

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

All limits were adjusted by a factor of [-10*log((N)] to account for the device operation as a N port MIMO transmitter, as per FCC KDB 622911.

For Bands 12 and 14, the adjustment factor is -10*log(4) = -6 dB. The Bands 12 and 14 adjusted limit is -19 dBm.

Per FCC section 27.53(g) and RSS 130 4.7.1, the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter for Band 12.

FCC 27.53(g) and RSS 130 4.7.1 requires a \geq 100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range. FCC 27.53(g) requires a \geq 30 kHz measurement bandwidth for emissions between 100 kHz outside of the RRH operating frequency range and band edge of the operating frequency range.



							XMit 2020.03.25.0
EUT:	Airscale Base Transceive	er Station Remote Radio Head Model A	AHLBBA		Work Order:	NOKI0013	
Serial Number:	K9193514835				Date:	24-Mar-20	
Customer:	Nokia Solutions and Net	works			Temperature:	24.7 °C	
Attendees:	Mitch Hill, John Rattanav	vong			Humidity:	36.3% RH	
Project:	None				Barometric Pres.:	1025 mbar	
Tested by:	Brandon Hobbs		Power: 54 VDC		Job Site:	TX03	
TEST SPECIFICATIO	ONS		Test Method				
FCC 27:2020			ANSI C63.26:2015				
RSS-130:2019			RSS-130:2019				
COMMENTS							
All measurement pa was determined in t	ath losses were accounte he original client provide	ed for in the reference level offest inclu ed test report. The carrier power was s	Iding any attenuators, filters and DC blocks et to maximum for all testing.	s. The hottest port	per power amplifier (PA) was us	ed for testing. The v	worst case port
DEVIATIONS FROM	TEST STANDARD						
None							
Configuration #	2,6	Signature	2 Jan				
					Value (dBm)	Limit (dBm)	Result
Band 12, 729 MHz -7	45 MHz, LTE						
ļ	Port 1						
	5 MHz Bandy	width					
		QPSK Modulation, Low Channel, 731.5	MHz				_
		Range 1			-25.9	-19	Pass
		Range 2	N411-		-28.2	-19	Pass
		QPSK Modulation, High Channel, 742.5	MHZ			10	_
		Range 1			-24.1	-19	Pass
	10 MHz Bond	Range z			-27.3	-19	Pass
	TO WITZ Ballo	OPSK Modulation Low Channel 734 M	Hz				
		Range 1	112		-27.3	-19	Pass
		Range 2			-31.3	-19	Pass
		OPSK Modulation High Channel 740 M	IHz		01.0	15	1 435
		Range 1			-27.0	-19	Pass
		Range 2			-30.8	-19	Pass
	Port 2	0					
	5 MHz Bandy	width					
		QPSK Modulation, Low Channel, 731.5	MHz				
		Range 1			-24.2	-19	Pass
		Range 2			-24.3	-19	Pass
		QPSK Modulation, High Channel, 742.5	MHz				
		Range 1			-24.8	-19	Pass
		Range 2			-24.4	-19	Pass
	10 MHz Band	dwidth QPSK Modulation, Low Channel, 734 M	Hz				
		Range 1			-24.5	-19	Pass
		Range 2			-26.9	-19	Pass
		QPSK Modulation, High Channel, 740 M	Hz				
		Range 1			-24.9	-19	Pass
		Range 2			-26.8	-19	Pass



































XMit 2019.09.05

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TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Generator - Signal	Agilent	N5173B	TIW	5-Jul-17	5-Jul-20

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to the middle channel. The EUT was transmitting at the data rate(s) and bandwidths listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

All limits were adjusted by a factor of [-10*log(N)] dB to account for the device operation as a N port MIMO transmitter, as per FCC KDB 622911.

For Bands 12 and 14, the limit adjustment is $-10^{10}\log(4) = -6 \text{ dB}$. For Band 29, the limit adjustment is $-10^{10}\log(2) = -3 \text{ dB}$.

Over the frequency range of 150kHz-20MHz, a RBW of 10 kHz was used; therefore, an additional limit adjustment factor of 10 dB was applied [10*log(10/1)].

The limit for the 9kHz to 150kHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 100kHz [i.e.: -39dBm = -19dBm -10log(100kHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -29dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 100kHz [i.e.: -29dBm = -19dBm -10log(100kHz/1kHz)].

Per section 90.543(e)(3&5) and RSS 140 4.4 the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter for Band 14. FCC 90.543(e)(5) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

Per section 90.543(f) and RSS Gen 6.13, for the frequency range 1559-1610 MHz the EIRP limit is -70dBW/MHz for wideband signals and -80dBW for discrete emissions of bandwidths less than 700Hz. This equates to an EIRP of -40dBm/MHz for wideband emissions and -50dBm/MHz for discrete emissions. The limit is adjusted to -46 dBm [-40 dBm -10 log (4)] for wideband signals and -56dBm [-50 dBm -10 log (4)] for discrete emissions per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter.

Per FCC 2.1057(a)(1) and RSS Gen 6.13, the upper level of measurement is the 10th harmonic of the highest fundamental frequency. As such, the upper level of the measurement is approximately 8 GHz (763 MHz * 10).



EUT	Airscale Base Transceiver	Station Remote Radio Head Model AHLBBA		Work Order:	NOKI0013	
Serial Number	: K9193514835			Date:	25-Mar-20	
Customer	: Nokia Solutions and Netw	orks		Temperature:	22.5 °C	
Attendees	Mitch Hill, John Rattanavo	ng		Humidity:	50.8% RH	
Project	t: None			Barometric Pres.:	1008 mbar	
Tested by	: Brandon Hobbs		Power: 54 VDC	Job Site:	TX03	
TEST SPECIFICA	TIONS		Test Method			
FCC 901:2020			ANSI C63.26:2015			
RSS-140:2018, RS	SS-Gen:2019		RSS-140:2018, RSS-Gen:201	9		
COMMENTS						
All measurement	path losses were accounted	for in the reference level offest including any attenua	tors, filters and DC blocks. The hottes	st port per power amplifier (PA) was used for	testing. The worst	case port was
determined in the	original client provided test	report. The carrier power was set to maximum for all	testing.		5	·
DEVIATIONS FRC	OM TEST STANDARD					
None						
Configuration #	1,2,3,5,6,7	Signature	Jar			
				Value (dBm)	Limit (dBm)	Result
Band 14, 763 MHz	, LTE					
	Port 1					
	10 MHz Bandy	vidth				
	C	PSK Modulation, Mid Channel				_
		Range 1, 9 kHz - 150 kHz		-58.649	-39	Pass
		Range 2, 150 kHz - 20 MHz		-54.443	-29	Pass
		Range 3, 20 MHz - 600 MHz		-35.32	-19	Pass
		Range 4, 600 MHz - 800 MHz		-32.486	-19	Pass
		Range 5, 800 MHz - 1200 MHz		-36.381	-19	Pass
		Range 6, 1200 MHz - 8000 MHz		-37.226	-19	Pass
	-	Range 7, 1559 MHz - 1610 MHz		-64.291	-46	Pass
	Port 2					
	10 MHz Bandy	vidth				
	C	PSK Modulation, Mid Channel				_
		Range 1, 9 kHz - 150 kHz		-57.922	-39	Pass
		Range 2, 150 kHz - 20 MHz		-53.897	-29	Pass
		Rando 3 20 MHz - 600 MHz		-35 553	_10	Pass
		Range 3, 20 Mil 12 - 000 Mil 12		-33.333	15	
		Range 4, 600 MHz - 800 MHz		-33.303	-19	Pass
		Range 4, 600 MHz - 800 MHz Range 5, 800 MHz - 1200 MHz		-33.303 -36.94	-19 -19	Pass Pass
		Range 4, 600 MHz - 8000 MHz Range 5, 800 MHz - 1200 MHz Range 6, 1200 MHz - 8000 MHz		-33.303 -36.94 -37.332	-19 -19 -19	Pass Pass Pass









STATUS





















#VBW 3.0 MHz*

STATUS

Start 1.55900 GHz #Res BW 1.0 MHz Stop 1.61000 GHz Sweep 1.067 ms (8001 pts)



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Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Generator - Signal	Agilent	N5173B	TIW	5-Jul-17	5-Jul-20

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to the middle channel. The EUT was transmitting at the data rate(s) and bandwidths listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

All limits were adjusted by a factor of [-10*log(N)] dB to account for the device operation as a N port MIMO transmitter, as per FCC KDB 622911.

For Bands 12 and 14, the limit adjustment is $-10^{10}(4) = -6 \text{ dB}$. For Band 29, the limit adjustment is $-10^{10}(2) = -3 \text{ dB}$.

Over the frequency range of 150kHz-20MHz, a RBW of 10 kHz was used; therefore, an additional limit adjustment factor of 10 dB was applied [10*log(10/1)].

The limit for the 9kHz to 150kHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 100kHz [i.e.: -39dBm = -19dBm -10log(100kHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -29dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 100kHz [i.e.: -29dBm = -19dBm -10log(100kHz/1kHz)].

Per FCC section 27.53(g), RSS 130 paragraph 4.7.1, the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter for Band 12. FCC 27.53(g) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

Per FCC 2.1057(a)(1) and RSS Gen 6.13 the upper level of measurement is the 10th harmonic of the highest fundamental frequency. As such, the upper level of the measurement is approximately 8 GHz (744 MHz * 10). The emissions limits are defined in FCC 27.53(g) and RSS 130 4.7.1.



			XMit 2019.09.05
EUT: Airscale Base Transceiver Station Remote Radio Head Model AHLBBA	Work Order:	NOKI0013	
Serial Number: K9193514835	Date:	25-Mar-20	
Customer: Nokia Solutions and Networks	Temperature:	22.6 °C	
Attendees: Mitch Hill, John Rattanavong	Humidity:	50.7% RH	
Project: None	Barometric Pres.:	1008 mbar	
Tested by: Brandon Hobbs Power: 154 VDC	Job Site:	TX03	
TEST SPECIFICATIONS Test Method			
FCC 27:2020 ANSI C63.26:2015			
RSS-130:2019, RSS-Gen:2019 RSS-130:2019, RSS-Gen:2019			
COMMENTS			
determined in the original client provided test report. The carrier power was set to maximum for all testing.	per power amplifier (PA) was used for t	esting. The worst o	case port was
DEVIATIONS FROM TEST STANDARD			
None			
Configuration # 1,2,3,5,6,7			
Signature			
	Value (dBm)	Limit (dBm)	Result
Band 12, 729 MHz - 745 MHz, LTE			
Poil i			
OPSK Modulation Mid Channel			
Randa 1 9 kHz 150 kHz	-57 999	-30	Pass
Range 2 150 kHz - 20 MHz	-53 975	-29	Pass
Range 3, 20 MHz - 600 MHz	-34.579	-19	Pass
Range 4, 600 MHz - 800 MHz	-33.179	-19	Pass
Range 5, 800 MHz - 1200 MHz	-36.056	-19	Pass
Range 6, 1200 MHz - 8000 MHz	-35.286	-19	Pass
Range 7, 1559 MHz - 1610 MHz	-64.365	-46	Pass
Port 2			
10 MHz Bandwidth			
QPSK Modulation, Mid Channel			
Range 1, 9 kHz - 150 kHz	-58.466	-39	Pass
Range 2, 150 kHz - 20 MHz	-53.866	-29	Pass
Range 3, 20 MHz - 600 MHz	-35.702	-19	Pass
Range 4, 600 MHz - 800 MHz	-33.054	-19	Pass
Range 5, 800 MHz - 1200 MHz	-35.992	-19	Pass
	-30.320	-19	Pass
Band 29, 717 MHz - 728 MHz, LTE Kange 7, 1359 WHz - 1010 WHz	-04.270	-40	Fd55
Port 1			
10 MHz Bandwidth			
QPSK Modulation, Mid Channel			
Range 1, 9 kHz - 150 kHz	-58.29	-39	Pass
Range 2, 150 kHz - 20 MHz	-54.08	-29	Pass
Range 3, 20 MHz - 600 MHz	-38.319	-19	Pass
Range 4, 600 MHz - 800 MHz	-32.039	-19	Pass
	-38.973	-19	Pass
	-37.271	-19	Pass
	-04.390	+0	1 000





STATUS











ΓΓ			Value (dBm)	Limit (dBm)	Result
			-64.365	-46	Pass
📕 Keysight Spectrum Analyzer - Element Mater	ials Technology		-		
LXU RL RF 50Ω DC	SEI	NSE:INT	ALIGN OFF Avg Type:	RMS	02:47:48 PM Mar 25, 2020 TRACE 1 2 3 4 5 6
	PNO: Fast ↔ IFGain:Low	Trig: Free Run #Atten: 4 dB	Avg Hold: 2	200/200	
Ref Offset 23.9 dB				Mkr1 1	.608 011 GHz
					-04.000 abiii
-6.10					
-16.1					
-26.1					
-36.1					
					-46.00 dBm
-45.1					
-56.1					1
-66.1		alaphasan ang ang ang ang ang ang ang ang ang a	ng ing a year like to a first of the state o	06-14-14-14-14-14-14-14-14-14-14-14-14-14-	<u> </u>
-/b.1					
-86.1					
Start 1.55900 GHz				s	1010 11.610000 G Z
#Res BW 1.0 MHz	#VBW	3.0 MHz*		Sweep 1.0	67 ms (8001 pts)
#Res BW 1.0 MHz	#VBW	3.0 MHz*	STATUS	Sweep 1.0	67 ms (8001 pts)
#Res BW 1.0 MHz MSG Band 12, 729 MHz -745 MHz	#VBW , LTE, Port 2, 10 MHz B	3.0 MHz*	STATUS	Sweep 1.0	67 ms (8001 pts) , 9 kHz - 150 kHz
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz	#VBW	3.0 MHz*	STATUS Modulation, Mid (Value (dBm)	Sweep 1.0 Channel , Range 1 Limit (dBm)	67 ms (8001 pts) , 9 kHz - 150 kHz Result
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz	#VBW , LTE, Port 2, 10 MHz B	3.0 MHz*	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass
#Res BW 1.0 MHz MSG Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Mater	#VBW , LTE, Port 2, 10 MHz B	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the state of the s	#VBW	3.0 MHz* aandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466 Avg Type: Avg Type: Avg Type:	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 100/200	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PM Mar 25, 2020 TRACE 2 34 5 0 TYPE X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
#Res BW 1.0 MHz MSG Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Mater Keysight Spectrum Analyzer - Element Mater	#VBW	3.0 MHz* andwidth, QPSK second second second trig: Free Run Atten: 6 dB	STATUS Modulation, Mid (Value (dBm) -58.466 Augunoff Avg Type: AvgHold: 2	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 PM Mar 25, 2020 TRACE 2 34 Mar 25, 2020 TRACE 2 34 Mar 25, 2020 TRACE 2 34 Mar 25, 2020
#Res BW 1.0 MHz MSG Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Mater Ref Offset 30.3 dB Ref Offset 30.3 dB O dB/div Ref 10.00 dBm	#VBW , LTE, Port 2, 10 MHz B ials Technology PNO: Wide →→ IFGain:Low	3.0 MHz* andwidth, QPSK NSE:INT Trig: Free Run Atten: 6 dB	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 Mar 25, 2020 TRACE 2 3 4 56 TYPE A 23 4 56 Kr1 9.000 kHz -58.466 dBm
#Res BW 1.0 MHz MSG Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Mater Ref Offfset 30.3 dB 10 dB/div Ref 000 dBm	#VBW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PMMar 25, 2020 TRACE 2 34 5 6 TRACE 2 34 5 6 TR
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Sector and Sector	#VBW , LTE, Port 2, 10 MHz B ials Technology ials Technology IFGain:Low	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.55:29 PM wr 25, 2020 TRACE 2 34 56 TYPE A WYWWY DET A WYWWY DET A WYWWY NYN Kr1 9.000 kHz -58.466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second	#VBW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PMar 25, 2020 TRACE 2 3 4 5 TYPE A WAYNY kr1 9,000 kHz -58,466 dBm
#Res BW 1.0 MHz Msg	#VBW	Sandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 M 2 3 4 56 TRACE 2 3 4 56 TYPE A WINNIN kr1 9.000 kHz -58.466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second secon	#VBW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PM Mar 25, 2020 TRACE 2 2 34 35 0CT A NUNNIN kr1 9.000 kHz -58.466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Sector and Sect	#VBW	Andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel, Range 1 Limit (dBm) -39 RMS 000/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 APM (25, 2020) TRACE 2 3 4 5 6 TYPE A WAY SALE ANNNN kr1 9.000 kHz -58.466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second	#VBW	Andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 100/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PMar 25, 2020 TRACE 2 3 4 5 6 TYPE A WAYNAW kr1 9,000 kHz -58,466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second sec	#VEW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466 Aug Noff Avg Type: Avg Hold: 2	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 100/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PMar 25, 2020 TRACE 2 3 4 5 6 TYPE A WAYNER kr1 9.000 kHz -58.466 dBm -30.00 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second sec	#VBW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466 Avg Type: Avg Type: Avg Hoid: 2	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 000/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 PMMar 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 56 TYPE A WAY 25, 2020 TYPE A WAY 25
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second sec	#VBW	Andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 PMar 25, 2020 TRACE 0 2 3 4 5 6 TYPE A WAYNER kr1 9,000 kHz -58,466 dBm
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second se	#VBW	Andwidth, QPSK	STATUS Modulation, Mid G Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 100/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 PMar 25, 2020 TRACE 2 3 4 5 6 TYPE A WAYNAW kr1 9,000 kHz -58,466 dBm -39.00 dbm
#Res BW 1.0 MHz MsG Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Comparison of the second sec	#VBW	andwidth, QPSK	STATUS Modulation, Mid G Value (dBm) -58.466	Sweep 1.0 Channel , Range 1 Limit (dBm) -39 RMS 100/200 M	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01:56:29 PMar 25,020 TRACE 2 3 4 5 6 TYPE A WAYNY kr1 9.000 kHz -58.466 dBm -30.00 dbr
#Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Sector and the	#VBW	andwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.466 Auton off Avg Type: Avg Hold: 2 	Sweep 1.0 Channel, Range 1 Limit (dBm) -39	67 ms (8001 pts) , 9 kHz - 150 kHz Result Pass 01.56:29 Mar 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 5 TYPE A WAY 25, 2020 TRACE 2 3 4 56 TYPE A WAY 25, 2020 TRACE 4 3 5 TYPE A WAY 25 TYPE A WAY 2



				Value (dBm) -53.866	Limit (dBm) -29	Result Pass
🗾 Keysight Spectrum Analyze	er - Element Materials Te 50 Ω DC	PNO: Fast	SENSE:INT Trig: Free Run #Atten: 10 dB	ALIGN OFF Avg Type: Avg Hold: :	RMS 200/200	01:55:15 PM Mar 25, 2020 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A NNNN
Ref Offs 10 dB/div Ref 10.	et 30.3 dB . 00 dBm				N	/kr1 150.0 kHz -53.866 dBm
Log						
0.00						
-10.0						
-20.0						20.00 //0-
-30.0						-25.00 ubn
-40.0						
-50.0 1						
-60.0						
-70.0	e all with the second secon		L			aury dylaway y d
-80.0						
Start 0.150 MHz						Stop 20.000 MHz
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz	-745 MHz. LTE.	#VB	W 30 kHz*	STATUS	Sweep 24	Stop 20.000 MHz I5.3 ms (8001 pts) . 20 MHz - 600 MHz
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz	-745 MHz, LTE,	#VB	W 30 kHz* Bandwidth, QPS	K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3. Limit (dBm) -19	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz <u>Result</u> Pass
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Keysight Spectrum Analyz	-745 MHz, LTE,	#VB	W 30 KHz* Bandwidth, QPS	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19	Stop 20.000 MHz 15.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Keysight Spectrum Analyz RL RF	-745 MHz, LTE,	#VB , Port 2, 10 MHz E cchnology PNO: Fast	W 30 KHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702 ALIGN OFF Avg Type: Avg Type: Avg Hold: :	Sweep 24 hannel , Range 3 Limit (dBm) -19	Stop 20.000 MHz 15.3 ms (8001 pts) , 20 MHz - 600 MHz <u>Result</u> Pass 11:46:47 AM Mar25, 2020 TRACE 0 2 3 5 C TYPE MANAGE
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyze R Ref Offs 10 dB/div Ref 40.	-745 MHz, LTE, -745 MHz, LTE, 	#VB , Port 2, 10 MHz E chnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702 Augusta Augusta Avg Hold: :	Sweep 24 hannel , Range 3. Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE 23:43 St TRACE 24:43 St TRACE 24:43 St TRACE 25:43 St
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz M RL RF 10 dB/div Ref Offs 10 dB/div Ref 40,	-745 MHz, LTE, er - Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB , Port 2, 10 MHz E echnology PN0: Fast IFGain:Low	W 30 kHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19	Stop 20.000 MHz 15.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar25, 2020 TRACE 2345 2020 TRACE 2345 2020 TRACE 2345 2020 TRACE 2345 2020 TRACE 12345 2020 TRACE 1235 2020 TRAC
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz R RL RF 0 dB/div Ref Offs 0 dB/div Ref 40.	-745 MHz, LTE, er-Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB	W 30 kHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz I5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:37 AM Mar 25, 2020 TRACE [2 3 4 5 0 TRACE [2 3 4 5 0 TYPE [NNNN DET [NNNN] ST1 543.25 MHz -35.702 dBm
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz RL RF 0 dB/div Ref 40.	-745 MHz, LTE, er - Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB	W 30 KHZ* Bandwidth, QPS	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3. Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE 2 2 3 5 6 TRACE 2 3 4 5 6 TRACE 2 3 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz R RL RF 10 dB/div Ref 40.	-745 MHz, LTE, r - Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB , Port 2, 10 MHz E echnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPS	K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19	Stop 20.000 MHz 15.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:60:7 At Mar25, 2020 TRACE 12 34 52 0 TRACE 1
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyze C RL RF 10 dB/div Ref 40. 30.4 20.4 10.4	-745 MHz, LTE, er-Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB	W 30 kHz* Bandwidth, QPS	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz <u>Result</u> Pass 11:46:47 AM Mar 25, 2020 TRACE 23 4 S G TYPE MANNAN CFT 5443.25 MHz -35.702 dBm
Start 0.150 MHz #Res BW 10 kHz MsG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz RL RF 0 dB/div Ref 40. 30.4 20.4 10.4 0.400	-745 MHz, LTE, er - Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB1	W 30 kHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3. Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE 12:3 3:5 TRACE 12:3 3:5
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz Band 12, 729 MHz Ref 40. Control Control Contr	-745 MHz, LTE,	#VB	W 30 kHz* Bandwidth, QPS	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 15.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:6:47 AM Mar25, 2020 TRACE 12.3 45 2.3 5.702 dBm 19.00 dbm
Start 0.150 MHz #Res BW 10 kHz MsG Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyz X RL RF 0 dB/div Ref 40. 0 dB/div Ref 40.	-745 MHz, LTE, er - Element Materials Te 50 Ω DC et 40.4 dB 40 dBm	#VB1	W 30 KHZ* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19 Log-Pwr 200/200 Mlk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE 12 3 4 5 G TYPE 12 6 G TYPE 1
Start 0.150 MHz #Res BW 10 kHz MsG Band 12, 729 MHz Band 12, 729 MHz RL RF 0 dB/div Ref 40. 30.4 20.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	-745 MHz, LTE,	#VB1	W 30 KHZ* Bandwidth, QPS Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702 AvgType: AvgHold: :	Sweep 24 hannel , Range 3. Limit (dBm) -19 Log-Pwr cov/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:46:47 AM Mar 25, 2020 TRACE 1 23 4 5 G TRACE 1 24 5 G TRACE 1
Start 0.150 MHz #Res BW 10 kHz Msc Band 12, 729 MHz Band 12, 729 MHz Msc Msc Msc Msc Msc Msc Msc Msc Msc Msc	-745 MHz, LTE,	#VB1	W 30 kHz* Bandwidth, QPS SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid C Value (dBm) -35.702	Sweep 24 hannel , Range 3 Limit (dBm) -19 Log-Pwr 200/200 Mk	Stop 20.000 MHz 5.3 ms (8001 pts) , 20 MHz - 600 MHz Result Pass 11:4647 AM Mar25, 2020 TRACE 2345 C TPE 0.000 TRACE 2345 C TRACE 2345 C TRACE 2345 C TPE 0.000 TRACE 2345 C TRACE 2345 C TPE 0.0000 TRACE 2345 C TPE 0.0000 TRACE 2345 C TPE 0.0000 TRACE 2345 C TPE 0.0000 TRACE 2345 C TRACE 2345 C TRA





#VBW 300 kHz

STATUS

Sweep 38.40 ms (8001 pts)



				Value (dBm)	Limit (dBm)	Result	
				-36.328	-19	Pass	1_
Reysignt Spectrum	F 50 Ω DC	als Technology	SENSE:INT	ALIGN OFF		02:59:21 PM Mar 25,	2020
		PNO: Fast 🔸	. Trig: Free Run	Avg Type: Avg Hold:	Log-Pwr 200/200	TRACE 1 2 3 TYPE MWW	4 5 6
		IFGain:Low	Atten: 10 dB		ML	r1 3 8/3 50 G	
Re 10 dB/div Re	f Offset 23.9 dB f 23.90 dBm				ININ	-36.328 dl	Bm
Log							
13.9							
3.90							
-6.10							
-16.1						-19.0	00 dBm
-26.1							
			1				
-36.1						skult	
-46.1	and de la serie de la serie de la la serie de la s				Non-Andrew States		antina 141 Manada att
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Start 1 200 G	Hz					Stop 8 000 0	2H7
start 1.200 G Res BW 2.0	Hz MHz	#VB	W 6.0 MHz		Sweep	Stop 8.000 C 11.73 ms (8001	GHz pts)
Start 1.200 G #Res BW 2.0	Hz MHz	#VB	W 6.0 MHz	STATUS	Sweep	Stop 8.000 C 11.73 ms (8001	GHz pts)
Start 1.200 G #Res BW 2.0 #sg Band 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba	W 6.0 MHz	STATUS Modulation, Mid Cha	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610	GHz pts)
Start 1.200 G #Res BW 2.0 ^{Isg} Band 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba	W 6.0 MHz andwidth, QPSK	status Modulation, Mid Cha	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610	GHz pts) 0 MH:
Start 1.200 G #Res BW 2.0 ^{Isg} 3and 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba	W 6.0 MHz andwidth, QPSK	STATUS Modulation, Mid Ch Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 161(Result Pass	GHz pts) 0 MH:
Start 1.200 G #Res BW 2.0 Isg 3and 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba	W 6.0 MHz andwidth, QPSK	STATUS Modulation, Mid Ch Value (dBm) -64.276	Sweep * annel , Range 7 Limit (dBm) -46	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass	GHz pts)
Start 1.200 G #Res BW 2.0 asg 3and 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba	W 6.0 MHz andwidth, QPSK	STATUS Modulation, Mid Ch. Value (dBm) -64.276	Sweep annel , Range 7 Limit (dBm) -46	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 161(<u>Result</u> Pass	GHz pts)
Start 1.200 G #Res BW 2.0 asg 3and 12, 729 M	Hz MHz IHz -745 MHz, LT	#Ve E, Port 2, 10 MHz Ba	W 6.0 MHz andwidth, QPSK	STATUS Modulation, Mid Chi Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PMMar25, TRACE 23 TRACE 24	GHz pts) 0 MH
Start 1.200 G #Res BW 2.0 wsg Band 12, 729 M	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba als Technology PN0: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Chr Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PMMar25, TRACE 12 3 TRACE 12 3 TRACE 12 3 TRACE 12 4	GHz pts) 0 MH
Start 1.200 G #Res BW 2.0 Isg Band 12, 729 M Keysight Spectrum RL R	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Chi Value (dBm) -64.276 ALIGN OFF Avg Type: Avg Hold:	Sweep annel , Range 7 Limit (dBm) -46 RMS 200/200 Mkr*	Stop 8.000 C 11.73 ms (8001 1559 MHz - 161(Result Pass 03:00:24 PMMar25, TRACE 23 TRACE 23 TRACE 23 TRACE 24 03:00:24 PMMar25, TRACE 24 03:00:24 PMMar25, TRACE 25 03:00:24 PMMar25, CALL 10 03:00:24 PMMar25, CALL 10 CALL	GHz pts) 0 MH
Start 1.200 G Res BW 2.0 sg Band 12, 729 M Keysight Spectrum R R R 0 dB/div Re	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 -64.276 Aug Type: Avg Type: Avg Hold:	Sweep annel , Range 7 Limit (dBm) -46 RMS 200/200 Mkr ^r	Stop 8.000 (11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25, TRACE 0 03:00:24 PMMar 25, TRACE 0 03:00 24 PMMAR 25	GHz pts) 0 MH
Start 1.200 Gi #Res BW 2.0 Isg Band 12, 729 M Keysight Spectrum R RL R 0 dB/div Re	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Q DC f Offset 23.9 dB f 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT - Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 -64.276 Aution off Avg Type: Avg Hold:	Sweep	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PM Mar 25, TTACE 2 3 TYPE A NM DET A NM DET A NM	GHZ pts) 0 MH
Start 1.200 Gi Res BW 2.0 ISG Band 12, 729 M Keysight Spectrum R R Re 0 dB/div Re 0 dB/div Re 0 dB/div Re	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC F Offiset 23.9 dB of 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	SENSE:INT	STATUS Modulation, Mid Ch Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25, TTARE 12 3 TYPE ANN DET ANN 1 1.601 075 G -64, 276 d	GHz pts) 0 MH
Start 1.200 Gi #Res BW 2.0 IsG Band 12, 729 M IsG RL R IC Keysight Spectrum R RL R IC GB/div Re 0 GB/div Re	Hz MHz IHz -745 MHz, LT	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Chi Value (dBm) -64.276	Sweep	Stop 8.000 (11.73 ms (8001) , 1559 MHz - 1610 Result Pass 03:00:24 PMMar25, TRACE 12 3 TYPE A WW 03:00:24 PMMar25, TRACE 12 3 TYPE A WW 11.601 075 G -64.276 d	GHz pts) 0 MH
Start 1.200 G #Res BW 2.0 #sg Band 12, 729 M RL R RL R 0 dB/div Re -6.10 -16.1	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC f Offset 23.9 dB f 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:int . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Cha Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PM Mar 25, TRACE 12 3 TRACE 13 3	GHZ (pts) 0 MH
Start 1.200 G #Res BW 2.0 Band 12, 729 M Band 12, 720 M Band 12, 7	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC f Offiset 23.9 dB ff 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:int . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Chr Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PMMar25, TRACE 12 3 TRACE 13 3 T	GHz pts) 0 MH 2020 1 4 5 0 1 4
Start 1,200 G #Res BW 2.0 Isg Band 12, 729 M Band 12, 729 M R R R Band 12, 729 M R R R R R R R R R R R R R R R R R R R	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC f Offiset 23.9 dB f 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Chi Value (dBm) -64.276	Sweep	Stop 8.000 (11.73 ms (8001 , 1559 MHz - 161(Result Pass 03:00:24 PMMar25, TRACE 23 03:00:24 PMMar25, TRACE 23 03:00:24 PMMar25, TRACE 23 03:00:24 PMMar25, Carter 24 Det ANN 1.601 075 C -64.276 dl	GHz pts) 0 MH
Start 1.200 Gi #Res BW 2.0 //sg Band 12, 729 M Band 12, 729 M R R R R R C R C R C R C R C R C R C R C	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC f Offset 23.9 dB f 3.90 dBm I = 1 I = 1	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch Value (dBm) -64.276	Sweep	Stop 8.000 C 11.73 ms (8001 , 1559 MHz - 1610 Result Pass 03:00:24 PMMar25, TRACE 23 03:00:24 PMMar25, TRACE 23 TRACE 23 TRACE 23 TRACE 24 03:00:24 PMMar25, TRACE 24 03:00:24 PMMar25, C 1.601 075 C -64.276 C	GHz pts) 0 MH
Start 1,200 G/ #Res BW 2.0 Isg Band 12, 729 M RL R RL R C 0 dB/div Re 0 dB/div Re 0 dB/div Re 0 dB/div Re 0 dB/div Re	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC f Offset 23.9 dB f 3.90 dBm I I I I I I I I I I I I I I I I I I I	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK sense:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 Aug Type: Avg Type: Avg Hold:	Sweep	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PM Mar 25, TRACE 2 33 DET A NN 1 1.601 075 G -64.276 d	GHz pts) 0 MH
Start 1.200 G/ #Res BW 2.0 Isg Band 12, 729 M Keysight Spectrum R RL R B G G G G G G G G G G G G G G G G G G G	Hz MHz IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC F Offset 23.9 dB f 0ffset 23.9 dB f 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT . Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 Aug Type: Avg Type: Avg Hold:	Sweep	Stop 8.000 (11.73 ms (8001) , 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25, TRACE 20 03:00:24 PMMar 25, TRACE 20 04 PMMAR 20 04 PMMA	GHz pts) 0 MH
Start 1.200 G Res BW 2.0 SG Band 12, 729 M Keysight Spectrum R RL R O dB/dlv Re O dB/dlv Re O dB/dl Re O	Hz MHz IHz -745 MHz, LT IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC F 50 Ω DC F 3.90 dBm I 3.90 dBm	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 Aug Type Avg Type Avg Held:	Sweep *	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25 03:00:24 PMMar 25 04:00 PMM	GHz pts) 0 MH
tart 1.200 GJ Res BW 2.0 and 12, 729 M Keysight Spectrum RL R 0 dB/div Re 0 dB/div Re 0 dB/div Re 10 6.1 6.1 6.1 6.1 6.1	Hz MHz Hz -745 MHz, LT IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC F 50 Ω DC F 30 Ω DC F 3.90 dBm 1 F 3	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 Auton off Avg Type Avg Hold:	Sweep	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25, TRACE 123 TAXE 124 PASS 03:00:24 PMMar 25, TAXE 124 PASS 03:00:24 PMMar 25, 1601 075 G -64.276 d	
art 1.200 Gi art 1.200 Gi tes BW 2.0 and 12, 729 M Keysight Spectrum RL RL B/div RedB/div RedB/div RedB/div I I I I I	Hz MHz IHz -745 MHz, LT IHz -745 MHz, LT Analyzer - Element Materi F 50 Ω DC 0 f Offset 23.9 dB f 3.90 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1	#VE E, Port 2, 10 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz andwidth, QPSK SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS Modulation, Mid Ch. Value (dBm) -64.276 Autor off Avg Type Avg Hold:	Sweep	Stop 8.000 C 11.73 ms (8001 1559 MHz - 1610 Result Pass 03:00:24 PMMar 25, TAPE A WMAR 25, TAPE A WMAR 25, TAPE A WMAR 25, TAPE A WMAR 25, 1.601 0.75 G -64,276 d	GHz pts) 0 MF 2020 2020 2020 2020 2020 2020 2020 20







				Value	e (dBm)	Limit (dB	im) F	lesult
				-38	3.319	-19		Pass
Keysight Spectrum An	alyzer - Element Materials T	echnology	SENSEIINT	Alig	IN OFF		12:03	31 PM Mar 25, 200
	5050 50	PNO: Fast	. Trig: Free Ru	in ,	Avg Type: Avg Hold:	Log-Pwr 200/200	12100	TRACE 1 2 3 4 TYPE MWWW
		IFGain:Low	#Atten: 10 dB	8			Mkr1.5	DET P NNN
Ref O IO dB/div Ref	ffset 40.4 dB 40.40 dBm						-38	3.319 dBi
og								
30.4								
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400								
9.60								
19.6								-19.00 d
20.6								
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39.6	delandratika strano podu Ustalian se	Lebert blatticiers in Indian		فالأفراد مردان والقوالي	Hele Helenski			
49.6	u <u>tasappan</u> dala dinte assan putris angos	hang pering dia pang dia ang pang akan dalah k	a ting pin di Liblic in Lelle populari da l	national de participies de la défini				
Start 20.0 MHz	Hz	#VB	M 200 KH-			0	Sto	p 600.0 MH ⊧ (12000 pt
3and 29, 717 MF	łz - 728 MHz, LTE	, Port 1, 10 MHz E	Bandwidth, QPS	SK Modulatio	STATUS	hannel , Rar	nge 4, 600 N	/Hz - 800 M
sg Band 29, 717 MF	Hz - 728 MHz, LTE	, Port 1, 10 MHz E	Bandwidth, QPS	SK Modulatio	status on, Mid C e (dBm) 2.039	hannel , Rar Limit (dB -19	nge 4, 600 M	//Hz - 800 M Result Pass
Band 29, 717 MF	Hz - 728 MHz, LTE	, Port 1, 10 MHz E	Bandwidth, QPS	SK Modulatio Value -32	status on, Mid C e (dBm) 2.039	hannel , Rar Limit (dB -19	nge 4, 600 M	//Hz - 800 M Result Pass
Band 29, 717 MH	Iz - 728 MHz, LTE	, Port 1, 10 MHz E	Bandwidth, QPS	SK Modulatio Value -32	STATUS on, Mid C e (dBm) 2.039	hannel , Rar Limit (dB -19	nge 4, 600 M	/Hz - 800 M Cesult Pass
AKES BW TOO K ISG Band 29, 717 MF	Hz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast ↔ IFGainLow	SENSE:INT	SK Modulatio	STATUS on, Mid C e (dBm) 2.039 Avg Type: Avg Type:	hannel , Rar Limit (dB -19 RMS 200/200	nge 4, 600 M	MHz - 800 M Result Pass 15 PM Mar 25, 201 TRACC 1, 23 4 TYPE A MININ
Arcs BW 100 K	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS on, Mid C e (dBm) 2.039	hannel , Rar Limit (dB -19 RMS 200/200	mge 4, 600 M m) F 12:04: Mkr1 76	MHz - 800 M Result Pass 15 PM Mar 25, 20: TRACE 1 2 3 4 3 DET A MMM DET A MMM
Band 29, 717 MF	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT Trig: Free Ru #Atten: 30 dB	SK Modulatio Value -32	STATUS on, Mid C e (dBm) 2.039 N OFF Avg Type: Avg Hoid:	hannel , Rar Limit (dB -19	12:04 Mkr1 76 -32	MHz - 800 M Result Pass 15 PM Mar 25, 200 15 PM
Band 29, 717 MH	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	Sense:INT	SK Modulatio Value -32	STATUS on, Mid C e (dBm) 2.039 Avg Type: Avg Hold:	hannel , Rar Limit (dB -19	mge 4, 600 M m) F 12:04: Mkr1 76 -32	AHz - 800 M esult Pass 15 PM Mar 25, 200 15 PM Mar 200 15 PM Ma
Band 29, 717 MF	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS on, Mid C e (dBm) 2.039 N OFF Avg Type: Avg[Hold: :	hannel , Rar Limit (dB -19	12:04: Mkr1 76 -32	//Hz - 800 M cesult Pass 15 PM Mar 25, 201 16 PM Mar 25, 201 17 PM Mar 25, 201 18 PM Mar 25, 201 19 PM Mar 25, 201 19 PM Mar 25, 201 10 PM Mar 25, 201
Band 29, 717 MF	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	Bandwidth, QPS	SK Modulatio	STATUS on, Mid C e (dBm) 2.039 N OFF Avg Type: Avg Hold:	hannel , Rar Limit (dB -19 RMS 200/200	ige 4, 600 M m) F 12:04: Mkr1 76 -32	MHz - 800 M Result Pass 15 PM Mar 25, 200 15 PM
Band 29, 717 MH	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	Sense:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	m) F 12:04: Mkr1 76 -32	//Hz - 800 M cesult Pass 15 PMMar 25, 200 TRACE [] 2 3 4 3 DET NNNP 3.575 MH .039 dB
Res BW 100 K sg Band 29, 717 MF Expsight Spectrum An RL RF 0 dB/dlv Ref 0 0 dB/dlv Ref 4 20.4 10.4	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	m) F 12:04: Mkr1 76 -32	//Hz - 800 M Result Pass 15 PM Mar 25, 200 16 PM Mar 25, 200 17 PM
Keysight Spectrum An RL RF O dB/div Ref 0 O	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	mge 4, 600 M m) F 12:04: Mkr1 76: -32	MHz - 800 M Result Pass 15 PM Mar 25,200 15 PM Mar 25,200
Res BW 100 K ard 33 Band 29, 717 MF Image: State of the state of	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast ↔ IFGain:Low	Sense:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	m) F 12:04: Mkr1 76 -32	//Hz - 800 M cesult Pass 15 PMMar 25, 20: Trace [] 2 3 4 3 DET NNNN 3.575 MH .039 dB
Res BW 100 K sa Band 29, 717 MF Rt RL RF 0 dB/div Ref 0 0 dB/div Ref 0 9 30.4 4 4 400 9,60	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	m) F 12:04: Mkr1 76 -32	AHz - 800 M esult Pass 15 PM Mar 25, 20 15 PM Mar 25, 20 DET Å MINNI 3, 57 5 MH 2,039 d B
Res BW 100 K sg Band 29, 717 MF R <	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	12:04: m) F 12:04: Mkr1 76: -32	AHz - 800 M Result Pass ISPM Mar 25,203 DET ANNUM 3.575 MH 2.039 dB
Band 29, 717 MH	Iz - 728 MHz, LTE	, Port 1, 10 MHz E iechnology PNO: Fast → IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19 RMS 200/200	m) F 12:04: Mkr1 76 -32	MHz - 800 M Result Pass 15 PM Mar 25, 20 TYPE A WWW DET ANNW 3.575 MH 2.039 d B
Res BW TOO K Issg Band 29, 717 MH Issg	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	ige 4, 600 M m) F 12:04: Mkr1 76 -32	AHz - 800 M esult Pass 15 PM Mar 25, 202 DET A MININA 3, 575 MH 2,039 dB -19 00 d
Res BW 100 K 3G 3and 29, 717 MF Image: Sector management of the s	Iz - 728 MHz, LTE	, Port 1, 10 MHz E echnology PNO: Fast → IFGain:Low	SENSE:INT	SK Modulatio	STATUS	hannel , Rar Limit (dB -19	12:04: m) F 12:04: Mkr1 76 -32	AHz - 800 M Result Pass 15 PMar 25, 202 DET & MININ 3, 575 MH 2,039 d B -19 00 dl









Pass



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Generator - Signal	Agilent	N5173B	TIW	5-Jul-17	5-Jul-20

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to the middle channel. The EUT was transmitting at the data rate(s) and bandwidths listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

All limits were adjusted by a factor of [-10*log(N)] dB to account for the device operation as a N port MIMO transmitter, as per FCC KDB 622911.

For Bands 12 and 14, the limit adjustment is $-10^{10}(4) = -6 \text{ dB}$. For Band 29, the limit adjustment is $-10^{10}(2) = -3 \text{ dB}$.

Over the frequency range of 150kHz-20MHz, a RBW of 10 kHz was used; therefore, an additional limit adjustment factor of 10 dB was applied [10*log(10/1)].

The limit for the 9kHz to 150kHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 100kHz [i.e.: -39dBm = -19dBm -10log(100kHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -29dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 100kHz [i.e.: -29dBm = -19dBm -10log(100kHz/1kHz)].

Per FCC section 27.53(g), RSS 130 paragraph 4.7.1, the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter for Band 12. FCC 27.53(g) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

Per FCC 2.1057(a)(1) and RSS Gen 6.13 the upper level of measurement is the 10th harmonic of the highest fundamental frequency. As such, the upper level of the measurement is approximately 8 GHz (744 MHz * 10). The emissions limits are defined in FCC 27.53(g) and RSS 130 4.7.1.



-					XMit 2019.09.05
EUT:	Airscale Base Transceiver Station Remote Radio Head Model AHLBBA		Work Order:	NOKI0013	
Serial Number:	K9193514835		Date:	26-Mar-20	
Customer:	Nokia Solutions and Networks		Temperature:	22.4 °C	
Attendees:	Mitch Hill, John Rattanavong		Humidity:	50.9% RH	
Project:	None		Barometric Pres.:	1008 mbar	
Tested by:	Brandon Hobbs Powe	r: 54 VDC	Job Site:	TX03	
TEST SPECIFICAT	IONS	Test Method			
FCC 27:2020		ANSI C63.26:2015			
RSS-130:2019, RS	S-Gen:2019	RSS-130:2019, RSS-Gen:20	019		
COMMENTS					
All measurement p determined in the	hath losses were accounted for in the reference level offest including any attenuators, original client provided test report. The carrier power was set to maximum for all testi	filters and DC blocks. The hong	ottest port per power amplifier (PA) was used t	or testing. The wo	rst case port was
DEVIATIONS FROM	M TEST STANDARD				
None		/			
Configuration #	1,2,3,5,6,7 Signature	fal			
			Value (dBm)	Limit (dBm)	Result
Band 12, 729 MHz -	745 MHz, LTE				
	Port 1				
	10 MHz Bandwidth				
	QPSK Modulation, Mid Channel				
	Range 1, 9 kHz - 150 kHz		-58.184	-39	Pass
	Range 2, 150 kHz - 20 MHz		-54.256	-29	Pass
	Range 3, 20 MHz - 600 MHz		-35.211	-19	Pass
	Range 4, 600 MHz - 800 MHz		-33.203	-19	Pass
	Range 5, 800 MHz - 1200 MHz		-35.807	-19	Pass
	Range 6, 1200 MHz - 8000 MHz		-36.302	-19	Pass
	Range 7, 1559 MHz - 1610 MHz		-65.238	-46	Pass
	5 MHz Bandwidth				
	QPSK Modulation, Mid Channel		57.010	00	Deres
	Range 1, 9 KHZ - 150 KHZ		-57.918	-39	Pass
	Range 2, 150 KHZ - 20 MHZ		-53.756	-29	Pass
	Range 3, 20 MHz - 600 MHz		-34.652	-19	Pass
	Range 4, 600 MHz - 800 MHz		-32.557	-19	Pass
	Range 5, 800 MHz - 1200 MHz		-36.211	-19	Pass
	Range 6, 1200 MHZ - 8000 MHZ		-36.84	-19	Pass
	Range 7, 1559 Minz - 1610 Minz		-04.39	-40	Pass
	10 MHz Bandwidth				
	OPSK Modulation Mid Channel				
	Range 1, 9 kHz - 150 kHz		-57 892	-39	Pass
	Range 2, 150 kHz - 20 MHz		-57.032	-33	Pass
	Range 2, 150 KHz - 20 MHz		-34.371	-2.5	Pass
	Range 4, 600 MHz - 800 MHz		-34.734	-19	Pass
	Range 5, 800 MHz - 1200 MHz		-36.69	-19	Pass
	Range 6, 1200 MHz - 8000 MHz		-36.812	-19	Pass
	Range 7, 1559 MHz - 1610 MHz		-64 493	-46	Pass
	5 MHz Bandwidth		04.400	+0	1 433
	OPSK Modulation, Mid Channel				
	Range 1, 9 kHz - 150 kHz		-58.324	-39	Pass
	Range 2, 150 kHz - 20 MHz		-53.513	-29	Pass
	Range 3, 20 MHz - 600 MHz		-34 74	-19	Pass
	Range 4, 600 MHz - 800 MHz		-32 481	-19	Pass
	Range 5, 800 MHz - 1200 MHz		-35 027	-19	Pass
	Range 6, 1200 MHz - 8000 MHz		-36.801	-19	Pass
	Range 7, 1559 MHz - 1610 MHz		-64 465	-46	Pass
	range r, recentric rere fille		04.400		











			Value (dBm) -35.807	Limit (dBm) -19	Result Pass
JL Keysight Spectrum Analyzer - Element Materials	PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 10 dB	ALIGN OFF Avg Type: Avg Hold: 2	Log-Pwr 200/200	11:04:36 AM Mar 26, 2020 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P NNNN
Ref Offset 40.4 dB 10 dB/div Ref 40.40 dBm				MK	-35.807 dBm
20.4					
20.4					
20.4					
10.4					
0.400					
-9.60					-19.00 dBm
-19.6					
-29.6	1				
-39.6 days in the second seco		antisetten an der son der die state die die state die state die state die state die state die state die state Name and state s	hina dalah yang sa dalah yang bahar sa dalah yang sa	n galandi, ali gu balansi da baga baga Ngangan segarah sa	de des de la setteri de la fisiona
-49.6					
Start 0.8000 GHz					
#Res BW 100 KHZ	#VB , Port 1, 10 MHz Ba	W 300 kHz ndwidth, QPSK I	STATUS	Sweep 38	200 MHz - 8000 MH:
#Res BW 100 KHZ MSG Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the second se	#VB , Port 1, 10 MHz Ba	W 300 KHZ ndwidth, QPSK I	Adulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 09:37:55 AM Mar26, 2020
#Res BW 100 KHZ Msg Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the state of the stat	#VB , Port 1, 10 MHz Ba	W 300 KHZ ndwidth, QPSK I SENSE:INT Trig: Free Run Atten: 10 dB	Addulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MHz Result Pass 09:37:55 AM Mar26, 2020 TRACE TRACE DET NNNNN
#Res BW 100 KHz Msg Band 12, 729 MHz -745 MHz, LTE Example for the second secon	#VB , Port 1, 10 MHz Ba s Technology PNO: Fast IFGain:Low	W 300 KHz ndwidth, QPSK I SENSE:INT Trig: Free Run Atten: 10 dB	STATUS Modulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: :	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	200 MHz - 8000 MHz 200 MH
#Res BW 100 KHz Msg	#VB , Port 1, 10 MHz Ba s Technology PN0: Fast IFGain:Low	W 300 KHZ ndwidth, QPSK I SENSE:INT Trig: Free Run Atten: 10 dB	ALIGN OFF Avg Type: Avg Hold: 1	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE [2:34 5: 000] TRACE [2:34 5: 000] 3.737 25 GHz -36.302 dBm
#Res BW 100 KHZ MsG Band 12, 729 MHz -745 MHz, LTE ■ Keysight Spectrum Analyzer - Element Materials ■ Keysight Spectrum Analyzer - Element Ma	#VB , Port 1, 10 MHz Ba	W 300 KHZ	Adulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Result Pass 09:37:55 AM Mar26, 2020 TRACE 12:37:35 AM Mar26, 2020 TRACE 3.737 25 GHZ 3.737 25 GHZ 3.737 25 GHZ 3.737 25 GHZ 3.737 3.737 25 GHZ 3.737 3.7
#Res BW 100 KHZ Msg Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the state of the	#VE , Port 1, 10 MHz Ba s Technology PNO: Fast IFGain:Low	W 300 KHz ndwidth, QPSK I sense:INT Trig: Free Run Atten: 10 dB	Addulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 MIKr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE 1740CE 23.737 25 GHz -36.302 dBm
#Res BW 100 KHZ Msg	#VB	W 300 KHZ ndwidth, QPSK I SENSE:INT Trig: Free Run Atten: 10 dB	STATUS Addulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: 2	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE [2:3 4:5 Carrier of the second seco
#Res BW 100 KHZ Msg Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the state of the st	#VB	W 300 KHZ	Adulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr coo/200 Mkr1	Stop 1.2000 GH2 :40 ms (8001 pts) : :
#Res BW 100 KHz Msg Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Constraint of the second seco	#VE	W 300 KHz ndwidth, QPSK I SENSE:INT Trig: Free Run Atten: 10 dB	Adulation, Mid Cha Value (dBm) -36.302	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 Stop 1.2000 GH2 40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE 2 34 5 6 TRACE 2 34 5
#Res BW 100 KHz Msg	#VE	W 300 KHZ	STATUS Addulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: 2	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE [] 2 3 4 5 G 7700 TRACE [] 2 3 4 5 G 3.737 25 GHz -36.302 dBm
#Res BWV 100 KHZ MsG Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Sector of the sector of	#VE	W 300 KHz	STATUS Modulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: :	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr coo/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar 26, 2020 TYPE M WHWWW 05:37:57 GHz .36.302 dBm
#Res BWV 100 KHZ MssG Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the second	#VE	W 300 KHz	STATUS Modulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: 2	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 .40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26, 2020 TRACE 234 5 6 TRACE 24 5 7
#Res BW 100 KHz MsG	#VE	W 300 KHZ	STATUS Modulation, Mid Cha Value (dBm) -36.302 ▲ ALIGN OFF Avg Type: Avg Hold: :	Sweep 38 annel , Range 6, 1 Limit (dBm) -19 Log-Pwr 200/200 Mkr1	Stop 1.2000 GH2 40 ms (8001 pts) 200 MHz - 8000 MH2 Pass 09:37:55 AM Mar26.2020 TRACE 2.3 4 5 C TRACE 2.3 4 C



			Value (dBm) -65.238	Limit (dBm) -46	Result Pass
III. Kevsight Spectrum Analyzer - Element Materi	als Technology				
LXI RL RF 50Ω DC		SENSE:INT	ALIGN OFF Avg Type:	RMS	09:36:03 AM Mar 26, 2020 TRACE 1 2 3 4 5
	PNO: Fast ↔ IFGain:Low	. Trig: Free Run #Atten: 4 dB	Avg Hold: :	200/200	DET A WWWW
Ref Offset 23.9 dB				Mkr1	1.595 306 GHz -65.238 dBm
-6.10					
-16.1					
25.4					
-20.1					
-36.1					
-46.1					-46.00 dBn
-56.1					
	Mensional American States	a an and an it is a second of the second	an the state of the second	<mark>♦</mark> 1	an un a lle air fa ll an an da an air ag dhu an d
-76.1					
-86.1					
Start 1 55000 CHz		1			Stop 1 61000 CH2
Start 1.55900 GHz #Res BW 1.0 MHz ^{Asg} Band 12, 729 MHz -745 MHz	#VB , LTE, Port 1, 5 MHz	BW 3.0 MHz*	STATUS	Sweep 1. Channel , Range 1	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz
Start 1.55900 GHz #Res BW 1.0 MHz ^{MSG} Band 12, 729 MHz -745 MHz	#VB	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -57 918	Sweep 1. Channel , Range 1 Limit (dBm)	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz <u>Result</u> Pass
Start 1.55900 GHz #Res BW 1.0 MHz ^{MSG} Band 12, 729 MHz -745 MHz	#VB , LTE, Port 1, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Materic RL RF 50 Ω DC	#VB , LTE, Port 1, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz <u>Result</u> Pass 10:22:35 AM Mar26, 2020
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Materia RL RF 50 Ω DC	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide FEGainLow	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Autonoff Avg Type: Avg Type:	Sweep 1. Channel , Range 1 Limit (dBm) -39	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 12 345 007 TRACE 12 345 007 TRACE 12 345
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Keysight Spectrum Analyzer - Element Materi R R RE 50 Q DC Ref Offset 30.3 dB	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug OFF Avg Type: Avg Hold:	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 5 TRACE 2 3 4 5 TRACE 2 3 4 5 TRACE 2 3 4 5 TRACE 2 4 5 TRACE
Start 1.55900 GHz #Res BW 1.0 MHz MsG Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Ref 0ffset 30.3 dB Ref 0ffset 30.3 dB Ref 10.00 dBm	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT - Trig: Free Run Atten: 6 dB	STATUS Modulation, Mid (Value (dBm) -57.918 ALIGN OFF Avg Type: Avg Type: Avg Hold: :	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 5 TYPE A TYPE A
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Comparison of the start of the	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug Type: Avg Type: Avg Type:	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 1 2 34 5 TRACE 3
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start 12, 729 MHz -745 MHz I	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 34 5 TYPE 2 34 5
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start 12, 729 Mz -745 MHz Image: Start 12, 729 Mz -745 Mz -74	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 12 3 45 10:22:35 AM Mar 26, 2020 TRACE 12 3 45 TYPE A NNNNN 1kr1 9.300 kHz -57.918 dBm
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Image: Sector and the sector	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug Type: Avg Type: Avg Hold:	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 5 TRACE 3 5 7 TRACE 3 7
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Ref 0ffset 30.3 dB 10 dB/div Ref 0ffset 30.3 dB 0.00 -10.0 -30.0	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide IFGain:Low	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 2 3 4 5 TYPE A NNNNN Akr1 9.300 kHz -57.918 dBm
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start 1.55900 GHz Image: Start 1.5590 GHz Image:	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug Type: Avg Type: Avg Type: Avg Type:	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200 N	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 1 2 3 4 5 TYPE A WHWAY 0ET ANNNY 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 5 TYPE A WHY NKT1 9,300 kHz -57.918 dBm
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start 1.55900 GHz Image: Start 1.55900 GHz Band 12, 729 MHz -745 MHz Image: Start 1.5590 GHz Image: Sta	#VB , LTE, Port 1, 5 MHz als Technology PNO: Wide ↔	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200 N	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 5 TRACE 2 3 5 TRACE 2 3 4 5 TRACE 2 3 4 5 TRACE 2 3 4 5 TRACE 2 3 5 TRACE 2 5 TRAC
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start 1, 50 mm 2, 729 MHz -745 MHz Image: Start 1, 729 Mz - 745 MHz Image: Start 1, 729 Mz - 745 Mz Image: Start 1, 729 Mz -	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:33 AM Mar 26, 2020 TRACE 1 2 3 4 3 TYPE A XNNNN 10:72:33 AM Mar 26, 2020 TRACE 1 2 3 4 3 TYPE A XNNNN 10:72:33 AM Mar 26, 2020 -33 00 dPm
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Image: Sector and the sector	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug Type: Avg Type: Avg Itiold:	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200 N	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 3 4 S TYPE A WINN NN Akr1 9.300 kHz -57.918 dBm -30 00 dBm
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Sector manager - Element Materia Ref Offset 30.3 dB 10 dB/div Ref Offset 30.3 dB 0.00 -10.0 -20.0 -30.0 -40.0 -70.0	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200 N	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar 26, 2020 TRACE 2 34 5 TOPE 2 34 5 TRACE
Start 1.55900 GHz #Res BW 1.0 MHz Msg Band 12, 729 MHz -745 MHz Band 12, 729 MHz -745 MHz Image: Start Spectrum Analyzer - Element Materia RL RF S0 0 DC Image: Start Spectrum Analyzer - Element Materia RL RF S0 0 DC Image: Start Spectrum Analyzer - Element Materia Image: Start Spectrum Analyzer - Ele	#VB	SENSE:INT	STATUS Modulation, Mid (Value (dBm) -57.918 Aug Type: Avg Type: Avg Hold: :	Sweep 1. Channel , Range 1 Limit (dBm) -39 RMS 200/200 N	Stop 1.61000 GHz 067 ms (8001 pts , 9 kHz - 150 kHz Result Pass 10:22:35 AM Mar26, 2020 TRACE 1 2 3 4 5 TYPE 2 4 WWWN Nkr1 9.300 kHz -57.918 dBm -39.00 dbm



			Value (dBm) -53.756	Limit (dBm) -29	Result Pass
Kavcinht Spactrum Analyzar - Element Materials	Technology				
Reysignt spectrum Analyzer - Element Materials	rechnology	SENSE:INT	ALIGN OFF Avg Type:	RMS	10:21:21 AM Mar 26, 2020 TRACE 1 2 3 4 5 6
	PNO: Fast ++ IFGain:Low	. Trig: Free Run #Atten: 10 dB	Avg Hold:	200/200	
Ref Offset 30.3 dB					4 Mkr1 150.0 kHz -53.756 dBm
Log					
0.00					
-10.0					
-20.0					
-30.0					-29.00 dBm
40.0					
-50.0					
-60.0					
-70.0	Ministration and Second Second Second		Jahren der Jagel auch um eine Baser mer		
-80.0					
Stad 0 150 MUZ					Stop 20 000 MHz
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT	#VB E, Port 1, 5 MHz E	W 30 kHz* Bandwidth, QPSH	STATUS	Sweep 24	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT	#VE E, Port 1, 5 MHz E	W 30 kHz* Bandwidth, QPSF	STATUS K Modulation, Mid Cl Value (dBm) -34.652	Sweep 2 nannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz <u>Result</u> Pass
Start 0.150 MHz #Res BW 10 kHz MSG Band 12, 729 MHz -745 MHz, LT	#VE TE, Port 1, 5 MHz E	W 30 KHZ* Bandwidth, QPSk	STATUS C Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Type:	Sweep 2 nannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRace 10:29:38 AM Mar 26, 2020
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT	#VE E, Port 1, 5 MHz E Technology PNO: Fast ↔	W 30 kHz* Bandwidth, QPSF SENSE:INT . Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19 Log-Pwr 200/200	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 24 5 6 TVPE MWWW
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Keysight Spectrum Analyzer - Element Materials Ref offiset 40.4 dB 10 dB/div Ref 40.4 dB	#VE E, Port 1, 5 MHz E Technology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSF SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.652 ▲ALIGN OFF Avg Type: Avg Type: Avg JHold:	Sweep 24 mannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 23 4 5 6 VPE MININN r1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Keysight Spectrum Analyzer - Element Materials R R BF 50 Ω DC RE 0ffset 40.4 dB Ref 0ffset 40.4 dB Log	#VE E, Port 1, 5 MHz E Technology PNO: Fast IFGain:Low	SENSE:INT	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Augnoff Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19 Log-Pwr 200/200	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 34 5 6 TYPE WINNIN cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Keysight Spectrum Analyzer - Element Materials M RL RF 50 Q DC RL RF 50 Q DC	#VE E, Port 1, 5 MHz E Technology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSF SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid Cl Value (dBm) -34.652 AvglHold:	Sweep 24 nannel , Range 3, Limit (dBm) -19 Log-Pwr 200/200	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 3 4 5 6 TYPE MINNIN cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #sg Band 12, 729 MHz -745 MHz, LT Band 12, 729 Mz -745 Mz -745 MHz, LT Band 12, 729 Mz -745 Mz -7	#VE	SENSE:INT	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 43.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 34 5 6 TYPE WMMNN Cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz Msg Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Keysight Spectrum Analyzer - Element Materials R R RF S0 Q DC Ref Offset 40.4 dB 0 dB/div Ref 40.40 dBm	#VE	W 30 kHz* Bandwidth, QPSH SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Avg Type: Avg Type: Avg Hold:	Sweep 24 nannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar26, 2020 TRACE 12 24 45 6 TYPE 1000 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Rsg Band 12, 729 MHz -745 MHz, LT Band 12, 729 Mz -745 Mz -745 MHz, LT Band 12, 729 Mz -745 Mz -	#VE	SENSE:INT	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 43.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 34 5 6 TYPE WINNIN cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Msg Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Image: Sector and the s	#VE	W 30 kHz* Bandwidth, QPSF SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Avg Type: Avg Type: Avg Hold: :	Sweep 24 hannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 24 35 6 TYPE MANNAN Cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Res BW 10 kHz Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 Mz -745 MHz, LT Band 12, 729 Mz -745 Mz	#VE	SENSE:INT	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19	Stop 20.000 MHz 43.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 34 5 6 TYPE WWWW DET WINNIN Cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Res BW 10 kHz Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Ref 0ffset 40.4 dB 0 dB/div Ref 0ffset 40.4 dB 0 dB/div Ref 0ffset 40.4 dB 10 dB/div Ref 40.40 dB 30.4 20.4 10.4 10.4 19.6	#VE	W 30 KHz* Bandwidth, QPSF SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.652 Avg Type: Avg Type: Avg Hold:	Sweep 24 hannel , Range 3, Limit (dBm) -19 Log-Pwr 200/200 MH	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 M Mar26, 2020 TRACE 12 24 5 6 TYPE MYNNIN oet PNNNNN cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Res BW 10 kHz Band 12, 729 MHz -745 MHz, LT Band 12, 729 Mz - 745 M	#VE	W 30 kHz* Bandwidth, QPSF SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS K Modulation, Mid Cl Value (dBm) -34.652 Aug Type: Avg Hold: Avg Hold:	Sweep 24	Stop 20.000 MHz 43.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 11 23 4 5 6 TYPE 10 MMAR Per P NNNNN cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #sig Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 MHz, LT Image: Start 12, 729 Mz, LT Image: Start 12, 729 Mz, LT	#VE	W 30 kHz* Bandwidth, QPSH SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS	Sweep 24	Stop 20.000 MHz 45.3 ms (8001 pts) 20 MHz - 600 MHz Pass 10:29:38 M Mar26, 2020 TRACE 12 24 5 6 TYPE MYNNYN Cr1 545.86 MHz -34.652 dBm
Start 0.150 MHz #Res BW 10 kHz #Res BW 10 kHz Band 12, 729 MHz -745 MHz, LT Band 12, 729 MHz -745 Mz - 745 MHz, LT Band 12, 729 MHz -745 Mz - 745 M	#VE	W 30 kHz* Sandwidth, QPSF SENSE:INT . Trig: Free Run #Atten: 10 dB . 10 . 10 . 10 . 10 . 10 . 10 . 10 . 10	STATUS	Sweep 2 hannel , Range 3, Limit (dBm) -19 Log-Pwr 200/200 MH	Stop 20.000 MHz 43.3 ms (8001 pts) 20 MHz - 600 MHz Result Pass 10:29:38 AM Mar 26, 2020 TRACE 12 34 5 6 TRACE 12 34 5 6 TRACE 13 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7









#VBW 3.0 MHz*

STATUS





STATUS











	1			Value (dBm)	Limit (dBm)	Result
L L	I			-04.433	-40	1-022
Keysight Spectrum Analyzer - E	Element Materials Technolog	y	CENCE-INT			00:26:42 AM Mar 26, 2020
	31. DC		Trig: Free Run	Avg Type:	RMS	TRACE 1 2 3 4 5
	PI IFC	Gain:Low	#Atten: 4 dB	Shreen .		DET A NNNN
Ref Offset 2	23.9 dB				Mkr1	1.595 306 GHz -64.493 dBn
-6.10						
-16.1						
-26.1						
20.4						
-30.1						
-46.1						-46.00 dBr
-56.1						
					♦ ¹	
-66.1	allangud an	ifahatina ja jua julita si op	dytta fafaiantafjar, tatimatang tight pilityap	(neta) elegent (arte a personation) estation	an haran ay an	a han yang dari bangi karakat yan mina yang di mangangan te
-76.1						
95.4						
Start 1.55900 GHz						Stop 1.61000 GHz
ISG			W 3.0 WIH2	STATUS	Змеер і	
Band 12, 729 MHz	-745 MHz. LTE. Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS	Channel . Range	1. 9 kHz - 150 kHz
Band 12, 729 MHz	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm)	Channel , Range	1, 9 kHz - 150 kHz Result
Band 12, 729 MHz	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.324	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass
Band 12, 729 MHz	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass
MSG Band 12, 729 MHz Keysight Spectrum Analyzer - E RL RF 50	-745 MHz, LTE, Po	y	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar 26, 2021 TRACE 2 2 3 4 9
Band 12, 729 MHz - Band 12, 729 MHz - Keysight Spectrum Analyzer - E	-745 MHz, LTE, Po	rt 2, 5 MHz y 10: Wide	Bandwidth, QPSK	ALIGN OFF Avg Type: Avg Type:	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar 26, 202(TRACE 234 5 TYPE 2 34 5 TYPE ANNIN
Band 12, 729 MHz	-745 MHz, LTE, Po	y IO: Wide Sain:Low	SENSE:INT	STATUS Modulation, Mid C Value (dBm) -58.324 ALIGN OFF Avg Type: Avg Type: Avg Hold: :	Channel , Range Limit (dBm) -39 RMS 200/200	1, 9 kHz - 150 kHz Result Pass 10:11:27.4M Mer 26, 202 TRACE 123 45 TYPE 23 45 DET ANNIN Mkr1 9.000 kHz -58, 324 dBm
Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyzer - E R R RF 50 Ref Offset 3 10 dB/div Ref 10.00	-745 MHz, LTE, Po	rt 2, 5 MHz y IO: Wide	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 Aulign off Avg Type: Avg[Hold: :	Channel , Range Limit (dBm) -39 RMS 200/200	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar 26, 2021 TRACE 1 2 3 4 5 TYPE A WWWW DET A NINNIN Mkr1 9.000 kHz -58.324 dBn
Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyzer - E R RE 50 RL RF 50	-745 MHz, LTE, Po	rt 2, 5 MHz y Wide Gain:Low	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF Avg Type: Avg Hold: :	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2021 TRACE 2 3 4 5 TYPE 2 3 4 5
Band 12, 729 MHz - Band 12, 729 MHz - Keysight Spectrum Analyzer - E R RE 50 RL RF 50 Ref Offset 3 10 dB/div Ref 10.00	-745 MHz, LTE, Po	rt 2, 5 MHz y 10: Wide Gain:Low	Bandwidth, QPSK	ALIGN OFF Avg[Hold: :	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 202(TRACE 23 4 5 TYPE 2 34
Band 12, 729 MHz - Band 12, 729 MHz - Keysight Spectrum Analyzer - 1 R R RF 50 Ref Offset 3 Log	-745 MHz, LTE, Po	y 10: Wide	SENSE:INT	ALIGN OFF Avg Type: Avg Hold: :	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2020 TRACE 2 3 4 5 TYPE A NINNN Mkr1 9.000 kH2 -58.324 dBn
#sg Band 12, 729 MHz Band 12, 729 MHz Band 12, 729 MHz Keysight Spectrum Analyzer - E State of the second se	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid (Value (dBm) -58.324 ▲ ALIGN OFF Avg Type: Avg Hold: :	Channel , Range Limit (dBm) -39 RMS 200/200	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2021 TRACE 2 3 4 5 TYPE XNNNN Mkr1 9,000 kHz -58.324 dBn
Band 12, 729 MHz - Band 12, 729 MHz - Keysight Spectrum Analyzer - E RL RF 50 RL RF 50 Ref Offset 3 0 dB/div Ref 10.00	-745 MHz, LTE, Po	rt 2, 5 MHz y IO: Wide Gain:Low	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF Avg Type: Avg Hold: :	Channel , Range Limit (dBm) -39	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar 26, 202(TRACE 23 4 5 TYPE 23 5 TYPE
Image: Sector of the	-745 MHz, LTE, Po	rt 2, 5 MHz y 10: Wide	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF Avg Type: Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2020 TRACE 2 3 4 5 TYPE 2 3 4 5
Band 12, 729 MHz - Band 12, 729 MHz - Band 12, 729 MHz - Compared to the second	-745 MHz, LTE, Po	rt 2, 5 MHz y 10: Wide	SENSE:INT	ALIGN OFF Avg Type: Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2020 TRACE 2 3 4 5 TYPE A WINNIN Mkr1 9.000 kHz -58.324 dBn
Keysight Spectrum Analyzer - I X RL RF 50 0 dB/div Ref Offset 3 -10.0	-745 MHz, LTE, Po	rt 2, 5 MHz y i0: Wide	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27.4M Mer 26, 202 TRACE 123 4 DET ANNN Mkr1 9.000 kHz -58.324 dBn
Keysight Spectrum Analyzer - E 0 RL RF 50 10 dB/div Ref 0ffset 3 10.00 -10.0	-745 MHz, LTE, Po	rt 2, 5 MHz y IO: Wide Gain:Low	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF AvgType: AvgHold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar 26, 2021 TRACE 2 3 4 5 TRACE 3 4 5 TRAC
Band 12, 729 MHz - Band 12, 729 MHz - Source State Stat	-745 MHz, LTE, Po	rt 2, 5 MHz y 10: Wide Gain:Low	Bandwidth, QPSK	ALIGN OFF Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 202(TRACE 2 3 4 5 TRACE 2
Band 12, 729 MHz - Band 12, 729 MHz - Source - Source - Source - Band 12, 729 MHz - Source - Source - Band 12, 729 MHz - Source - Sou	-745 MHz, LTE, Po	rt 2, 5 MHz y IO: Wide	Bandwidth, QPSK	ALIGN OFF Avg Type: Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2020 TRACE 2 3 4 5 TRACE
Band 12, 729 MHz -	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	ALIGN OFF Avg Type: Avg Hold: :	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27 AM Mar26, 2021 TRACE 2: 3 4 3 TRACE 2: 3 4 3 TRACE 2:
SG Band 12, 729 MHz Band 12, 729 MHz Image: Sector of the sec	-745 MHz, LTE, Po	rt 2, 5 MHz	Bandwidth, QPSK	STATUS Modulation, Mid C Value (dBm) -58.324 ▲ ALIGN OFF Avg Type: Avg Hold: : 	Channel , Range	1, 9 kHz - 150 kHz Result Pass 10:11:27.4M Mer 26, 2021 TRACE 123 4 KNNN Mkr1 9.000 kHz -58.324 dBn -39.00 db



			Value (dBm) -53.513	Limit (dBm) -29	Resu Pass	llt S
We Knyticht Sportour Applying Slowest Materials To	shaaloo.					
RL RF 50 Ω DC		SENSE:INT	ALIGN OFF	RMS	10:13:08 AM	Mar 26, 2020
	PNO: Fast ++- IFGain:Low	Trig: Free Run #Atten: 10 dB	Avg Hold:	200/200	TYPI DE	A WWWWW A N N N N N
Ref Offset 30.3 dB					Mkr1 15	0.0 kHz
10 dB/div Ref 10.00 dBm					-33.5	IS UBIII
0.00						
40.0						
- 10.0						
-20.0						
-30.0						-29.00 dBm
-40.0						
1						
-50.0						
-60.0						
-70.0						
-80.0	The spectra structure in the second		(*************************************			andre af the state of the state
Start 0.150 MHz	,				Stop 20.	000 MHz
	#\/R	M 30 kHz*		Sween	245 3 me /8	2001 nte)
#Res BW TO KHZ MSG	#VB	W 30 kHz*	STATUS	Sweep 1	245.3 ms (8	3001 pts)
Band 12, 729 MHz -745 MHz, LTE	#VB E, Port 2, 5 MHz E	W 30 kHz*	STATUS	Sweep :	245.3 ms (8 3, 20 MHz -	8001 pts)
Band 12, 729 MHz -745 MHz, LTE	#VB E, Port 2, 5 MHz E	W 30 kHz* Bandwidth, QPSI	STATUS K Modulation, Mid Cl Value (dBm)	Sweep : nannel , Range : Limit (dBm)	245.3 ms (8 3, 20 MHz - Resu	8001 pts)
Band 12, 729 MHz -745 MHz, LTE	#VB E, Port 2, 5 MHz E	W 30 kHz* Bandwidth, QPSI	STATUS K Modulation, Mid Cl Value (dBm) -34.74	Sweep : nannel , Range : Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pase	8001 pts) 600 MHz Ilt s
Band 12, 729 MHz -745 MHz, LTE	#VB	W 30 kHz* Bandwidth, QPSI	STATUS C Modulation, Mid Cl Value (dBm) -34.74	Sweep : nannel , Range : Limit (dBm) -19	245.3 ms (8 3, 20 MHz - <u>Resu</u> Pass	8001 pts) 600 MHz Ilt s
#RCS DW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Image: Sector of the sector	#VB	W 30 kHz* Bandwidth, QPSI	STATUS C Modulation, Mid Cl Value (dBm) -34.74 Aug Type: Avg Type:	Sweep : nannel , Range : Limit (dBm) -19	245.3 ms (3 3, 20 MHz - Resu Pas: 10:38:02 AM TRACK	600 MHz 600 MHz Ilt 5 Mar26, 2020
MSG Band 12, 729 MHz -745 MHz, LTE Keysight Spectrum Analyzer - Element Materials Te RL RF 50 Ω DC	#VB E, Port 2, 5 MHz E cchnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT . Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 ALIGN OFF Avg Type: Avg Hold:	Sweep : nannel , Range : Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACG TYPI DE	3001 pts) 6000 MHz Ilt s Mar26, 2020 Mar26, 2020 Mar26, 2020
Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Ref Offset 40.4 dB Ref Offset 40.4 dB Mer 40.40 dBm	#VE E, Port 2, 5 MHz E chnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 ▲ALIGN OFF Avg Type: Avg Type: Avg Type:	Sweep : nannel , Range Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRAC TYPE Ikr1 548. -34.74	600 MHz 600 MHz It Mar 26, 2020 10 34 5 6 Mar 20 10 10 10 10 10 10 10 10 10 10 10 10 10
Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Ref Offset 40.4 dB Ref 0ffset 40.4 dB	#VE E, Port 2, 5 MHz E chnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT . Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 ALIGN OFF Avg Type: Avg Hold:	Sweep : hannel , Range : Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACE TR	600 MHz 600 MHz It s Mar26,2020 0 MHz 0 MHz 0 MHz 0 MHz 0 MHz
#KGS BW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Comparison of the state of the stat	#VE E, Port 2, 5 MHz E schnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI	STATUS C Modulation, Mid Cl Value (dBm) -34.74 Aug Type: Avg Type: Avg Hold:	Sweep : nannel , Range Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACE TVPI DE Ikr1 548.7 -34.74	600 MHz 600 MHz It s Mar26, 2020 P NNNN N 09 MHz 10 dBm
#RCS BW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Image: Sector of the sector	#VE E, Port 2, 5 MHz E chnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 ALIGN OFF Avg Type: Avg Hold:	Sweep : nannel , Range Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pass 10:38:02 AM TRACI TYPH DE Ikr1 548. -34.74	600 MHz 600 MHz It 8 Mar26, 2020 12 3 4 5 9 MHz 10 dBm
Ref Offset 40.4 dB Ref 40.40 dB Ref 40.40 dB	#VE E, Port 2, 5 MHz E chnology PNO: Fast → IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 C ALIGN OFF Avg Type: Avg Hold:	Sweep : hannel , Range : Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pass 10:38:02 AM TRAC TYPE Ikr1 548.1 -34.74	600 MHz 600 MHz It s 10 23 4 5 10 38 5 10 38 4 5
Reg SG Band 12, 729 MHz -745 MHz, LTE Image: Several state st	#VE E, Port 2, 5 MHz E chnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 Aution off Avg Type: Avg Hold:	Sweep : hannel , Range : Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACE TYPE Ikr1 548. -34.74	600 MHz 600 MHz It Mar26, 2020 Mar26, 20
Res BW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Image: Sector and the	#VE E, Port 2, 5 MHz E cchnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS (Modulation, Mid Cl Value (dBm) -34.74 Augree Avg Type: Avg Hold:	Sweep : nannel , Range : Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pass 10:38:02 AM TRACE TYPH DE Ikr1 548. -34.74	600 MHz 600 MHz It Mar26, 200 P MHz 09 MHz 00 dBm
Res BW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Image: Sector management of the sector m	#VE E, Port 2, 5 MHz E chnology PNO: Fast → IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS (Modulation, Mid Cl Value (dBm) -34.74 Auglioner Avg Type: Avg Hold: :	Sweep : hannel , Range Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACE TYPE Ikr1 548.(-34.74	600 MHz 600 MHz 1t 5 123 4 5 123 4 5 123 4 5 10 09 MHz 10 dBm
Res Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Several statement of the severa statement of the severa statement of the several stat	#VE	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS C Modulation, Mid Cl Value (dBm) -34.74 Augnoff Avg Type: Avg Hold:	Sweep : hannel , Range : Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 MHz TRACL TYPH Ikr1 548. -34.74	600 MHz 600 MHz 1t s 23 4 5 0 123 5 0 123 5 0 123 5 0 123 5 0 123 5 0 123 5 0
Res BW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Image: Sector and the	#VE E, Port 2, 5 MHz E cchnology PNO: Fast IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS (Modulation, Mid Cl Value (dBm) -34.74 Aug Type: Avg Type: Avg Hold:	Sweep : hannel , Range : Limit (dBm) -19 Log-Pwr 200/200	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACK TYPP DE Ikr1 548. -34.74	600 MHz 600 MHz it s Mar26, 2020 Mar26,
Res Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Sector management of the sector man	#VE E, Port 2, 5 MHz E chnology PNO: Fast → IFGain:Low	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS (Modulation, Mid Cl Value (dBm) -34.74 Aug Type: Avg Type: Avg Hold: :	Sweep : hannel , Range Limit (dBm) -19	245.3 ms (8 3, 20 MHz - Resu Pas: 10:38:02 AM TRACE TRACE TRACE TRACE	600 MHz 600 MHz 11 12 3 4 5 12 3 4 5 1 23 4 5 1 30 48m -19.00 48m 1
Res bw D KH2 MsG Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Band 12, 729 Mz - 84, 90 Mz - 94, 90 Mz - 9	#VE	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS	Sweep : hannel , Range : Limit (dBm) -19 Log-Pwr 200/200 M	245.3 ms (2 3, 20 MHz - Resu Pass 10:38:02 MHz TRACE TYPP Ikr1 548. -34.74	600 MHz 600 MHz 1 600 MHz 1 600 MHz 1 600 MHz 1 600 MHz 1 600 MHz 1 600 MHz 1 600 MHz 600 MHz
#RCS DW 10 KH2 MSG Band 12, 729 MHz -745 MHz, LTE Band 12, 729 MHz -745 MHz, LTE Image: Several statement of the several statemen	#VE	W 30 kHz* Bandwidth, QPSI SENSE:INT Trig: Free Run #Atten: 10 dB	STATUS	Sweep : hannel , Range : Limit (dBm) -19 Log-Pwr 200/200 M	245.3 ms (8 3, 20 MHz - Resu Pass 10:38:02 AM TRACK TPP DE Ikr1 548. -34.74	600 MHz 600 MHz it s Mar26 2020 1 2 3 4 5 0 1 2 3 4 5 0 Mar26 2020 1 2 3 4 5 0 1 3 4 5 0







				Value (dBm)	Limit (dBm)	Result
				-36.801	-19	Pass
Variable Cart	num Analogae - Flourent Maria	ale Technology				
Keysight Spectri	rum Analyzer - Element Materi RF 50 Ω DC		SENSE:INT	ALIGN OFF	Lee Dur	09:15:50 AM Mar 26, 2020
		PNO: Fast 🔸	Trig: Free Run	Avg Type: Avg Hold: 2	Log-Pwr 200/200	
-		IFGain:Low	Atten: 10 dB		Mkr1	3.752 55 GHz
10 dB/div	Ref 23.90 dBm					-36.801 dBm
LOg						
13.9						
3.90						
-6.10						
-16.1						-19.00 dBm
-26.1						
-36.1						
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Start 1.200	GHz					Ctop 9 000 CHa
#Res BM/ 2						Stop 8.000 GHZ
wittes Bit 2.	.0 MHz	#VB	W 6.0 MHz		Sweep 11	.73 ms (8001 pts)
MSG	.0 MHz	#VB	W 6.0 MHz	STATUS	Sweep 11	.73 ms (8001 pts)
MSG Band 12, 729	0 MHz 9 MHz -745 MHz, LT	#VB TE, Port 2, 5 MHz Ba	W 6.0 MHz ndwidth, QPSK Mo	STATUS	Sweep 11	.73 ms (8001 pts)
MSG Band 12, 729	0 MHz 9 MHz -745 MHz, LT	#VB TE, Port 2, 5 MHz Ba	W 6.0 MHz ndwidth, QPSK Mo	status dulation, Mid Cha Value (dBm)	Sweep 11 nnel , Range 7, 1 Limit (dBm)	559 MHz - 1610 MHz
Band 12, 729	0 MHz 9 MHz -745 MHz, LT	#VB TE, Port 2, 5 MHz Ba	W 6.0 MHz ndwidth, QPSK Mo	status dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46	73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass
Band 12, 725	0 MHz 9 MHz -745 MHz, LT 	#VB TE, Port 2, 5 MHz Ba	W 6.0 MHz ndwidth, QPSK Mo	dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1 Limit (dBm) -46	stop s.ood GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass
Band 12, 72s	9 MHz -745 MHz, LT	#VB	W 6.0 MHz ndwidth, QPSK Mo	status dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1 Limit (dBm) -46	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 12:28 AM Mar26, 2020
Band 12, 729	0 MHz 9 MHz -745 MHz, LT num Analyzer - Element Materia RF 50 Ω DC	#VB FE, Port 2, 5 MHz Ba als Technology PNO: Fast -→ Effective Fast	W 6.0 MHz ndwidth, QPSK Mo sense:int	STATUS dulation, Mid Cha Value (dBm) -64.465 Aulign off Avg Type: Avg Hoid: 2	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46	Stop 8:000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar 26, 2020 TRACE 1746 2 3 4 5 MNNTAN
Band 12, 729	9 MHz -745 MHz, LT	#VB TE, Port 2, 5 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz ndwidth, QPSK Mo sense:INT . Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465 ▲ ALIGN OFF Avg Type: Avg Hold: 2	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE 12.34 Stop TRACE 12.34 Stop DET A NUMENT 1.608 751 GH2
Band 12, 725	9 MHz -745 MHz, LT	#VB TE, Port 2, 5 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz ndwidth, QPSK Mo sense:INT . Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465 -64.465 Aug Type: Avg Hold: 2	Sweep 11 nnel , Range 7, 18 Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:26 AM Mar26, 2020 TRACE 123 45 0 TRACE 14:608 751 GHz -64.465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT num Analyzer - Element Materia RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB TE, Port 2, 5 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT . Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar 26, 2020 TRACE TRACE 1.608 751 GHz -64.465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT 	#VB TE, Port 2, 5 MHz Ba als Technology PNO: Fast IFGain:Low	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT . Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE 11.6008 751 GHz -64.465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT rum Analyzer - Element Materi RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB	W 6.0 MHz ndwidth, QPSK Mo	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE [2 3 4 50 TRACE [2 3 4 50 Det ANNANCH 1.608 751 GHz -64.465 dBm
Band 12, 725	9 MHz -745 MHz, LT	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 MKr1	Stop 8:000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE [2:34 5] TRACE [2:34 5] Det ANNINA 1.608 7511 GHz -64, 465 dBm
Band 12, 725	9 MHz -745 MHz, LT	#VB	W 6.0 MHz ndwidth, QPSK Mo sense:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8.000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE 23:45 G TRACE 24:465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT rum Analyzer - Element Materia RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 nnel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8,000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar 26, 2020 TRACE 17402 AM Mar 26, 2020 TRACE 1.608 751 GHz -64.465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT 1 rum Analyzer - Element Materia RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 Innel , Range 7, 11 Limit (dBm) -46 RMS co0/200 Mkr1	Stop 8,000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Pass 09:14:28 AM Mar 26, 2020 TRACE 2 3 4 5 09:14:28 AM Mar 26, 2020 TRACE 2 3 4 5 TYPE 2 3 4 Mar 26, 2020 TRACE 2 3 MAR 2 4 Mar 26, 2020 TRACE 2 3 MAR 2 4 Mar 26, 2020 TRACE 2 3 MAR 2 4 MAR 2 4 MAR 26, 2020 TRACE 2 3 MAR 2 MAR 2 4 MAR 26, 2020 TRACE 2 3 MAR 2 MAR 2 4 MAR 26, 2020 TRACE 2 3 MAR 2 MAR
Msg Early Early <thearly< th=""> Ea</thearly<>	0 MHz 9 MHz -745 MHz, LT rum Analyzer - Element Materi RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 Innel , Range 7, 11 Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8:000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TARGE 23.4 Solution 11:608 751 GHz -64.465 dBm
Band 12, 725	9 MHz -745 MHz, LT 9 MHz -745 MHz, LT 1 rum Analyzer - Element Materi RF 50 Ω DC Ref Offset 23.9 dB Ref 3.90 dBm	#VB	W 6.0 MHz ndwidth, QPSK Mo sense:INT . Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11	2.73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE [2 3 4 5 TYPE A WAR26, 2020 TYPE A WAR26, 2020 TYPE A WAR26, 2020 TYPE A WAR26 TYPE A WA
Band 12, 725	9 MHz -745 MHz, LT 9 MHz -745 MHz, LT I I I I I I I I I I I I I	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11	2.73 ms (8001 pts) 559 MHz - 1610 MHz Result Pass 09:14:28 AM Mar26, 2020 TRACE [2:34 50 0ET ANNNNN 1.608 7511 GHz -64, 465 dBm
Band 12, 725	0 MHz 9 MHz -745 MHz, LT 1 1 1 1 1 1 1 1 1 1 1 1 1	#VB	W 6.0 MHz ndwidth, QPSK Mo SENSE:INT Trig: Free Run #Atten: 4 dB	STATUS dulation, Mid Cha Value (dBm) -64.465	Sweep 11 Innel , Range 7, 1: Limit (dBm) -46 RMS 200/200 Mkr1	Stop 8,000 GH2 .73 ms (8001 pts) 559 MHz - 1610 MHz Pass 09:14:28 AM Mar 26, 2020 TRACE 2 34 5 0 TRACE 2 34 5 0

#VBW 3.0 MHz*

STATUS

Start 1.55900 GHz #Res BW 1.0 MHz Stop 1.61000 GHz Sweep 1.067 ms (8001 pts)