











## 10. SPURIOUS EMISSION AT ANTENNA TERMINAL

### 10.1 LIMIT

According to FCC section 22.917(a), 24.238(a)(b), 27.53(h)(1), 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.

According to FCC section 27.53(m)(4),  $55+10\log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. and  $55+10\log(P)$  dB at or below 2490.5 MHz.

According to FCC section 27.53(9), For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a 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, by at least  $43+10\log(P)$  dB.

According to FCC section 27.53(c)(3), 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.

### 10.2 TEST PROCEDURES

Measurement Procedure: FCC KDB 971168 D01 V03r01

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel). The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least  $43+10\log(P)$  dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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 emission are attenuated at least 26 dB below the transmitter power.

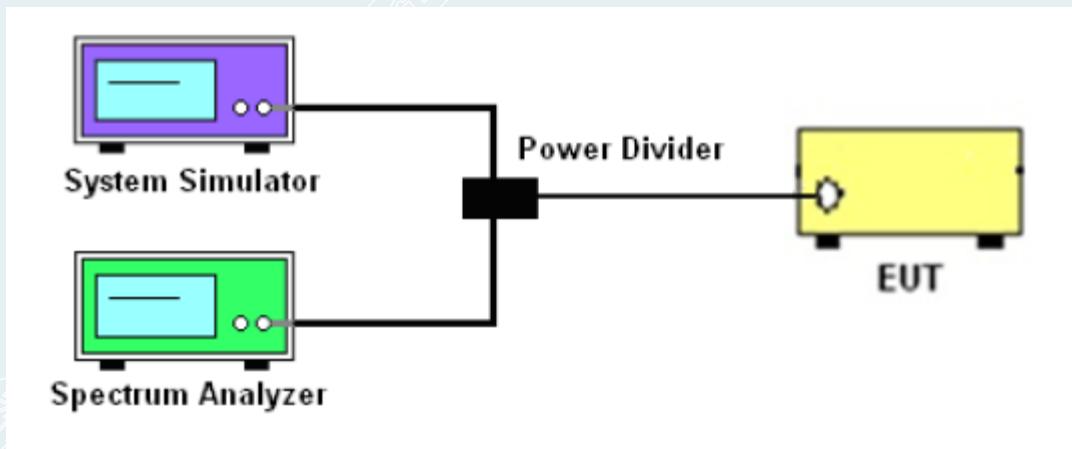
#### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10\*the fundamental frequency (separated into at least two plots per channel)
2. Detector=RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

#### Remark:

The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.

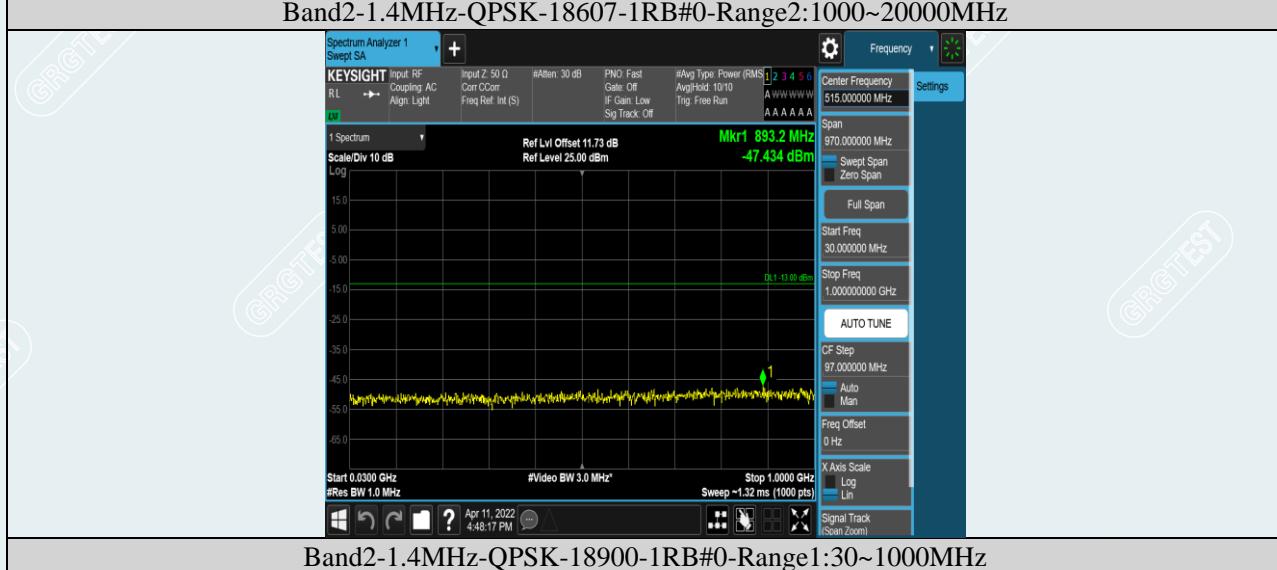
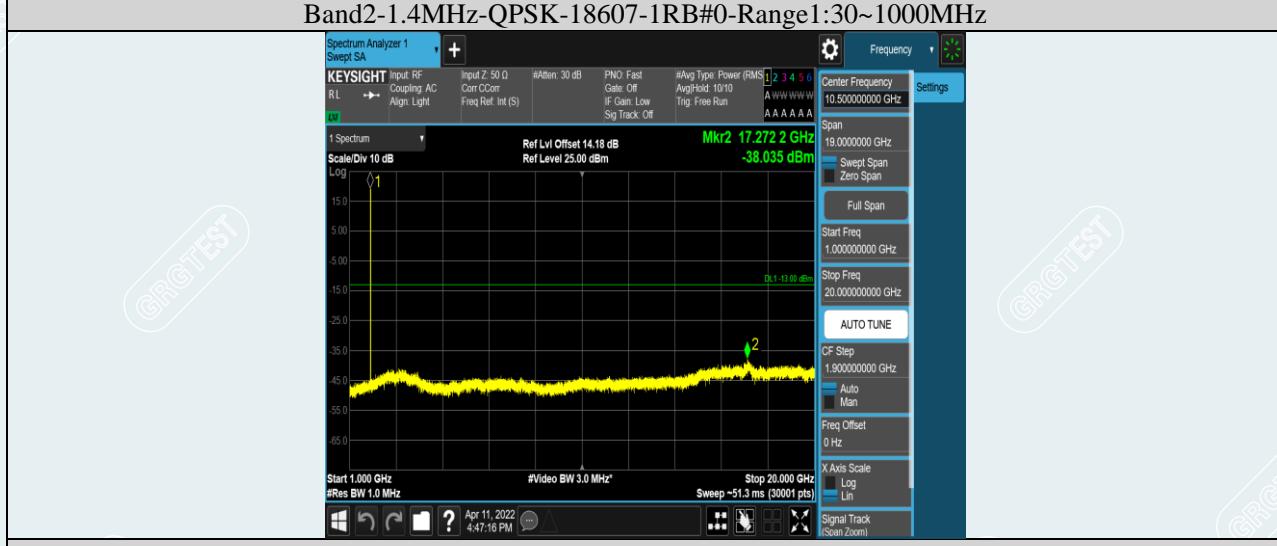
### 10.3 TEST SETUP



----- The following blanks -----

## 10.4 TEST RESULTS

EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	LTE
Power supply	DC 12V	Environmental Conditions	Temp:22.8 °C;Humi:45%RH
Test Date	2022-04-11 to 2022-04-14	Test Site	/
Tested By	Zhou Xiaolong	Reviewed by	Zhao Zetian



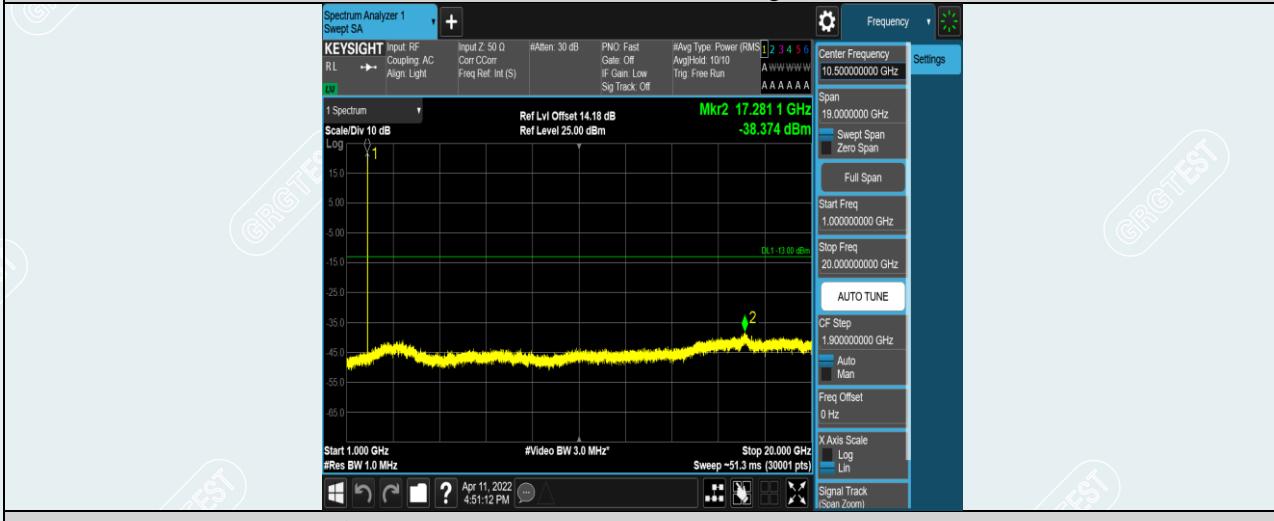








Band2-3MHz-QPSK-18615-1RB#0-Range1:30~1000MHz



Band2-3MHz-QPSK-18615-1RB#0-Range2:1000~20000MHz



Band2-3MHz-QPSK-18900-1RB#0-Range1:30~1000MHz





