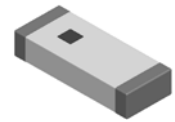


# Multilayer Chip Antenna – SLDA Series

Operating Temp. : -40℃~+85℃



## FEATURES

- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain
- Frequency Range: 2400-2500MHz

## APPLICATIONS

- Bluetooth, Wireless LAN, Mobile TV
- Home RF system, etc.

## PRODUCT IDENTIFICATION

| <u>SLDA</u><br>①                                                                                        | <u>31</u><br>②          | <u>-2R800G</u><br>③ | <u>-S1</u><br>④                                                                                 | <u>I</u><br>⑤           | <u>F</u><br>⑥                                                                                                                                                                                                                                                                                       |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
|---------------------------------------------------------------------------------------------------------|-------------------------|---------------------|-------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------|----|---------|----|---------|----|---------|----|---------|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--|---------|---------------|--------|-----------|--------|-----------|---|--|--|
| ①                                                                                                       | ②                       | ③                   | ④                                                                                               | ⑤                       | ⑥                                                                                                                                                                                                                                                                                                   |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| <table><tr><th colspan="2">Type</th></tr><tr><td>SLDA</td><td>Multilayer Chip Antenna</td></tr></table> | Type                    |                     | SLDA                                                                                            | Multilayer Chip Antenna | <table><tr><th colspan="2">External Dimensions (L×W) (mm)</th></tr><tr><td>31</td><td>3.2×1.6</td></tr><tr><td>52</td><td>5.2×2.1</td></tr><tr><td>62</td><td>6.0×2.0</td></tr><tr><td>72</td><td>7.0×2.0</td></tr><tr><td>81</td><td>8.0×1.0</td></tr><tr><td>92</td><td>9.0×2.0</td></tr></table> | External Dimensions (L×W) (mm) |             | 31                                                                                                            | 3.2×1.6                           | 52 | 5.2×2.1 | 62 | 6.0×2.0 | 72 | 7.0×2.0 | 81 | 8.0×1.0 | 92 | 9.0×2.0 | <table><tr><th colspan="2">Center Frequency</th></tr><tr><td>Example</td><td>Nominal Value</td></tr><tr><td>2R800G</td><td>2800.0MHz</td></tr><tr><td>2R450G</td><td>2450.0MHz</td></tr></table> | Center Frequency |  | Example | Nominal Value | 2R800G | 2800.0MHz | 2R450G | 2450.0MHz | ③ |  |  |
| Type                                                                                                    |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| SLDA                                                                                                    | Multilayer Chip Antenna |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| External Dimensions (L×W) (mm)                                                                          |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 31                                                                                                      | 3.2×1.6                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 52                                                                                                      | 5.2×2.1                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 62                                                                                                      | 6.0×2.0                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 72                                                                                                      | 7.0×2.0                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 81                                                                                                      | 8.0×1.0                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 92                                                                                                      | 9.0×2.0                 |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| Center Frequency                                                                                        |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| Example                                                                                                 | Nominal Value           |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 2R800G                                                                                                  | 2800.0MHz               |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| 2R450G                                                                                                  | 2450.0MHz               |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| ④                                                                                                       | ⑤                       | ⑥                   |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| <table><tr><th>Series Code</th></tr><tr><td>S1, 01, etc.</td></tr></table>                              | Series Code             | S1, 01, etc.        | <table><tr><th colspan="2">Packing</th></tr><tr><td>T</td><td>Tape &amp; Reel</td></tr></table> | Packing                 |                                                                                                                                                                                                                                                                                                     | T                              | Tape & Reel | <table><tr><th colspan="2">Hazardous Substance Free Products</th></tr><tr><td colspan="2">F</td></tr></table> | Hazardous Substance Free Products |    | F       |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| Series Code                                                                                             |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| S1, 01, etc.                                                                                            |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| Packing                                                                                                 |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| T                                                                                                       | Tape & Reel             |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| Hazardous Substance Free Products                                                                       |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |
| F                                                                                                       |                         |                     |                                                                                                 |                         |                                                                                                                                                                                                                                                                                                     |                                |             |                                                                                                               |                                   |    |         |    |         |    |         |    |         |    |         |                                                                                                                                                                                                  |                  |  |         |               |        |           |        |           |   |  |  |

## SHAPE AND LAND PATTERN

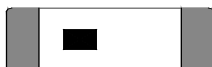
| Type:                    | Dimensions (mm)   |
|--------------------------|-------------------|
|                          |                   |
| Type: SLDA21-2R450G-S1TF | Land Pattern (mm) |
|                          |                   |

## SHAPE AND DIMENSIONS

| Series | A       | B       | C       | D       | E       | F       | G       | H       | I   | J       |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|-----|---------|
| SLDA31 | 3.2±0.2 | 1.6±0.2 | 1.2±0.2 | 0.5±0.2 | 1.6±0.2 | 0.8±0.2 | 0.8±0.2 | 2.2±0.2 | 1.4 | 1.6±0.2 |
| SLDA52 | 5.2±0.2 | 2.1±0.2 | 1.0±0.2 | 0.5±0.2 | 2.3±0.2 | 1.5±0.2 | 1.0±0.2 | 4.0±0.2 | 1.4 | 2.3±0.2 |
| SLDA62 | 6.0±0.2 | 2.0±0.2 | 1.0±0.2 | 0.5±0.2 | 2.2±0.2 | 1.5±0.2 | 1.0±0.2 | 5.0±0.2 | 1.4 | 2.2±0.2 |
| SLDA72 | 7.0±0.2 | 2.0±0.2 | 1.0±0.2 | 0.5±0.2 | 2.2±0.2 | 1.5±0.2 | 1.0±0.2 | 6.0±0.2 | 1.4 | 2.2±0.2 |
| SLDA81 | 8.0±0.2 | 1.0±0.2 | 1.0±0.2 | 0.5±0.2 | 1.5±0.2 | 1.5±0.2 | 1.0±0.2 | 7.0±0.2 | 1.4 | 1.5±0.2 |
| SLDA92 | 9.0±0.2 | 2.0±0.2 | 1.0±0.2 | 0.5±0.2 | 2.2±0.2 | 1.5±0.2 | 1.0±0.2 | 8.0±0.2 | 1.4 | 2.2±0.2 |

## TERINAL-CONFIGURATION

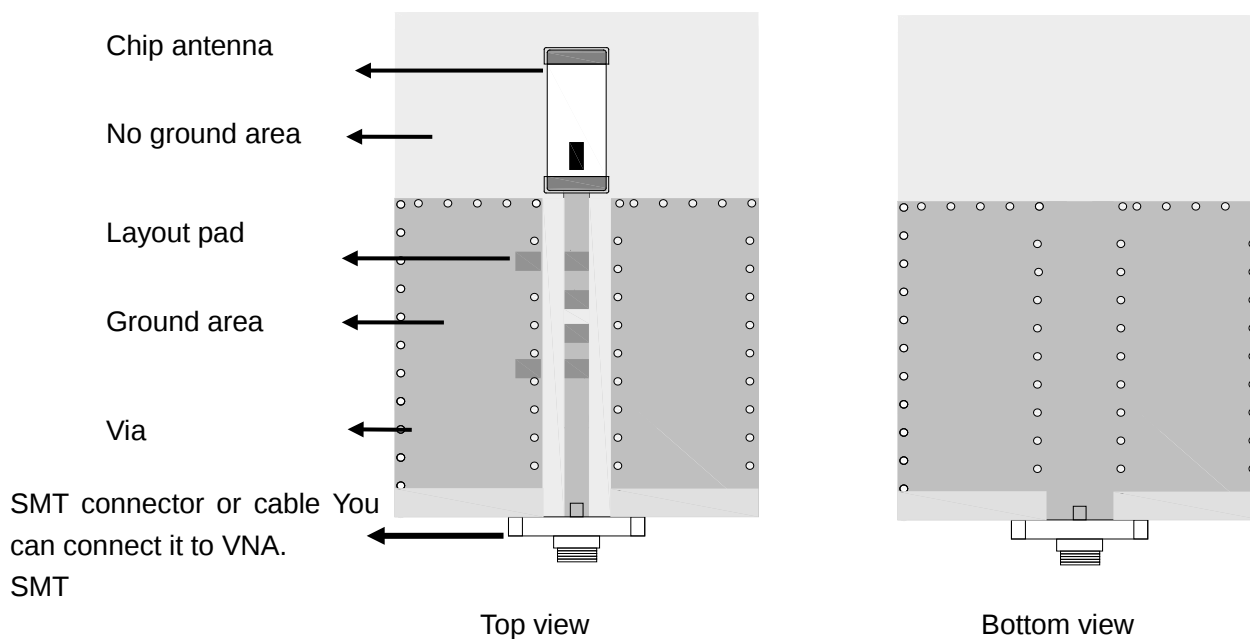
(1)



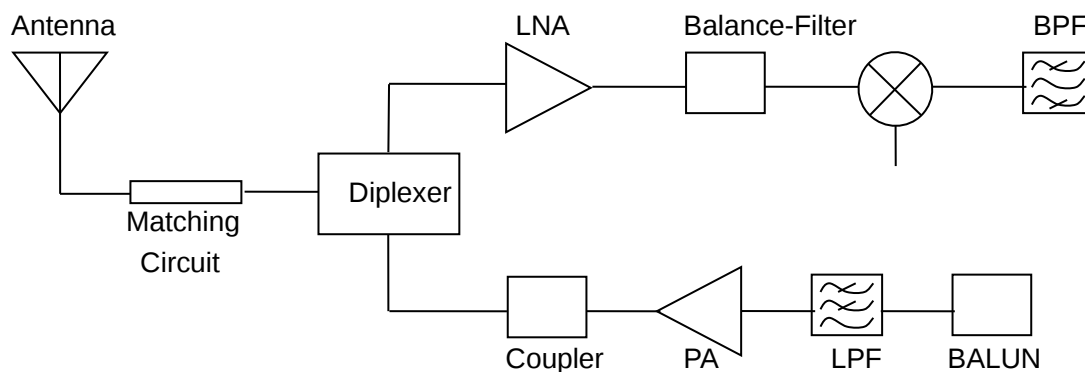
(2)

| No. | Terminal Name | No. | Terminal Name |
|-----|---------------|-----|---------------|
| (1) | Feeding Point | (2) | NC            |

## EVALUATION BOARD



## APPLICATION GUIDE



## SPECIFICATIONS

### SLDA31 TYPE

| Part Number        | Band Width | Peak Gain              | Average Gain           | VSWR  | Impedance | Power Capacity |
|--------------------|------------|------------------------|------------------------|-------|-----------|----------------|
|                    | MHz        | V-XZ                   | V-XZ                   | In BW | $\Omega$  | W              |
| SLDA31-2R800G-S1TF | $\geq 100$ | 1.5dBi Typ.            | -1dBi Typ.             | <2    | 50        | 3              |
| SLDA31-2R400G-S1TF | $\geq 100$ | 2.5dB<br>@ (XZ-total)  | -1.5dB<br>@ (XZ-total) | <2    | 50        | 2              |
| SLDA31-2R450G-S2TF | $\geq 100$ | 2.5dBi<br>@ (XZ-total) | 0.5dBi<br>@ (XZ-total) | <2    | 50        | 2              |

### SLDA52 TYPE

| Part Number        | Band Width | Peak Gain   | Average Gain | VSWR  | Impedance | Power Capacity |
|--------------------|------------|-------------|--------------|-------|-----------|----------------|
|                    | MHz        | V-XZ        | V-XZ         | In BW | $\Omega$  | W              |
| SLDA52-2R510G-S1TF | $\geq 200$ | 2.5dBi Typ. | 0.5dBi Typ.  | <2    | 50        |                |
| SLDA52-2R540G-S1TF | $\geq 200$ | 2.5dBi Typ. | 0.5dBi Typ.  | <2    | 50        |                |

### SLDA62 TYPE

| Part Number        | Band Width | Peak Gain   | Average Gain | VSWR  | Impedance | Power Capacity |
|--------------------|------------|-------------|--------------|-------|-----------|----------------|
|                    | MHz        | V-XZ        | V-XZ         | In BW | $\Omega$  | W              |
| SLDA62-2R640G-01TF | $\geq 200$ | 2.6dBi Typ. | 0.7dBi Typ.  | <2    | 50        | 3              |

### SLDA72 TYPE

| Part Number        | Band Width | Peak Gain   | Average Gain | VSWR  | Impedance | Power Capacity |
|--------------------|------------|-------------|--------------|-------|-----------|----------------|
|                    | MHz        | V-XZ        | V-XZ         | In BW | $\Omega$  | W              |
| SLDA72-2R470G-S1TF | $\geq 200$ | 2.7dBi Typ. | 1.0dBi Typ.  | <2    | 50        | 3              |

### SLDA81 TYPE

| Part Number        | Band Width | Peak Gain   | Average Gain | VSWR  | Impedance | Power Capacity |
|--------------------|------------|-------------|--------------|-------|-----------|----------------|
|                    | MHz        | V-XZ        | V-XZ         | In BW | $\Omega$  | W              |
| SLDA81-3R010G-S1TF | $\geq 200$ | 2.0dBi Typ. | 0.5dBi Typ.  | <2    | 50        | 3              |

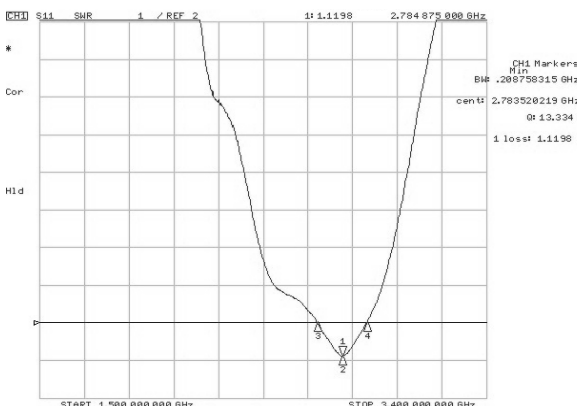
### SLDA92 TYPE

| Part Number        | Band Width | Peak Gain   | Average Gain | VSWR  | Impedance | Power Capacity |
|--------------------|------------|-------------|--------------|-------|-----------|----------------|
|                    | MHz        | V-XZ        | V-XZ         | In BW | $\Omega$  | W              |
| SLDA92-2R660G-S1TF | $\geq 200$ | 3.0dBi Typ. | 1.0dBi Typ.  | <2    | 50        | 3              |

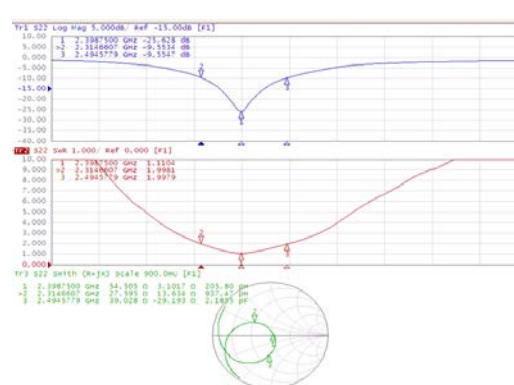
※Frequency will be changed with layout of PCB. Please contact us for appropriate design.

## RETURN LOSS

### SLDA31-2R800G-S1TF

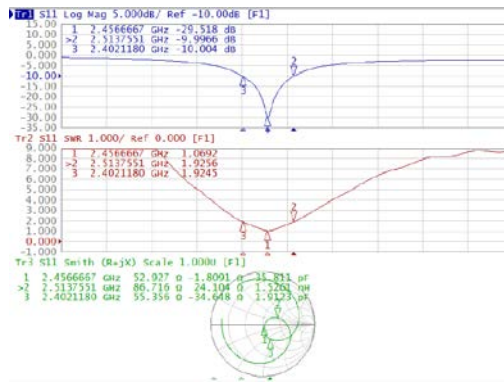


### SLDA31-2R400G-S1TF

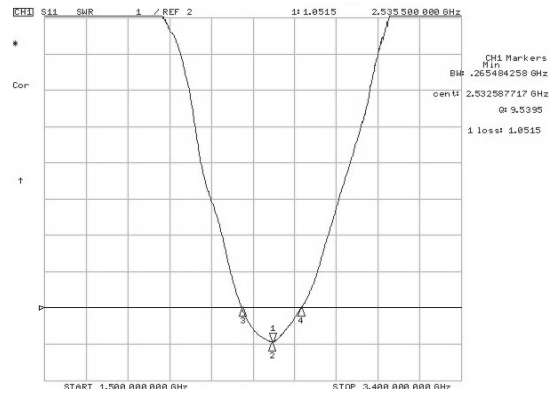


## RETURN LOSS

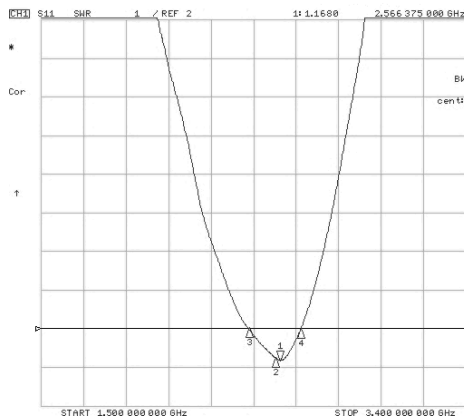
### SLDA31-2R450G-S2TF



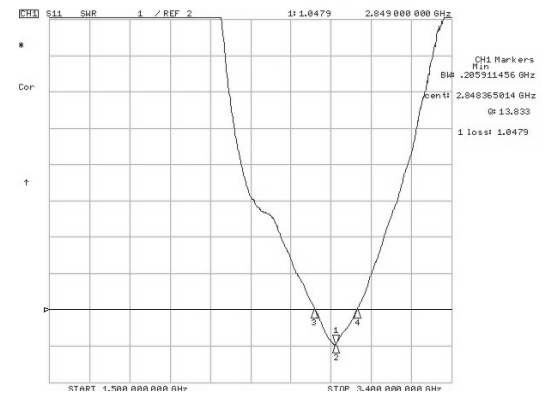
### SLDA52-2R510G-S1TF



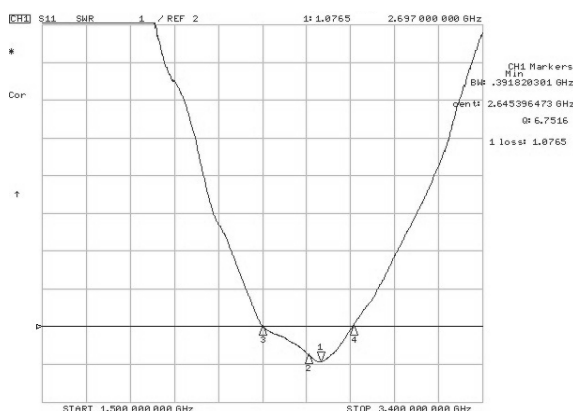
### SLDA52-2R540G-S1TF



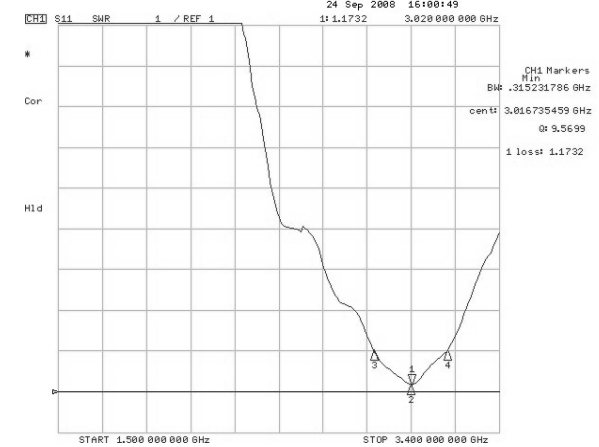
### SLDA62-2R640G-01TF



### SLDA72-2R470G-S1TF



### SLDA81-3R010G-S1TF



### SLDA92-2R660G-S1TF

