

FCC TEST REPORT

Test report On Behalf of MOVEON TECHNOLOGY LIMITED For Tablet PC Model No.: NET9

FCC ID: 2AFD9NET9

Prepared for : MOVEON TECHNOLOGY LIMITED world trade plaza-A block #3201-3202 Fuhong Road,Futian,Shenzhen,China

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Date of Test: 2020/3/4 ~ 2021/3/22

Date of Report: 2021/3/24

Report Number: TZ210302007-E4

The test report apply only to the specific sample(s) tested under stated test conditions It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



TEST RESULT CERTIFICATION

Applicant's name:	MOVEON TECHNOLOGY LIMITED
Address:	world trade plaza-A block #3201-3202 Fuhon Road, Futian, Shenzhen, China
Manufacture's Name	MOVEON TECHNOLOGY LIMITED
Address:	world trade plaza-A block #3201-3202 Fuhon Road, Futian, Shenzhen, China
Product description	
Trade Mark:	KRONO
Product name:	Tablet PC
Model and/or type reference .:	NET9
Standards	FCC Rules and Regulations Part 22 & Part 24 ANSI C63.26:2015

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Date of Test	
Date (s) of performance of tests:	2020/3/4 ~ 2021/3/22
Date of Issue:	2021/3/24
Test Result:	Pass

Testing Engineer

2

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And

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Revision History

Revision	Issue Date	Revisions	Revised By
000	2021/3/24	Initial Issue	Andy Zhang



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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Part 2: FREQUENCY ALLOCĂ-TIONS AND RADIO TREATY MAT-TERS; GENERAL RULES AND REG-ULATIONS

FCC Part 22 Subpart H: PRIVATE LAND MOBILE RADIO SERVICES.

FCC Part 24 Subpart E: PUBLIC MOBILE SERVICES

ANSI/TIA-603-E-2016: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

ANSI C63.26-2015: IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

FCCKDB971168D01 Power Meas License Digital Systems



2 SUMMARY

2.1	Product Description EUT	: Tablet PC
	Model Number	: NET9
	Model Declaration	: N/A
	Test Model	: NET9
	Power Supply	: DC 3.7V by battery
	Hardware version	: WT_E30_80_168_MB_1.0
	Software version	: E30V1.0_JZ01_ES_GTTP_WXGA
	Sample ID	: TZ210302007–1#
	Bluetooth	
	Bluetooth Version	: V4.0
	Channel Number	. 79 Channels for Bluetooth BR/EDR(DSS) 40 Channels for BLE (DTS)
	Modulation Technology	- GFSK, π/4-DQPSK, 8-DPSK for Bluetooth BR/EDR (DSS) GFSK for BLE (DTS)
	Data Rates	Bluetooth BR/EDR (DSS): 1/2/3Mbps BLE (DTS): 1Mbps
	Antenna Type And Gain	Internal Antenna /0.64 dBi(Max.)
	WiFi	
	WLAN	: Supported IEEE 802.11b/g/n
	WLAN FCC Operation Frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz IEEE 802.11n HT40:2422-2452MHz
	WLAN Channel Number	. 11 Channels for 2412-2462MHz(IEEE 802.11b/g/n HT20) 7 Channels for 2422-2452MHz(IEEE 802.11n HT40)
	WLAN Modulation Technology	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) : IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
	Antenna Type And Gain	: Internal Antenna /0.64 dBi(Max.)
	GSM	
	Support Bands	⊠GSM 850 : ⊠PCS 1900 : ⊠GSM 900 ⊠PCS 1800
	GSM FCC Operation Frequency	. GSM850(UL: 824 – 849 MHz/DL: 869 – 894 MHz) . GSM1900(UL: 1850 –1910 MHz/DL: 1930 – 1990 MHz)
	Channel Separation	: 0.2MHz
	Modulation Technology	: GMSK
	Antenna Type And Gain	Internal Antenna : GSM850: 0.39dBi PCS1900: 0.58dBi
	UTRA	



Support Bands	- ⊠WCDMA BAND II ⊠WCDMA BAND V
UTRA FCC Operation Frequency	. WCDMA BAND V (UL: 824 – 849 MHz/DL: 869 – 894 MHz) WCDMA BAND II (UL: 1850 –1910 MHz/DL: 1930 – 1990 MHz)
Channel Separation	: 0.2MHz
Modulation Technology	: OFDM (16QAM, QPSK)
Antenna Type And Gain	Internal Antenna : WCDMA BAND II: 0.58dBi WCDMA BAND V: 0.39dBi

Note: Antenna position refer to EUT Photos.

GSM/WCDMA Card Slot :

	Maximum ERP/EIRP (dBm)	Max. Conducted Power (dBm)	Max. Average Burst Power (dBm)
GSM 850	27.51	32.23	32.13
PCS 1900	24.62	30.29	30.07
UMTS BAND II	20.81	25.01	22.37
UMTS BAND V	19.97	25.23	22.54



2.2 Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	Certificate

2.3 Short description of the Equipment under Test (EUT)

EUT is subscriber equipment in the GSM/WCDMA system. Frequency bands Shows in section 2.1.

2.4 Normal Accessory setting

Fully charged battery was used during the test.

2.5 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

 \Box supplied by the lab $\ \ensuremath{\boxtimes}$ supplied by the manufacturer

Manufacturer	Description	Model	Serial Number	Certificate
Xinqiangxing.	Adapter	NET9	N/A	N/A

2.6 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: 2AFD9NET9 filing to comply with FCC Part 22 Rules, FCC Part 24 Rules Rules.

2.7 Modifications

No modifications were implemented to meet testing criteria.



3 TEST ENVIRONMENT

3.1 Test Facility

FCC

Designation Number: CN1275

Test Firm Registration Number: 167722 Shenzhen Tongzhou Testing Co.,Ltd has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA

Certificate Number: 5463.01 Shenzhen Tongzhou Testing Co.,Ltd has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

IC

ISED#: 22033 CAB identifier: CN0099 Shenzhen Tongzhou Testing Co.,Ltd has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010

3.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-



3.3 Test Description

PCS 1900/UMTS BAND II:

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	2.1046, 24.232(c)	EIRP ≤ 2W(33dBm)	Pass
Bandwidth	2.1049 24.238(a)	OBW: No limit. EBW: No limit.	Pass
Band Edges	2.1051, 24.238(a)	-13dBm	Pass
Spurious Emission at Antenna Terminals	2.1051, 24.238(a)	-13dBm	Pass
Field Strength of Spurious Radiation	2.1053, 24.238(a)	-13dBm	Pass
Frequency Stability	2.1055, 24.235	the fundamental emission stays within the authorized frequency block.	Pass
Peak to average ratio	24.232(d)	<13dB	Pass

GSM850/UMTS BAND V:

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	2.1046, 22.913(a)	ERP ≤ 7W(38.5dBm)	Pass
Occupied Bandwidth	2.1049	OBW: No limit.	Pass
Emission Bandwidth	22.917(b)	EBW: No limit.	Pass
Band Edges Compliance	2.1051, 22.917(a)(b)	-13dBm	Pass
Spurious Emission at Antenna Terminals	2.1051, 22.917	-13dBm	Pass
Field Strength of Spurious Radiation	2.1053, 22.917	-13dBm	Pass
Frequency Stability	2.1055, 22.355	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass
Peak to average ratio	2.1046, 2.913(a)	<13dB	Pass



3.4 Equipments Used during the Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
1	MXA Signal Analyzer	Keysight	N9020A	MY52091623	2021/1/4	2022/1/3
2	Power Sensor	Agilent	U2021XA	MY5365004	2021/1/4	2022/1/3
3	Power Meter	Agilent	U2531A	TW53323507	2021/1/4	2022/1/3
4	Wideband Antenna	schwarzbeck	VULB 9163	958	2019/11/16	2022/11/15
5	Horn Antenna	schwarzbeck	9120D-1141	1574	2019/11/16	2022/11/15
6	EMI Test Receiver	R&S	ESCI	100849/003	2021/1/4	2022/1/3
7	Controller	MF	MF7802	N/A	N/A	N/A
8	Amplifier	schwarzbeck	BBV 9743	209	2021/1/4	2022/1/3
9	Amplifier	Tonscend	TSAMP- 0518SE		2021/1/4	2022/1/3
10	RF Cable(below 1GHz)	HUBER+SUHNE R	RG214	N/A	2021/1/4	2022/1/3
11	RF Cable(above 1GHz)	HUBER+SUHNE R	RG214	N/A	2021/1/4	2022/1/3
12	Artificial Mains	ROHDE & SCHWARZ	ENV 216	101333-IP	2021/1/4	2022/1/3
12	EMI Test Software	ROHDE & SCHWARZ	ESK1	V1.71	N/A	N/A
14	RE test software	Tonscend	JS32-RE	V2.0.2.0	N/A	N/A
15	UNIVERSAL RADIO COMMUNICATION	R&S	CMW500	101855	2021/1/4	2022/1/3
16	Horn Antenna	A-INFO	LB-180400- KF	J211020657	2019/11/16	2022/11/15
17	Amplifier	CDSA	PAP-1840	17021	2020/03/24	2021/03/23

3.5 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to ETSI TR 100 028 " Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics" and is documented in the Shenzhen Tongzhou Testing Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Tongzhou Testing Co.,Ltd is reported:

Test	Range	Measurem ent	Note
Radiated Emission	30~1000MHz	3.10 dB	(1)
Radiated Emission	1~18GHz	3.70 dB	(1)
Radiated Emission	18-40GHz	3.90 dB	(1)
Conducted Disturbance	0.15~30MHz	1.63 dB	(1)
Conducted Power	9KHz~18GHz	0.61 dB	(1)
Spurious RF Conducted Emission	9KHz~40GHz	1.22 dB	(1)
Band Edge Compliance of RF Emission	9KHz~40GHz	1.22 dB	(1)
Occuiped Bandwidth	9KHz~40GHz	-	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.



4 DESCRIPTION OF TEST MODES

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMU 200)to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on both GSM and PCS frequency band. ***Note: GSM/GPRS 850, GSM/GPRS 1900, WCDMA/HSPA band II, WCDMA/HSPA band V mode have been tested during the test.

The worst condition was recorded in the test report if no other modes test data.

5 TEST CONDITIONS AND RESULTS

5.1 OUTPUT POWER

5.1.1 CONDUCTED OUTPUT POWER

5.1.1.1 MEASUREMENT METHOD

The transmitter output port was connected to base station.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Measure the maximum burst average power and average power for other modulation signal.

The EUT was setup for the max output power with pseudo random data modulation. Power was measured with Spectrum Analyzer. The measurements were performed on all modes(GSM/GPRS 850, GSM/GPRS 1900, WCDMA/HSPA band II, WCDMA/HSPA band V)at 3 typical channels(the Top Channel, the Middle Channel and the Bottom Channel) for each band.

5.1.1.2 MEASUREMENT RESULT



GSM 850

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Duty cycle Factor(dB)	Frame Power (dBm)	Peak to Average Ratio
	824.2	32.23	32.13	-9	23.13	0.10
GSM850	836.6	32.16	32.04	-9	23.04	0.12
	848.8	32.02	31.73	-9	22.73	0.29
	824.2	31.76	31.48	-9	22.48	0.27
GPRS850	836.6	31.77	31.47	-9	22.47	0.30
(1 0101)	848.8	31.56	31.37	-9	22.37	0.20
	824.2	30.36	30.06	-6	24.06	0.29
(2 Slot)	836.6	30.49	30.36	-6	24.36	0.13
(2 0101)	848.8	30.43	30.22	-6	24.22	0.21
0000050	824.2	29.06	28.87	-4.26	24.61	0.19
(3 Slot)	836.6	29.05	28.82	-4.26	24.56	0.23
(3 8101)	848.8	29.04	28.89	-4.26	24.63	0.15
	824.2	27.26	27.15	-3	24.15	0.11
(4 Slot)	836.6	27.17	27.03	-3	24.03	0.14
(+ 0101)	848.8	27.09	26.89	-3	23.89	0.20

PCS 1900

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Duty cycle Factor(dB)	Frame Power(dBm)	Peak to Average Ratio
	1850.2	30.18	29.94	-9	20.94	0.24
GSM1900	1880	30.29	30.01	-9	21.01	0.28
	1909.8	30.28	30.07	-9	21.07	0.21
	1850.2	29.65	29.47	-9	20.47	0.19
GPRS1900	1880	29.71	29.55	-9	20.55	0.16
(1 000)	1909.8	29.93	29.78	-9	20.78	0.15
	1850.2	27.75	27.46	-6	21.46	0.29
(2 Slot)	1880	27.97	27.68	-6	21.68	0.29
(2 000)	1909.8	27.82	27.64	-6	21.64	0.18
	1850.2	26.55	26.39	-4.26	22.13	0.15
GPRS1900 (3 Slot)	1880	26.96	26.82	-4.26	22.56	0.13
(5 5101)	1909.8	26.77	26.55	-4.26	22.29	0.22
	1850.2	25.62	25.44	-3	22.44	0.18
(4 Slot)	1880	25.69	25.54	-3	22.54	0.15
(+ 000)	1909.8	25.82	25.64	-3	22.64	0.17





UMTS BAND

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Peak to Average Ratio
	1852.4	25.01	22.37	2.64
RMC	1880	24.91	21.99	2.91
	1907.6	24.53	22.26	2.26
WCDMA1900 AMR	1852.4	24.38	22.15	2.23
	1880	24.80	22.16	2.64
	1907.6	24.36	21.87	2.49
	1852.4	24.01	21.24	2.77
HSDPA Subtest 1	1880	23.90	21.11	2.80
	1907.6	23.09	20.86	2.23
	1852.4	22.18	20.16	2.02
HSDPA Subtest 2	1880	22.89	19.89	3.00
	1907.6	23.04	20.79	2.26
HSDPA Subtest 3	1852.4	22.65	19.83	2.82
	1880	22.43	19.94	2.49
	1907.6	22.35	20.17	2.18
HSDPA Subtost 4	1852.4	23.12	20.22	2.91
	1880	22.61	20.42	2.19
	1907.6	23.48	20.89	2.58
	1852.4	23.89	20.76	3.13
Subtest 1	1880	22.18	20.17	2.01
	1907.6	22.89	20.29	2.60
	1852.4	24.52	21.41	3.11
Subtest 2	1880	23.96	21.57	2.39
	1907.6	24.26	21.43	2.82
	1852.4	24.24	21.17	3.07
Subtest 3	1880	24.01	21.06	2.95
	1907.6	24.28	21.27	3.00
	1852.4	23.33	21.20	2.13
Subtest 4	1880	24.41	22.20	2.21
	1907.6	24.31	22.21	2.10
	1852.4	23.76	21.08	2.68
Subtest 5	1880	24.19	21.54	2.65
Sublest 5	1907.6	24.49	21.89	2.60



UMTS BAND V

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Peak to Average Ratio
	826.4	25.04	22.54	2.50
RMC	836.4	25.23	22.04	3.19
	846.6	24.95	22.32	2.63
	826.4	25.04	22.07	2.98
AMR	836.4	24.80	22.02	2.78
7 (11)	846.6	24.79	22.00	2.79
	826.4	24.43	21.24	3.18
Subtest 1	836.4	23.50	21.14	2.36
	846.6	23.84	20.84	2.99
	826.4	22.84	20.03	2.81
Subtest 2	836.4	22.29	20.17	2.11
	846.6	22.69	20.59	2.10
HSDPA Subtest 3	826.4	22.90	19.93	2.97
	836.4	22.42	19.99	2.43
	846.6	22.69	20.21	2.48
ЦСОВА	826.4	22.91	20.32	2.59
Subtest 4	836.4	22.43	20.32	2.11
	846.6	23.88	20.71	3.17
	826.4	23.11	20.64	2.46
Subtest 1	836.4	22.42	20.30	2.12
	846.6	23.19	20.31	2.88
	826.4	23.65	21.61	2.04
Subtest 2	836.4	24.53	21.81	2.72
	846.6	23.62	21.49	2.13
	826.4	24.06	21.30	2.76
Subtest 3	836.4	24.16	21.00	3.16
	846.6	24.07	21.21	2.87
	826.4	24.22	21.13	3.10
Subtest 4	836.4	25.06	22.25	2.81
	846.6	25.14	22.02	3.11
	826.4	23.96	21.20	2.77
Subtest 5	836.4	23.80	21.62	2.18
	846.6	24.14	22.05	2.08



According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1aA: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)		
For all combinations of ,DPDCH,DPCCH				
HS-DPDCH, E-DPDCH and E-DPCCH				
Note: CM=1 for $\beta_c/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$. For all other combinations of DPDCH, DPCCH, HS-				
DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.				

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done .However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensate for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.



5.1.2 RADIATED OUTPUT POWER

5.1.2.1 MEASUREMENT METHOD

The measurements procedures specified in ANSI/TIA-603-E-2016 were applied.

1. Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signal operating below 1GHz are performed using dipole antennas. Measurements on signals operating above 1GHz are performed using broadband horn antennas. All measurements are performed as RMS average measurements while the EUT operating at its maximum duty cycle, at maximum power, and at the approximate frequencies.

2. In an anechoic antenna test chamber, a half-wave dipole antenna for the frequency band of interest is placed at the reference centre of the chamber. An RF Signal source for the frequency band of interest is connected to the dipole with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A known (measured) power (Pin) is applied to the input of the dipole, and the power received (Pr) at the chamber's probe antenna is recorded.

3. The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established as ARpl=Pin + 2.15 - Pr. TheARpl is the attenuation of "reference path loss", and including the gain of receive antenna, the cable loss and the air loss. The measurement results are obtained as described below: Power=PMea+ARpl

4. The EUT is substituted for the dipole at the reference centre of the chamber and a scan is performed to obtain the radiation pattern.

5. From the radiation pattern, the co-ordinates where the maximum antenna gain occurs are identified.

6. The EUT is then put into continuously transmitting mode at its maximum power level.

7. Power mode measurements are performed with the receiving antenna placed at the coordinates determined in Step 3 to determine the output power as defined in Rule 24.232 (b) and (c). The "reference path loss" from Step1 is added to this result.

8. This value is EIRP since the measurement is calibrated using a half-wave dipole antenna of known gain (2.15 dBi) and known input power (Pin).

9. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dBi...

5.1.2.2 PROVISIONS APPLICABLE

Mode	FCC Part Section(s)	Nominal Peak Power
GSM/GPRS 850	22.913(a)(2)	<=38.45dBm (7W). ERP
GSM/GPRS 1900	24.232(c)	<=33dBm (2W). EIRP
UMTS BAND II	24.232(c)	<=33dBm (2W),EIRP
UMTS BANDV	22.913(a)(2)	<=38.45dBm (7W).ERP



5.1.2.3 Measurement Result

Radiated Power (ERP) for GSM 850					
		Re	Result		
Mode	Frequency	Max. Peak ERP	Polarization	Conclusion	
		(dBm)	Of Max. E.R.P		
	824.2	27.51	Horizontal	Pass	
GSM	836.6	26.18	Horizontal	Pass	
	848.8	27.02	Horizontal	Pass	
	824.2	24.64	Vertical	Pass	
	836.6	23.85	Vertical	Pass	
	848.8	23.61	Vertical	Pass	
	824.2	26.64	Horizontal	Pass	
	836.6	26.12	Horizontal	Pass	
CDDS	848.8	25.28	Horizontal	Pass	
GFKS	824.2	24.08	Vertical	Pass	
	836.6	24.22	Vertical	Pass	
	848.8	25.22	Vertical	Pass	



Radiated Power (E.I.R.P) for GSM 1900					
		Re	sult		
Mode	Frequency	Max. Peak ERP	Polarization	Conclusion	
		(dBm)	Of Max. E.I.R.P		
0014	1850.2	23.85	Horizontal	Pass	
	1880.0	24.62	Horizontal	Pass	
	1909.8	22.78	Horizontal	Pass	
GOM	1850.2	20.41	Vertical	Pass	
	1880.0	21.60	Vertical	Pass	
	1909.8	21.13	Vertical	Pass	
	1850.2	24.28	Horizontal	Pass	
	1880.0	24.10	Horizontal	Pass	
CDDS	1909.8	24.27	Horizontal	Pass	
GFRO	1850.2	20.08	Vertical	Pass	
	1880.0	21.87	Vertical	Pass	
	1909.8	20.83	Vertical	Pass	



Radiated Power (E.I.R.P) for UMTS band II					
		Res			
Mode	Frequency	Max. Peak E.I.R.P	Polarization	Conclusion	
		(dBm) Of Max. E.I.R.P		Conclusion	
	1852.4	19.10	Horizontal	Pass	
	1880	20.81	Horizontal	Pass	
	1907.6	18.54	Horizontal	Pass	
010113	1852.4	18.09	Vertical	Pass	
	1880	17.39	Vertical	Pass	
	1907.6	17.33	Vertical	Pass	

Radiated Power (ERP) for UMTS band V						
Mode	Frequency	Max. Peak ERP	Polarization	Conclusio		
		(dBm)	Of Max. E.R.P	n		
	826.4	19.77	Horizontal	Pass		
	836.4	18.45	Horizontal	Pass		
	846.6	19.97	Horizontal	Pass		
UMIS	826.4	17.13	Vertical	Pass		
	836.4	18.10	Vertical	Pass		
	846.6	16.15	Vertical	Pass		

Note: Above is the worst mode data.



5.2 PEAK-TO-AVERAGE RATIO

5.2.1 MEASUREMENT METHOD

Use one of the procedures presented in 4.1 to measure the total peak power and record as PPk. Use one of the applicable procedures presented 4.2 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

PAPR (dB) = PPk (dBm) - PAvg (dBm).

5.2.2 PROVISIONS APPLICABLE

This is the test for the Peak-to-Average Ratio from the EUT.

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.



5.2.3 MEASUREMENT RESULT

Modes	Max Peak to Average Ratio(dB)	Upper limit(dB)	Result
GSM850	0.30	13	Pass
PCS1900	0.29	13	Pass
UMTS BAND II	3.13	13	Pass
UMTS BAND V	3.19	13	Pass
Note: refer to section	of 5.1.1.2.		



5.3 OCCUPIED BANDWIDTH

5.3.1 MEASUREMENT METHOD

1. The Occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper Frequency limits, the mean power radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

2. RBW=1~5% of the expected OBW, VBW>=3 x RBW, Detector=Peak, Trace mode=max hold, Sweep=auto couple, and the trace was allowed to stabilize.

5.3.2 PROVISIONS APPLICABLE

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power

5.3.3 MEASUREMENT RESULT

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	247.9	320		PASS
GSM850	190	247.5	314		PASS
GSM850	251	246.1	317		PASS
GSM1900	512	240.0	324		PASS
GSM1900	661	243.5	314		PASS
GSM1900	810	245.2	314		PASS

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4155.8	4649		PASS
Band II	9400	4147.3	4646		PASS
Band II	9538	4182.8	4655		PASS
Band V	4132	4134.7	4650		PASS
Band V	4182	4154.5	4643		PASS
Band V	4233	4133.7	4644		PASS





GSM850-824.2-@26dB and 99PCT Bandwidth

GSM850-836.6-@26dB and 99PCT Bandwidth





Agile	nt Spec	trum Analyz	er - Occ	upied BW											
<mark>(x)</mark> Cei	nter I	Freq 84	50 Ω 8.800	AC CO 000 MH: #IE	RREC Z Gain:Low	, , , , , , , , , , , , , , , , , , ,	SENS Center F Frig: Free Atten: 1	E:PULSE req: 848.80 e Run 8 dB	0000 M Avg	Hz Hz Hold:	6N AUTO/NOR	F 05:35:25 Pl Radio Std: Radio Dev	Mar 19, 2021 None ice: BTS	F	requency
10 (B/div	Ref Ref	Offset 2 35.00	27 dB) dBm											
25.0 15.0)))				مالىر	, when the second	᠉ᡢ᠂ᡩᡰᡭᡃᡟ	M ^{JU} VUrwing	1 14					848	Center Freq 3.800000 MHz
-5.00 -15.0 -25.0				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							MARANA AND				
-35.0 -45.0 -55.0	յուներ	where the second s	<i>∿</i> √⁄								T"	^{իպր} այնը _ն ցարդու _{տետ}	Law And		
Ce #R	nter a es BV	848.8 MH V 5.1 kH	lz z				#VE	BW 15 kl	Hz			Sp Sweep	an 1 MHz 36.8 ms		CF Step 100.000 kHz
(Docu	ipied E	Bandy	width 246	: 1 <i>1</i>	kH-	,	Total P	ower	-	37.3	dBm		<u>Auto</u>	Man
٦ >	rans dB	smit Fre Bandwie	q Erro dth	or	, 1 4 6 317.	88 H 2 kH	۲۲۲۷ 38 Hz OBW Power ۹ 2 kHz x dB -20					0.00 % 00 dB			Freq Offset 0 Hz
MSG											K STATUS	\$			

GSM850-848.8-@26dB and 99PCT Bandwidth

GSM1900-1850.2-@26dB and 99PCT Bandwidth





Agilen	t Spectrum	Analyzer - Occ	upied BW								
Cen	ter Fred	RF 50 Ω			SEN: Center F	E:PULSE reg: 1.88000	ALI 0000 GHz	IGN AUTO/NOR	F 05:52:52 Pl Radio Std:	M Mar 19, 2021 None	Frequency
UUII		1 1.00000		r∠ ←	Trig: Fre	e Run Is aB	Avg Hold	: 100/100	Radio Dev	ice: BTS	
			#IF	Gain:Low	#Atten.				Radio Dev		
10 d	Bidiy	Ref Offset	27 dB 0 dBm								
Log											
25.0						anna -					Center Freq
15.0					"horner "	1 Martin Contraction	h				1.880000000 GHz
5.00				الر ا	۳ ⁴ (10.				
-5.00				100			N.				
-15.0			14 ² ~1	w"			W(mm			
-25.0			Nord Y					1 Wu			
45.0		لمرام	v						WILL		
-55.0	ᡙᡙᠬᢦᢧ	Margar and a							" "Vyh	ᢥᡕᠾᡞ᠈ᡟᡃ _{ᠲᡟᠬᡃ} ᡆ	
Cen #Po	ter 1.88 © BM 5	GHZ			#\/	BIAC 15 KH	7		Sween	an 1 MHz	CF Step
mr.c	3044 5.	T KITZ			# v	DW ISKI	2		Gweep	30.8 1113	100.000 kHz
0	ccupie	ed Band	width			Total Po	ower	31.5	dBm		Auto Man
			243	.49 k	κHz						Fred Offset
Ιт	ransmit	Freg Err	or	-11	0 Hz	OBW P	ower	99	.00 %		0 Hz
l v	dB Ban	dwidth		314 2	kHz	x dB		-26	00 dB		
		amatri		0.1.12				20.			
MSG									6		U
								-	1		

GSM1900-1880-@26dB and 99PCT Bandwidth

GSM1900-1909.8-@26dB and 99PCT Bandwidth





Agiler	it Spectrum	Analyzer - Occ	upied BW								
<mark>⊯</mark> R Cen	ter Fre	r= 50 Ω q 1.85240	AC CO	RREC	Center Fi	E:PULSE req: 1.85240	0000 GHz		Radio Std	M Mar 19, 2021 : None	Frequency
			#IF	↔ Gain:Low	#Atten: 18	e Run 3 dB	Avg Hold:	100/100	Radio Dev	/ice: BTS	
10 d	B/div	Ref Offset Ref 35.0	27 dB 0 dBm								
25.0											Center Freq
15.0											1.852400000 GHz
5.00				and the second	¶ [®] ⊎ffrferenderenderend	\∿~~~~~~~ ~~ \ \~~ ^µ	hand and a second and a second	w _L			
-15.0			/					<u>\</u>			
-25.0											
-35.0 45.0	and a part of the	and the second second second	Mun					· \/	han all all and a lot of the	and the second second	
-55.0											
Cen	L	i2 GHz							Spa	n 10 MHz	05.04-1
#Re	sBW 5	1 kHz			#VE	SW 150 k	Hz		Sweep	3.733 ms	1.000000 MHz
c	ccupi	ed Band	width			Total P	ower	23.6	6 dBm		<u>Auto</u> Man
			4.15	58 MI	Ηz						Freg Offset
т	ransmit	Freq Err	or	9.013 I	кНz	овw р	ower	99	9.00 %		0 Hz
×	dB Bar	ndwidth		4.649 N	AHz	x dB		-26.	00 dB		
MSG									3		I

UMTS BAND II-1852.4-@26dB and 99PCT Bandwidth

UMTS BAND II-1880-@26dB and 99PCT Bandwidth

Agilent S	Spectrum An	alyzer - Occ	upied BW								
Cente	er Freq '	50 Ω 1.88000	AC CO 0000 GH #IF	RREC 1Z Gain:Low	SENS Center Fi Trig: Free #Atten: 1	E:PULSE req: 1.88000 ≘ Run 8 dB	ALIO 00000 GHz Avg Hold:	3N AUTO/NOR 100/100	Radio Std	MMar 19, 2021 : None ice: BTS	Frequency
10 dB/	div F	Ref Offset : Ref 35.00	27 dB) dBm		1						
25.0 -											Center Freq 1.880000000 GHz
-5.00 — -15.0 —			/	n	ᡩᢞᡗᢧᠯᢛᢏᡯᡊᡣᡃᢩᢏᡣᡁᢈ	hrγsty _{bes} /hv-muntγ	how the second sec	X			
-25.0 — -35.0 — -45.0 —	www.	᠕᠆ᡎᡘᡆ᠙᠇ᠣᢒ᠇ᠬᡇ	mound					hul and		adving the with the state of th	
-55.0 Cente	er 1.88 G	iHz							Spa	n 10 MHz	CF Step
#Res Oc	scupied	Bandv	width		#VE	Total P	ower	21.8	Sweep 3 dBm	3.733 ms	1.000000 MHz <u>Auto</u> Man
	4.1473 MHz										
Tra	ansmit F	req Erre	or	-5.240	kHz	OBW P	ower	99	9.00 %		0 Hz
хd	B Band	width		4.646 N	AH z	x dB		-26.	00 dB		
MSG									5		



Agilent S	pectrum Analyzer - Oc	cupied BW							-	
Cente	r Freq 1.9076	2 AC COF 000000 GH #IF0	REC Z Gain:Low	SENSE Center Fr Trig: Free #Atten: 18	::PULSE req: 1.90760 e Run e dB	ALI 0000 GHz Avg Hold:	3N AUTO/NOR 100/100	F 06:08:19 P Radio Std Radio Dev	M Mar 19, 2021 : None vice: BTS	Frequency
10 dB/c	Ref Offse div Ref 35.(t 27 dB 00 dBm				1	r i	1		
25.0 — 15.0 —										Center Freq 1.907600000 GHz
-5.00			where and the second second	ᢣᢦᠰᢇᢧᡒᠺᡁ᠕ᡗ᠋᠅	Ay way and a second	and the second state of the second				
-25.0 —	Ander and the second second second	mm						WW - water		
-45.0										
Cente #Res	r 1.908 GHz BW 51 kHz			#VB	W 150 k	Hz		Spa Sweep	n 10 MHz 3.733 ms	CF Step 1.000000 MHz
Oc	cupied Band	dwidth	28 MH	7	Total P	ower	21.6	ð dBm		<u>Auto</u> Man
Tra	nsmit Freq Er	ror	-12.486 kl	Hz	OBW P	ower	99	9.00 %		Freq Offset 0 Hz
xd	B Bandwidth		4.655 Mi	Hz	x dB		-26.	00 dB		
							rl	-		
MSG								5		

UMTS BAND II-1907.6-@26dB and 99PCT Bandwidth

UMTS BAND V-826.4-@26dB and 99PCT Bandwidth

Agilen	t Specti	rum An	nalyzer - Oco	cupied BW								
LXI RL		RF	50 Ω		DRREC	SENSE	E:PULSE		GN AUTO/NO R	F 06:18:39 Pf	4 Mar 19, 2021 None	Frequency
Cen	ter F	req	826.400		IZ ↔	Trig: Free	eq. 020.400 Run	Avg Hold:	100/100	Raulo Stu.	None	
				#1	FGain:Low	#Atten: 18	βdB			Radio Dev	ice: BTS	
			Ref Offcet	27 dB								
10 dE	3/div	i	Ref 35.0	0 dBm								
Log									li i			
25.0												Center Freq
15.0												826.400000 MHz
5.00					washing and the second	ኯ፟፝፞፞፞፞ዀዀዀዀዀ	Mandal Marker					
-5.00				1	//				Ν			
-15.0				ļ (
-25.0									\			
-35.0				N					L			
45.0			ار مرادر ارد	Jun V					Y Y	man	Mr. Lynn	
-45.0	_ป พบเว็จไหน _ใ	- and										
-55.0												
Cen	ter 8	26.4	MHz	1				1	11	Spa	n 10 MHz	
#Re	s BW	51	kHz			#VE	W 150 k	Hz		Sweep	3.733 ms	CF Step
										· · ·		Auto Man
0	ccu	piec	d Band	width			Total P	ower	24. 4	ldBm		
				4 1'	847 MI	47						
				T. 13		12						Freq Offset
T I	ansr	nit F	Freq Err	or	2.450 I	кНz	OBW P	ower	99	9.00 %		0 Hz
	48.8	and	width		A 650 B	1U-7	v dB		-26	00 dB		
^		anu	wiatri		4.030 1	1112	X UD		-20.	00 00		
MSG										S		
									1	1		



Agilent Spect	trum Analyzer - Occu	upied BW	<u> </u>					
Center F	RF 50 Ω Freq 836.4000	AC CORREC OOO MHZ #IFGain:Low	SENSE:PULSE Center Freq: 836. Trig: Free Run #Atten: 18 dB	ALI 400000 MHz Avg Hold:	gn auto/norf : 100/100	Radio Std: Radio Dev	M Mar 19, 2021 None ice: BTS	Frequency
10 dB/div	Ref Offset 2 Ref 35.00	27 dB 0 dBm						
25.0								Center Freq 836.400000 MHz
-5.00		And a second second			NA NA			
-25.0 -35.0	Word for the second second	nor				ᡃᡃᢦᡗᡃᢦ᠋ᡏ᠊ᢦ ^ᢞ ᠯᢛ᠆ᡘᡘᠵᢧ ^ᡅ	Wrenglengton a	
-55.0	236 / MH2					Sna	n 10 MHz	
#Res BW	/ 51 kHz		#VBW 15) kHz		Sweep	3.733 ms	CF Step 1.000000 MHz
Occu	pied Bandy	width 4.1545 N	Total 1HZ	Power	24.2	dBm		Auto Man
Trans	mit Freq Erro	or -10.193	3 kHz OBW	Power	99	.00 %		0 Hz
X dB E	Bandwidth	4.643	MHZ X dB		-26.0	JU dB		
MSG								

UMTS BAND V-836.4-@26dB and 99PCT Bandwidth

UMTS BAND V-846.6-@26dB and 99PCT Bandwidth

Agilen	t Spect	trum Analyze	r - Occ	upied BW									
Cen	ter F	RF rea 846	50 Ω	AC 000 M	CORREC		Center Fi	E:PULSE req: 846.600	ALI 1000 MHz	GN AUTO/NO F	Radio Std:	Mar 19, 2021 None	Frequency
]			lEGain:	••	Trig: Free #Atten: 18	eRun ∃dB	Avg Hold:	100/100	Radio Dev	ice: BTS	
					ii ouiiii								
10 di	3/div	Ref C Ref)ffset: 35.00	27 dB) dBm									
Log 25.0													Contor From
15.0													846 600000 MHz
5.00					~	مراجع المحاسم المحاسم الم	and the second s	L.	hanne				040.000000 11112
-5.00									۰ ۲	H. 12.			
-15.0					′					<u>\</u>			
-25.0										<u>\</u>			
-35.0			A										
-45.0	perco	range and a second	(Yinna)()	/ 14~ *							dollars and do.	1 www.	
-55.0													
Cen	ter 8	346.6 MH	z						1	1	Spa	n 10 MHz	0.5.01
#Re	s BW	/ 51 kHz					#VE	BW 150 H	κHz		Sweep	3.733 ms	1.000000 MHz
0	iccu	nied B	and	width				Total P	ower	24.1	1 dBm		<u>Auto</u> Man
١ĭ	ccu		ana	// //	227	, клі	_] _						
				4.1	331	IVII	72						Freq Offset
יד	rans	mit Frec	Erre	or	-4.	-4.522 kHz OBW Pow			ower	99	9.00 %		0 Hz
x	dB B	Bandwid	th		4.6	644 N	/IHz	x dB		-26.	00 dB		
										4			
MSG											s		



5.4 BAND EDGE

5.4.1 MEASUREMENT METHOD

1. All out of band emissions are measured with an analyzer spectrum connected to the antenna terminal of the EUT while the EUT at its maximum duty cycle, at maximum power, and at the approximate frequencies. All data rates were investigated to determine the worst case configuration

2. The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

3. Start and stop frequency were set such that the band edge would be placed in the center of the plot.

4. Span was set large enough so as to capture all out of band emissions near the band edge.

5. RBW>1% of the emission bandwidth, VBW >=3 x RBW, Detector=RMS, Number of points>=2 x Span/RBW,

Trace mode=max hold, Sweep time=auto couple, and the trace was allowed to stabilize

5.4.2 PROVISIONS APPLICABLE

As Specified in FCC rules of 22.917(a), 24.238(a)and KDB 971168 D1 V03R01.

5.4.3 MEASUREMENT RESULT

Pass



GSM1900-GPRS-1850.2@Pass

Agiler	nt Sp	pect	rum	An	alyzer - Sw	ept SA													
Cen	∟ nte	r F	re	RF q '	ء 50 1.8499	2 AC	0 GH	RREC			E:PUL	SE	#Avg	ALIG	NAUTO/NOR RMS	F 05:47:54 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6		Frequency
10 d	Bid	liv		Ref	Offset 2	7 dB	Pi IF:	NO: Wid Gain:Lo	e ⊶⊷ w	#Atten: 18	8 dB	rı 	Avgin	010.	Mkr1 1	.849 98 -18.7	5 0 GHz 11 dBm		Auto Tune
Log 20.0 10.0 0.00													and the second	witer	~p\k/Mpmlmeinva	NU ALAMAN AND AND AND AND AND AND AND AND AND A			Center Freq 1.849950000 GHz
-10.0 -20.0 -30.0										. Hereiter	party.		γγ' 						Start Freq 1.849450000 GHz
-40.0 -50.0 -60.0	~~**	ሳላት	,perd	μæ	Lyph Vanho	promition	yr the llydd	Nrythurst	,allerrererererererererererererererererer	VILLAND VILLE									Stop Freq 1.850450000 GHz
Star #Re	rt 1 :s E	1.84 3W	494 / 3.	150 9 80)0 GHz (Hz		~	#\	/BW	11 kHz*		FUN	TINN	S	St Sweep 8	op 1.850 1.60 ms (4500 GHz (2001 pts)	A	CF Step 100.000 kHz <u>Juto</u> Man
1 2 3 4 5 6 7 8 9 10 11	N			f		1.84	9 985	0 GHz		-18.711 dE	3m								Freq Offset 0 Hz
MSG															STATUS	5			

GSM1900-GPRS-1909.8@Pass

Agilent Spectrum Analyzer - Swept SA					
	RREC	SENSE:PULSE	ALIGN AUTO/NOR	F 05:55:39 PM Mar 19, 2021	Frequency
Center Fred 1.910050000 Gr	⊓∠ NO:Wide ⊶⊷ Tri	g: Free Run	Avg Hold: 100/100		
IF	Gain:Low #At	tten: 18 dB		DELLA MINIMINI	
Ref Offset 27 dB			Mkr1 1	.910 004 0 GHz	Autorune
10 dB/div Ref 30.00 dBm				-17.513 dBm	
20.0					Center Fred
10.0 10.0	MAR				1 910050000 GHz
	I MAN I				1.5100000000012
10.0	, will	a 1			
-10.0		•		-13.00 dDm	Start Freq
-20.0 Marthan		PHIMAN AND			1.909550000 GHz
-30.0					
-40.0			a k		Stop Ereg
-50.0			W The share the state of the st	ل من مع بناس	1 910550000 CHz
-60.0				Terminication and the second	1.510000000012
Start 1 0005500 CHz			Cf	on 1 0105500 CHz	
#Res BW 3.9 kHz	#VBW 11	kHz*	Sweep 8	1.60 ms (2001 pts)	CF Step 100 000 kHz
		×			Auto Man
1 N 1 f 1.910 004	0 GHz -17.9	513 dBm			
2					Fred Offset
4					0 Hz
6					
7					
9					
10					
	I			×	
MSG				3	<u>IL</u>
			-9		



GSM1900-Voice-1850.2@Pass

Agiler	nt Sp	pectr	um A	nalyzer - Sw	ept SA										
<mark>⊮</mark> R Cer	L Itei	r Fi	ء req	F 50 Ω	AC COR 50000 GH					#Avg Aug	ALI Typ	GN AUTO/NOI e: RMS	RF 05:40:09 P TRA TV	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M M M M M	Frequency
			Re	of Offset 27	Pi IFi dB	10: Wide Gain:Low	, - .	#Atten: 1	3 dB			Mkr1 1	.849 99 -17 4	6 5 GHz 94 dBm	Auto Tune
20.0 10.0			K								, well	Mayhrandyevealy	Marchaller		Center Freq 1.849950000 GHz
-10.0 -20.0 -30.0									All All And All All All All All All All All All Al						Start Freq 1.849450000 GHz
-40.0 -50.0 -60.0	Party.	l _{ayat} yy ^y	wy.	hynnaddolymno,	addentallytertall	(rayer frage	trafficial and	Mr. Mr. V							Stop Freq 1.850450000 GHz
Sta #Re	rt 1 es E MOD	1.84 3W	94: 3.9	00 GHz kHz	×	#V	вw	11 kHz*	FL	INCTION	, Fur	Sweep 8 Sweep 8	top 1.850 31.60 ms (4500 GHz (2001 pts) onvalue	CF Step 100.000 kHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10 11	N		f		1.849 996	5 GHz		<u>-17.494 df</u>	3m						Freq Offset 0 Hz
MSG													s		

GSM1900-Voice-1909.8@Pass

Agilent	t Spectro	um An	alyzer - Swe	ept SA								
Cent	ter Fr	RF eq	່ ^{50 ຊ} 1.91005	AC COR 50000 GH	REC	SENS		Aug Tyj	IGN AUTO/NO pe: RMS	RF 05:43:07 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
_		Pof	Offect 27		lO: Wide ↔ Gain:Low	#Atten: 1	3 dB	Avginor	Mkr1 1	.910 02		Auto Tune
10 dE	3/div	Rei	f 30.00 c	dBm						-17.0	89 dBm	
20.0 10.0			white white	A what when when when when when when when when	Mary have been been been been been been been be							Center Freq 1.910050000 GHz
-10.0		_µ₩	Ф		٦	Å ▲¹ –					-13.00 dDm	Start From
-20.0 -30.0	<u>Nakana</u>	h.				M MANNA MA						1.909550000 GHz
-40.0							··· 744	L.				
-50.0							ne ne	White a part of the second sec	ስኪላሙል ይለዚሉ		() () ()	1 910550000 GHz
-60.0								-1,	1	urawa wi jiriyi yin	het with the Angord Males	1.51000000 0112
Stari #Res	t 1.90 s BW	9550 3.9)0 GHz (Hz		#VBV	/ 11 kHz*	I		Sweep 8	top 1.910: 31.60 ms (5500 GHz 2001 pts)	CF Step 100.000 kHz
MKR N	10DE TR	C SCL		×		Y	FU	NCTION FU	INCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> Man
1 2 3 4 5 6	N 1	T		1.910 020 0		-17.089 di	3m					Freq Offset 0 Hz
7												
9 10												
11		-			I					ļ	~	
MSG									🚺 STATU	s		u,



GSM850-GPRS-824.2@Pass

Agilent S	Spectru	n An	alyzer - Sw	ept SA									
Cente	er Fre	RF eq 8	50 Ω 823.950	AC COF	REC		SENSE	PULSE	Avg Tγ Avg Tγ	LIGN AUTO/NC pe: RMS	RF 05:59:15 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
		Ref	Offset 27	PN IFC	IO: Wide Sain:Low	#A	tten: 18	dB	Argino	Mkr	1 824.00		Auto Tune
10 dB/	div	Re	F 30.00	dBm							-23.3	15 dBm	
20.0		_							Monterapy	Here and the second sec	Miningly Martina		Center Freq 823.950000 MHz
-10.0								ب ر	1.000		1	1	
-20.0												h www.	Start Freq 823.450000 MHz
-40.0 -						A NEW MARK	phon V						Stop Freq
-60.0	Man I	V		How Washington	NWA MA	auger er							824.450000 MHz
Start #Res	823.4 BW 3	500 .9 I) MHz (Hz		#V	BW 11	kHz*			Sweep	Stop 824. 81.60 ms (4500 MHz 2001 pts)	CF Step 100.000 kHz
MKR MO		SCL		×		02	Y 245 JE	FUNG	TION F	UNCTION WIDTI	H FUNCTI	ON VALUE	Auto Man
2 3 4 5				824.000		-23.	315 GE						Freq Offset 0 Hz
7 8 9													
10 11												~	
<										e1		>	
MSG											US		

GSM850-GPRS-848.8@Pass

Agilen	it Spec	trun	n An	alyzer - Sw	ept SA													
Cen	ter l	Fre	RF eq 8	່ ^{50 ຊ} 349.050	AC 0000	COR MHz	REC			E:PULSE		#Avg T Augled	ALIGN / Type: F		F 05:59:33 F TRA	M Mar 19, 2021	i L	Frequency
_						PN IFG	IO: Wide Gain:Lov	e ⊶⊷ w	#Atten: 1	8 dB		Avgine	514. 10	B #1	040.00		Ń	Auto Tune
10 di	B/div		Ref Re f	Offset 27 5 30.00 (7 dB dBm									IVIKET	849.02 -17.7	2 0 MHZ 28 dBm		
20.0							.1											Center Freq
10.0				AN ANTALAN	n Nin wataka	nde in seaf	HATH MANN	Mr.										849.050000 MHz
-10.0			المر	nyi .				MAN N	\1							-13.00 dBm	┢	Start From
-20.0	, MY	λψ	r						<u>`</u> ```````````````````````````````````	n.,								848.550000 MHz
-30.0 -40.0										Wh.	had the state						╞	
-50.0			-								איין	han an a	19. June 1	د منا السلم		đ		Stop Freq 849.550000 MHz
-60.0													HIMM	t Attend to the	M MANNA AN	"hadevelotevalle	┞	
Star #Re	t84 sBV	8.5 V3	500 .9 k) MHZ (HZ			#∖	/BW	11 kHz*				Sw	eep 8	Stop 849. 1.60 ms	5500 MHz (2001 pts)		CF Step 100.000 kHz
MKR 1	MODE	TRC 1	SCL f		× 849	9.022 () MHz		Y -17.728 d	Bm	FUNC	TION	FUNCTI	ON WIDTH	FUNCT	ION VALUE	Α	A <u>uto</u> Man
2																		Freq Offset
4 5 6																		0 Hz
7																		
9 10 11																		
MSG														STATU	5	>		
														-				



GSM850-Voice-824.2@Pass

Agilen	t Spe	ctru	m An	alyzer - Sv	vept SA														
(XI RL Cent	ter	Fre	RF eq 8	50 s 323.95	2 AC		REC			E:PUL	SE	#Avg	LALIG Type	IN AUTO/NOF	RF 06:00):02 PN TRAC	1 Mar 19, 2 E <u>1</u> 2 3 4	5 6	Frequency
10 dE	3/div		Ref Ref	Offset 2	7 dB dBm	PN IFG	O: Wid ain:Lov	e⊶⊷ w	#Atten: 1	8 dB		or gin		Mkr1	824. -24	000 4.28	0 MI 32 dB	-IZ m	Auto Tune
Log 20.0 10.0 0.00												and the property of	ng kinan	hand a line and	ny lu Y withy	h.			Center Freq 823.950000 MHz
-10.0 -20.0 -30.0									Main	W ^{WW}	1 1 ¹					Ψ. .	ун -13.00 Муррр	d⊞m Nwiji	Start Freq 823.450000 MHz
-40.0 -50.0 -60.0		, th	Laller	Al month	Appapper	,~~Alu	hringhri	with	ant and a second										Stop Freq 824.450000 MHz
Star #Res	t 82 s B\ 5 B\	23.4 W 3	500 3.9) MHz (Hz	×		#\	/BW	11 kHz*		FUN	TION	S	sweep 8	Stop 8 1.60 n	24.4 ns (2	500 M 2001 p	Hz ts)	CF Step 100.000 kHz <u>Auto</u> Man
1 2 3 4 5 6 6 7 8 9 10 11	N				824.0) MHz		-24.282 dl	Bm	FUNI								Freq Offset 0 Hz
MSG															S				

GSM850-Voice-848.8@Pass

Agiler	nt Spec	ctrun	n Ana	ılyzer - Sw	ept SA															
גאו R Cen	L Iter	Fre	RF cq 8	50 Ω 849.050	ac D000 M	CORF	REC			E:PULSE		#Avg	ALIGN	AUTO/NO	RF 05:5	58:54 Pf TRAC	M Mar 19, 2 E 1 2 3 4	2021 156	Frequency	
			Ref	Offset 27	dB	PN IFG	0: Wide ain:Lov	e ⊶∎⊷ w	#Atten: 1	3 dB		Avgin		Mkr1	849	.007	7 5 M	Hz	Auto Tu	ıne
10 d	B/div		Ref	30.00	dBm										-1	7.9	24 dE	3m		
20.0 10.0				an Contact of the	pr	^N I~~,*	MAN AND AND AND AND AND AND AND AND AND A	h-hater											Center Fr 849.050000 M	r eq ⁄IHz
-10.0 -20.0 -30.0		₩/							^k μ	ν ω Μιλ.							-13.00	dÐm	Start Fr 848.550000 M	r eq 1Hz
-40.0 -50.0 -60.0										יי <i>ו</i> עיי 	^{fo} lder and the	Arry Mysan	Miliopatri	yyhyphydryd yn d	hand the state	unhhh	white	V _{NI}	Stop Fr 849.550000 M	r eq 1Hz
Star #Re	t84 sB\	8.5 N 3	500 .9 k	MHz Hz			#\	/BW	11 kHz*	•			S	weep	Stop 8 1.60	849.5 ms (5500 N 2001 p	IHz)ts)	CF St 100.000 k	tep kHz Man
MKR 1 2 3 4 5 6 7 8 9 10 11 <					× 849.00	07 5	MHz		-17.924 df	3m	FUNC		FUNCT			FUNCTIO			Freq Offe	set
NSG														SIAN	00					



UMTS BAND II-RMC-1852.4@Pass

Agilen	nt Spec	trum	Ana	lyzer - S	wept	SA																
<mark>⊮</mark> ℝ Cen	∟ Iter I	Fre	RF q 1	.8499	ດ 100	AC 000	GH	REC Z] 	SENSE	E:PUL	.SE	#Avg	ALIO Type	EN AUTO/NO E: RMS 400/400	RF	06:04:20 F TRA	M Mar 19, CE 1 2 3 PE M MAR	2021		Frequency
		F	Ref	Offset 2	7 dE	3	PN IFG	0: Wi iain:Lo	de ⊶► ow	#Att	en: 18	8 dE)	~19		Mkr	1 1.	.849 9		Hz	1	Auto Tune
10 di	B/div		Ref	30.00	dB	m												-30.4	56 a	вm		
20.0 10.0					+													4.4.1				Center Freq 1.849900000 GHz
0.00			+		-								كملاحا المعصمك	n harden bei heime	an yund	***********	AN AL	NY MARKANI (Market and	ч.		
-10.0 -20.0 -30.0					+							↓ 1	<u></u>						-13.			Start Freq 1.844900000 GHz
-40.0 -50.0 -60.0	Are, And	alper, etc	, mark	lyw ^{ert} rai	(umy	mig-vi	atur der	hard and the	- 	~~~ <u>~~</u>	<u>רויאר</u>											Stop Freq 1.854900000 GHz
Star #Re	t 1.8 s BV	449 V 39	900 9 kl	GHz Hz				#	VBW	110	kHz	*			ę	Sweep	Sto 8.26	p 1.85 67 ms (4900 (2001	GHz pts)		CF Step 1.000000 MHz
MKR	MODE	TRC	SCL			X				Y			FUN	CTION	FUN	ICTION WIDTH	1	FUNCTI	ON VALUE	^	É	<u>Auto</u> Man
2 3 4 5 6	N	1	T			1.84	9 900	JGHZ		-30.4	56 GE	∃m										Freq Offset 0 Hz
7 8 9 10 11											II											
MSG																	JS					

UMTS BAND II-RMC-1907.6@Pass

Image: Name Ref SO @ Acc CORREC SENSE: PULSE Advaluan Auton (No.RF) Dec (6:08:26) FMM Mar 19, 2021. Fr Center Freq 1.910100000 GHz PN0: Wide + Trig: Free Run Avg Type: RMS Trace [12:3:4:5.6] Fr PN0: Wide + IFGain:Low Trig: Free Run Avg Type: RMS Trace [12:3:4:5.6] Fr Ref Offset 27 dB	equency Auto Tune
Bit Strest 100 (100 (100 (100 (100 (100 (100 (100	Auto Tune
0.00	Center Freq
-10.0	Start Freq 5100000 GHz
-40.0 -50.0 -60.0	Stop Freq 5100000 GHz
Start 1.905100 GHz Stop 1.915100 GHz #Res BW 39 kHz #VBW 110 kHz* Sweep 8.267 ms (2001 pts) MKR MODE TRC SCL X Y FUNCTION WIDTH FUNCTION WIDTH FUNCTION WIDTH	CF Step .000000 MHz Man
1 N 1 f 1.911 225 GHz 33.991 dBm 2 - <td>Freq Offset 0 Hz</td>	F req Offset 0 Hz


UMTS BAND V-RMC-826.4@Pass

Agiler	nt S	Spe	ctru	im i	Ana	ılyze	r - Sv	vep	it SA																										
Cen	L Ite	ər	Fr	ec	RF	323	50 s	2 00	AC	M	COR Hz	REC]	9 101	Ero	E:PU	LSE		#A\ A	/g Ty	LIGN pe:	RMS		F 06	:18:46 TR	PM ACE	Mar 19, 1 2 3	2021 4 5	6 6		Fre	quen	су
				R	ef	Offs	et 2	7 c	IB		PN IFG	io: 1 Gain	Wide n:Lov	y ↔ v	#4	Atte	n: 18	BdE	3				u. 1	00710	v Viki	r1 8	24.			1Hz	Z		,	Auto	Tune
10 di 20.0 10.0		div		R	ef	30	.00	d	<u>Bm</u>											يەربىل.	۹ <u>۵۹</u> ۰۰۰۰۰	whethe		un via	ኢዮጵም	-	-35.: -m/m,k		7 ai	DII			C (823.9	enter 90000	r Freq 0 MHz
-10.0 -20.0 -30.0																		↓	/ ^{//////}										-13.0		- -		818.9	Stari 90000	t Freq 0 MHz
-40.0 -50.0 -60.0	\$	-left	ft.	inel,	<u>م</u> ور ا	J.,	di d	, 6 , 6 ,	#4 ₇₄ 74	uqub,qQ	hear?	je vile.	holm	hires a	in the	-'\j i'i	k. _/ J	/ V															828.9	Stop 90000	Freq 0 MHz
Star #Re	rt s	81 B\	8.9 N :	90 39	0 I ki	MH: Hz	z		>	<			#V	ΒW	/ 11	0 k Y	Hz	*	F	UNC	TION	F	S\ UND	weej	p 8 DTH	Sto .267	p 82 7 ms	8.9 (2	900 P 001	VIHz pts	z)	Aut	1.0 :0	CF	0 MHz Man
1 2 3 4 5 6 7 8 9 10 11		1	1		f					324.	.000	D M	IHZ		-35		7 di	<u>3</u> m															F	req (Offset 0 Hz
MSG																								r 🕼 s	TATUS	6									

UMTS BAND V-RMC-846.6@Pass

Agilen	t Spect	rum Ai	nalyzer - Sw	ept SA								
Cen	ter F	RI Teq	50 Ω 849.100	AC CO HM 0000	DRREC Z	SEN:	E:PULSE	AL #Avg Ty	IGN AUTO/NO pe: RMS	RF 06:20:21 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
				F	NO: Wide * Gain:Low	#Atten: /	8 dB	Avginon	a. 100/100			Auto Tune
10 dE	3/div	Re Re	f Offset 27 f 30.00	⁷ dB dBm						-37.1	11 dBm	
20.0					-							Center Freq
10.0		فهويهوره	where the second	re-autoritionarkitere.s.	and the man	have request						849.100000 MHz
-10.0	/ ^{/m}	ρω. 				W N					-13:00 dDm	Start Erog
-20.0	+						. 1					844.100000 MHz
-30.0 -40.0	Y						Lukau .	(134)-1- 1 Å				
-50.0					-		- I - Brook	a. A. 41. L. June diskingen	white the product for	- Martin Martin		Stop Freq 854 100000 MHz
-60.0											ግምት የሚያት እስለ የስት እስለ የ የስት እስለ የስት እስለ	
Star #Re:	t 844 s BW	.100 39 I	MHz (Hz		#VB	W 110 kH	*		Sweep	Stop 854 8.267 ms (.100 MHz 2001 pts)	CF Step 1.000000 MHz
MKR	MODE T	RC SC		×		Y	E I	UNCTION FL	INCTION WIDTH	H FUNCTI	ON VALUE	<u>Auto</u> Man
2		T		849.10		-37.111 d	Bm					Freg Offset
4												0 Hz
6 7 8												
9 10												
11						IIII					×	
MSG									To STATU	s		



5.5 SPURIOUS EMISSION

5.5.1 CONDUCTED SPURIOUS EMISSION

5.5.1.1 MEASUREMENT METHOD

The following steps outline the procedure used to measure the conducted emissions from the EUT. 1. The level of the carrier and the various conducted spurious and harmonic frequency is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the approximate frequencies. All data rates were investigated to determine the worst case configuration.

2. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the equipment of PCS1900 band, this equates to a frequency range of 30 MHz to 19.1 GHz, data taken from 30 MHz to 20 GHz. For GSM850, data taken from 30 MHz to 9 GHz.

3. Determine EUT transmit frequencies: the following typical channelswere chosen to conducted emissions testing.

Typical Channe	Is for testing of GSM 850
Channel	Frequency (MHz)
128	824.2
190	836.6
251	848.8

Typical Channel	Is for testing of PCS 1900
Channel	Frequency (MHz)
512	1850.2
661	1880.0
810	1909.8

Typical Channels	for testing of UMTS band V
Channel	Frequency (MHz)
4132	846.4
4182	836.4
4233	846.6



Typical Channels f	or testing of UMTS band II
Channel	Frequency (MHz)
9262	1852.4
9400	1880
9538	1907.6

5.5.1.2 PROVISIONS APPLICABLE

On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

5.5.1.3 MEASUREMENT RESULT

Pass



GSM1900-1850.2-GPRS@13.6GHz-20GHz@Pass

Agiler	nt Spect	rum A	nalyzer	Swep	t SA													
(X) R Cen	∟ nter F	req	16.8	50 Ω DOOO	AC 0	GHZ		SENSI	e:PULSE		AvalH	ALIG	N AUTO/NO : RMS 100/100	RF 05:4	18:33 PI TRAC TY	M Mar 19, 2 E 1 2 3 4 PE M WWW	021 56	Frequency
10 d	Bidiv	Re	f Offse	t 27 d	B	PNO: F IFGain:	-ast ⊶►− Low	#Atten: 24	4 dB				Mkr1	18.9	976 8.8	00 G 44 dE	Hz Hz	Auto Tune
10.0 0.00															1	-13.00		Center Freq 16.80000000 GHz
-20.0 -30.0 -40.0								y		يوساه در .		40141					W [#)	Start Fred 13.600000000 GHz
-50.0 -60.0 -70.0																		Stop Fred 20.000000000 GHz
Star #Re	rt 13.6 s BW	600 (1.0	GHz MHz				#VBW	3.0 MHz				Sv	veep 1	Sto 6.00 n	p 20 ns (2	.000 G 0001 p	Hz ots)	CF Step 640.000000 MHz Auto Man
1 2 3 4 5 6	N /	1 f			18.976	00 GH	Hz	-18.844 dE	3m	FOINL		FUNI			FUNCTION	UN VALUE		Freq Offset 0 Hz
7 8 9 10 11 <								IIII									~	
MSG													🚺 STATU	JS				

GSM1900-1850.2-GPRS@1GHz-7GHz@Pass

Agilent S	pectru	m Ana	alyzer -	Swept	SA										
Cente	er Fr	RF eq 4	1.000	ος 20000	ac co 000 G	Hz				#Av	g Typ	GN AUTO/NO e: RMS	RF 05:48:09 F TRA T	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
10 dB/d	div	Ref Ref	Offset	27 dE	3 m	'NO: Fast Gain:Lov	t⊶•⊶ w	#Atten: 2	4 dB			M	kr1 2.99 -24.4	5 3 GHz 95 dBm	Auto Tune
25.0 - 15.0 -															Center Freq 4.000000000 GHz
-5.00			مر الم	فريعة للرواقتوم	Y (1				من مر الم روم .	والمعادر والمحال	و معنوا الترقيم ، و ما و م	an a	-13.00 dBm	Start Freq 1.000000000 GHz
-35.0								Many population							Stop Freq 7.000000000 GHz
Start ⁻ #Res	1.000 BW ') GH 1.0 M	iz ⁄IHz		×	#\	/BW	3.0 MHz	2	UNCTION	S	weep 10	Stop 7 0.67 ms (2	7.000 GHz 20001 pts) IONVALUE	CF Step 600.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7		f			2.995	5 3 GHz		-24.495 d	Bm						Freq Offset 0 Hz
8 9 10 11 <								lilit				I statu	s		



GSM1900-1850.2-GPRS@30mHz-1GHz@Pass

Agilent	Spec	trum	Ana	ilyzer - Sw	ept SA														
Cent	er F	Fre	RF q 5	្រភា 15.00	2 AC	col COMH	RREC			E:PU	.SE	#Avg		EN AUTO/NOF	F 05:47:	58 PM M TRACE	lar 19, 202: 1 2 3 4 5	6	Frequency
10 dB	(din	F	Ref	Offset 2	7 dB	P IF	'NO: I Gain:	Fast ↔► :Low	#Atten: 2	4 dE	3	- Crah	1010.	M	kr1 82 -28	28.5	0 MH: 2 dBm	z	Auto Tune
10.00 - 10.00 -				20.00		•											-1000-40		Center Freq 515.000000 MHz
-20.0 -30.0 -40.0			h.eu)	a di bi di bi di si si si si Sa se secondari di su	Weiepined				i is start with the same life grange of the start spectra for					y a crist hand a crist in term	1				Start Freq 30.000000 MHz
-50.0 - -60.0 - -70.0 -																			Stop Freq 1.000000000 GHz
Start #Res	30. BW	.0 IV V 1.	1Hz ON	: /IHz	}	×		#VBW	/ 3.0 MHz Y	2	FUNC	TION	ST	weep 1.3 CTION WIDTH	Stop 333 ms	1.00 ; (200	00 GH2 001 pts	z ;)	CF Step 97.000000 MHz Auto Man
1 2 3 4 5 6 7 8 9 9 10 11		1	f			828.5		Hz	-28.942 d	Bm									Freq Offset 0 Hz
MSG															5				

GSM1900-1850.2-GPRS@7GHz-13.6GHz@Pass

Agilen	it Spe	ctrun	n Ana	ilyzer - S	wept SA													
Cen	∟ ter	Fre	RF q 1	50 0.300	Ω AC	COR 000 G	Hz		SENS	E:PULSE		Avg T Avg T	ALIGN	RMS	F 05:48:19 TF	PM Mar 19, ACE 1 2 3	2021 4 5 6	Frequency
			Ref	Offset 2	27 dB	IFO	NO: Fast Gain:Lov	• • • •	#Atten: 2	4 dB		Crain.		Mkr1	13.19	DET P N N	Hz	Auto Tune
10 d	B/div		Rel	20.00	dBm	1									-23.	657 dl	Зm	
10.0 0.00																		Center Freq 10.300000000 GHz
-10.0	-															<u>1</u>	<u>dDm</u>	
-20.0 -30.0 -40.0			-		the second			Lelwine (Ning, Nghin Ang									Start Freq 7.000000000 GHz
-50.0	-				-												_	Stop From
-60.0 -70.0																		13.600000000 GHz
Star #Re	t 7.0 s B\	000 N 1	GH .0 P	z AHz			#V	/BW	3.0 MHz				Sw	eep 12	Stop 1 2.00 ms (3.600 C 20001	SHz pts)	CF Step 660.000000 MHz
MKR	MODE	TRC	SCL		43	< 400.20			Y 03.657.40	3	FUNC	TION	FUNC	TION WIDTH	FUNC	TION VALUE	^	Auto Man
2 3 4 5 6	N	1	<u>т</u>		13	3.199.38	3 GHZ		-23.657 di	3m								Freq Offset 0 Hz
7 8 9 10 11																		
MSG									IIII						5		>	



GSM1900-1850.2-Voice@13.6GHz-20GHz@Pass

Agiler	nt Specti	rum Ai	nalyzer - S	Swept SA														
(X) R Cen	∟ nter F	req	50 16.80	ΩΩ AC 00000		REC		SENSE	E:PULSE		#Avg AvalH		IN AUTO/NO IRMS 100/100	RFO	5:40:48 F TRA T	M Mar 19 CE 1 2 3	,2021 3456	Frequency
10 d	Pidiu	Re	f Offset	27 dB	IFG	IO: Fast iain:Low		#Atten: 24	dB				Mkr	1 19).070 -18.3	08 C	Hz Bm	Auto Tune
10.0 0.00			1 20.0												1	-13	00 dDm	Center Freq 16.80000000 GHz
-20.0 -30.0 -40.0	u i di ki			المراجع	والبياطل	Name of Station and		Hanna Hanna han bar bar sa shini) alashika (Jan gan 1 - Araya	معد العرب الطلام. معرب العرب العرب العرب العرب							Start Freq 13.60000000 GHz
-50.0 -60.0 -70.0																		Stop Fred 20.000000000 GHz
Star #Re	rt 13.6 s BW	600 (1.0	GHz MHz			#VI	зw з	.0 MHz		EUNR		S۱	weep 1	S 6.00	top 20 ms (2	0.000 20001	GHz pts)	CF Step 640.000000 MHz Auto Man
1 2 3 4 5 6	N 1	f		19.	.070 08	3 GHz	-1	18.317 dE	3m									Freq Offset
7 8 9 10 11 <								IIII					-1				> >	
MSG														US				

GSM1900-1850.2-Voice@1GHz-7GHz@Pass

Agilen	it Spec	ctrur	n An	alyze	er - Sw	ept SA																	
Cen	∟ iter	Fre	RF Pq 4	1.0	50 Ω 0000	AC 0000)0 G		EC] 	SENSE	E:PULSE		#Avg	LALIO	SN AUTO/NO : RMS 100/100	DRF	05:40:24 F TRA	M Mar 19 CE 1 2 (, 2021 3 4 5 6		Frequency
10 di	B/div	,	Ref Ref	Offe	set 27	⁷ dB dBm		PNO FGai	in:Lov	v	#Atte	en: 24	dB		- vygli	1010.	M	lkr	1 2.50 -23.4	390 64 d	SHz Bm		Auto Tune
Log 25.0 15.0 5.00																						4	Center Freq 4.000000000 GHz
-5.00 -15.0 -25.0	1 0	Ne			and the last	are, faibs fail	1 =					and standing of		Lugaderi	المعتر بالاربار بال	ماروما رام			ha mille du.	-13	00 dBm	1	Start Freq 1.000000000 GHz
-35.0 -45.0 -55.0					1991 N 1 1 1 1																	7	Stop Freq 7.000000000 GHz
Star #Re	t 1.(s B\	000 N/1	GH .0 P	iz ViHz	z	\	<		#V	/BW	' 3.0 P	ИНz		FUNC	TION	ST	weep 1	0.6	Stop 7 7 ms (2	20001	GHz pts)	Au	CF Step 600.000000 MHz to Man
1 2 3 4 5 6 7 8 9	N	1	f				2.503	39(GHz		-23.40	64 dE	3m										Freq Offset 0 Hz
10 11 <											11	111					I stat	US			>		



GSM1900-1850.2-Voice@30mHz-1GHz@Pass

Agilent	t Spec	trum	Ana	lyzer - Sv	wept S	A															
(X) RL Cent	ter l	Free	RF q 5	50 s	Ω A	o MH		ic			E:PUL	.SE	#Avg	<u>1</u> ALIO Type	SN AUTO/NOF	RF 05:4	D: 13 Př TRAC	M Mar 19, 2 E 1 2 3 4	2021 156	Freque	ncy
10 45	7/41	F	Ref	Offset 2	7 dB	1 2	PNO FGai	: Fast in:Low	·••	#Atten: 2	4 dE		Avgir	1014.	M	kr1 9 -2	₀ 65. 8.5	71 M		Auto	o Tune
10.00 0.00				20.00														-12.00		Cente 515.0000	er Freq 00 MHz
-20.0 -30.0 -40.0	ing to get	i in c	heen					, posti de la constante de la c		सी हो दियों के अन्य के स्वार के स्वार सी हो दियों के अन्य हो के स्वार के स्वार सी हो दियों के अन्य हो के स्वार के स्वार				N iniwi	(nun territenski) (nun territenski)				1- 1-	Sta 30.0000	rt Freq 00 MHz
-50.0 -60.0 -70.0																				Sto 1.0000000	p Frec 100 GHz
Stari #Res	t 30. s BV	.0 IV V 1. TRC	ihz 0 N	1Hz		×		#V	вw	3.0 MHz	2	FUNC	TION	ST	weep 1.	Sto 333 m	p 1.(is (2	0000 G 0001 p	iHz ots)	C 97.0000 <u>Auto</u>	F Step 00 MHz Man
1 2 3 4 5 6 7 8 9 9 10	N	1	f			965.	.71 M	MHz		-28.546 d	Bm									Freq	Offset 0 Hz
< MSG										1111					I o statu	s			>		

GSM1900-1850.2-Voice@7GHz-13.6GHz@Pass

Agilent Spe	ectrum An	alyzer - Swe	ept SA								
Center	Freq '	່ 50 ຊ 10.3000	ac <u>c</u> 1000000	GHZ	SEN	SE:PULSE	AL #Avg Typ AvgHold	IGN AUTO/NOF	F 05:40:35 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6 PE MUMANANANANANANANANANANANANANANANANANANA	Frequency
10 dB/div	Ref v R ef	Offset 27 f 20.00 (dB JBm	PNO: Fast FGain:Low	#Atten:	24 dB		Mkr1	13.254 -22.6	49 GHz 76 dBm	Auto Tune
10.0 0.00										-13:] xDm	Center Freq 10.300000000 GHz
-20.0 -30.0 (1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(phillippe during									Antrantis designation	Start Freq 7.000000000 GHz
-50.0											Stop Freq 13.60000000 GHz
Start 7. #Res B	000 GH W 1.0 I	iz ViHz	×	#VE	3.0 MH	Z	S JNCTION FU	weep 12	Stop 13 2.00 ms (2	.600 GHz 20001 pts) 2010 DN VALUE	CF Step 660.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 7 8			13.254	49 GHz	-22.676 (18m 					Freq Offset 0 Hz
9 10 11 •					101			STATU	s	×	



GSM1900-1880-GPRS@13.6GHz-20GHz@Pass

Agiler	nt Spe	ctru	n An	alyzer - Sw	ept SA												
Cen	∟ nter	Fre	RF Pq	50 Ω 16.8000	AC 000000	GHZ			E:PULSE		Avg T	ALIGN ype: I	AUTO/NOR RMS	F 05:53:32 TF	PM Mar 19, 202	1 6	Frequency
10 d	D (dia		Ref	Offset 27	dB	PNO: Fa IFGain:L	ast ↔► Low	#Atten: 24	dB		Argine	JIG. 10	Mkr1	19.01 -19	6 00 GH	z	Auto Tune
10.0 10.0 -10.0		v	Re	20.00										1-	-13.00 dB		Center Freq 16.80000000 GHz
-20.0 -30.0 -40.0				in the standard states of the				۲۹۱۰ میلی او میرون او میکند. ۱۹۹۹ میرون او میرون او میکند او میکند او میکند. ۱۹۹۹ میرون او میکند او میکند او میکند او میکند.		, jui tribule							Start Freq 13.600000000 GHz
-50.0 -60.0 -70.0																	Stop Freq 20.000000000 GHz
Star #Re	rt 13 s B\ MODE	3.60 W 1	0 G .0 I	iHz ViHz	×	#	#VBW	3.0 MHz		FUNC	TION	Swe	eep 16	Stop 2 .00 ms i	0.000 GH 20001 pts	z >)	CF Step 640.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9	N	1	f		19.016	5 00 GH		-19.114 dE	3m								Freq Offset 0 Hz
11 MSG								1111					K STATUS	6		•	

GSM1900-1880-GPRS@1GHz-7GHz@Pass

Agilent	Spectru	ım An	alyzer -	Swept	SA										
Cent	er Fr	RF eq 4	1.000	ວດ 10000	ac co 000 GH			SENSE	E:PULSE		AL #Avg Typ AuglHold	GN AUTO/NC e: RMS	RF 05:53:08 F TRA	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
					P IF	NO: Fast Gain:Low		#Atten: 24	4 dB		Avginoid	. 100/100			Auto Tune
10 dB	/div	Ref Ref	Offset f 35.0	t 27 dE 1 0 dB	3 Sm							IVI	-24.4	8 8 GHZ 36 dBm	
25.0 - 15.0 -															Center Freq 4.000000000 GHz
-5.00 - -5.00 - -15.0 =												● 1		-13.00 dBm	Start Freq 1.000000000 GHz
-35.0 - -45.0 -										1999 1997 1997	n a suite aite aite aite aite aite aite aite a				Stop Freq 7.000000000 GHz
Start #Res	1.00 BW	0 GH 1.0 I	lz VIHz			#VI	зw :	3.0 MHz			8	weep 1	Stop 7 0.67 ms (2	7.000 GHz 20001 pts)	CF Step 600.000000 MHz Auto Man
1 2 3 4 5 6 7 8 9 10 11		f			× 5.348	8 GHz		24.436 dE	3m	FUNC					Freq Offset 0 Hz
MSG													us		· · · · · · · · · · · · · · · · · · ·



GSM1900-1880-GPRS@30mHz-1GHz@Pass

Agilent S	Spectru	m An	alyzer - Swe	ept SA												
Cente	er Fre	RF eq (50 ຊ 515.000	ac 10000 N		c	SENS	E:PULSE		/∆ #Avg T}	pe: Ri	JTO/NOR VIS	F 05:52:57 TF	PM Mar 19, ACE 1 2 3	2021 4 5 6	Frequency
10 dB/	diu	Ref	Offset 27	dB	PNO: IFGair	:Fast ↔ n:Low	#Atten: 2	4 dB		Avgino	100.	MI	(r1 973 -28.	_{рет} р N N 3.57 М 913 d	IHZ Bm	Auto Tune
			20.00 (Center Freq 515.000000 MHz
-20.0		n na	distante de la Companya de la		erid y partie	. Di kasi ya kasi ku	adal at ya di mandi se data ya di ya Mala ya ya wa wa ya wa ya kata ya ya		ang kilikan jak Agent (na pala	li ili ja la la serie de la					● ¹	Start Freq 30.000000 MHz
-50.0 — -60.0 — -70.0 —																Stop Freq 1.000000000 GHz
Start #Res	30.0 BW 1	MH: 1.0 P	z /IHz	×		#VBW	/ 3.0 MHz		FUNC	TION	Swee	ер 1.: N WIDTH	Stop 1 333 ms	.0000 (20001	GHz pts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 8 9 10 11		f		97	73.57 N	/Hz	-28.913 dl	3m								Freq Offset 0 Hz
MSG											ų	STATUS	3		>	

GSM1900-1880-GPRS@7GHz-13.6GHz@Pass

Agilen	it Spe	ctrun	n Ana	alyzer - S	wept SA															
<mark>⊮</mark> ℝ Cen	ter	Fre	RF	50 0.300	Ω AC		RREC		SENS			Avg T	ALIGN AUT ype: RM	FO/NOR IS	F 05:53:18 TR	PM Mar 1 ACE 1 2 YPE M W	9,2021 3456		Frequency	
10 d	Didiu		Ref	Offset 2	27 dB	IFC	NU: Fas Gain:Lov	t⊶⊫– w	#Atten: 2	4 dB			N	1kr1	12.702	2 40 0 277 0	GHz		Auto Tun	ıе
Log 10.0 0.00				20.00		·												10	Center Fre	eq −iz
-20.0 -30.0 -40.0								al le fini			lle suite best	n a Huti b Ulation de Han						7	Start Fre 000000000 G⊦	eq Hz
-50.0 -60.0 -70.0																		13	Stop Fre 600000000 G⊦	;q ⊣z
Star #Re	t 7.0 s B\	000 N/1	GH .0 N	iz /IHz		<	#\	/BW	3.0 MHz		FUNC	TION	Swee	p 12 WDTH	Stop 1 .00 ms (3.600 2000 <i>°</i>	GHz 1 pts)	Aut	CF Ste 660.000000 M⊦ to Ma	⊧ p ⊣z an
1 2 3 4 5 6 7 8 9 10	N	1	f		12	.702 4	0 GHz		-23.277 di	3m									Freq Offs 0 H	et Iz
< MSG									IIII				ų,	STATUS	3		>			



GSM1900-1880-Voice@13.6GHz-20GHz@Pass

Agilent Spec	trum An	alyzer - Swe	ept SA									
Center I	req '	50 Ω 16.8000	ac cor 000000 G	RREC	SEN:		#Avg		SN AUTO/NOR : RMS 400/100	F 05:42:27 F TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MARAAAAAA	Frequency
10 dRidiu	Ref	Offset 27	dB	NO: Fast Gain:Low	#Atten:2	4 dB			Mkr1	19.017 -18.5	60 GHz	Auto Tune
		20.00 (1_	-13.00 dBm	Center Freq 16.800000000 GHz
-20.0 -30.0	in della de la	a ta antiki ta shqimi										Start Freq 13.600000000 GHz
-50.0 -60.0 -70.0												Stop Freq 20.000000000 GHz
Start 13. #Res BW	600 G / 1.0 I	SHz VIHz		#VE	3W 3.0 MH	2	FUNCTION	S	weep 16	Stop 20 .00 ms (2	0.000 GHz 20001 pts)	CF Step 640.000000 MHz <u>Auto</u> Man
1 N 2 3 3 4 5 6 7 8 9 10 11			19.017 6	0 GHz	-18.579 c	Bm						Freq Offset 0 Hz
MSG										3		U

GSM1900-1880-Voice@1GHz-7GHz@Pass

Agilen	it Spect	rum Ar	nalyze	r - Swe	ept SA														
Cen	ter F	req	4.00	50 Ω 0000	AC 0000	COR) GH	REC			ISE:PUL:	SE	Avg T	ALIGN A ype: R	UTO/NOF MS	F 05:42:	04 PM I TRACE	Mar 19, 202	21 5 6	Frequency
		Re	f Offe	et 27	dB	PN	NO: Fas Sain:Lo	st ⊶⊫ ∋w	#Atten:	24 dB		Avgine	Jiu. 100	M	(r1 3.0	DET	9 GH	л Z	Auto Tune
10 di	B/div	Re	ef 35	.00 c	iBm										-24	.35	3 dBr	n	
25.0 15.0																			Center Freq 4.000000000 GHz
5.00																			
-5.00								1 ===									-13.00 dE	Эm	Start Freq
-25.0						والمتحدث والمتحد		الملك الملايم	Adda Lak				فقعك ورالدور	مارو و در الم	وروبا والرواقي والمحاوي				1.000000000 GHz
-35.0	ing here with the					1999 - C. 1997	- the offer offer	ller etter fö							- manager parts			-	
-45.0										_									Stop Freq 7.000000000 GHz
-55.0		_																	
Star #Re	t 1.00 s BW	00 G 1.0	Hz MHz	z			#	VBW	(3.0 MH	z			Swe	ep 10	Sto 67 ms	p 7.0 \$ (20	000 GH 001 pt	iz s)	CF Step 600.000000 MHz
MKB	MODE T	RC SC	u) —		×			Į.	Y		FUN	TION	FUNCTIO	IN WIDTH	FUN	NCTION	VALUE	^	<u>Auto</u> Man
1 2 3 4 5 6		1 f			3	016 9	9 GHz		-24.353	dBm								Ш	Freq Offset 0 Hz
7 8 9 10																			
< MSG	1	-	-						IIII				¢	STATU	5				



GSM1900-1880-Voice@30mHz-1GHz@Pass

Agiler	nt Spe	ectru	m An	alyzer - S	wept S	A															
Cen	L Iter	Fre	RF eq (50 5 515.00	Ω AC	: cc 0 MH	DRRE	C		SENS	e Pu	.SE	#Avg	ALIO Type	GN AUTO/NO e: RMS 400/400	RF 05:4	11:52 PI TRAC	M Mar 19, 2 E 1 2 3	2021 4 5 6	Frequency	
10 d	D (dia		Ref	Offset 2	7 dB	1	FGai	: Fast in:Low	· •	#Atten: 2	4 dE	3		ioiu.	M	kr1	₀ 944. 28.6	08 M	Hz	Auto Tur	ne
10.0 10.0 0.00		v	Re	20.00														-13.00		Center Fre 515.000000 Mi	eq Hz
-20.0 -30.0 -40.0	f sitting		u liite		ik je bijer dag		••					an aire (airea Martin (airean		ų, ing			i hri int			Start Fre 30.000000 MH	eq Hz
-50.0 -60.0 -70.0																				Stop Fre 1.000000000 GH	eq Hz
Star #Re	rt 30 Is Bi	0.0 W 1	MH: 1.0 T	z VIHz		×		#V	BW	3.0 MHz	2	FUNC	CTION	S'	weep 1.	Sto 333 n	p 1.(ns (2	0000 G 0001 p DN VALUE	GHZ ots)	CF Ste 97.000000 Mł <u>Auto</u> Ma	ар Hz .an
1 2 3 4 5 6 7 8 9 10 11	<u>N</u>		f			944.1	08 N	MHz		<u>-28.666 d</u>	Bm									Freq Offs 0 ł	iet Hz
MSG																s					_

GSM1900-1880-Voice@7GHz-13.6GHz@Pass

Agilen	it Spe	ctrun	n Ana	ılyzer -	Swep	ot SA																
Cen	∟ ter	Fre	RF	0.30	ា ប 000	AC 0000	COR	iHz		т,,	SENS	E:PULSE		#Avg	1 ALIG	N AUTO/NC : RMS 100/100	DRF 0	5:42:14 F TRA	M Mar 1 CE 1 2 PE MW	9,2021 3456	F	requency
10.4			Ref	Offset	t 27 d	iB Broot	PI IFG	NO: F Gain:	Fast ⊷ :Low	#A:	tten: 24	4 dB		Cr All	1010.	Mkr	1 13	3.295 -24 0	41 (GHZ		Auto Tune
10 di Log 10.0 0.00			Kei	20.0														24.0			10.30	Center Fred
-20.0 -30.0 -40.0	ų kai viti							i i i i i i i i i i i i i i i i i i i	i in the state of th		in an data	i protectari		والمقرقين	a Magda			alis I, I alas Ali (B.			7.00	Start Fred
-50.0 -60.0 -70.0																					13.60	Stop Fred 00000000 GH2
Star #Re	t 7.(s B\	000 N 1	GH .0 N	z /IHz		×			#VB	N 3.0	MHz		FUNC	TION	SV	veep 1	S 2.00	top 13 ms (2	8.600 20001 On valu	GHz pts)	660 <u>Auto</u>	CF Step 0.000000 MHz Mar
1 2 3 4 5 6 7 8 9 10 11	N	1	f			13.2	295 41	1 GH		-24.	064 de	3m										Freq Offse 0 Hz
MSG									1		Ш	1					US			>		



GSM1900-1909.8-GPRS@13.6GHz-20GHz@Pass

Agilent Spec	ctrum An	alyzer - Swe	ept SA									
Center	Freq	50 Ω 16.8000	AC CO	GHZ	SEN:		#Avg	ALIO I Type Hold	IN AUTO/NOR RMS	F 05:56:24 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MARANAN	Frequency
10 dB(div	Rei	f Offset 27	dB IBm	'NO: Fast Gain:Low	#Atten: 2	4 dB			Mkr1	19.113 -18.9	60 GHz	Auto Tune
10.00		1 20.00 0									-13.00 dDm	Center Fred 16.80000000 GHz
-20.0 -30.0		ر اور بر و از دومانانوه اور اور و رو و و و و و و و و و و و و و و					an Barl da an All State Barlan a Barlanda An Anna an Anna					Start Fred 13.60000000 GHz
-50.0 -60.0 -70.0												Stop Frec 20.000000000 GHz
Start 13 #Res BV	.600 C	SHz MHz		#VE	3W 3.0 MH	2		S	weep 16	Stop 20 .00 ms (2	.000 GHz 20001 pts)	CF Step 640.000000 MHz Auto Mar
1 N 2 3 4 5	1 f		19.113 6	60 GHz	-18.933 d	Bm	FUNCTION			FUNCTI		Freq Offset 0 Hz
7 8 9 10 11												
MSG									I o status	5		

GSM1900-1909.8-GPRS@1GHz-7GHz@Pass

Agilent Spect	rum Analy	rzer - Swe	pt SA								
Center F	req 4.	50 Ω 00000	AC CO 0000 G	DRREC	SEN	se:PULSE	Avg T Avg Ho	ALIGN AUTO/NO ype: RMS Id: 100/100	RF 05:55:58 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MANANAN	Frequency
10 dB/div	Ref 0	ffset 27 3 5.00 d	dB IBm	PNU: Fast FGain:Low	#Atten: :	24 dB		M	⊧ kr1 2.78 -24.6	er∣ ^p NNNNN 2 0 GHz 38 dBm	Auto Tune
25.0 15.0											Center Freq 4.000000000 GHz
-5.00 -15.0		فالانتخاصة فالدواء		1			en vik stiller der kanne bestellt inn er	an a mittidia a sa a a	aufer lättigen i Liju Afer	-13.00 dBm	Start Freq 1.000000000 GHz
-35.0 -45.0							and a state of the				Stop Freq 7.000000000 GHz
Start 1.00 #Res BW	00 GHz 1.0 Mi	Hz	×	#VE	3W 3.0 MH	Z		Sweep 1	Stop 7 0.67 ms (2	.000 GHz 20001 pts)	CF Step 600.000000 MHz <u>Auto</u> Man
1 N 2 3 3 4 5 6 7 7 8 9 9 10			2.782	2 0 GHz	-24.638 c	IBM					Freq Offset 0 Hz
× MSG					IIII			I o statu	JS	<u> </u>	



GSM1900-1909.8-GPRS@30mHz-1GHz@Pass

Agiler	nt Spe	ctru	m An	alyzer - Sv	wept S/	ł												
ι <mark>»</mark> ι ℝ Cen	L Iter	Fre	RF eq :	50 s 515.00	Ω AC	D MH	RREC			SENSE:F	PULSE	#Avg	ALIO Type		F 05:55:46 TR, T	PM Mar 19, 202: ACE 1 2 3 4 5	6	Frequency
			Ref	Offset 2	7 dB	IF	PNO: Gain	Fast ⊷ n:Low	#Atte	n: 24	dB			M	kr1 948	B.11 MH:	z	Auto Tune
10 a Log 10.0 0.00			Re	20.00		•												Center Freq 515.000000 MHz
-20.0 -30.0 -40.0	vi suje			and a state of the s	diago id the		i i i i i i i i i i i i i i i i i i i			inter i de la composition de la composi			ili ji da		ang talapa kanang sang sa di pu kada pantang sa pang sa di pu			Start Freq 30.000000 MHz
-50.0 -60.0 -70.0																		Stop Fred 1.000000000 GHz
Star #Re	t 30 s Bi).0 W 1	MH: 1.0 1	z MHz		×		#VB	N 3.0 M	1Hz	FUN	ICTION	S'	weep 1.3	Stop 1. 333 ms (: EUNO	.0000 GH2 20001 pts 10N VALUE	z	CF Step 97.000000 MHz Auto Man
1 2 3 4 5 6 7 8 9 10 11	_N		f			948.'	<u>11 M</u>		-27.33	5 dBr								Freq Offsel 0 Hz
MSG															3			

GSM1900-1909.8-GPRS@7GHz-13.6GHz@Pass

Agiler	it Spec	ctrun	n Ana	ilyzer - S	wept S	A													
<mark>⊯</mark> R Cen	ter	Fre	RF q 1	50 0.300	Ω A		RREC		SENS	e Run		Avg T Avg H	ALIGN Type: old: 1	RMS	кг 05:56:0 т	I9 PM M	lar 19, 202 1 2 3 4 5 M M M M M	1 6	Frequency
10 di	B/div		Ref Ref	Offset 2	27 dB) dBr	n	Gain:Lo	st 🚥	#Atten: 2	4 dB				Mkr1	12.50 -23.	DET (1 05 72 716	2 GH: 6 dBn	N Z n	Auto Tune
Log 10.0 0.00 -10.0																	-13.00 dB		Center Freq 10.300000000 GHz
-20.0 -30.0 -40.0		i in serie	uter	illen betän s. ju															Start Freq 7.000000000 GHz
-50.0 -60.0 -70.0																			Stop Freq 13.60000000 GHz
Star #Re	t7.(sB\	000 N 1.	GH .0 N	z /IHz		×	#	VBW	3.0 MHz		ELING	TION	Sw	eep 12	Stop 2.00 ms	13.6 (200	00 GH: 001 pts	z »	CF Step 660.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10 11	N	1	f		1	2.505 7	72 GHz		-23.716 dl	Bm									Freq Offset 0 Hz
MSG															s				



GSM1900-1909.8-Voice@13.6GHz-20GHz@Pass

Agilent Spect	rum Anal	yzer - Swej	pt SA									
Center F	RF req 1	50 Ω 6.8000		RREC HZ	SEN		#Avg Avail	ALIGN Type: Hold: 1	RMS	F 05:43:46 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M M M M M M M	Frequency
10 dB/div	Ref () ffset 27 20.00 d	dB Bm	NU: Fast Gain:Low	#Atten::	24 dB			Mkr1	19.033 -17.6	60 GHz 08 dBm	Auto Tune
Log 10.0 0.00										11	-13.00 dDm	Center Freq 16.800000000 GHz
-20.0 -30.0 -40.0				an an his black and h							n na an san an a	Start Freq 13.60000000 GHz
-50.0 -60.0 -70.0												Stop Fred 20.000000000 GHz
Start 13.0 #Res BW	600 GI 1.0 M	lz Hz		#VE	SW 3.0 MH	z		Sw	eep 16	Stop 20 .00 ms (2	.000 GHz 20001 pts)	CF Step 640.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5			19.033 6	0 GHz	-17.608 (iBm	UNCTION					Freq Offset 0 Hz
7 8 9 10 11												
MSG										5		

GSM1900-1909.8-Voice@1GHz-7GHz@Pass

Agilen	it Spe	ctrur	n Ana	alyze	r - Sw	ept SA														
Cen	∟ ter	Fre	RF Pq 2	1.00	50 Ω 000	AC 0000	O GH				E:PULSE		⊿∆ #Avg T} AugiHo	LIGN	RMS	RF 05:43	3:22 Pľ TRAC TVI	Mar 19, 2 E 1 2 3 4	2021 4 5 6	Frequency
10 di	B/div	,	Ref Ref	Offs 7 35	set 27	⁷ dB dBm	IF(NO: Fas Gain:Lo	t⊶⊷ w	#Atten: 2	4 dB			. I	MI	(r1 3. -2	05 3.6	17G 89dE	Hz 3m	Auto Tune
25.0 15.0 5.00																			_	Center Freq 4.000000000 GHz
-5.00 -15.0 -25.0		والمراجع		فاستعقا	(La bada dit				1	as the		و العدال				Lill ^a Berlander	ent alle sinon	-13.00	l dBm	Start Freq 1.000000000 GHz
-35.0 -45.0 -55.0													2000 (1925) (1925) (1926) (192						1.000	Stop Freq 7.00000000 GHz
Star #Re	t 1.(s B\	000 N/1	GH .0 N	iz /IHz	2	×		#\	/BW	3.0 MHz	: 	FUNC	TION F	Sw	еер 10 Поліміотн	Sto 0.67 m	op 7 s (2	.000 G 0001 p NWALUE	iHz ots)	CF Step 600.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8	N	1	f				3.051	7 GHz		<u>-23.689 d</u>	Bm									Freq Offset 0 Hz
9 10 11 <										1111					K STATU	s			~	



GSM1900-1909.8-Voice@30mHz-1GHz@Pass

Agilent Spect	rum An	alyzer - Swe	ept SA									
Center F	req (50 Ω 515.000	AC 0	IORREC	SEN		#Avg Aug	ALIO 1 Type	SN AUTO/NOF : RMS 400/400	F 05:43:11 F TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MARAAAAAA	Frequency
	Ref	Offset 27	dB	PNO: Fast IFGain:Low	#Atten:	24 dB			M	kr1 902. -28 4	90 MHz	Auto Tune
		20.00 0										Center Freq 515.000000 MHz
-20.0 -30.0 -40.0	ni, fi sevisi ir	ی اینان در ور مقاومی و را رو میروندو و بر رو میروند و رو میروند و رو	a blas of a plant plant of		In the state of th						1	Start Freq 30.000000 MHz
-50.0 -60.0 -70.0												Stop Freq 1.000000000 GHz
Start 30.0 #Res BW	0 MH2 1.0 P	z VIHz	×	#VE	3.0 MH	z	FUNCTION	ST	weep 1.3	Stop 1. 333 ms (2	0000 GHz 20001 pts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 8	1 f		902	.90 MHz	-28.497	dBm						Freq Offset 0 Hz
9 10 11 ×					liii				STATU	5	×	

GSM1900-1909.8-Voice@7GHz-13.6GHz@Pass

Agilen	it Spec	ctrun	n Ana	lyzer -	Swep	t SA													
Cen	l ter	Fre	RF q 1	0.30	ງ 2000	AC 000	CORF	REC		SEN	ISE:PULS)E	#Avg AvgH		N AUTO/NOR : RMS 100/100	F 05:43:321 TR/ T	PM Mar 19, 20 ACE 1 2 3 4 YPE M WAAAAA)21 5 6	Frequency
10 di	B/div	.	Ref Ref	Offset 20.0	27 d 0 dE	B 3m	IFG	iu: Fas ain:Lo	st ⊶∎⊷ w	#Atten:	24 dB				Mkr1	12.494 -23.5	83 GH	iz m	Auto Tune
Log 10.0 0.00																	40.00		Center Freq 10.300000000 GHz
-20.0 -30.0 -40.0				bian in ditail	under 1		Nijenije	الملتغوي	, en tit te se	Marria					ang	1 In alteration		ulyy.	Start Freq 7.000000000 GHz
-50.0 -60.0 -70.0																		_	Stop Freq 13.60000000 GHz
Star #Re:	t 7.(s B\	000 N 1.	GH .0 N	z 1Hz		×		#\	vвw	3.0 MH	z	FUNC	TION	S۱	weep 12	Stop 1: .00 ms (:	3.600 GH 20001 pt	IZ ts)	CF Step 660.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6	N	1	f			12.49	94 83	GHz		-23.558	dBm								Freq Offset 0 Hz
7 8 9 10 11																		>	
MSG																;			



GSM850-824.2-GPRS@1GHz-9GHz@Pass

Agilent	t Spec	strur	n An	alyzer -	Swep	ot SA																	
(X) RL Cent	ter	Fre	RF q	5.000	ា ប 000	AC 0000	0 Gł				SENS	E:PUL	.SE	#Avg Augli	ALIO	SN AUTO/NO : RMS 400/100	RF 0	5:33:58 F TRA	M Mar 19 CE 1 2 (,2021 3456		Freque	ncy
			Ref	Offset	t 27 d	dB B	IF	'NO: Gair	Fast • n:Low	-	#Atten: 2	4 dE	3		i ioiu.	M	kr1	2.69	2 8 (25 d	GHZ Bm		Auto	o Tune
10 dE Log 10.00			Re	20.0		DIII												24.0	-13	00 dBm		Cente 5.0000000	e r Freq 000 GHz
-20.0 -30.0 -40.0	, in the second seco	ار او بر د د ور	ار به ان					in in the					زر بو و الله بو							in formation (Sta 1.0000000	rt Freq 000 GHz
-50.0 -60.0 -70.0																					s	Sto 9.0000000	p Frec 000 GHz
Stari #Res	t 1.(s BV)00 V 1	GI .0 I	iz ViHz		×			#VB	sw :	3.0 MHz	:	FUNI	TION	S'	weep 1	3.33	Stop 9 ms (2	0.000 20001	GHz pts)	Au	C 800.0000 to	F Step 00 MHz Mar
1 2 3 4 5 6 7 8	N	1	f			2	2.692	8 G)Hz		-24.825 d	Bm										Freq	Offset 0 Hz
9 10 11 <											1111					I STATU	US			>			

GSM850-824.2-GPRS@30mHz-1GHz@Pass

Agilen	nt Spe	ctru	m An	alyzer	- Swe	ept SA															
<mark>⊮</mark> ℝ Cen	L Iter	Fre	RF eq	515.	50 Ω 000	AC	COR MHz	RREC			E:PULSE		#Avg Augle		SN AUTO/NO : RMS	ORF	05:33:44 TR, T	PM Mar 1 ACE 1 2 VPE M 4	9,2021 3456	Frequenc	у
10 d	B/div	,	Ref	f Offs	et 27	dB 1 B m	PI IFC	NO: Fas Gain:Lo	st ⊶►)w	#Atten: 2	24 dB		- A A A A		N	/kr	1 108	.91 700 c	MHz Bm	Auto	Tune
Log 25.0 15.0 5.00																	/			Center 515.00000	Freq MHz
-5.00 -15.0 -25.0			♦ ¹															-1:	3.00 dBm	Start 30.000000	Freq MHz
-35.0 -45.0 -55.0				n an						the state of the s					in the second		i Kaunitainin		i Me Niele	Stop 1.00000000	Freq 0 GHz
Star #Re	rt 30 s B1).0 W 1	MH 1.0	z MHz		×		#\	VBW	3.0 MHz	z	FUNC	TION	S\ FUN	weep 1	1.33	Stop 1. 3 ms (: FUNCI	.0000 2000 [/]	GHz 1 pts)	CF 97.000000 Auto	Step MHz Man
1 2 3 4 5 6 7 8	N	1	f				108.9	1 MHz		<u>-28.700 d</u>	Bm									Freq C	0 ffset 0 Hz
9 10 11 <										1111					To STAT	rus)	>		



GSM850-824.2-Voice@1GHz-9GHz@Pass

Agilent Spe	ectrum /	nalyzer - Sv	vept SA								
Center	Freq	5.0000	2 AC CO 00000 GH		SENS	E:PULSE	A∆∆ Avg Ty Avallat	LIGN AUTO/NO pe: RMS	RF 05:24:54 P TRA T∨	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
	R	ef Offset 2	P IF 7 dB	'NO: Fast Gain:Low	#Atten: 2	4 dB	Avgino	M	kr1 5.35	3 2 GHz	Auto Tune
										-1200 /00	Center Freq 5.000000000 GHz
-20.0 -30.0						1					Start Freq 1.000000000 GHz
-50.0											Stop Freq 9.000000000 GHz
Start 1. #Res B	.000 G W 1.0	Hz MHz	×	#VB	W 3.0 MHz			Sweep 1	Stop 9 3.33 ms (2	.000 GHz 20001 pts)	CF Step 800.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7			5.353	2 GHz	-24.159 dl	3m					Freq Offset 0 Hz
8 9 10 11 <					IIII			I	IS	×	

GSM850-824.2-Voice@30mHz-1GHz@Pass

Agilen	it Spe	ctrur	m An	alyzer - !	Swept	SA															
Cen	∟ ter	Fre	RF Pq (515.0	ារ 000	ac 00 N		REC			E:PULSE		#Avg Augle	ALIG Type	IN AUTO/NC : RMS	DRF	05:24:4	H1 PM FRACE	Mar 19, 20	56	Frequency
10 d	B/div	,	Ref Ref	Offset	27 d 0 dE	B Sm	IFG:	0: Fast ain:Lov	~	#Atten: 2	4 dB				N	1kr	1 67 -28	7.3 7.5	33 MH 0 dB	HZ m	Auto Tune
Log 25.0 15.0 5.00																					Center Freq 515.000000 MHz
-5.00 -15.0 -25.0														1	the states				-13.00 (3Bm	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0				1416-14 1416-14		, , , , , , , , , , , , , , , , , , ,		, 1991 1997 1997 1 9													Stop Freq 1.000000000 GHz
Star #Re	t 30 s B\).0 F N 1	MH: 1.0 [z VIHz		×		#V	вw	3.0 MHz		FUNC	TION	S۱	weep 1	.33	Stop 3 ms	1.0 (20	000 GI 0001 p NVALUE	Hz ts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7	N	1	f			67	77.33	MHz		-28.750 d	Bm										Freq Offset 0 Hz
8 9 10 11 < MSG										1111					I o stat	US					



GSM850-836.6-GPRS@1GHz-9GHz@Pass

Agiler	nt Spe	ctru	m An	alyzer -	Swep	ot SA																				
Cen	L Iter	Fre	RF Pq	5.000	οΩ 000	AC	0 G	Hz			s 	ENSE:	PULS	8	#A	∖ <u>∧</u> vg T	ALIG YPe	N AUTO	D/NOR	F 05:	34:49 TRA		ar 19, 20 2 3 4	21 5 6	Frequer	ncy
10 d	D (dia		Ref	Offset	t 27 d	iB Bm	F	PNO: Gai	: Fast n:Low	·••·	#Attei	n: 24	dB		A.	gino		100/10	Mk	(r1) 	2.69	DET P) GH	iz m	Auto	o Tune
10.0 10.0 0.00		, 		20.0		DIII																	-13.00 d	Om	Cente 5.0000000	e r Freq 00 GHz
-20.0 -30.0 -40.0		hy hdi				1		ilin ett		N-44			أأتينهما						a akasa	l, and	Natali			44	Sta 1.0000000	r t Freq 00 GHz
-50.0 -60.0 -70.0																									Sto 9.0000000	p Freq 00 GHz
Star #Re	rt 1.0 :s B\ MODE	000 W 1) Gi .0	iz ViHz		×			#V	вw	3.0 M	Hz		FUN	CTION		SV	veep) 13 //DTH	S .33 I	top (ms (;	9.00 200)0 GH 01 p1	IZ (S)	C 800.0000 <u>Auto</u>	F Step 00 MHz Man
1 2 3 4 5 6 7 8 9	N	1	f				2.692	200	SHz		-23.65	1 dBi	m												Freq	Offset 0 Hz
10 11 <											1111							r kolo	STATUS	6			>			

GSM850-836.6-GPRS@30mHz-1GHz@Pass

Agiler	nt Spe	ctrui	n An	alyzer - Sv	vept SA														
Cen	L Iter	Fre	RF eq (50 s 515.00	2 AC	COR MHz	REC		SENS	e Run		#Avg AvalH		IN AUTO/NO IRMS	DRF (05:34:36 P TRA TY	M Mar 19, 2 CE 1 2 3 4 PE M Walaya	56	Frequency
10 d	B/div	,	Ref Ref	Offset 2	7 dB dBm	Ph IFG	10: Fast Gain:Lov	v v	#Atten: 2	4 dB				N	1kr′	1 950. -28.5	05 MI 14 dB	Hz	Auto Tune
25.0 15.0 5.00																			Center Freq 515.000000 MHz
-5.00 -15.0 -25.0																	-13.00	dBm	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0				<u>iiiidd</u> aatte	nie den niek a	hiveni	n de la compansión de la c		i u konzeli u sekonej je u s							d ingendingen			Stop Freq 1.000000000 GHz
Star #Re	t 30 s B\).0 N 1	VIH: .0 f	z MHz	×		#V	вw	3.0 MHz	2	FUNC	TION	S۱	weep 1	s .333	top 1.0 3 ms (2	0000 G 0001 p	Hz ts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8	N	1	f		2	950.05	5 MHz		-28.514 d	Bm									Freq Offset 0 Hz
9 10 11 <														I o stat	US				



GSM850-836.6-Voice@1GHz-9GHz@Pass

Agilent Spee	ctrum An	alyzer - Sw	ept SA									
Center	Freq	50 Ω	AC COF		SENS		/ #Avg Auale	ALIG	IN AUTO/NOR : RMS 400/400	F 05:31:03 P TRAI	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
	Rei	f Offset 27	dB	NO: Fast • Gain:Low	#Atten: 2	4 dB			Mk	r1 3.20	1 2 GHz 49 dBm	Auto Tune
10.00		1 20.00									-13.00 dBm	Center Freq 5.000000000 GHz
-20.0	المربولية المراجع المربولية	t se litter på toder om til		and the second second			ار این این این این این اور این اور این	Nish ji		ski ing piliting ing bagging bag		Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0												Stop Freq 9.000000000 GHz
Start 1.0 #Res B\	000 Gi N 1.0	Hz MHz		#VB	W 3.0 MHz		FUNCTION	S\ FUNI	weep 13	Stop 9 .33 ms (2	.000 GHz 0001 pts)	CF Step 800.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 6 7 8 9 9 10 11	1 f		3.201	2 GHz	-24.749 d	Bm						Freq Offset 0 Hz
MSG										3		Ľ

GSM850-836.6-Voice@30mHz-1GHz@Pass

Agiler	nt Spe	ctrui	n An	alyzer -	Swe	pt SA														
Cen	L Iter	Fre	RF Pq	515.C	οΩ 100	AC 000	COR MHz			SEN	SE:PULS	E	#Avg AvalH	ALIO Type	IN AUTO/NOF	RE 05	5:30:50 P TRAI	M Mar 19, 2 CE 1 2 3 4 PE M WWW	021 56	Frequency
10 d	B/div	,	Ref	Offsei	t 27	dB	IFO	NO: Fas Gain:Lo	st ⊶► iw	#Atten:2	24 dB				M	kr1	683. -28.3	63 MI 68 dE	Hz	Auto Tune
25.0 15.0		, 																		Center Freq 515.000000 MHz
-5.00 -15.0 -25.0			-											1				-13.00	dBm	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0						<u>i i i i i i i i i i i i i i i i i i i </u>	inter finanski je se stali je se stali Stali je se stali	line and i	i en	i ti patina di su ti patina di pa		itan itan ita								Stop Freq 1.000000000 GHz
Star #Re	t 30 s B\).0 N 1	VIH: .0 I	z MHz		X		#\	VBW	/ 3.0 MH:	z	FUNI	CTION	S	weep 1.3	St 333	op 1.0 ms (2	0000 G 0001 p	Hz (ts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10 11	N	1	f				583.6	3 MHz		-28.368 c	IBm									Freq Offset 0 Hz
MSG															To STATU:	s				



GSM850-848.8-GPRS@1GHz-9GHz@Pass

Agilent	Spectr	um Ar	nalyzer - Sw	ept SA										
Cento	er Fr	RF req	5.00000	ac c 00000 G	ORREC		SENSE:	PULSE	Avg T	ALIGN AU" ype: RM	TO/NORI IS	F 05:35:57 P TRA TV	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
	lalin.	Rei	f Offset 27	dB dBm	PNO: Fast FGain:Lov	, #A	tten: 24	dB	Avgino	10. 1007	Mk	r1 3.29	6 4 GHz	Auto Tune
10.00 - 10.00 -			1 20.00										-13 00 dDm	Center Freq 5.00000000 GHz
-20.0 - -30.0 -		tin y												Start Freq 1.000000000 GHz
-50.0 - -60.0 - -70.0 -														Stop Fred 9.000000000 GHz
Start #Res	1.00 BW	0 GI 1.0	Hz MHz	×	#V	BW 3.0	MHz	EUN	CTION	Swee	р 13 WDH	Stop 9 .33 ms (2	.000 GHz 20001 pts)	CF Step 800.000000 MHz Auto Man
1 1 2 3 4 5 6 7 8 9 10 11	N 1	f		3.29	6 4 GHz	-24.	557 dBr							Freq Offset 0 Hz
MSG											STATUS	;		

GSM850-848.8-GPRS@30mHz-1GHz@Pass

Agilen	it Spe	ctrur	n An	alyzer - S	wept SA														
Cen	∟ ter	Fre	RF	50 515.00	Ω AC	COF MH2	RREC			e:PULSE		/ #Avg Aual⊨		IN AUTO/NO : RMS 400/400	RF 05	:35:44 P TRAI	M Mar 19, 2 CE <u>1</u> 2 3 4 PE M WAAAA	021 56	Frequency
10 d	B/div	,	Ref Ref	Offset 2	27 dB	IF(NO: Fast Gain:Lov	t⊶⊫– w	#Atten: 2	4 dB				M	lkr1	957. 27.7	51 MI 18 dB		Auto Tune
Log 25.0 15.0 5.00						-													Center Freq 515.000000 MHz
-5.00 -15.0 -25.0			-												4		-13.00	<u>dBm</u> 1	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0		anisi rajia				, i j, i e i jete					unnu jenski								Stop Freq 1.000000000 GHz
Star #Re	t 30 s B\).0 F N 1	VIH2 .0 P	z VIHz	>	<	#\	/BW	3.0 MHz	2	FUNC	CTION	S	weep 1.	Ste .333	op 1.0 ms (2 FUNCIO	0000 G 0001 p	Hz ts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10	N	1	f			957.5	1 MHz		-27.718 d	Bm									Freq Offset 0 Hz
MSG				Į				Į	IIII						JS				



GSM850-848.8-Voice@1GHz-9GHz@Pass

Agilent Spe	ctrum Ar	nalyzer - Sw	ept SA								
Center	Freq	50 Ω 5.00000	AC CO 00000 GH		SENS		All	_IGN AUTO/NO pe: RMS	RF 05:32:10 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
	Re	f Offset 27	P IF ′dB	NO: Fast ← Gain:Low	#Atten: 2	4 dB		M	kr1 2.74	5 6 GHz 42 dBm	Auto Tune
	/ KC	1 20.00								-13 00 //Dm	Center Freq 5.000000000 GHz
-20.0 -30.0 -40.0	n allantija i										Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0											Stop Freq 9.000000000 GHz
Start 1.0 #Res Bi	000 G N 1.0	Hz MHz	×	#VB	W 3.0 MHz			Sweep 1	Stop 9 3.33 ms (2	.000 GHz 0001 pts)	CF Step 800.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 8 9 9 10 11			2.745	6 GHz	-24.442 d	Bm					Freq Offset 0 Hz
MSG		•			IIII		ł		JS		

GSM850-848.8-Voice@30mHz-1GHz@Pass

Agiler	it Spe	ctrui	n An	alyzer -	Swe	pt SA															
Cen	L Iter	Fre	RF q	515.C	οΩ 000	AC 000	MHz	RREC		Tria	SENSE	E:PULSE		#Avg	ALIO Type	SN AUTO/NG : RMS 400/400	DRF 05	5:31:57 P TRA TV	M Mar 19, 2 CE <u>1</u> 2 3 4 PE M 4444	021 156	Frequency
10 d	Bidiv	,	Ref	Offse	t 27	dB IBm	Р IF(NO: F Gain:L	ast ⊶► ₋ow	#Atte	en: 24	l dB				N	/lkr1 -	892. 28.2	52 M 90 dE	Hz Hz	Auto Tune
25.0 15.0																					Center Freq 515.000000 MHz
-5.00 -15.0 -25.0							1												-13.00 1	dBm	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0					in the second																Stop Freq 1.000000000 GHz
Star #Re	t 30 s B\).0 N 1	VIH: .0 f	z MHz		×		#	#VBW	/ 3.0 N	ЛНz		FUN	CTION	S'	weep 1	St 1.333	op 1. ms (2	0000 G 20001 p	Hz ots)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10 11	N	1	f				892.5	2 MH		-28.29	90 dE	3m									Freq Offset 0 Hz
MSG																K STAT	บร				U



UMTS BAND II-1852.4-RMC@13.6GHz-20GHz@Pass

Agilent Spect	rum Analyzer	- Swept SA								
Center F	_R , req 16.8	50 Ω AC 000000000		SENSE	PULSE	/1 #Avg ∆valH	ALIGN AUTO/N Type: RMS	ORF 06:06:03 TR/ T	PM Mar 19, 2021 ACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref Offse Ref 20.	et 27 dB 00 dBm	IFGain:Low	#Atten: 24	dB		Mkr	1 16.706 -25.4	56 GHz 91 dBm	Auto Tune
10.0 0.00									-13.00 dDm	Center Freq 16.800000000 GHz
-20.0 -30.0 -40.0										Start Fred 13.600000000 GHz
-50.0 -60.0 -70.0										Stop Fred 20.000000000 GHz
Start 13.0 #Res BW	600 GHz / 1.0 MHz		#VB	W 3.0 MHz			Sweep ′	Stop 2 16.00 ms (0.000 GHz 20001 pts)	CF Step 640.000000 MHz <u>Auto</u> Mar
MAR MUDE 1 N 2 3 3 - 4 - 5 - 6 - 7 - 8 - 9 -		× 16.70	6 56 GHz	-25.491 dE	3m		FUNCTION WID			Freq Offset
10 11 MSG				UU			I o stat	тиз	<u> </u>	

UMTS BAND II-1852.4-RMC@1GHz-7GHz@Pass

Agiler	nt Spe	ectru	m An	alyz	er - Sv	wept	SA																
Cen	L Iter	Fre	RF eq 4	4.0	50 s	Ω / 1000	1000	GH	REC Z			SENS	e Pul	SE	#Av	g Typ	GN AUTO/NO e: RMS	ORF	06:05:39 P TRA	M Mar 19 CE 1 2 3 PE M WW	, 2021 4 5 6		Frequency
_			Bot	. 04	in of 2	7 45		PN IFG	NO: I Gain:	ast ⊷ Low	•	#Atten: 2	4 dB	rı	Avg		. 100/100 IV	1kr	1 3.17	9 5 C	Hz	1	Auto Tune
10 d	B/div	v	Re	f 3	5.00	dB	m												-29.9	34 d	Bm		
25.0 15.0																							Center Freq 4.000000000 GHz
5.00											+												
-5.00 -15.0 -25.0			_							♦ ¹										-13.	00 dBm		Start Freq 1.000000000 GHz
-35.0			nd in a		w	*			-												i i i i i i i i i i i i i i i i i i i	Γ	Stop Freq
-45.0 -55.0																							7.00000000 GHz
Star #Re	rt 1. s Bl	000 W 1) GI 1.0	Hz MH	z					#VB	w	3.0 MHz	2	-1.04	CTION	S	weep 1	10.6	Stop 7 67 ms (2	.000 (0001	GHz pts)	A	CF Step 600.00000 MHz <u>uto</u> Man
1 2 3 4 5 6	N		f				3.4	179 (5 GI			-29.934 d	Bm	FON					FUNCTI	UN VALUE			Freq Offset 0 Hz
8 9 10 11												1011					1				>		
MSG																	IN STAT	IUS					



UMTS BAND II-1852.4-RMC@30mHz-1GHz@Pass

Agilent Spect	rum An	alyzer - Swe	ept SA									
Center F	req (50 Ω 515.000	AC C			SENSE:P		⊿∆ #Avg T} AugiHo	LIGN AUTO/NO pe: RMS	RF 06:05:28 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M M M M M M	Frequency
10 dB(div	Ref	Offset 27	dB	PNO: Fast IFGain:Low	#Att	ten: 24 (dB		M	kr1 991. -34.0	66 MHz	Auto Tune
		20.00 (_13.00 dBm	Center Freq 515.000000 MHz
-20.0 -30.0 -40.0		edy Bealmineller of Julia of	Nijdarovi sredni i tranovi	in in the second	Nel Alexia Mag	. <u>e i fol</u> for di	International Constraints					Start Freq 30.000000 MHz
-50.0 -60.0 -70.0												Stop Fred 1.000000000 GHz
Start 30.0 #Res BW	0 MH: 1.0 I	z MHz		#VI	3W 3.0	MHz			Sweep 1.	Stop 1. 333 ms (2	0000 GHz 20001 pts)	CF Step 97.000000 MHz <u>Auto</u> Mar
1 N 2 3 4 5	1 f		991	.66 MHz	-34.0	006 dBr	n					Freq Offset 0 Hz
6 7 8 9 10 11												
MSG										IS	>	

UMTS BAND II-1852.4-RMC@7GHz-13.6GHz@Pass

Agiler	nt Spe	ctrur	n An	alyzer	- Swe	ept SA																
Cen	L Iter	Fre	RF q'	10.3	50 Ω 000	AC 1000	00 G	RREC	2		SENS	e Rur	E	#Avç Aval	ALIO	SN AUTO/I : RMS 400/400	NO RF	06:05:4	19 PM N IRACE	4ar 19, 20 1 2 3 4	21 5 6	Frequency
			Ref	Offs	et 27	dB	P IF	NO: Gain	Fast ≁ ∷Low	*	Atten: 2	4 dB	• 	~ 9		Mk	r1	12.93	DET	P NNN	N N	Auto Tune
10 d Loa	B/div	/	Rei	f 20.	00 d	<u> IBm</u>												-29	.96	a an	m	
10.0 0.00			_																			Center Freq 10.300000000 GHz
20.0																				-13.00 c	Um	
-20.0 -30.0 -40.0	<u>البلي</u> ة		-lui-	Niji			, builtand. Marina da angla da		dina katik	tin line											keti j	Start Freq 7.000000000 GHz
-50.0			+					-		+									_		-	Oton From
-60.0 -70.0																						13.600000000 GHz
Star #Re	t 7.0 s B1	000 N 1	GH .0 I	iz ViHz					#VB	W 3.	.0 MHz	:			S	weep	12.	Stop 00 ms	13.6 (20	00 GH 001 pt	iz (s)	CF Step 660.000000 MHz Auto Man
MKR 1	MODE	TRC 1	SCL			12	934 7	2 G	Hz	-2	Y 9.969 d	Bm	FUN	CTION	FUN	CTION WID	DTH	FUN	CTION	VALUE	^	
2 3 4 5 6																						Freq Offset 0 Hz
7 8 9 10 11																						
MSG											IIII					бо вт,	ATUS			>		



UMTS BAND II-1880-RMC@13.6GHz-20GHz@Pass

Agilent Sp	oectrum Ar	alyzer - Sv	vept SA									
Cente	r Freq	ء 50 16.800	2 AC C	GHZ	SEN		#Avg	ALIGN AU Type: RM	TO/NORE 15 100	06:07:56 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE MUMANANAN	Frequency
10 dB(d	Rei	f Offset 2 f 20 00	7 dB	PNO: Fast IFGain:Low	#Atten:	24 dB		N	/kr1	19.040 -24.8	00 GHz 57 dBm	Auto Tune
		20.00									-13 00 dEm	Center Freq 16.80000000 GHz
-20.0 -30.0 -40.0					and a state of the second						(janaški Mari te dav, e ja i t 	Start Freq 13.600000000 GHz
-50.0 — -60.0 — -70.0 —												Stop Fred 20.000000000 GHz
Start 1 #Res E	3.600 C 3W 1.0	GHz MHz	· · · · · · · · · · · · · · · · · · ·	#VE	3W 3.0 MH	z	FUNCTION	Swee	p 16.	Stop 20 .00 ms (2	.000 GHz 20001 pts)	CF Step 640.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 8 9		Image:	× 19.040	00 GHz	-24.857 c	IBm	FUNCTION			FUNCTI		Freq Offset
10 11 <					101			<u> </u>	STATUS		×	

UMTS BAND II-1880-RMC@1GHz-7GHz@Pass

Agiler	nt Spe	ctru	m An	alyze	r - Sw	ept S	A																	
Cen	L Iter	Fre	RF Pq4	4.00	50 ឆ 000	AC	00 0	GH	REC Z] т.	SENS	E:PUL	SE	#A1		GN AUTO e: RMS	/NO RE	- 06:07:	32 PN TRAC	4 Mar 19, E 1 2 3	2021 4 5 6		Frequency
								PN IFG	0: F ain:l	ast ⊶ .ow		itten: 2	4 dB				. 100/100	Mk	r1 3.1	DE 191	T P N N	NNN Hz		Auto Tune
10 d	B/div	,	Ref Re	6 35	set 2. 6.00	dBn dBn	n												-30).2	95 di	Зm	L	
25.0 15.0					1																			Center Freq 4.000000000 GHz
-5.00																							F	Otort From
-15.0 -25.0			+							● ¹	-										-13.0	0 dBm		1.000000000 GHz
-35.0 -45.0				ti della												in des tiels lite		in ginni	i i i i i i i i i i i i i i i i i i i					Stop Freq
-55.0			-								-											_		7.000000000 GHz
Star #Re	t 1.0 s B)	000 N 1	GH .0 I	IZ VIH2	z				ŧ	¢VΒV	V 3.0	MHz	2			s	weep	10.	Sto .67 ms	р7 5 (2	.000 C 0001	GHz pts)		CF Step 600.000000 MHz
MKR 1	MODE N	TRC 1	SCI f				× 3.19	915	GH	z	-30	Y .295 d	Bm	FUN	ICTION	FU	NCTION W	IDTH	FU	NCTIC	IN VALUE	^	Ê	inian
2 3 4 5																								Freq Offset 0 Hz
7 8 9 10																								
11			I	-						-		1111							1			>		
MSG																	to st	TATUS						



UMTS BAND II-1880-RMC@30mHz-1GHz@Pass

Agilen	nt Spe	ctru	m An	alyzer	- Swe	ept SA																		
Cen	L Iter	Fre	RF eq	515.	50 Ω 000	AC	0 MH	DRREC			SI Tuin E	ENSE:P	ULSE		#Avg	ALI: Typ:	GN AUTO e: RMS	D/NOR	F 06:	07:21 P TRA	M Mar 19 CE 1 2), 2021 3 4 5 6		Frequency
10 d	D (dia		Ref	Offse	et 27	dB	IF	PNO: -Gair	Fast n:Low	·•·	#Atter	n: 24 d	IB		Avgi		100/10	MI	kr1 :	943. 34.0	26 M	/Hz Bm	Í	Auto Tune
10.0 10.0		,		1 20.																				Center Frec 515.000000 MH;
-20.0 -30.0 -40.0						mining		jiquqi.h	Şeriştiri		in data si kan di sina la											1		Start Free 30.000000 MHz
-50.0 -60.0 -70.0																								Stop Fred 1.000000000 GHz
Star #Re	t 30 s Bi).0 W 1	MH 1.0	z MHz			,		#VE	вw	3.0 M	Hz			TION	S	weep) 1.3	Sto 333 r	op 1. ns (2	0000	GHz pts)		CF Step 97.000000 MHz Auto Mar
1 2 3 4 5	N	1	f				943.2	26 N	1Hz		-34.013	3 dBn	n	TONC										Freq Offset 0 H;
6 7 8 9 10 11																								
MSG																	1 0	STATUS	s			>		

UMTS BAND II-1880-RMC@7GHz-13.6GHz@Pass

Agiler	it Spe	ctrun	n Ana	ılyzer - Sw	ept SA													
<mark>⊮</mark> ℝ Cen	L Iter	Fre	RF	50 Ω 0.300	AC 00000	COR 00 G	REC					A∨g Ty Avg Ty	LIGN AUTO, pe: RMS	/NORF	F 06:07:42 P TRA TV	M Mar 19, 20 CE <u>1</u> 2 3 4 PE M Watala	021 56	Frequency
_						PN IFG	10: Fast Sain:Lov	~	#Atten: 2	4 dB		Avgino	a. 100/100	v k = 1	12 240			Auto Tune
10 d	B/div	,	Ref Ref	Offset 27 20.00	7 dB dBm								IVIP	NI I	-30.1	47 dB	m	
10.0																	_	Center Freq
0.00	<u> </u>		+										_				-	10.30000000 GHz
-10.0			_													-13.00 c	lDm	
-20.0	-		+		-						_					1	-	Start Freq
-30.0	و الم		يا ھەنتى	مطرب مرابقه وقلته	فليربع بمطل	والمعاد أنطف	يعادلها ور	ليديسين	ويقاتله ومعلون والمستاه	يعدايل ورو		يليق بالأأفق فرقي	مول والطحم عامروها	أراكل أحواده	ر د است (م) بالافتورسي		eda i	7.00000000 GHz
-40.0	. (1997) - C	. Second Co		and the second secon			1999 - C. 1997 - 1997		in a superior and the sub-									
-50.0	<u> </u>		-														-	01 E
-60.0																	-	Stop Freq
-70.0			_														-	13.60000000 GHZ
				_														
star #Re	τ7.ι s B\	N 1	GH .0 N	iz /IHz			#V	вw	3.0 MHz			:	Sweep	12	Stop 13 .00 ms (2	20001 pi	1Z ts)	CF Step 660.000000 MHz
MKB	MODE	TRC	SCL		X				Y		FUNCT	ION F	UNCTION WI	IDTH	FUNCTI	ON VALUE	~	<u>Auto</u> Man
1	Ν	1	f		13.2	248 55	5 GHz		-30.147 di	3m								
3		_															-	Freq Offset
4																		0 Hz
6																	Ξ	
7																	-	
9																		
10										_							-	
<			- 1						1111	-		1				>		
MSG													Ko sı	TATUS				



UMTS BAND II-1907.6-RMC@13.6GHz-20GHz@Pass

Agilent Spect	rum Analyzer	- Swept SA									
Center F	^{RF} req 16.8	50 Ω AC	CORREC	SENSE	:PULSE	/ #Avg Avall	ALIGN AUTO	O/NORE S	06:09:05 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MANANAN	Frequency
10 dB/div	Ref Offs Ref 20.	et 27 dB 00 dBm	PNU: Fast * IFGain:Low	#Atten: 24	dB		M	 lkr1	ء 19.027 -25.1	84 GHz 21 dBm	Auto Tune
10.0 0.00										-13.00 dDm	Center Fred 16.80000000 GHz
-20.0 -30.0 -40.0				, dat , unidan bior estimati							Start Fred 13.600000000 GHz
-50.0 -60.0 -70.0											Stop Fred 20.000000000 GHz
Start 13. #Res BW	600 GHz / 1.0 MHz		#VB	W 3.0 MHz			Sweep	o 16.	Stop 20 00 ms (2	.000 GHz 20001 pts)	CF Step 640.000000 MHz Auto Mar
1 N 2 3 4 5 6 7 8		× 19.02	7 84 GHz	-25.121 dB					FUNCTI		Freq Offset 0 Hz
9 10 11 <				IIII				STATUS			

UMTS BAND II-1907.6-RMC@1GHz-7GHz@Pass

Agilen	it Spe	ctru	m An	alyze	r - Sw	ept SA														
(X) RI Cen	∟ iter	Fre	RF eq 4	4.0	50 Ω 0000	AC 0000				SENS	e:PULSE		#Avg T AvalHa	ALIGN Type:	AUTO/NOI	RF 06:08:4	41 PM I TRACE TYPE	Mar 19, 202	21	Frequency
			Ref	Offe	set 27	′ dB	PI IFC	NO: Fas Gain:Lo	st ⊶► w	#Atten: 2	4 dB				MI	(r1 3.1	DET	0 GH	J N	Auto Tune
10 di	B/div	/	Re	f 35	6.00 ·	dBm										-30	0.29	3 dBr	n	
25.0 15.0																				Center Freq 4.000000000 GHz
-5.00																				
-15.0	_		_											_			_	-13.00 dE	Эm	Start Freq 1.00000000 GHz
-25.0	<u> </u>		_						\blacklozenge^1					_						
-35.0 -45.0			an la s	, L. W., 2410 1977 - 1977 1977 - 1977	A leman								a hanna di shinki					يوم الأمد الأفاد	*	Stop Freq
-55.0	L		_											_			_		-1	7.000000000 GHz
Star #Re	t 1.0 s Bl	000 N 1) Gł .0	Hz MH2	Z			#\	VBW	/ 3.0 MHz				Sw	eep 10	Sto).67 ms	p 7.0 5 (20	000 GH	iz s)	CF Step 600.000000 MHz
MKR	MODE		SCL			×	3 103	0 CU-		30 203 di	2 m	FUNC	TION	FUNCT	ION WIDTH	FUN	NCTION	VALUE	^	<u>Auto</u> Mari
2 3 4 5 6							3.133			-50.235 u									111	Freq Offset 0 Hz
7 8 9 10																				
11																		>	~	
MSG																s				ι <u></u>



UMTS BAND II-1907.6-RMC@30mHz-1GHz@Pass

Agilent Spect	rum An	alyzer - Swe	ept SA									
Center F	req :	50 Ω 515.000	AC CO 1000 MH		SEP		#Avg Augle	ALIGN A Type: R	UTO/NOR	F 06:08:30 P TRA TY	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MANANANAN	Frequency
10 dB(div	Ref	Offset 27	dB 1Bm	PNO: Fast FGain:Low	#Atten:	24 dB			MI	(r1 824. -34.7	67 MHz 84 dBm	Auto Tune
		20.00 (12.00	Center Freq 515.000000 MHz
-20.0 -30.0 -40.0	i a la altara i fai		Andrew a straight starting	ining with the states in		(ublan si jiti si kisa	1 Michaelle and a		Start Fred 30.000000 MHz
-50.0 -60.0 -70.0												Stop Fred 1.000000000 GHz
Start 30. #Res BW	0 MH: 1.0 P	z MHz		#VI	3W 3.0 MH	z		Swe	ep 1.3	Stop 1.0 333 ms (2	0000 GHz 20001 pts)	CF Step 97.000000 MHz Auto Mar
1 N 2 3 4 5	1 f		824.	.67 MHz	-34.784	dBm						Freq Offset 0 Hz
7 8 9 10 11												
MSG					111			¢	STATUS	;	>	

UMTS BAND II-1907.6-RMC@7GHz-13.6GHz@Pass

Agilen	nt Spec	ctrum	n Ana	lyzer - S	wept	SA															
Cen	L Iter	Fre	RF q 1	0.300	Ω A D000	.c (0000	GH	EC			ISE:PUL	.9E	#Avg Avail	ALIO	SN AUTO/N : RMS 100/100	IO RF	06:08:51 TR. T	PM Mar ACE 1 : YPE MY	19, 202 2 3 4 5	1 6	Frequency
_							PNC IFGa): Fast iin:Lov	v	#Atten:	24 dE	1		1010.	Mkı	r 1 ^	12.935	DET P	GH:	⊼ Z	Auto Tune
10 d	B/div	. 1	Ref Ref	20.00	27 dE) dB	m											-30.0	018	dBn	n	
10.0 0.00																					Center Freq 10.30000000 GHz
-10.0																			13.00 dD	m	
-20.0 -30.0	يتر بناد ر	de- 1.11		ling a far de	a teles	والأفقية		a constant al co	والفين		. Jan 1			as aless , al	, J.J., classical to			↓ 1-			Start Freq 7.000000000 GHz
-40.0															-						
-60.0																					Stop Freq 13.60000000 GHz
-70.0																				ľ	
Star #Re	t7.0 sB\	000 N 1.	GH .0 N	z 1Hz				#V	вw	3.0 MH	z			S	weep	12.0	Stop 1)0 ms (3.60 2000	0 GH: 01 pts	z S)	CF Step 660.000000 MHz
MKR 1	MODE	TRC	SCL f		,	X 12 935	05	CHZ		Y -30.019	dBm	FUN	CTION	FUN	ICTION WID	TH	FUNC	TION VA	LUE	~	<u>Auto</u> Man
2 3 4 5 6			-			2.500															Freq Offset 0 Hz
7 8 9 10																			_		
11 <		T								1111									>	~	
MSG															K STA	TUS					,



UMTS BAND V-826.4-RMC@1GHz-9GHz@Pass

Agilent Spect	rum An	alyzer - Swe	ept SA									
Center F	req (50 Ω 5.00000	ac co 10000 GI	Hz	SEN:	E:PULSE	#Avg	ALIG	IN AUTO/NOR	06:19:03 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
10 dB(dit)	Ref	Offset 27	dB 19m	PNO: Fast Gain:Low	#Atten: 2	24 dB	Avgin	1010.	Mk	r1 7.25	5 6 GHz	Auto Tune
		20.00 (-13.00 dBm	Center Freq 5.000000000 GHz
-20.0 -30.0 -40.0				line in the			Laty as the protocol of a					Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0												Stop Fred 9.000000000 GHz
Start 1.00 #Res BW	00 GH 1.0 P	iz ViHz		#VE	3W 3.0 MH	2		Sv	veep 13	Stop 9 .33 ms (2	.000 GHz 0001 pts)	CF Step 800.000000 MHz <u>Auto</u> Man
1 N 2 3 4 5	1 f		7.255	6 GHz	-31.048 d	Bm						Freq Offset 0 Hz
7 8 9 10 11												
MSG												Ľ

UMTS BAND V-826.4-RMC@30mHz-1GHz@Pass

Agilen	it Spe	ctru	n An	alyzer - Sv	wept SA														
Cen	∟ ter	Fre	RF q	50 s 515.00	Ω AC 0000	CORF MHz	REC			E:PULS	E	#Avg Augle		IN AUTO/NO 100/100	RF	06:18:50 F TRA	M Mar 19, 2 CE 1 2 3	2021 156	Frequency
10 di	B/div	,	Ref R ef	Offset 2	7 dB dBm	PN IFG:	IO: Fast ain:Lov	v	#Atten: 2	4 dB	•			M	lkr	1 547. -35.2	54 M 80 dE	Hz Bm	Auto Tune
25.0 15.0 5.00																			Center Freq 515.000000 MHz
-5.00 -15.0 -25.0											1						-13.00	dBm	Start Freq 30.000000 MHz
-35.0 -45.0 -55.0								ulinii											Stop Freq 1.00000000 GHz
Star #Re	t 30 s B\).0 N 1	VIH: .0 I	z VIHz	×		#V	вw	3.0 MHz	2	FUNI	CTION	S۱	weep 1.	; .33	Stop 1. 3 ms (2 FUNCI	0000 G 20001 p	Hz ts)	CF Step 97.000000 MHz <u>Auto</u> Man
1 2 3 4 5 6 7 8 9 10	N	1	f			547.54	MHz		-35.280 d	Bm									Freq Offset 0 Hz
11 MSG				ļ											JS			>	



UMTS BAND V-836.4-RMC@1GHz-9GHz@Pass

Agilent Spect	rum Analyzer -	Swept SA								
Center F	RF 5	<u>ວ AC</u> CO 000000 G	DRREC	SENSE	PULSE	A⊔ #Avg Typ Aur#Hold	IGN AUTO/NOF	F 06:19:54 P TRA TV	M Mar 19, 2021 CE 1 2 3 4 5 6	Frequency
10 dB/diu	Ref Offset	27 dB	PNO: Fast + FGain:Low	#Atten: 24	dB	Avginoid	Mk	(r1 5.35) -30.4	2 8 GHz 53 dBm	Auto Tune
									-1200/00	Center Freq 5.000000000 GHz
-20.0 -30.0 -40.0			fail ang d				a far bleve far search and an			Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0										Stop Fred 9.000000000 GHz
Start 1.00 #Res BW	00 GHz 1.0 MHz		#VB	W 3.0 MHz	FUI	S	weep 13	Stop 9 3.33 ms (2	0.000 GHz 20001 pts)	CF Step 800.000000 MHz Auto Mar
1 N 2 3 4 5	1 f	5.352	28GHz	-30.453 dE	3m					Freq Offset 0 Hz
0 7 8 9 10 11										
MSG								3		

UMTS BAND V-836.4-RMC@30mHz-1GHz@Pass

Agiler	nt Spe	ctru	m An	alyz	er - Sw	ept S	A																		
<mark>ιχι</mark> ℝ Cen	L Iter	Fre	RF eq	51ť	50 Ω	000	c 0 N		RREC]	SENS	E:PULS	E	#Av	g Typ	GN AUTO e: RMS	D/NORF	06	5:19:41 P TRA TV	M Mar CE 1 PE M	19, 202 2 3 4 5	21 i6	Frequency
10 d	B/div	,	Ref Re	roff f 3:	set 27	7 dB	'n	IFC	NO: Gain	Fast n:Low		#At	ten: 24	4 dB				. 100/10	Mk	(r1 -	266. -34.2	83 39	MH dBr	z n	Auto Tune
25.0 15.0 5.00																									Center Free 515.000000 MH
-5.00 -15.0 -25.0							_ 1																13.00 dE	Im	Start Free 30.000000 MH
-35.0 -45.0 -55.0	######			n da yî di b						il anti-thi		ulphysika)			u da la	inininini I			in in in	li internet interne	H allipar				Stop Free 1.000000000 GH:
Star #Re	t 30 s B1).0 W 1	MH 1.0	z MH	z		×			#VI	вw	3.0	MHz		FUN	CTION	S	weep) 1.3 //DTH	St 33	op 1. ms (2	000	0 GH)1 pt:	z s)	CF Step 97.000000 MH: <u>Auto</u> Mar
1 2 3 4 5 6 7 8 9 10 11	N	1	f				26	36.8	3 M	Hz		-34.2	239 dE	Bm											Freq Offse 0 H:
MSG																		r 🕼 s	TATUS						



UMTS BAND V-846.6-RMC@1GHz-9GHz@Pass

Agilent Spect	rum Analyz	er - Swept S/	A									
Center F	req 5.0	50Ω AC	: CORF 00 GH	REC Z	SENS		#Avg Aug	ALIO 3 Type Hold:	SN AUTO/NOR : RMS 400/400	F 06:20:38 P TRA	M Mar 19, 2021 CE 1 2 3 4 5 6 PE M MARANA	Frequency
10 dB/div	Ref Of Ref 2	fset 27 dB 0.00 dBn	IFG	i0: ⊦ast • ain:Low	#Atten: 2	4 dB	ועיס		Mk	r1 3.19 -29.9	9 6 GHz 23 dBm	Auto Tune
10.0 0.00											-13.00 dBm	Center Freq 5.000000000 GHz
-20.0 -30.0 -40.0		s da fi la su da di su di s	1- () () () ()						finis Material, a stall a la sa delasar			Start Fred 1.000000000 GHz
-50.0 -60.0 -70.0												Stop Fred 9.000000000 GHz
Start 1.00 #Res BW	00 GHz 1.0 MH	z		#VB	W 3.0 MHz	2		S	weep 13	Stop 9 .33 ms (2	.000 GHz 20001 pts)	CF Step 800.000000 MHz Auto Mar
MKR MUDE 1 N 2 3 3 - 6 - 7 - 8 - 9 - 10 - 11 -			× 3.199 6	GHZ	-29.923 d	Bm	FUNCTION			FUNCT		Freq Offset
MSG										5		

UMTS BAND V-846.6-RMC@30mHz-1GHz@Pass

Agilen	nt Spe	ctru	m An	alyzer	- Swe	pt SA															
Cen	L Iter	Fre	RF Pq	515.	50 Ω 000	AC 000	COR MHz	RREC			SE:PUL	SE	#Avg Augle	ALIG	N AUTO/NO :: RMS	RF 06	20:25 P TRAI	M Mar 19, 2 E 1 2 3	2021 4 5 6	Frequency	
10 d	D (div		Ref	Offs	et 27	dB	PI IFC	NO: Fas Gain:Lo	st ⊶► ∋w	#Atten:2	24 dB		orgin		M	kr1	810. 33.5	46 M 06 de	Hz	Auto Tu	ine
25.0 15.0		, 	Re														, ,			Center Fr 515.000000 M	req 1Hz
-5.00 -15.0 -25.0																1-		-13.00) dBm	Start Fr 30.000000 M	r eq 1Hz
-35.0 -45.0 -55.0	****					i qətiylərini	an fi staar		in en		i i i i i i i i i i i i i i i i i i i	ristă nere a Bandă Artista			al a di ka di shi a kini kini ka		I ANDIA		## \$	Stop Fr 1.000000000 G	r eq GHz
Star #Re	t 30 s B1).0 N 1	VIH .0	z MHz		×		#	VBW	3.0 MH	z	FUNG	CTION	S۷	weep 1.	Ste 333	op 1.(ms (2	0000 G 0001 p	Hz ts)	CF Sto 97.000000 M <u>Auto</u> M	: ep 1Hz /Ian
1 2 3 4 5 6 7 8 9	N	1	f				810.40	6 MHz		<u>-33.506</u> c	IBm									Freq Offs 0	set Hz
10 11 <																ıs			>		



5.5.2 RADIATED SPURIOUS EMISSION

5.5.2.1 MEASUREMENT METHOD

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

5.5.2.2 TEST SETUP





Radiated Emission Test-Setup Frequency Below 30MHz

RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



5.5.2.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum,
 the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least
 43+10Log(P) dB. The specification that emissions shall be attenuated below the transmitter power (P) by at



least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out. **Note:** only result the worst condition of each test mode:



5.5.2.4 MEASUREMENT RESULT

GSM 850:

The Worst Test Results for Channel 128/824.2 MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1648.20	-60.59	-13	47.59	Horizontal
3296.40	-38.47	-13	25.47	Horizontal
4944.85	-53.68	-13	40.68	Horizontal
1648.08	-42.12	-13	29.12	Vertical
3296.46	-50.60	-13	37.60	Vertical
4944.82	-46.73	-13	33.73	Vertical

PCS 1900:

The Worst Test Results for Channel 661/1880.0 MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
3759.80	-57.15	-13	44.15	Horizontal
7519.61	-38.45	-13	25.45	Horizontal
11279.62	-52.85	-13	39.85	Horizontal
3759.64	-41.80	-13	28.80	Vertical
7519.60	-50.13	-13	37.13	Vertical
11279.62	-43.44	-13	30.44	Vertical

WCDMA BAND II:

The Worst Test Results for Channel 9400/1880MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
3750.74	-56.39	-13	43.39	3753.10
7514.72	-39.54	-13	26.54	7510.95
11272.11	-51.87	-13	38.87	11273.88
3754.56	-39.00	-13	26.00	3752.79
7510.18	-50.76	-13	37.76	7514.97
11273.22	-44.70	-13	31.70	11272.00



WCDMA BAND V:

The Worst Test Results for Channel 4233/846.6MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1686.22	-59.32	-13	46.32	Horizontal
3378.58	-39.78	-13	26.78	Horizontal
5072.99	-53.79	-13	40.79	Horizontal
1685.31	-42.52	-13	29.52	Vertical
3379.86	-52.88	-13	39.88	Vertical
5072.20	-43.95	-13	30.95	Vertical

RESULT: PASS

Note:

11. Margin = Limit - Emission Level

12. Below 30MHZ no Spurious found and Above is the worst mode data.



5.6 FREQUENCY STABILITY

5.6.1 MEASUREMENT METHOD

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMU200 DIGITAL RADIO COMMUNICATION TESTER.

1 Measure the carrier frequency at room temperature.

2 Subject the EUT to overnight soak at -10 $^{\circ}$ C.

3 With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on channel 661 for PCS 1900 band, channel 190 for GSM 850 band, channel 9400 for UMTS band II, channel 1412 for UMTS band IV and channel 4175 for UMTS band V measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

4 Repeat the above measurements at 10° C increments from -10° C to $+50^{\circ}$ C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

5 Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.

6 Subject the EUT to overnight soak at $+50^{\circ}$ C.

7 With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

8 Repeat the above measurements at 10° C increments from +50°C to -10°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

9 At all temperature levels hold the temperature to +/- $0.5\,^\circ\!\mathrm{C}$ during the measurement procedure.

5.6.2 PROVISIONS APPLICABLE

5.6.2.1 FOR HAND CARRIED BATTERY POWERED EQUIPMENT

According to the ANSI/TIA-603-E-2016, the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.4VDC and 4.2VDC, with a nominal voltage of 3.7VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. These voltages represent a tolerance of -10 % and +12.5 %. For the purposes of measuring frequency stability these voltage limits are to be used.


5.6.2.2 FOR EQUIPMENT POWERED BY PRIMARY SUPPLY VOLTAGE

According to the ANSI/TIA-603-E-2016,the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment, the normal environment temperature is 20°C.



5.6.3 MEASUREMENT RESULT

Pass

For GSM

Test Band=GSM850/GSM1900

	Voltage								
Devel	Ohanaal	Voltage	Temperature	Deviation	Deviation	Limit) (a wall a f		
Band	Channel	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	Verdict		
GSM850	128	VL	TN	12.05	0.0144	2.5	PASS		
GSM850	128	VN	TN	8.07	0.0097	2.5	PASS		
GSM850	128	VH	TN	13.55	0.0162	2.5	PASS		
GSM850	190	VL	TN	8.11	0.0097	2.5	PASS		
GSM850	190	VN	TN	13.59	0.0163	2.5	PASS		
GSM850	190	VH	TN	8.3	0.0099	2.5	PASS		
GSM850	251	VL	TN	8.77	0.0105	2.5	PASS		
GSM850	251	VN	TN	7.55	0.0090	2.5	PASS		
GSM850	251	VH	TN	9.85	0.0118	2.5	PASS		
GPRS850	128	VL	TN	3.09	0.0037	2.5	PASS		
GPRS850	128	VN	TN	4.09	0.0049	2.5	PASS		
GPRS850	128	VH	TN	5.77	0.0069	2.5	PASS		
GPRS850	190	VL	TN	5.88	0.0070	2.5	PASS		
GPRS850	190	VN	TN	4.67	0.0056	2.5	PASS		
GPRS850	190	VH	TN	1.54	0.0018	2.5	PASS		
GPRS850	251	VL	TN	5.57	0.0067	2.5	PASS		
GPRS850	251	VN	TN	5.97	0.0071	2.5	PASS		
GPRS850	251	VH	TN	5.02	0.0060	2.5	PASS		
GSM1900	512	VL	TN	12.72	0.0068	2.5	PASS		
GSM1900	512	VN	TN	11.19	0.0060	2.5	PASS		
GSM1900	512	VH	TN	11.74	0.0062	2.5	PASS		
GSM1900	661	VL	TN	25.72	0.0137	2.5	PASS		
GSM1900	661	VN	TN	25.43	0.0135	2.5	PASS		
GSM1900	661	VH	TN	24.55	0.0131	2.5	PASS		
GSM1900	810	VL	TN	29.34	0.0156	2.5	PASS		
GSM1900	810	VN	TN	27.04	0.0144	2.5	PASS		
GSM1900	810	VH	TN	25.4	0.0135	2.5	PASS		
GPRS1900	512	VL	TN	7.44	0.0040	2.5	PASS		
GPRS1900	512	VN	TN	8.97	0.0048	2.5	PASS		
GPRS1900	512	VH	TN	13.28	0.0071	2.5	PASS		
GPRS1900	661	VL	TN	26.78	0.0142	2.5	PASS		
GPRS1900	661	VN	TN	26.32	0.0140	2.5	PASS		
GPRS1900	661	VH	TN	28.91	0.0154	2.5	PASS		
GPRS1900	810	VL	TN	23.69	0.0126	2.5	PASS		
GPRS1900	810	VN	TN	24.55	0.0131	2.5	PASS		
GPRS1900	810	VH	TN	24.42	0.0130	2.5	PASS		



Temperature									
		Voltage	Temperature	Deviation	Deviation	Limit			
Band	Channel	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	Verdict		
GSM850	128	VN	-30	10.77	0.0129	2.5	PASS		
GSM850	128	VN	-20	7.93	0.0095	2.5	PASS		
GSM850	128	VN	-10	9.72	0.0116	2.5	PASS		
GSM850	128	VN	0	7.96	0.0095	2.5	PASS		
GSM850	128	VN	10	10.27	0.0123	2.5	PASS		
GSM850	128	VN	20	9.25	0.0111	2.5	PASS		
GSM850	128	VN	30	10.38	0.0124	2.5	PASS		
GSM850	128	VN	40	10.89	0.0130	2.5	PASS		
GSM850	128	VN	50	8.82	0.0106	2.5	PASS		
GSM850	190	VN	-30	8.35	0.0100	2.5	PASS		
GSM850	190	VN	-20	12.6	0.0151	2.5	PASS		
GSM850	190	VN	-10	8.44	0.0101	2.5	PASS		
GSM850	190	VN	0	9.25	0.0111	2.5	PASS		
GSM850	190	VN	10	8.63	0.0103	2.5	PASS		
GSM850	190	VN	20	7.76	0.0093	2.5	PASS		
GSM850	190	VN	30	8.28	0.0099	2.5	PASS		
GSM850	190	VN	40	9.14	0.0109	2.5	PASS		
GSM850	190	VN	50	11.07	0.0132	2.5	PASS		
GSM850	251	VN	-30	8.44	0.0101	2.5	PASS		
GSM850	251	VN	-20	8.27	0.0099	2.5	PASS		
GSM850	251	VN	-10	8.94	0.0107	2.5	PASS		
GSM850	251	VN	0	11.67	0.0140	2.5	PASS		
GSM850	251	VN	10	6.71	0.0080	2.5	PASS		
GSM850	251	VN	20	7.18	0.0086	2.5	PASS		
GSM850	251	VN	30	5.97	0.0071	2.5	PASS		
GSM850	251	VN	40	11.22	0.0134	2.5	PASS		
GSM850	251	VN	50	8.87	0.0106	2.5	PASS		
GPRS850	128	VN	-30	5.8	0.0069	2.5	PASS		
GPRS850	128	VN	-20	8.9	0.0106	2.5	PASS		
GPRS850	128	VN	-10	7.99	0.0096	2.5	PASS		
GPRS850	128	VN	0	10.79	0.0129	2.5	PASS		
GPRS850	128	VN	10	8.09	0.0097	2.5	PASS		
GPRS850	128	VN	20	8.19	0.0098	2.5	PASS		
GPRS850	128	VN	30	9.52	0.0114	2.5	PASS		
GPRS850	128	VN	40	7.01	0.0084	2.5	PASS		
GPRS850	128	VN	50	8.71	0.0104	2.5	PASS		
GPRS850	190	VN	-30	5.99	0.0072	2.5	PASS		
GPRS850	190	VN	-20	7.88	0.0094	2.5	PASS		
GPRS850	190	VN	-10	3.73	0.0045	2.5	PASS		
GPRS850	190	VN	0	0.64	0.0008	2.5	PASS		
GPRS850	190	VN	10	-0.19	-0.0002	2.5	PASS		
GPRS850	190	VN	20	2.3	0.0028	2.5	PASS		
GPRS850	190	VN	30	-1.11	-0.0013	2.5	PASS		



GPRS850	190	VN	40	0.06	0.0001	2.5	PASS
GPRS850	190	VN	50	-0.29	-0.0003	2.5	PASS
GPRS850	251	VN	-30	9.68	0.0116	2.5	PASS
GPRS850	251	VN	-20	7.71	0.0092	2.5	PASS
GPRS850	251	VN	-10	7.11	0.0085	2.5	PASS
GPRS850	251	VN	0	6.55	0.0078	2.5	PASS
GPRS850	251	VN	10	6.27	0.0075	2.5	PASS
GPRS850	251	VN	20	5.19	0.0062	2.5	PASS
GPRS850	251	VN	30	3.15	0.0038	2.5	PASS
GPRS850	251	VN	40	5.69	0.0068	2.5	PASS
GPRS850	251	VN	50	6.31	0.0075	2.5	PASS
GSM1900	512	VN	-30	10.97	0.0058	2.5	PASS
GSM1900	512	VN	-20	10.15	0.0054	2.5	PASS
GSM1900	512	VN	-10	7.83	0.0042	2.5	PASS
GSM1900	512	VN	0	9.73	0.0052	2.5	PASS
GSM1900	512	VN	10	7.68	0.0041	2.5	PASS
GSM1900	512	VN	20	6.99	0.0037	2.5	PASS
GSM1900	512	VN	30	9.49	0.0050	2.5	PASS
GSM1900	512	VN	40	12.21	0.0065	2.5	PASS
GSM1900	512	VN	50	11.1	0.0059	2.5	PASS
GSM1900	661	VN	-30	26.84	0.0143	2.5	PASS
GSM1900	661	VN	-20	22.85	0.0122	2.5	PASS
GSM1900	661	VN	-10	24.72	0.0131	2.5	PASS
GSM1900	661	VN	0	26.32	0.0140	2.5	PASS
GSM1900	661	VN	10	24.78	0.0132	2.5	PASS
GSM1900	661	VN	20	25.28	0.0134	2.5	PASS
GSM1900	661	VN	30	24.47	0.0130	2.5	PASS
GSM1900	661	VN	40	25.04	0.0133	2.5	PASS
GSM1900	661	VN	50	26.96	0.0143	2.5	PASS
GSM1900	810	VN	-30	27.12	0.0144	2.5	PASS
GSM1900	810	VN	-20	26.81	0.0143	2.5	PASS
GSM1900	810	VN	-10	25.02	0.0133	2.5	PASS
GSM1900	810	VN	0	21.64	0.0115	2.5	PASS
GSM1900	810	VN	10	25.56	0.0136	2.5	PASS
GSM1900	810	VN	20	24.99	0.0133	2.5	PASS
GSM1900	810	VN	30	27.34	0.0145	2.5	PASS
GSM1900	810	VN	40	30.16	0.0160	2.5	PASS
GSM1900	810	VN	50	28.41	0.0151	2.5	PASS
GPRS1900	512	VN	-30	12.94	0.0069	2.5	PASS
GPRS1900	512	VN	-20	13.47	0.0072	2.5	PASS
GPRS1900	512	VN	-10	19.7	0.0105	2.5	PASS
GPRS1900	512	VN	0	16.56	0.0088	2.5	PASS
GPRS1900	512	VN	10	18.18	0.0097	2.5	PASS
GPRS1900	512	VN	20	10.31	0.0055	2.5	PASS
GPRS1900	512	VN	30	19.31	0.0103	2.5	PASS
GPRS1900	512	VN	40	20.58	0.0109	2.5	PASS
GPRS1900	512	VN	50	18.52	0.0099	2.5	PASS



GPRS1900	661	VN	-30	27.43	0.0146	2.5	PASS
GPRS1900	661	VN	-20	26.19	0.0139	2.5	PASS
GPRS1900	661	VN	-10	22.39	0.0119	2.5	PASS
GPRS1900	661	VN	0	28.82	0.0153	2.5	PASS
GPRS1900	661	VN	10	26.2	0.0139	2.5	PASS
GPRS1900	661	VN	20	30.4	0.0162	2.5	PASS
GPRS1900	661	VN	30	34.45	0.0183	2.5	PASS
GPRS1900	661	VN	40	22.55	0.0120	2.5	PASS
GPRS1900	661	VN	50	27.54	0.0146	2.5	PASS
GPRS1900	810	VN	-30	24.68	0.0131	2.5	PASS
GPRS1900	810	VN	-20	22.7	0.0121	2.5	PASS
GPRS1900	810	VN	-10	32.89	0.0175	2.5	PASS
GPRS1900	810	VN	0	27.53	0.0146	2.5	PASS
GPRS1900	810	VN	10	35.31	0.0188	2.5	PASS
GPRS1900	810	VN	20	28.29	0.0150	2.5	PASS
GPRS1900	810	VN	30	27.94	0.0149	2.5	PASS
GPRS1900	810	VN	40	31.63	0.0168	2.5	PASS
GPRS1900	810	VN	50	28.53	0.0152	2.5	PASS



For WCDMA

Test Band=WCDMA850/WCDMA1900

Voltage									
Band	Channel	Voltage	Temperature	Deviation	Deviation	Limit	Verdict		
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)			
Band II	9262	VL	TN	-24.61	-0.0131	2.5	PASS		
Band II	9262	VN	TN	-25.91	-0.0138	2.5	PASS		
Band II	9262	VH	TN	-23.88	-0.0127	2.5	PASS		
Band II	9400	VL	TN	-21.78	-0.0116	2.5	PASS		
Band II	9400	VN	TN	-30.8	-0.0164	2.5	PASS		
Band II	9400	VH	TN	-24.5	-0.0130	2.5	PASS		
Band II	9538	VL	TN	-26.5	-0.0141	2.5	PASS		
Band II	9538	VN	TN	-23.19	-0.0123	2.5	PASS		
Band II	9538	VH	TN	-28.22	-0.0150	2.5	PASS		
Band V	4132	VL	TN	-12.56	-0.0150	2.5	PASS		
Band V	4132	VN	TN	-12.47	-0.0149	2.5	PASS		
Band V	4132	VH	TN	-14.49	-0.0173	2.5	PASS		
Band V	4182	VL	TN	-4.13	-0.0049	2.5	PASS		
Band V	4182	VN	TN	-7.94	-0.0095	2.5	PASS		
Band V	4182	VH	TN	-13.26	-0.0159	2.5	PASS		
Band V	4233	VL	TN	-7.4	-0.0089	2.5	PASS		
Band V	4233	VN	TN	-10.63	-0.0127	2.5	PASS		
Band V	4233	VH	TN	-16.19	-0.0194	2.5	PASS		

Temperature									
Band	Channel	Voltage	Temperature	Deviation	Deviation	Limit	Verdict		
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)			
Band II	9262	VN	-30	-20.21	-0.0108	2.5	PASS		
Band II	9262	VN	-20	-23.3	-0.0124	2.5	PASS		
Band II	9262	VN	-10	-28.73	-0.0153	2.5	PASS		
Band II	9262	VN	0	-19.51	-0.0104	2.5	PASS		
Band II	9262	VN	10	-21.17	-0.0113	2.5	PASS		
Band II	9262	VN	20	-29.8	-0.0159	2.5	PASS		
Band II	9262	VN	30	-24.32	-0.0129	2.5	PASS		
Band II	9262	VN	40	-20.23	-0.0108	2.5	PASS		
Band II	9262	VN	50	-24.43	-0.0130	2.5	PASS		
Band II	9400	VN	-30	-27.6	-0.0147	2.5	PASS		
Band II	9400	VN	-20	-26.29	-0.0140	2.5	PASS		
Band II	9400	VN	-10	-25.16	-0.0134	2.5	PASS		
Band II	9400	VN	0	-23.23	-0.0124	2.5	PASS		
Band II	9400	VN	10	-22.33	-0.0119	2.5	PASS		
Band II	9400	VN	20	-26.04	-0.0139	2.5	PASS		
Band II	9400	VN	30	-23.47	-0.0125	2.5	PASS		
Band II	9400	VN	40	-23.85	-0.0127	2.5	PASS		



Band II	9400	VN	50	-17.23	-0.0092	2.5	PASS
Band II	9538	VN	-30	-22.04	-0.0117	2.5	PASS
Band II	9538	VN	-20	-23.74	-0.0126	2.5	PASS
Band II	9538	VN	-10	-26.22	-0.0139	2.5	PASS
Band II	9538	VN	0	-21.94	-0.0117	2.5	PASS
Band II	9538	VN	10	-24.08	-0.0128	2.5	PASS
Band II	9538	VN	20	-25.84	-0.0137	2.5	PASS
Band II	9538	VN	30	-20.46	-0.0109	2.5	PASS
Band II	9538	VN	40	-20.42	-0.0109	2.5	PASS
Band II	9538	VN	50	-22.53	-0.0120	2.5	PASS
Band V	4132	VN	-30	-8.36	-0.0100	2.5	PASS
Band V	4132	VN	-20	-11.58	-0.0139	2.5	PASS
Band V	4132	VN	-10	-10.93	-0.0131	2.5	PASS
Band V	4132	VN	0	-12.35	-0.0148	2.5	PASS
Band V	4132	VN	10	-10.71	-0.0128	2.5	PASS
Band V	4132	VN	20	-15.43	-0.0185	2.5	PASS
Band V	4132	VN	30	-9.63	-0.0115	2.5	PASS
Band V	4132	VN	40	-9.88	-0.0118	2.5	PASS
Band V	4132	VN	50	-13.2	-0.0158	2.5	PASS
Band V	4182	VN	-30	-13.52	-0.0162	2.5	PASS
Band V	4182	VN	-20	-9.42	-0.0113	2.5	PASS
Band V	4182	VN	-10	-12.08	-0.0144	2.5	PASS
Band V	4182	VN	0	-6.35	-0.0076	2.5	PASS
Band V	4182	VN	10	-12.2	-0.0146	2.5	PASS
Band V	4182	VN	20	-15.15	-0.0181	2.5	PASS
Band V	4182	VN	30	-5.56	-0.0067	2.5	PASS
Band V	4182	VN	40	-6.68	-0.0080	2.5	PASS
Band V	4182	VN	50	-9.43	-0.0113	2.5	PASS
Band V	4233	VN	-30	-9.89	-0.0118	2.5	PASS
Band V	4233	VN	-20	-7.35	-0.0088	2.5	PASS
Band V	4233	VN	-10	-10.74	-0.0128	2.5	PASS
Band V	4233	VN	0	-10.1	-0.0121	2.5	PASS
Band V	4233	VN	10	-11.87	-0.0142	2.5	PASS
Band V	4233	VN	20	-4.2	-0.0050	2.5	PASS
Band V	4233	VN	30	-8.07	-0.0097	2.5	PASS
Band V	4233	VN	40	-2.67	-0.0032	2.5	PASS
Band V	4233	VN	50	-8	-0.0096	2.5	PASS





6 APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Radiated Emission Above 1GHz



----END OF REPORT----