

## A.5 POWER SPECTRAL DENSITY

|  |   |            |              |
|--|---|------------|--------------|
| Test Date  | 2019/09/23~10/3   | Temp./Hum. | 24°C /47~53% |
| Cable Loss   | 1dB   | Tested By  | Martin Chen  |
| Test Voltage   | AC 120V 60Hz (Via AC Adapter)   |            |              |
| Simultaneous Factor 10 log(n)<br>(Note: "n" is antenna number) | 802.11a: 0<br>802.11n-HT20/40: 3<br>802.11ac-VHT80/160: 3<br>802.11ax-HE80/160: 3 |            |              |

### A.5.1 Power Spectral Density Result

| Mode    | Band                     | Centre Frequency (MHz) | Power Spectral Density (dBm) | Limit         |
|---------|--------------------------|------------------------|------------------------------|---------------|
| 802.11a | NII-I                    | 5180                   | 7.304                        | 11 dBm/MHz    |
|         |                          | 5200                   | 8.070                        |               |
|         |                          | 5240                   | 8.864                        |               |
|         | NII-2A                   | 5260                   | 8.770                        |               |
|         |                          | 5300                   | 7.407                        |               |
|         |                          | 5320                   | 6.531                        |               |
|         | NII-2C                   | 5500                   | 6.744                        |               |
|         |                          | 5580                   | 8.860                        |               |
|         |                          | 5700                   | 6.507                        |               |
|         |                          | 5720                   | 8.838                        |               |
|         | NII-III <sup>Note2</sup> | 5745                   | 6.604                        | 30dBm/500 kHz |
|         |                          | 5785                   | 6.672                        |               |
| 5825    |                          | 6.616                  |                              |               |

Note 1: All results have been included cable loss and Simultaneous Factor and correct duty factor.

Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

| Mode                     | Band                     | Centre Frequency (MHz) | Power Spectral Density (dBm) | Limit         |
|--------------------------|--------------------------|------------------------|------------------------------|---------------|
| 802.11n-HT20             | NII-I                    | 5180                   | 7.207                        | 11 dBm/MHz    |
|                          |                          | 5200                   | 7.751                        |               |
|                          |                          | 5240                   | 8.948                        |               |
|                          | NII-2A                   | 5260                   | 9.014                        |               |
|                          |                          | 5300                   | 7.552                        |               |
|                          |                          | 5320                   | 6.079                        |               |
|                          | NII-2C                   | 5500                   | 6.477                        |               |
|                          |                          | 5580                   | 8.936                        |               |
|                          |                          | 5700                   | 6.287                        |               |
|                          |                          | 5720                   | 8.803                        |               |
| NII-III <sup>Note2</sup> | 5745                     | 6.562                  | 30dBm/500 kHz                |               |
|                          | 5785                     | 7.103                  |                              |               |
|                          | 5825                     | 6.825                  |                              |               |
| 802.11n-HT40             | NII-I                    | 5190                   | 4.124                        | 11 dBm/MHz    |
|                          |                          | 5230                   | 5.601                        |               |
|                          | NII-2A                   | 5270                   | 4.613                        |               |
|                          |                          | 5310                   | 2.175                        |               |
|                          | NII-2C                   | 5510                   | 2.677                        |               |
|                          |                          | 5550                   | 3.714                        |               |
|                          |                          | 5670                   | 5.746                        |               |
|                          | NII-III <sup>Note2</sup> | 5710                   | 6.437                        |               |
| 5755                     |                          | 3.771                  | 30dBm/500 kHz                |               |
|                          | 5795                     | 3.783                  |                              |               |
| 802.11ac-VHT80           | NII-I                    | 5210                   | 1.109                        | 11 dBm/MHz    |
|                          | NII-2A                   | 5290                   | -0.078                       |               |
|                          |                          | 5530                   | 1.630                        |               |
|                          | NII-2C                   | 5610                   | 3.978                        |               |
|                          |                          | 5690                   | 1.682                        |               |
|                          | NII-III <sup>Note2</sup> | 5775                   | -0.372                       | 30dBm/500 kHz |
| 802.11ac-VHT160          | NII-I/NII-2A             | 5250                   | -5.753                       | 11 dBm/MHz    |
|                          | NII-2C                   | 5570                   | -5.638                       |               |

Note 1: All results have been included cable loss and Simultaneous Factor.

Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

| Mode           | Band                     | Centre Frequency (MHz) | Power Spectral Density (dBm) | Limit         |
|----------------|--------------------------|------------------------|------------------------------|---------------|
| 802.11ax-HE20  | NII-I                    | 5180                   | 6.955                        | 11 dBm/MHz    |
|                |                          | 5200                   | 7.579                        |               |
|                |                          | 5240                   | 8.661                        |               |
|                | NII-2A                   | 5260                   | 9.004                        |               |
|                |                          | 5300                   | 6.932                        |               |
|                |                          | 5320                   | 6.014                        |               |
|                | NII-2C                   | 5500                   | 6.177                        |               |
|                |                          | 5580                   | 8.680                        |               |
|                |                          | 5700                   | 6.106                        |               |
|                |                          | 5720                   | 8.779                        |               |
|                | NII-III <sup>Note2</sup> | 5745                   | 5.230                        | 30dBm/500 kHz |
| 5785           |                          | 5.201                  |                              |               |
| 5825           |                          | 5.344                  |                              |               |
| 802.11ax-HE40  | NII-I                    | 5190                   | 3.664                        | 11 dBm/MHz    |
|                |                          | 5230                   | 5.246                        |               |
|                | NII-2A                   | 5270                   | 4.226                        |               |
|                |                          | 5310                   | 1.608                        |               |
|                | NII-2C                   | 5510                   | 2.252                        |               |
|                |                          | 5550                   | 3.309                        |               |
|                |                          | 5670                   | 5.314                        |               |
|                | NII-III <sup>Note2</sup> | 5710                   | 5.871                        |               |
|                |                          | 5755                   | 2.431                        | 30dBm/500 kHz |
|                | 5795                     | 2.550                  |                              |               |
| 802.11ax-HE80  | NII-I                    | 5210                   | 0.831                        | 11 dBm/MHz    |
|                | NII-2A                   | 5290                   | -0.441                       |               |
|                |                          | 5530                   | 1.185                        |               |
|                | NII-2C                   | 5610                   | 3.570                        |               |
|                |                          | 5690                   | 3.682                        |               |
|                | NII-III <sup>Note2</sup> | 5775                   | -1.398                       | 30dBm/500 kHz |
| 802.11ax-HE160 | NII-I/NII-2A             | 5250                   | -6.145                       | 11 dBm/MHz    |
|                | NII-2C                   | 5570                   | -6.191                       |               |

Note 1: All results have been included cable loss and Simultaneous Factor.

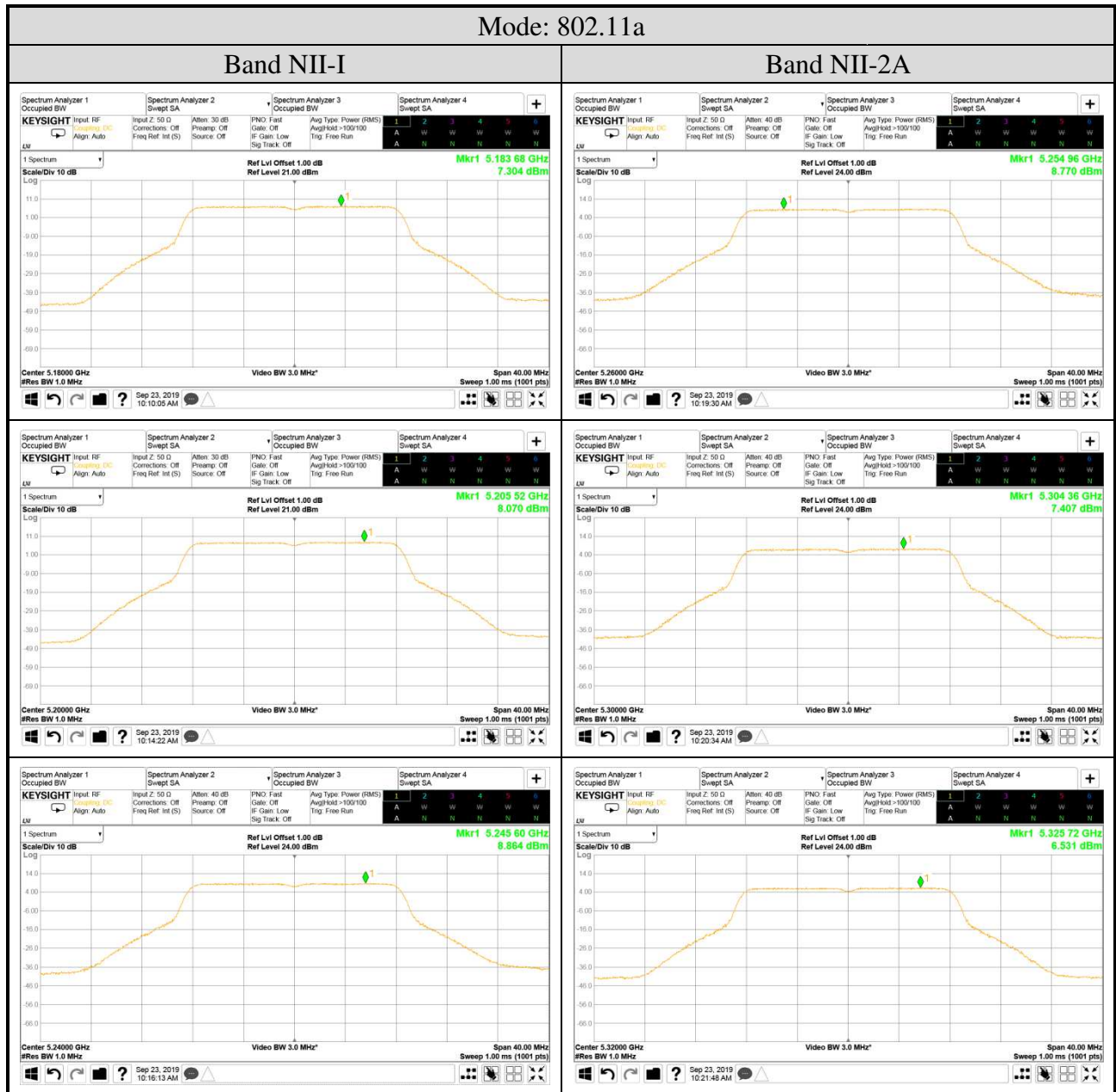
Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

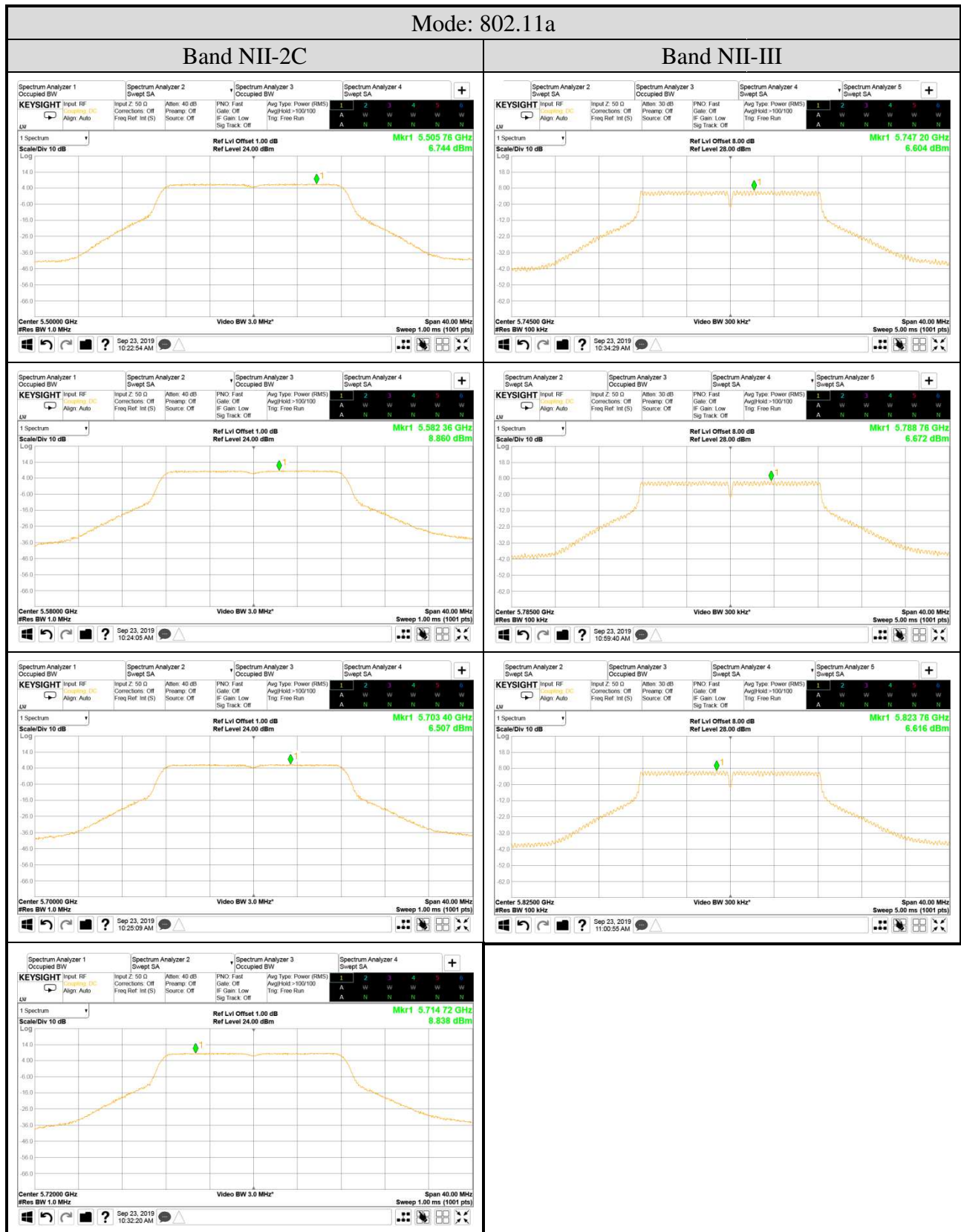
| Mode                     | Band                     | Centre Frequency (MHz) | RU Configuration | Power Spectral Density (dBm) | Limit         |
|--------------------------|--------------------------|------------------------|------------------|------------------------------|---------------|
| 802.11ax-HE20            | NII-I                    | 5180                   | 26/0             | 10.204                       | 11 dBm/MHz    |
|                          |                          |                        | 52/37            | 10.844                       |               |
|                          |                          |                        | 106/53           | 9.840                        |               |
|                          | NII-2A                   | 5320                   | 26/8             | 10.090                       |               |
|                          |                          |                        | 52/40            | 7.383                        |               |
|                          |                          |                        | 106/54           | 8.675                        |               |
|                          | NII-2C                   | 5500                   | 26/0             | 10.522                       |               |
|                          |                          |                        | 52/37            | 10.852                       |               |
|                          |                          |                        | 106/53           | 9.587                        |               |
|                          |                          | 5700                   | 26/8             | 9.841                        |               |
|                          |                          |                        | 52/40            | 8.772                        |               |
|                          |                          |                        | 106/54           | 8.214                        |               |
| NII-III <sup>Note2</sup> | 5745                     | 26/0                   | 7.675            | 30dBm/500 kHz                |               |
|                          |                          | 52/37                  | 7.773            |                              |               |
|                          |                          | 106/53                 | 7.986            |                              |               |
|                          | 5825                     | 26/8                   | 13.528           |                              |               |
|                          |                          | 52/40                  | 10.901           |                              |               |
| 106/54                   | 8.154                    |                        |                  |                              |               |
| 802.11ax-HE40            | NII-I                    | 5190                   | 242/61           | 6.586                        | 11 dBm/MHz    |
|                          | NII-2A                   | 5310                   | 242/62           | 4.462                        |               |
|                          | NII-2C                   | 5510                   | 242/61           | 5.450                        |               |
|                          |                          | 5670                   | 242/62           | 6.834                        |               |
|                          | NII-III <sup>Note2</sup> | 5755                   | 242/61           | 4.064                        | 30dBm/500 kHz |
|                          |                          | 5795                   | 242/62           | 4.563                        |               |
| 802.11ax-HE80            | NII-I                    | 5210                   | 484/65           | 3.093                        | 11 dBm/MHz    |
|                          | NII-2A                   | 5290                   | 484/66           | 1.752                        |               |
|                          | NII-2C                   | 5530                   | 484/65           | 2.010                        |               |
|                          |                          | 5610                   | 484/66           | 4.301                        |               |
|                          | NII-III <sup>Note2</sup> | 5775                   | 484/65           | 0.411                        | 30dBm/500 kHz |
|                          |                          |                        | 484/66           | 0.620                        |               |
| 802.11ax-HE160           | NII-I/NII-2A             | 5250                   | 996/67           | -3.198                       | 11 dBm/MHz    |
|                          |                          |                        | 996/S67          | -3.453                       |               |
|                          | NII-2C                   | 5570                   | 996/67           | -4.063                       |               |
|                          |                          |                        | 996/S67          | -3.809                       |               |

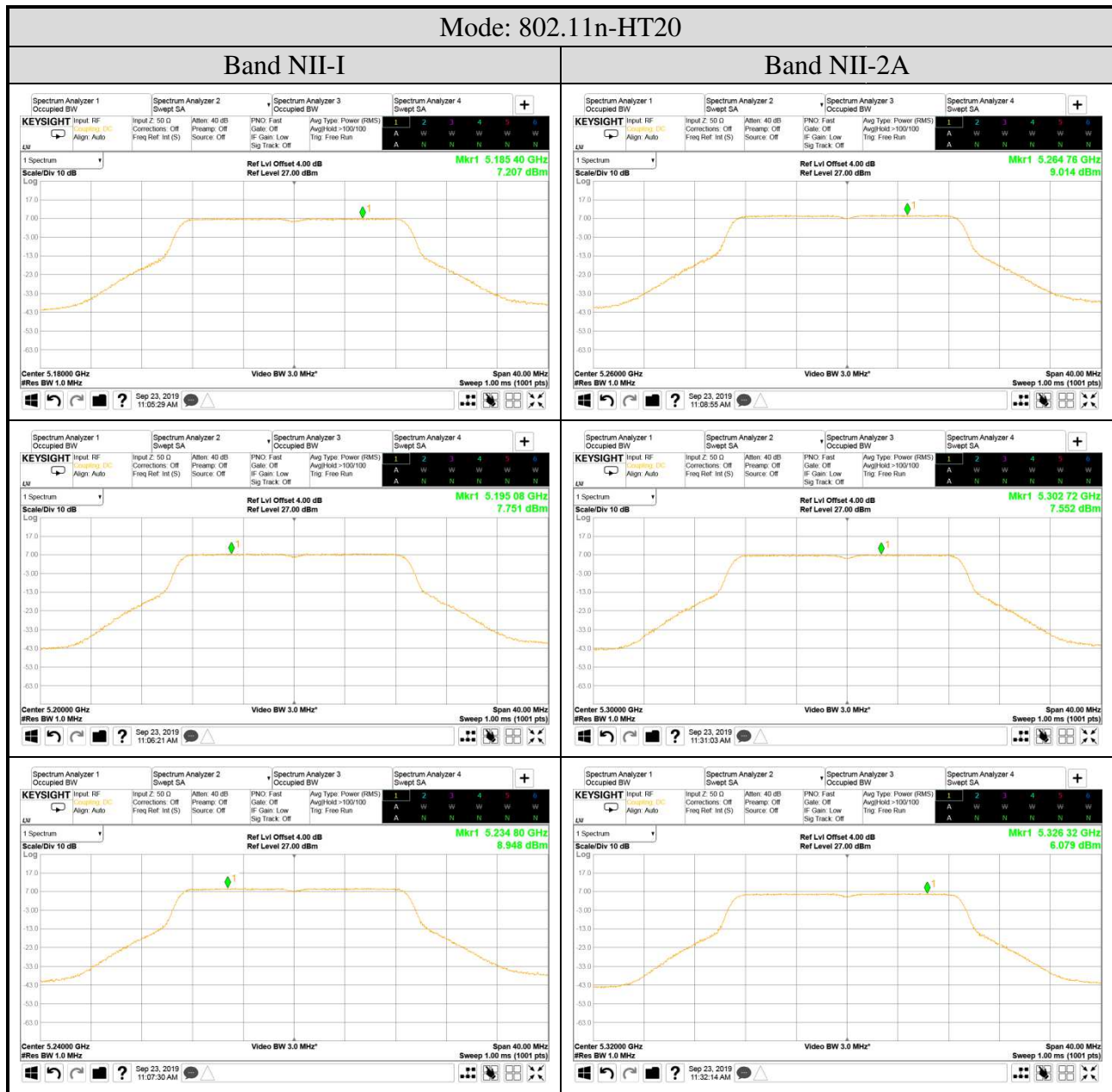
Note 1: All results have been included cable loss and Simultaneous Factor.

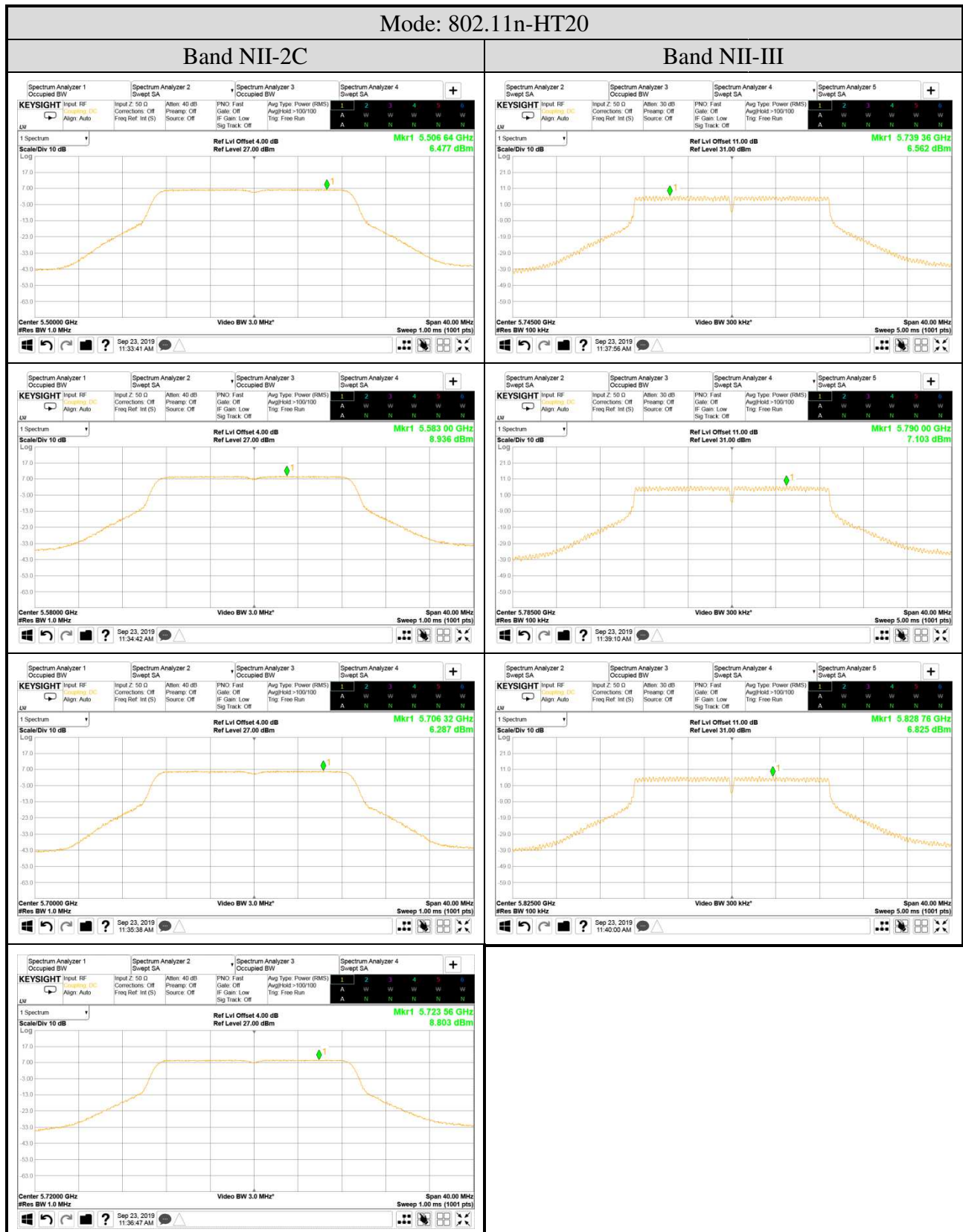
Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

A.5.2 Measurement Plots

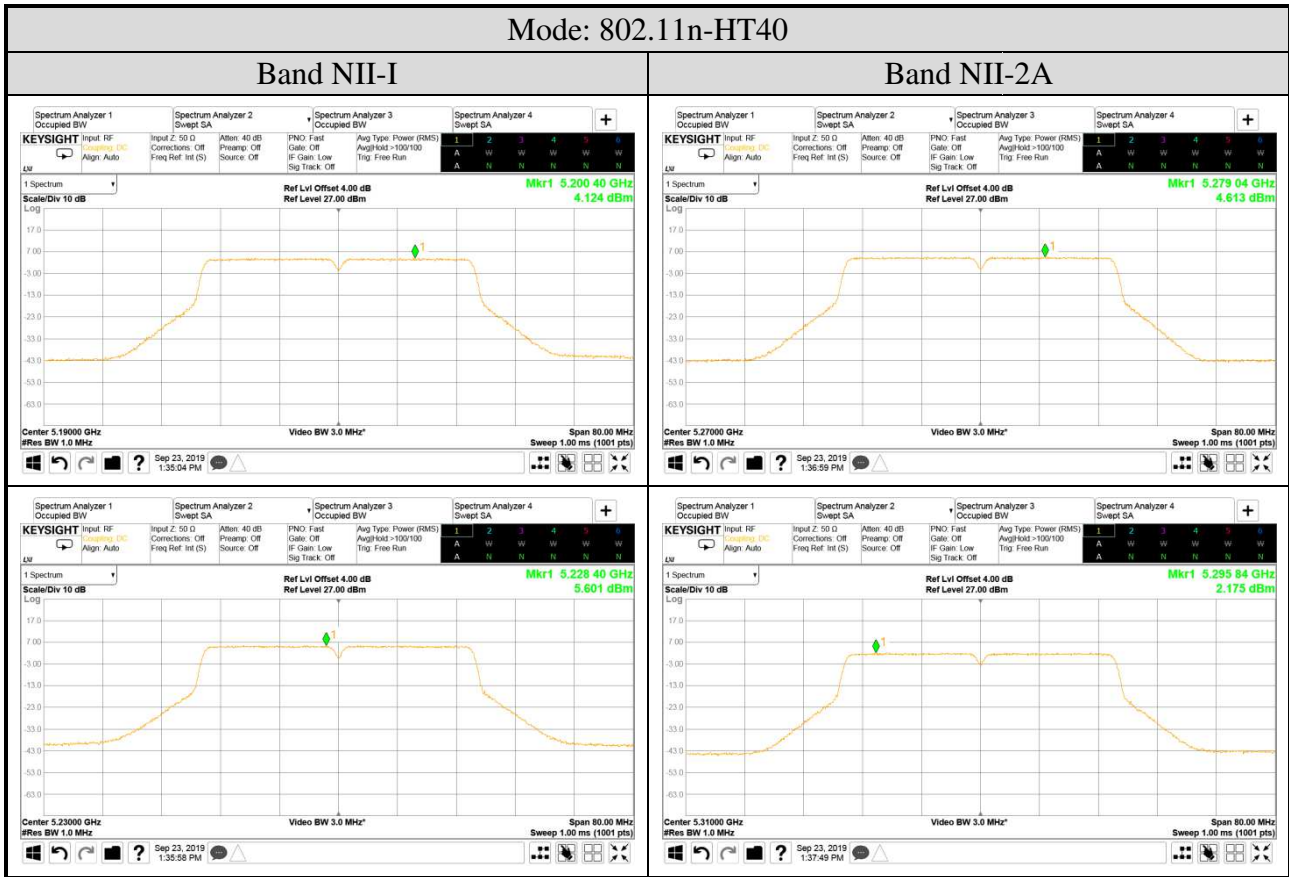


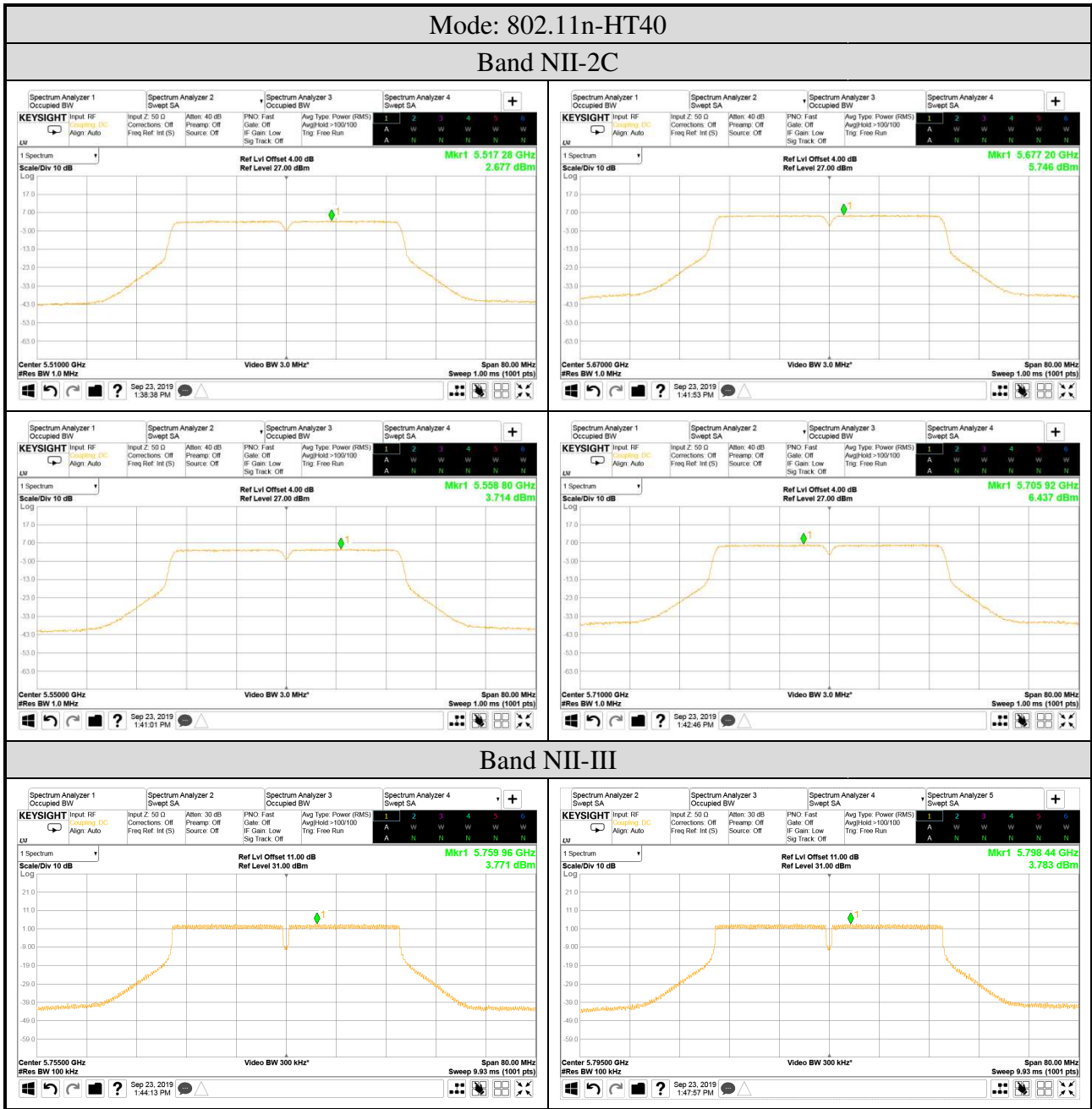


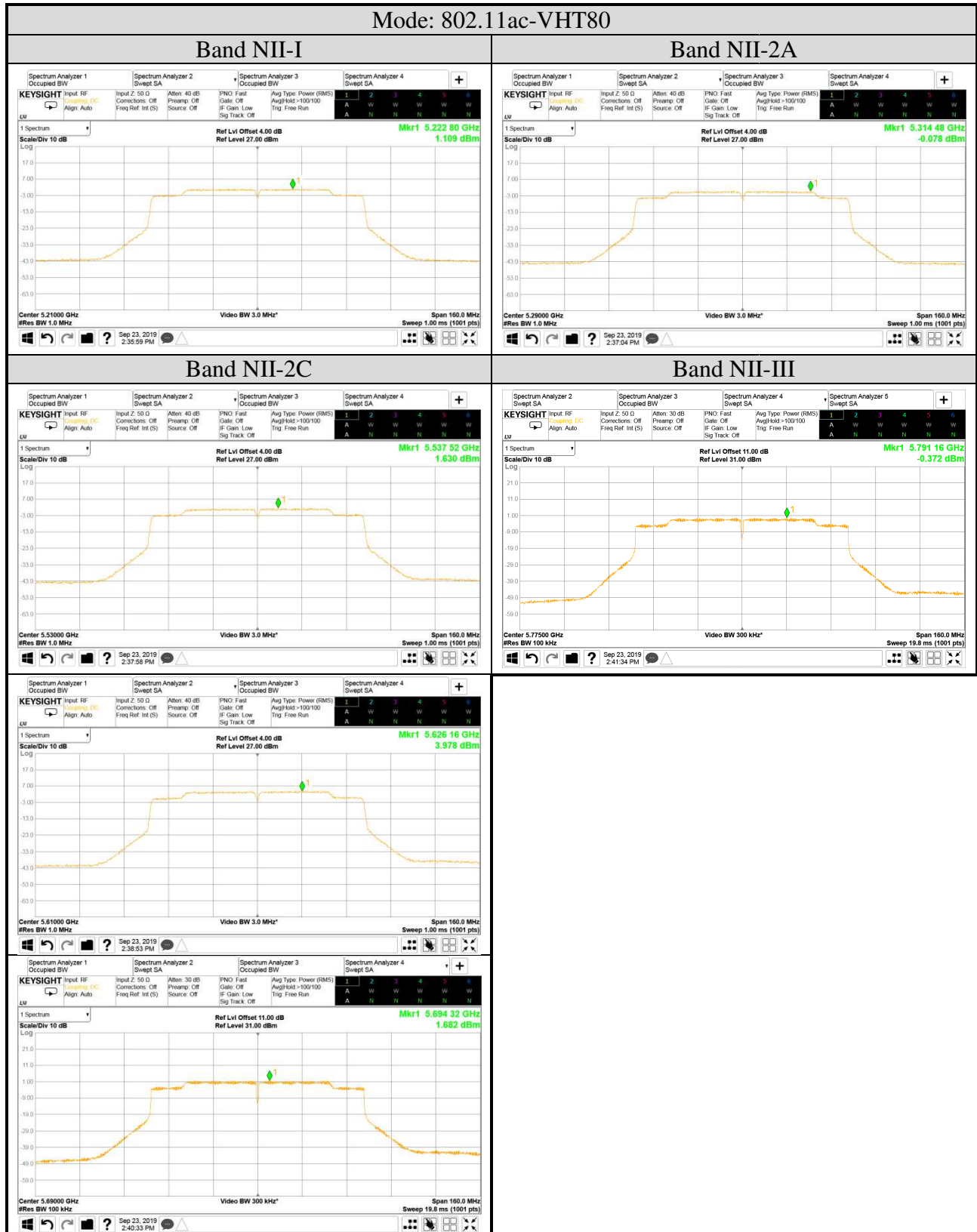


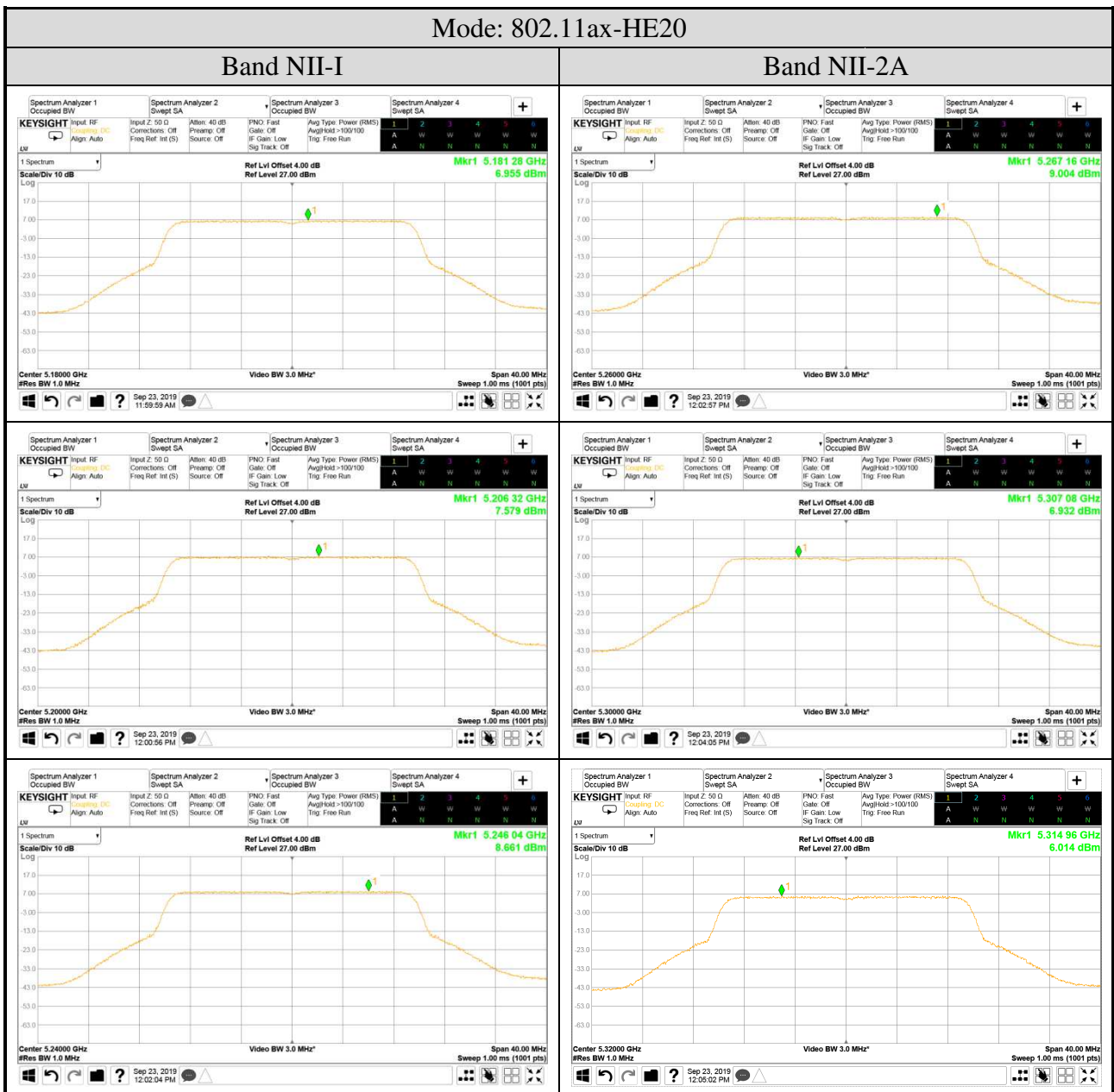
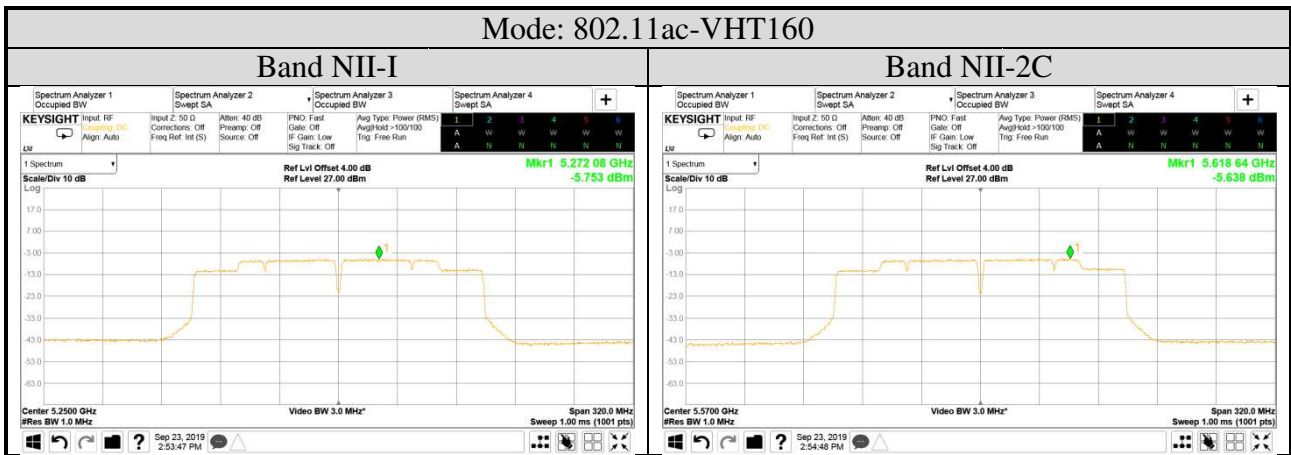


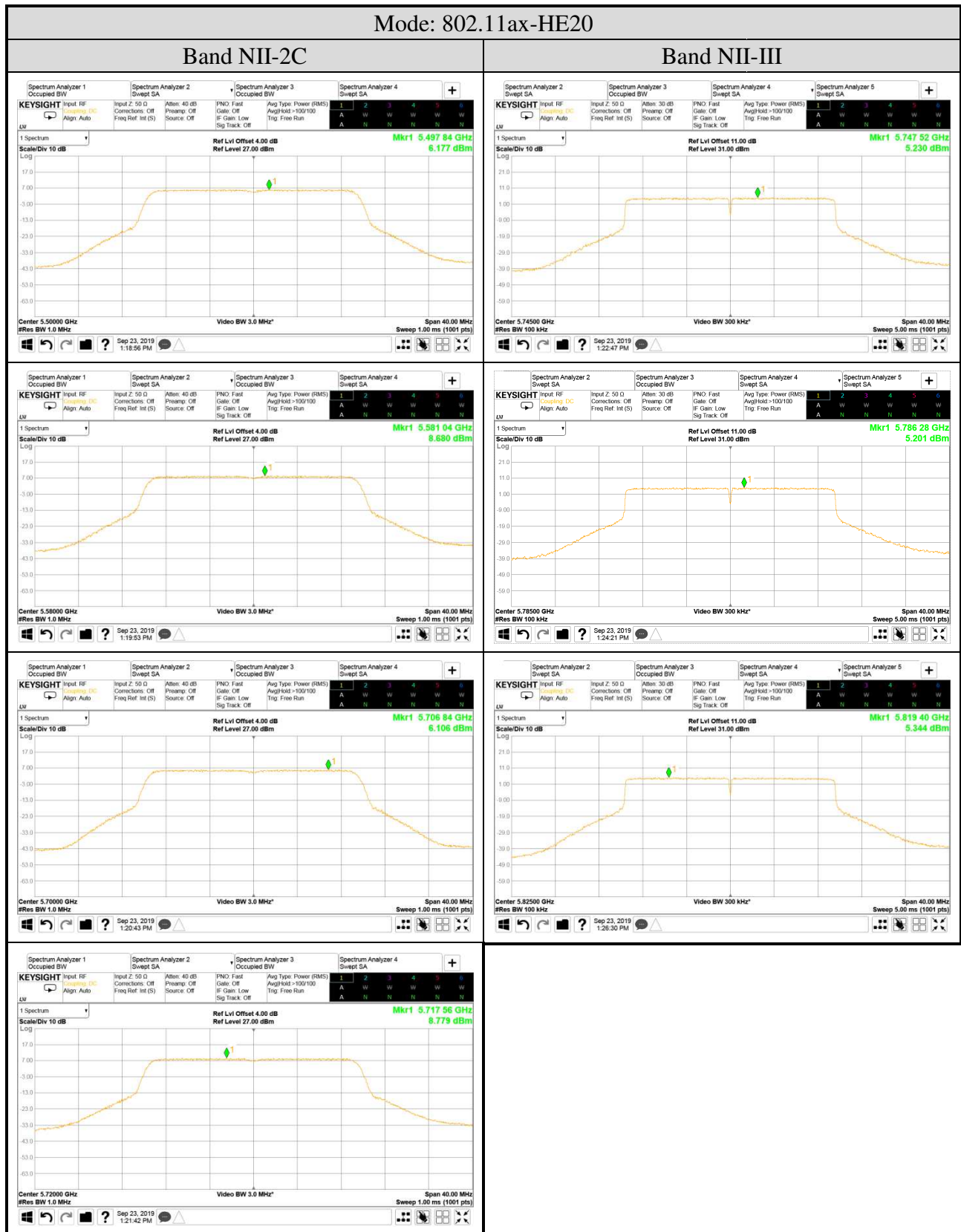


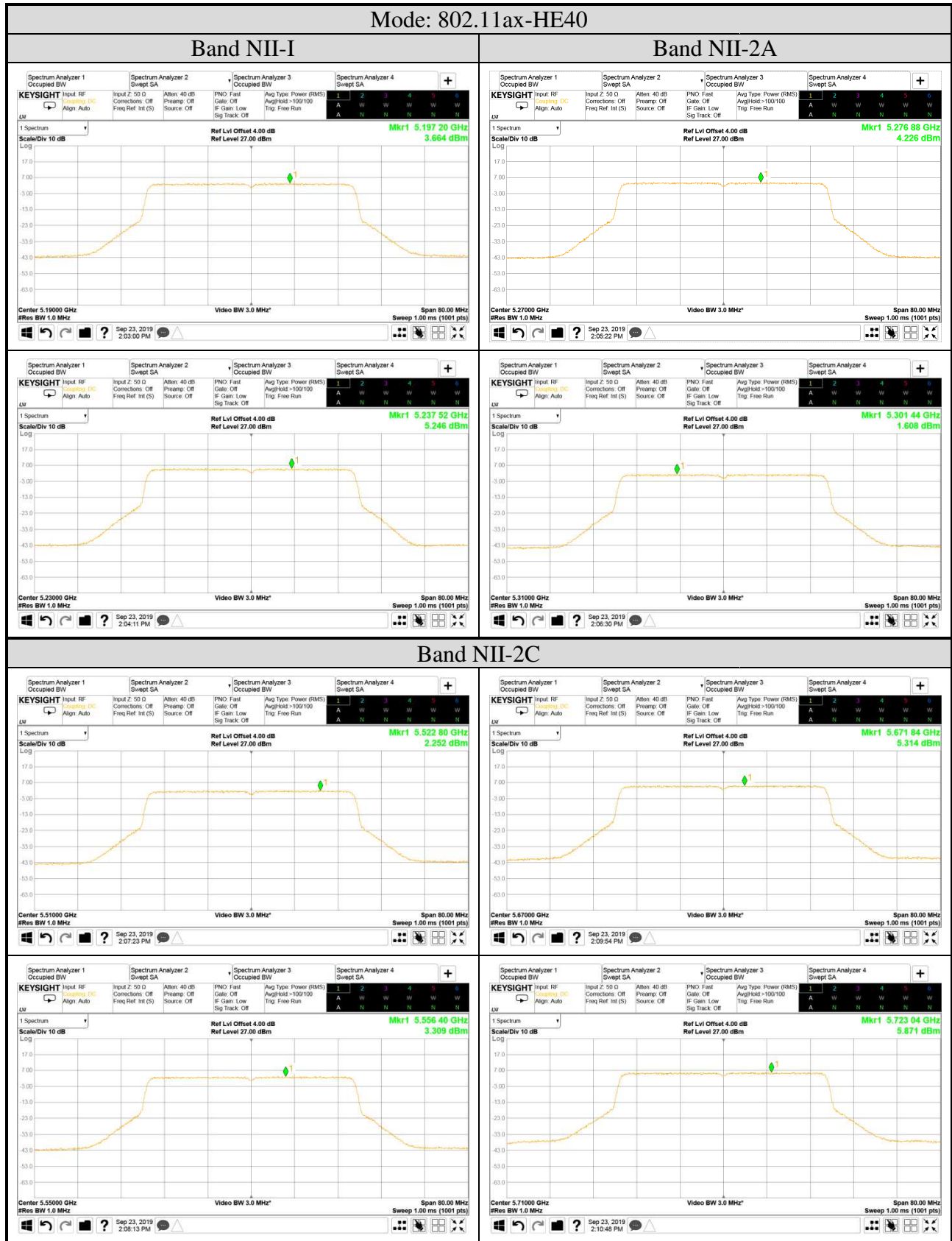






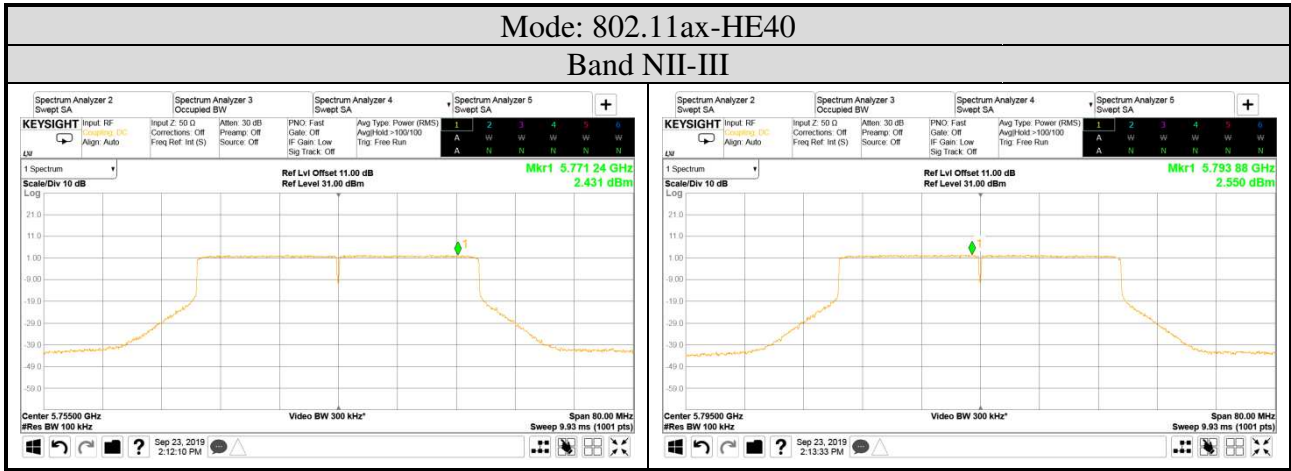


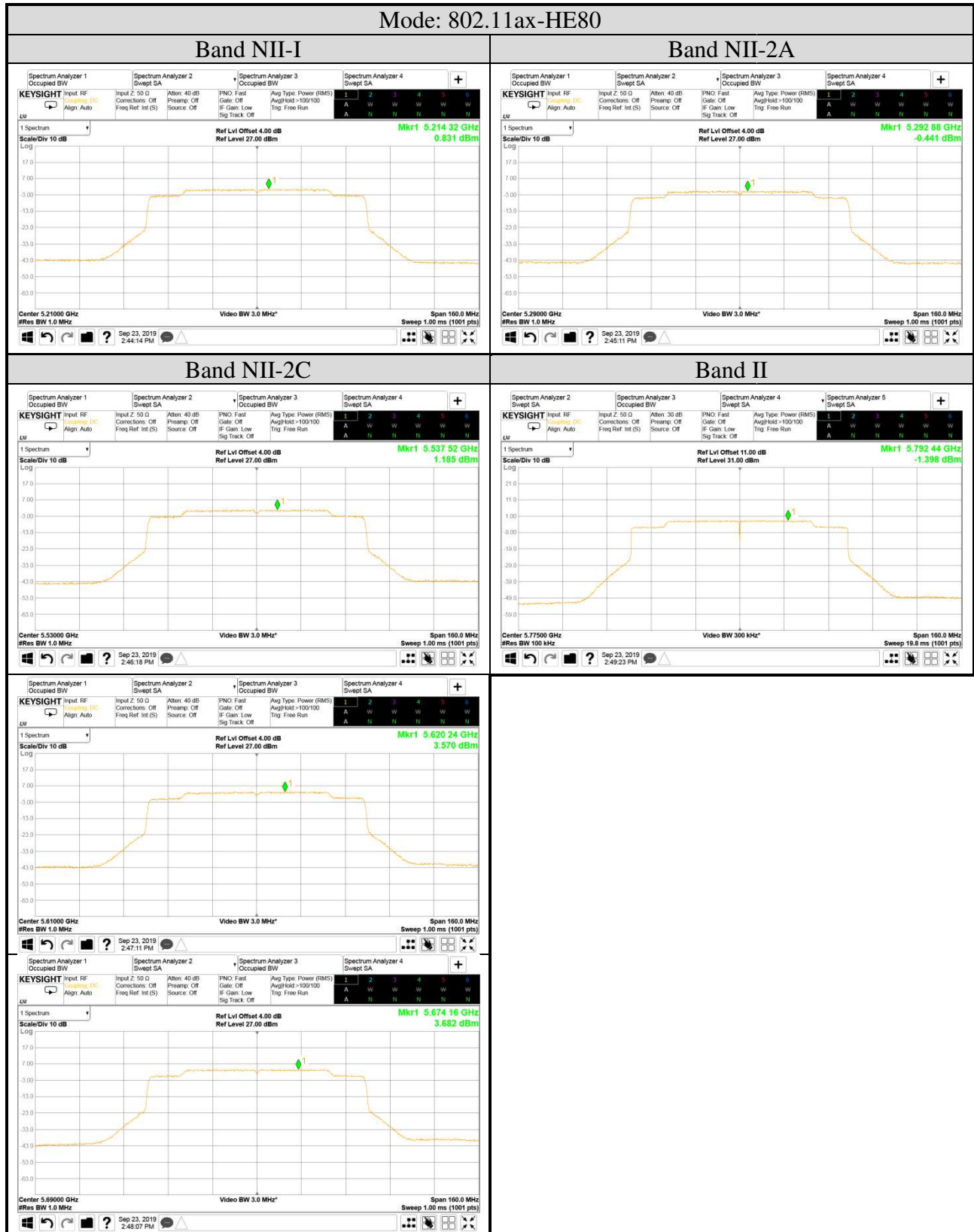




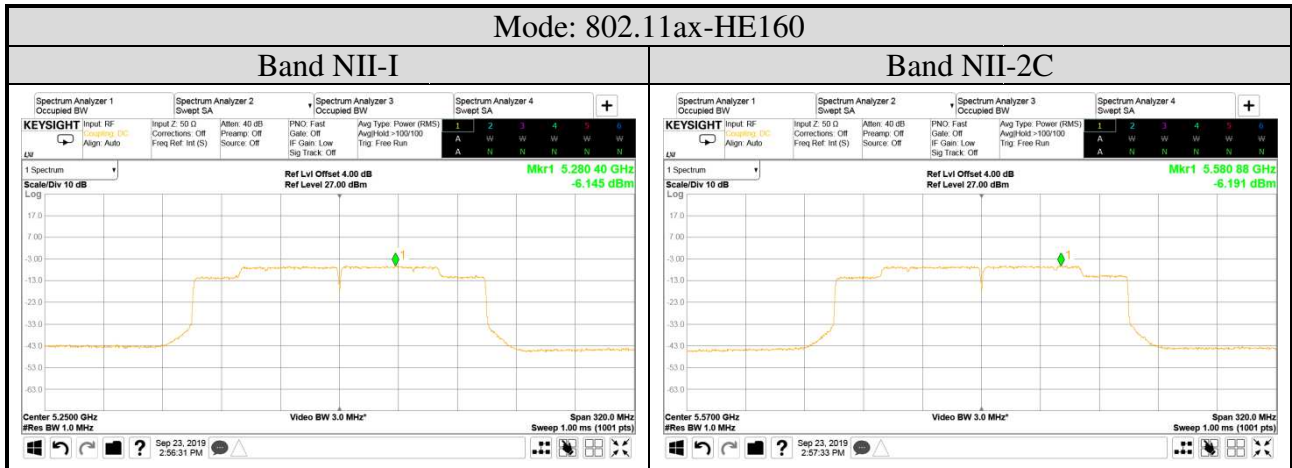
**Audix Technology Corp.**  
 No. 53-11, Dingfu, Linkou, Dist.,  
 New Taipei City 244, Taiwan

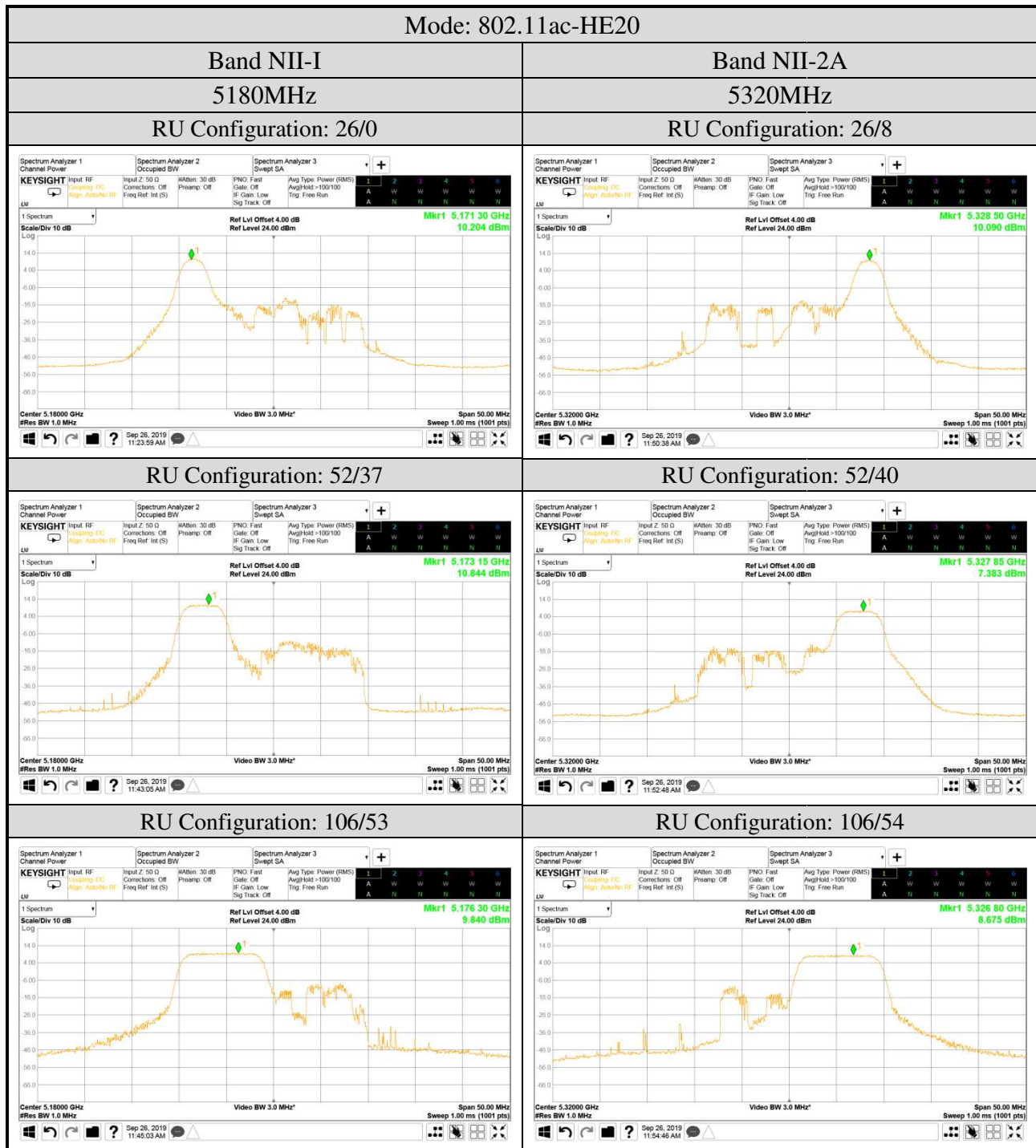
**Tel: +886 2 26099301**  
**Fax: +886 2 26099303**

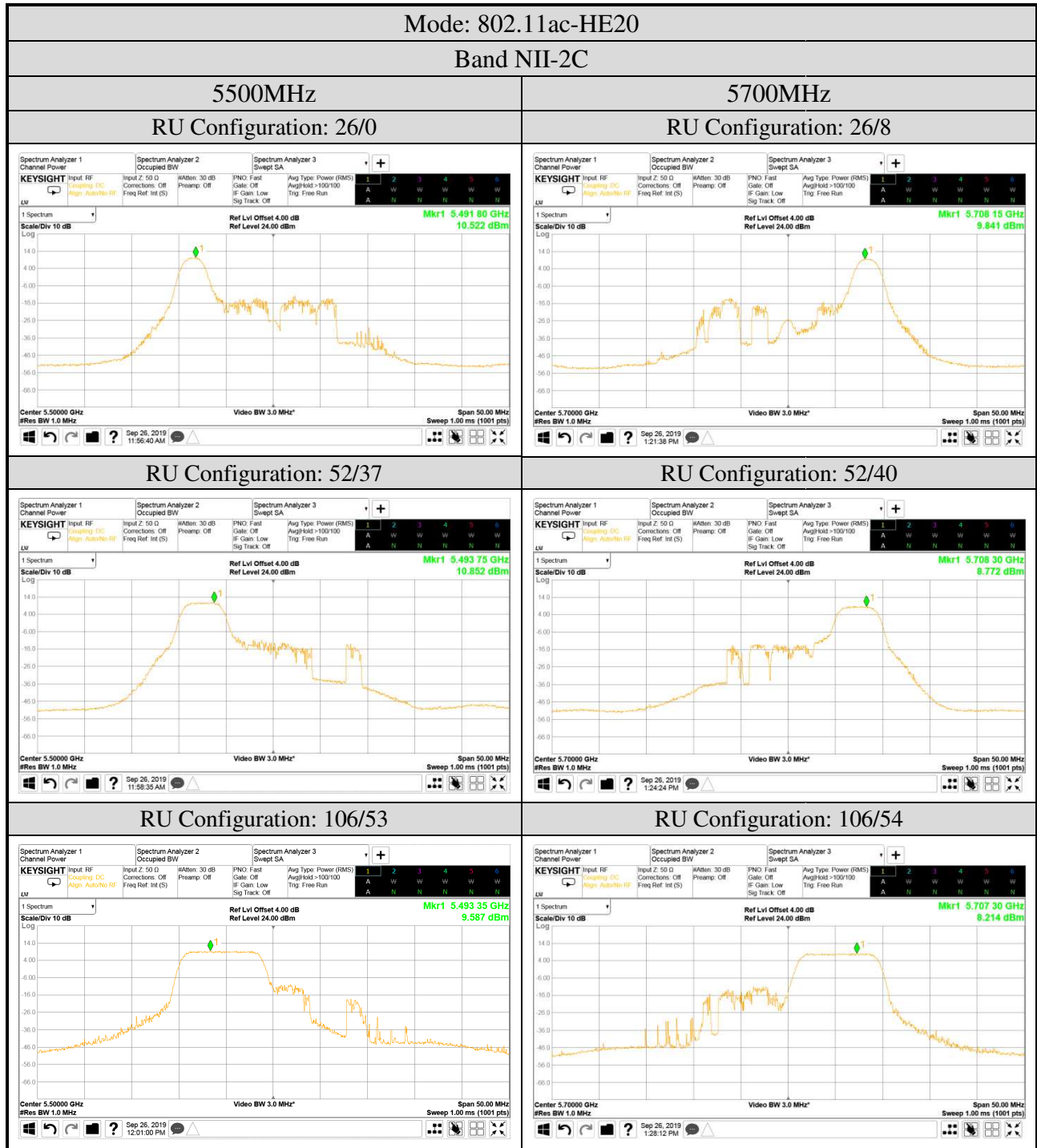


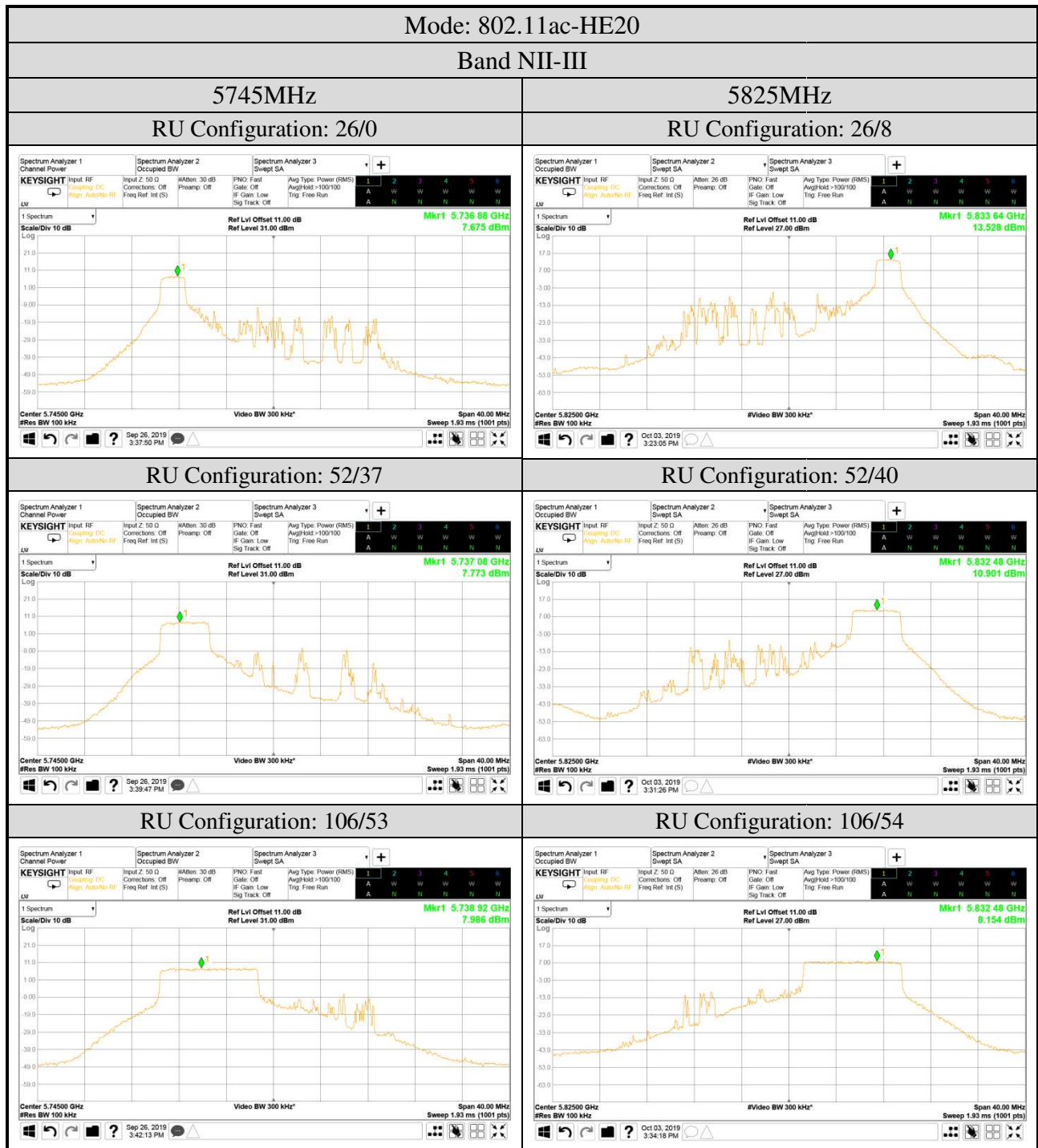


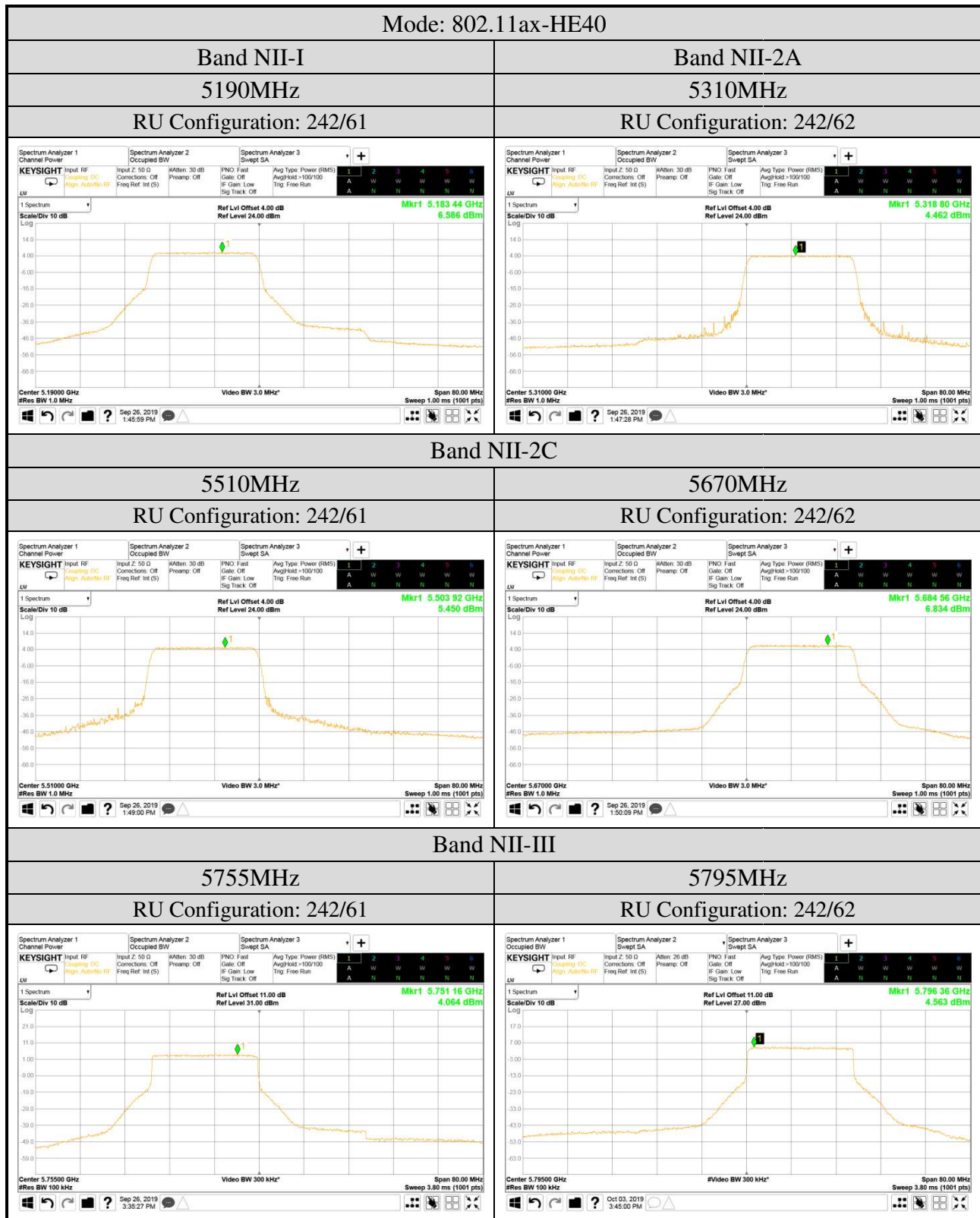


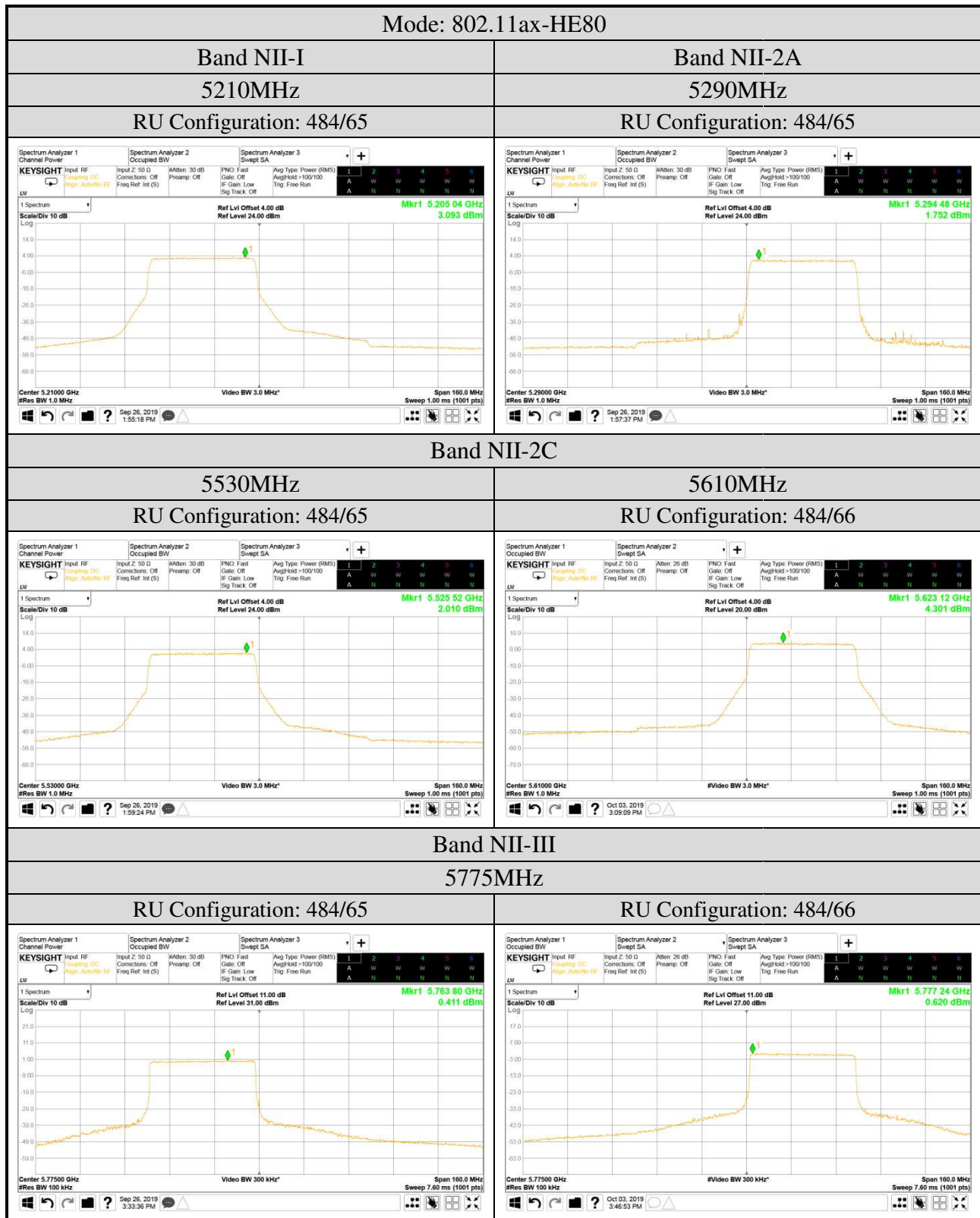


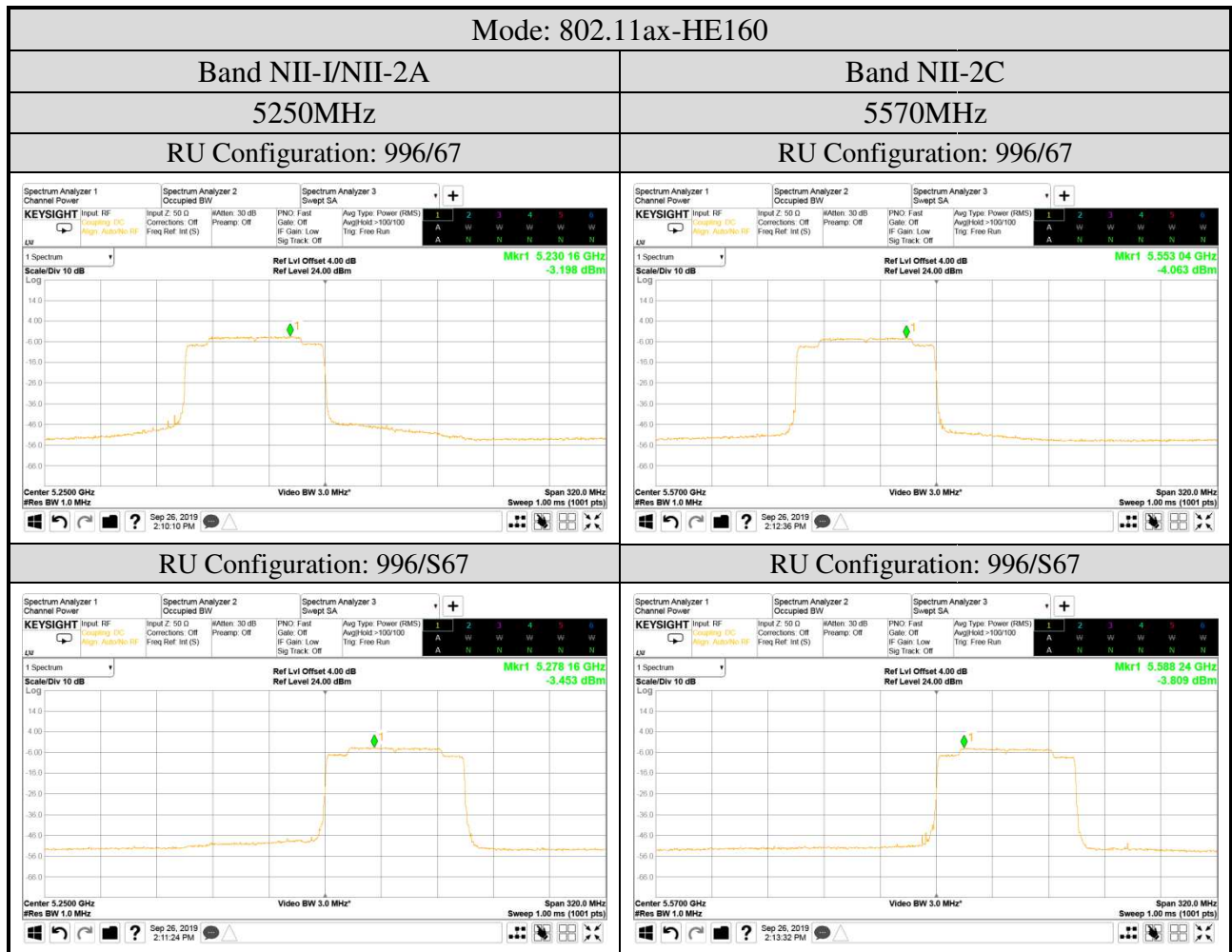












## A.6 FREQUENCY STABILITY

|            |            |              |                               |
|------------|------------|--------------|-------------------------------|
| Test Date  | 2019/10/14 | Temp./Hum.   | 26°C/64%                      |
| Cable Loss | ---        | Test Voltage | AC 120V 60Hz (Via AC Adapter) |

### A.6.1 Frequency stability Result

| Temperature (°C) | Voltage (Vac) | Centre Frequency (MHz) | Measurement Value (MHz) | Frequency Stability (ppm) |
|------------------|---------------|------------------------|-------------------------|---------------------------|
| 25               | 120           | 5180                   | 5180.002                | 0.386                     |
| -30              | 102           |                        | 5179.952                | -9.266                    |
|                  | 138           |                        | 5179.959                | -7.915                    |
| -20              | 102           |                        | 5179.967                | -6.371                    |
|                  | 138           |                        | 5179.975                | -4.826                    |
| -10              | 102           |                        | 5179.974                | -5.019                    |
|                  | 138           |                        | 5179.981                | -3.668                    |
| 0                | 102           |                        | 5179.98                 | -3.861                    |
|                  | 138           |                        | 5179.985                | -2.896                    |
| 10               | 102           |                        | 5179.989                | -2.124                    |
|                  | 138           |                        | 5179.996                | -0.772                    |
| 20               | 102           |                        | 5180.004                | 0.772                     |
|                  | 138           |                        | 5180.007                | 1.351                     |
| 30               | 102           |                        | 5180.011                | 2.124                     |
|                  | 138           |                        | 5180.018                | 3.475                     |
| 40               | 102           |                        | 5180.016                | 3.089                     |
|                  | 138           |                        | 5180.024                | 4.633                     |
| 50               | 102           |                        | 5180.025                | 4.826                     |
|                  | 138           |                        | 5180.032                | 6.178                     |