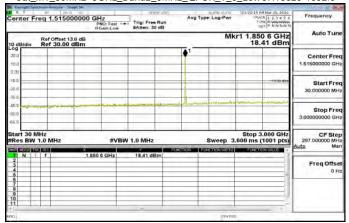
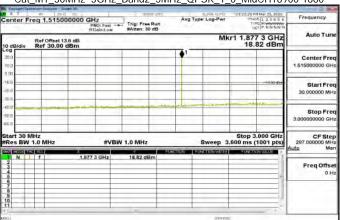


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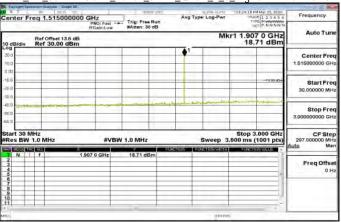
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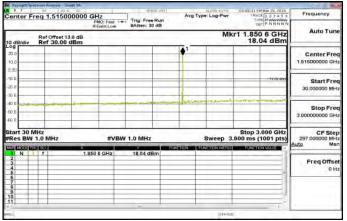
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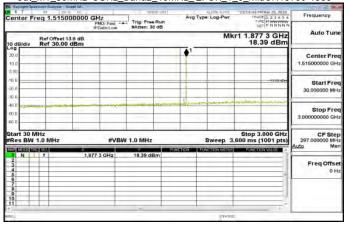
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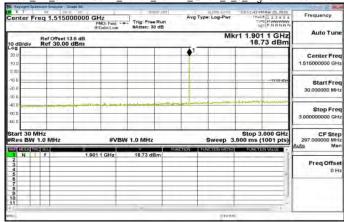
#### Cat\_M1\_30MHz~3GHz\_Band2\_10MHz\_QPSK\_1\_0\_LowCH18650-1855



# Cat\_M1\_30MHz~3GHz\_Band2\_10MHz\_QPSK\_1\_0\_MidCH18900-1880



# Cat\_M1\_30MHz~3GHz\_Band2\_10MHz\_QPSK\_1\_0\_HighCH19150-1905



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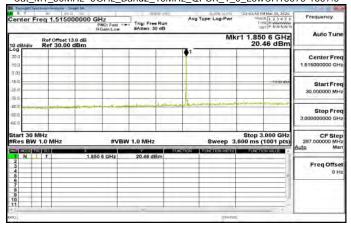
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some and stated on the sample(s) tested and such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on some and s prosecuted to the fullest extent of the law.

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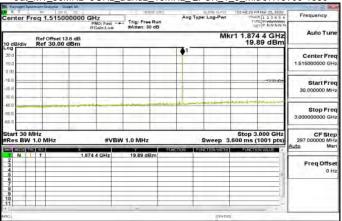


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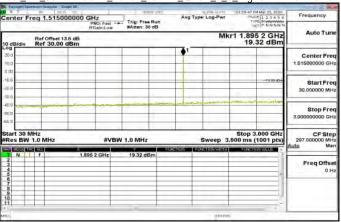
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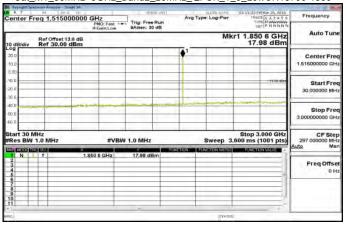
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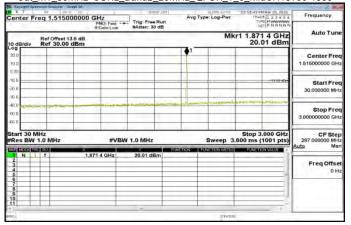
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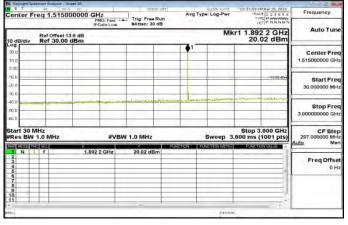
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# Cat\_M1\_30MHz~3GHz\_Band2\_20MHz\_QPSK\_1\_0\_MidCH18900-1880



# Cat\_M1\_30MHz~3GHz\_Band2\_20MHz\_QPSK\_1\_0\_HighCH19100-1900



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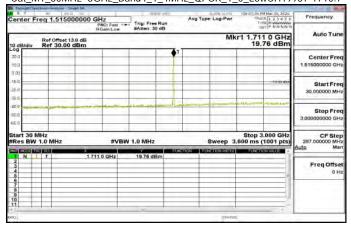
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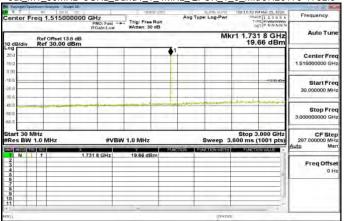


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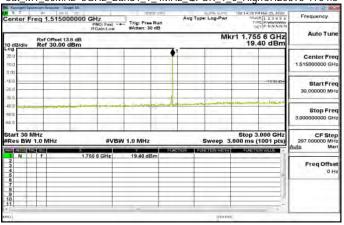
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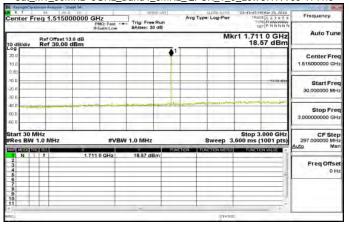
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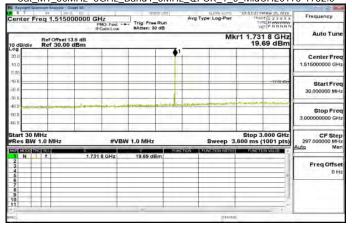
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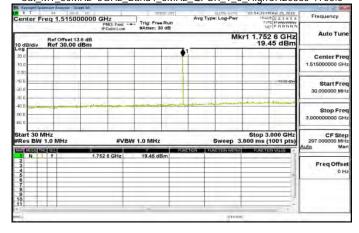
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### Cat\_M1\_30MHz~3GHz\_Band4\_3MHz\_QPSK\_1\_0\_MidCH20175-1732.5



# Cat\_M1\_30MHz~3GHz\_Band4\_3MHz\_QPSK\_1\_0\_HighCH20385-1753.5



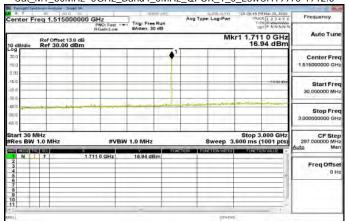
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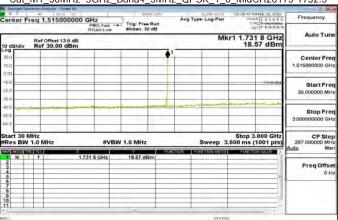


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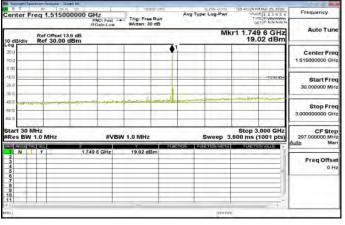
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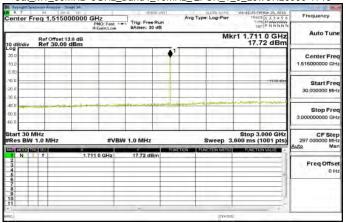
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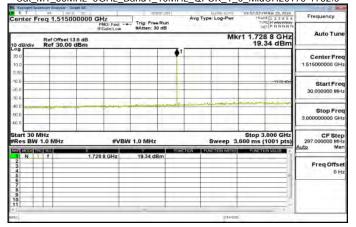
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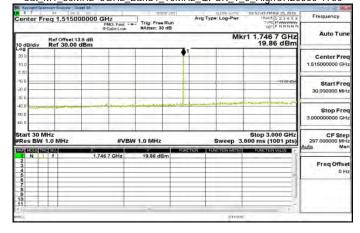
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Cat\_M1\_30MHz~3GHz\_Band4\_10MHz\_QPSK\_1\_0\_MidCH20175-1732.5



Cat\_M1\_30MHz~3GHz\_Band4\_10MHz\_QPSK\_1\_0\_HighCH20350-1750



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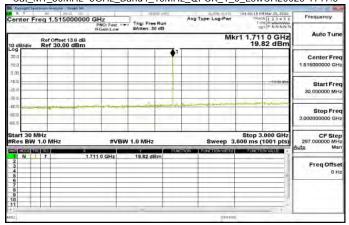
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some and stated on the sample(s) tested and such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on some and s prosecuted to the fullest extent of the law.

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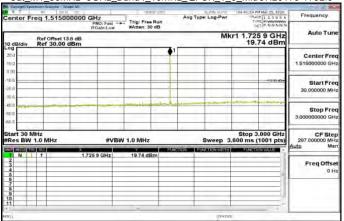


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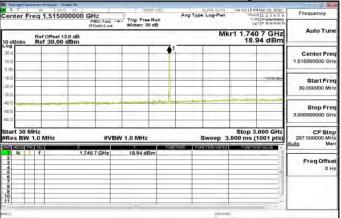
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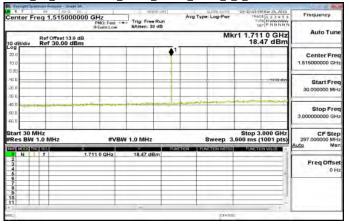
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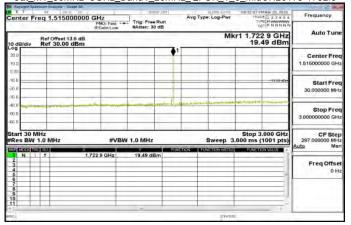
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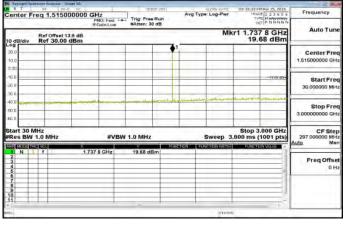
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Cat\_M1\_30MHz~3GHz\_Band4\_20MHz\_QPSK\_1\_0\_MidCH20175-1732.5



Cat\_M1\_30MHz~3GHz\_Band4\_20MHz\_QPSK\_1\_0\_HighCH20300-1745



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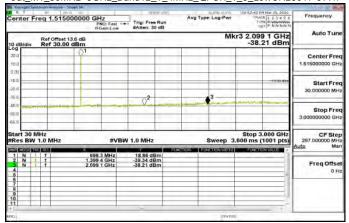
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some and stated on the sample(s) tested and such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on some and s prosecuted to the fullest extent of the law.

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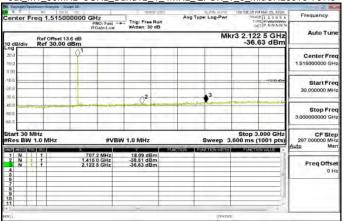


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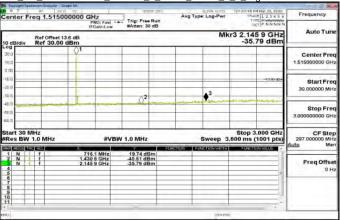
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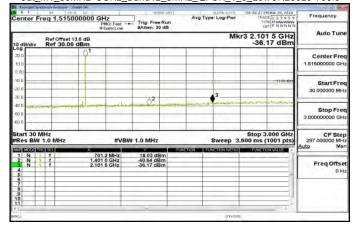
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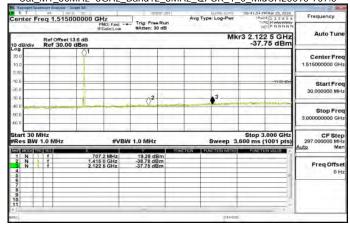
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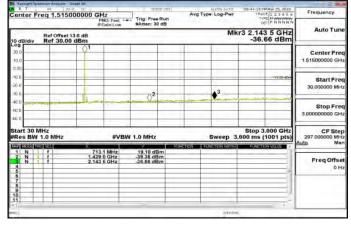
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### Cat\_M1\_30MHz~3GHz\_Band12\_3MHz\_QPSK\_1\_0\_MidCH23095-707.5



# Cat\_M1\_30MHz~3GHz\_Band12\_3MHz\_QPSK\_1\_0\_HighCH23165-714.5



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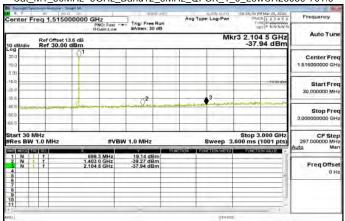
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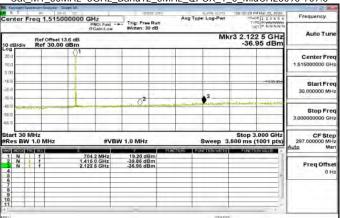
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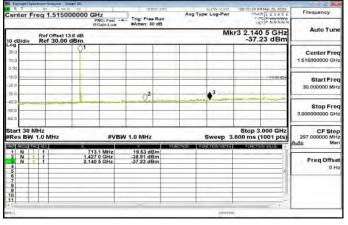
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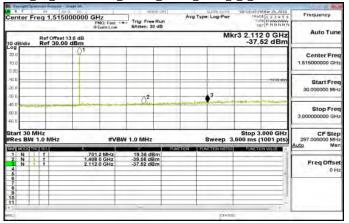
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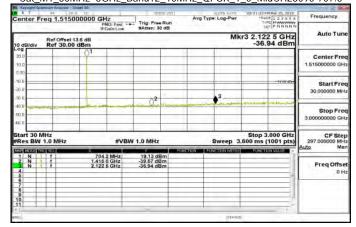
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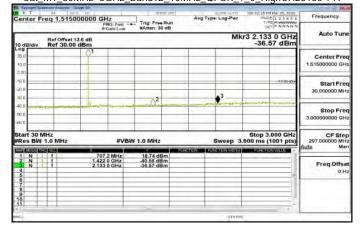
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Cat\_M1\_30MHz~3GHz\_Band12\_10MHz\_QPSK\_1\_0\_HighCH23130-711



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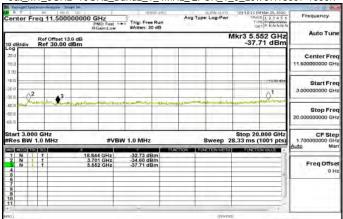
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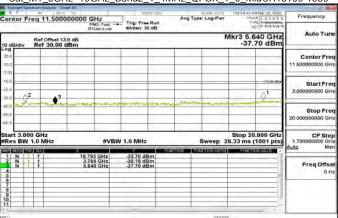


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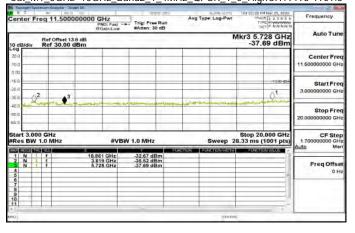
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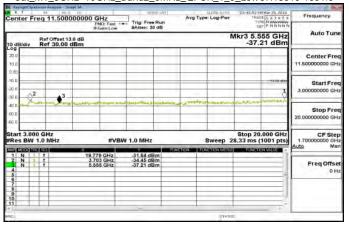
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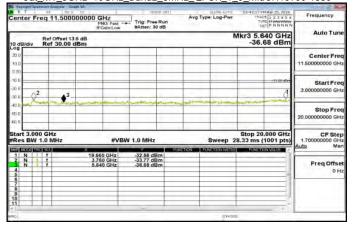
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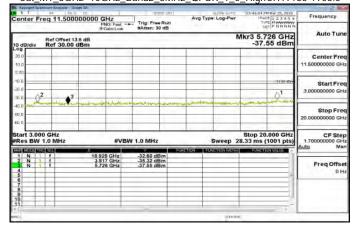
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Cat\_M1\_3GHz~10GHz\_Band2\_3MHz\_QPSK\_1\_0\_MidCH18900-1880



Cat\_M1\_3GHz~10GHz\_Band2\_3MHz\_QPSK\_1\_0\_HighCH19185-1908.5



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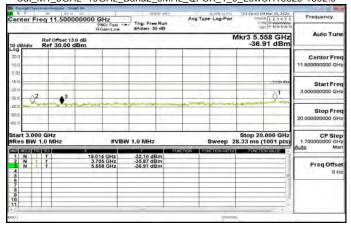
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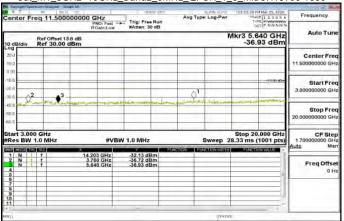


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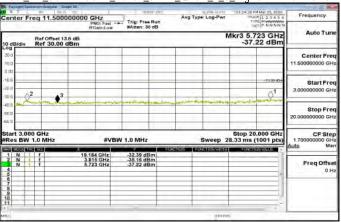
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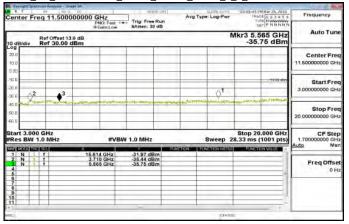
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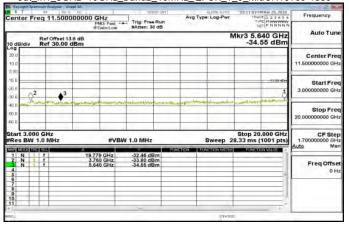
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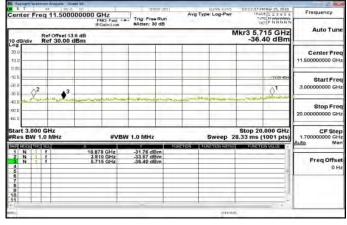
#### Cat\_M1\_3GHz~10GHz\_Band2\_10MHz\_QPSK\_1\_0\_LowCH18650-1855



# Cat\_M1\_3GHz~10GHz\_Band2\_10MHz\_QPSK\_1\_0\_MidCH18900-1880



# Cat\_M1\_3GHz~10GHz\_Band2\_10MHz\_QPSK\_1\_0\_HighCH19150-1905



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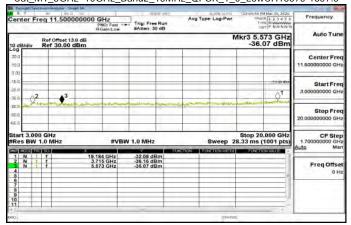
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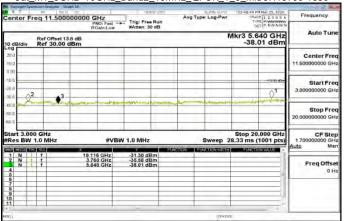


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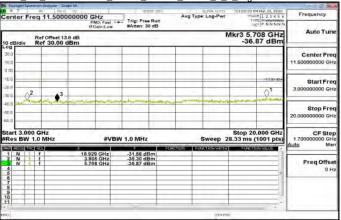
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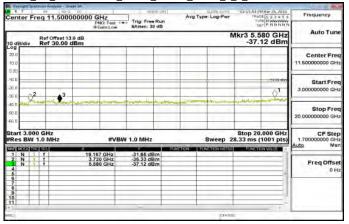
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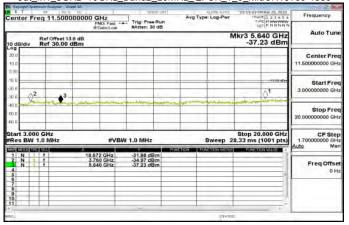
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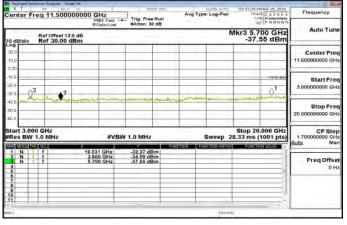
#### Cat\_M1\_3GHz~10GHz\_Band2\_20MHz\_QPSK\_1\_0\_LowCH18700-1860



# Cat\_M1\_3GHz~10GHz\_Band2\_20MHz\_QPSK\_1\_0\_MidCH18900-1880



# Cat\_M1\_3GHz~10GHz\_Band2\_20MHz\_QPSK\_1\_0\_HighCH19100-1900



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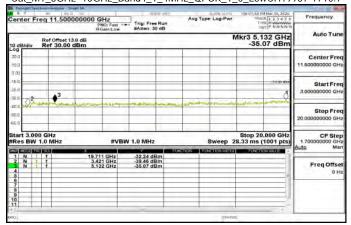
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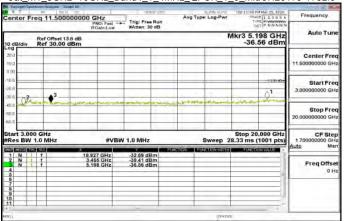


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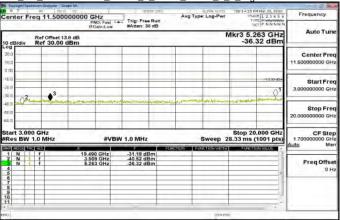
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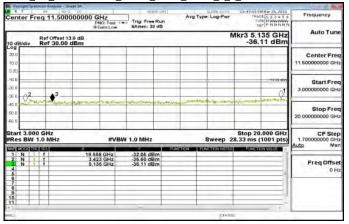
# Cat\_M1\_3GHz~10GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_MidCH20175-1732.5



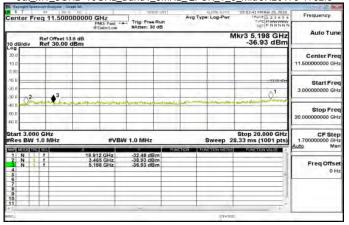
# Cat\_M1\_3GHz~10GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_HighCH20393-1754.3



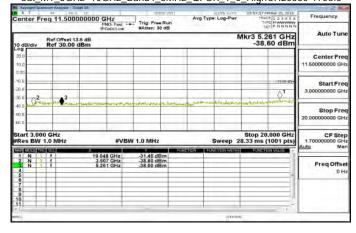
#### Cat\_M1\_3GHz~10GHz\_Band4\_3MHz\_QPSK\_1\_0\_LowCH19965-1711.5



# Cat\_M1\_3GHz~10GHz\_Band4\_3MHz\_QPSK\_1\_0\_MidCH20175-1732.5



# Cat\_M1\_3GHz~10GHz\_Band4\_3MHz\_QPSK\_1\_0\_HighCH20385-1753.5



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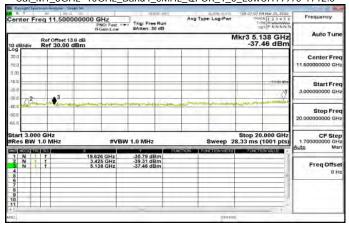
No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號

www.sgs.com.tw

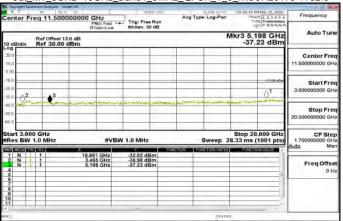


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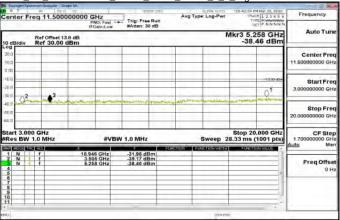
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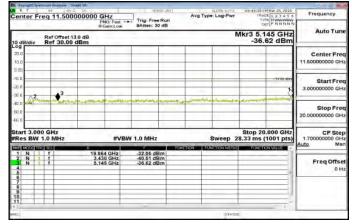
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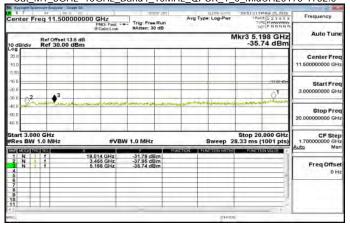
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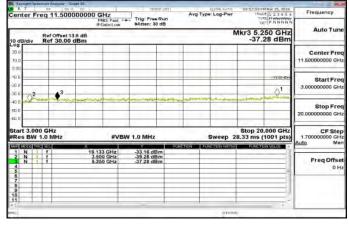
#### Cat\_M1\_3GHz~10GHz\_Band4\_10MHz\_QPSK\_1\_0\_LowCH20000-1715



### Cat\_M1\_3GHz~10GHz\_Band4\_10MHz\_QPSK\_1\_0\_MidCH20175-1732.5



Cat\_M1\_3GHz~10GHz\_Band4\_10MHz\_QPSK\_1\_0\_HighCH20350-1750



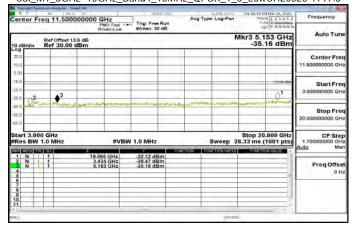
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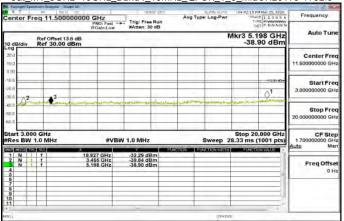


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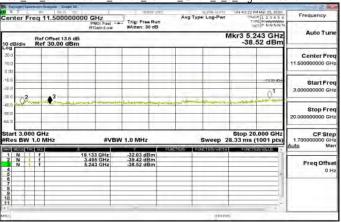
### Cat\_M1\_3GHz~10GHz\_Band4\_15MHz\_QPSK\_1\_0\_LowCH20025-1717.5



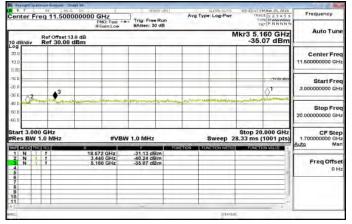
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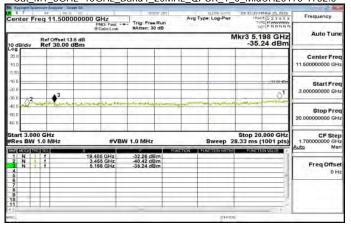
# Cat\_M1\_3GHz~10GHz\_Band4\_15MHz\_QPSK\_1\_0\_HighCH20325-1747.5



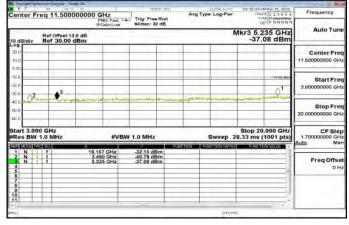
#### Cat\_M1\_3GHz~10GHz\_Band4\_20MHz\_QPSK\_1\_0\_LowCH20050-1720



### Cat\_M1\_3GHz~10GHz\_Band4\_20MHz\_QPSK\_1\_0\_MidCH20175-1732.5



Cat\_M1\_3GHz~10GHz\_Band4\_20MHz\_QPSK\_1\_0\_HighCH20300-1745



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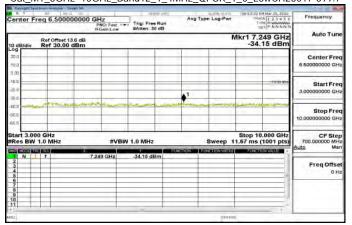
t (886-2) 2299-3279

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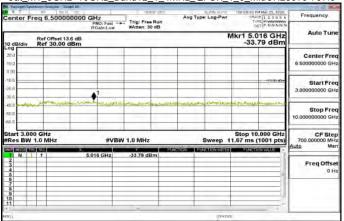


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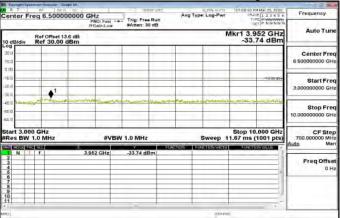
### Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_LowCH23017-699.7



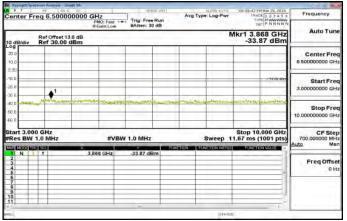
# Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_MidCH23095-707.5



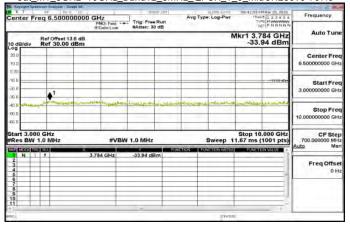
# Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_HighCH23173-715.3



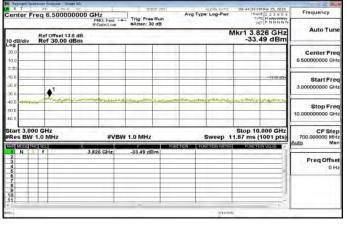
### Cat\_M1\_3GHz~10GHz\_Band12\_3MHz\_QPSK\_1\_0\_LowCH23025-700.5



# Cat\_M1\_3GHz~10GHz\_Band12\_3MHz\_QPSK\_1\_0\_MidCH23095-707.5



# Cat\_M1\_3GHz~10GHz\_Band12\_3MHz\_QPSK\_1\_0\_HighCH23165-714.5



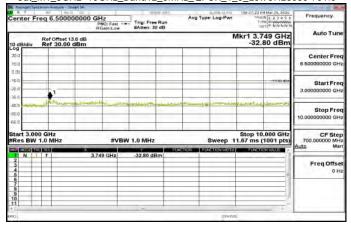
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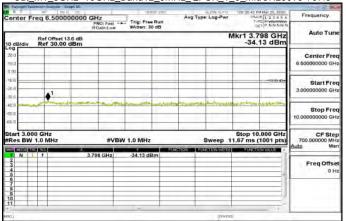


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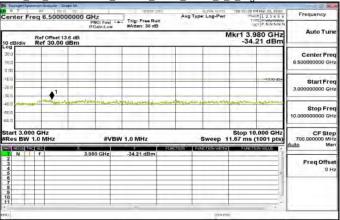
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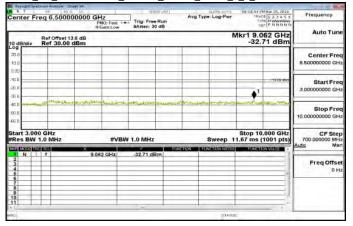
# Cat\_M1\_3GHz~10GHz\_Band12\_5MHz\_QPSK\_1\_0\_MidCH23095-707.5



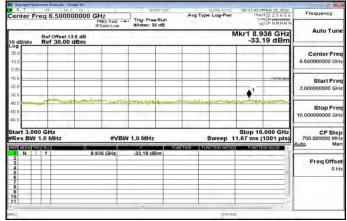
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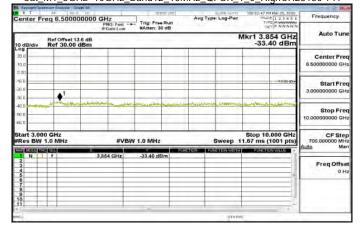
#### Cat\_M1\_3GHz~10GHz\_Band12\_10MHz\_QPSK\_1\_0\_LowCH23060-704



### Cat\_M1\_3GHz~10GHz\_Band12\_10MHz\_QPSK\_1\_0\_MidCH23095-707.5



# Cat\_M1\_3GHz~10GHz\_Band12\_10MHz\_QPSK\_1\_0\_HighCH23130-711



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# FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

# Standard Applicable

According to FCC §2.1053,

FCC §22.917(a), §24.238(a), §27.53(h)

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

# FCC §27.53(g) for B12

Compliance for operations in the 600 MHz, 698-746 MHz, 746-758 MHz and the 776-788 MHz band with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

# FCC §27.53(h)(3) for B4

Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Table 2 — Unwanted Emissions for Mobile, Portable and Low-Power Fixed Subscriber **Equipment** 

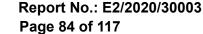
Frequency (MHz)	Attenuation (dB)
<2200	$43 + 10 \log_{10}(p)$
2200 - 2288	$70 + 10 \log_{10}(p)$
2288 - 2292	$67 + 10 \log_{10}(p)$
2292 - 2296	$61 + 10 \log_{10}(p)$
2296 - 2300	$55 + 10 \log_{10}(p)$
2300 - 2305	$43 + 10 \log_{10}(p)$
2305 - 2320	$43 + 10 \log_{10}(p)^{\text{Note}}$
2320 - 2324	$55 + 10 \log_{10}(p)$
2324 - 2328	$61 + 10 \log_{10}(p)$
2328 - 2337	$67 + 10 \log_{10}(p)$
2337 - 2341	$61 + 10 \log_{10}(p)$
2341 - 2345	$55 + 10 \log_{10}(p)$
2345 - 2360	$43 + 10 \log_{10}(p)^{\text{Note}}$
2360 - 2365	$43 + 10 \log_{10}(p)$
2365 - 2395	$70 + 10 \log_{10}(p)$
>2395	$43 + 10 \log_{10}(p)$

**Note:** Measured at the edges of the highest and lowest frequency range(s) in which the equipment is designed to operate. See Section 1.2 for the permitted frequency ranges for various equipment types.

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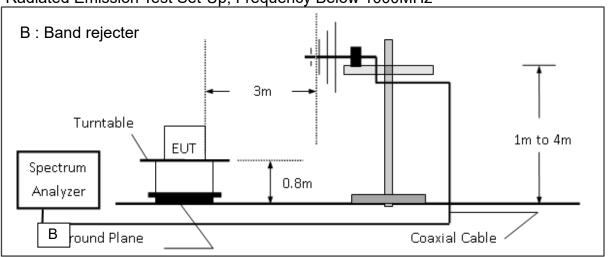
SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



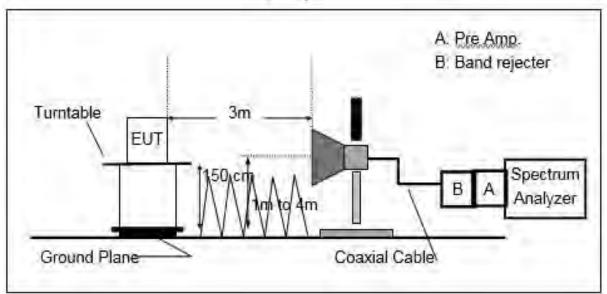


9.2 **EUT Setup** 

Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-UP Frequency Over 1 GHz



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#### 9.3 Measurement Procedure:

The EUT was placed on a non-conductive; the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequencies (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP (dBm) = SG Level(dBm) + Antenna Gain(dBd) + Cable Loss(dB)

EIRP (dBm) = SG Level(dBm) + Antenna Gain(dBi) + Cable Loss(dB)

#### Measurement Fauinment Used: 9.4

Measurement Equipment Oseu.								
E	ERP, EIRP MEASUREMENT EQUIPMENT List 966 Chamber							
EQUIPMENT	MFR	MODEL	SERIAL	LAST CAL.	CAL DUE.			
TYPE		NUMBER	NUMBER					
Broadband	TESEQ	CBL 6112D	35240	09/09/2019	00/08/2020			
Antenna	TLOLQ	CDL 0112D	33240	09/09/2019	09/00/2020			
Horn Antenna	Schwarzbeck	BBHA9170	185	08/07/2019	08/06/2020			
Horn Antenna	Schwarzbeck	BBHA9120D	1187	01/10/2020	01/09/2021			
EMI Test Receiver	R&S	ESU 40	100363	04/15/2019	04/14/2020			
Radio Communi-	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021			
cation Analyzer	Annisu	IVITOOZ TC	0201700004	01/10/2020	01/11/2021			
Pre-Amplifier	EMC Instruments	EMC330	980096	11/20/2019	11/19/2020			
Pre-Amplifier	EMC Instruments	EMC0011830	980199	11/20/2019	11/19/2020			
Pre-Amplifier	EMC Instruments	EMC184045B	980135	11/20/2019	11/19/2020			
Notch Filter	Woken	EWT-54-0037	RF54	11/20/2019	11/19/2020			
Notch Filter	Woken	EWT-54-0038	RF55	11/20/2019	11/19/2020			
Coaxial Cable	Huber Suhner	SUCOFLEX 104	MY17388/4	11/20/2019	11/19/2020			
Coaxial Cable	Huber Suhner	RG 214/U	W22.03	11/20/2019	11/19/2020			
Coaxial Cable	Huber Suhner	SUCOFLEX 104	MY17413/4	11/20/2019	11/19/2020			

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Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some and stated on the sample(s) tested and such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on some and s prosecuted to the fullest extent of the law.

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#### **Measurement Result:** 9.5

#### 9.5.1 **Radiated Spurious Emission**

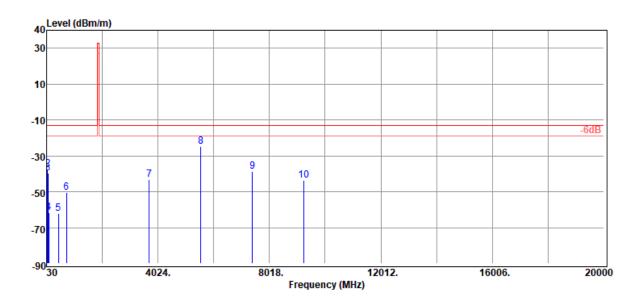
Report Number **Test Date** :E2/2020/30003 :2020-03-20

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

Test Mode :TX CH LOW Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1852.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
47.46	-61.30	-42.37	-18.07	-0.86	-13.00	-48.30
64.92	-37.33	-22.62	-13.71	-1.00	-13.00	-24.33
83.35	-39.71	-31.10	-7.45	-1.16	-13.00	-26.71
102.75	-61.51	-53.67	-6.48	-1.36	-13.00	-48.51
461.65	-61.94	-57.31	-1.28	-3.35	-13.00	-48.94
746.83	-50.40	-44.60	-1.61	-4.19	-13.00	-37.40
3705.00	-43.28	-44.28	12.31	-11.31	-13.00	-30.28
5557.50	-24.97	-26.90	13.33	-11.40	-13.00	-11.97
7410.00	-38.53	-36.97	11.22	-12.78	-13.00	-25.53
9262.50	-43.61	-40.53	10.75	-13.83	-13.00	-30.61

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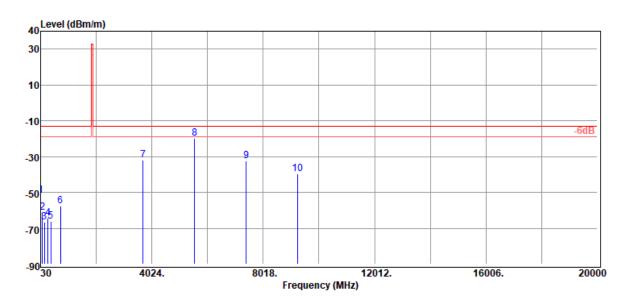
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH LOW Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1852.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
07.70	54.04	04.70	40.05	0.00	40.00	00.04
37.76	-51.94	-31.79	-19.35	-0.80	-13.00	-38.94
101.78	-61.33	-53.54	-6.44	-1.35	-13.00	-48.33
161.92	-66.75	-58.21	-6.85	-1.69	-13.00	-53.75
298.69	-64.47	-60.45	-1.51	-2.51	-13.00	-51.47
391.81	-66.02	-61.59	-1.52	-2.91	-13.00	-53.02
740.04	-57.59	-51.84	-1.56	-4.19	-13.00	-44.59
3705.00	-32.16	-33.16	12.31	-11.31	-13.00	-19.16
5557.50	-19.81	-21.74	13.33	-11.40	-13.00	-6.81
7410.00	-32.60	-31.04	11.22	-12.78	-13.00	-19.60
9262.50	-39.84	-36.76	10.75	-13.83	-13.00	-26.84

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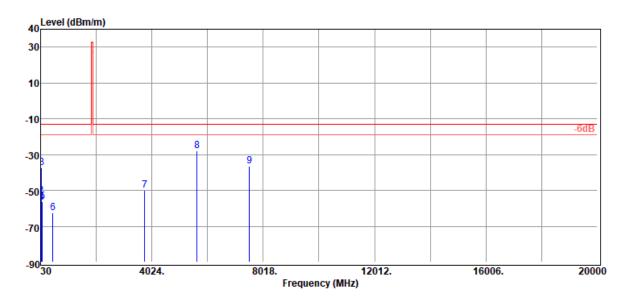
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

Test Mode :TX CH MID Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1880 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
26.70	EE 70	25 52	10.42	0.70	12.00	40.70
36.79	-55.73	-35.52	-19.43	-0.78	-13.00	-42.73
46.49	-53.31	-34.16	-18.29	-0.86	-13.00	-40.31
61.04	-37.37	-21.45	-14.92	-1.00	-13.00	-24.37
67.83	-56.50	-42.67	-12.83	-1.00	-13.00	-43.50
95.96	-56.05	-49.00	-5.79	-1.26	-13.00	-43.05
466.50	-62.45	-57.95	-1.29	-3.21	-13.00	-49.45
3760.00	-50.17	-51.51	12.42	-11.08	-13.00	-37.17
5640.00	-27.77	-29.70	13.50	-11.57	-13.00	-14.77
7520.00	-36.34	-34.84	11.38	-12.88	-13.00	-23.34

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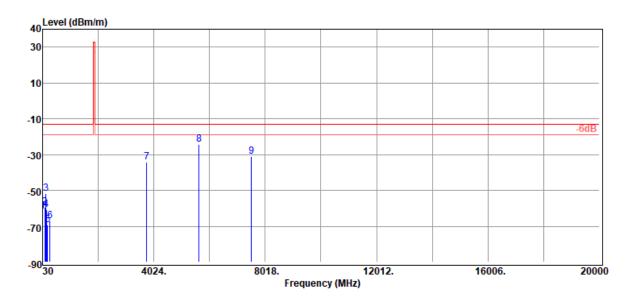
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH MID Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1880 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
31.94	-61.70	-40.68	-20.36	-0.66	-13.00	-48.70
107.60	-59.26	-50.88	-6.96	-1.42	-13.00	-46.26
147.37	-51.74	-42.50	-7.57	-1.67	-13.00	-38.74
165.80	-60.60	-52.34	-6.55	-1.71	-13.00	-47.60
213.33	-69.10	-65.52	-1.46	-2.12	-13.00	-56.10
304.51	-67.14	-63.07	-1.45	-2.62	-13.00	-54.14
3760.00	-34.14	-35.48	12.42	-11.08	-13.00	-21.14
5640.00	-24.31	-26.24	13.50	-11.57	-13.00	-11.31
7520.00	-30.86	-29.36	11.38	-12.88	-13.00	-17.86

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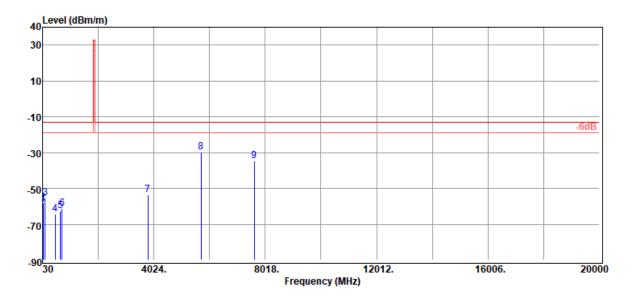
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

:VERTICAL Test Mode :TX CH HIGH Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1907.5 MHz



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss	dBm	dB
ΙΝΙΠΖ	UDIII	UDIII	иы/иьи	dB	UDIII	иь
36.79	-59.12	-38.91	-19.43	-0.78	-13.00	-46.12
46.49	-58.01	-38.86	-18.29	-0.86	-13.00	-45.01
123.12	-55.25	-46.69	-7.04	-1.52	-13.00	-42.25
484.93	-64.46	-60.03	-1.13	-3.30	-13.00	-51.46
678.93	-62.41	-57.17	-1.28	-3.96	-13.00	-49.41
729.37	-61.00	-55.26	-1.46	-4.28	-13.00	-48.00
3815.00	-53.52	-55.13	12.50	-10.89	-13.00	-40.52
5722.50	-29.57	-31.22	13.35	-11.70	-13.00	-16.57
7630.00	-34.60	-33.24	11.62	-12.98	-13.00	-21.60

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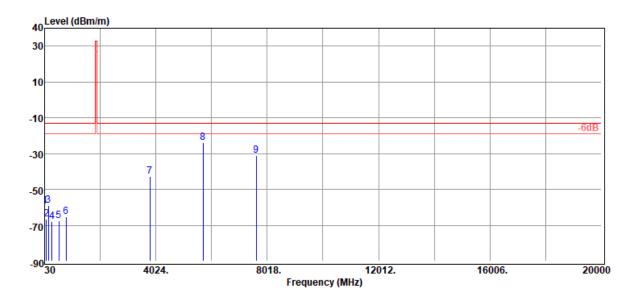
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B2 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH HIGH Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1907.5 MHz



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
32.91	-59.51	-38.74	-20.09	-0.68	-13.00	-46.51
101.78	-66.62	-58.83	-6.44	-1.35	-13.00	-53.62
160.95	-58.77	-50.18	-6.90	-1.69	-13.00	-45.77
301.60	-67.90	-63.87	-1.48	-2.55	-13.00	-54.90
541.19	-67.49	-62.96	-1.22	-3.31	-13.00	-54.49
796.30	-65.12	-59.05	-1.69	-4.38	-13.00	-52.12
3815.00	-42.67	-44.28	12.50	-10.89	-13.00	-29.67
5722.50	-23.75	-25.40	13.35	-11.70	-13.00	-10.75
7630.00	-31.20	-29.84	11.62	-12.98	-13.00	-18.20

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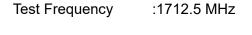
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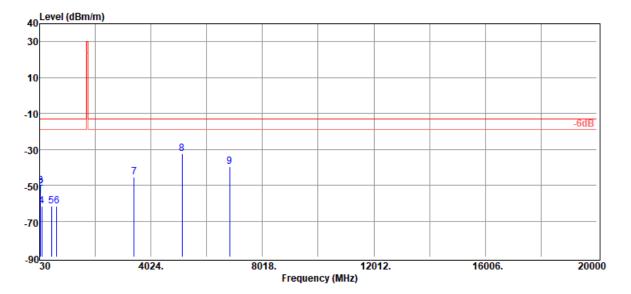
Report Number :E2/2020/30003 **Test Date** :2020-03-20

:Cat M1 B4 **Operation Mode** Temp./Humi. :22.4/62

Test Mode :TX CH LOW Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo





Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
F2 20	FF 60	27.07	16.01	0.04	12.00	40.60
53.28 60.07	-55.69	-37.87	-16.91 -15.26	-0.91 -1.00	-13.00 -13.00	-42.69
	-51.76	-35.50				-38.76
67.83	-50.47	-36.64	-12.83	-1.00	-13.00	-37.47
104.69	-61.87	-53.70	-6.78	-1.39	-13.00	-48.87
461.65	-61.67	-57.04	-1.28	-3.35	-13.00	-48.67
643.04	-61.52	-56.12	-1.38	-4.02	-13.00	-48.52
3425.00	-45.35	-46.71	12.65	-11.29	-13.00	-32.35
5137.50	-32.33	-33.01	12.48	-11.80	-13.00	-19.33
6850.00	-39.46	-39.49	12.40	-12.37	-13.00	-26.46

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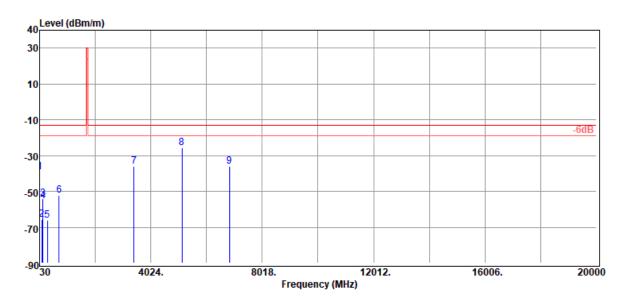
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH LOW Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1712.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
35.82	-39.25	-18.85	-19.64	-0.76	-13.00	-26.25
103.72	-65.66	-57.65	-6.64	-1.37	-13.00	-52.66
151.25	-54.20	-45.17	-7.35	-1.68	-13.00	-41.20
159.01	-55.30	-46.61	-7.01	-1.68	-13.00	-42.30
306.45	-66.25	-62.12	-1.47	-2.66	-13.00	-53.25
735.19	-52.24	-46.57	-1.42	-4.25	-13.00	-39.24
3425.00	-36.09	-37.45	12.65	-11.29	-13.00	-23.09
5137.50	-25.64	-26.32	12.48	-11.80	-13.00	-12.64
6850.00	-36.11	-36.14	12.40	-12.37	-13.00	-23.11

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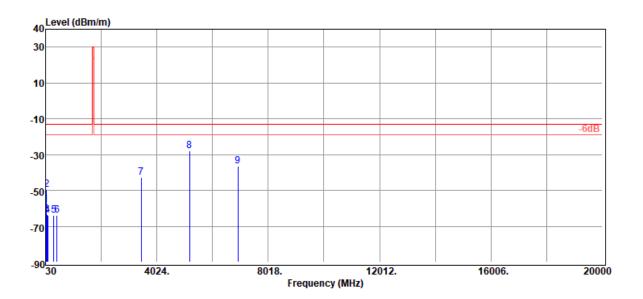
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:VERTICAL Test Mode :TX CH MID Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1732.5 MHz



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
•		Output Level	Gain	Loss		J
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
50.37	-57.97	-39.60	-17.50	-0.87	-13.00	-44.97
60.07	-49.31	-33.05	-15.26	-1.00	-13.00	-36.31
83.35	-63.64	-55.03	-7.45	-1.16	-13.00	-50.64
115.36	-64.00	-55.41	-7.14	-1.45	-13.00	-51.00
327.79	-63.92	-59.67	-1.58	-2.67	-13.00	-50.92
448.07	-64.09	-59.73	-1.44	-2.92	-13.00	-51.09
3465.00	-42.70	-44.18	12.51	-11.03	-13.00	-29.70
5197.50	-28.11	-28.81	12.69	-11.99	-13.00	-15.11
6930.00	-36.34	-36.21	12.08	-12.21	-13.00	-23.34

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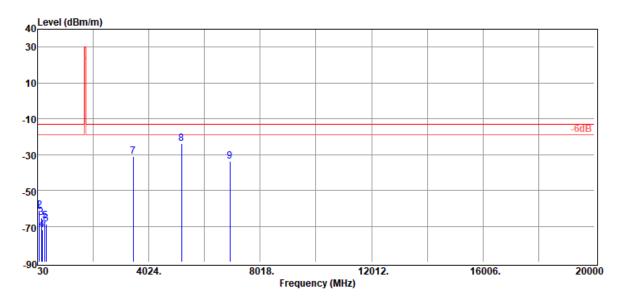
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH MID Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1732.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
32.91	-61.87	-41.10	-20.09	-0.68	-13.00	-48.87
101.78	-61.17	-53.38	-6.44	-1.35	-13.00	-48.17
160.95	-65.13	-56.54	-6.90	-1.69	-13.00	-52.13
189.08	-72.21	-67.25	-3.10	-1.86	-13.00	-59.21
296.75	-67.18	-63.14	-1.53	-2.51	-13.00	-54.18
346.22	-68.77	-64.71	-1.45	-2.61	-13.00	-55.77
3465.00	-30.92	-32.40	12.51	-11.03	-13.00	-17.92
5197.50	-24.02	-24.72	12.69	-11.99	-13.00	-11.02
6930.00	-33.98	-33.85	12.08	-12.21	-13.00	-20.98

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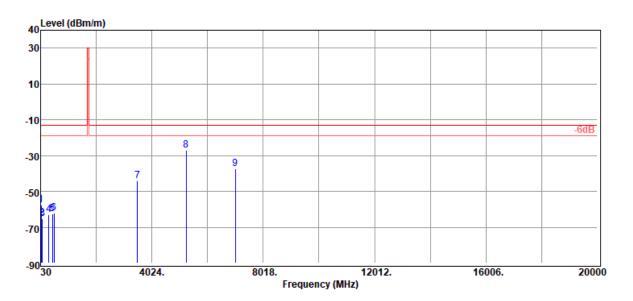
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:VERTICAL Test Mode :TX CH HIGH Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1752.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
46.49	-57.75	-38.60	-18.29	-0.86	-13.00	-44.75
65.89	-64.72	-50.42	-13.30	-0.80	-13.00	- <del>44</del> .73 -51.72
94.02	-65.27	-58.26	-5.78	-1.23	-13.00	-52.27
331.67	-62.90	-58.66	-1.59	-2.65	-13.00	-49.90
458.74	-62.48	-57.83	-1.31	-3.34	-13.00	-49.48
515.97	-62.03	-57.24	-1.22	-3.57	-13.00	-49.03
3505.00	-44.22	-45.69	12.30	-10.83	-13.00	-31.22
5257.50	-26.98	-28.27	13.13	-11.84	-13.00	-13.98
7010.00	-37.23	-36.89	11.86	-12.20	-13.00	-24.23

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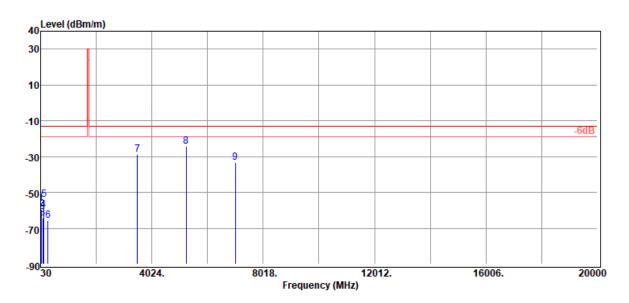
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH HIGH Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :1752.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
38.73	-56.10	-36.02	-19.25	-0.83	-13.00	-43.10
61.04	-59.25	-43.33	-14.92	-1.00	-13.00	-46.25
104.69	-64.37	-56.20	-6.78	-1.39	-13.00	-51.37
141.55	-60.06	-50.72	-7.68	-1.66	-13.00	-47.06
149.31	-54.06	-44.92	-7.46	-1.68	-13.00	-41.06
302.57	-65.89	-61.85	-1.47	-2.57	-13.00	-52.89
3505.00	-28.65	-30.12	12.30	-10.83	-13.00	-15.65
5257.50	-24.53	-25.82	13.13	-11.84	-13.00	-11.53
7010.00	-33.32	-32.98	11.86	-12.20	-13.00	-20.32

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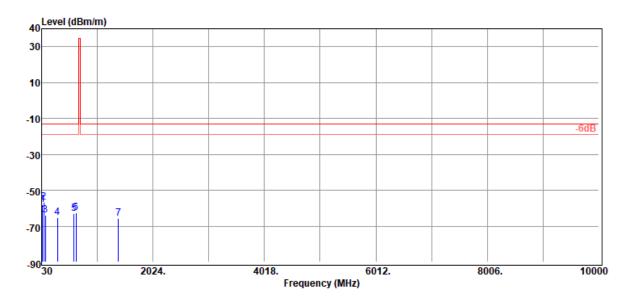
Report Number :E2/2020/30003 **Test Date** :2020-03-20

**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

Test Mode :TX CH LOW Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo

:701.5 MHz **Test Frequency** 



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
46.49	-58.29	-39.14	-18.29	-0.86	-13.00	-45.29
67.83	-56.55	-42.72	-12.83	-1.00	-13.00	-43.55
98.87	-64.00	-56.57	-6.12	-1.31	-13.00	-51.00
315.18	-65.37	-61.15	-1.47	-2.75	-13.00	-52.37
612.00	-62.81	-57.21	-1.70	-3.90	-13.00	-49.81
644.98	-62.45	-57.14	-1.35	-3.96	-13.00	-49.45
1403.00	-65.93	-66.42	7.02	-6.53	-13.00	-52.93

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Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some and stated on the sample(s) tested and such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on so days only. We are stated on such as a relation of some and stated on some and s prosecuted to the fullest extent of the law.



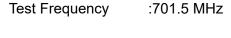
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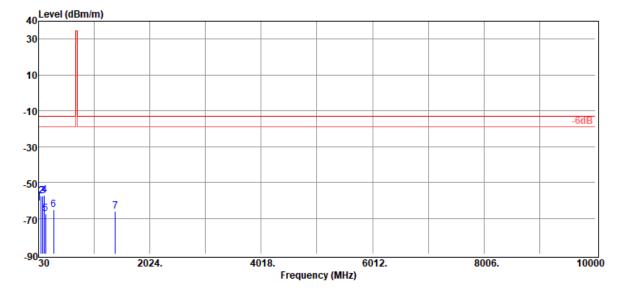
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH LOW Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo





Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
34.85	-61.56	-41.06	-19.77	-0.73	-13.00	-48.56
79.47	-57.59	-47.90	-8.54	-1.15	-13.00	-44.59
108.57	-57.52	-49.11	-6.98	-1.43	-13.00	-44.52
135.73	-57.30	-48.08	-7.56	-1.66	-13.00	-44.30
158.04	-67.57	-58.82	-7.07	-1.68	-13.00	-54.57
299.66	-65.34	-61.33	-1.50	-2.51	-13.00	-52.34
1403.00	-66.12	-66.61	7.02	-6.53	-13.00	-53.12

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**Test Frequency** 

Report No.: E2/2020/30003

10000

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Report Number **Test Date** :2020-03-20 :E2/2020/30003

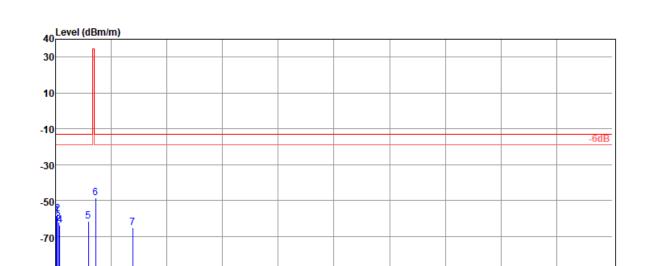
**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

Test Mode :TX CH MID Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo

:707.5 MHz

2024.



Frequency (MHz)

4018.

Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
•		Output Level	Gain	Loss		· ·
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
47.46	-58.49	-39.56	-18.07	-0.86	-13.00	-45.49
64.92	-57.46	-42.75	-13.71	-1.00	-13.00	-44.46
82.38	-62.04	-53.20	-7.68	-1.16	-13.00	-49.04
103.72	-64.04	-56.03	-6.64	-1.37	-13.00	-51.04
619.76	-61.82	-56.65	-1.59	-3.58	-13.00	-48.82
747.80	-48.66	-42.85	-1.62	-4.19	-13.00	-35.66
1415.00	-65.11	-65.68	7.12	-6.55	-13.00	-52.11

6012.

8006.

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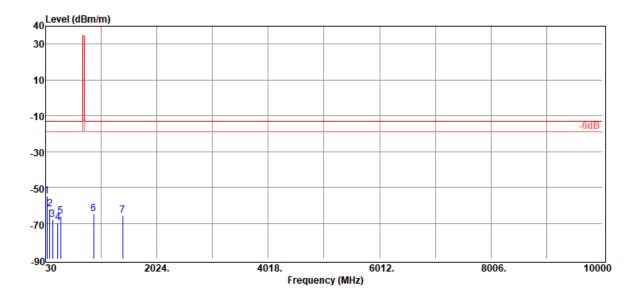
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH MID Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :707.5 MHz



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
·		Output Level	Gain	Loss		J
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
55.22	-54.87	-37.46	-16.48	-0.93	-13.00	-41.87
103.72	-62.33	-54.32	-6.64	-1.37	-13.00	-49.33
158.04	-67.86	-59.11	-7.07	-1.68	-13.00	-54.86
253.10	-69.59	-65.81	-1.54	-2.24	-13.00	-56.59
303.54	-66.31	-62.26	-1.46	-2.59	-13.00	-53.31
892.33	-64.69	-58.65	-1.43	-4.61	-13.00	-51.69
1415.00	-65.82	-66.39	7.12	-6.55	-13.00	-52.82

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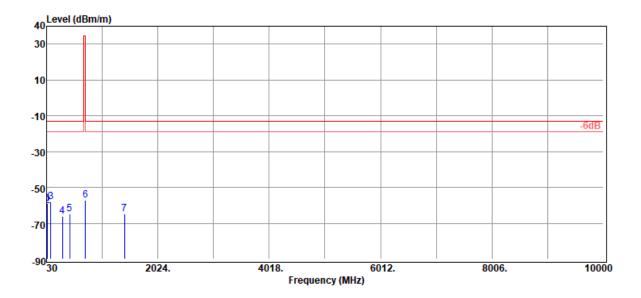
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

Test Mode :TX CH HIGH Antenna Pol. :VERTICAL

**EUT Pol** :E2 Plan Engineer :Enzo

**Test Frequency** :713.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
46.49	-58.84	-39.69	-18.29	-0.86	-13.00	-45.84
51.34	-60.11	-41.90	-17.33	-0.88	-13.00	-47.11
102.75	-58.18	-50.34	-6.48	-1.36	-13.00	-45.18
318.09	-65.94	-61.74	-1.45	-2.75	-13.00	-52.94
447.10	-64.61	-60.27	-1.42	-2.92	-13.00	-51.61
729.37	-56.98	-51.24	-1.46	-4.28	-13.00	-43.98
1427.00	-64.74	-65.39	7.22	-6.57	-13.00	-51.74

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**Test Frequency** 

Report No.: E2/2020/30003

10000

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Report Number **Test Date** :2020-03-20 :E2/2020/30003

**Operation Mode** :Cat M1 B12 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH HIGH Antenna Pol.

**EUT Pol** :E2 Plan Engineer :Enzo

:713.5 MHz

2024.



Frequency (MHz)

4018.

Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
50.37	-48.98	-30.61	-17.50	-0.87	-13.00	-35.98
70.74	-60.01	-47.28	-11.72	-1.01	-13.00	-47.01
103.72	-65.87	-57.86	-6.64	-1.37	-13.00	-52.87
144.46	-60.27	-50.96	-7.64	-1.67	-13.00	-47.27
312.27	-66.33	-62.09	-1.49	-2.75	-13.00	-53.33
730.34	-62.03	-56.25	-1.47	-4.31	-13.00	-49.03
1427.00	-65.67	-66.32	7.22	-6.57	-13.00	-52.67

6012.

8006.

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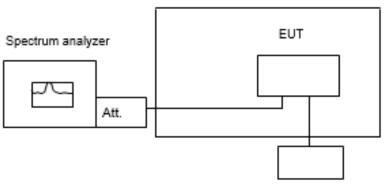
#### 10 FREQUENCY STABILITY MEASUREMENT

# 10.1 Standard Applicabl

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

# 10.2 Test Set-up





Variable DC Power Supply

**Note:** Measurement setup for testing on Antenna connector

### 10.3 Measurement Procedure

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Set chamber temperature to 25°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint as declared by the manufacturer, record the maximum frequency change.

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#### **Measurement Equipment Used** 10.4

Cor	nducted Emission	on (measured at	antenna port)	Test Site	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
DC Block	PASTERNACK	PE8210	RF32	11/20/2019	11/19/2020
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	07/15/2019	07/14/2020
DC Power Supply	Agilent	E3640A	MY53140006	05/31/2019	05/30/2020
Temperature Chamber	TERCHY	MHK-120LK	1020582	07/09/2019	07/08/2020
Splitter	Woken	DOM35LW1A2	RF36	11/20/2019	11/19/2020
Attenuator	Marvelous	MVE2213-10	RF31	11/20/2019	11/19/2020
Radio Communication Analyzer	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021

## 10.5 Measurement Result

Note: The battery is rated 3.7V dc.

#### 10.5.1 Cat M1

		1880	MHz 20M QPSK CH 18900
Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
Fred	. ERROR vs. VC	DLTAGE	
25	1879.999997	-3	4700
25	1880.000006	6	4700
25	1879.999995	-5	4700
25	1879.999998	-2	4700
Fr	eq. ERROR vs. <sup>-</sup>	Temp.	
-30	1880.000001	1	4700
-20	1880.000000	0	4700
-10	1880.000001	1	4700
0	1880.000006	6	4700
10	1880.000009	9	4700
20	1880.000004	4	4700
30	1880.000006	6	4700
40	1879.999997	-3	4700
50	1880.000004	4	4700
	Ch Temp. (°C) Fred 25 25 25 25 25 -30 -20 -10 0 10 20 30 40	Freq. ERROR vs. VC 25	Temp. (℃)         Freq. (MHz)         Delta (Hz)           Freq. (MHz)         Delta (Hz)           Freq. ERROR vs. VoltaGE           25         1879.999997         -3           25         1880.000006         6           25         1879.999995         -5           25         1879.999998         -2           Freq. ERROR vs. Temp.           -30         1880.000001         1           -20         1880.000001         1           0         1880.000001         1           0         1880.000004         6           10         1880.000004         4           30         1880.000006         6           40         1879.99997         -3

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Reference Freq.:		B4 Mid hannel	1732.5	MHz 20M QPSK CH 20175
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = $\pm$ /- 2.5 ppm (Hz)
	Freq	. ERROR vs. VO	LTAGE	
4.255	25	1732.499999	-1	4331
3.7	25	1732.500005	5	4331
3.6	25	1732.500008	8	4331
3.5 (End Point)	25	1732.500003	3	4331
	Fre	eq. ERROR vs. 1	emp.	
3.7	-30	1732.500000	0	4331
3.7	-20	1732.500008	8	4331
3.7	-10	1732.500003	3	4331
3.7	0	1732.499999	-1	4331
3.7	10	1732.500008	8	4331
3.7	20	1732.500008	8	4331
3.7	30	1732.499995	-5	4331
3.7	40	1732.500000	0	4331
3.7	50	1732.500007	7	4331
Reference Freq.:		B12 Mid nannel	707.5	MHz 10M QPSK CH 23095
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
1 over Supply vac		. ERROR vs. VO	` /	Ellillit 17 2.0 ppill (112)
4.255	25	707.500002	2	1769
3.7	25	707.500001	1	1769
3.6	25	707.499999	-1	1769
3.5 (End Point)	25	707.499995	-5	1769
(Liid i Ollit)	Fre	eq. ERROR vs. 1	emp.	
3.7	-30	707.500000	0	1769
3.7	-20	707.499998	-2	1769
3.7	-10	707.499999	-1	1769
3.7	0	707.499995	-5	1769
3.7	10	707.500002	2	1769
3.7	20	707.500000	0	1769
3.7	30	707.500006	6	1769
3.7	40	707.500002	2	1769

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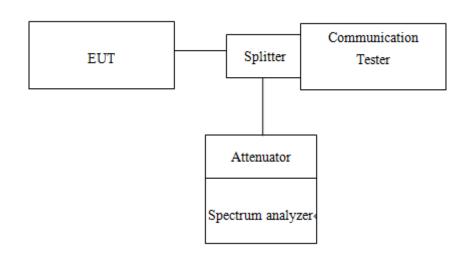
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#### 11 PEAK TO AVERAGE RATIO

#### 11.1 Standard Applicable

The peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

## 11.2 Test SET-UP



### 11.3 Measurement Procedure

- 1. KDB 971168 D01 is employed as the following procedure is proper adjusted accordingly:
- 2. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth; & internal =1ms
- 3. Set the number of counts to a value that stabilizes the measured CCDF curve.

# 11.4 Measurement Equipment Used

Cor	nducted Emission	on (measured at	antenna port)	Test Site	
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
DC Block	PASTERNACK	PE8210	RF32	11/20/2019	11/19/2020
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	07/15/2019	07/14/2020
DC Power Supply	Agilent	E3640A	MY53140006	05/31/2019	05/30/2020
Splitter	Woken	DOM35LW1A2	RF36	11/20/2019	11/19/2020
Attenuator	Marvelous	MVE2213-10	RF31	11/20/2019	11/19/2020
Radio Communication Analyzer	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021

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## 11.5 Measurement Result

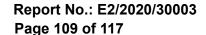
#### 11.5.1 Cat M1

	M1 BAND 2									
Chan	nel bandı	width: 1.4	MHz	Chai	nnel band	dwidth: 3N	lHz			
Freq.	СН	PAPR	PAPR (dB) Freq. CH				PAPR (dB)			
(MHz)	СП	QPSK	Limit	(MHz)	СП	QPSK	Limit			
1850.7	18607	11.51	13	1851.5	18615	10.14	13			
1880.0	18900	9.22	13	1880.0	18900	11.34	13			
1909.3	19193	8.39	13	1908.5	19185	9.84	13			

	M1 BAND 2									
Channel bandwidth: 5MHz Channel bandwidth: 10MHz							ЛHz			
Freq.	СН	PAPR	PAPR (dB) Freq.				(dB)			
(MHz)	Сп	QPSK	Limit	(MHz)	СН	QPSK	Limit			
1852.5	18625	6.66	13	1855.0	18650	6.37	13			
1880.0	18900	7.30	13	1880.0	18900	9.73	13			
1907.5	19175	10.58	13	1905.0	19150	9.96	13			

	M1 BAND 2									
Chan	nel band	width: 15N	ЛHz	Chan	nel band	width: 20N	ЛHz			
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)				
(MHz)	СП	QPSK	Limit	(MHz)	СП	QPSK	Limit			
1857.5	18675	9.91	13	1860.0	18700	4.37	13			
1880.0	18900	7.61	13	1880.0	18900	6.77	13			
1902.5	19125	7.52	13	1900.0	19100	7.59	13			

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M1 BAND 4 Channel bandwidth: 1.4MHz Channel bandwidth: 3MHz PAPR (dB) PAPR (dB) Freq. Freq CH (MHz) **QPSK** (MHz) **OPSK** Limit Limit 10.57 19965 8.29 1710.7 19957 13 13 1711.5 9.85 1732.5 20175 11.04 13 1732.5 20175 13 13 13 1754.3 20393 11.79 1753.5 20385 8.08

	M1 BAND 4								
Char	nel band	dwidth: 5N	ИHz	Chan	nel band	width: 10	MHz		
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR	PAPR (dB)		
(MHz)	СП	QPSK	Limit	(MHz)	СП	QPSK	Limit		
1712.5	19957	9.68	13	1715.0	20000	9.32	13		
1732.5	20175	9.73	13	1732.5	20175	10.84	13		
1752.5	20375	6.81	13	1750.0	20350	10.02	13		

	M1 BAND 4									
Chan	nel band	lwidth: 15l	VIHz	Chan	nel band	width: 20	MHz			
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)				
(MHz)	CII	QPSK	Limit	(MHz)	CII	QPSK	Limit			
1717.5	20025	9.53	13	1720.0	20050	8.55	13			
1732.5	20175	7.55	13	1732.5	20175	6.43	13			
1747.5	20325	7.59	13	1745.0	20300	8.98	13			

	M1 BAND 12									
Chan	nel band	width: 1.4N	MHz	Chai	nnel band	dwidth: 3N	1Hz			
Freq.	СН	PAPR (dB) Freq.		PAPR	(dB)					
(MHz)	CII	QPSK	Limit	(MHz)	СН	QPSK	Limit			
699.7	23017	10.78	13	700.5	23025	6.68	13			
707.5	23095	8.74	13	707.5	23095	8.00	13			
715.3	23173	8.46	13	714.5	23165	8.51	13			

M1 BAND 12									
Char	nnel band	lwidth: 5N	lHz	Chan	nel band	width: 10N	ЛHz		
Freq.	СН	PAPR	(dB)	Freq.	Freq. CH PAF				
(MHz)	Сп	QPSK	Limit	(MHz)	Сп	QPSK	Limit		
701.5	23035	10.06	13	704.0	23060	10.42	13		
707.5	23095	9.90	13	707.5	23095	8.47	13		
713.5	23155	8.89	13	711.0	23130	9.75	13		

## Please refer to next page for test plots.

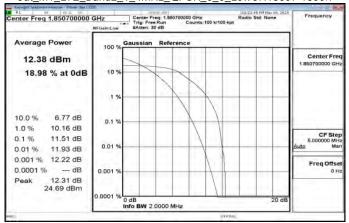
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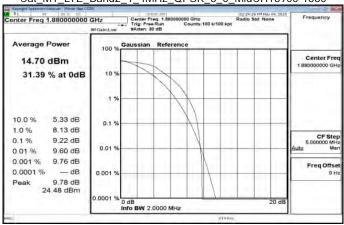


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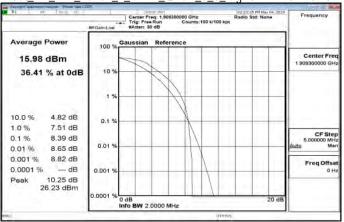
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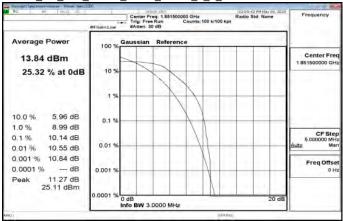
# Cat\_M1\_LTE\_Band2\_1\_4MHz\_QPSK\_6\_0\_MidCH18900-1880



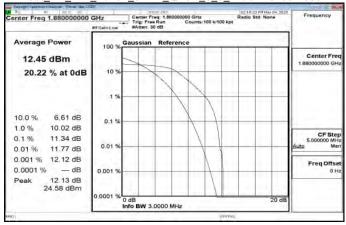
# Cat\_M1\_LTE\_Band2\_1\_4MHz\_QPSK\_6\_0\_HighCH19193-1909.3



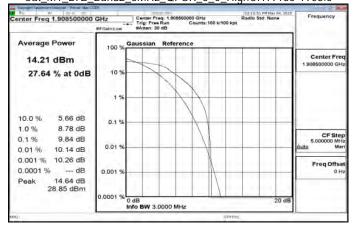
### Cat\_M1\_LTE\_Band2\_3MHz\_QPSK\_6\_0\_LowCH18615-1851.5



## Cat\_M1\_LTE\_Band2\_3MHz\_QPSK\_6\_0\_MidCH18900-1880



# Cat\_M1\_LTE\_Band2\_3MHz\_QPSK\_6\_0\_HighCH19185-1908.5



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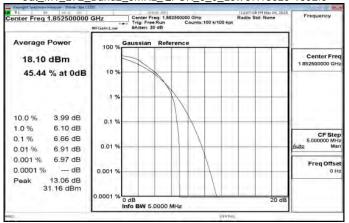
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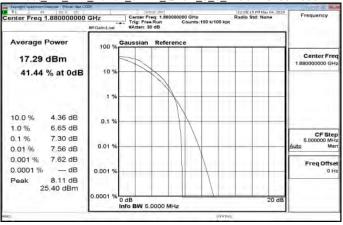


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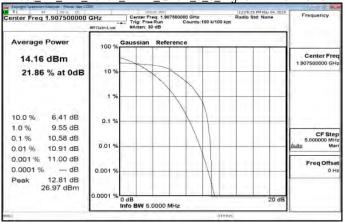
### Cat M1 LTE Band2 5MHz QPSK 6 0 LowCH18625-1852.5



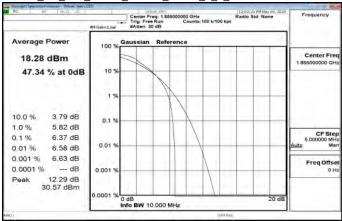
## Cat\_M1\_LTE\_Band2\_5MHz\_QPSK\_6\_0\_MidCH18900-1880



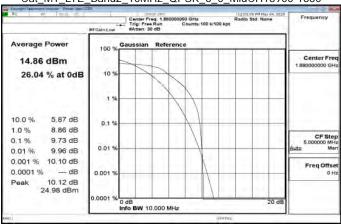
# Cat\_M1\_LTE\_Band2\_5MHz\_QPSK\_6\_0\_HighCH19175-1907.5



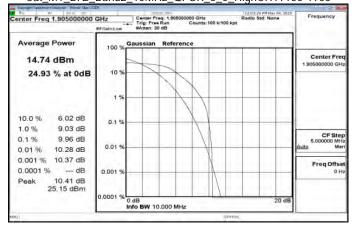
### Cat\_M1\_LTE\_Band2\_10MHz\_QPSK\_6\_0\_LowCH18650-1855



## Cat\_M1\_LTE\_Band2\_10MHz\_QPSK\_6\_0\_MidCH18900-1880



# Cat\_M1\_LTE\_Band2\_10MHz\_QPSK\_6\_0\_HighCH19150-1905



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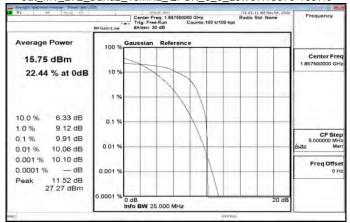
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some stated and such as a relation of some stated on such as a relation of some stated of such as a relation prosecuted to the fullest extent of the law.

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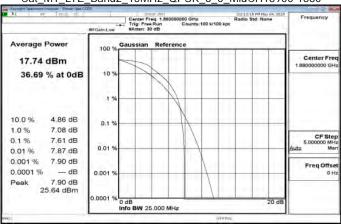


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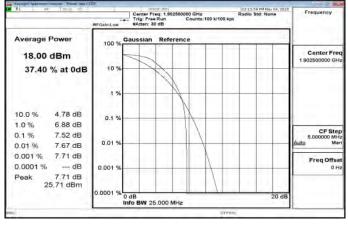
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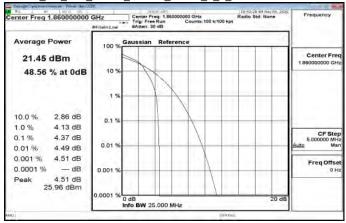
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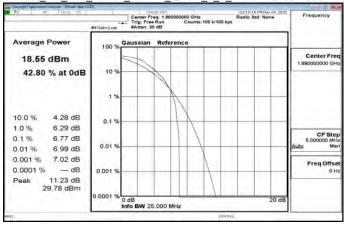
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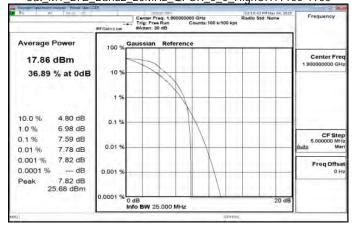
### Cat\_M1\_LTE\_Band2\_20MHz\_QPSK\_6\_0\_LowCH18700-1860



## Cat\_M1\_LTE\_Band2\_20MHz\_QPSK\_6\_0\_MidCH18900-1880



# Cat\_M1\_LTE\_Band2\_20MHz\_QPSK\_6\_0\_HighCH19100-1900



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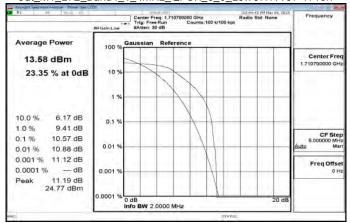
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some stated and such as a relation of some stated on such as a relation of some stated of such as a relation prosecuted to the fullest extent of the law.

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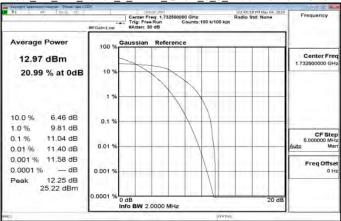


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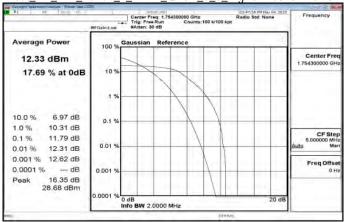
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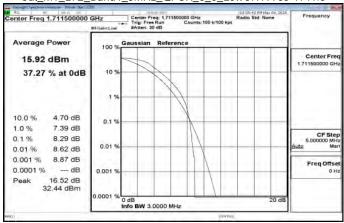
## Cat\_M1\_LTE\_Band4\_1\_4MHz\_QPSK\_6\_0\_MidCH20175-1732.5



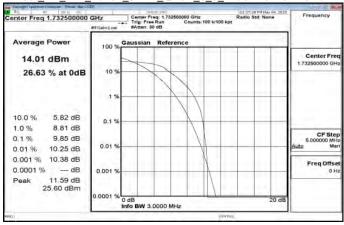
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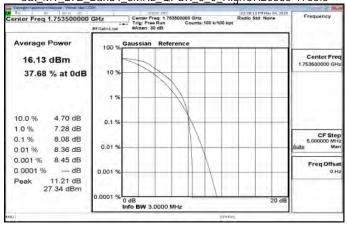
### Cat M1 LTE Band4 3MHz QPSK 6 0 LowCH19965-1711.5



## Cat\_M1\_LTE\_Band4\_3MHz\_QPSK\_6\_0\_MidCH20175-1732.5



# Cat\_M1\_LTE\_Band4\_3MHz\_QPSK\_6\_0\_HighCH20385-1753.5



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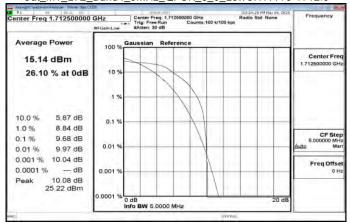
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some stated and such as a relation of some stated on such as a relation of some stated of such as a relation prosecuted to the fullest extent of the law.

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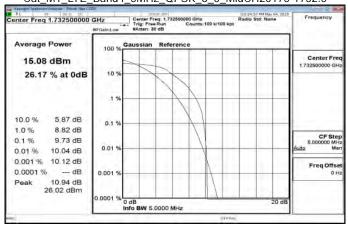


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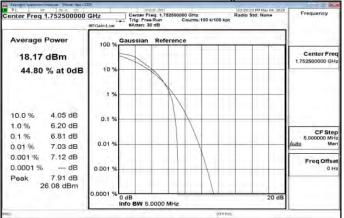
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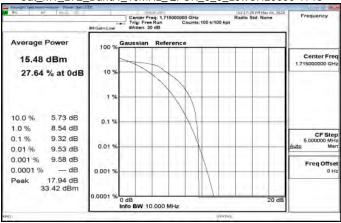
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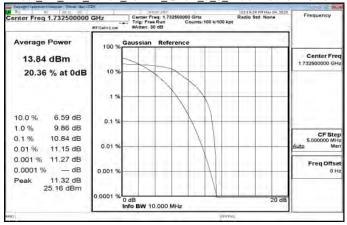
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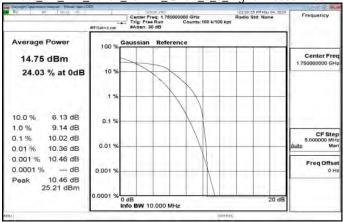
## Cat\_M1\_LTE\_Band4\_10MHz\_QPSK\_6\_0\_LowCH20000-1715



## Cat\_M1\_LTE\_Band4\_10MHz\_QPSK\_6\_0\_MidCH20175-1732.5



# Cat\_M1\_LTE\_Band4\_10MHz\_QPSK\_6\_0\_HighCH20350-1750



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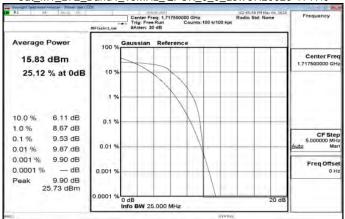
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some stated and such as a relation of some stated on such as a relation of some stated of such as a relation prosecuted to the fullest extent of the law.

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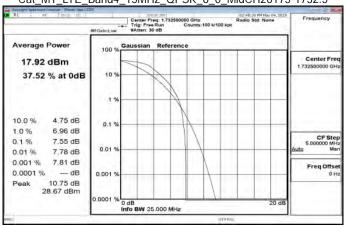


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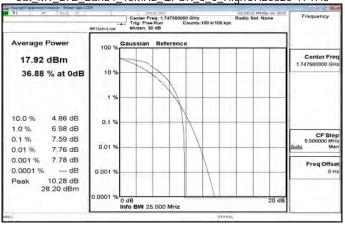
### Cat M1 LTE Band4 15MHz QPSK 6 0 LowCH20025-1717.5



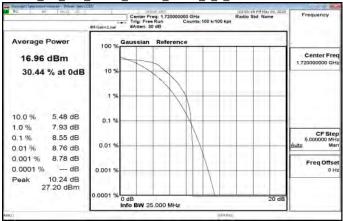
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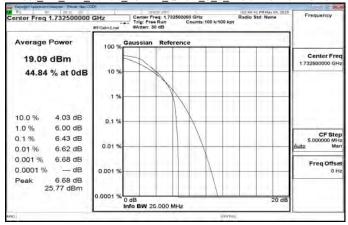
# Cat\_M1\_LTE\_Band4\_15MHz\_QPSK\_6\_0\_HighCH20325-1747.5



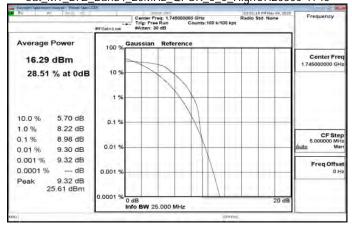
### Cat\_M1\_LTE\_Band4\_20MHz\_QPSK\_6\_0\_LowCH20050-1720



## Cat\_M1\_LTE\_Band4\_20MHz\_QPSK\_6\_0\_MidCH20175-1732.5



# Cat\_M1\_LTE\_Band4\_20MHz\_QPSK\_6\_0\_HighCH20300-1745



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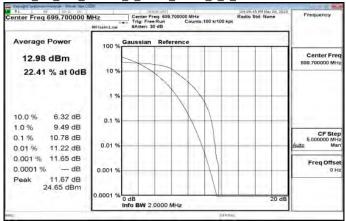
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that state are stated on such as a relation of so days only. We are stated on such as a relation of some stated and such as a relation of some stated on such as a relation of some stated of such as a relation prosecuted to the fullest extent of the law.

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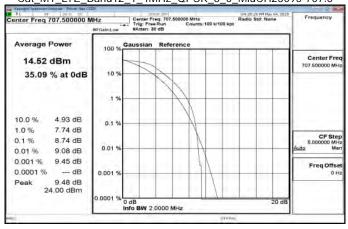


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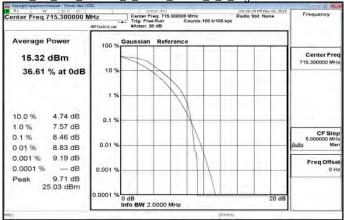
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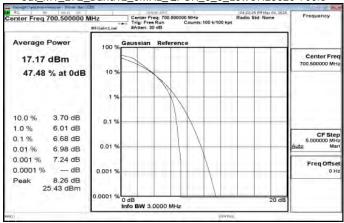
# Cat\_M1\_LTE\_Band12\_1\_4MHz\_QPSK\_6\_0\_MidCH23095-707.5



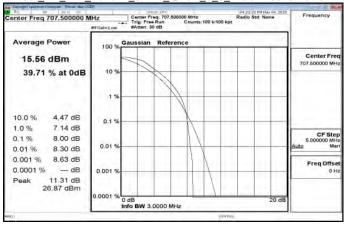
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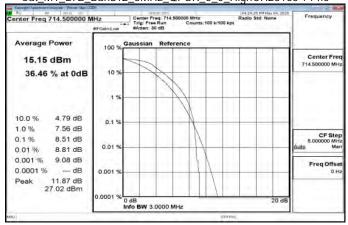
## Cat\_M1\_LTE\_Band12\_3MHz\_QPSK\_6\_0\_LowCH23025-700.5



## Cat\_M1\_LTE\_Band12\_3MHz\_QPSK\_6\_0\_MidCH23095-707.5



# Cat\_M1\_LTE\_Band12\_3MHz\_QPSK\_6\_0\_HighCH23165-714.5



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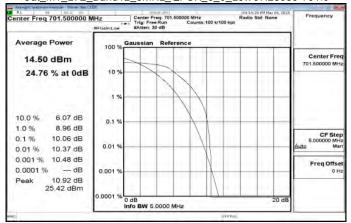
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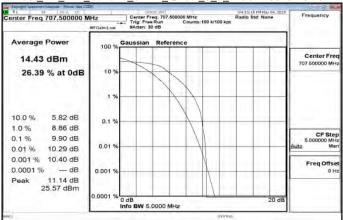


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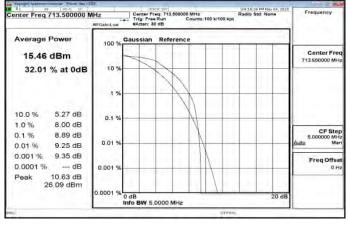
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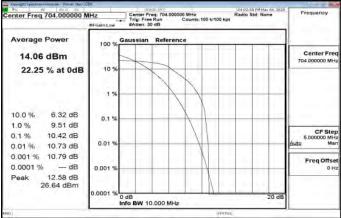
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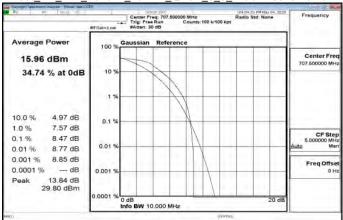
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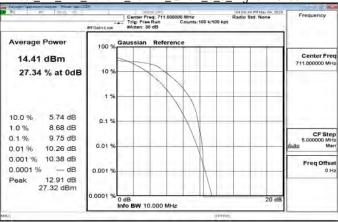
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Cat\_M1\_LTE\_Band12\_10MHz\_QPSK\_6\_0\_MidCH23095-707.5



Cat\_M1\_LTE\_Band12\_10MHz\_QPSK\_6\_0\_HighCH23130-711



## ~ End of Report ~

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