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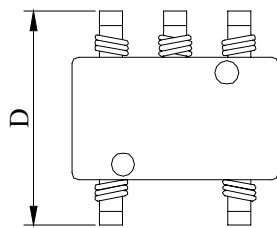
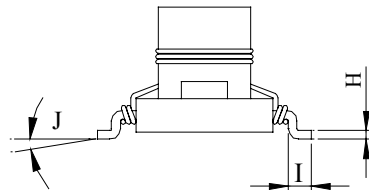
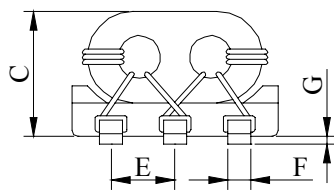
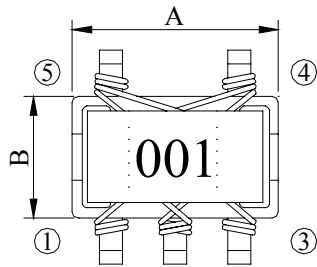
# SPECIFICATION FOR APPROVAL

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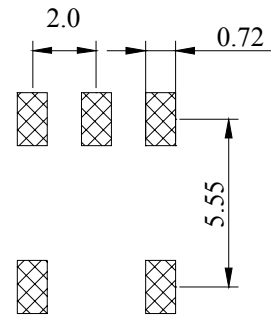
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PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Series
		ITEM NO.	

## I . MECHANICAL DIMENSIONS :



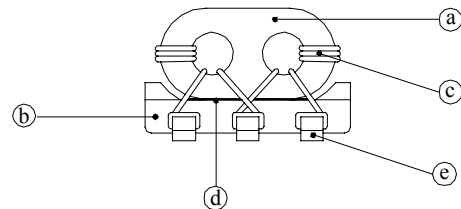
- A : 6.20±0.20 m/m
- B : 4.00±0.20 m/m
- C : 4.40 max. m/m
- D : 6.40±0.30 m/m
- E : 2.00 typ. m/m
- F : 0.60±0.05 m/m
- G : 0.20±0.10 m/m
- H : 0.30±0.10 m/m
- I : 0.70±0.05 m/m
- J : 0°~ 8° m/m



( PCB Pattern )

## II . MATERIALS :

- a. Core : Ferrite RID core
- b. Base : Phenolic
- c. Wire : Enamelled copper wire ( class F )
- d. Adhesive : Epoxy resin
- e. Terminal : Cu/Ni/Sn (Lead content 100ppm max.)
- f. Remark : Ferrite body is exempted with lead content under RoHS regulation



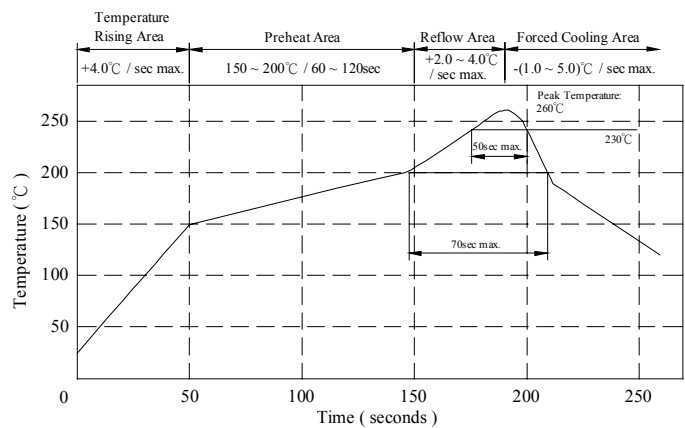
## III . FEATURES :

- a. Paired wire coil for high stability.
- b. Base Pin terminal treated , Allowing Mounting 'AS IS' ON A PCB.

## IV . APPLICATIONS :

- a. Double balance mixers , Broad-Band Transformers, Impedance Transformers , ETC.

Peak Temp : 260°C max.  
 Max time above 230°C : 50sec max.  
 Max time above 200°C : 70sec max.



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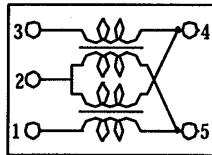
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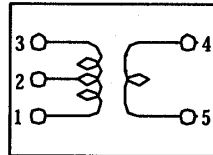
## V . ELECTRICAL CHARACTERISTICS :

DWG NO.	WINDING TURNS	OPERATING FREQUENCY RANGE	INSERTION LOSS	FIG.
BRN6044-0001S	1	50.0MHz-400.0MHz	10.0dB max.	1
BRN6044-0002S	2	10.0MHz- 1.0GHz	6.0dB max.	1
BRN6044-0003S	3	8.0MHz-800.0MHz	3.5dB max.	1
BRN6044-0004S	4	6.0MHz-600.0MHz	2.5dB max.	1
BRN6044-0005S	5	5.0MHz-500.0MHz	2.0dB max.	1
BRN6044-0006S	2	400.0MHz- 1.3GHz	4.0dB max.	1
BRN6044-0007S	Pri 1x2 Sec 1	25.0MHz-450.0MHz	8.0dB max.	2
BRN6044-0008S	Pri 2x2 Sec 2	9.0MHz-350.0MHz	3.0dB max.	2
BRN6044-0009S	Pri 3x2 Sec 3	3.5MHz-470.0MHz	3.0dB max.	2
BRN6044-0010S	Pri 4x2 Sec 4	2.2MHz-400.0MHz	3.0dB max.	2
BRN6044-0011S	Pri 5x2 Sec 5	1.5MHz-300.0MHz	3.0dB max.	2
BRN6044-0012S	4	6.0MHz-600.0MHz	IN to OUT-1 1.3dB max. IN to OUT-2 11dB~14dB	3
BRN6044-0013S	5	6.0MHz-600.0MHz	IN to OUT-1 0.9dB max. IN to OUT-2 13dB~16dB	3
BRN6044-0014S	6	6.0MHz-600.0MHz	IN to OUT-1 0.8dB max. IN to OUT-2 15dB~17dB	3
BRN6044-0015S		20.0MHz-600.0MHz	IN to OUT-1,2 4.5dB max. OUT-1 to OUT-2 (ISOLATION) 10dB min.	4

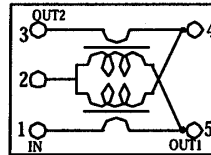
## VI . SCHEMATIC DIAGRAM :



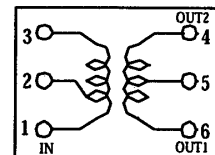
Double balanced mixer  
Fig.1



Transformer  
Fig.2



Directional coupler  
Fig.3



Distributor  
Fig.4

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<b>PROD. NAME</b>	<b>SMD BALUN TRANSFORMER</b>	<b>DWG NO.</b>	<b>BRN6044 Series</b>
		<b>ITEM NO.</b>	

**VII . PACKAGING INFORMATION :**  
**( 1 ) CONFIGURATION**

EMBOSED CARRIER

\*CARRIER TAPE WIDTH : D

USER DIRECTION OF FEED

**( 2 ) DIMENSIONS** Unit:m/m

STYLE	A	B	C	D	G	N	T
07 - 16	178	21 ± 0.8	13	16	18 <sup>+0</sup>	50 <sup>-0</sup>	22.4
13 - 16	330	21 ± 0.8	13	16	18 <sup>+0</sup>	50 <sup>-0</sup>	22.4

**( 3 ) QTY & G.W. PER PACKAGE**

SERIES	INNER : REEL			OUTER : CARTON		
	QTY (PCS)	G.W. (gw)	STYLE	QTY (PCS)	G.W. (Kg)	SIZE (cm)
BRN6044	300	113	07 - 16	12,000	5.2	39 x 38 x 21.5
BRN6044	1,000	450	13 - 16	8,000	4.2	40 x 40 x 24

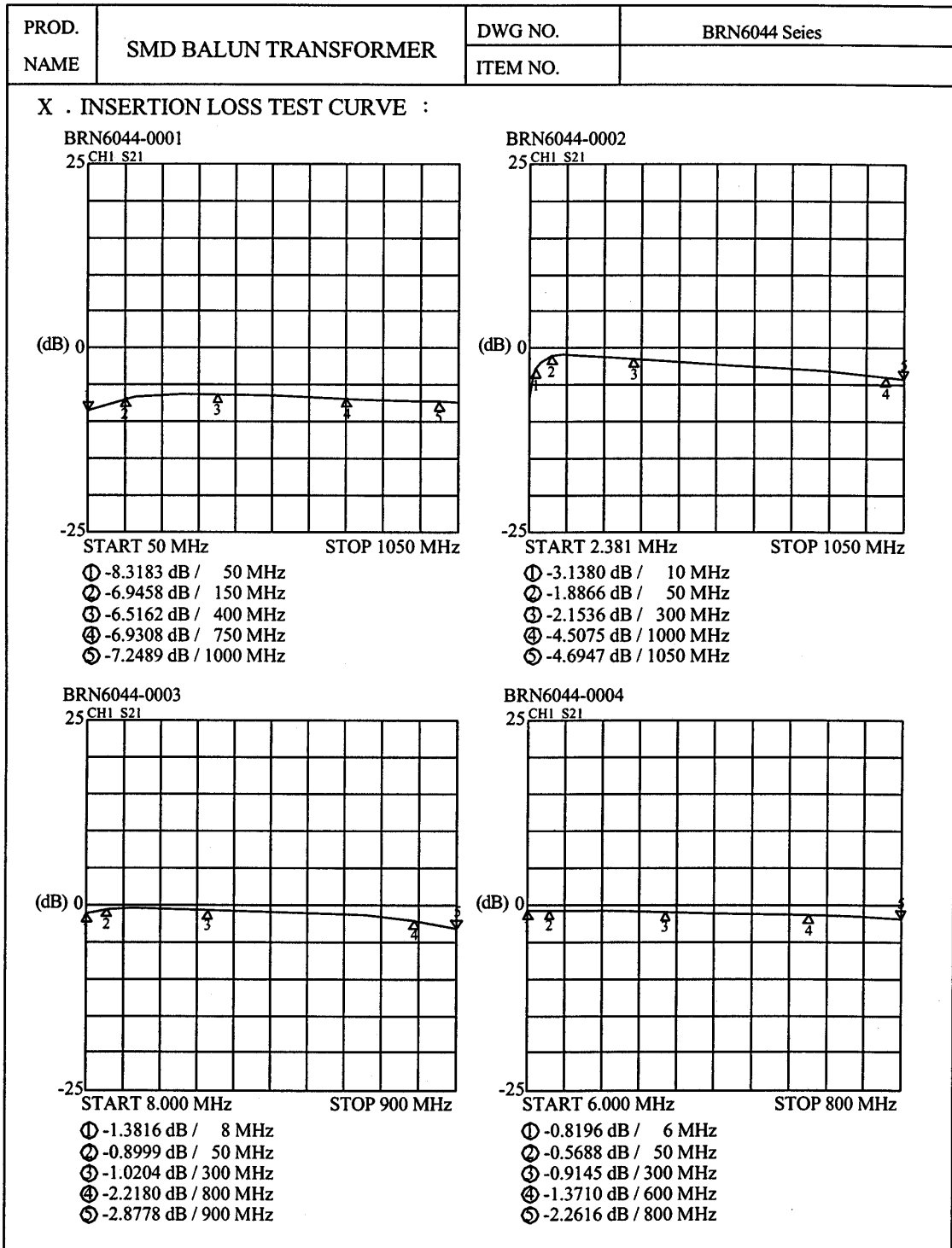
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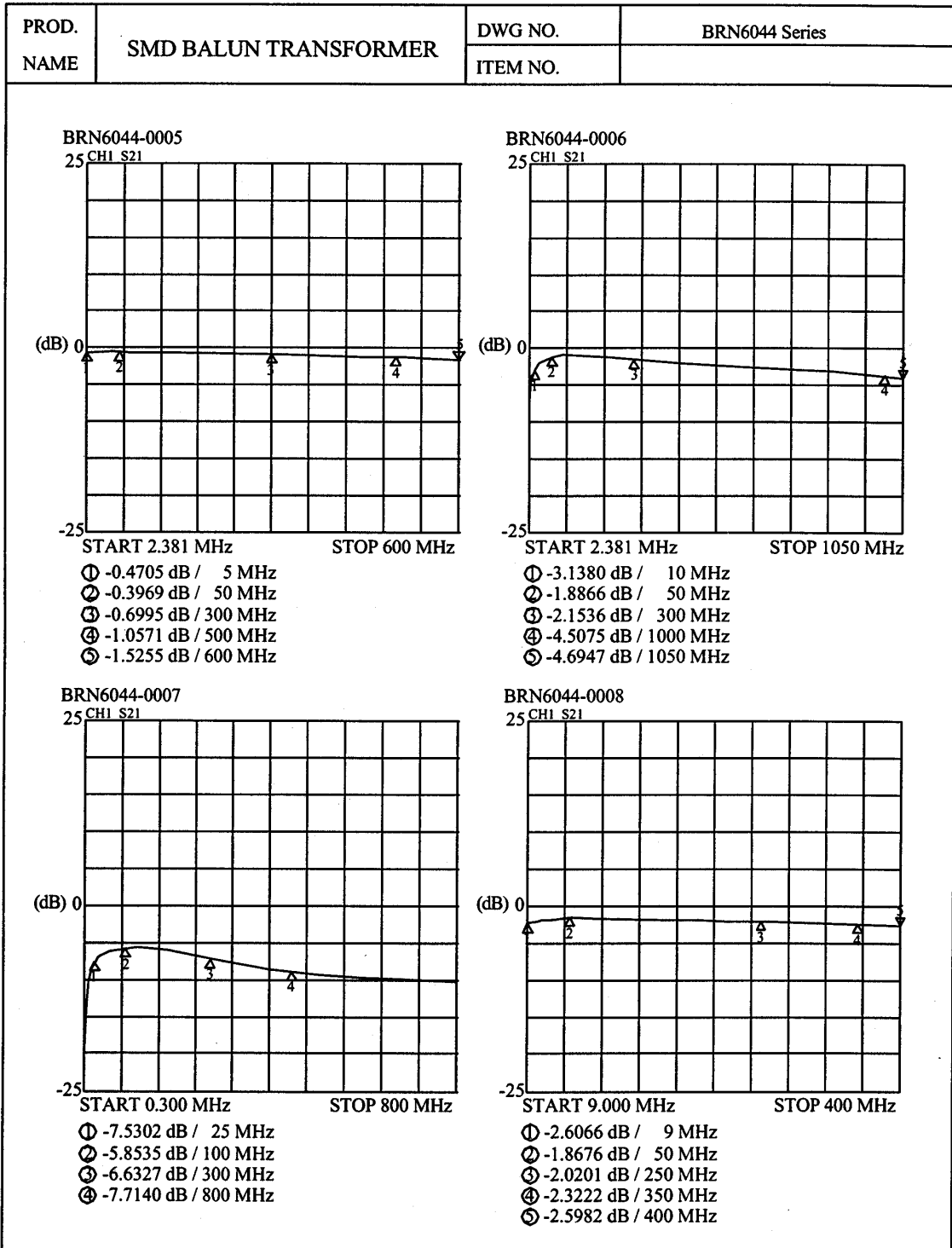
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PROD. NAME	SMD BALUN TRANSFORMER	DWG NO. ITEM NO.	BRN6044 Series
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<p><b>BRN6044-0009</b> 25 CH1 S21</p> <p>START 2.381 MHz      STOP 500 MHz</p> <ul style="list-style-type: none"> <li>① -1.9681 dB / 3.5 MHz</li> <li>② -1.3742 dB / 50 MHz</li> <li>③ -1.6774 dB / 300 MHz</li> <li>④ -2.1016 dB / 470 MHz</li> <li>⑤ -2.3843 dB / 500 MHz</li> </ul>	<p><b>BRN6044-0010</b> 25 CH1 S21</p> <p>START 2.381 MHz      STOP 450 MHz</p> <ul style="list-style-type: none"> <li>① -0.8878 dB / 2.381 MHz</li> <li>② -0.7163 dB / 50 MHz</li> <li>③ -1.2644 dB / 300 MHz</li> <li>④ -1.9968 dB / 400 MHz</li> <li>⑤ -3.0278 dB / 450 MHz</li> </ul>
<p><b>BRN6044-0011</b> 25 CH1 S21</p> <p>START 1.000 MHz      STOP 350 MHz</p> <ul style="list-style-type: none"> <li>① -0.5992 dB / 1.5 MHz</li> <li>② -0.7765 dB / 50 MHz</li> <li>③ -1.4662 dB / 150 MHz</li> <li>④ -2.3604 dB / 300 MHz</li> <li>⑤ -2.3604 dB / 300 MHz</li> </ul>	<p><b>BRN6044-0012</b> 25 CH2 S21</p> <p>START 2.381 MHz      STOP 700 MHz</p> <p>"△" : IN-OUT 1      "↑" : IN-OUT 2</p> <ul style="list-style-type: none"> <li>① -0.9926 dB / 6 MHz      ⑥ -12.378 dB / 6 MHz</li> <li>② -0.7059 dB / 50 MHz      ⑦ -12.303 dB / 50 MHz</li> <li>③ -0.7940 dB / 300 MHz      ⑧ -12.505 dB / 300 MHz</li> <li>④ -1.1147 dB / 600 MHz      ⑨ -12.907 dB / 600 MHz</li> <li>⑤ -1.2524 dB / 700 MHz      ⑩ -13.049 dB / 700 MHz</li> </ul>

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PROD. NAME <b>SMD BALUN TRANSFORMER</b>	DWG NO. <b>BRN6044 Series</b>	
	ITEM NO.	

<p><b>BRN6044-0013</b> 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 500 MHz</p> <p>"Δ" : IN-OUT 1      "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -0.6377 dB / 6 MHz</td> <td>① -14.222 dB / 6 MHz</td> </tr> <tr> <td>② -0.4683 dB / 50 MHz</td> <td>② -14.177 dB / 50 MHz</td> </tr> <tr> <td>③ -0.5063 dB / 300 MHz</td> <td>③ -14.254 dB / 300 MHz</td> </tr> <tr> <td>④ -0.6722 dB / 600 MHz</td> <td>④ -14.309 dB / 600 MHz</td> </tr> <tr> <td>⑤ -0.7370 dB / 700 MHz</td> <td>⑤ -14.300 dB / 700 MHz</td> </tr> </table>	① -0.6377 dB / 6 MHz	① -14.222 dB / 6 MHz	② -0.4683 dB / 50 MHz	② -14.177 dB / 50 MHz	③ -0.5063 dB / 300 MHz	③ -14.254 dB / 300 MHz	④ -0.6722 dB / 600 MHz	④ -14.309 dB / 600 MHz	⑤ -0.7370 dB / 700 MHz	⑤ -14.300 dB / 700 MHz	<p><b>BRN6044-0014</b> 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 450 MHz</p> <p>"Δ" : IN-OUT 1      "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -0.4321 dB / 6 MHz</td> <td>① -15.765 dB / 6 MHz</td> </tr> <tr> <td>② -0.3222 dB / 50 MHz</td> <td>② -15.736 dB / 50 MHz</td> </tr> <tr> <td>③ -0.3882 dB / 300 MHz</td> <td>③ -15.829 dB / 300 MHz</td> </tr> <tr> <td>④ -0.5890 dB / 600 MHz</td> <td>④ -15.942 dB / 600 MHz</td> </tr> <tr> <td>⑤ -0.6721 dB / 700 MHz</td> <td>⑤ -15.962 dB / 700 MHz</td> </tr> </table>	① -0.4321 dB / 6 MHz	① -15.765 dB / 6 MHz	② -0.3222 dB / 50 MHz	② -15.736 dB / 50 MHz	③ -0.3882 dB / 300 MHz	③ -15.829 dB / 300 MHz	④ -0.5890 dB / 600 MHz	④ -15.942 dB / 600 MHz	⑤ -0.6721 dB / 700 MHz	⑤ -15.962 dB / 700 MHz
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<p><b>BRN6044-0015</b> 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 5.000 MHz STOP 700 MHz</p> <p>"Δ" : IN-OUT 1      "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -3.3367 dB / 20 MHz</td> <td>① -3.6766 dB / 20 MHz</td> </tr> <tr> <td>② -3.3328 dB / 50 MHz</td> <td>② -3.6122 dB / 50 MHz</td> </tr> <tr> <td>③ -3.6748 dB / 300 MHz</td> <td>③ -3.9403 dB / 300 MHz</td> </tr> <tr> <td>④ -4.0316 dB / 600 MHz</td> <td>④ -4.1138 dB / 600 MHz</td> </tr> <tr> <td>⑤ -4.0401 dB / 700 MHz</td> <td>⑤ -3.8037 dB / 700 MHz</td> </tr> </table>	① -3.3367 dB / 20 MHz	① -3.6766 dB / 20 MHz	② -3.3328 dB / 50 MHz	② -3.6122 dB / 50 MHz	③ -3.6748 dB / 300 MHz	③ -3.9403 dB / 300 MHz	④ -4.0316 dB / 600 MHz	④ -4.1138 dB / 600 MHz	⑤ -4.0401 dB / 700 MHz	⑤ -3.8037 dB / 700 MHz	<p><b>50 CH1 S21</b></p> <p>(dB) 0 -50</p> <p>START 353 MHz STOP 694 MHz</p> <p>"Δ" : OUT 1-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -12.229 dB / 20 MHz</td> </tr> <tr> <td>② -17.753 dB / 50 MHz</td> </tr> <tr> <td>③ -27.348 dB / 300 MHz</td> </tr> <tr> <td>④ -33.705 dB / 600 MHz</td> </tr> <tr> <td>⑤ -18.530 dB / 700 MHz</td> </tr> </table>	① -12.229 dB / 20 MHz	② -17.753 dB / 50 MHz	③ -27.348 dB / 300 MHz	④ -33.705 dB / 600 MHz	⑤ -18.530 dB / 700 MHz					
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