**Application: 30dB Directional Coupler 3200-4000MHz**

1. Type No.
HMD1711A-30M3500

2. Dimension (Unit: mm)

![Dimension Diagram]

3. Electrical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Band1</th>
<th>Band2</th>
<th>Band3</th>
<th>Band4</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass band frequency</td>
<td>Specification</td>
<td>3200-4000</td>
<td>3400-3600</td>
<td>3550-3700</td>
<td>3600-3800</td>
</tr>
<tr>
<td>Nominal impedance</td>
<td>Specification</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Mean Coupling</td>
<td>Specification</td>
<td>30.0 +/- 1.5</td>
<td>30.0 +/- 1.5</td>
<td>30.0 +/- 1.5</td>
<td>30.0 +/- 1.5</td>
</tr>
<tr>
<td>Insertion Loss (at 25deg.C)</td>
<td>Specification</td>
<td>0.075 Max.</td>
<td>0.075 Max.</td>
<td>0.075 Max.</td>
<td>0.075 Max.</td>
</tr>
<tr>
<td>Input V.S.W.R.</td>
<td>Specification</td>
<td>1.22 Max.</td>
<td>1.18 Max.</td>
<td>1.18 Max.</td>
<td>1.18 Max.</td>
</tr>
<tr>
<td>Directivity</td>
<td>Specification</td>
<td>18 Min.</td>
<td>20 Min.</td>
<td>20 Min.</td>
<td>20 Min.</td>
</tr>
<tr>
<td>Frequency Sensitivity</td>
<td>Specification</td>
<td>0.50 Max.</td>
<td>0.30 Max.</td>
<td>0.30 Max.</td>
<td>0.30 Max.</td>
</tr>
<tr>
<td>Group Delay Terminal 1-2</td>
<td>Specification</td>
<td>0.05 +/- 0.030</td>
<td>0.05 +/- 0.030</td>
<td>0.05 +/- 0.030</td>
<td>0.05 +/- 0.030</td>
</tr>
<tr>
<td>Group Delay Terminal 1-4</td>
<td>Specification</td>
<td>0.07 +/- 0.030</td>
<td>0.07 +/- 0.030</td>
<td>0.07 +/- 0.030</td>
<td>0.07 +/- 0.030</td>
</tr>
</tbody>
</table>

4. Note

- Operating Temperature Range: -55 to +105 deg.C
- Storage Temperature Range: -20 to +35 deg.C (In a Taping Package)
- Power Capacity: 100W max.
- Standard Reel Quantity: 1,000 pcs (per reel, per bag)

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**Control No.: ARP-4171100-D1**

**Issued on July 30, 2018**

**RoHS Compliant Parts**

**Tentative Specification**

**(SOSHIN ELECTRIC CO., LTD)**

<table>
<thead>
<tr>
<th>Approved by</th>
<th>Confirmed by</th>
<th>Raised by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y. Mizutani</td>
<td>H. Makino</td>
<td>M. Aiba</td>
</tr>
</tbody>
</table>
5. Representative characteristics

- **Frequency vs. Insertion Loss**
  - Measured data

- **Frequency vs. Coupling**
  - Measured data

- **Frequency vs. Directivity**
  - Measured data

- **Frequency vs. Return Loss**
  - Measured data

- **Frequency vs. Group Delay (Direct)**
  - Measured data

- **Frequency vs. Group Delay (Coupled)**
  - Measured data
6. Recommended Land Pattern (Unit:mm)

*Land Pattern*

*Resist Pattern*

*1 50 ohm impedance Line
*2 Ground Plane