

# [Application Note]

- PART Name : BLB03
- TEST FREQUENCY : 3700~4000MHz
- Main Application Goal : 5G NR ACLR
- Measuring Equipment List

Network Analyzer : E5071C , Signal : N5182A & N5182B , Spectrum Analyzer : E4440A

### Test Result :

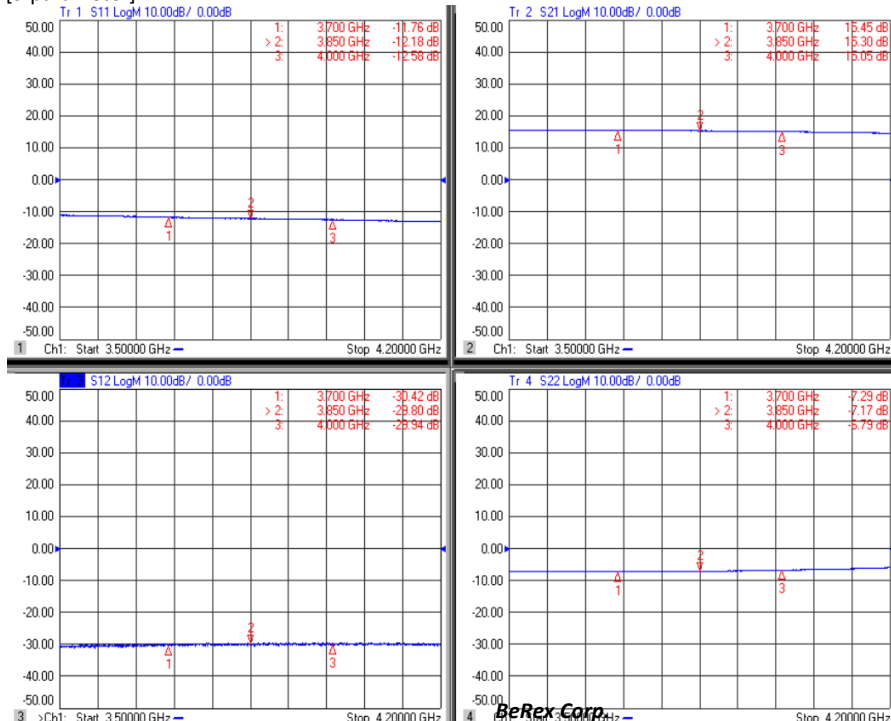
| Frequency   | GHz | 3.7   | 3.85  | 4     | Mark       |
|-------------|-----|-------|-------|-------|------------|
| Gain        | dB  | 15.4  | 15.3  | 15.0  |            |
| S11         | dB  | -11.7 | -12.1 | -12.5 |            |
| S22         | dB  | -7.2  | -7.1  | -6.7  |            |
| OIP3        | dBm | 33.7  | 33.9  | 33.7  | @0dBm/tone |
| P1          | dBm | 19.8  | 19.5  | 18.9  |            |
| ACLR [5GNR] | dBc | 9.1   | 8.6   | 7.9   | @-50dBc    |
| Current     | mA  | 54    |       |       | Vcc = 5V   |

Appendix: TEST items available to change depending on the situation.

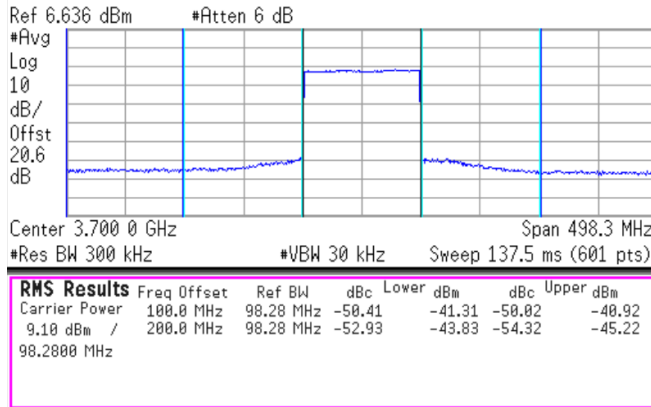
### \*Application Circuit\_3.7~4GHz

| Schematic Diagram | BOM               | Marks        |       |  |
|-------------------|-------------------|--------------|-------|--|
|                   | C1                | 0603 20pF    |       |  |
|                   | C2                | 0603 20pF    |       |  |
|                   | C3                | 0603 20pF    |       |  |
|                   | C4                | 0603 0.3pF   |       |  |
|                   | L1                | 0603 15nH    |       |  |
|                   | L2                | 0603 8.2nH   |       |  |
|                   | R1                | 0603 9.1kohm |       |  |
|                   | R2                | 0603 3ohm    |       |  |
|                   | U1                | DFN2x2       | BLB03 |  |
|                   | E/B Configuration |              | Marks |  |
|                   |                   |              |       |  |

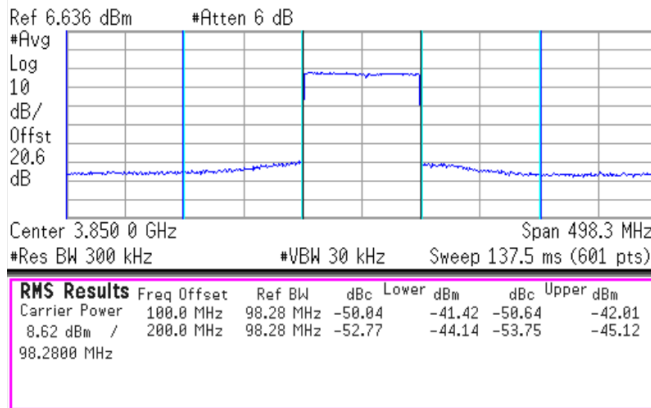
### [S-parameter]



[3.7GHz 5GNR 55mA]



[3.85GHz 5GNR 55mA]



[4GHz 5GNR 55mA]

