

SMD Chip Antenna

BTCA Series

| Prepared: Chris Chai | | Approved: Adam Chen | |
|----------------------|------------------|---------------------|----------|
| Checked: Feidi Pei | | Customer: | |
| Version | Changed Reason | Changed by | Date |
| 01 | Original version | Chris | 20191008 |
| | | | |
| | | | |

Address (India): H-601, Officer City2, Rajnagar Extension, Ghaziabad

Address (TW): 2F., NO 3, Gongye 4th RD., Hukou Shiang Hsinchu County 303-51, Taiwan

- PSG offer multilayer devices of Low-Temperature Cofired Ceramics for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high-volume production capability

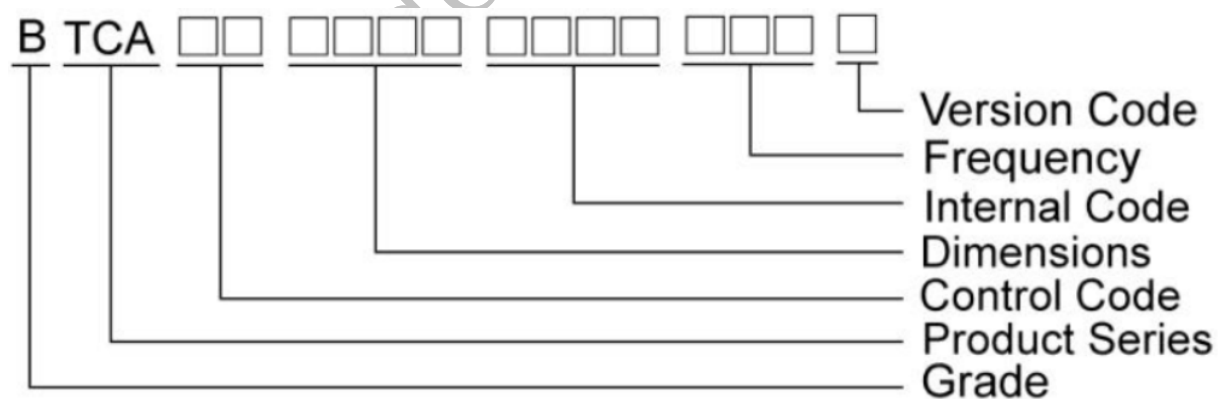
Features

- Monolithic SMD with small
- Low-profile and light-weight type

Applications

- Bluetooth; 2.4GHz Wireless LAN; Home RF; Consumer electronic

Product Identification



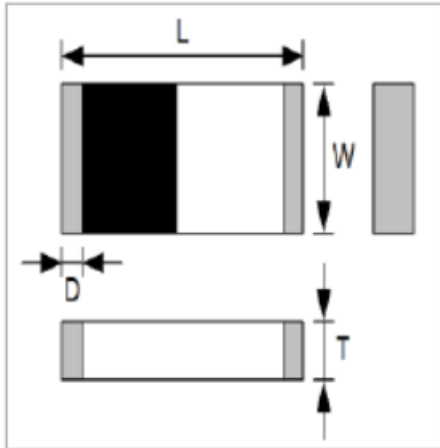
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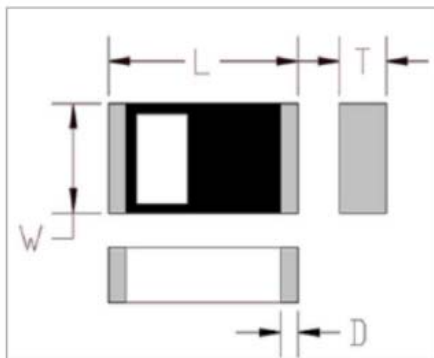
<https://www.psgtek.com>

Shape and Dimensions

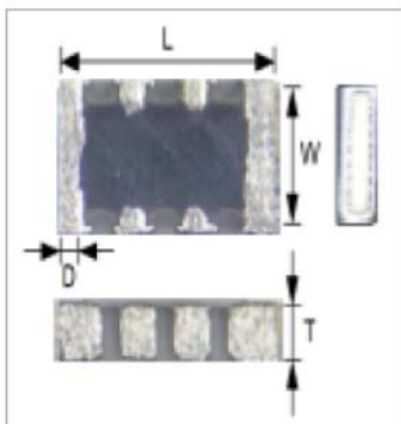
- Config1



- Config2



- Config3

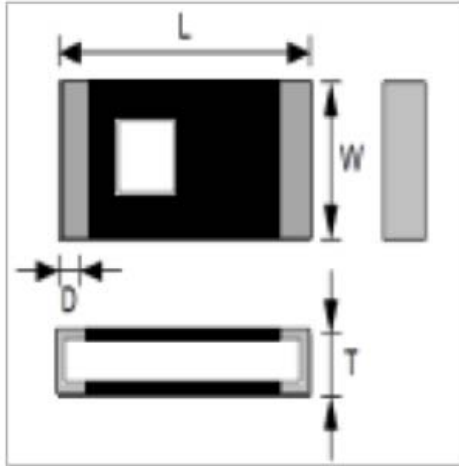


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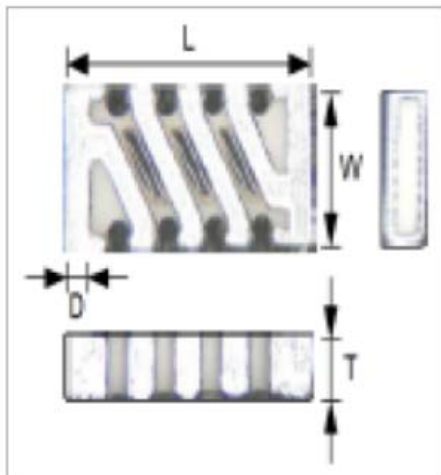
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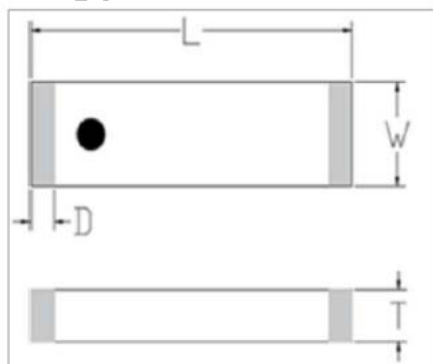
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- Config5



- Config6

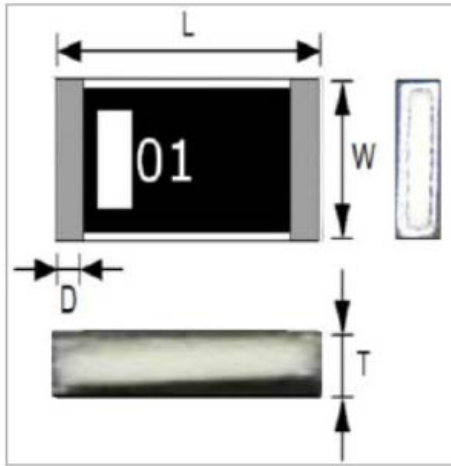


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- Config7

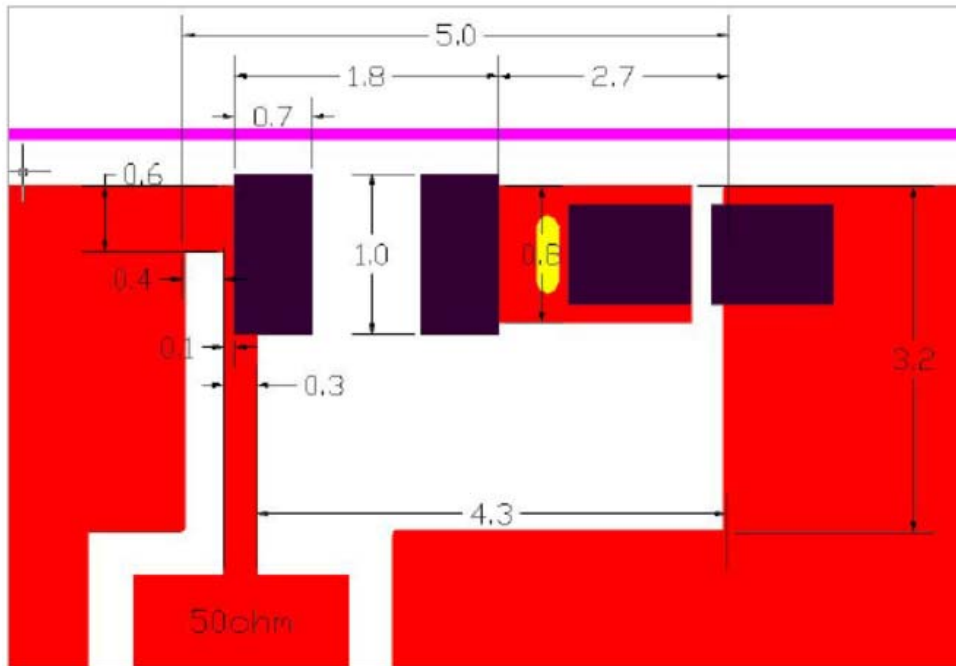


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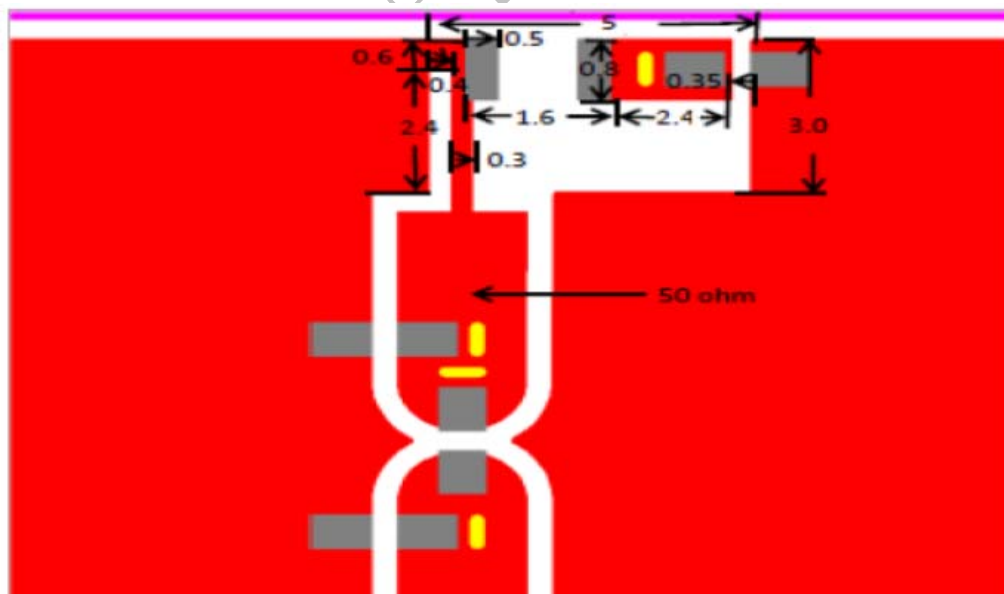
| TYPE | FIG | L | W | D | T |
|--------------------|-----|---------|---------|-----------|----------|
| BTCA00160807002G4B | 1 | 1.6±0.2 | 0.8±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA00160800002G4C | 2 | 1.6±0.1 | 0.8±0.1 | 0.35±0.15 | 0.45±0.1 |
| BTCA00201000002G4D | 3 | 2.0±0.2 | 1.0±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA00201203002G4A | 1 | 2.0±0.2 | 1.2±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA00201204002G4B | 1 | 2.0±0.2 | 1.2±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA00321608002G4C | 4 | 3.2±0.2 | 1.6±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA00502506002G4C | 4 | 5.0±0.2 | 2.5±0.2 | 0.6±0.2 | 0.6±0.1 |
| BTCA00321609002G4D | 5 | 3.2±0.2 | 1.6±0.2 | 0.5±0.2 | 0.5±0.2 |
| BTCA007020x1000GxA | 6 | 7.0±0.2 | 2.0±0.2 | 0.5±0.2 | 1.1±0.2 |
| BTCA00321609002G4W | 7 | 3.0±0.2 | 1.5±0.2 | 0.2±0.2 | 0.5±0.2 |
| BTCA00321609005G0W | 7 | 3.2±0.2 | 1.6±0.2 | 0.5±0.2 | 0.5±0.2 |

Recommended Pattern

- BTCA00160807002G4B



- BTCA00160800002G4C

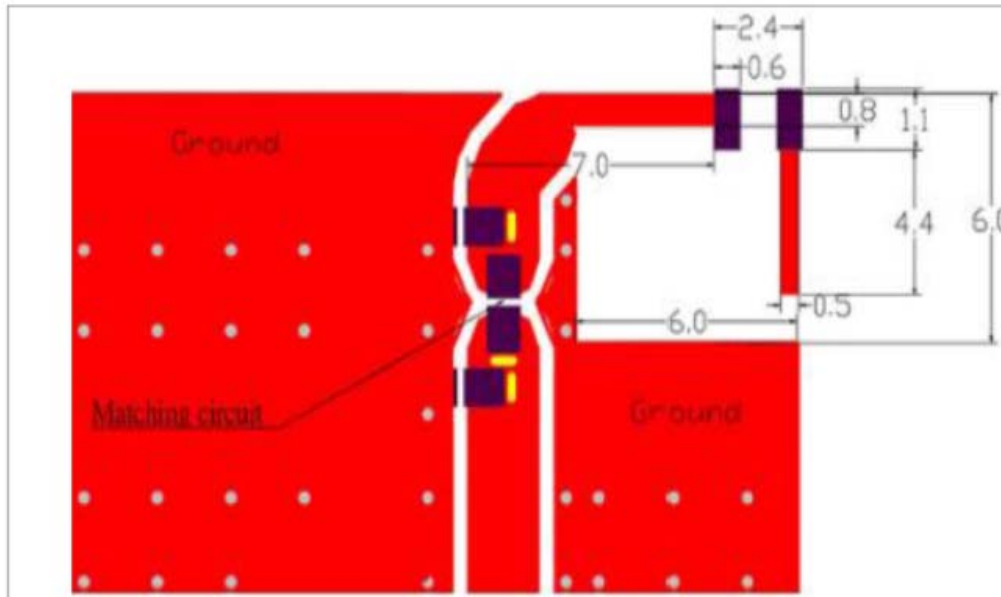


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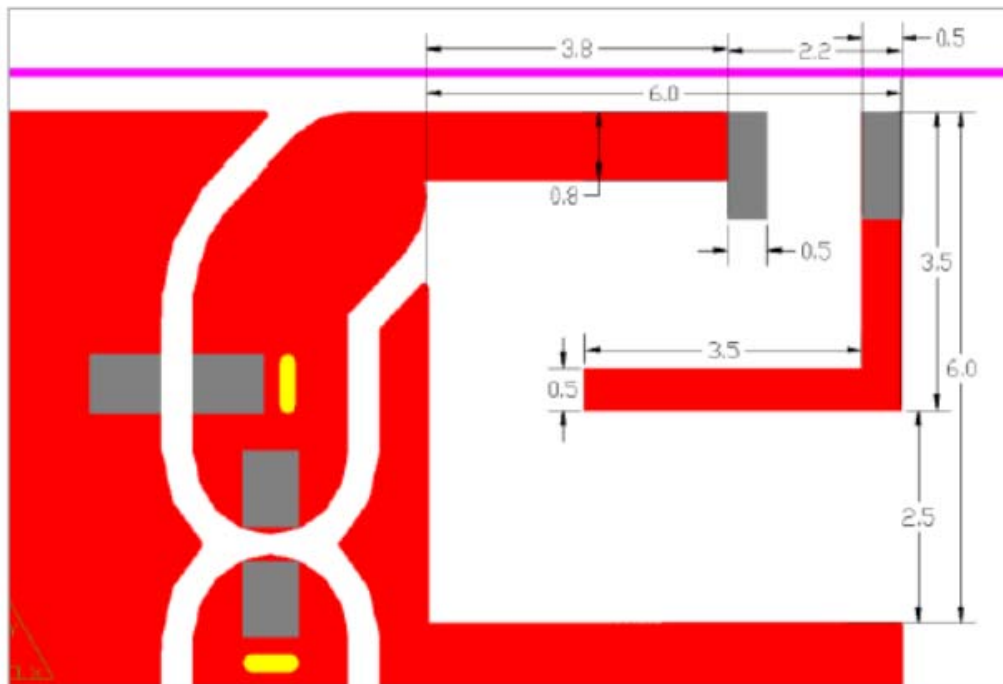
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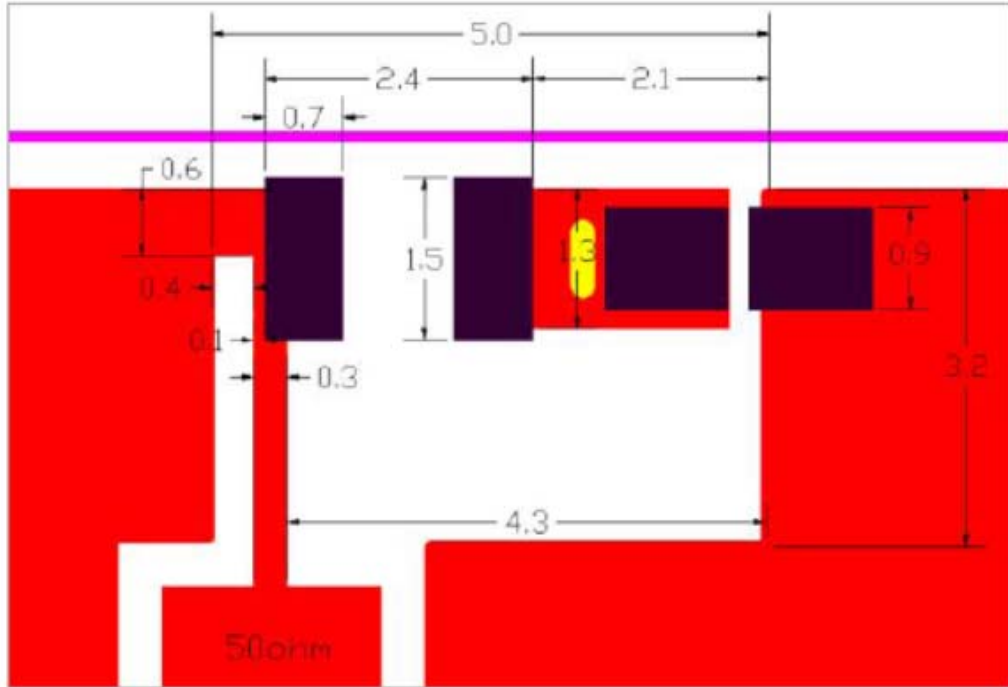
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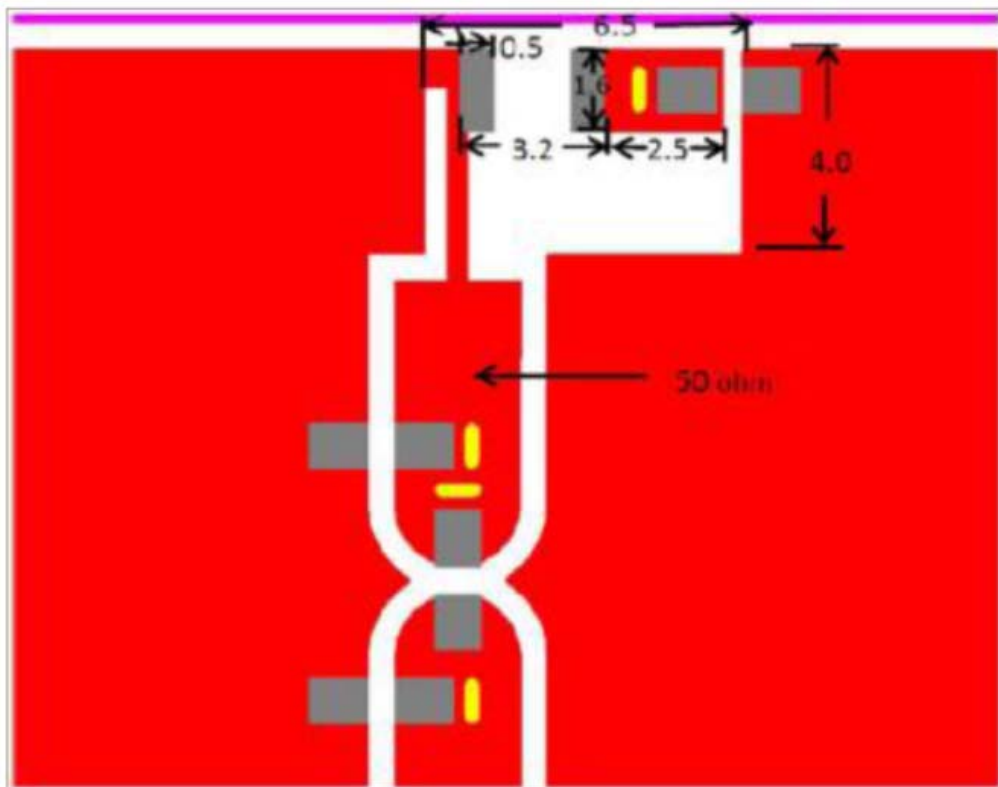
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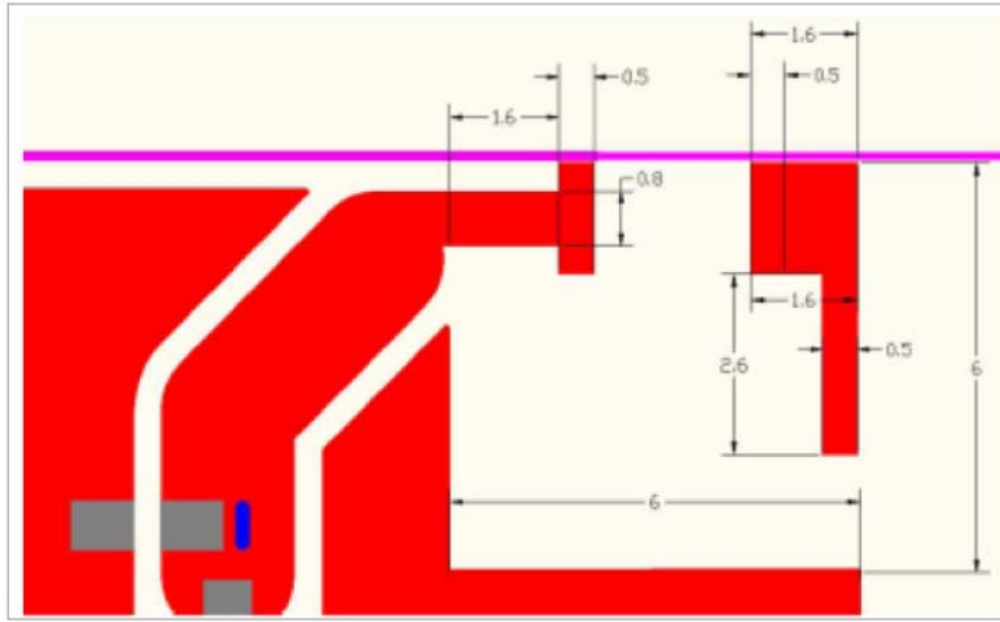
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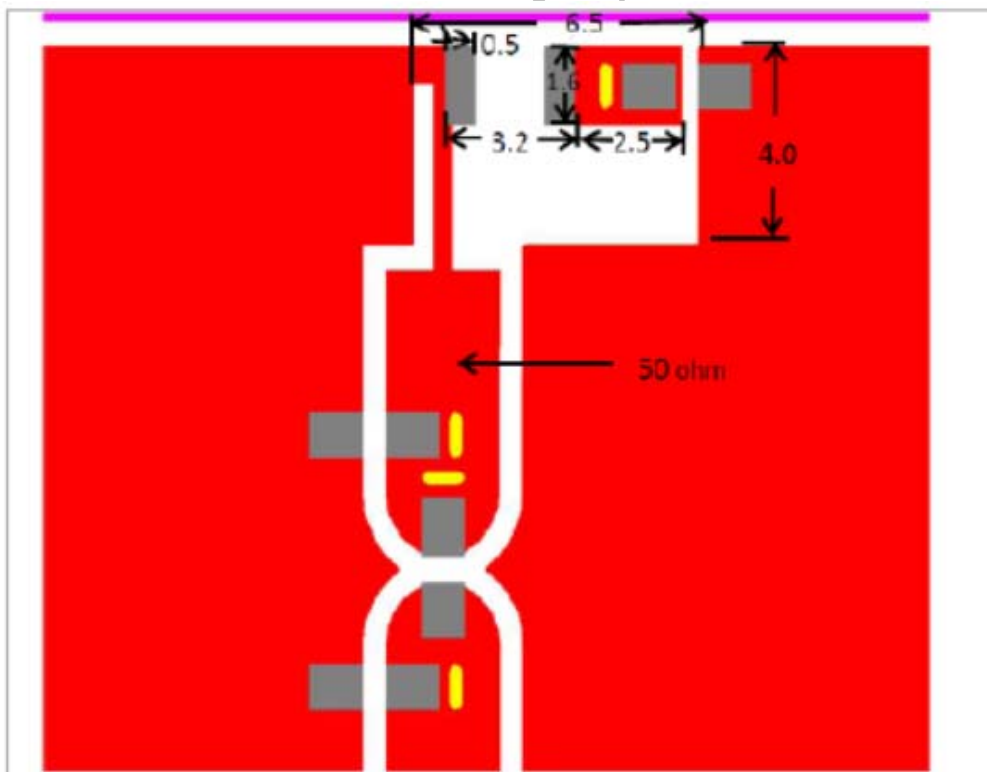
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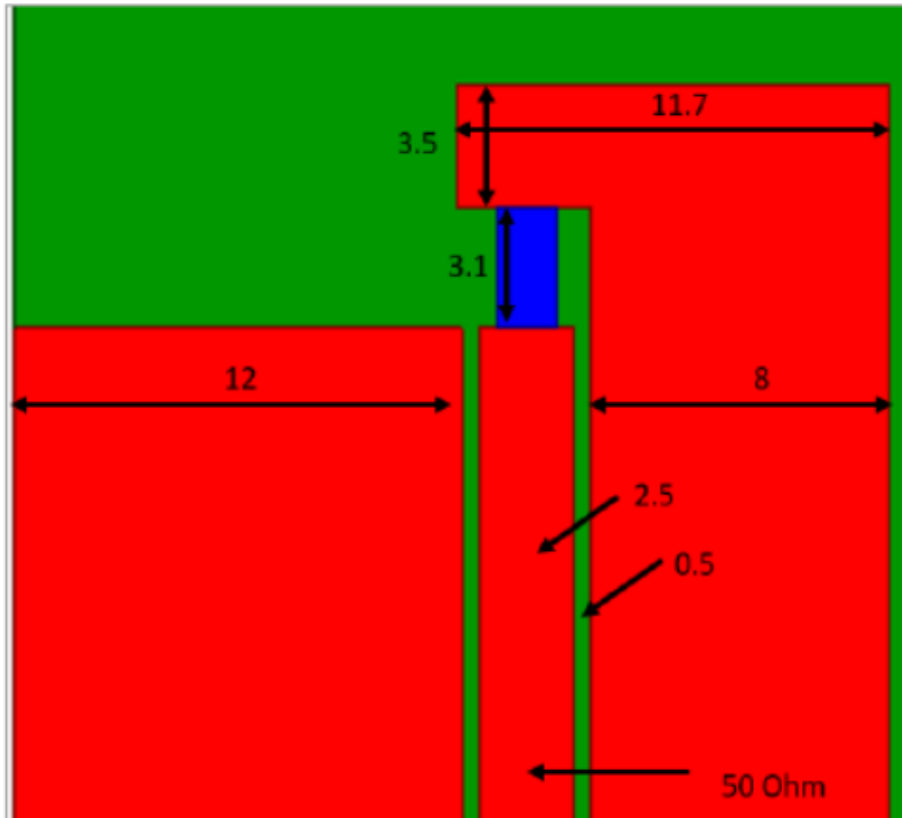
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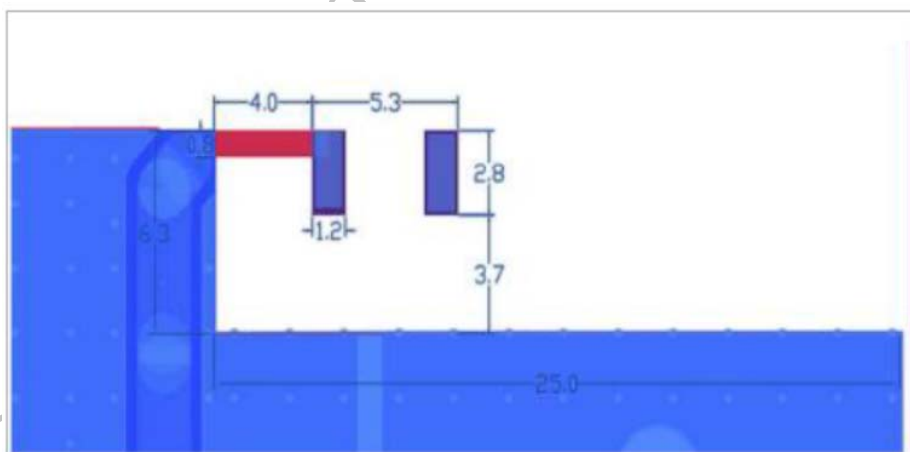
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- BTCA00321609002G4W



- BTCA00502506002G4C

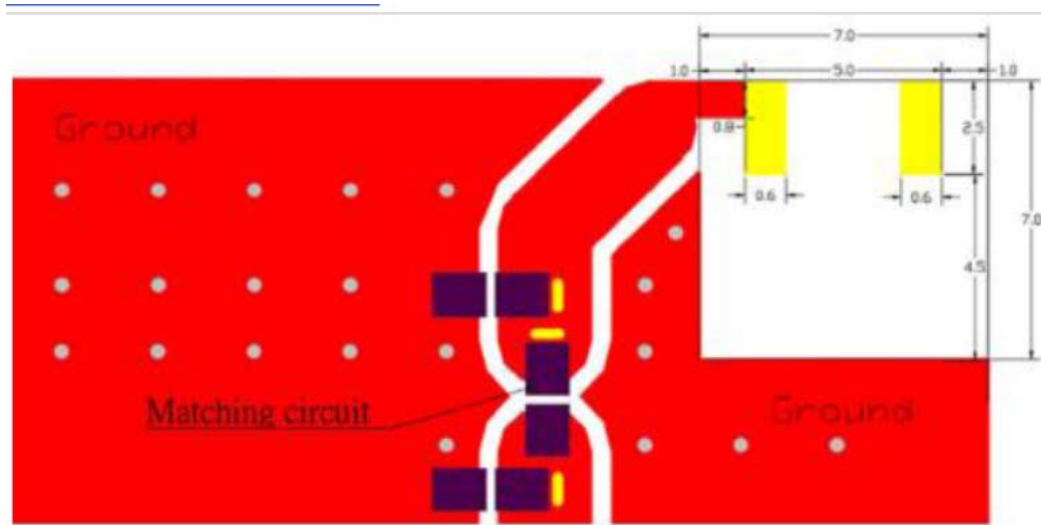


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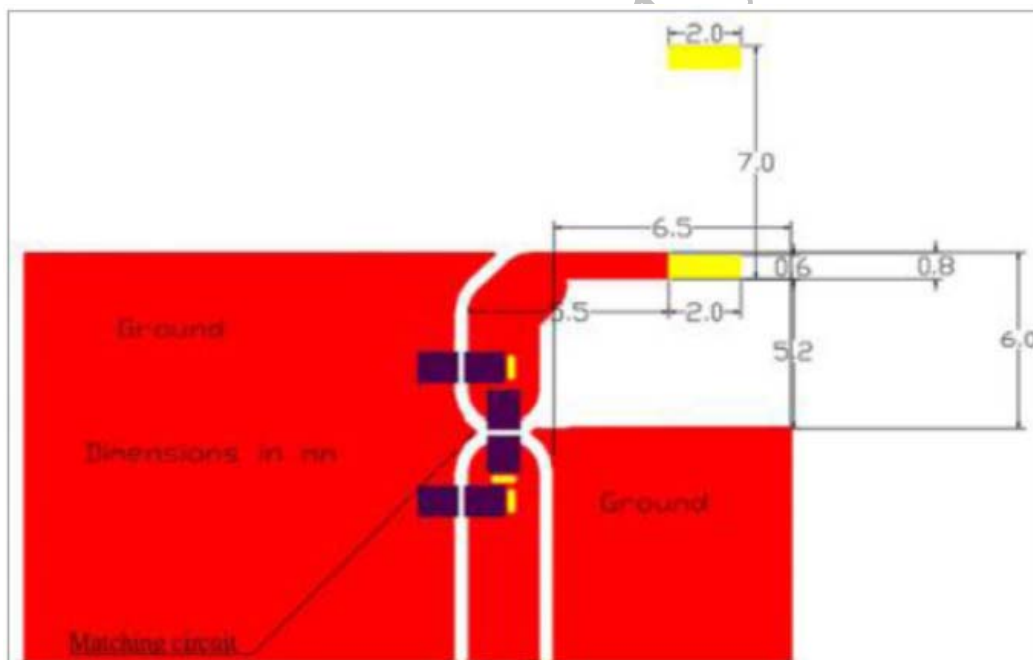
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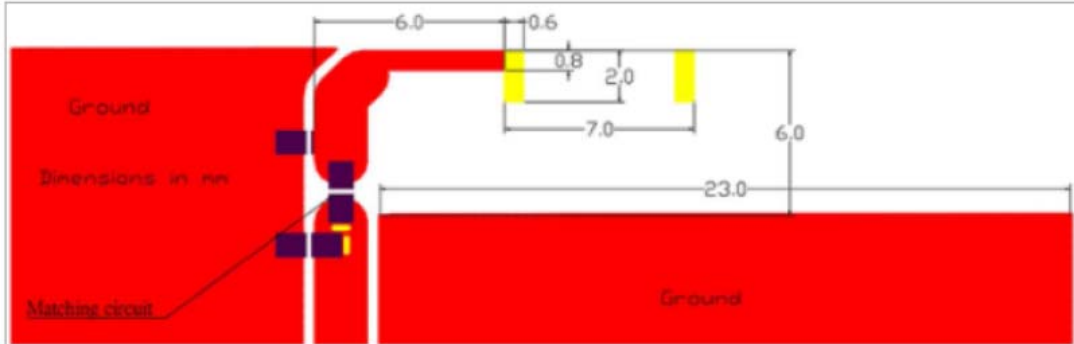
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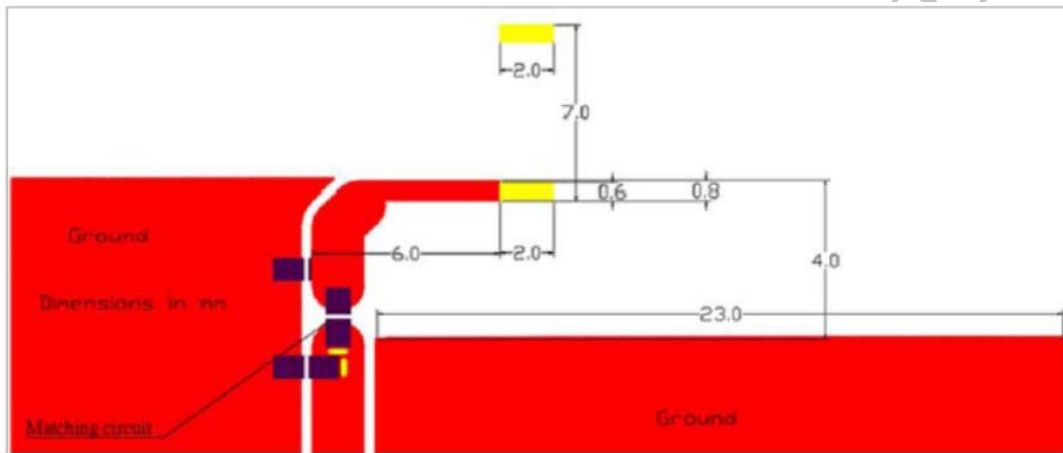
- BTCA00702001000G4A/ BTCA00702011000G8A



- BTCA00702011000G4A



- BTCA00702011000G9A



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Electrical Characteristics

| TYPE | Impedance (Ω) | Frequency (GHz) | Bandwidth (MHz) | Peak Gain (dBi) | VSWR | Polarization |
|--------------------|---------------------------|--------------------|--------------------|--------------------|------|--------------|
| BTCA00160807002G4B | 50 | 2.4 | 100 | 2~3 | 2 | Linear |
| BTCA00160800002G4C | 50 | 2.4 | 90 | 1~3 | 2 | Linear |
| BTCA00201000002G4D | 50 | 2.4 | 100 | 0~3 | 2 | Linear |
| BTCA00201203002G4A | 50 | 2.4 | 100 | 0~2 | 2 | Linear |
| BTCA00201204002G4B | 50 | 2.4 | 100 | 0~2 | 2 | Linear |
| BTCA00321608002G4C | 50 | 2.4 | 100 | 2~3 | 2 | Linear |
| BTCA00321609002G4D | 50 | 2.4 | 100 | 2~3 | 2 | Linear |
| BTCA00321609002G4W | 50 | 2.4 | 100 | 0~1 | 2 | Linear |
| BTCA00321609005G0W | 50 | 5 | 100 | -0.3~1.3 | 2 | Linear |
| BTCA00502506002G4C | 50 | 2.4 | 100 | 2~3 | 2 | Linear |
| BTCA00502506005G0C | 50 | 5~6 | 700 | 1~3 | 2 | Linear |
| BTCA00702001000G4A | 50 | 0.47 | 20 | -16.75 | 2 | Linear |
| BTCA00702011000G4A | 50 | 0.433 | 10 | -20.9 | 2 | Linear |
| BTCA00702011000G8A | 50 | 0.866 | 20 | -9.17 | 2 | Linear |
| BTCA00702011000G9A | 50 | 0.915 | 20 | -9.75 | 2 | Linear |

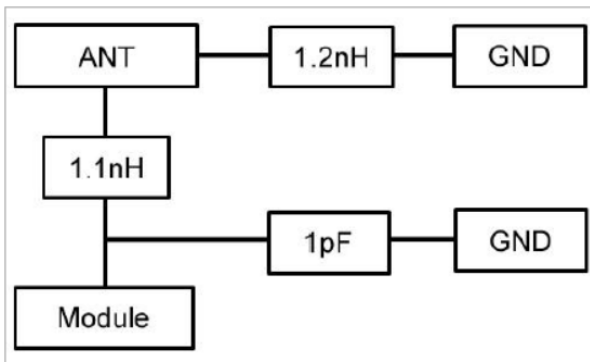
Note: *Depend on PCB layout.

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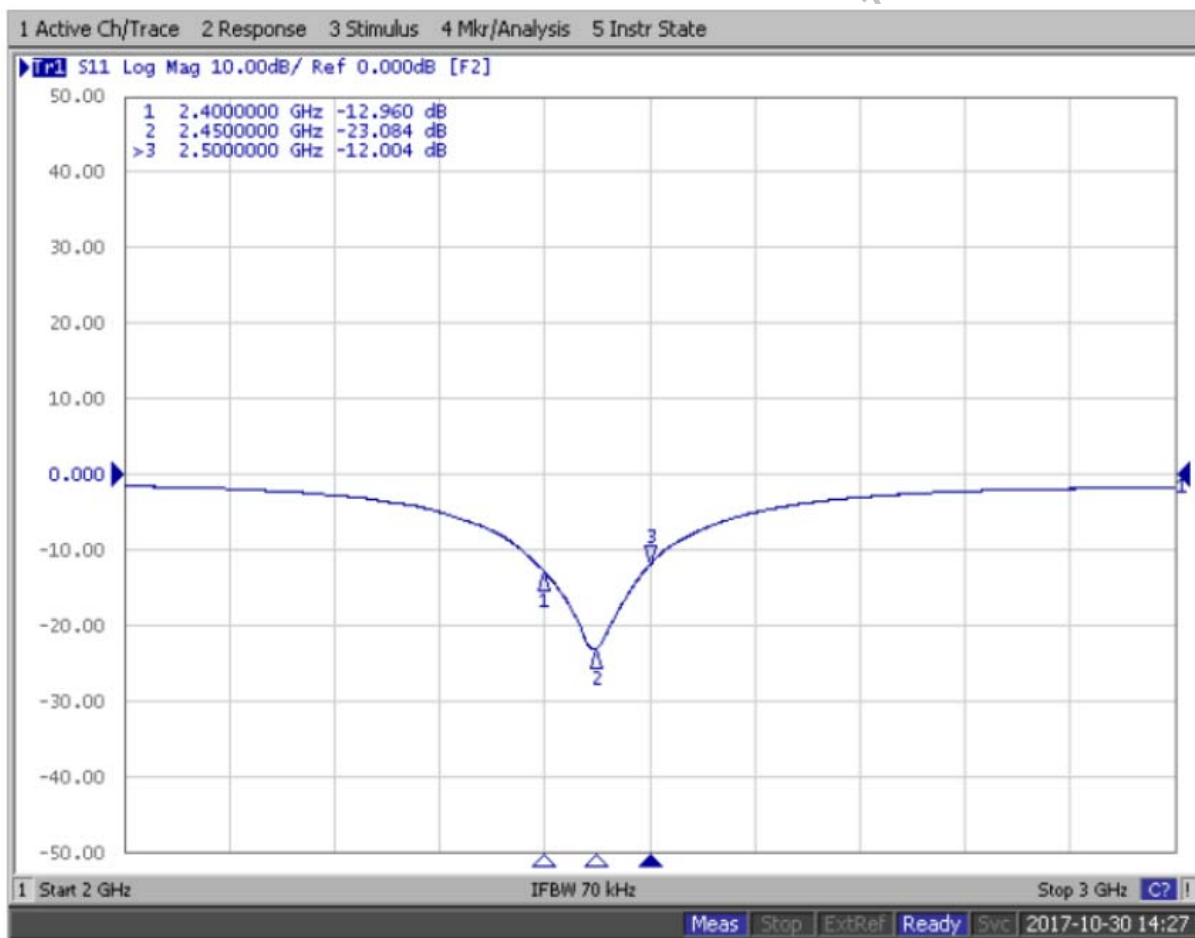
Test Instruments

Agilent E4991A Material/Impedance Analyzer

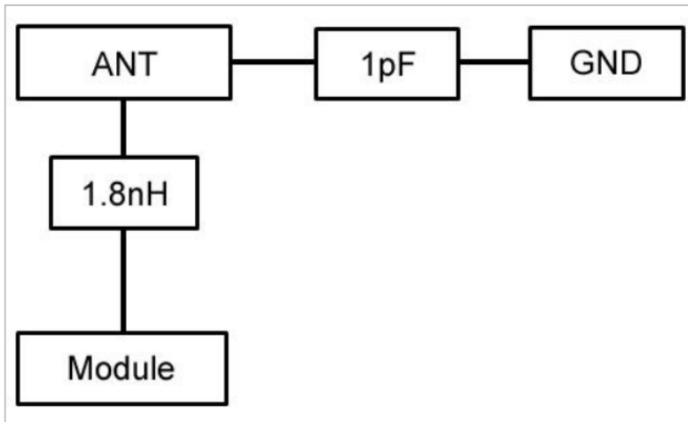
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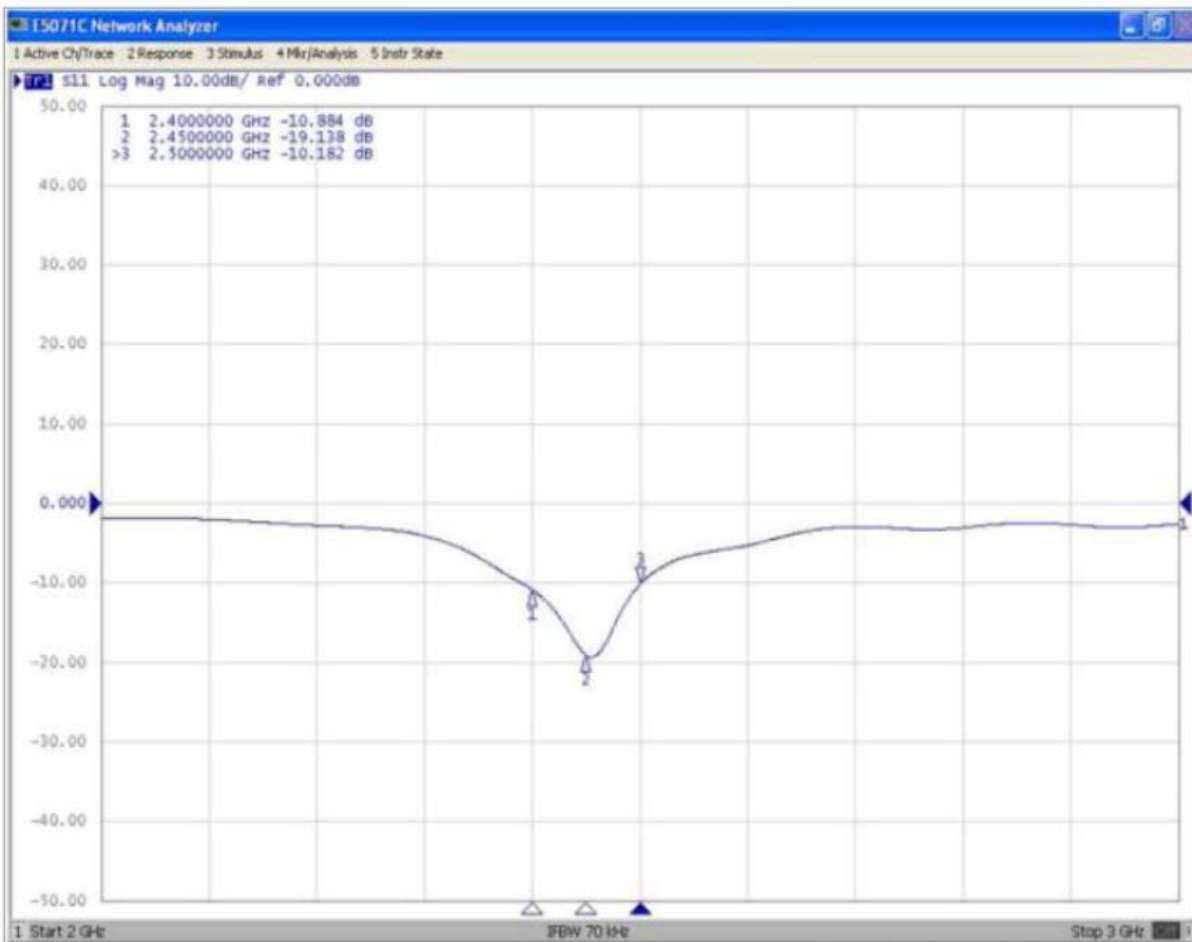
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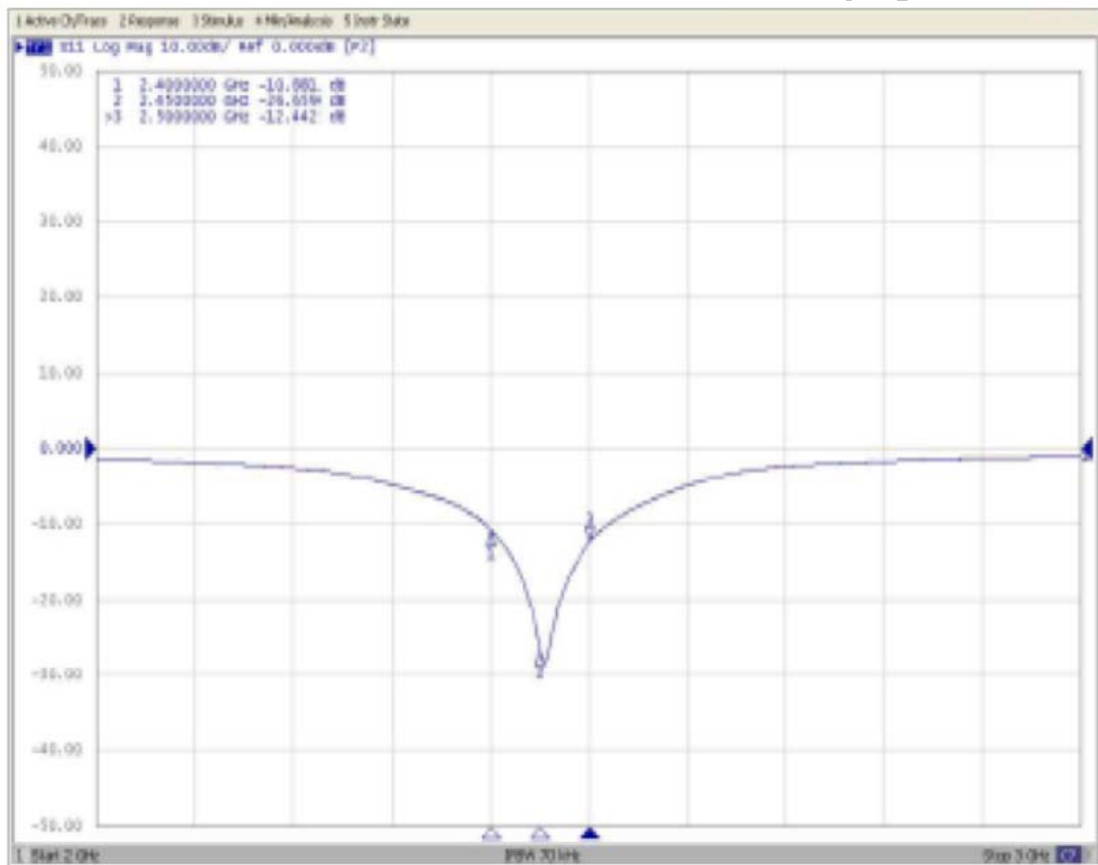
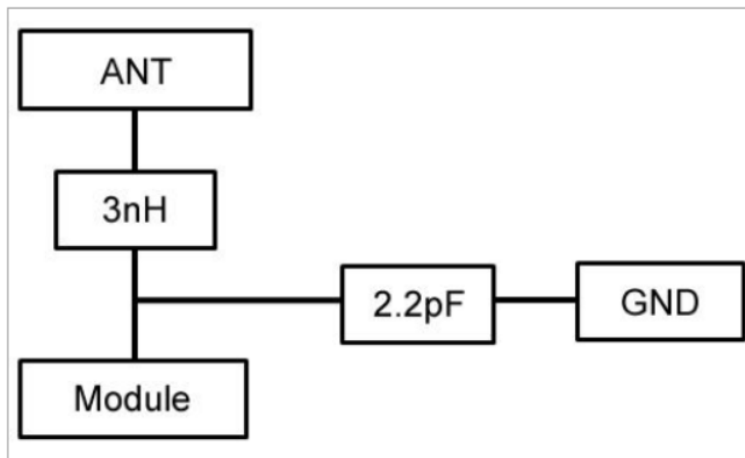
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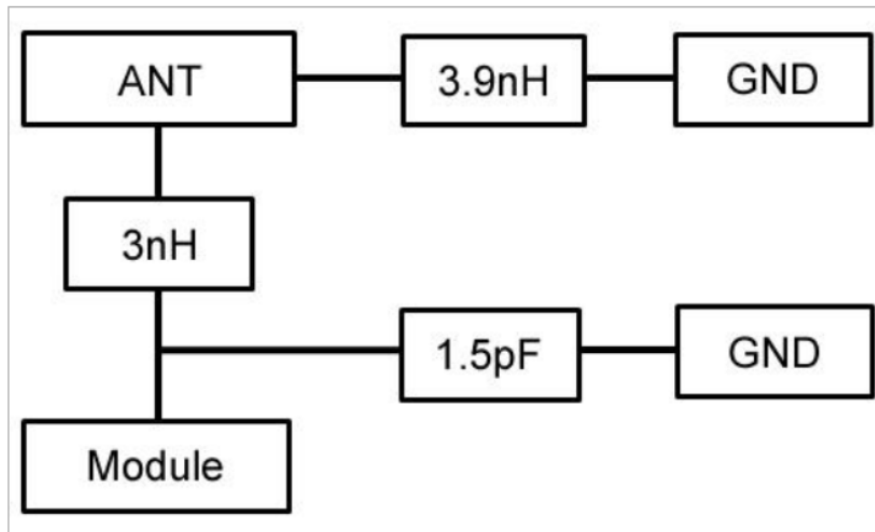
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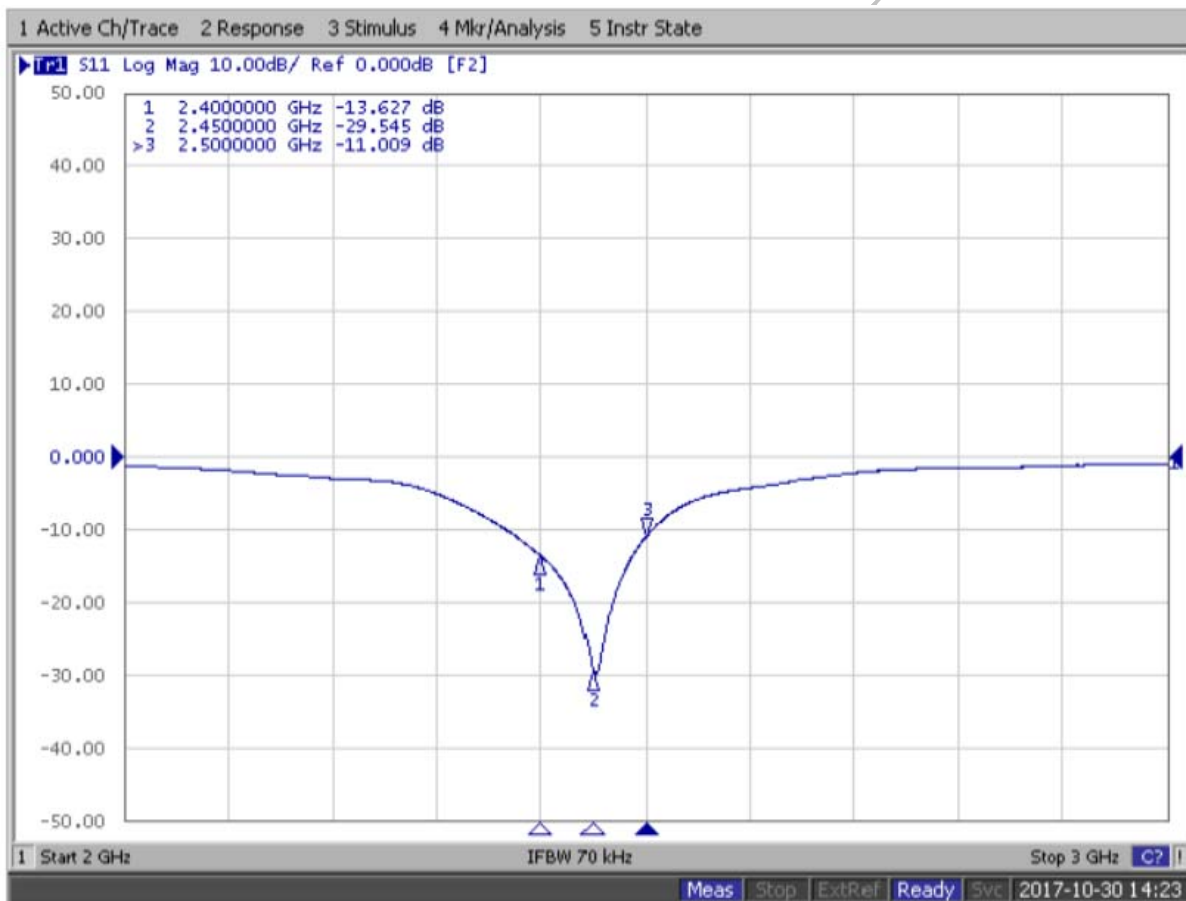
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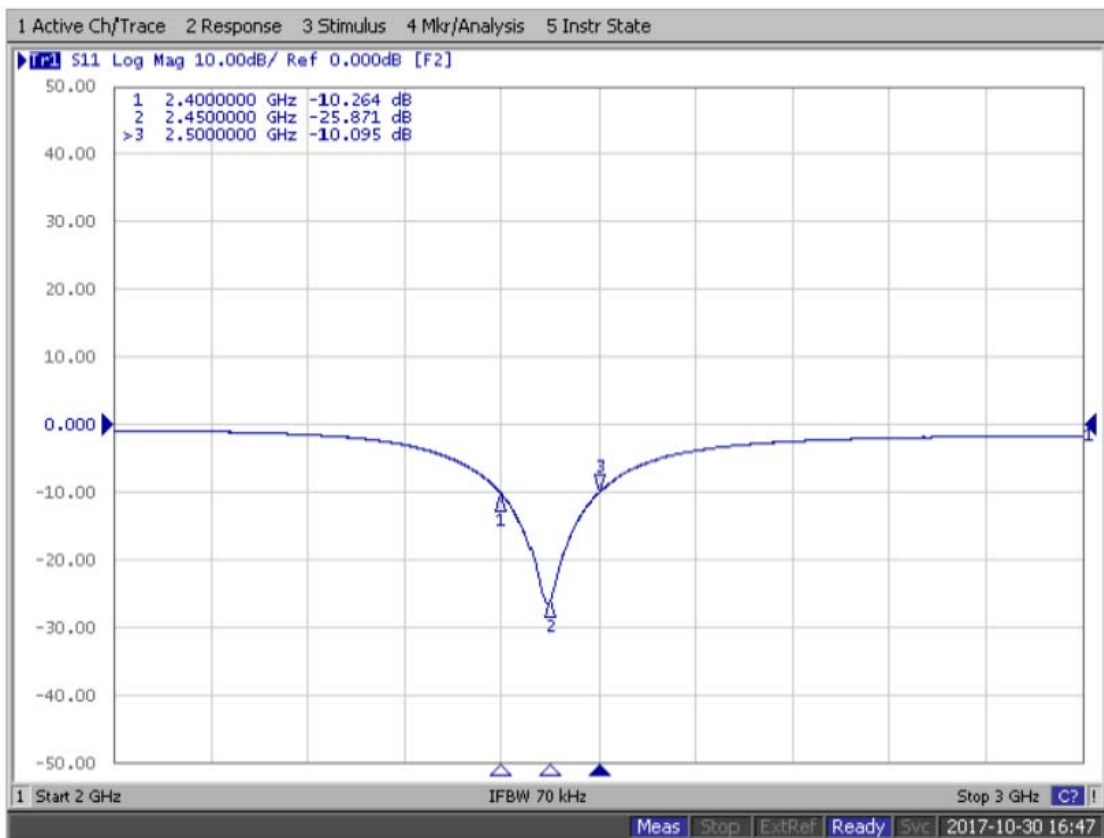
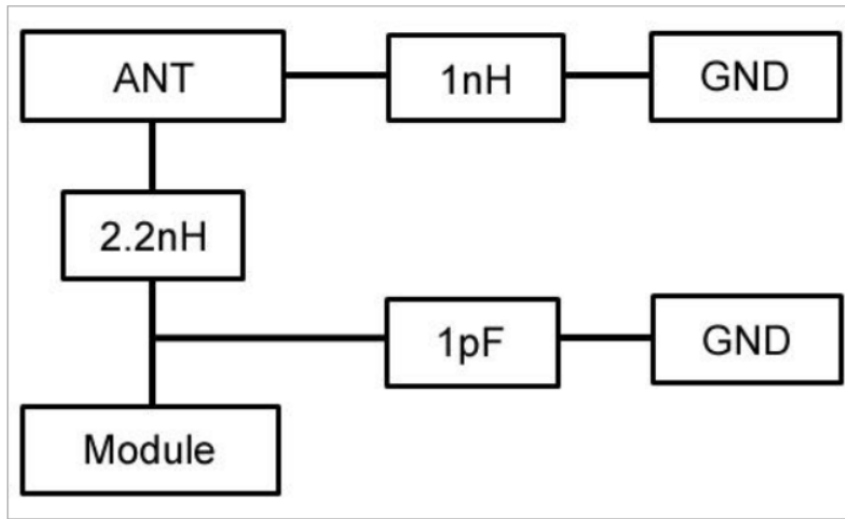
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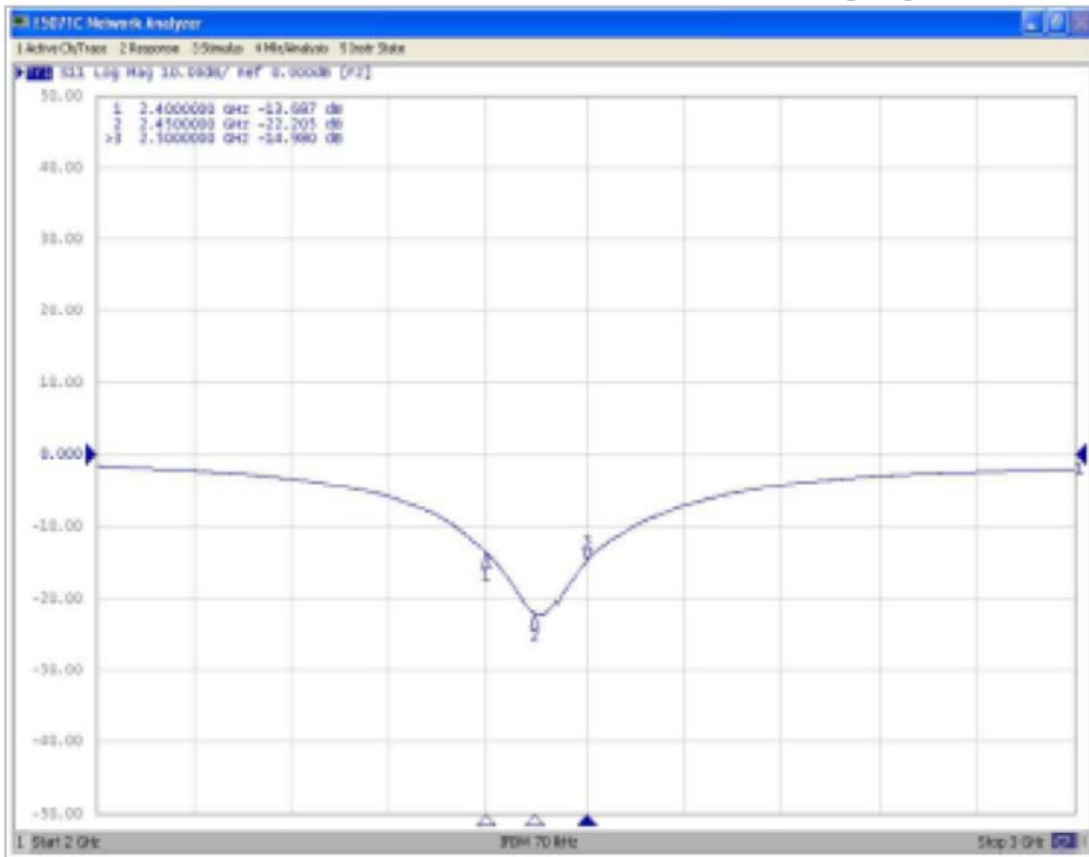
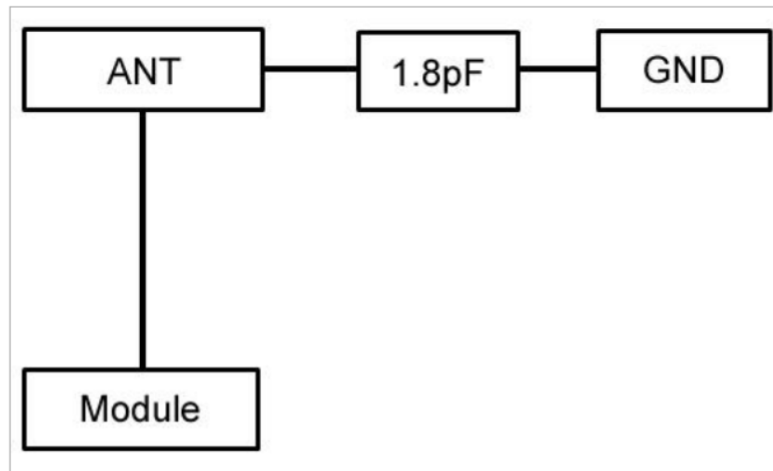
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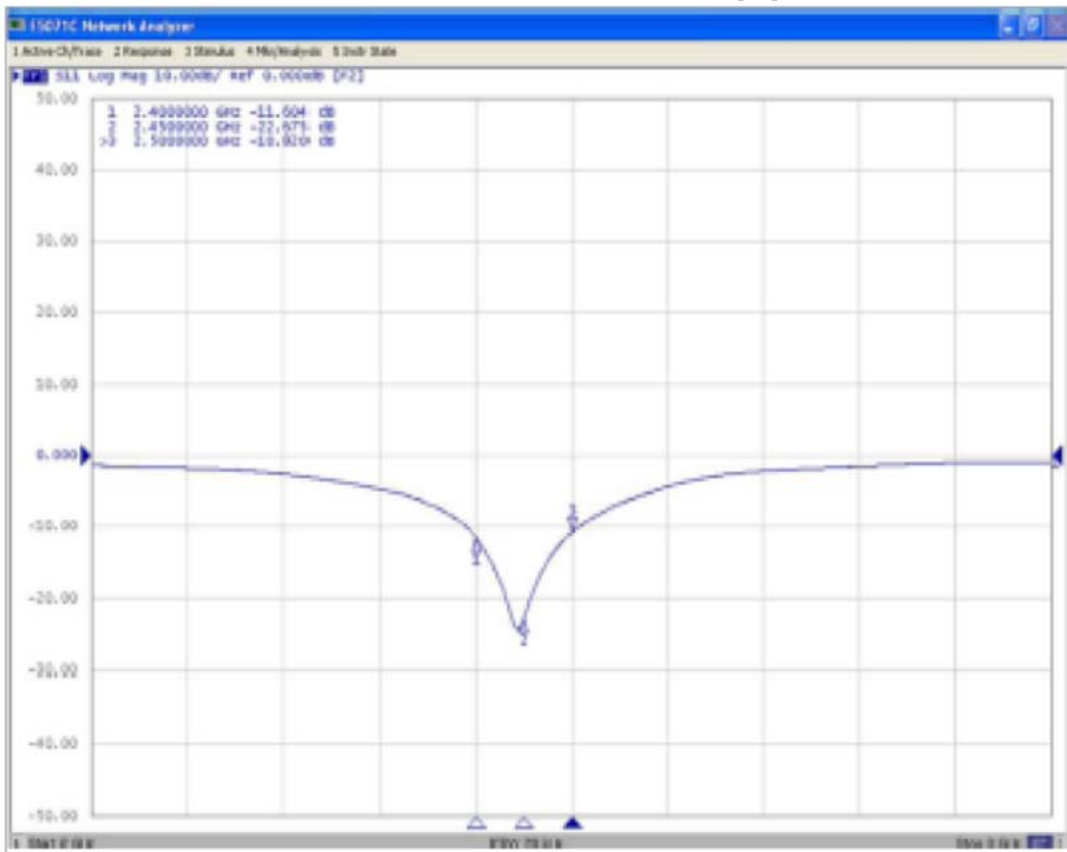
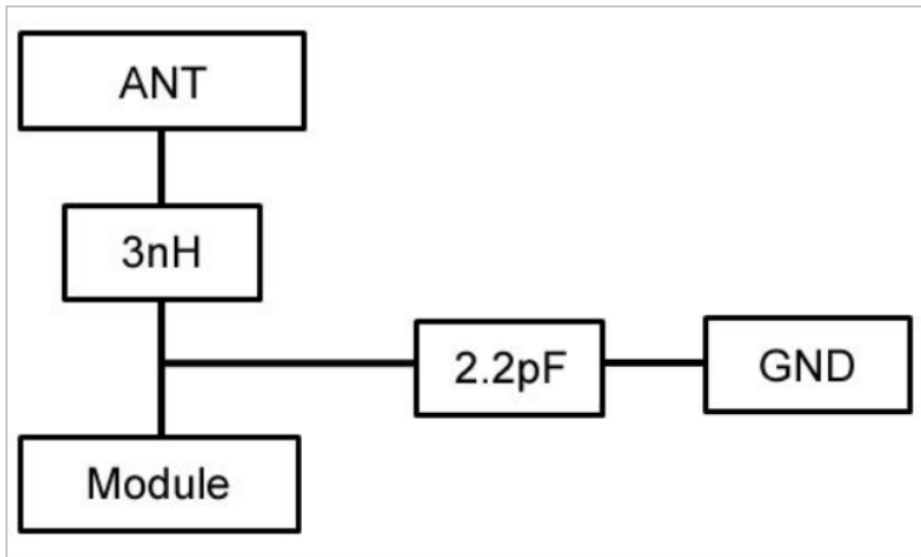
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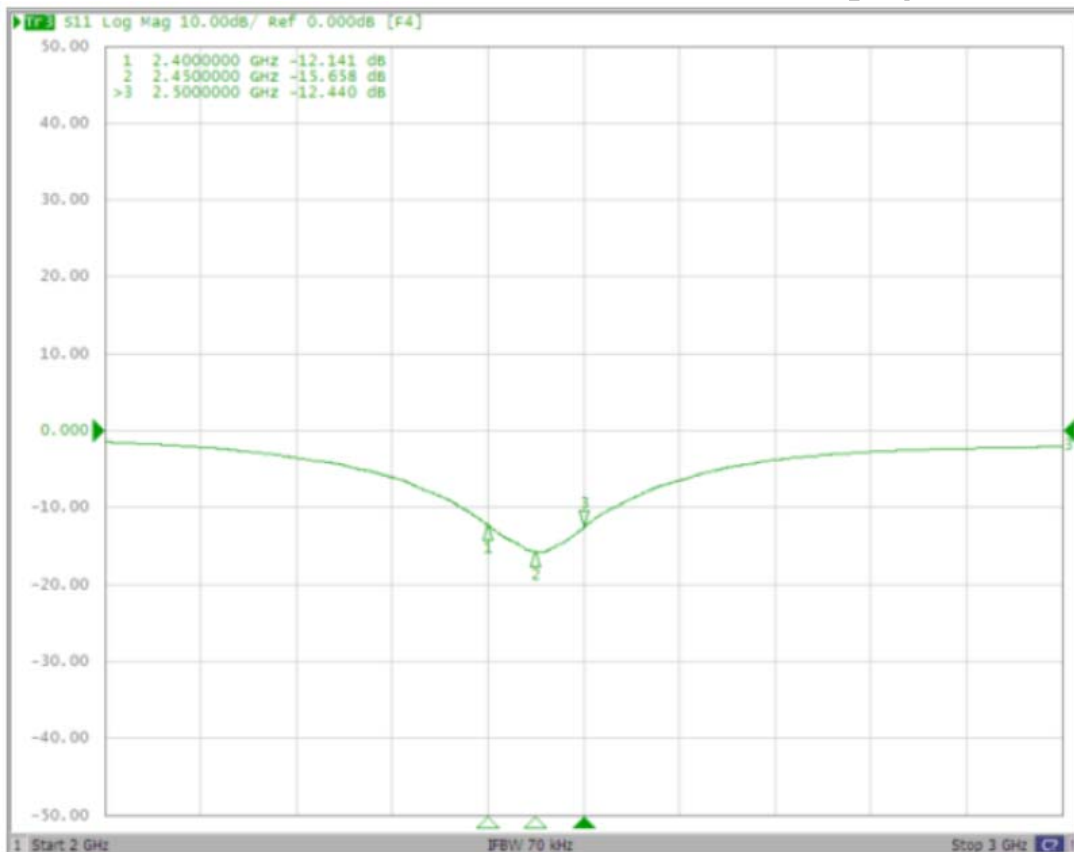
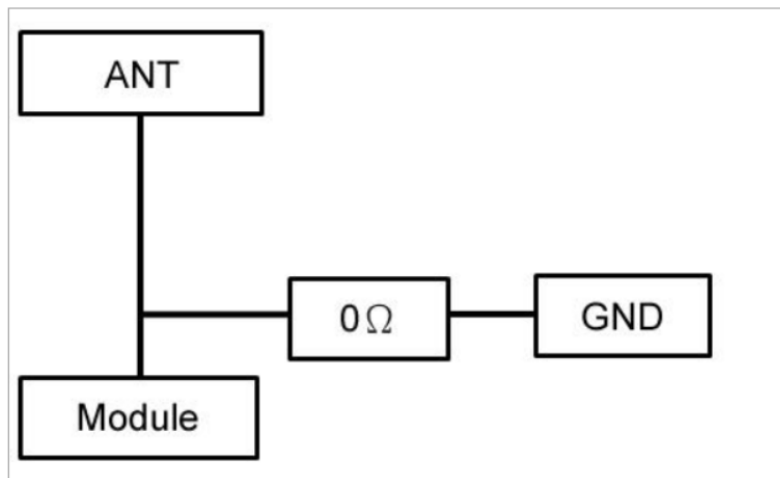
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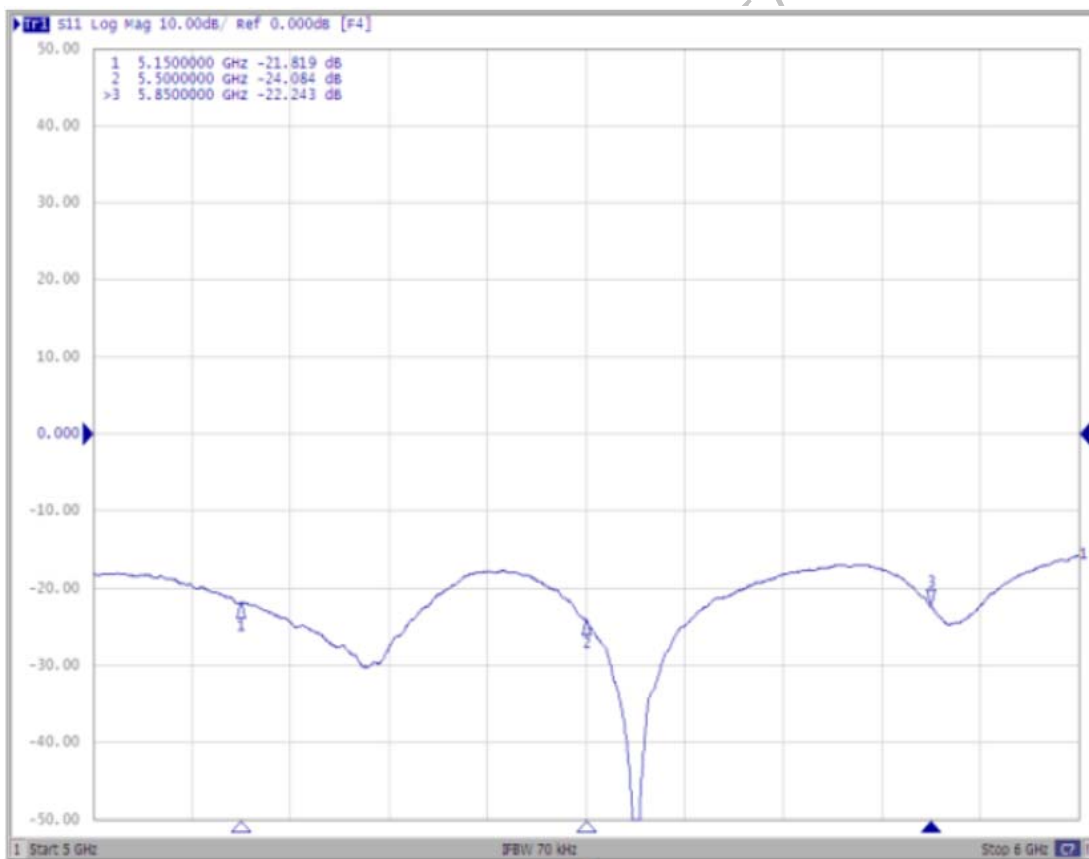
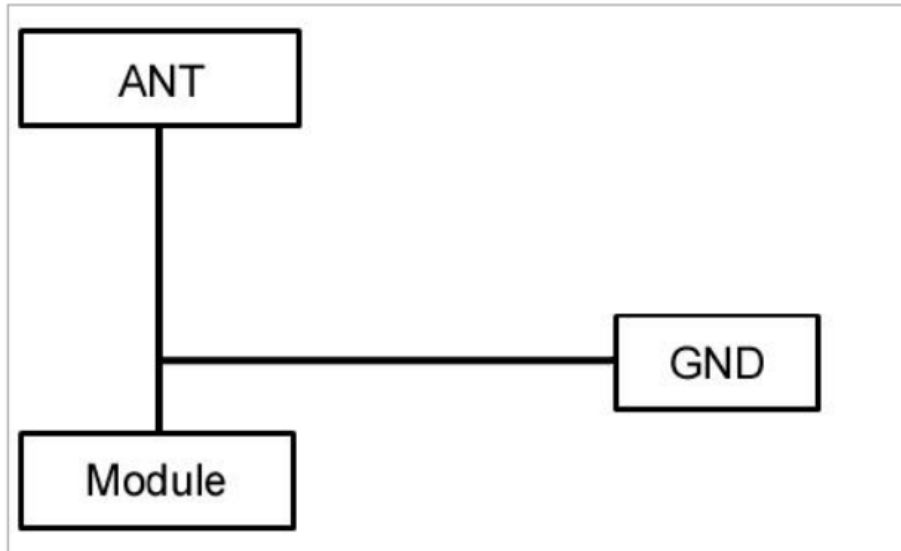
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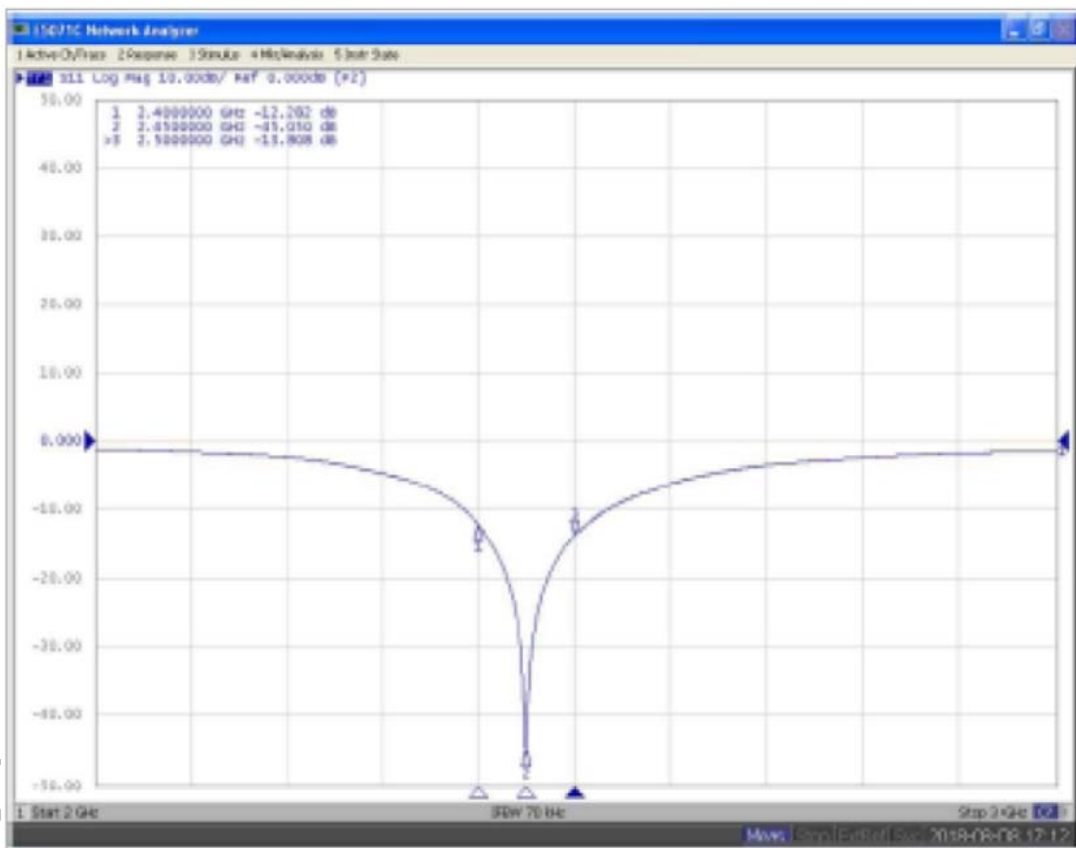
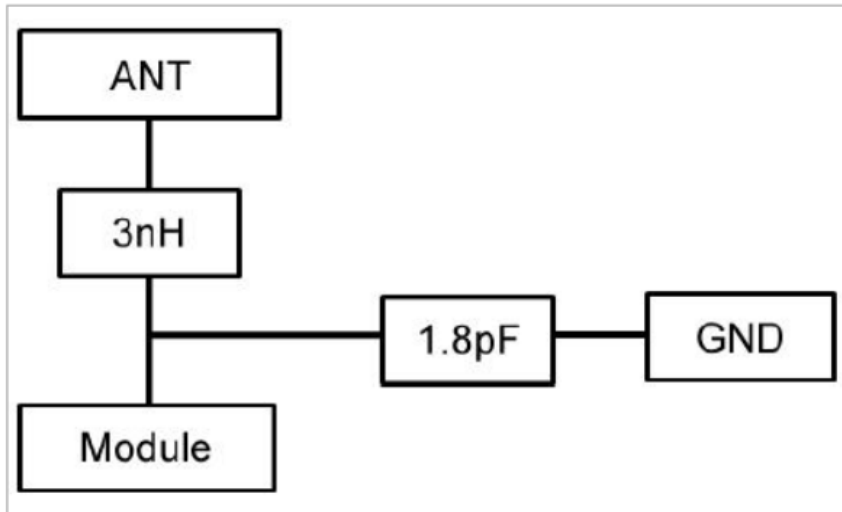
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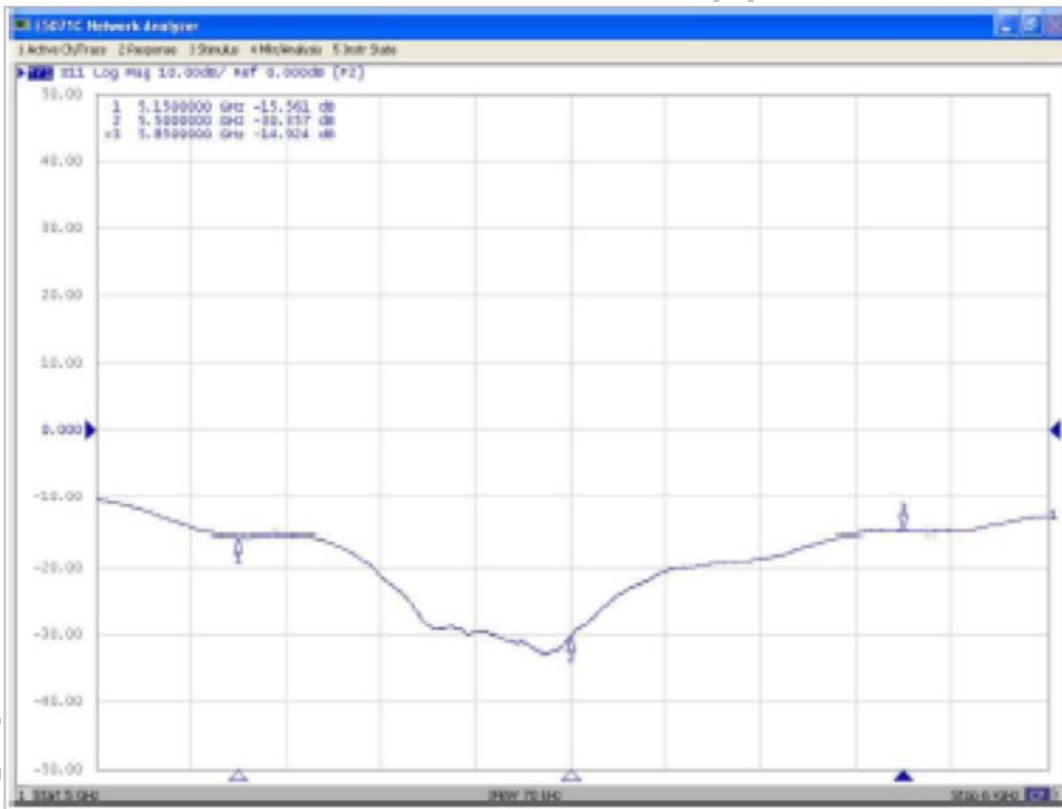
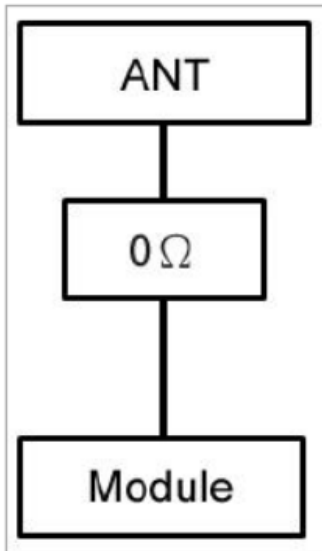
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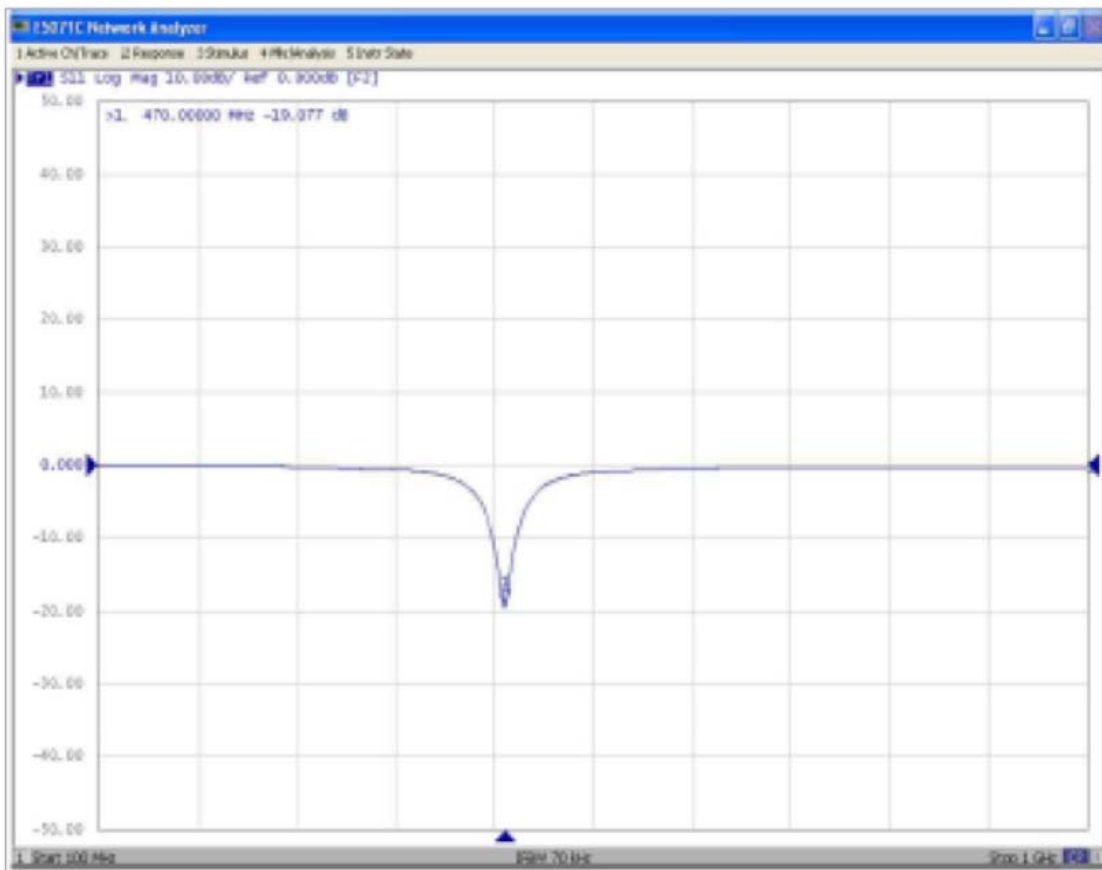
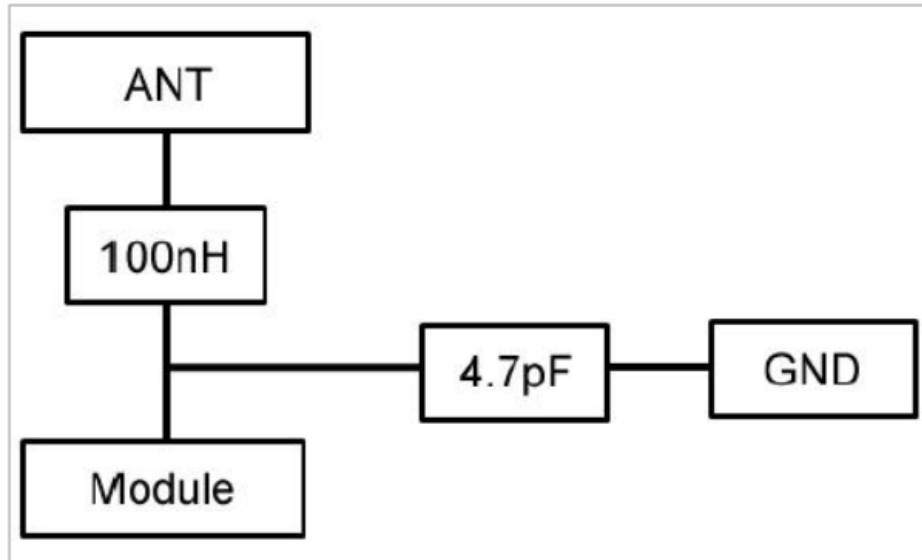
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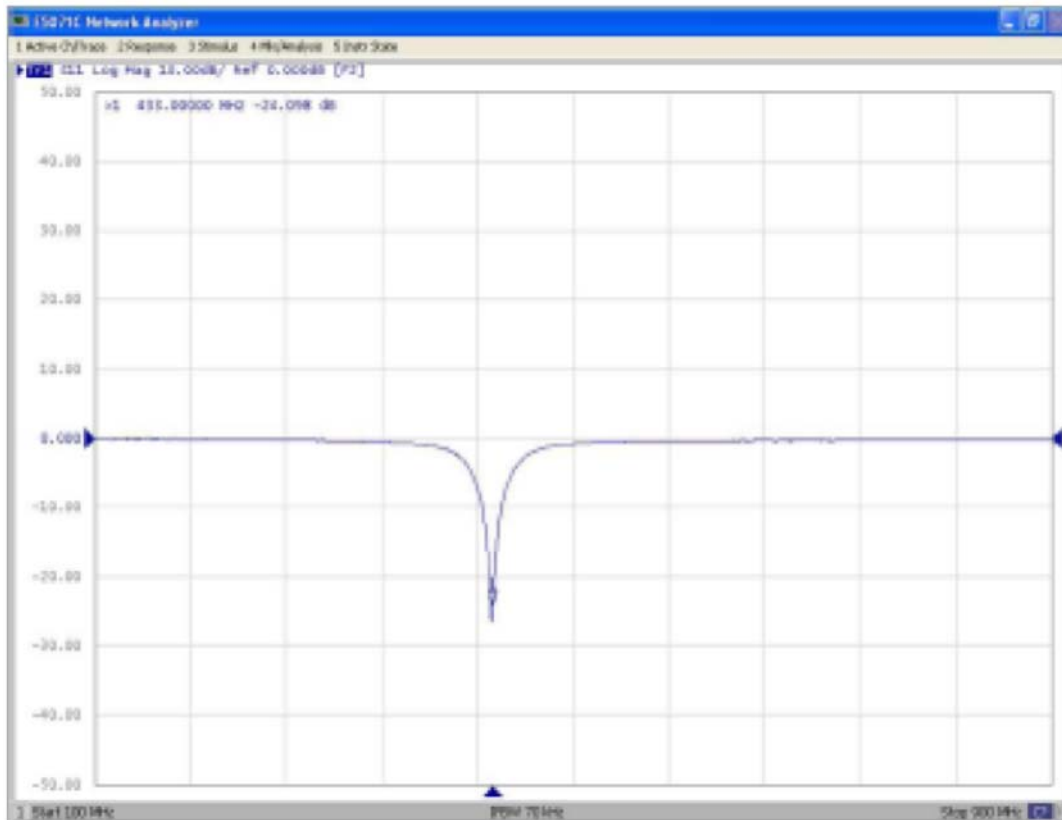
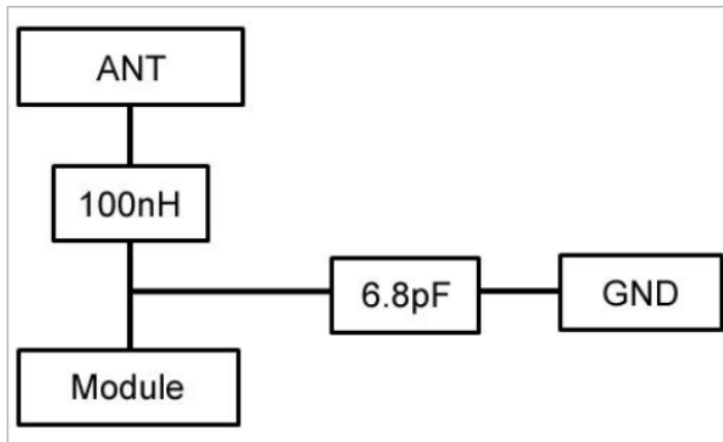
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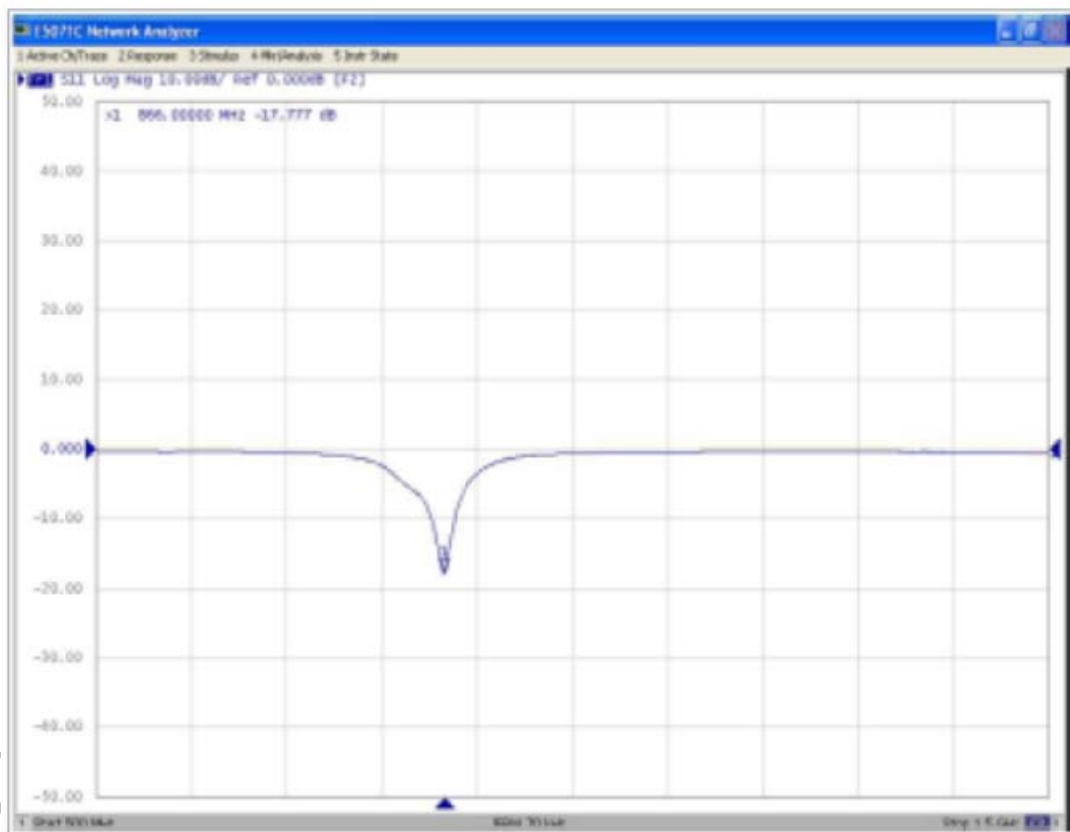
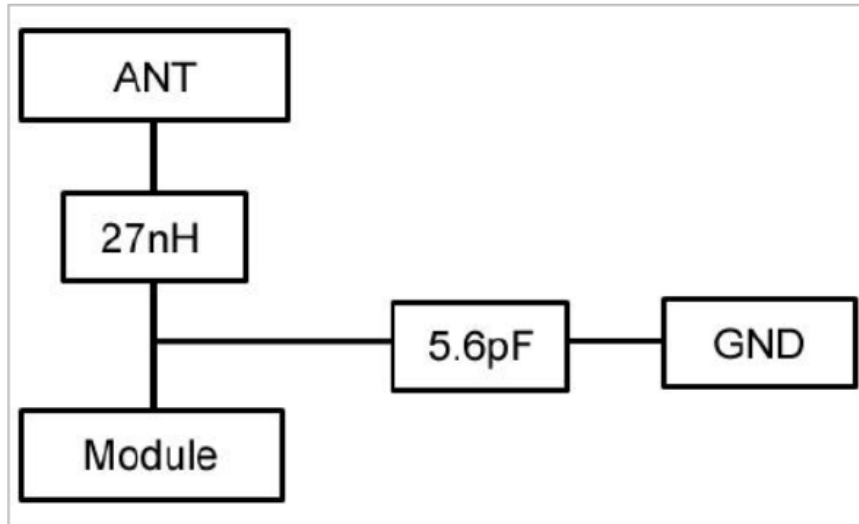
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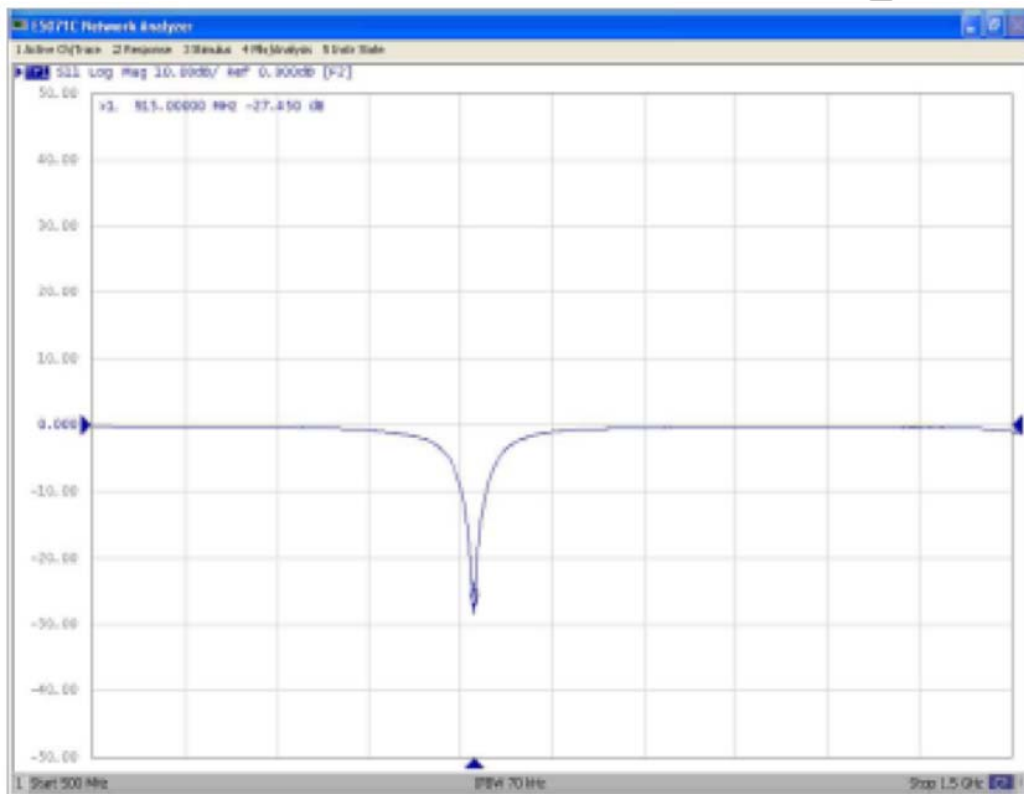
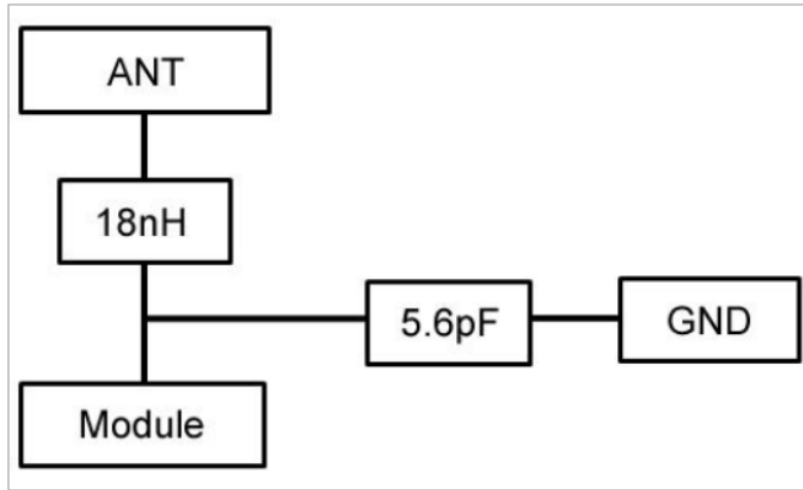
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- BTCA00702011000G8A



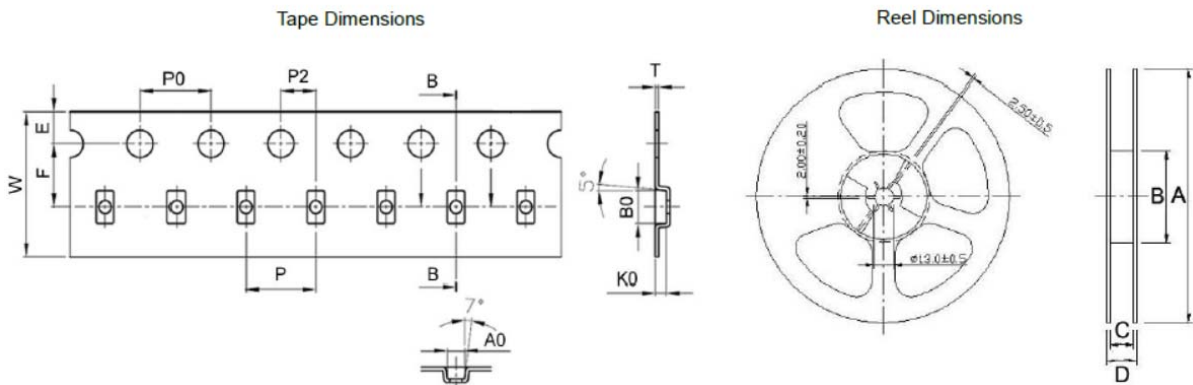
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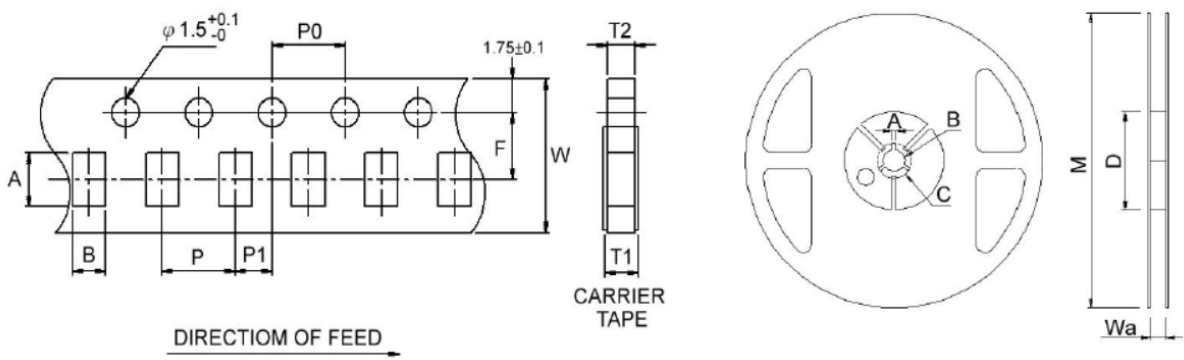
Electrical Characteristics

Packaging Specifications

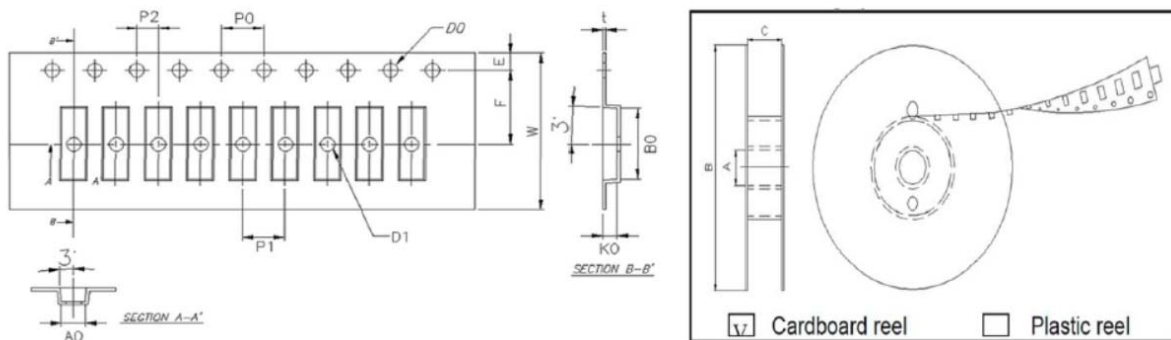
- Config1



- Config2



- Config3



| TYPE | FIG | Tape Dimensions | | | | | | | | | | Reel Dimensions | | | | Quantity |
|------------|-----|-----------------|------|------|------|----|---|----|----|-----|------|-----------------|-----|-----|------|------------|
| | | A0 | B0 | T | E | W | P | P0 | P2 | F | K0 | A | B | C | D | PCS / REEL |
| BTCA001608 | 1 | 1.05 | 1.85 | 0.20 | 1.75 | 8 | 4 | 4 | 2 | 3.5 | 0.65 | 178 | 62 | 8.4 | 14.4 | 4000 |
| BTCA002012 | 1 | 1.50 | 2.27 | 0.23 | 1.75 | 8 | 4 | 4 | 2 | 3.5 | 0.70 | 178 | 62 | 8.4 | 14.4 | 4000 |
| BTCA003216 | 1 | 1.85 | 3.50 | 0.23 | 1.75 | 8 | 4 | 4 | 2 | 3.5 | 0.73 | 178 | 62 | 8.4 | 14.4 | 4000 |
| BTCA000720 | 3 | 2.3 | 7.3 | 0.3 | 1.75 | 16 | 4 | 4 | 2 | 7.5 | 1.4 | 77 | 560 | 96 | - | 390 |

| TYPE | FIG | Tape Dimensions | | | | | | | | | | Reel Dimensions | | | | | | Quantity |
|--------------|-----|-----------------|------|------|----|---|----|----|-----|------|------|-----------------|---|------|----|----|------------|----------|
| | | A | B | T1 | W | P | P0 | P1 | F | T2 | Wa | M | A | B | C | D | PCS / REEL | |
| BTCA00160800 | 2 | 1.8 | 1.0 | 0.6 | 8 | 4 | 4 | 2 | 3.5 | 0.6 | 9 | 178 | 2 | 13.5 | 21 | 60 | 5000 | |
| BTCA00201005 | 2 | 2.2 | 1.2 | 0.6 | 8 | 2 | 4 | 2 | 3.5 | 0.6 | 9 | 178 | 2 | 13.5 | 21 | 60 | 10000 | |
| BTCA00321605 | 2 | 3.5 | 1.9 | 0.75 | 8 | 4 | 4 | 2 | 3.5 | 0.75 | 9 | 178 | 2 | 13.5 | 21 | 60 | 5000 | |
| BTCA00502505 | 2 | 0.68 | 0.38 | 0.38 | 12 | 2 | 4 | 2 | 3.5 | 0.3 | 13.8 | 178 | 2 | 13.5 | 21 | 80 | 4000 | |

confidentiality