

# FCC Test Report

Product Name : Wireless-AC2600 Dual WAN VPN Wireless Router  
Trade Name : ASUS  
Model No. : BRT-AC828/M2, BRT-AC828  
FCC ID. : MSQ-RT0V00

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : Feb. 17, 2016

Issued Date : Aug. 01, 2016

Report No. : 1620268R-RFUSP56V00-C

Report Version : V1.0



The test results relate only to the samples tested.

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# Test Report Certification

Issued Date: Aug. 01, 2016

Report No. : 1620268R-RFUSP56V00-C



Product Name : Wireless-AC2600 Dual WAN VPN Wireless Router  
Applicant : ASUSTeK COMPUTER INC.  
Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan  
Manufacturer : ASUSTeK COMPUTER INC.  
Model No. : BRT-AC828/M2, BRT-AC828  
FCC ID. : MSQ-RT0V00  
EUT Voltage : AC 100-240V, 50-60Hz  
Testing Voltage : AC 120V/60Hz  
Trade Name : ASUS  
Applicable Standard : FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2014  
ANSI C63.10: 2013  
Test Lab : Quietek Hsin Chu Laboratory  
Test Result : Complied

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

Documented By :

A handwritten signature in blue ink, appearing to read "Carol Tsai".

( Carol Tsai / Senior Engineering Adm. Specialist )

Tested By :

A handwritten signature in blue ink, appearing to read "Bruno Tsai".

( Bruno Tsai / Engineer )

Approved By :

A handwritten signature in blue ink, appearing to read "Roy Wang".

( Roy Wang / Director )

## Revision History

| Report No.            | Version | Description                                                                                                                                                                                                                                                                                                                                 | Issued Date   |
|-----------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 15B0233R-RFUSP28V00   | V1.0    | Initial issue of report                                                                                                                                                                                                                                                                                                                     | Nov. 23, 2015 |
| 1620125R-RFUSP37V00   | V1.0    | Change components part of the EUT, modify the emission (under the 1GHz) and internal photo.                                                                                                                                                                                                                                                 | Feb. 17, 2016 |
| 1620268R-RFUSP56V00-A | V1.0    | Update WLAN 5G band 4 standard to FCC 15.407. The 2.4G test data, please refer to the 1620125R-RFUSP37V00.                                                                                                                                                                                                                                  | Apr. 08, 2016 |
| 1620268R-RFUSP56V00-C | V1.0    | 1. Add description in chapter 1.1 note 8 for clarify this device support 80 + 80MHz channels and MU-MIMO function. Add MU-MIMO test data in Attachment 1.<br>2. Change antenna external shell design (ASC / RFDPA151300SBLB803_V01 (Gold)), and update antenna photo, this change doesn't affect the antenna gain.<br>3. Add M/N: BRT-AC828 | Aug. 01, 2016 |
|                       |         |                                                                                                                                                                                                                                                                                                                                             |               |
|                       |         |                                                                                                                                                                                                                                                                                                                                             |               |
|                       |         |                                                                                                                                                                                                                                                                                                                                             |               |
|                       |         |                                                                                                                                                                                                                                                                                                                                             |               |
|                       |         |                                                                                                                                                                                                                                                                                                                                             |               |

## Laboratory Information

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|                      |                                                                      |
|----------------------|----------------------------------------------------------------------|
| <b>Taiwan R.O.C.</b> | <b>: TAF, Accreditation Number: 3024</b>                             |
| <b>USA</b>           | <b>: FCC, Registration Number: 834100</b>                            |
| <b>Canada</b>        | <b>: IC, Submission No: 181665 / IC Registration Number: 4075C-4</b> |

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The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :  
[http://www.quietek.com/index\\_en.aspx](http://www.quietek.com/index_en.aspx)

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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## 1. General Information

### 1.1. EUT Description

|                                    |                                              |                                                                                          |
|------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------|
| Product Name                       | Wireless-AC2600 Dual WAN VPN Wireless Router |                                                                                          |
| Trade Name                         | ASUS                                         |                                                                                          |
| Model No.                          | BRT-AC828/M2, BRT-AC828                      |                                                                                          |
| Product Type                       | WLAN (4TX, 4RX)                              |                                                                                          |
| Frequency Range/<br>Channel Number | IEEE 802.11a                                 | 5745~5825MHz / 5 Channels                                                                |
|                                    | IEEE 802.11n (20MHz)                         |                                                                                          |
|                                    | IEEE 802.11ac (20MHz)                        |                                                                                          |
|                                    | IEEE 802.11n (40MHz)                         | 5755~5795MHz / 2 Channels                                                                |
|                                    | IEEE 802.11ac (40MHz)                        |                                                                                          |
|                                    | IEEE 802.11ac (80MHz)                        | 5775~5775MHz / 1 Channel                                                                 |
| Type of Modulation                 | IEEE 802.11a/n/ac                            | Orthogonal Frequency Division Multiplexing                                               |
| Data Speed                         | IEEE 802.11a                                 | 6, 9, 18, 24, 36, 48, 54Mbps                                                             |
|                                    | IEEE 802.11n                                 | Support a subset of the combination of GI, MCS 0~MCS 7 and bandwidth defined in 802.11n  |
|                                    | IEEE 802.11ac                                | Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac |

| Antenna Information |                                     |              |
|---------------------|-------------------------------------|--------------|
| Antenna Type        | Dipole                              |              |
| Antenna Gain        | MFR. / Model                        | Antenna Gain |
|                     | ASC / RFDPA171300SBLB814_V01 (Red)  | 3.19dBi      |
|                     | ASC / RFDPA151300SBLB803_V01 (Gold) | 3.16dBi      |

| Accessories Information |                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------|
| Antenna                 | 3 PCS                                                                                                   |
| LAN Cable               | Shielded, 1.5m                                                                                          |
| Power Adatper 1         | ASUS., ADP-45BW B<br>I/P: 100-240V~ 50-60Hz 1.2A<br>O/P : 19V ===2.37A<br>Cable Out: Non-Shielded, 2.2m |
| Power Adatper 2         | ASUS., ADP-65DW B<br>I/P: 100-240V~ 50-60Hz 1.5A<br>O/P : 19V ===3.42A<br>Cable Out: Non-Shielded, 2.2m |
| Power Adatper 3         | ASUS., AD883J20<br>I/P: 100-240V~ 50/60Hz 1.0A<br>O/P : 19V ===2.37A<br>Cable Out: Non-Shielded, 2.0m   |
| Power Adatper 4         | ASUS., AD887320<br>I/P: 100-240V~ 50/60Hz 1.5A<br>O/P : 19V ===3.42A<br>Cable Out: Non-Shielded, 2.0m   |

## ANT-TX / RX & Bandwidth

| ANT-TX / RX             | TX    |       |       | RX    |       |       |
|-------------------------|-------|-------|-------|-------|-------|-------|
| Mode/ Channel Bandwidth | 20MHz | 40MHz | 80MHz | 20MHz | 40MHz | 80MHz |
| IEEE802.11a             | ✓     |       |       | ✓     |       |       |
| IEEE802.11n             | ✓     | ✓     |       | ✓     | ✓     |       |
| IEEE802.11ac            | ✓     | ✓     | ✓     | ✓     | ✓     | ✓     |

## IEEE 802.11n

| MCS Index | Modulation | R   | N <sub>BPSCS</sub> | N <sub>CBPS</sub> |       | N <sub>DBPS</sub> |       | Data Rate(Mb/s) |       |          |       |
|-----------|------------|-----|--------------------|-------------------|-------|-------------------|-------|-----------------|-------|----------|-------|
|           |            |     |                    | 20MHz             | 40MHz | 20MHz             | 40MHz | 800ns GI        |       | 400ns GI |       |
|           |            |     |                    |                   |       |                   |       | 20MHz           | 40MHz | 20MHz    | 40MHz |
| 0         | BPSK       | 1/2 | 1                  | 52                | 108   | 26                | 54    | 6.5             | 13.5  | 7.2      | 15.0  |
| 1         | QPSK       | 1/2 | 2                  | 104               | 216   | 52                | 108   | 13.0            | 27.0  | 14.4     | 30.0  |
| 2         | QPSK       | 3/4 | 2                  | 104               | 216   | 78                | 162   | 19.5            | 40.5  | 21.7     | 45.0  |
| 3         | 16-QAM     | 1/2 | 4                  | 208               | 432   | 104               | 216   | 26.0            | 54.0  | 28.9     | 60.0  |
| 4         | 16-QAM     | 3/4 | 4                  | 208               | 432   | 156               | 324   | 39.0            | 81.0  | 43.3     | 90.0  |
| 5         | 64-QAM     | 2/3 | 6                  | 312               | 648   | 208               | 432   | 52.0            | 108.0 | 57.8     | 120.0 |
| 6         | 64-QAM     | 3/4 | 6                  | 312               | 648   | 234               | 486   | 58.5            | 121.5 | 65.0     | 135.0 |
| 7         | 64-QAM     | 5/6 | 6                  | 312               | 648   | 260               | 540   | 65.0            | 135.0 | 72.2     | 150.0 |

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 1 – MCS parameters for TX Antenna number = 1

| MCS Index | Modulation | R   | N <sub>BPSCS</sub> | N <sub>CBPS</sub> |       | N <sub>DBPS</sub> |       | Data Rate(Mb/s) |       |          |       |
|-----------|------------|-----|--------------------|-------------------|-------|-------------------|-------|-----------------|-------|----------|-------|
|           |            |     |                    | 20MHz             | 40MHz | 20MHz             | 40MHz | 800ns GI        |       | 400ns GI |       |
|           |            |     |                    |                   |       |                   |       | 20MHz           | 40MHz | 20MHz    | 40MHz |
| 8         | BPSK       | 1/2 | 1                  | 104               | 216   | 52                | 108   | 13.0            | 27.0  | 14.4     | 30.0  |
| 9         | QPSK       | 1/2 | 2                  | 208               | 432   | 104               | 216   | 26.0            | 54.0  | 28.9     | 60.0  |
| 10        | QPSK       | 3/4 | 2                  | 208               | 432   | 156               | 324   | 39.0            | 81.0  | 43.3     | 90.0  |
| 11        | 16-QAM     | 1/2 | 4                  | 416               | 864   | 208               | 432   | 52.0            | 108.0 | 57.8     | 120.0 |
| 12        | 16-QAM     | 3/4 | 4                  | 416               | 864   | 312               | 648   | 78.0            | 162.0 | 86.7     | 180.0 |
| 13        | 64-QAM     | 2/3 | 6                  | 624               | 1296  | 416               | 864   | 104.0           | 216.0 | 115.6    | 240.0 |
| 14        | 64-QAM     | 3/4 | 6                  | 624               | 1296  | 468               | 972   | 117.0           | 243.0 | 130.0    | 270.0 |
| 15        | 64-QAM     | 5/6 | 6                  | 624               | 1296  | 520               | 1080  | 130.0           | 270.0 | 144.4    | 300.0 |

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 2 – MCS parameters for TX Antenna number = 2

| MCS Index | Modulation | R   | N <sub>BPSCS</sub> | N <sub>CBPS</sub> |       | N <sub>DBPS</sub> |       | Data Rate(Mb/s) |       |          |       |
|-----------|------------|-----|--------------------|-------------------|-------|-------------------|-------|-----------------|-------|----------|-------|
|           |            |     |                    | 20MHz             | 40MHz | 20MHz             | 40MHz | 800ns GI        |       | 400ns GI |       |
|           |            |     |                    |                   |       |                   |       | 20MHz           | 40MHz | 20MHz    | 40MHz |
| 16        | BPSK       | 1/2 | 1                  | 156               | 324   | 78                | 162   | 19.5            | 40.5  | 21.7     | 45.0  |
| 17        | QPSK       | 1/2 | 2                  | 312               | 648   | 156               | 324   | 39.0            | 81.0  | 43.3     | 90.0  |
| 18        | QPSK       | 3/4 | 2                  | 312               | 648   | 234               | 486   | 58.5            | 121.5 | 65.0     | 135.0 |
| 19        | 16-QAM     | 1/2 | 4                  | 624               | 1296  | 312               | 648   | 78.0            | 162.0 | 86.7     | 180.0 |
| 20        | 16-QAM     | 3/4 | 4                  | 624               | 1296  | 468               | 972   | 117.0           | 243.0 | 130.0    | 270.0 |
| 21        | 64-QAM     | 2/3 | 6                  | 936               | 1944  | 624               | 1296  | 156.0           | 324.0 | 173.3    | 360.0 |
| 22        | 64-QAM     | 3/4 | 6                  | 936               | 1944  | 702               | 1458  | 175.5           | 364.5 | 195.0    | 405.0 |
| 23        | 64-QAM     | 5/6 | 6                  | 936               | 1944  | 780               | 1620  | 195.0           | 405.0 | 216.7    | 450.0 |

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 3 – MCS parameters for TX Antenna number = 3

| MCS Index | Modulation | R   | N <sub>BPSCS</sub> | N <sub>CBPS</sub> |       | N <sub>DBPS</sub> |       | Data Rate(Mb/s) |        |          |        |
|-----------|------------|-----|--------------------|-------------------|-------|-------------------|-------|-----------------|--------|----------|--------|
|           |            |     |                    | 20MHz             | 40MHz | 20MHz             | 40MHz | 800ns GI        |        | 400ns GI |        |
|           |            |     |                    |                   |       |                   |       | 20MHz           | 40MHz  | 20MHz    | 40MHz  |
| 24        | BPSK       | 1/2 | 1                  | 208               | 432   | 104               | 216   | 26.00           | 54.00  | 28.80    | 60.00  |
| 25        | QPSK       | 1/2 | 2                  | 416               | 864   | 208               | 432   | 52.00           | 108.00 | 57.60    | 120.00 |
| 26        | QPSK       | 3/4 | 2                  | 416               | 864   | 312               | 648   | 78.00           | 162.00 | 86.80    | 180.00 |
| 27        | 16-QAM     | 1/2 | 4                  | 832               | 1728  | 416               | 864   | 104.00          | 216.00 | 115.60   | 240.00 |
| 28        | 16-QAM     | 3/4 | 4                  | 832               | 1728  | 624               | 1296  | 156.00          | 324.00 | 172.20   | 360.00 |
| 29        | 64-QAM     | 2/3 | 6                  | 1248              | 2592  | 832               | 1728  | 208.00          | 432.00 | 231.20   | 480.00 |
| 30        | 64-QAM     | 3/4 | 6                  | 1248              | 2592  | 936               | 1944  | 234.00          | 486.00 | 260.00   | 540.00 |
| 31        | 64-QAM     | 5/6 | 6                  | 1248              | 2592  | 1040              | 2040  | 260.00          | 540.00 | 288.80   | 600.00 |

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 4 – MCS parameters for TX Antenna number = 4

| Symbol            | Explanation                             |
|-------------------|-----------------------------------------|
| R                 | Code rate                               |
| N <sub>BPSC</sub> | Number of coded bits per single carrier |
| N <sub>CBPS</sub> | Number of coded bits per symbol         |
| N <sub>DBPS</sub> | Number of data bits per symbol          |
| GI                | guard interval                          |

## IEEE 802.11ac Data Rate

| Spatial Streams (Note1) | MCS Index | Modulation type | Coding rate | Data Rate(Mb/s) |       |                |       |                |       |                |        |
|-------------------------|-----------|-----------------|-------------|-----------------|-------|----------------|-------|----------------|-------|----------------|--------|
|                         |           |                 |             | 20 MHz          |       | 40 MHz         |       | 80 MHz         |       | 160 MHz        |        |
|                         |           |                 |             | Guard Interval  |       | Guard Interval |       | Guard Interval |       | Guard Interval |        |
|                         |           |                 |             | 800ns           | 400ns | 800ns          | 400ns | 800ns          | 400ns | 800ns          | 400ns  |
| 1                       | 0         | BPSK            | 1/2         | 6.5             | 7.2   | 13.5           | 15    | 29.3           | 32.5  | 58.5           | 65     |
|                         | 1         | QPSK            | 1/2         | 13              | 14.4  | 27             | 30    | 58.5           | 65    | 117            | 130    |
|                         | 2         | QPSK            | 3/4         | 19.5            | 21.7  | 40.5           | 45    | 87.8           | 97.5  | 175.5          | 195    |
|                         | 3         | 16-QAM          | 1/2         | 26              | 28.9  | 54             | 60    | 117            | 130   | 234            | 260    |
|                         | 4         | 16-QAM          | 3/4         | 39              | 43.3  | 81             | 90    | 175.5          | 195   | 351            | 390    |
|                         | 5         | 64-QAM          | 2/3         | 52              | 57.8  | 108            | 120   | 234            | 260   | 468            | 520    |
|                         | 6         | 64-QAM          | 3/4         | 58.5            | 65    | 121.5          | 135   | 263.3          | 292.5 | 526.5          | 585    |
|                         | 7         | 64-QAM          | 5/6         | 65              | 72.2  | 135            | 150   | 292.5          | 325   | 585            | 650    |
|                         | 8         | 256-QAM         | 3/4         | 78              | 86.7  | 162            | 180   | 351            | 390   | 702            | 780    |
|                         | 9         | 256-QAM         | 5/6         | N/A             | N/A   | 180            | 200   | 390            | 433.3 | 780            | 866.7  |
| 2                       | 0         | BPSK            | 1/2         | 13              | 14.4  | 27             | 30    | 58.6           | 65    | 117            | 130    |
|                         | 1         | QPSK            | 1/2         | 26              | 28.8  | 54             | 60    | 117            | 130   | 234            | 260    |
|                         | 2         | QPSK            | 3/4         | 39              | 43.4  | 81             | 90    | 175.6          | 195   | 351            | 390    |
|                         | 3         | 16-QAM          | 1/2         | 52              | 57.8  | 108            | 120   | 234            | 260   | 468            | 520    |
|                         | 4         | 16-QAM          | 3/4         | 78              | 86.6  | 162            | 180   | 351            | 390   | 702            | 780    |
|                         | 5         | 64-QAM          | 2/3         | 104             | 115.6 | 216            | 240   | 468            | 520   | 936            | 1040   |
|                         | 6         | 64-QAM          | 3/4         | 117             | 130   | 243            | 270   | 526.6          | 585   | 1053           | 1170   |
|                         | 7         | 64-QAM          | 5/6         | 130             | 144.4 | 270            | 300   | 585            | 650   | 1170           | 1300   |
|                         | 8         | 256-QAM         | 3/4         | 156             | 173.4 | 324            | 360   | 702            | 780   | 1404           | 1560   |
|                         | 9         | 256-QAM         | 5/6         | N/A             | N/A   | 360            | 400   | 780            | 866.6 | 1560           | 1733.4 |
| 3                       | 0         | BPSK            | 1/2         | 13              | 14.4  | 27             | 30    | 58.6           | 65    | 117            | 130    |
|                         | 1         | QPSK            | 1/2         | 26              | 28.8  | 54             | 60    | 117            | 130   | 234            | 260    |
|                         | 2         | QPSK            | 3/4         | 39              | 43.4  | 81             | 90    | 175.6          | 195   | 351            | 390    |
|                         | 3         | 16-QAM          | 1/2         | 52              | 57.8  | 108            | 120   | 234            | 260   | 468            | 520    |
|                         | 4         | 16-QAM          | 3/4         | 78              | 86.6  | 162            | 180   | 351            | 390   | 702            | 780    |
|                         | 5         | 64-QAM          | 2/3         | 104             | 115.6 | 216            | 240   | 468            | 520   | 936            | 1040   |
|                         | 6         | 64-QAM          | 3/4         | 117             | 130   | 243            | 270   | 526.6          | 585   | 1053           | 1170   |
|                         | 7         | 64-QAM          | 5/6         | 130             | 144.4 | 270            | 300   | 585            | 650   | 1170           | 1300   |
|                         | 8         | 256-QAM         | 3/4         | 156             | 173.4 | 324            | 360   | 702            | 780   | 1404           | 1560   |
|                         | 9         | 256-QAM         | 5/6         | N/A             | N/A   | 360            | 400   | 780            | 866.6 | 1560           | 1733.4 |

|   |   |         |     |       |       |       |       |        |        |        |        |
|---|---|---------|-----|-------|-------|-------|-------|--------|--------|--------|--------|
| 4 | 0 | BPSK    | 1/2 | 26.0  | 28.9  | 54.0  | 60.0  | 117.0  | 130.0  | 234.0  | 260.0  |
|   | 1 | QPSK    | 1/2 | 52.0  | 57.8  | 108.0 | 120.0 | 234.0  | 260.0  | 468.0  | 520.0  |
|   | 2 | QPSK    | 3/4 | 78.0  | 86.7  | 162.0 | 180.0 | 351.0  | 390.0  | 702.0  | 780.0  |
|   | 3 | 16-QAM  | 1/2 | 104.0 | 115.6 | 216.0 | 240.0 | 468.0  | 520.0  | 936.0  | 1040.0 |
|   | 4 | 16-QAM  | 3/4 | 156.0 | 173.3 | 342.0 | 360.0 | 702.0  | 780.0  | 1404.0 | 1560.0 |
|   | 5 | 64-QAM  | 2/3 | 208.0 | 231.1 | 432.0 | 480.0 | 936.0  | 1040.0 | 1872.0 | 2080.0 |
|   | 6 | 64-QAM  | 3/4 | 234.0 | 260.0 | 486.0 | 540.0 | 1053.0 | 1170.0 | 2106.0 | 2340.0 |
|   | 7 | 64-QAM  | 5/6 | 260.0 | 288.9 | 540.0 | 600.0 | 1170.0 | 1300.0 | N/A    | N/A    |
|   | 8 | 256-QAM | 3/4 | 312.0 | 346.7 | 648.0 | 720.0 | 1404.0 | 1560.0 | 2808.0 | 3120.0 |
|   | 9 | 256-QAM | 5/6 | N/A   | N/A   | 720.0 | 800.0 | 1560.0 | 1733.3 | 3120.0 | 3466.7 |

IEEE 802.11a & IEEE 802.11n (20MHz) & IEEE 802.11ac (20MHz)

| Working Frequency of Each Channel |           |         |           |         |           |         |           |
|-----------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                           | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 149                               | 5745 MHz  | 153     | 5765 MHz  | 157     | 5785 MHz  | 161     | 5805 MHz  |
| 165                               | 5825 MHz  |         |           |         |           |         |           |

IEEE 802.11n (40MHz) & IEEE 802.11ac (40MHz)

| Working Frequency of Each Channel |           |         |           |
|-----------------------------------|-----------|---------|-----------|
| Channel                           | Frequency | Channel | Frequency |
| 151                               | 5755 MHz  | 159     | 5795 MHz  |

IEEE 802.11ac (80MHz)

| Working Frequency of Each Channel |           |
|-----------------------------------|-----------|
| Channel                           | Frequency |
| 155                               | 5775 MHz  |

Note:

1. This device is a Wireless-AC2600 Dual WAN VPN Wireless Router including 2.4GHz b/g/n (4x4) and 5GHz a/n/ac (4x4) transmitting and receiving function.
2. The variation of model number is for different strategy of marketing.
3. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart E Paragraph 15.407.
4. Regards to the frequency band operation; the lowest 、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
5. The function of the 5.2GHz transmitting is measured and makes a test report of the report number: 1620268R-RFUSP56V00-B.
6. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 1620125R-RFUSP01V00.
7. This test item: undesirable emission limits accordance with Part 15.407(b)(4)(ii).
8. This device can optional transmission in non-contiguous 80MHz channels(80+80 MHz mode) and supports 802.11ac Wave 1 and Wave 2. 802.11ac Wave 2 of BRT-AC828 uses downlink MU-MIMO (multi-user MIMO) to send data to up to three clients .

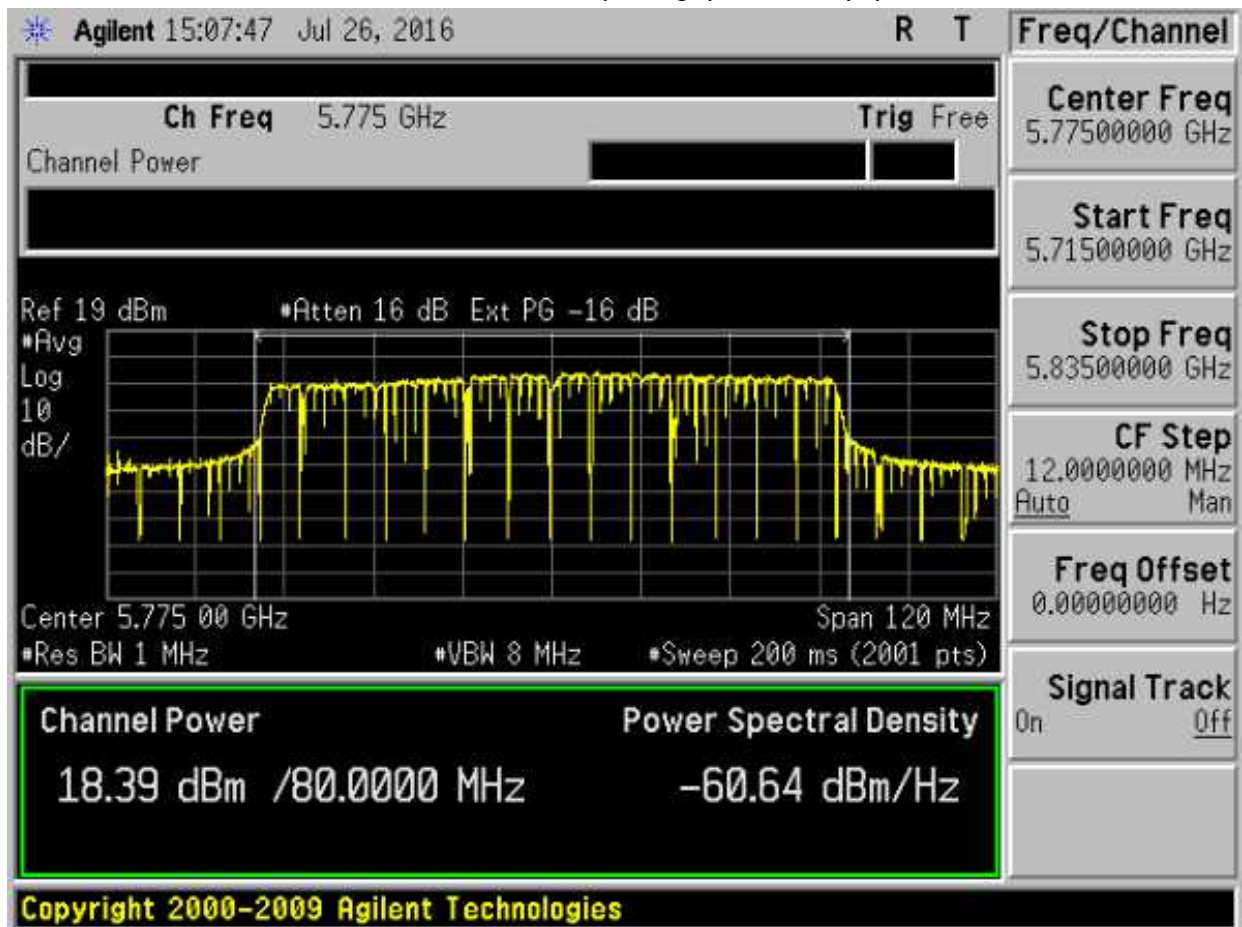
## Attachment 1

### ➤ MU-MIMO Test

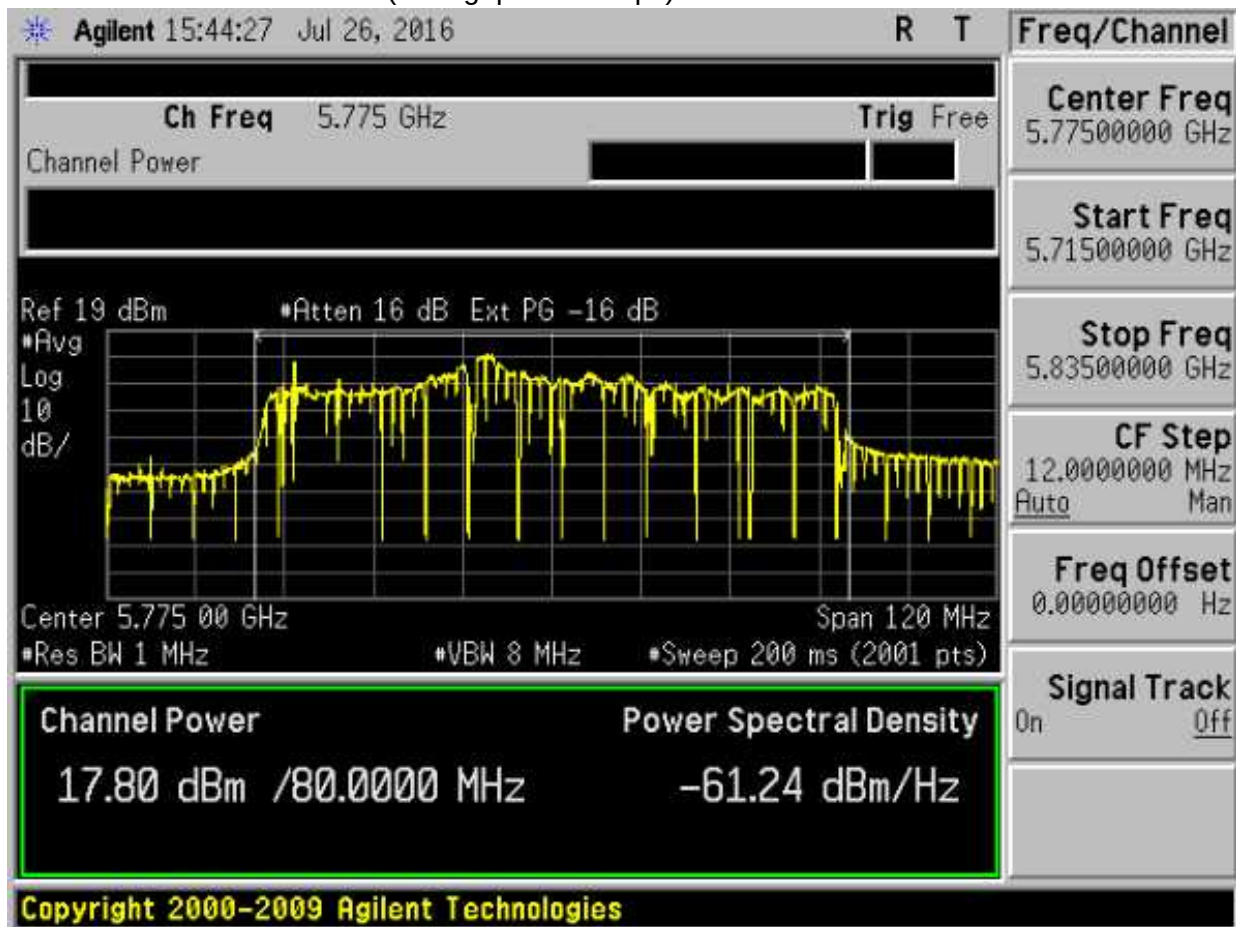
1. One Client: 1x1 MU-MIMO(throughput:230Mbps )



2. Two Clients:1x1 MU-MIMO+1x1 MU-MIMO(throughput:360Mbps)



### 3.Three Clients: MU-MIMO(throughput:390Mbps)



| Channel power (EIRP) | One client MU-MIMO | Two clients MU-MIMO | Three clients MU-MIMO |
|----------------------|--------------------|---------------------|-----------------------|
|                      | 19.23(dBm)         | 18.39(dBm)          | 17.80(dBm)            |

The result can prove the possibility of independent beams overlapping which can not result in higher EIRP than a single user MIMO mode can generate and potentially exceeding the limit.

## Attachment 2

### ➤ Antenna External Photo

(1) EUT Photo (Antenna: ASC\_RFDPA171300SBLB814\_V01)



(2) EUT Photo (Antenna: ASC\_RFDPA151300SBLB803\_V01)



### **Attachment 3**

➤ **Original Report**