			X	- 14	1
	/							
) dBm		-						-
10 dBm-		-				1		
-20 dam		-						
-	~ ~						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
30 dBm		-						
	- Contract	a design of						
40 dBm		_				-		-
		_						
50 dBm-		-	-			-		
	100							
-60 dBm-		-	-			-		
1200		11						
-70 dBm-		-	_					
CF 1.9325 GHz		1000	0 pts		0 MHz/	1		Span 10.0 MH;
Marker Table		1000	io pta		0 1411 12/			2011 10:0 Mill
Type Ref Trc	X-Value		Y-Value	1	Function	1	Function Re	esult
M1 1	1.9325		13.73 dBm	Occ Bw	o conco come	0	4.49581238	
11 1 T2 1	1.9302522		10.06 dBm 10.68 dBm	Occ Bw Cen Occ Bw Fred			1.932500	0169 GHz
12	1-904/400	0.00%	10:00 0000	OUL DW FIEL	(VHSEL	Measuring		27.01.202

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz (5G nR) Lower Extreme Voltage: 41.1VDC

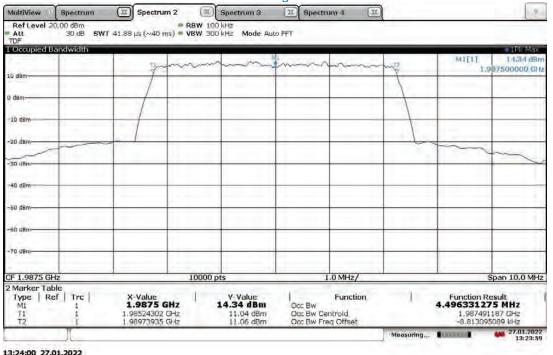


14:43:40 27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz (5G nR) Nominal Voltage: 48 VDC

Ref Level 20.0 Att TDF	30 dB SWT	41.88 µs (~40	 RBW 1 ms) VBW 3 		PET				
Occupied Ban	dwidth								IPk Max
				in and	- mm	han	TZ	MILIT	13.25 dBr 1.932500000 GH
LU dBm		T T	chia armine i	- Weisser Start			TY	-	1,982500000 GF
		/	11						
dem		- /	-					-	
10 dBm		1 /	-				1	-	-
20 dBm-			-	-			1	-	
		1					1	1.	
30 dBm	~~~~	1	-	-			-		
								-	
40 dBm		1					-		-
		_							
SU dBm			-			-	-		+
1.0									
-60 dBm-		1		1			-	1	-
-70 dBm			1.				-	1	
				-					1
F 1.9325 GHz	1	1	10000	pts	1	.0 MHz/			Span 10.0 MH
Marker Table			L		1	-	1		-
Type Ref	Trc	X-Value 1.9325	GHZ	Y-Value 13.25 dBm	Occ Bw	Function		Function 4.493865	
TI	î	1.93025325	GHz	9.36 dBm	Occ Bw Ce			1.9325	500184 GHz
T2	1	1.93474712	GHz	10.45 dBm	Occ Bw Fre	og Offset		183.526	6023865 Hz
	1						Measuring		27.01.202

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz (5G nR) Nominal Voltage: 48 VDC



Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz (5G nR) Upper Extreme Voltage: 57.0VDC

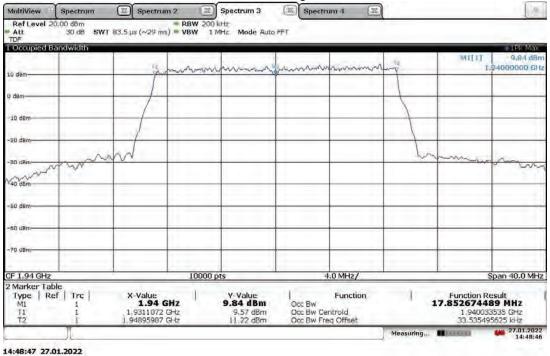
Ref Level 20.00				100 kHz					
Att 3	O dB SWT	41.88 µs (~40)	ms) = VBW	300 kHz Mode Auto	FFT				
Occupied Band	width								1Pk Max
		The	in	man	him	mm	NB.	MILIT	13.73 dBr
0 dem		1					X		19922000000
dBm			-	_					-
iù dem			-	_	_				-
20 dBm					_				-
30 dBm					-				
40 dBm									-
50 dBm-				_	_		-	-	-
60 dBm-	21		11 200						
-70 dBm				_					
F 1.9325 GHz			100	00 pts	1	.0 MHz/			Span 10.0 MH
Marker Table			100	so pes		10 111127			opun ioio mi
Type Ref M1 T1 T2	Trc	X-Value 1.9325 1.93025133 1.93474729	GHz	Y-Value 13.73 dBm 10.35 dBm 10.30 dBm	Occ Bw Occ Bw Cer Occ Bw Fre	Function	1		Result 656 MHz 499311 GHz 5561562 Hz
12		4-204/4/23	COL 16	20000 0000	OUCDWITE	al Ausel	Measuring	-069.05	27.01.202

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz (5G nR) Upper Extreme Voltage: 57.0VDC

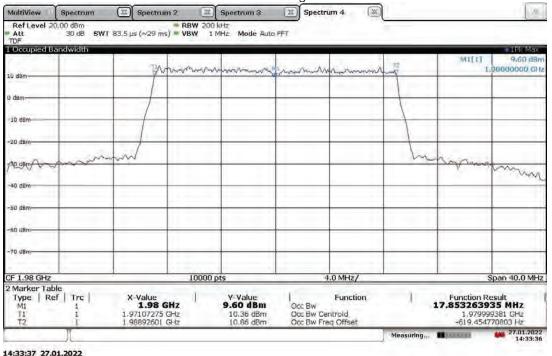
TDF	30 dB SW	T 41.88 μs (~40 ms) = VBW :	300 kHz Mode Auto	PFT				
Occupied B	andwidth								1Pk Max
		Tink	nur	man	innor	hanne	12	WILL	1 (.01 dBn
u dam-		11	- and the		490 C C	100 20100	7	1,	987500000 GH
				-					
dBm	-	1 1		_					-
10 d8m							1		
	_						1		
-20 dam	-			-			1	-	-
~							1.1.1.1.1.1.1.1		
30 dBm		-	1.7						
40 dBm					1				
50 dBm-									
-60 dBm-									
ou usm-									
-70 dBm-								1.1	
To some								-	
F 1.9875 G			1000	0 pts	1	.0 MHz/		-	Span 10.0 MHz
Marker Tal			1000	opis					opan 10.0 Min
Type R		X-Value	- U	Y-Value	1	Function	1	Function F	Result
M1	1	1.9875 GH		14.01 dBm	Occ Bw	Control Comp		4.4984356	
11 T2	1	1.98524562 GH		11.01 dBm 11.15 dBm	Occ Bw Ce Occ Bw Fre				9484 GHz 11959 kHz

15:25:23 27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, Low Channel 1940 MHz (5G nR) Power Extreme Voltage: 41.1VDC



Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, High Channel 1980 MHz (5G nR) Lower Extreme Voltage: 41.1VDC

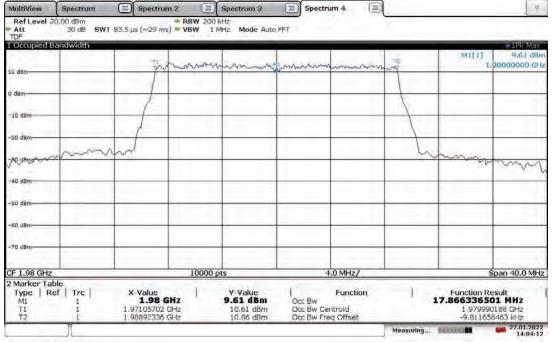


Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, Low Channel 1940 MHz (5G nR) Nominal Voltage: 48 VDC

Ref Level 20 Att TDF		r 83.5 µs (~29 m	s) = VBW	200 kHz 1 MHz Mode Auto	FFT				
1 Occupied Ba	ndwidth								1Pk Max
		TI	- A. 10	monday	human	manim	TE	MI[1]	10.64 dBm 9400000 GHz
10 dam-		1 7	1 1907.90						
0 dBm			-	-	-				
iù dem	-		_	-					
-20 dBm		1		_			1		
-30 dBm		mod			-		ha	non	-
ad dam	nu -							_	
40 0011		-							
-50 dBm			-						
-60 dBm		-		-					
-70 dBm-			-	_					
CF 1.94 GHz	-		100	00 pts	4	.0 MHz/		s	pan 40.0 MHz
2 Marker Tabl		and the							
Type Rel M1 T1 T2	1 1 1	X-Value 1.94 1.9311175 1.94897022	GHz	Y-Value 10.64 dBm 9.35 dBm 10.94 dBm	Occ Bw Occ Bw Ce Occ Bw Fre		17	Function Re .85272014 1.94004 43.859587	386 GHz

14:00:18 27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, High Channel 1980 (5G nR) Nominal Voltage: 48 VDC



14:04:12 27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, Low Channel 1940 MHz (5G nR) Upper Extreme Voltage: 57.0VDC

Ref Level 20.00 (Att 30 TDF IOCcupied Bandw 10 d8m 10 d8m 10 d8m	D dB SWT 83.5			Hz Mode Auto		hornomh	- Trip	M1[1] T	■ 1Pic Max 9.67 dBn 94000000 GH
10 dBm	vidth		<u>handanna</u>	n	mm	hanna	nte L		9.67 dBr
0 dam		14 A	n	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Emm	honor	n ng		and the second se
0 dem		1							
iù dem		1							_
		1							
		A							
-20 dam		r					1		
-30 dBm	m	N							
mm	~		1 4 4 4				Prov.	mount	wown
#0 dbm									
-su dem-				-					
-60 d8m-			1.20.2			1000		1 2 1	
-bu usm-									
-70 dBm									
CF 1.94 GHz			10000 p	te		.0 MHz/			Span 40.0 MH:
Marker Table			10000 p			10 111 127			Aport foto Min
		X-Value 1.94 G 1.93109882 (1.94896349 (GHz	Y-Value 9.67 dBm 10.26 dBm 11.13 dBm	Occ Bw Occ Bw Ce Occ Bw Fre		1.4	Function R 7.8646681 1,94003 31.15813	47 MHz 1158 GHz
							Measuring	0.000	27.01.2022

Slot 0 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 20 MHz, High Channel 1980 MHz (5G nR) Upper Extreme Voltage: 57.0VDC

MultiView	Spectrum	Spectru	-		Spectru	n4 🗷			17
Ref Level 2 Att TDF		83.5 µs (~29 m	* RBW 20 s) * VBW	0 kHz 1 MHz Mode Auto	FFT				
Occupied E	andwidth								IPk Max
		Th	manner	mmmmm	mm	mon	MP	MAI[1]	9,27 dBn 96000000 GH
lù dam-									
0 dBm			-	-			1		
10 dBm	-			-		_	1		
-20 dBm		ſ							
30 dBm	mann	had			1		Lon		
								and as have	nonum
40 dBm		2							
50 dBm-									
-60 dBm	-		-	-					-
-70 dBm-									
F 1.98 GHz			10000	lots	4	0 MHz/			Span 40.0 MH;
Marker Ta			10000	2 pes		S and the /			apan noto Min.
Type R M1 T1 T2		X-Value 1.98 1.97106906 1.98893514	GHz	V-Value 9.27 dBm 10.54 dBm 10.10 dBm	Occ Bw Occ Bw Cen Occ Bw Fred		1 1		

15:31:21 27.01.2022

		Intertek	
Report Number: 104	4915434BOX-001		Issued: 02/24/2022 Revised: 03/30/2022
Supervising/Reviewing Engineer:	Kouma Sinn 495	Test Date:	01/25/2023, 01/26/2022, 01/27/2022, 02/04/2022
(Where Applicable) Product Standard: Input Voltage:		Limit Applied:	See report section 10.3
Pretest Verification w/ Ambient Signals or		Ambient Temperature:	24, 24, 22, 24 °C
0	N/A	Relative Humidity:	17, 10, 17, 12 %
		Atmospheric Pressure:	1002, 1014, 1022, 1010 mbars

Deviations, Additions, or Exclusions: None

11 Transmitter spurious emissions

11.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1051, 2.1053, 2.1057, and 24

TEST SITE: EMC Lab & 10m ALSE

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A Styrofoam table 80 cm high is used for table-top equipment.

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucispr
Radiated Emissions, 10m	30-1000 MHz	4.6dB	6.3 dB
Radiated Emissions, 3m	30-1000 MHz	5.3 dB	6.3 dB
Radiated Emissions, 3m	1-6 GHz	4.5 dB	5.2 dB
Radiated Emissions, 3m	6-15 GHz	5.2 dB	5.5 dB
Radiated Emissions, 3m	15-18 GHz	5.0 dB	5.5 dB
Radiated Emissions, 3m	18-40 GHz	5.0 dB	5.5 dB

As shown in the table above our radiated emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

 $\begin{array}{ll} FS = RA + AF + CF - AG \\ Where & FS = Field Strength in dB\mu V/m \\ RA = Receiver Amplitude (including preamplifier) in dB\mu V \\ CF = Cable Attenuation Factor in dB \\ AF = Antenna Factor in dB \\ AG = Amplifier Gain in dB \end{array}$

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

 $RA = 52.0 \text{ dB}\mu\text{V} \\ AF = 7.4 \text{ dB}/\text{m} \\ CF = 1.6 \text{ dB} \\ AG = 29.0 \text{ dB} \\ FS = 32 \text{ dB}\mu\text{V}/\text{m} \\ \end{cases}$

To convert from $dB\mu V$ to μV or mV the following was used:

 $UF = 10^{(NF/20)} \text{ where } UF = \text{Net Reading in } \mu\text{V}$ $NF = \text{Net Reading in } dB\mu\text{V}$

Example:

FS = RA + AF + CF - AG = 52.0 + 7.4 + 1.6 - 29.0 = 32.0 $UF = 10^{(32 \ dB\mu V / 20)} = 39.8 \ \mu V/m$

Alternately, when BAT-EMC Emission Software is used, the "Level" includes all losses and gains and is compared directly in the "Margin" column to the "Limit". The "Correction" includes Antenna Factor, Preamp, and Cable Loss. These are already accounted for in the "Level" column.

11.2 Test Equipment Used:

Test equipment used for antenna port conducted test

	001040.0						
	Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
(CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/22/2021	01/22/2022
CE	BLSHF204'	Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5)	Huber + Suhner	Sucoflex 102EA	234714001	02/03/2021	02/03/2022
R	ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	11/02/2021	11/02/2022
I	DAV005'	Weather Station	Davis	6250	MS191218083	02/07/2021	02/07/2022
	DS40'	Temp, humidity, pressure gauge	Digi Sense	68000-49	181717625	11/09/2021	11/09/2022

Software Utilized:

	Name	Manufacturer	Version
ſ	None		

Test equipment used for radiated emissions, 9 kHz-30 MHz (02/14/2022 & 02/16/2022)

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV007'	DAV007' Weather Station Vantage Vue		6250	MS191212003	03/20/2021	03/20/2022
145108'	145108' EMI Test Receiver (20Hz - 40GHz)		ESIB40	100209	06/22/2021	06/22/2022
145-420'	Receiver to floor cable	Utiflex	UFB311A-2-0591-70070	145-420	02/17/2021	02/17/2022
CBL051'	9kHz to 1GHz BNC/ BNC Cable	Belden	RG58A/U	none	04/16/2021	04/16/2022
ETS003'	9kHz-30MHz Active Loop Antenna	ETS Lindgren	6502	00143396	08/26/2021	08/26/2022
145-422	10Amp Pre-amp to under floor	Utiflex	UFB311A-0-2756-70070	145-422	02/17/2021	02/17/2022
145-414'	Cables 145-400 145-403 145-405 145-409	Huber + Suhner	3m Track A cables	multiple	07/09/2021	07/09/2022

Test equipment used for Radiated emissions, 30-1000 MHz

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV007'	Weather Station Vantage Vue	Davis	6250	MS191212003	03/20/2021	03/20/2022
145108'	EMI Test Receiver (20Hz - 40GHz)	Rohde & Schwarz	ESIB40	100209	06/22/2021	06/22/2022
145-420'	Receiver to floor cable	Utiflex	UFB311A-2-0591-70070	145-420	02/17/2021	02/17/2022
PRE11'	50dB gain pre-amp	Pasternack	PRE11	PRE11	09/02/2021	09/02/2022
IW006'	DC-18GHz cable 8.4m long	Insulated Wire	2800-NPS	IW006	07/22/2021	07/22/2022
IW001'	2 meter cable	Insulated Wire	2801-NPS	001	09/23/2021	09/23/2022
145-406'	10m Track A In-floor Cable #1	Huber + Suhner	sucoflex 160-19220mm	001	07/22/2021	07/22/2022
145145'	Broadband Hybrid Antenna 30 MHz - 3 GHz	Sunol Sciences Corp.	JB3	A122313	06/09/2021	06/09/2022

Test equipment used for radiated emissions, 1-18 GHz

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV007'	DAV007' Weather Station Vantage Vue		6250	MS191212003	03/20/2021	03/20/2022
IW003'	IW003' 8.4 meter cable		2800-NPS	003	10/15/2021	10/15/2022
ETS002	ETS002 1-18GHz DRG Horn Antenna		3117	00143260	08/24/2021	08/24/2022
145108'	EMI Test Receiver (20Hz - 40GHz)	Rohde & Schwarz	ESIB40	100209	06/22/2021	06/22/2022
145-420'	Receiver to floor cable	Utiflex	UFB311A-2-0591-70070	145-420	02/17/2021	02/17/2022
145-422'	10Amp Pre-amp to under floor	Utiflex	UFB311A-0-2756-70070	145-422	02/17/2021	02/17/2022
145-414'	Cables 145-400 145-403 145-405 145-409	Huber + Suhner	3m Track A cables	multiple	07/09/2021	07/09/2022
PRE12'	Pre-amplifier	Com Power	PAM-118A	18040117	12/06/2021	12/06/2022

Test equipment used for radiated emissions, 18-20 GHz (02/15/2022)

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV007'	DAV007' Weather Station Vantage Vue		6250	MS191212003	03/20/2021	03/20/2022
PRE8'	PREAMPLFIER 1- 40 GHz	MITEQ	NSP4000-NF	507145	12/27/2021	12/27/2022
REA006'	18GHz High Pass Filter	Reactel, Inc	7HS-18G/40G K11	(06)1	04/23/2021	04/23/2022
CBLHF2012-2M-2'	2m 9kHz-40GHz Coaxial Cable - SET2	Huber & Suhner	SF102	252675002	02/10/2022	02/10/2023
ETS004'	18-40GHZ horn antenna	ets004	3116C	00218579	03/08/2021	03/08/2022
MEG002'	Cable,SMA-SMA,9KHz-40GHz, (Cable Kit 6)	Megaphase	TM40-K1K1-197	59006401001	12/06/2021	12/06/2022
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	11/02/2021	11/02/2022

Software Utilized:

Name	Manufacturer	Version
BAT-EMC	Nexio	3.18.0.16

11.3 Results:

The sample tested was found to Comply. Where a resolution bandwidth of less than 1 MHz was used (in some cases, 120 kHz or 100 kHz), more than 10 dB margin to the limit is shown. Since the two antenna ports transmit uncorrelated data streams and use cross polarized antennas, no adjustments to the test results were applied due to MIMO operation, per KDB 662911.

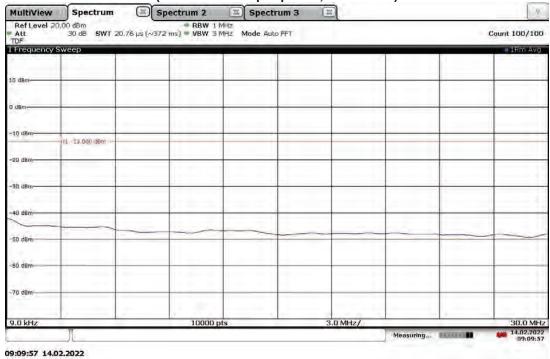
§24.238(a): The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

11.4 Setup Photographs:

Confidential – Photos not included in this report

11.5 Plots/Data:

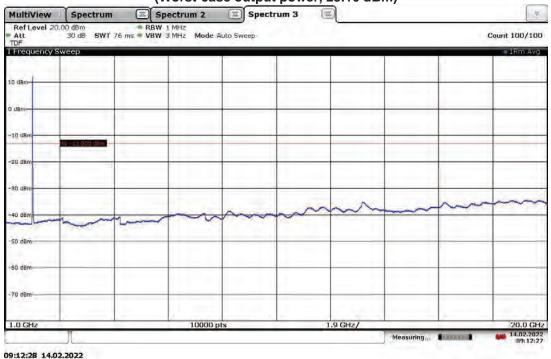
Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)



Antenna Port (ANT0) Conducted Emissions, 30-1000 MHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	1 million	
Ref Level 20.0 Att TDF	0 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep		Count 100/10
Frequency Sw	/eep				IRm Av
0 dBm					
J dBm-					-
10 dBm	1-12.010 dBm				
20 dBm					
30 dBm-					
40 dBm			and the second designed and th		
	Construction of the Product				
50 dBm					
60 dBm					
70 dBm					
30.0 MHz		10000	pts	97.0 MHz/	1.0 Gł
1.2	T			Measuring	11 .02.201 09:11:4

Antenna Port (ANT0) Conducted Emissions, 1-20 GHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)



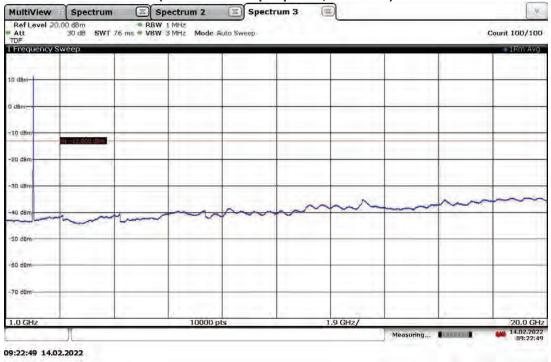
Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

RefLevel 20.00 d8m Att 30 d8 SWT 20 DF	RBW 1 MHz Node Au	to PFT		Count 100/100
Frequency Sweep				1Rm Avg
i dBm				-
dBm				
0 dBm			· · · · · · · · · · · · · · · · · · ·	
10 dBm-				
0 dBm-				-
0 dBm				-
io dam	~~~~~			
ió dem				-
10 dBm				
.0 kHz	10000 pts	3.0 MHz/		30.0 MH

Antenna Port (ANT0) Conducted Emissions, 30-1000 MHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	E C			4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep				Count 100/100
Frequency St	weep						IRm Avg
· · · · · · · · · · · · · · · · · · ·							
10 dBm							-
0 dBm-				_			
-10 dBm-	14 - CE 000 dom			_			_
-20 dBm						-	
-30 dBm-	-					-	-
-40 dBm			and southern all south of the s			and the second second	and the second
S0 dBm	Construction of the local division of the lo						
-60 d8m-				_			
-70 dBm				_			
30.0 MHz		10000	pts	97.0 MHz/	-	2	1.0 GF
	1				Measuring	A REAL PROPERTY.	44.02.202 09:22:1

Antenna Port (ANT0) Conducted Emissions, 1-20 GHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)



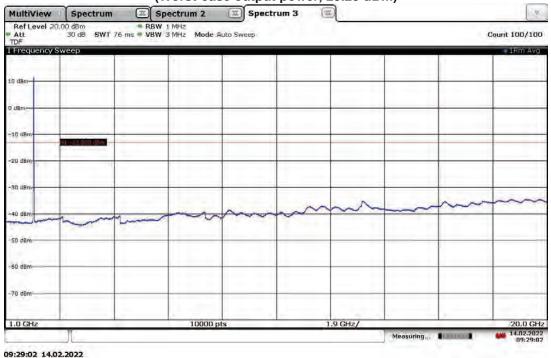
Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

MultiView	Spectrum	Spectru	m 2 🖾 Spec	trum 3 🔳		19
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	.76 µs (~372 ms)	RBW 1 MHz VBW 3 MHz Mode Au	ito PFT		Count 100/100
Frequency St	weep					IRm Avg
1						
10 dBm			_			
0 dBm						-
-10 dBm						
-20 dBm-	14-12.000 dam)					
-30 dBm						
40. dBm						
S0 dBm						~~~
60 d8m-						
70 dem						
9.0 kHz		· · · ·	10000 pts	3.0 MHz/		30.0 MF
	1				Measuring 💵	44.02.202 09:26:5

Antenna Port (ANT0) Conducted Emissions, 30 MHz-1000 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	22		
Ref Level 20. Att TDF	00 dBm 30 dB SWT 10	BBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
Frequency S	weep		7 7			IRm Avg.
1						
10 dBm						-
0 dBm-						_
-10 dBm						
-20 dBm-	14 - <u>22 000 d8m</u>					
				4.14	- 10	
-30 dBm-						
-40 d8m	and the second second second second					
S0 dBm						-
60 d8m						
70 d8m						
30.0 MHz	-	10000 ;	ots	97.0 MHz/		1.0 GH
	1			Meas	uring Season 1	14.02.2022 09:28:18

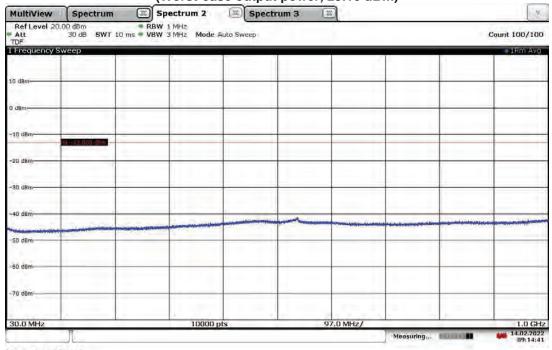
Antenna Port (ANT0) Conducted Emissions, 1-22 GHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)



Antenna Port (ANT1) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)

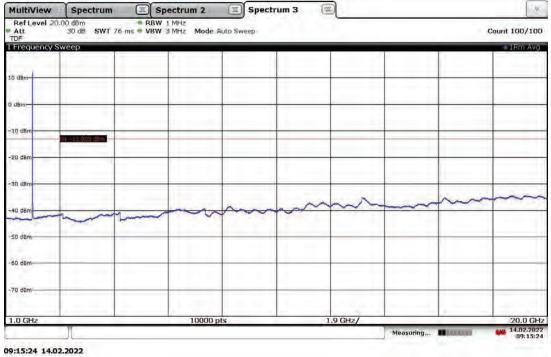
MultiView	Spectrum	S S	pectrum 2	I Spec	trum 3 [🗉	3			17
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	.76 µs (~37.	* BBW 1 2 ms) * VBW 3	MHz MHz Mode A	uto PFT				Count 100/100
Frequency S	weep				-				1Rm Avg
A 100 A 100 A			1				1		
10 dBm-		-	-		-		-	-	-
J dBm-				1					1
-10 dBm						_	i		
	H1-12 000 dBm								
-20 dBm							1		
-30 dBm									
40 dBm		_		-	-		-	-	-
50 dBm									-
60 dBm									
70 dBm		_							
		-	1.						= 11
9.0 kHz	T		10000 (ots	3	.0 MHz/		-	30.0 MH
	1						Measuring	10000000	14.02.202 09:14:2

Antenna Port (ANT1) Conducted Emissions, 30-1000 MHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)



09:14:41 14.02.2022

Antenna Port (ANT1) Conducted Emissions, 1-20 GHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)



Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

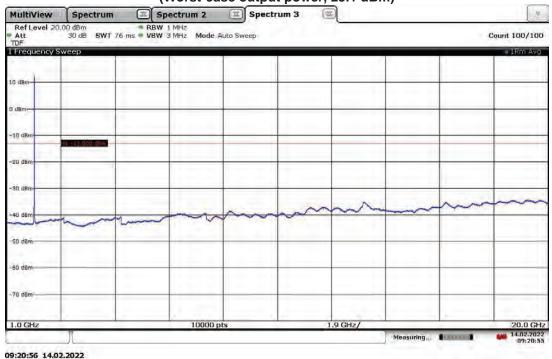
MultiView	Spectrum	Spe	ctrum 2	Spect	rum 3 [🛽	3			17
RefLevel 20.0 Att TDF	00 dBm 30 dB SWT 20.	76 µs (~372 n	● RBW 1 M IS) ● VBW 3 M	Hz Hz Mode Au	IO PFT	1			Count 100/100
I Frequency Sv									IRm Avg
A 199						1	-	1	
10 dBm-									
0 dBm-						-			
-10 dBm									
-20 dBm	41-12.000.d9m								
			1.22						
-30 dBm-						-			
-40 dBm					-	_	-	-	-
S0 dBm									
-60 dBm-									
-70 d8m					-				
			1.002				-		
9.0 kHz			10000 pt	s	3	B.0 MHz/			30.0 MH

09:18:46 14.02.2022

Antenna Port (ANT0) Conducted Emissions, 30-1000 MHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	1			4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep				Count 100/100
Frequency S	weep		-				 1Rm Avg
					1		
10 dBm-							-
J dBm						-	
-10 dBm							
-20 dBm							
-30 dBm							
-40 dBm							
		· And the second s	and the state of t	and the second sec	and the state of the birth of the state of t	and the second sec	Service and the service of the servi
S0 dBm					-		-
60 d8m					-		-
70 dem							
30.0 MHz		10000 g	ots	97.0 MHz/			1.0 GH
	J				Measuring	100010	14.02.202 09:19:5

Antenna Port (ANT0) Conducted Emissions, 1-20 GHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)



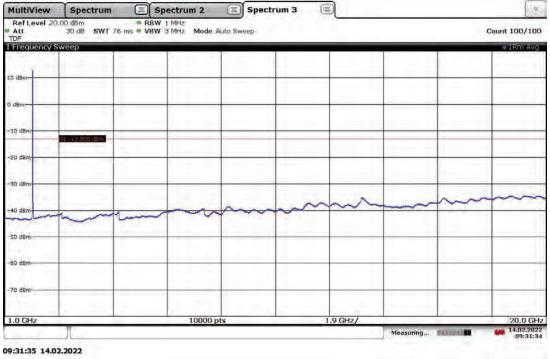
Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

MultiView	Spectrum	Spe Spe	ctrum 2	Spectru	im 3 [🔤				17
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	.76 µs (~372 m	BBW 1 MH s) VBW 3 MH	iz Mode Auto I	PFT				Count 100/100
Frequency S	weep	_		-					1Rm Avg
							(
10 dBm					-	_		-	-
) dBm									
-10 dBm-									
10 000	11-12-000 dBm								
-20 dBm					-				
-30 dBm								-	-
40 dBm						_	-	-	-
SO dBm						~~~~~	-	-	
60 dBm-									
70 d8m									
			1.00						
9.0 kHz			10000 pts		3	.0 MHz/	-		30.0 MH
							Measuring	0000000	14.02.202 09:30:4

Antenna Port (ANT0) Conducted Emissions, 30 MHz-1000 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	E			
Ref Level 20. Att TDF	00 dBm 30 dB SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep				Count 100/100
Frequency St	weep						IRm Avg
10 dBm				_	-		-
J dBm-				-			
-10 dBm	M - Cr 000 dBm						
-20 dBm-	-			_	-	-	-
-30 dBm-			+			-	-
-40 dBm			and a supervised of the superv		man i fa and and and and	a sum a prisma and	- Contraction
S0 dBm							
60 d8m				_			-
70 dBm							-
30.0 MHz		10000	pts	97.0 MHz/	1	2	1.0 GF
					Measuring	A REAL PROPERTY.	14.02.202 09:31:0

Antenna Port (ANT0) Conducted Emissions, 1-22 GHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)



Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

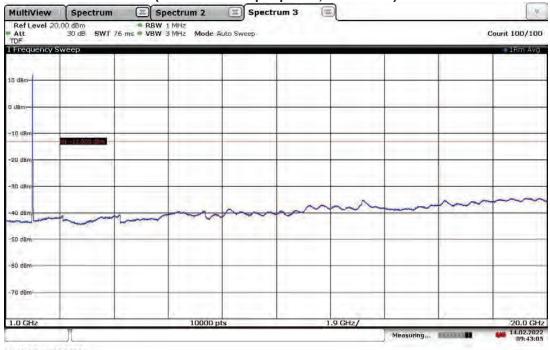
MultiView	Spectrum	Sp Sp	ectrum 2	Speci	trum 3 [17
Ref Level 20. All TDF	00 d8m 30 d8 SWT 20	.76 µs (~372	= BBW 1 ms) = VBW 3	MHZ MHZ Mode Au	to FFT				Count 100/100
I Frequency S	weep								IRm Avg.
A									
10 dBm			-	-			-	-	-
									1
0 dBm-				-	-	-	-	1	-
-10 dBm-	14-12 010 dami							-	
-20 dBm		_				-	-	-	
-30 dBm-					-				-
-40 dBm			1.000						
-									
SO dam									
-60 d8m-					-	-	-		-
-70 dam									
9.0 kHz			10000 p	ts		3.0 MHz/			30.0 MH
	T.		24646				Measuring	B houses	14.02.2022 09:42:10

09:42:11 14.02.2022

Antenna Port (ANT0) Conducted Emissions, 30-1000 MHz Band 2 Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	I		4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
Frequency St	weep					1Rm Avg
10 dBm						-
) dBm-						
-10 dBm						
	11-12.000 dbm					
-20 dBm						
-30 dBm				-		-
-40 d8m		and the second				n- i manus-sibiawate
Maganine martin	to the section of the	The state of the s				
S0 dBm						
60 d8m						
70 dêm						
30.0 MHz		10000 ;	ots	97.0 MHz/		1.0 GF
	JL_				Measuring	14.02.202 09:42:3

Antenna Port (ANT0) Conducted Emissions, 1-20 GHz Band 2 Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)



09:43:05 14.02.2022

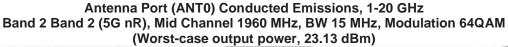
Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

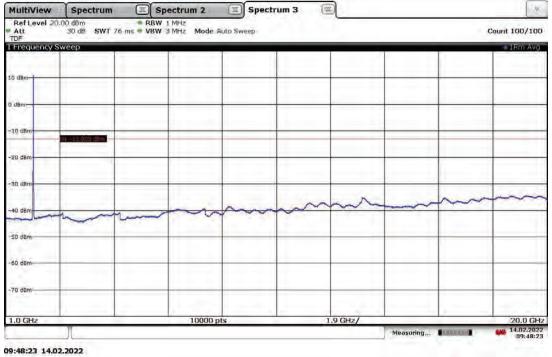
MultiView	Spectrum	S S	pectrum 2	SI SI	bectrum 3	E C			12
Ref Level 20 Att TDF	00 d8m 30 d8 SWT 20	_	e RBW 1 2 ms) = VBW 3	MHz MHz Mod	e Auto FFT				Count 100/100
Frequency S	weep								1Rm Avg
10 dBm		_	-	-	-	_		_	-
) dBm-									-
	11 II (11								
-10 dBm	41-12 000 dam				_	_		_	_
-20 dBm				-	_			-	
30 dBm				-		_	-		-
40 d8m			1.1			_			-
1-				-		-		1.1	
50 dBm									
60 dBm		_			-				-
70 d8m									
9.0 kHz		_	10000	ots		3.0 MHz/		-	30.0 MF
	T						Measurin	g., (10000)	14.02.202 09:46:4

Antenna Port (ANT0) Conducted Emissions, 30-1000 MHz Band 2 Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	E C		4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHZ ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
I Frequency S	weep					 1Rm Avg.
and the second second		1				
10 dBm						
O dBm						
-10 dBm-	H_ 12.000 dSm					
-20 dBm						
-30 dBm						
-40 dBm						
SO dBm		And the second particular and the second			And the second	
60 d8m						
-70 dBm						
30.0 MHz		10000	abr	97.0 MHz/	· · · · · · · · · · · · · · · · · · ·	1.0 GH
SOLU MILE	T	10000	pta	3710 MILEY	Measuring	14.02.2023 09:47:43

09:47:43 14.02.2022





Antenna Port (ANT0) Conducted Emissions, 9 kHz-30 MHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

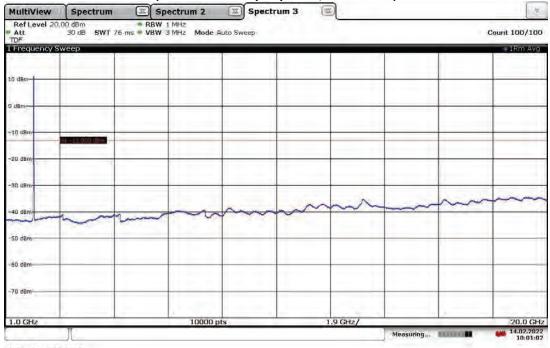
MultiView	Spectrum	Spectru	m 2 🔳 Sp	ectrum 3 🛛 🖾				.17
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	.76 µs (~372 ms)	RBW 1 MHz VBW 3 MHz Mode	Auto FFT				Count 100/100
I Frequency St	weep							1Rm Avg
						P		
10 dBm-							-	
O dBm								
-10 dBm-								
	14 - 12 000 dbm							
-20 dBm					1	1		1
-30 dBm-						-		-
=40 dBm			-				-	
S0 dBm			~					-
60 d8m-								
-70 dBm								
9.0 kHz		, i .	10000 pts	3	0 MHz/	÷		30.0 MH
and the part	T		and the party of t			Measuring		14.02.2022 10:00:11

10:00:11 14.02.2022

Antenna Port (ANT0) Conducted Emissions, 30 MHz-1000 MHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	3 🔳			4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep				Count 100/10
Frequency S	weep		-				1Rm Avg
					1		
10 dBm						-	
) dBm					_	-	
-10 dBm			1		1101-00.1		
-20 dBm	11 - 12.000 dBm						
-30 dBm					1 1 1	1	
40 dBm							
SO dBm							
60 dBm							-
70 dêm							
30.0 MHz		10000	ots	97.0 MHz/		-	1.0 GH
					Measuring	Concession of the	14.02.202 10:00:3

Antenna Port (ANT0) Conducted Emissions, 1-22 GHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)



10:01:02 14.02.2022

Antenna Port (ANT1) Conducted Emissions, 9 kHz-30 MHz Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

MultiView	Spectrum	Spe Spe	ectrum 2	🖾 Spectru	m 3 🗵				17
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	.76 µs (~372 t	BBW 1M	Hz Hz Mode Auto I	P T				Count 100/100
Frequency St	weep			_					1Rm Avg
1			1				1		
10 dBm		_			-	_	-	-	-
dBm						_	_	-	
-10 dBm						_			
	41-12.000 dBm								
20 dBm									
-30 dBm-									
40 dBm					-	_		-	-
SO dBm									
60 dBm			_			_			-
70 d8m									
								, — — ,	
9.0 kHz	T		10000 pt	ŝ	3.	0 MHz/	Measuring	Accessory 1	30.0 MH 14.02.202 09:37:5
							medsuring	and a state of the	09:37:5

Antenna Port (ANT1) Conducted Emissions, 30-1000 MHz Band 2 Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	E C		4
RefLevel 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
I Frequency St	weep					IRm Avg.
1		1				
10 dBm						-
0 dBm-				-		
-10 dBm-						
-20 dBm				_		
-30 dBm-				_		-
-40 dBm						
-		the later of the l				
S0 dBm						
-60 d8m						
-70 dBm				_		
30.0 MHz		10000	pts	97.0 MHz/		1.0 GHz
					Measuring	14.02.2022

09:39:11 14.02.2022

Antenna Port (ANT1) Conducted Emissions, 1-20 GHz Band 2 Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

MultiView	Spectrum	Spectru	ım 2 🔳	Spectrum 3	(322)			4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 76	RBW 1 MHz	Mode Auto Sw	eep-				Count 100/100
Frequency S	weep							1Rm Avg
10 dBm					_		-	
) dBm								
-10 dBm								
-20 dBm	11-1:000 d9m							
-30 dBm					_			
-40 dêm			-	m	m		m	
					- 1 · · · · · · ·	1		
S0 dBm								
60 dBm								
70 d0m								
1.0 GHz			10000 pts	4. 10	1.9 GHz/			20.0 GF
1						Measuring	100010	14.02.202 09:39:4

Antenna Port (ANT1) Conducted Emissions, 9 kHz-30 MHz Band 2 Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

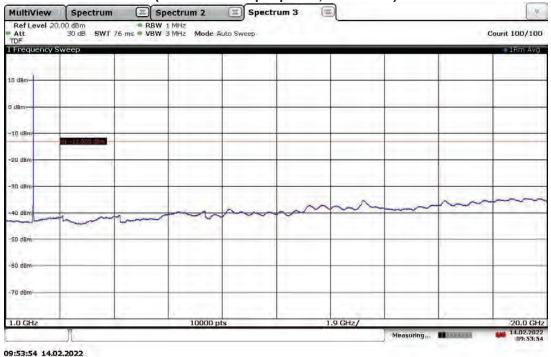
MultiView	Spectrum	Spectrum 2	Spectrum 3	1		17				
Ref Level 20:00 d8m BBW 1 MHz Att 30 d8 SWT 20:76 μs (~372 ms) VBW 3 MHz Mode Auto FFT Count 100 TDF Count 100 Count 100 Count 100 Count 100										
Frequency S	weep					 1Rm Avg. 				
10 dBm				_		_				
0 dBm-										
-10 dBm-				-						
-20 dBm-	11-1:011 daw									
-30 dBm-										
40 d8m										
1				-		_				
SO dBm						1				
60 dBm										
70 d8m										
9.0 kHz	-	10000	nts	3.0 MHz/		30.0 MH				
2.0 KI 12	T	10000	pra	D.M. MICIZ/	Measuring	14.02.2022 09:52:08				

09:52:08 14.02.2022

Antenna Port (ANT1) Conducted Emissions, 30-1000 MHz Band 2 Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	E		4
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
Frequency S	weep		-			1Rm Avg
10 dBm						-
J dBm						
-10 dBm						
-20 dBm	11 - 12 000 dbm					
-30 dBm				111		
-40 d8m						-
		And a superior of the superior of the superior	and the state of t	and a state of the state of the state	and the state of t	and the state of t
50 dBm						-
60 dBm						-
70 d0m						
30.0 MHz		10000	ots	97.0 MHz/		1.0 Gł
				Me	easuring	14.02.202 09:52:2

Antenna Port (ANT1) Conducted Emissions, 1-20 GHz Band 2 Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)



Antenna Port (ANT1) Conducted Emissions, 9 kHz-30 MHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

MultiView	Spectrum	Sp Sp	ectrum 2	Spectru	m 3 🖾				14
Ref Level 20. Att TDF	00 d8m 30 d8 SWT 20	_	ms) = RBW 1 M	Hz Hz Mode Auto I					Count 100/100
Frequency St	weep								IRm Avg
A									
10 dBm-		_			-	_	-		
0 dBm									
-10 dBm									
11 100	M -12 000 d8m					_			
20 dBm						-			
-30 dBm					-			-	
40 dBm		_		-	-	-			
S0 dBm									-
60. d8m-									-
70 d8m									
9.0 kHz		_	10000 pt	s	3.0	MHz/			30.0 MH
	J						Measuring	100010	14.02.202 09:57:23

Non-Specific Radio Report Shell Rev. December 2017 Page 581 of 604 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 4G LTE and 5G nR waveforms With OneCell[®] RP5200

Antenna Port (ANT1) Conducted Emissions, 30 MHz-1000 MHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

MultiView	Spectrum	Spectrum 2	Spectrum 3	I		4
Ref Level 20. Att TDF	00 dBm 30 dB SWT 10	RBW 1 MHz ms VBW 3 MHz Mode	Auto Sweep			Count 100/100
I Frequency St	weep					IRm Avg.
/						
10 dBm				_		_
0 dBm-				_		
-10 dBm				_		-
-20 d8m	14 - 12.000 d8m					
-30 dBm-						
-40 d8m-						
New York and printers and stress				and training to	an and a second s	Mary No. on 19 Addison Street States
S0 dBm						
-60 dBm				-		-
-70 dBm				-		-
30.0 MHz		10000	pts	97.0 MHz/		1.0 GH
					Measuring	14.02.2023

09:58:46 14.02.2022

Antenna Port (ANT1) Conducted Emissions, 1-22 GHz Band 2 Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

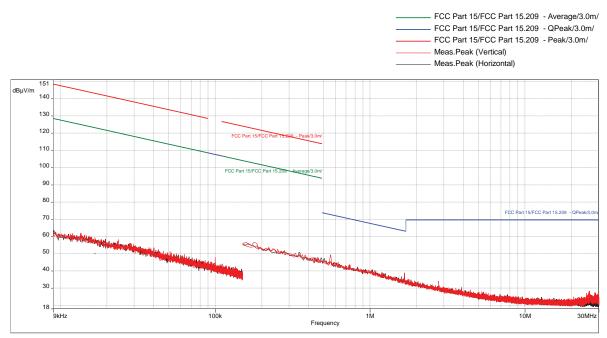
MultiView	Spectrum	🖾 Spe	ctrum 2	Spect	rum 3 🛛	22)			4
Ref Level 20 Att TDF	.00 dBm 30 dB SWT 76	ms = RBW 1 ms = VBW 3	MHZ MHZ Mode A	uto Sweep		-			Count 100/100
Frequency S	weep								IRm Avg
				-					
10 dBm						-		-	-
) dBm						_	-		
-10 dBm-	11 1:000.00m								
-20 d8m-									
-30 dBm-									
-40 dBm		-		m	m	m		m	
	m					1.1	1		
50 dBm									
60 dem									-
70 d0m									
1.0 GHz			10000 p	ts		1.9 GHz/			20.0 GH
							Measuring	BRACKWOOD -	14.02.202 09:59:3

Radiated Emissions, 9 kHz-30 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power)

Test Information:

Date and Time	2/14/2022 6:43:14 PM
Client and Project Number	CommScope_G104915434
Engineer	Vathana Ven
Temperature	24 deg C
Humidity	12%
Atmospheric Pressure	1011 mB
Comments	RE 9kHz-30MHz_Band 2 4G LTE_TM1.1-QPSK 15MHz BW_Tx High CH
	1982.5MHz_Worst-case PWR_RP5200 host

Graph:



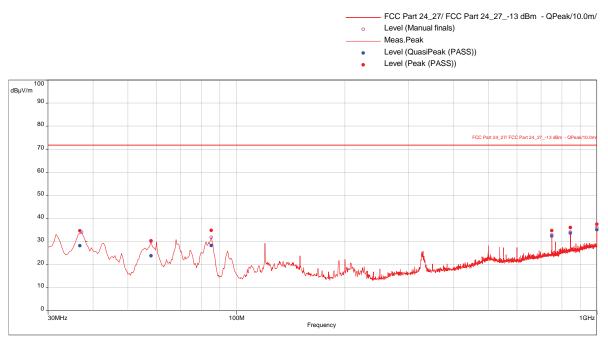
Results: No emissions were detected.

Radiated Emissions, 30-1000 MHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)

Test Information:

Date and Time	2/7/2022 7:35:48 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	24 C
Humidity	22 %
Atmospheric Pressure	1011 mbar
Comments	Scan 1: Band 2 & 25 (4G LTE), Low 1937.5MHz, 15MHz-16QAM (Worst-case output
	pwer, 23.16 dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency (MHz)	Peak Level (dBµV/m)	EIRP Level (dBm)	Limit (dBm)	EIRP Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
36.94736842	34.56	-50.14	-13	-37.14	140.00	2.78	Vertical	120000.00	-17.06
57.90526316	30.11	-54.59	-13	-41.59	0.00	2.24	Vertical	120000.00	-25.81
85.38947368	34.79	-49.91	-13	-36.91	234.00	2.23	Vertical	120000.00	-25.31
750	34.72	-49.98	-13	-36.98	213.00	3.90	Horizontal	120000.00	-8.57
844.8	36.02	-48.68	-13	-35.68	148.00	1.40	Horizontal	120000.00	-6.69
1000	37.48	-47.22	-13	-34.22	132.00	1.00	Horizontal	120000.00	-4.73

Notes:

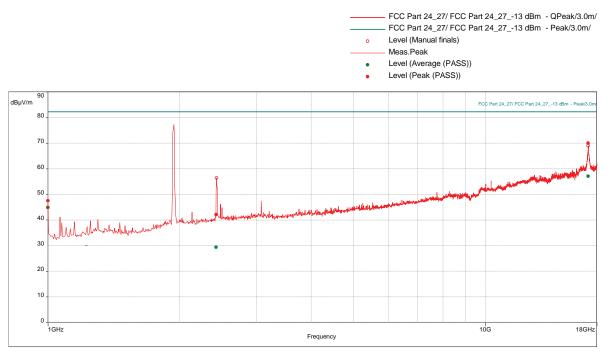
The level in EIRP (dBm) is calculated from the peak readings as, EIRP (dBm) = E Peak (dB μ V/m) + 20*Log(d) – 104.8, where d is the measurement distance (in the far field region) in meter.

Radiated Emissions, 1-18 GHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)

Test Information:

Date and Time	2/8/2022 8:25:04 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 19: Band 2 and 25 (4G LTE), Low 1937.5MHz, 15MHz-16QAM (Worst-case
	output pwer, 23.16dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (3)

Frequency (MHz)	Peak Level (dBµV/m)	EIRP Level (dBm)	Limit (dBm)	EIRP Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
1000	47.52	-37.18	-13	-24.18	133.00	1.07	Horizontal	1000000.00	-8.14
2426.578947	42.10	-42.6	-13	-29.6	105.00	1.00	Horizontal	1000000.00	-2.39
17194.21053	70.00	-14.7	-13	-1.7	147.00	1.09	Horizontal	1000000.00	33.88

Notes:

The level in EIRP (dBm) is calculated from the peak readings as, EIRP (dBm) = E Peak (dB μ V/m) + 20*Log(d) – 104.8, where d is the measurement distance (in the far field region) in meter.

Radiated Emissions, 18-20 GHz Band 2 (4G LTE), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.16 dBm)

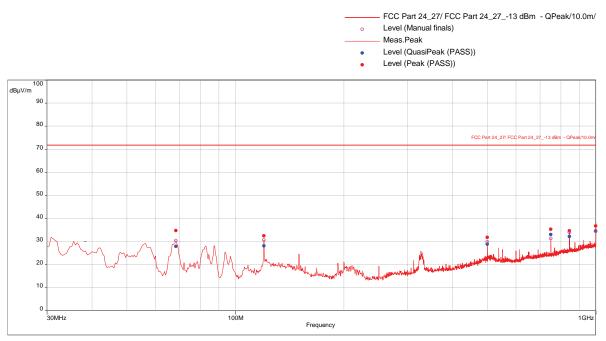
Manual scan was performed at 10 cm from the EUT with no emission was detected.

Radiated Emissions, 30-1000 MHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

Test Information:

Date and Time	2/8/2022 9:19:17 AM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 7: Band 2 (4G LTE), Mid 1960MHz, 15MHz-QPSK (Worst-case output pwer,
	231dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency (MHz)	Peak Level	EIRP Level	Limit (dBm)	EIRP Margin	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
()	(dBµV/m)	(dBm)	` ,	(dB)	. ,	` ,		· · /	· · ·
68.49473684	34.74	-60.46	-13.00	-47.46	219.00	2.02	Vertical	120000.00	-24.85
120	32.44	-62.76	-13.00	-49.76	3.00	2.29	Vertical	120000.00	-18.46
500	31.76	-63.44	-13.00	-50.44	214.00	1.00	Vertical	120000.00	-12.84
750	35.24	-59.96	-13.00	-46.96	67.00	1.64	Horizontal	120000.00	-8.57
844.8	34.57	-60.63	-13.00	-47.63	153.00	1.58	Horizontal	120000.00	-6.69
998.4	36.73	-58.47	-13.00	-45.47	118.00	1.00	Horizontal	120000.00	-4.82

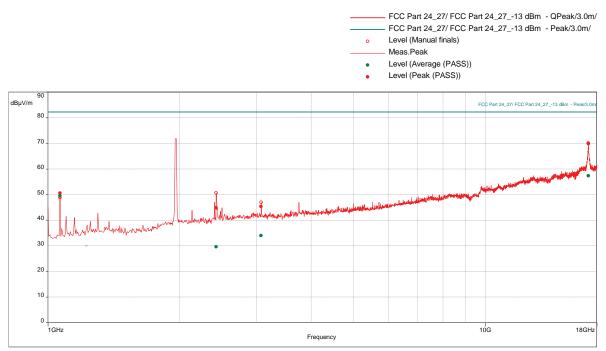
Notes:

Radiated Emissions, 1-18 GHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

Test Information:

Date and Time	2/8/2022 2:01:42 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 11: Band 2 (4G LTE), Mid 1960MHz, 15MHz-QPSK (Worst-case output pwer,
	231dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (4)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
1066.578947	50.57	-44.63	-13	-31.63	155.00	1.65	Horizontal	1000000.00	-8.96
2426.052632	44.82	-50.38	-13	-37.38	38.00	3.84	Vertical	1000000.00	-2.40
3072.105263	45.37	-49.83	-13	-36.83	111.00	1.30	Vertical	1000000.00	-0.72
17206.31579	70.04	-25.16	-13	-12.16	133.00	1.05	Vertical	1000000.00	33.92

Notes:

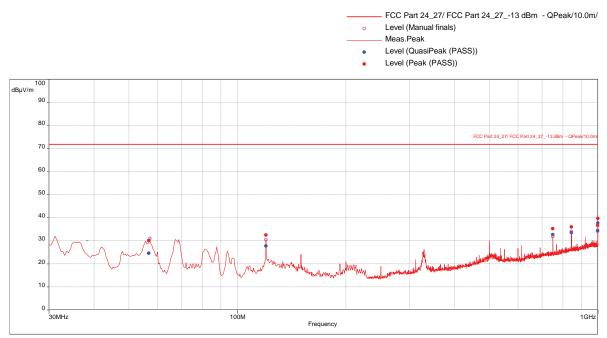
Radiated Emissions, 18-20 GHz Band 2 (4G LTE), Mid Channel 1960 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.1 dBm)

Radiated Emissions, 30-1000 MHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

Test Information:

Date and Time	2/8/2022 10:00:14 AM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 8: Band 2 (4G LTE), High 1982.5MHz, 15MHz-QPSK (Worst-case output pwer,
	23.25dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
56.82105263	30.09	-65.11	-13.00	-52.11	221.00	1.69	Vertical	120000.00	-25.93
120	32.43	-62.77	-13.00	-49.77	1.00	2.01	Vertical	120000.00	-18.46
750	35.20	-60.00	-13.00	-47.00	69.00	1.80	Horizontal	120000.00	-8.57
844.8	35.96	-59.24	-13.00	-46.24	142.00	1.35	Horizontal	120000.00	-6.69
998.4	36.64	-58.56	-13.00	-45.56	119.00	1.00	Horizontal	120000.00	-4.82
1000	39.64	-55.56	-13.00	-42.56	133.00	1.00	Horizontal	120000.00	-4.73

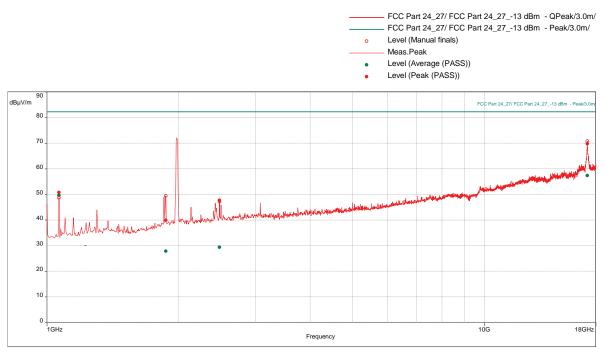
Notes:

Radiated Emissions, 1-18 GHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

Test Information:

Date and Time	2/8/2022 2:47:24 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 12: Band 2 (4G LTE), High 1982.5MHz, 15MHz-QPSK (Worst-case output
	pwer, 23.25dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (4)

Frequency (MHz)	Peak Level (dBuV/m)	EIRP Level (dBm)	Limit (dBm)	EIRP Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
1066.578947	50.75	-44.45	-13	-31.45	161.00	1.65	Horizontal	1000000.00	-8.96
1869.473684	39.86	-55.34	-13	-42.34	68.00	3.98	Horizontal	1000000.00	-3.96
2480.263158	47.68	-47.52	-13	-34.52	9.00	3.44	Vertical	1000000.00	-1.89
17204.73684	69.76	-25.44	-13	-12.44	90.00	2.85	Vertical	1000000.00	34.03

Notes:

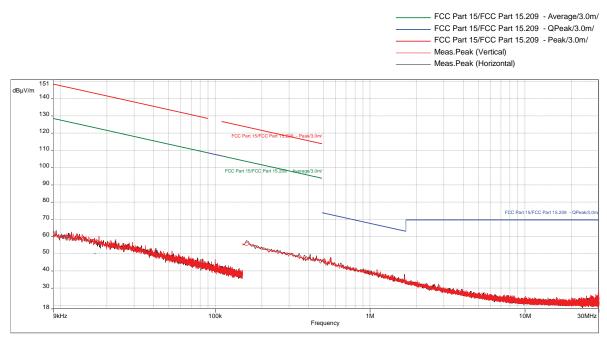
Radiated Emissions, 18-20 GHz Band 2 (4G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation QPSK (Worst-case output power, 23.25 dBm)

Radiated Emissions, 9 kHz-30 MHz Band 2 (5G LTE), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power)

Test Information:

Date and Time	2/14/2022 8:17:34 PM
Client and Project Number	CommScope_G104915434
Engineer	Vathana Ven
Temperature	24 deg C
Humidity	12%
Atmospheric Pressure	1011 mB
Comments	RE 9kHz-30MHz_Band 2 5G nR_TM3.1-64QAM 15MHz BW_Tx High CH
	1982.5MHz_Worst-case PWR_RP5200 host

Graph:



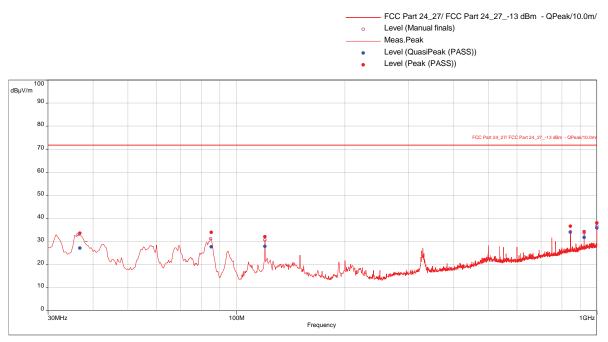
Results: No emissions were detected.

Radiated Emissions, 30-1000 MHz Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

Test Information:

Date and Time	2/7/2022 8:07:11 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	24 C
Humidity	22 %
Atmospheric Pressure	1011 mbar
Comments	Scan 2: Band 2 & 25 (5G nR), Low 1937.5MHz, 15MHz-16QAM (Worst-case output
	pwer, 23.19 dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
36.84210526	33.57	-51.13	-13	-38.13	46.00	1.96	Vertical	120000.00	-16.99
85.05263158	33.95	-50.75	-13	-37.75	243.00	2.91	Vertical	120000.00	-25.30
120	32.06	-52.64	-13	-39.64	228.00	1.36	Vertical	120000.00	-18.46
844.8	36.64	-48.06	-13	-35.06	149.00	1.29	Horizontal	120000.00	-6.69
921.6	34.24	-50.46	-13	-37.46	135.00	1.00	Horizontal	120000.00	-5.69
1000	38.06	-46.64	-13	-33.64	126.00	1.00	Horizontal	120000.00	-4.73

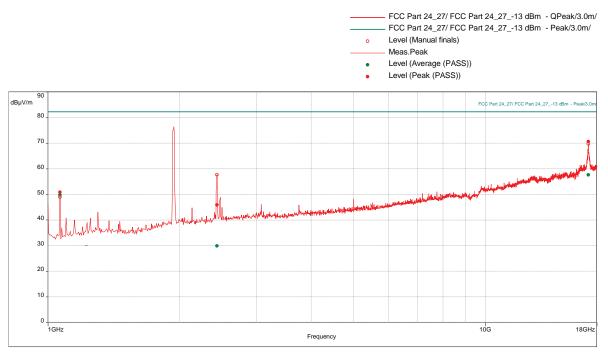
Notes:

Radiated Emissions, 1-18 GHz Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

Test Information:

Date and Time	2/8/2022 9:16:11 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 20: Band 2 and 25 (5G nR), Low 1937.5MHz, 15MHz-16QAM (Worst-case
	output pwer, 23.19dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (3)

Frequency (MHz)	Peak Level (dBuV/m)	EIRP Level (dBm)	Limit (dBm)	EIRP Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
1066.578947	50.85	-44.35	-13	-31.35	162.00	1.65	Horizontal	1000000.00	-8.96
2435	45.84	-49.36	-13	-36.36	322.00	2.85	Vertical	1000000.00	-2.33
17200.26316	70.62	-24.58	-13	-11.58	4.00	1.30	Vertical	1000000.00	34.36

Notes:

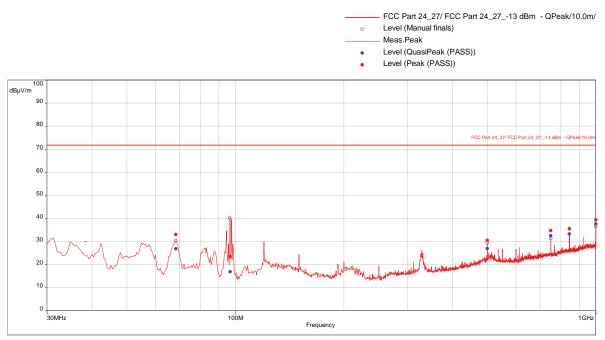
Radiated Emissions, 18-20 GHz Band 2 (5G nR), Low Channel 1937.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.19 dBm)

Radiated Emissions, 30-1000 MHz Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

Test Information:

Date and Time	2/8/2022 10:45:55 AM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 9: Band 2 (5G nR), Mid 1960MHz, 15MHz-64QAM (Worst-case output pwer,
	23.13dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
68.30526316	33.00	-62.20	-13.00	-49.20	314.00	2.24	Vertical	120000.00	-24.85
96.65263158	23.42	-71.78	-13.00	-58.78	3.00	2.63	Vertical	120000.00	-23.17
499.9684211	30.44	-64.76	-13.00	-51.76	212.00	1.00	Vertical	120000.00	-12.84
750	34.75	-60.45	-13.00	-47.45	68.00	1.96	Horizontal	120000.00	-8.57
844.8	35.48	-59.72	-13.00	-46.72	133.00	1.29	Horizontal	120000.00	-6.69
1000	39.37	-55.83	-13.00	-42.83	126.00	1.00	Horizontal	120000.00	-4.73

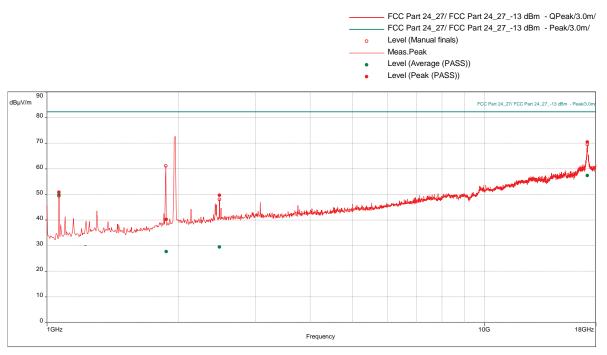
Notes:

Radiated Emissions, 1-18 GHz Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

Test Information:

Date and Time	2/8/2022 3:27:33 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 13: Band 2 (5G nR), Mid 1960MHz, 15MHz-64QAM (Worst-case output pwer,
	2313dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (4)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
1066.578947	50.85	-44.35	-13	-31.35	163.00	1.60	Horizontal	1000000.00	-8.96
1873.684211	40.17	-55.03	-13	-42.03	308.00	2.65	Horizontal	1000000.00	-3.91
2479.736842	49.59	-45.61	-13	-32.61	314.00	3.49	Vertical	1000000.00	-1.90
17205	70.40	-24.8	-13	-11.8	207.00	1.30	Horizontal	1000000.00	34.01

Notes:

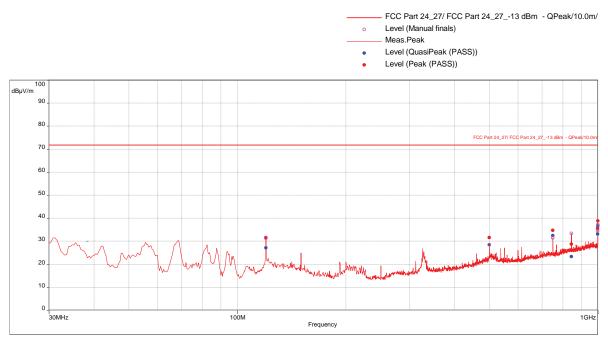
Radiated Emissions, 18-20 GHz Band 2 (5G nR), Mid Channel 1960 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.13 dBm)

Radiated Emissions, 30-1000 MHz Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 64QAM (Worst-case output power, 23.30 dBm)

Test Information:

Date and Time	2/8/2022 12:59:25 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 10: Band 2 (5G nR), High 1982.5MHz, 15MHz-16QAM (Worst-case output
	pwer, 23.30dBm), RE 30-1000MHz SA mode

Graph:



Results:

EIRP Peak (PASS) (6)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
119.9684211	31.60	-63.60	-13.00	-50.60	3.00	2.23	Vertical	120000.00	-18.46
500	31.52	-63.68	-13.00	-50.68	206.00	1.00	Vertical	120000.00	-12.84
750	34.70	-60.50	-13.00	-47.50	68.00	1.80	Horizontal	120000.00	-8.57
844.8	28.68	-66.52	-13.00	-53.52	97.00	3.29	Horizontal	120000.00	-6.69
998.4	35.51	-59.69	-13.00	-46.69	118.00	1.00	Horizontal	120000.00	-4.82
1000	38.80	-56.40	-13.00	-43.40	126.00	1.00	Horizontal	120000.00	-4.73

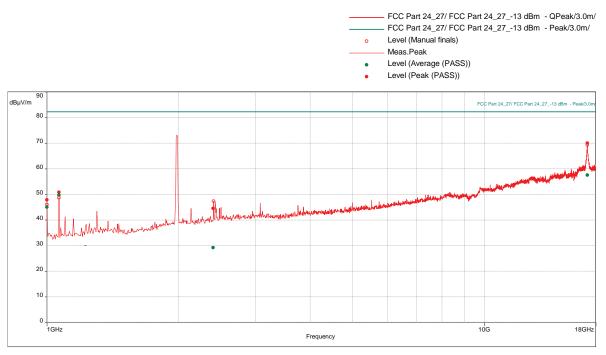
Notes:

Radiated Emissions, 1-18 GHz Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.30 dBm)

Test Information:

Date and Time	2/8/2022 3:58:12 PM
Client and Project Number	CommScope
Engineer	Kouma Sinn
Temperature	20 C
Humidity	29 %
Atmospheric Pressure	1000 mbar
Comments	Scan 14: Band 2 (5G nR), High 1982.5MHz, 15MHz-16QAM (Worst-case output
	pwer, 2330dBm), RE 1-18 GHz SA mode

Graph:



Results:

EIRP Peak (PASS) (4)

Frequency	Peak	EIRP	Limit	EIRP	Azimuth	Height	Pol.	RBW	Correction
(MHz)	Level	Level	(dBm)	Margin	(°)	(m)		(Hz)	(dB)
	(dBµV/m)	(dBm)		(dB)					
1000	47.81	-47.39	-13	-34.39	133.00	1.00	Horizontal	1000000.00	-8.14
1066.578947	50.85	-44.35	-13	-31.35	163.00	1.65	Horizontal	1000000.00	-8.96
2401.842105	44.48	-50.72	-13	-37.72	104.00	1.10	Vertical	1000000.00	-2.60
17198.94737	70.02	-25.18	-13	-12.18	147.00	3.64	Horizontal	1000000.00	34.29

Notes:

Radiated Emissions, 18-20 GHz Band 2 (5G nR), High Channel 1982.5 MHz, BW 15 MHz, Modulation 16QAM (Worst-case output power, 23.30 dBm)

		Intertek	
Report Number: 104	4915434BOX-001		Issued: 02/24/2022 Revised: 03/30/2022
Test Personnel: Supervising/Reviewing Engineer: (Where Applicable)	Kouma Sinn 495	Test Date:	02/07/2022, 02/08/2022, 02/14/2022
Product Standard: Input Voltage:	FCC Part 24 48 VDC (POE)	Limit Applied:	See report section 11.3
Pretest Verification w/ Ambient Signals or BB Source:	_N/A	Ambient Temperature: Relative Humidity:	
		Atmospheric Pressure:	1011, 1000, 1005 mbars

Deviations, Additions, or Exclusions: None

12 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	02/24/2022	104915434BOX-001	KPS 413	VEVUSU	Original Issue
1	03/30/2022	104915434BOX-001	KPS 43	VFV ^V 5V	 Changed report from 'Class II Permissive Change' to Full Compliance' report on page 2. Changed the conducted output power to EIRP power in Section 6.3