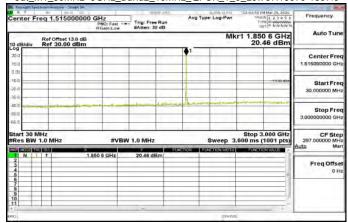
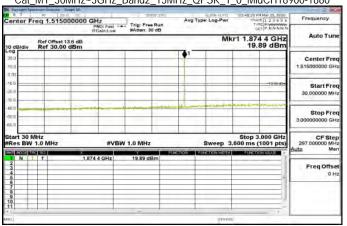


Page 77 of 140

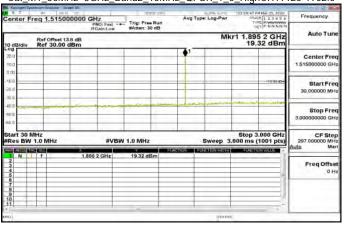
#### Cat\_M1\_30MHz~3GHz\_Band2\_15MHz\_QPSK\_1\_0\_LowCH18675-1857.5



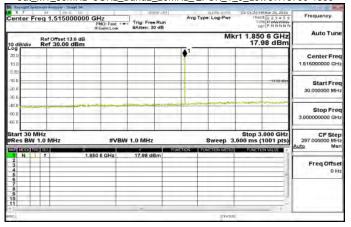
# Cat\_M1\_30MHz~3GHz\_Band2\_15MHz\_QPSK\_1\_0\_MidCH18900-1880



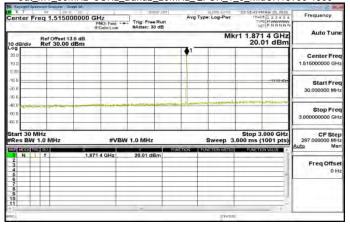
## Cat\_M1\_30MHz~3GHz\_Band2\_15MHz\_QPSK\_1\_0\_HighCH19125-1902.5



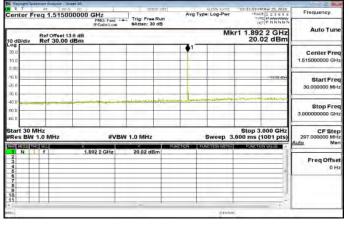
#### Cat\_M1\_30MHz~3GHz\_Band2\_20MHz\_QPSK\_1\_0\_LowCH18700-1860



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

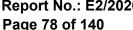


### Cat\_M1\_30MHz~3GHz\_Band2\_20MHz\_QPSK\_1\_0\_HighCH19100-1900



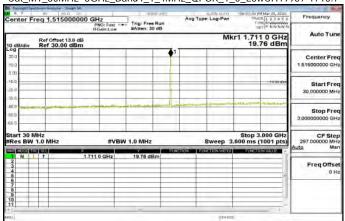
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

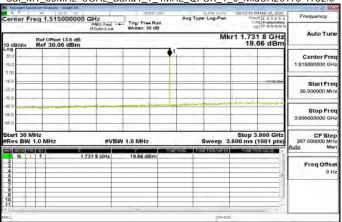




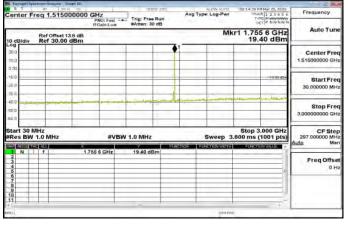
Cat\_M1\_30MHz~3GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_LowCH19957-1710.7



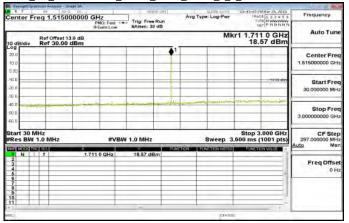




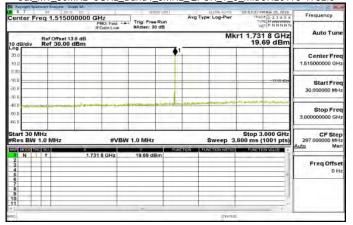
Cat\_M1\_30MHz~3GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_HighCH20393-1754.3



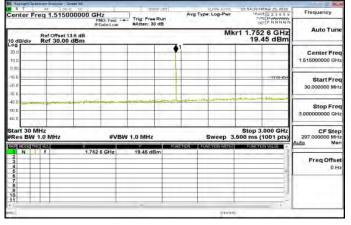
Cat\_M1\_30MHz~3GHz\_Band4\_3MHz\_QPSK\_1\_0\_LowCH19965-1711.5



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

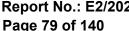


Cat\_M1\_30MHz~3GHz\_Band4\_3MHz\_QPSK\_1\_0\_HighCH20385-1753.5



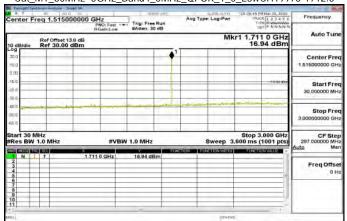
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

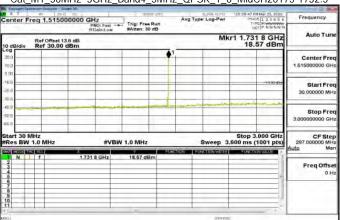




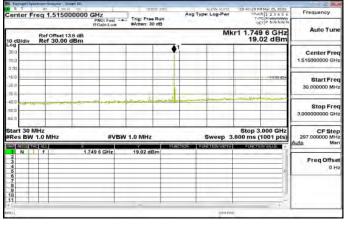
Cat\_M1\_30MHz~3GHz\_Band4\_5MHz\_QPSK\_1\_0\_LowCH19975-1712.5



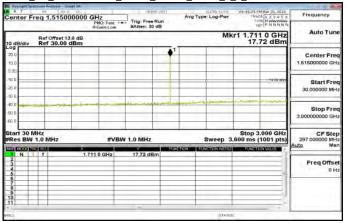
Cat\_M1\_30MHz~3GHz\_Band4\_5MHz\_QPSK\_1\_0\_MidCH20175-1732.5



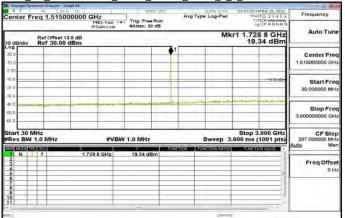
Cat\_M1\_30MHz~3GHz\_Band4\_5MHz\_QPSK\_1\_0\_HighCH20375-1752.5



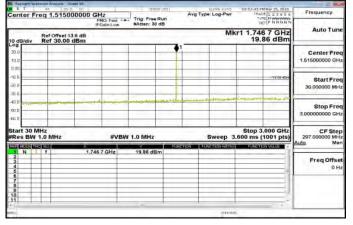
Cat\_M1\_30MHz~3GHz\_Band4\_10MHz\_QPSK\_1\_0\_LowCH20000-1715



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

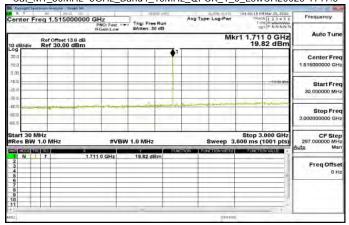
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

台灣檢驗科技股份有限公司

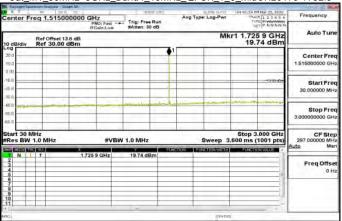


Page 80 of 140

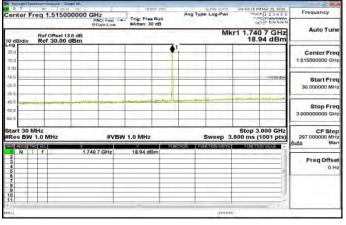
#### Cat\_M1\_30MHz~3GHz\_Band4\_15MHz\_QPSK\_1\_0\_LowCH20025-1717.5



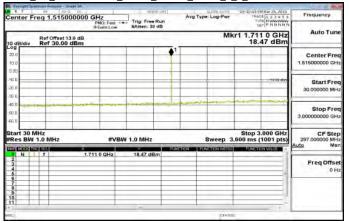
#### Cat\_M1\_30MHz~3GHz\_Band4\_15MHz\_QPSK\_1\_0\_MidCH20175-1732.5



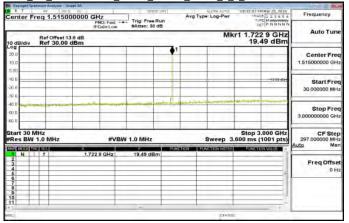
### Cat\_M1\_30MHz~3GHz\_Band4\_15MHz\_QPSK\_1\_0\_HighCH20325-1747.5



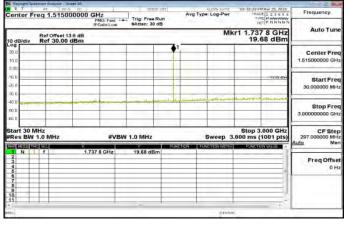
#### Cat\_M1\_30MHz~3GHz\_Band4\_20MHz\_QPSK\_1\_0\_LowCH20050-1720



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

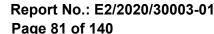


### Cat\_M1\_30MHz~3GHz\_Band4\_20MHz\_QPSK\_1\_0\_HighCH20300-1745



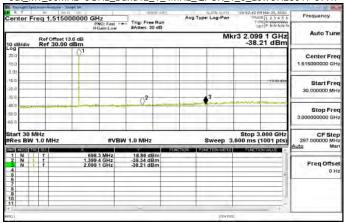
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

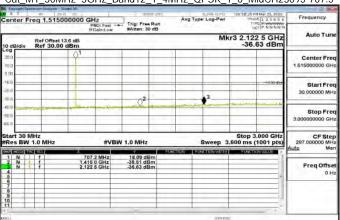




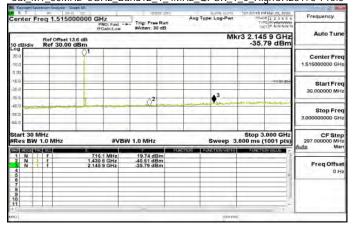
Cat\_M1\_30MHz~3GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_LowCH23017-699.7



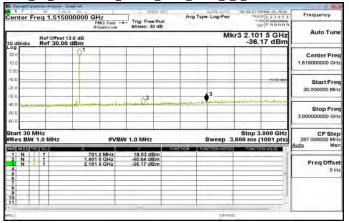
Cat\_M1\_30MHz~3GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_MidCH23095-707.5



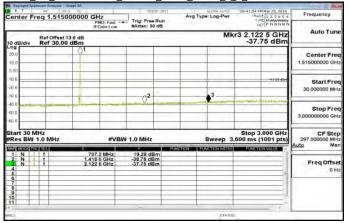
Cat\_M1\_30MHz~3GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_HighCH23173-715.3



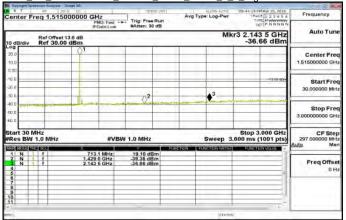
Cat\_M1\_30MHz~3GHz\_Band12\_3MHz\_QPSK\_1\_0\_LowCH23025-700.5



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



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



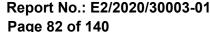
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

台灣檢驗科技股份有限公司

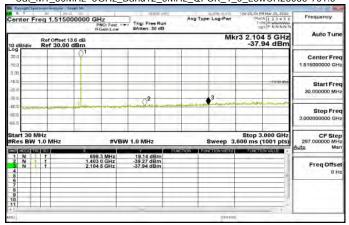
No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號

www.sgs.com.tw

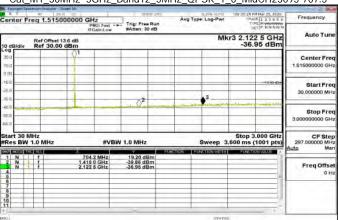




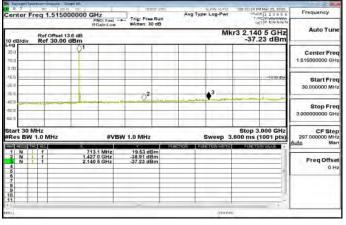
Cat\_M1\_30MHz~3GHz\_Band12\_5MHz\_QPSK\_1\_0\_LowCH23035-701.5



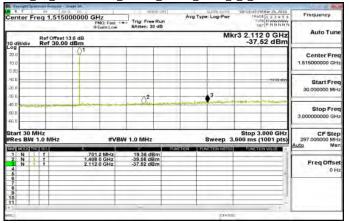
Cat\_M1\_30MHz~3GHz\_Band12\_5MHz\_QPSK\_1\_0\_MidCH23095-707.5



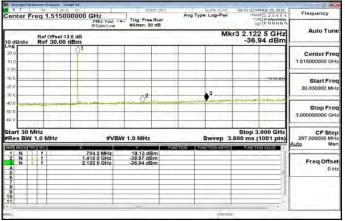
Cat\_M1\_30MHz~3GHz\_Band12\_5MHz\_QPSK\_1\_0\_HighCH23155-713.5



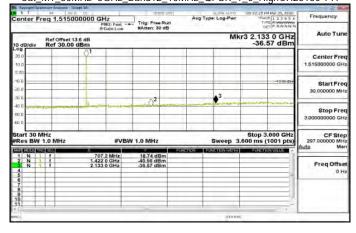
Cat\_M1\_30MHz~3GHz\_Band12\_10MHz\_QPSK\_1\_0\_LowCH23060-704



Cat\_M1\_30MHz~3GHz\_Band12\_10MHz\_QPSK\_1\_0\_MidCH23095-707.5

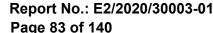


Cat\_M1\_30MHz~3GHz\_Band12\_10MHz\_QPSK\_1\_0\_HighCH23130-711



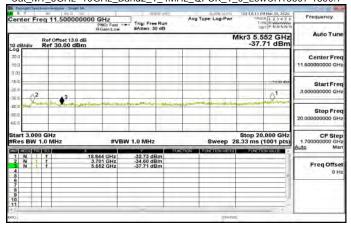
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

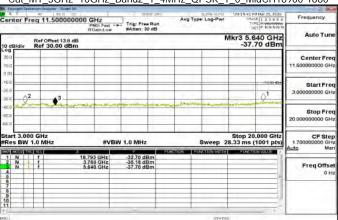




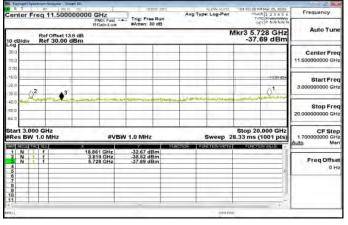
Cat\_M1\_3GHz~10GHz\_Band2\_1\_4MHz\_QPSK\_1\_0\_LowCH18607-1850.7



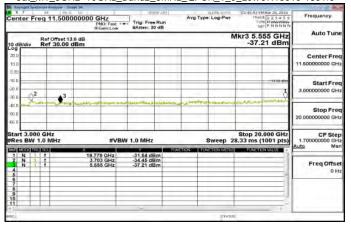
Cat\_M1\_3GHz~10GHz\_Band2\_1\_4MHz\_QPSK\_1\_0\_MidCH18900-1880



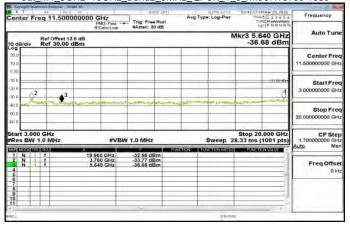
Cat\_M1\_3GHz~10GHz\_Band2\_1\_4MHz\_QPSK\_1\_0\_HighCH19193-1909.3



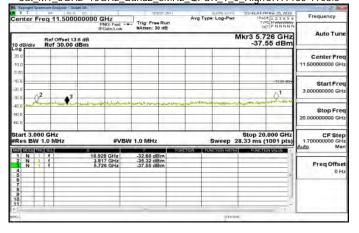
Cat\_M1\_3GHz~10GHz\_Band2\_3MHz\_QPSK\_1\_0\_LowCH18615-1851.5



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



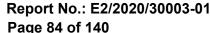
Cat\_M1\_3GHz~10GHz\_Band2\_3MHz\_QPSK\_1\_0\_HighCH19185-1908.5



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

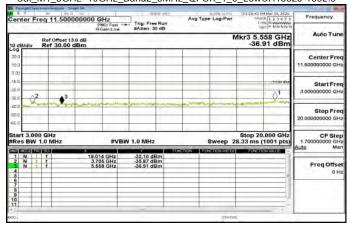
t (886-2) 2299-3279

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.

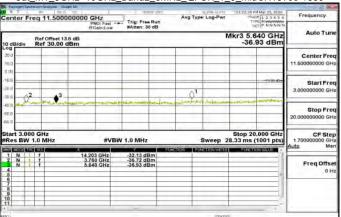




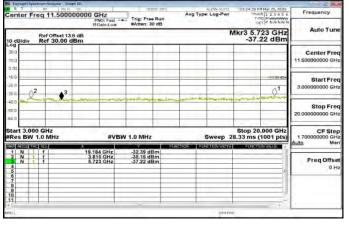
Cat\_M1\_3GHz~10GHz\_Band2\_5MHz\_QPSK\_1\_0\_LowCH18625-1852.5



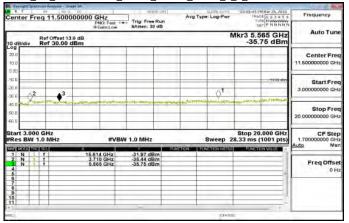
Cat\_M1\_3GHz~10GHz\_Band2\_5MHz\_QPSK\_1\_0\_MidCH18900-1880



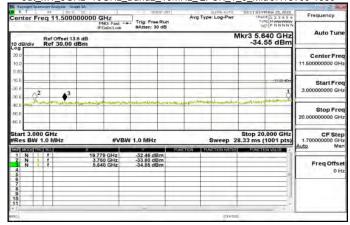
Cat\_M1\_3GHz~10GHz\_Band2\_5MHz\_QPSK\_1\_0\_HighCH19175-1907.5



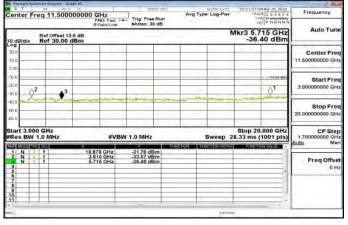
Cat\_M1\_3GHz~10GHz\_Band2\_10MHz\_QPSK\_1\_0\_LowCH18650-1855



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



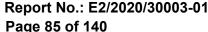
Cat\_M1\_3GHz~10GHz\_Band2\_10MHz\_QPSK\_1\_0\_HighCH19150-1905



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

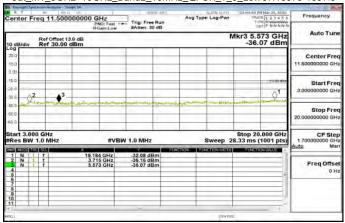
t (886-2) 2299-3279

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.

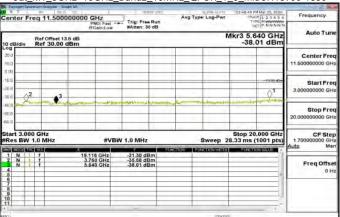




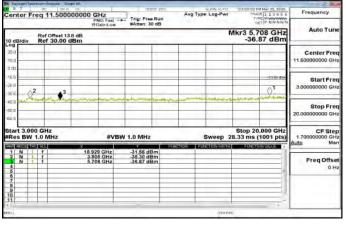
Cat\_M1\_3GHz~10GHz\_Band2\_15MHz\_QPSK\_1\_0\_LowCH18675-1857.5



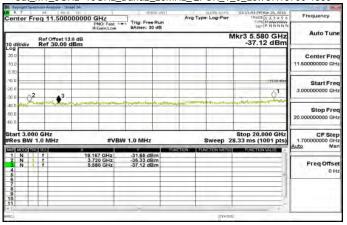
Cat\_M1\_3GHz~10GHz\_Band2\_15MHz\_QPSK\_1\_0\_MidCH18900-1880



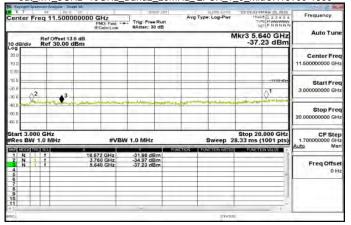
Cat\_M1\_3GHz~10GHz\_Band2\_15MHz\_QPSK\_1\_0\_HighCH19125-1902.5



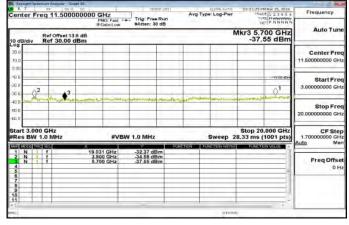
Cat\_M1\_3GHz~10GHz\_Band2\_20MHz\_QPSK\_1\_0\_LowCH18700-1860



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

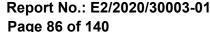


Cat\_M1\_3GHz~10GHz\_Band2\_20MHz\_QPSK\_1\_0\_HighCH19100-1900



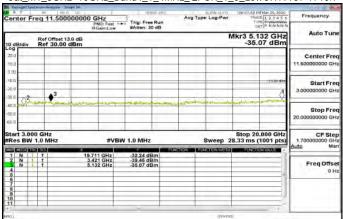
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

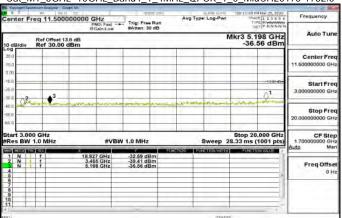




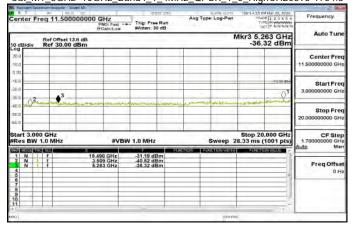
Cat\_M1\_3GHz~10GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_LowCH19957-1710.7



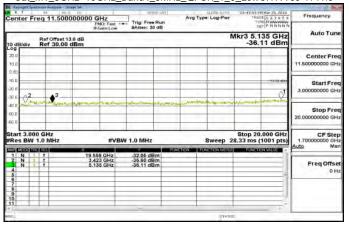
Cat\_M1\_3GHz~10GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_MidCH20175-1732.5



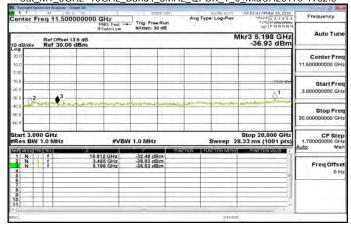
Cat\_M1\_3GHz~10GHz\_Band4\_1\_4MHz\_QPSK\_1\_0\_HighCH20393-1754.3



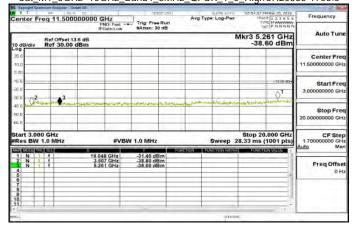
Cat\_M1\_3GHz~10GHz\_Band4\_3MHz\_QPSK\_1\_0\_LowCH19965-1711.5



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

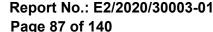


Cat\_M1\_3GHz~10GHz\_Band4\_3MHz\_QPSK\_1\_0\_HighCH20385-1753.5



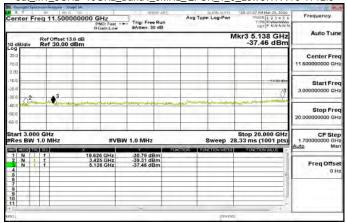
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

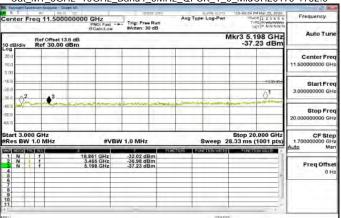




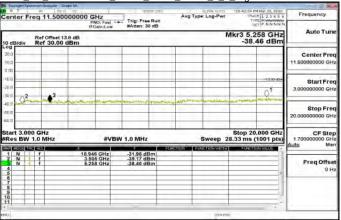
Cat\_M1\_3GHz~10GHz\_Band4\_5MHz\_QPSK\_1\_0\_LowCH19975-1712.5



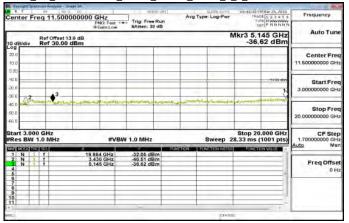
Cat\_M1\_3GHz~10GHz\_Band4\_5MHz\_QPSK\_1\_0\_MidCH20175-1732.5



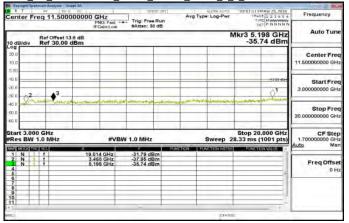
Cat\_M1\_3GHz~10GHz\_Band4\_5MHz\_QPSK\_1\_0\_HighCH20375-1752.5



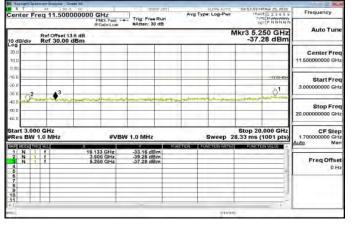
Cat\_M1\_3GHz~10GHz\_Band4\_10MHz\_QPSK\_1\_0\_LowCH20000-1715



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



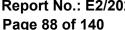
Cat\_M1\_3GHz~10GHz\_Band4\_10MHz\_QPSK\_1\_0\_HighCH20350-1750



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

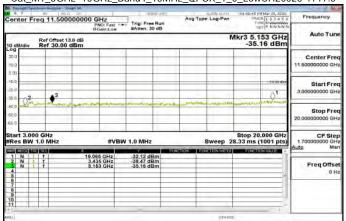
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

台灣檢驗科技股份有限公司

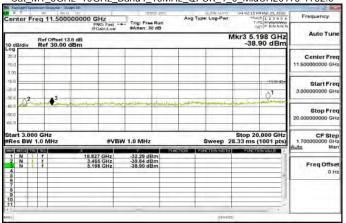




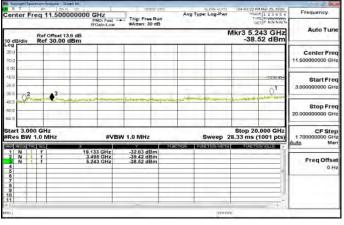
Cat\_M1\_3GHz~10GHz\_Band4\_15MHz\_QPSK\_1\_0\_LowCH20025-1717.5



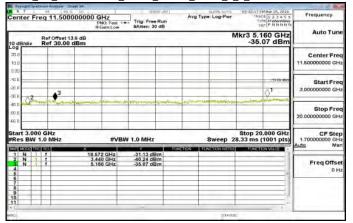
Cat\_M1\_3GHz~10GHz\_Band4\_15MHz\_QPSK\_1\_0\_MidCH20175-1732.5



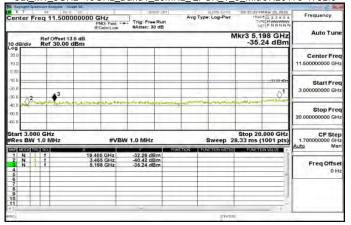
Cat\_M1\_3GHz~10GHz\_Band4\_15MHz\_QPSK\_1\_0\_HighCH20325-1747.5



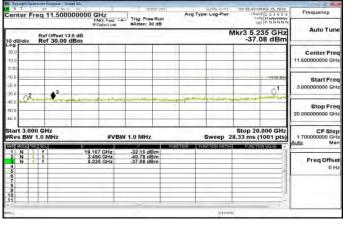
Cat\_M1\_3GHz~10GHz\_Band4\_20MHz\_QPSK\_1\_0\_LowCH20050-1720



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



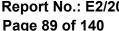
Cat\_M1\_3GHz~10GHz\_Band4\_20MHz\_QPSK\_1\_0\_HighCH20300-1745



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

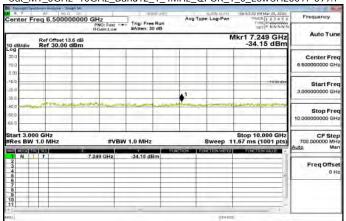
t (886-2) 2299-3279

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.

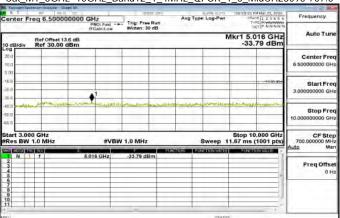




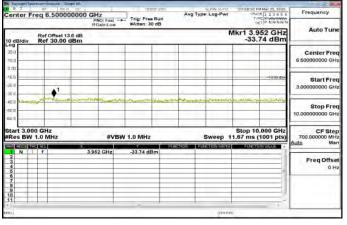
Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_LowCH23017-699.7



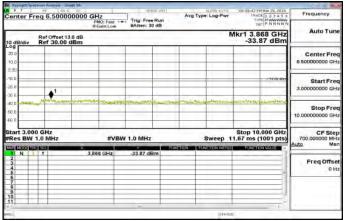
Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_MidCH23095-707.5



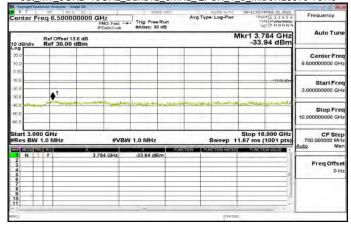
Cat\_M1\_3GHz~10GHz\_Band12\_1\_4MHz\_QPSK\_1\_0\_HighCH23173-715.3



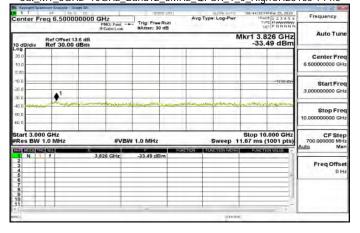
Cat\_M1\_3GHz~10GHz\_Band12\_3MHz\_QPSK\_1\_0\_LowCH23025-700.5



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

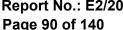


Cat\_M1\_3GHz~10GHz\_Band12\_3MHz\_QPSK\_1\_0\_HighCH23165-714.5



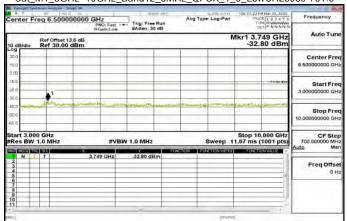
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

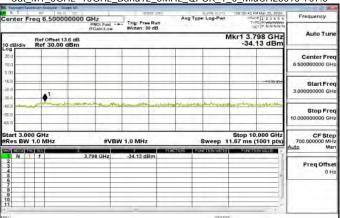




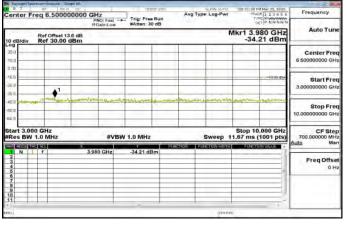
Cat\_M1\_3GHz~10GHz\_Band12\_5MHz\_QPSK\_1\_0\_LowCH23035-701.5



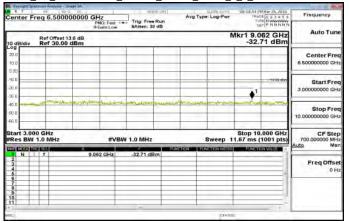
Cat\_M1\_3GHz~10GHz\_Band12\_5MHz\_QPSK\_1\_0\_MidCH23095-707.5



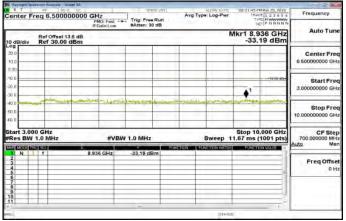
Cat\_M1\_3GHz~10GHz\_Band12\_5MHz\_QPSK\_1\_0\_HighCH23155-713.5



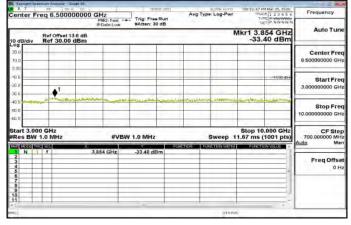
Cat\_M1\_3GHz~10GHz\_Band12\_10MHz\_QPSK\_1\_0\_LowCH23060-704



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



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

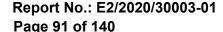


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

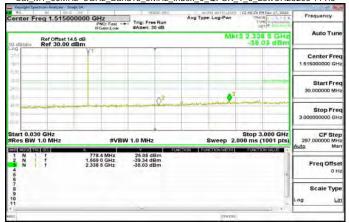
No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

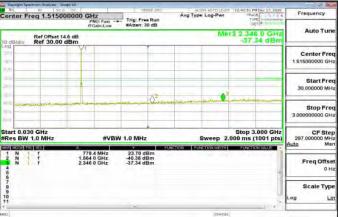




Cat\_M1\_30MHz~3GHz\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_LowCH23205-779.5



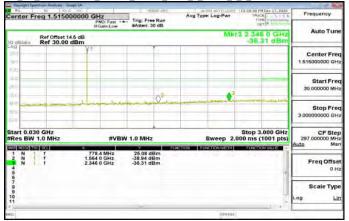




Cat\_M1\_30MHz~3GHz\_Band13\_5MHz\_index\_3\_QPSK\_1\_0\_HighCH23255-784.5



Cat\_M1\_30MHz~3GHz\_Band13\_10MHz\_index\_0\_QPSK\_1\_0\_MidCH23230-782



Cat\_M1\_3GHz~10GHz\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_LowCH23205-779.5

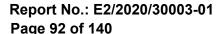


Cat\_M1\_3GHz~10GHz\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_MidCH23230-782



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

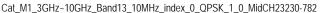
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

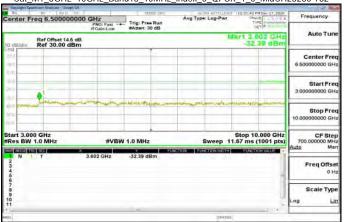




Cat\_M1\_3GHz~10GHz\_Band13\_5MHz\_index\_3\_QPSK\_1\_0\_HighCH23255-784.5



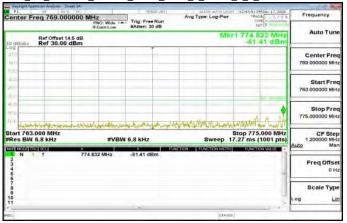




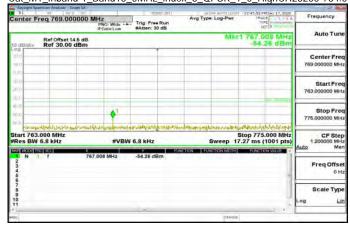
Cat\_M1\_Inband-1\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_LowCH23205-779.5



#### Cat\_M1\_Inband-1\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_MidCH23230-782



Cat\_M1\_Inband-1\_Band13\_5MHz\_index\_3\_QPSK\_1\_0\_HighCH23255-784.5

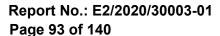


Cat\_M1\_Inband-1\_Band13\_10MHz\_index\_0\_QPSK\_1\_0\_MidCH23230-782



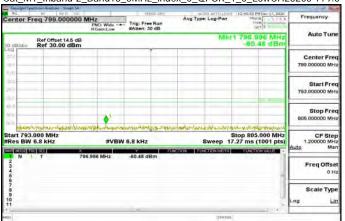
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

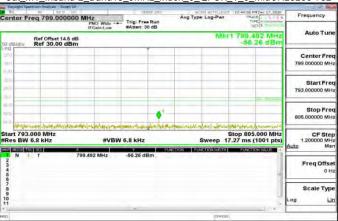


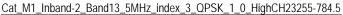


Cat\_M1\_Inband-2\_Band13\_5MHz\_index\_0\_QPSK\_1\_0\_LowCH23205-779.5



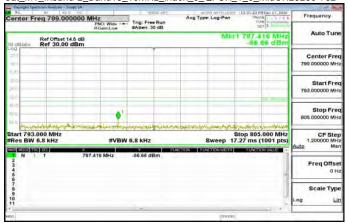








Cat\_M1\_Inband-2\_Band13\_10MHz\_index\_0\_QPSK\_1\_0\_MidCH23230-782



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.



Page 94 of 140

# 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(c) for B13

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB (-13dBm)
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

## FCC §27.53 (f) for B13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

## FCC §27.53(c) (5) & FCC §27.53(g) for B12, 13

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Page 95 of 140

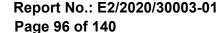
# Table 2 — Unwanted Emissions for Mobile, Portable and Low-Power Fixed Subscriber Equipment

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

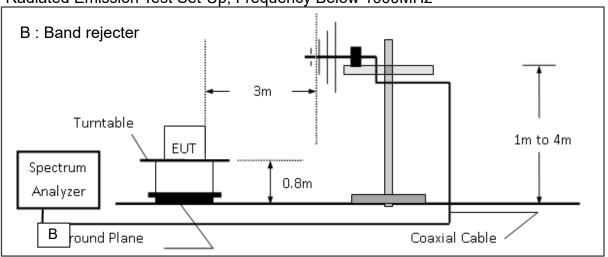
SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



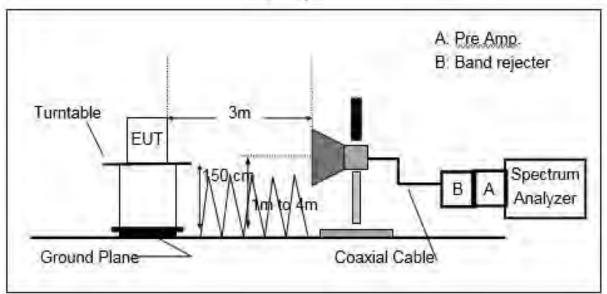


9.2 **EUT Setup** 

Radiated Emission Test Set-Up, Frequency Below 1000MHz



Radiated Emission Test Set-UP Frequency Over 1 GHz



t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 97 of 140

#### 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)

#### 9.4 Measurement Equipment Used:

ERP, EIRP MEASUREMENT EQUIPMENT List 966 Chamber							
EQUIPMENT TYPE	MFR	MODEL NUMBER		LAST CAL.	CAL DUE.		
Broadband Antenna	TESEQ	CBL 6112D	35240	09/09/2019	09/08/2020		
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- cation Analyzer	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021		
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		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

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



Page 98 of 140

### Add Cat M1 Band 13

ERF	ERP, EIRP MEASUREMENT EQUIPMENT List 966 Chamber								
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.				
TYPE		NUMBER	NUMBER	CAL.					
Bi-log Antenna	SCHWAZBECK	VULB9168	378	08/06/2020	08/05/2021				
Horn Antenna	Schwarzbeck	BBHA9120D	1441	10/16/2020	10/15/2021				
Horn Antenna	Schwarzbeck	BBHA9170	184	12/11/2020	12/10/2021				
Horn Antenna	Schwarzbeck	BBHA9170	185	07/30/2020	07/29/2021				
Horn Antenna	Schwarzbeck	BBHA9120D	D803	12/20/2019	12/19/2020				
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	01/13/2020	01/12/2021				
3m Site NSA	SGS	966 chamber	N/A	01/02/2020	01/01/2021				
PXA Spectrum Analyzer	Agilent	N9030A	MY53120760	04/21/2020	04/20/2021				
Signal Generator	Agilent	N5183A	MY50140591	12/20/2019	12/19/2020				
Pre-Amplifier	HP	8449B	3008A00578	01/02/2020	01/01/2021				
Pre-Amplifier	HP	8447D	2944A07676	01/02/2020	01/01/2021				
Pre-Amplifier	EMC Instru- ments	EMC184045B	980135	01/02/2020	01/01/2021				
Filter 635-920	Micro-Tronics	WI	4	01/02/2020	01/01/2021				
1GHz High Pass Filter	Micro-Tronics	HPM50108	32	01/02/2020	01/01/2021				
Low Loss Cable	Huber Suhner	966_RX	9	01/02/2020	01/01/2021				
Low Loss Cable	Huber Suhner	966 TX	1	01/02/2020	01/01/2021				
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	04/01/2020	03/31/2021				
Test Software	audix	e3	Ver. 6.11-20180413	N.C.R	N.C.R				

NOTE: N.C.R refers to Not Calibrated Required.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 99 of 140

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

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

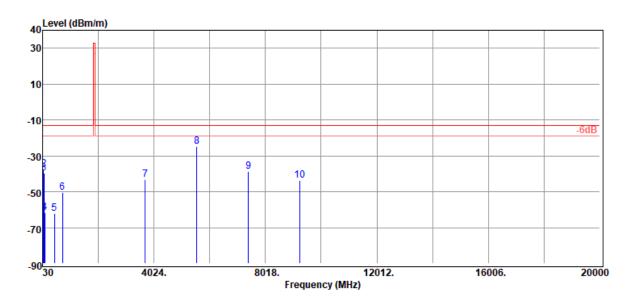
Report Number **Test Date** :E2/2020/30003 :2020-03-20

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.sgs.com.tw



Page 100 of 140

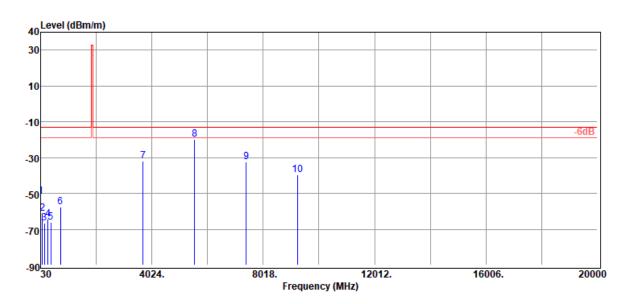
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 101 of 140

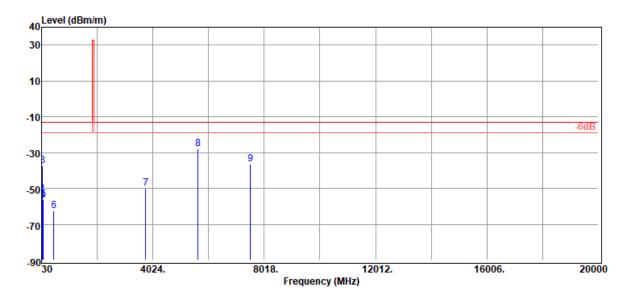
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司

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



Page 102 of 140

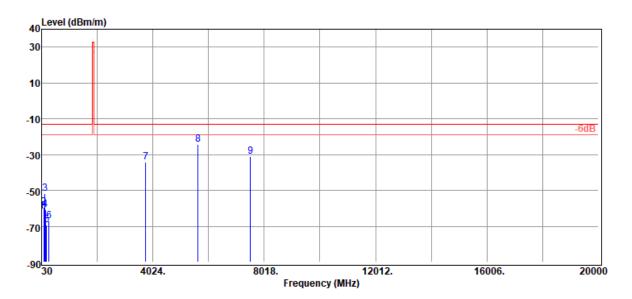
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 103 of 140

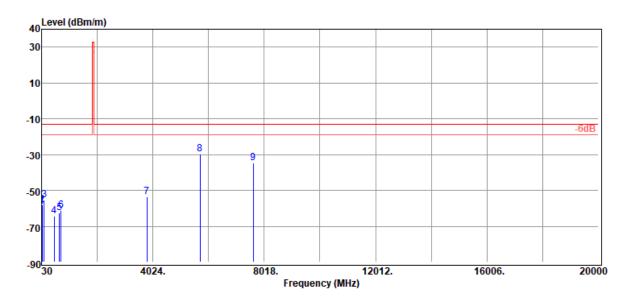
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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 Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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



Page 104 of 140

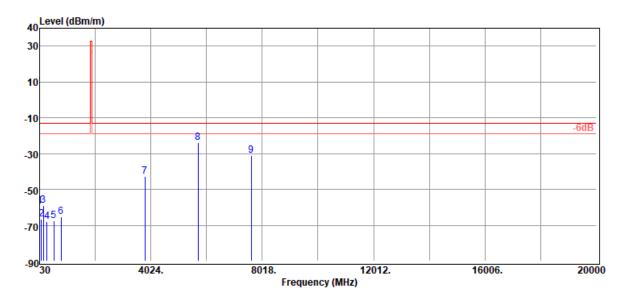
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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 Output Level	Antenna Gain	Cable Loss	Limit	Margin
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 105 of 140

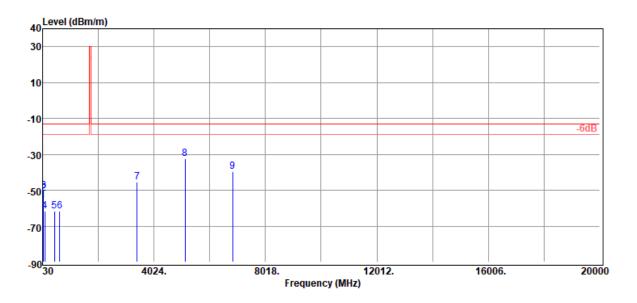
Report Number :E2/2020/30003 **Test Date** :2020-03-20

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

Test Mode :TX CH LOW Antenna Pol. :VERTICAL

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

:1712.5 MHz **Test Frequency** 



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
•		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
53.28	-55.69	-37.87	-16.91	-0.91	-13.00	-42.69
60.07	-51.76	-35.50	-15.26	-1.00	-13.00	-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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司



**Test Frequency** 

Report No.: E2/2020/30003-01

Page 106 of 140

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

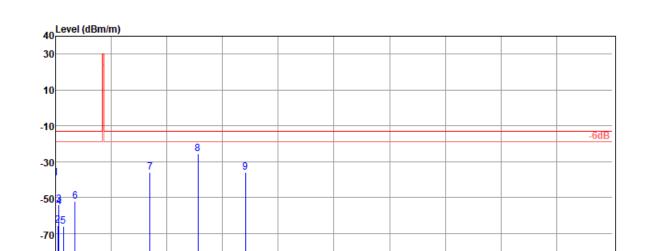
**Operation Mode** :Cat M1 B4 Temp./Humi. :22.4/62

:HORIZONTAL Test Mode :TX CH LOW Antenna Pol.

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

:1712.5 MHz

4024.



Frequency (MHz)

8018.

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

12012.

16006.

20000

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 107 of 140

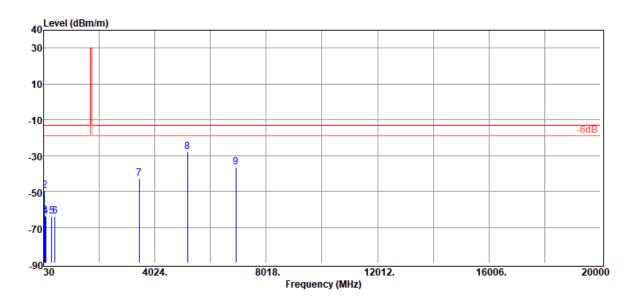
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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 Output Level	Antenna Gain	Cable Loss	Limit	Margin
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司



Page 108 of 140

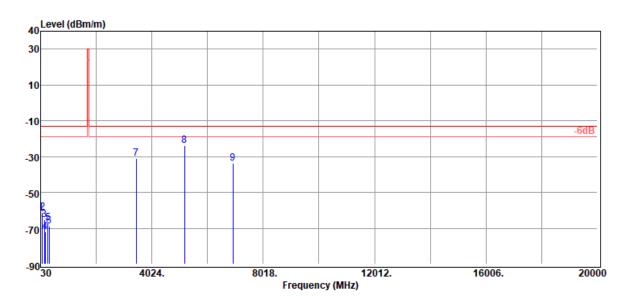
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 109 of 140

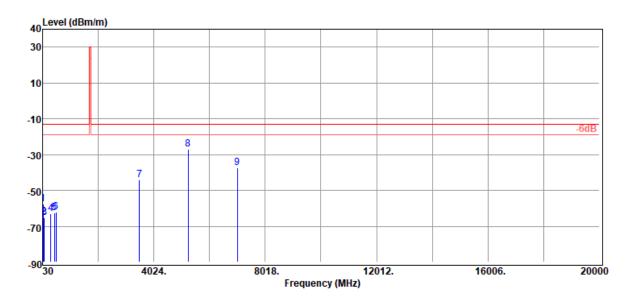
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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	-1.00	-13.00	-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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 110 of 140

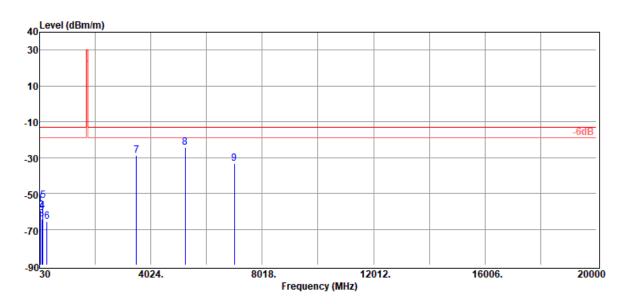
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司

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



Page 111 of 140

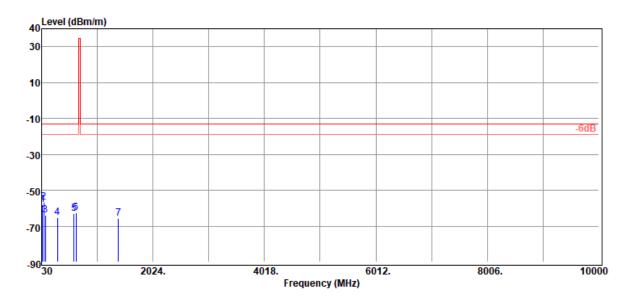
Report Number :E2/2020/30003 **Test Date** :2020-03-20

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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.

台灣檢驗科技股份有限公司



Page 112 of 140

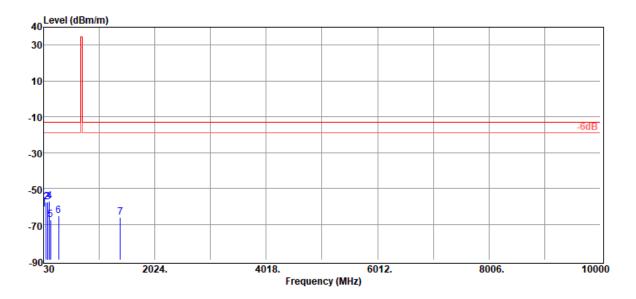
Report Number **Test Date** :2020-03-20 :E2/2020/30003

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

:HORIZONTAL Test Mode :TX CH LOW Antenna Pol.

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

**Test Frequency** :701.5 MHz



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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司



Page 113 of 140

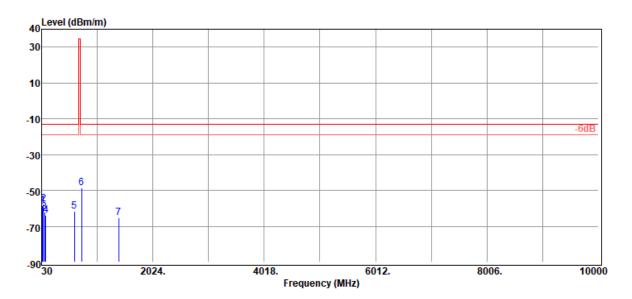
Report Number **Test Date** :2020-03-20 :E2/2020/30003

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

:VERTICAL Test Mode :TX CH MID Antenna Pol.

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

**Test Frequency** :707.5 MHz



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司



Page 114 of 140

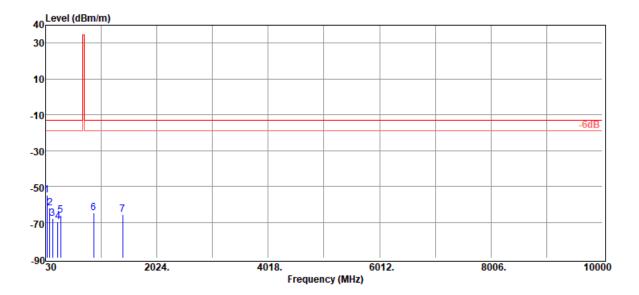
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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 Output Level	Antenna Gain	Cable Loss	Limit	Margin
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司



Page 115 of 140

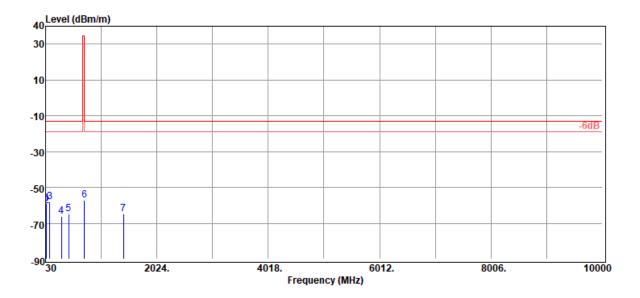
Report Number **Test Date** :2020-03-20 :E2/2020/30003

**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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 116 of 140

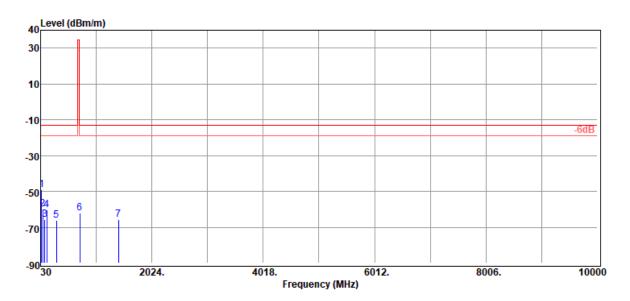
Report Number **Test Date** :2020-03-20 :E2/2020/30003

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

:HORIZONTAL Test Mode :TX CH HIGH Antenna Pol.

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

**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
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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

台灣檢驗科技股份有限公司

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 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page 117 of 140

Report Number :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13

Test Mode :Tx CH Mid

**EUT Pol** :H Plane

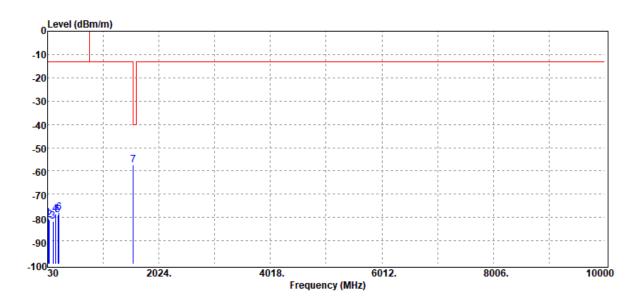
**Test Frequency** :782 MHz **Test Site** :SAC III Chamber

**Test Date** :2020-12-16

Temp./Humi. :22.6/59

Antenna Pol. :VERTICAL

Engineer :Nick



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
39.70	-80.35	-60.10	-19.64	-0.61	-13.00	-67.35
65.89	-80.97	-72.83	-7.35	-0.79	-13.00	-67.97
125.06	-81.55	-73.24	-7.29	-1.02	-13.00	-68.55
170.65	-78.41	-74.56	-2.58	-1.27	-13.00	-65.41
214.30	-78.75	-76.35	-1.03	-1.37	-13.00	-65.75
233.70	-77.82	-74.82	-1.55	-1.45	-13.00	-64.82
1564.00	-57.57	-63.13	9.31	-3.75	-40.00	-17.57

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 118 of 140

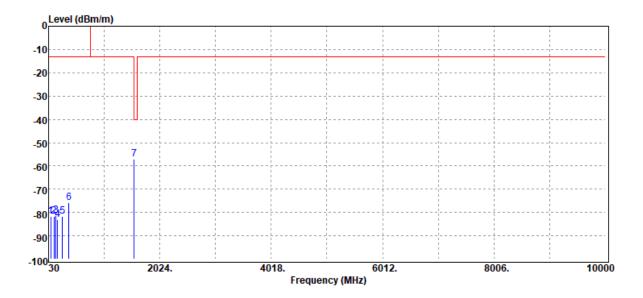
Report Number **Test Site** :SAC III Chamber :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13 **Test Date** :2020-12-16

Test Mode :Tx CH Mid Temp./Humi. :22.6/59

**EUT Pol** :H Plane Antenna Pol. :HORIZONTAL

**Test Frequency** :782 MHz Engineer :Nick



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
70.74	-81.73	-73.98	-6.93	-0.82	-13.00	-68.73
125.06	-81.50	-73.19	-7.29	-1.02	-13.00	-68.50
162.89	-81.38	-76.67	-3.49	-1.22	-13.00	-68.38
190.05	-82.99	-80.27	-1.45	-1.27	-13.00	-69.99
280.26	-81.77	-78.64	-1.58	-1.55	-13.00	-68.77
393.75	-75.88	-72.61	-1.45	-1.82	-13.00	-62.88
1564.00	-57.04	-62.60	9.31	-3.75	-40.00	-17.04

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 119 of 140

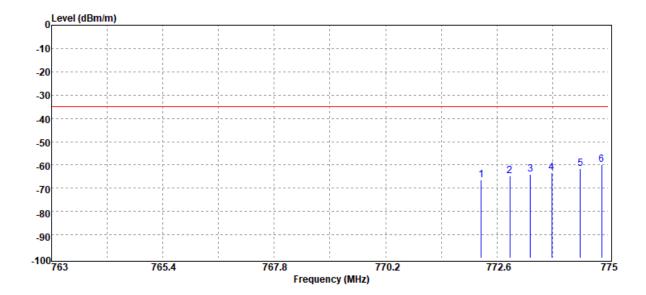
Report Number **Test Site** :SAC III Chamber :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13 **Test Date** :2020-12-16

Test Mode :Tx CH Mid Temp./Humi. :22.6/59

**EUT Pol** :H Plane Antenna Pol. :VERTICAL

**Test Frequency** :782 MHz Engineer :Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
772.26	-66.26	-64.01	-0.06	-2.19	-35.00	-31.26
772.88	-64.69	-62.42	-0.08	-2.19	-35.00	-29.69
773.32	-64.00	-61.71	-0.09	-2.20	-35.00	-29.00
773.78	-63.47	-61.16	-0.11	-2.20	-35.00	-28.47
774.40	-61.71	-59.38	-0.12	-2.21	-35.00	-26.71
774.86	-59.86	-57.50	-0.14	-2.22	-35.00	-24.86

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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

t (886-2) 2299-3279 f (886-2) 2298-0488



Page 120 of 140

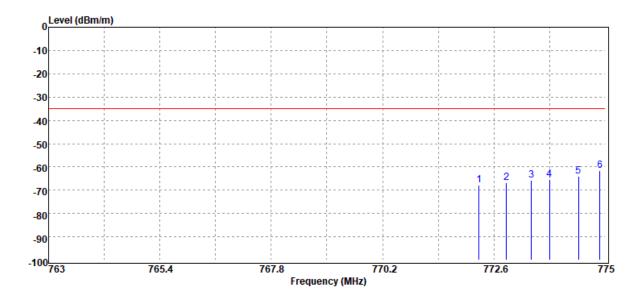
Report Number **Test Site** :SAC III Chamber :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13 **Test Date** :2020-12-16

Test Mode :Tx CH Mid Temp./Humi. :22.6/59

**EUT Pol** :H Plane Antenna Pol. :HORIZONTAL

**Test Frequency** :782 MHz Engineer :Nick



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
772.28	-67.92	-65.67	-0.06	-2.19	-35.00	-32.92
772.86	-66.65	-64.38	-0.08	-2.19	-35.00	-31.65
773.40	-65.90	-63.61	-0.09	-2.20	-35.00	-30.90
773.80	-65.23	-62.92	-0.11	-2.20	-35.00	-30.23
774.42	-63.87	-61.54	-0.12	-2.21	-35.00	-28.87

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 121 of 140

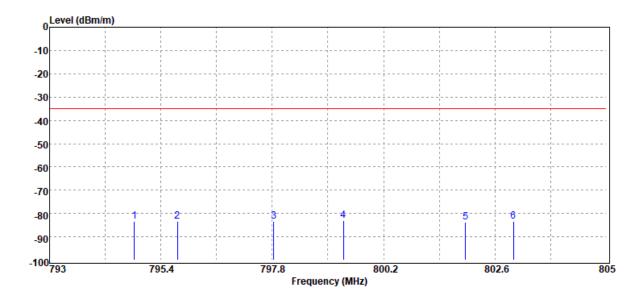
Report Number **Test Site** :SAC III Chamber :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13 **Test Date** :2020-12-16

Test Mode :Tx CH Mid Temp./Humi. :22.6/59

**EUT Pol** :H Plane Antenna Pol. :VERTICAL

**Test Frequency** :782 MHz Engineer :Nick



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
794.82	-83.41	-80.84	0.18	-2.75	-35.00	-48.41
795.76	-83.29	-80.69	0.17	-2.77	-35.00	-48.29
797.84	-83.34	-80.70	0.15	-2.79	-35.00	-48.34
799.34	-83.05	-80.38	0.14	-2.81	-35.00	-48.05
801.96	-83.71	-81.01	0.12	-2.82	-35.00	-48.71
803.00	-83.50	-80.80	0.11	-2.81	-35.00	-48.50

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 122 of 140

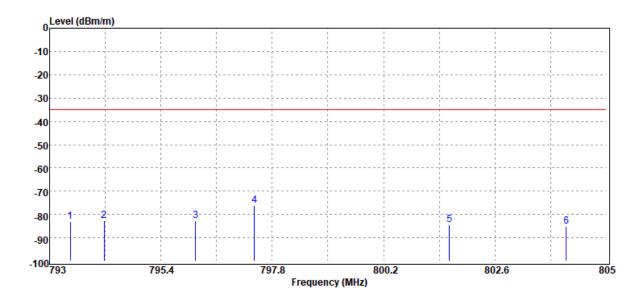
Report Number **Test Site** :SAC III Chamber :E2-2020-30003-01

**Operation Mode** :Cat-M1 B13 **Test Date** :2020-12-16

Test Mode :Tx CH Mid Temp./Humi. :22.6/59

**EUT Pol** :H Plane Antenna Pol. :HORIZONTAL

**Test Frequency** :782 MHz Engineer :Nick



Freq.	EIRP/ERP	SG Output Lovel	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
IVII IZ	dbiii	иып	dDi/dDd	uБ	dDill	ub_
793.44	-83.11	-80.57	0.19	-2.73	-35.00	-48.11
794.18	-82.74	-80.19	0.19	-2.74	-35.00	-47.74
796.14	-82.58	-79.98	0.17	-2.77	-35.00	-47.58
797.42	-76.18	-73.55	0.16	-2.79	-35.00	-41.18
801.62	-84.43	-81.73	0.12	-2.82	-35.00	-49.43
804.14	-84.96	-82.25	0.10	-2.81	-35.00	-49.96

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 123 of 140

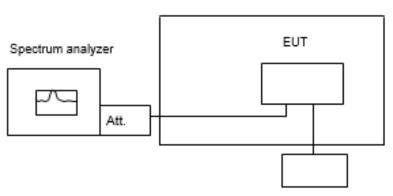
#### 10 FREQUENCY STABILITY MEASUREMENT

# 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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 stated on so days only. We are stated on such as a relation of some and stated on such as a prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

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



Page 124 of 140

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

Cor	Conducted Emission (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			

## Add Cat M1 Band 13

Con	ducted Emissi	on (measured at	antenna port)	Test Site	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY54200716	04/01/2020	03/31/2021
Radio Communication Analyzer	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021
DC Power Supply	Agilent	E3640A	MY40000811	12/23/2019	12/22/2020
Temperature Chamber	TERCHY	MHG-120LF	911009	05/20/2020	05/19/2021
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2020	01/01/2021
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2020	01/01/2021
Splitter	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-0 17	01/02/2020	01/01/2021

## 10.5 Measurement Result

Note: The battery is rated 3.7V dc.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

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



Page 125 of 140

#### 10.5.1 Cat M1

Reference Freq.:		B2 Mid nannel	1880	MHz 20M QPSK CH 1890	
Power Supply Vdc	Temp. (°C)		Delta (Hz)	Limit = +/- 2.5 ppm (Hz)	
rower Supply vuc		. ERROR vs. VO	, ,	LIIIII = +/- 2.3 ppiii (HZ)	
4.255	25	1879.999997	-3	4700	
3.7	25	1880.000006	6	4700	
3.6	25	1879.999995	-5	4700	
3.5					
(End Point)	25	1879.999998	-2	4700	
,	Fr	eq. ERROR vs. T	emp.		
3.7	-30	1880.000001	1	4700	
3.7	-20	1880.000000	0	4700	
3.7	-10	1880.000001	1	4700	
3.7	0	1880.000006	6	4700	
3.7	10	1880.000009	9	4700	
3.7	20	1880.000004	4	4700	
3.7	30	1880.000006	6	4700	
3.7	40	1879.999997	-3	4700	
3.7	50	1880.000004	4	4700	
Reference Freq.:	M <sup>2</sup>	1 B4 Mid	1732.5	MHz 20M QPSK CH 201	
Reference Freq		hannel	1732.3		
Power Supply Vdc	Temp. (°℃)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)	
		. 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	25	1732.500003	3	4331	
(End Point)		FDDOD - T			
0.7		eq. ERROR vs. T		4004	
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	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2020/30003-01 Page 126 of 140

Reference Freq	.:			B12 Mid nannel		707.5	MHz 10M QPSK CH 23095
Power Supply V	dc	Temp.	$(^{\circ}\mathbb{C})$	Freq. (MI	Hz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
			Fred	ı. ERROR v	s. VC	LTAGE	
4.255		25		707.5000	002	2	1769
3.7		25		707.5000	01	1	1769
3.6		25		707.4999	99	-1	1769
3.5 (End Point)		25	707.499995		95	-5	1769
			Fr	eq. ERROR	vs.	Гетр.	
3.7		-30		707.5000	000	0	1769
3.7		-20		707.4999	98	-2	1769
3.7		-10		707.4999	99	-1	1769
3.7		0		707.4999	95	-5	1769
3.7		10		707.5000	002	2	1769
3.7		20		707.5000	000	0	1769
3.7		30	707.5000		006	6	1769
3.7	3.7		707.5000		002	2	1769
3.7		50		707.4999	199	-1	1769
Reference Freq.:			13 Mid annel		782	MHz 10M QPSK CH 23230	
Power Supply Vdc	Temp	o. (°C)	Fre	Freq. (MHz) Del		elta (Hz)	Limit = +/- 2.5 ppm (Hz)
			Fred	ı. ERROR v	s. VC	LTAGE	
4.255	2	25	78	2.000006	5.99	9999985	1955
3.7	2	25	78	2.000012	11.9	9999997	1955
3.6	2	25	78	1.999997	-2.9	9999999	1955
3.5 (End Point)	2	25	78	2.000007	6.99	9999982	1955
			Fr	eq. ERROR	VS.	Гетр.	
3.7	-(	30	78	2.000007	6.99	9999982	1955
3.7	-2	20	78	1.999990	-9.9	9999997	1955
3.7		10	78	2.000013	12.9	9999997	1955
3.7	3.7 0		78	1.999992	-7.9	9999998	1955
3.7	1	0	78	2.000006	5.99	9999985	1955
3.7	2	20	78	2.000009	8.99	9999977	1955
3.7	3	30	78	2.000005	4.99	9999987	1955
3.7	4	10	78	1.999996	-3.9	9999999	1955
3.7	5	50	78	1.999988		-12	1955

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



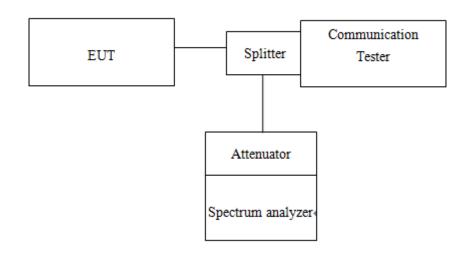
Page 127 of 140

#### 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

t (886-2) 2299-3279

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 stated on so days only. We are stated on such as a relation of some and stated on such as a prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Page 128 of 140

# **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

## Add Cat M1 Band 13

Con	ducted Emissi	on (measured at	antenna port)	Test Site	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY54200716	04/01/2020	03/31/2021
Radio Communication Analyzer	Anritsu	MT8821C	6261786084	01/18/2020	01/17/2021
DC Power Supply	Agilent	E3640A	MY40000811	12/23/2019	12/22/2020
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2020	01/01/2021
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2020	01/01/2021
Splitter	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-0 17	01/02/2020	01/01/2021

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd.

台灣檢驗科技股份有限公司

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



Page 129 of 140

## 11.5 Measurement Result

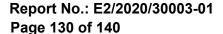
#### 11.5.1 Cat M1

	M1 BAND 2										
Channel bandwidth: 1.4MHz Channel bandwidth: 3MH							lHz				
Freq.	СН	PAPR	PAPR (dB)		СН	PAPR (dB)					
(MHz)	Сп	QPSK	Limit	(MHz)	СН	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										
Char	nnel band	lwidth: 5N	lHz	Chan	Channel bandwidth: 10MHz						
Freq.	СН	PAPR (dB)		Freq.	СН	PAPR (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	/lHz	Chan	nel band	width: 20N	ЛHz				
Freq.	СН	PAPR	PAPR (dB)		СН	PAPR	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				

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





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

	M1 BAND 4										
Chan	nel band	dwidth: 5N	ЛHz	Chan	nel band	width: 10	MHz				
Freq.	СН	PAPR	PAPR (dB)		СН	PAPR	(dB)				
(MHz)	лнz) 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	MHz	Chan	Channel bandwidth: 20MHz							
Freq.	СН	PAPR	PAPR (dB)		СН	PAPR	(dB)					
(MHz)	лнz) Сп	QPSK	Limit	(MHz)	СП	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 bandı	width: 1.4N	MHz	Channel bandwidth: 3MHz							
Freq.	CH PAPR (dB) Freq		Freq.	CII	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	1Hz	Chan	nel band	width: 10N	ЛHz				
Freq.	СН	PAPR	PAPR (dB)		СН	PAPR (dB)					
(MHz)	Сп	QPSK	Limit	(MHz)	CII	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				

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 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

f (886-2) 2298-0488



Page 131 of 140

	M1 BAND 13										
Chan	nel ban	dwidth: 5N	ИHz	Chan	Channel bandwidth: 10MHz						
Freq.	СН	PAPR	(dB) Freq.		СН	PAPR (dB)					
(MHz)	CII	16QAM	Limit	(MHz)	СП	16QAM	Limit				
779.5	23205	10.44	13								
782.0	23230	10.86	13	782.0	23230	11.59	13				
784.5	23255	9.74	13								

Please refer to next page for test plots.

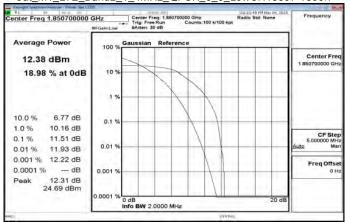
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com.tw/Terms-and-Conditions">http://www.sgs.com.tw/Terms-and-Conditions</a> Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

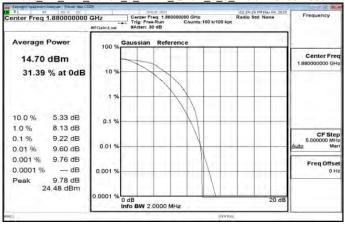


Page 132 of 140

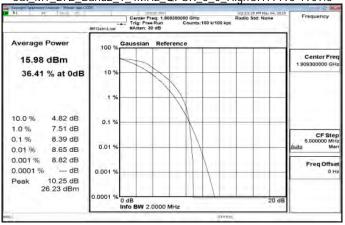
### Cat M1 LTE Band2 1 4MHz QPSK 6 0 LowCH18607-1850.7



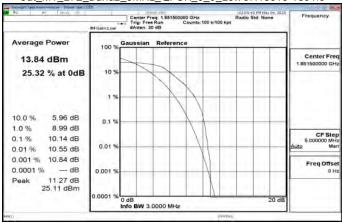
## Cat\_M1\_LTE\_Band2\_1\_4MHz\_QPSK\_6\_0\_MidCH18900-1880



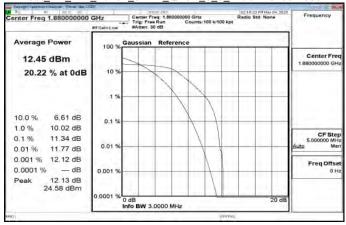
## Cat\_M1\_LTE\_Band2\_1\_4MHz\_QPSK\_6\_0\_HighCH19193-1909.3



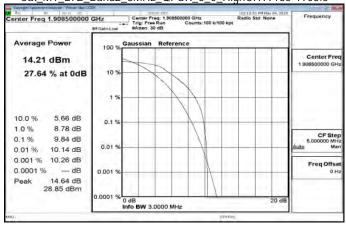
## Cat\_M1\_LTE\_Band2\_3MHz\_QPSK\_6\_0\_LowCH18615-1851.5



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

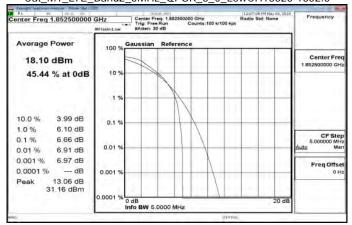
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

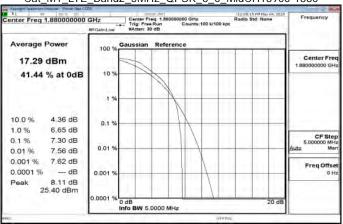


Page 133 of 140

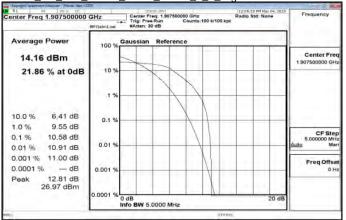
## Cat M1 LTE Band2 5MHz QPSK 6 0 LowCH18625-1852.5



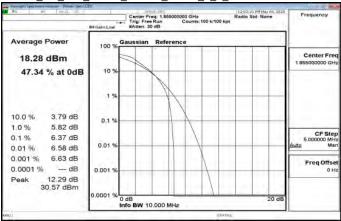
## Cat\_M1\_LTE\_Band2\_5MHz\_QPSK\_6\_0\_MidCH18900-1880



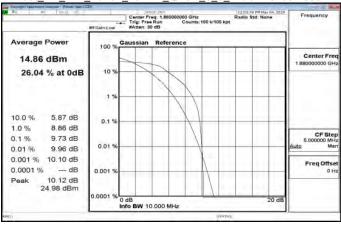
# Cat\_M1\_LTE\_Band2\_5MHz\_QPSK\_6\_0\_HighCH19175-1907.5



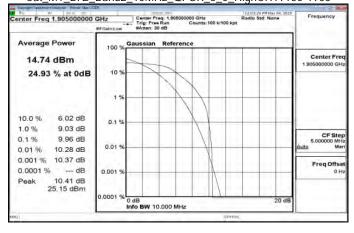
### Cat\_M1\_LTE\_Band2\_10MHz\_QPSK\_6\_0\_LowCH18650-1855



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

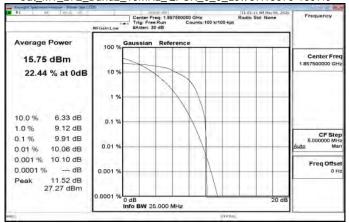
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

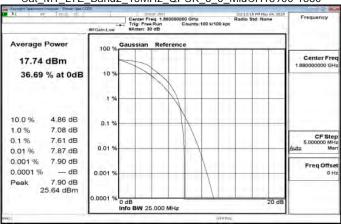


Page 134 of 140

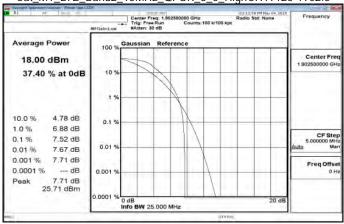
### Cat M1 LTE Band2 15MHz QPSK 6 0 LowCH18675-1857.5



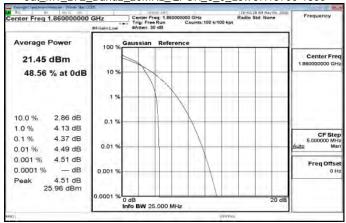
## Cat\_M1\_LTE\_Band2\_15MHz\_QPSK\_6\_0\_MidCH18900-1880



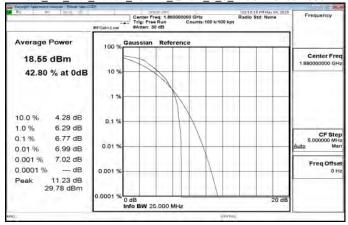
# Cat\_M1\_LTE\_Band2\_15MHz\_QPSK\_6\_0\_HighCH19125-1902.5



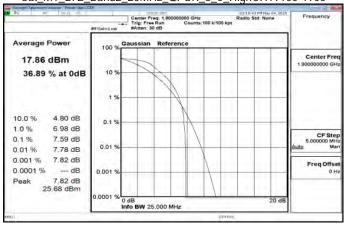
## Cat\_M1\_LTE\_Band2\_20MHz\_QPSK\_6\_0\_LowCH18700-1860



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

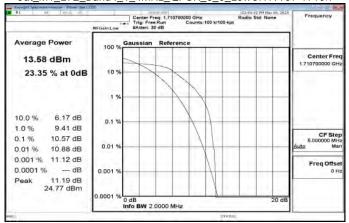
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

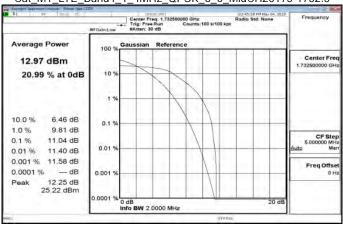


Page 135 of 140

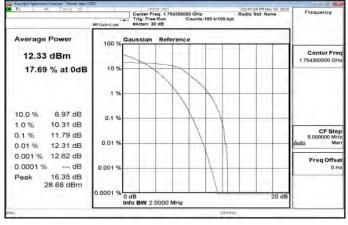
### Cat M1 LTE Band4 1 4MHz QPSK 6 0 LowCH19957-1710.7



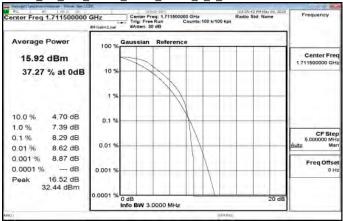
## Cat\_M1\_LTE\_Band4\_1\_4MHz\_QPSK\_6\_0\_MidCH20175-1732.5



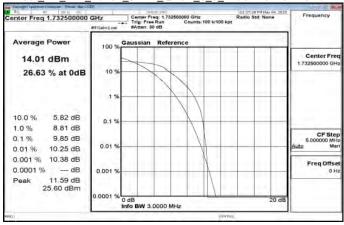
# Cat\_M1\_LTE\_Band4\_1\_4MHz\_QPSK\_6\_0\_HighCH20393-1754.3



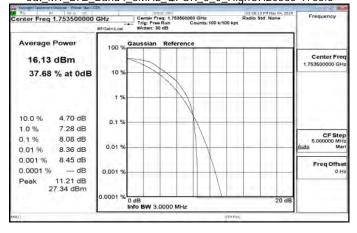
### Cat M1 LTE Band4 3MHz QPSK 6 0 LowCH19965-1711.5



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

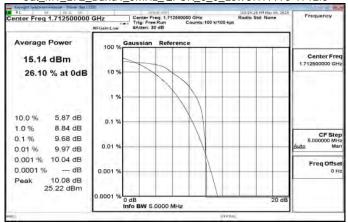
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

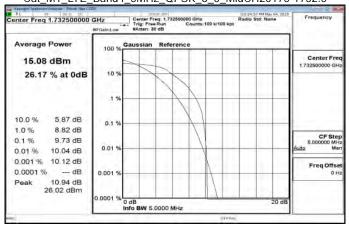


Page 136 of 140

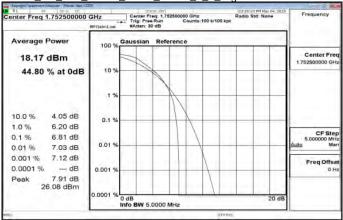
### Cat M1 LTE Band4 5MHz QPSK 6 0 LowCH19975-1712.5



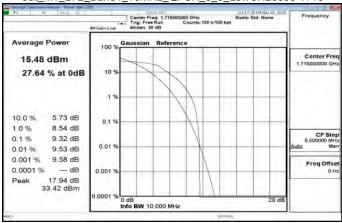
## Cat\_M1\_LTE\_Band4\_5MHz\_QPSK\_6\_0\_MidCH20175-1732.5



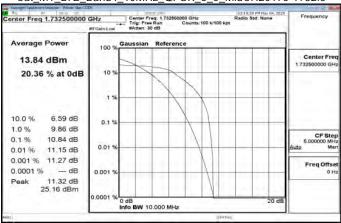
# Cat\_M1\_LTE\_Band4\_5MHz\_QPSK\_6\_0\_HighCH20375-1752.5



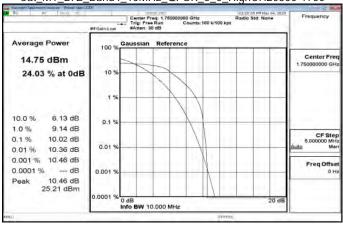
## Cat\_M1\_LTE\_Band4\_10MHz\_QPSK\_6\_0\_LowCH20000-1715



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

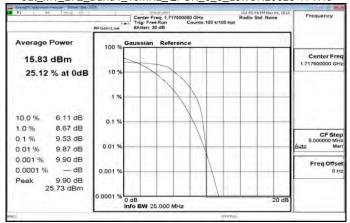
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

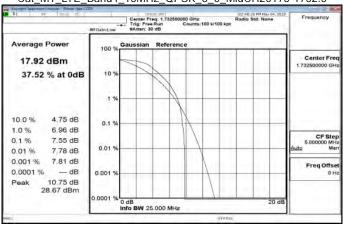


Page 137 of 140

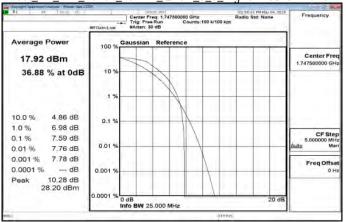
### Cat M1 LTE Band4 15MHz QPSK 6 0 LowCH20025-1717.5



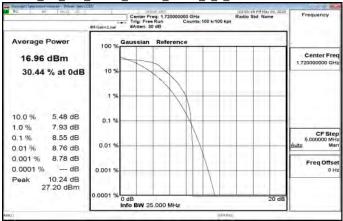
## Cat\_M1\_LTE\_Band4\_15MHz\_QPSK\_6\_0\_MidCH20175-1732.5



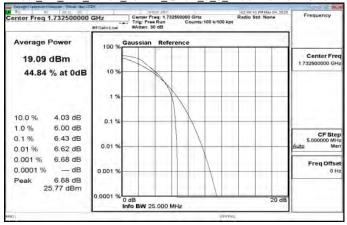
# Cat\_M1\_LTE\_Band4\_15MHz\_QPSK\_6\_0\_HighCH20325-1747.5



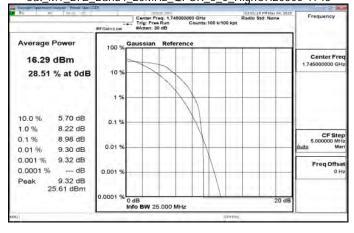
### Cat\_M1\_LTE\_Band4\_20MHz\_QPSK\_6\_0\_LowCH20050-1720



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

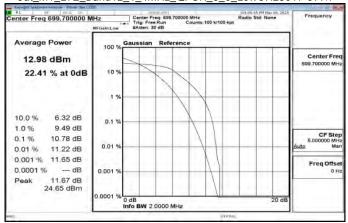
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

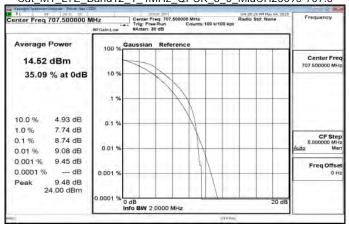


Page 138 of 140

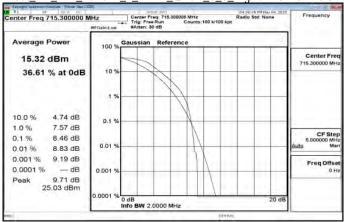
### Cat M1 LTE Band12 1 4MHz QPSK 6 0 LowCH23017-699.7



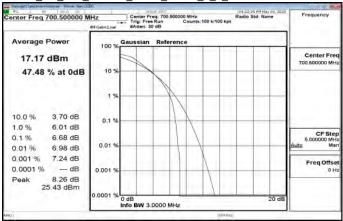
## Cat\_M1\_LTE\_Band12\_1\_4MHz\_QPSK\_6\_0\_MidCH23095-707.5



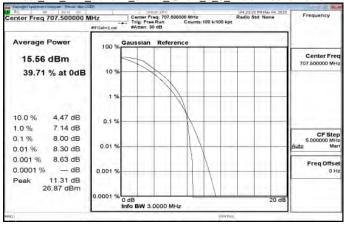
# Cat\_M1\_LTE\_Band12\_1\_4MHz\_QPSK\_6\_0\_HighCH23173-715.3



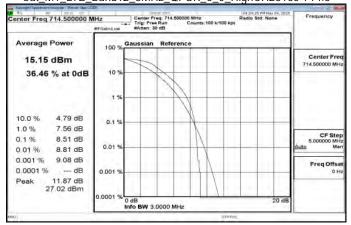
#### Cat M1 LTE Band12 3MHz QPSK 6 0 LowCH23025-700.5



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

t (886-2) 2299-3279

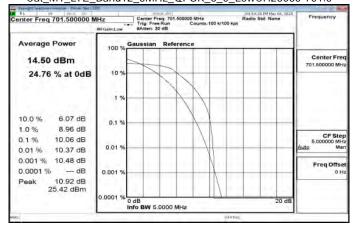
Offices otherwise stated title results shown in this test report tere only to the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state that the sample(s) tested and such as a relation of so days only. We a state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

SGS Taiwan Ltd.

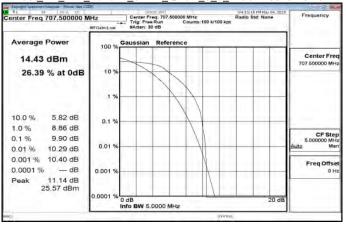


Page 139 of 140

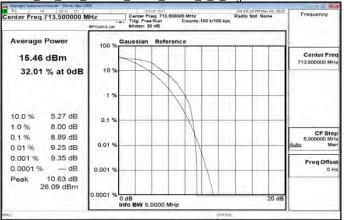
## Cat M1 LTE Band12 5MHz QPSK 6 0 LowCH23035-701.5



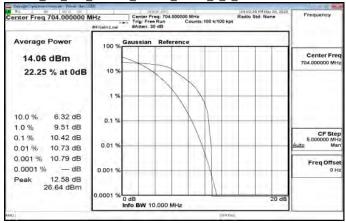
## Cat\_M1\_LTE\_Band12\_5MHz\_QPSK\_6\_0\_MidCH23095-707.5



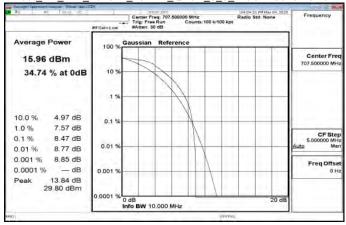
# Cat\_M1\_LTE\_Band12\_5MHz\_QPSK\_6\_0\_HighCH23155-713.5



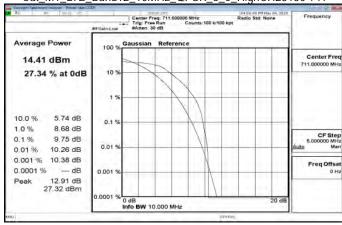
### Cat\_M1\_LTE\_Band12\_10MHz\_QPSK\_6\_0\_LowCH23060-704



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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

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 stated on so days only. We are stated on such as a relation of some and stated on such as a prosecuted to the fullest extent of the law.

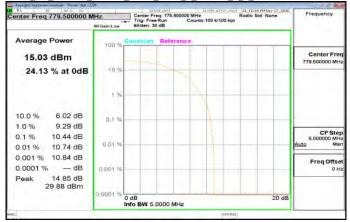
SGS Taiwan Ltd. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 t (886-2) 2299-3279

f (886-2) 2298-0488 www.sas.com.tw



Page 140 of 140

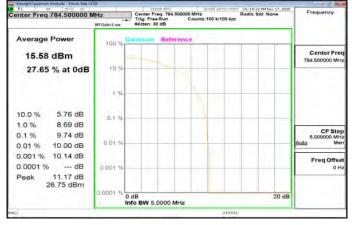




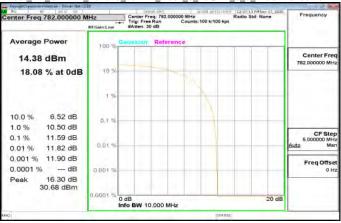
Cat M1 CAT-M1 Band13 5MHz index 0 16QAM 5 0 MidCH23230-782



Cat\_M1\_CAT-M1\_Band13\_5MHz\_index\_3\_16QAM\_5\_0\_HighCH23255-784.5



Cat\_M1\_CAT-M1\_Band13\_10MHz\_index\_0\_16QAM\_5\_0\_MidCH23230-782



~ End of Report ~

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

Unless otherwise stated the results shown in this text 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 the sample(s) tested and 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 such as a relation of some stated and such as a relation of some stated and such as a relation of such as a relatio prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.