

Product Information

Control No. : ARP-4870900-L 1

Issued on July 16, 2020

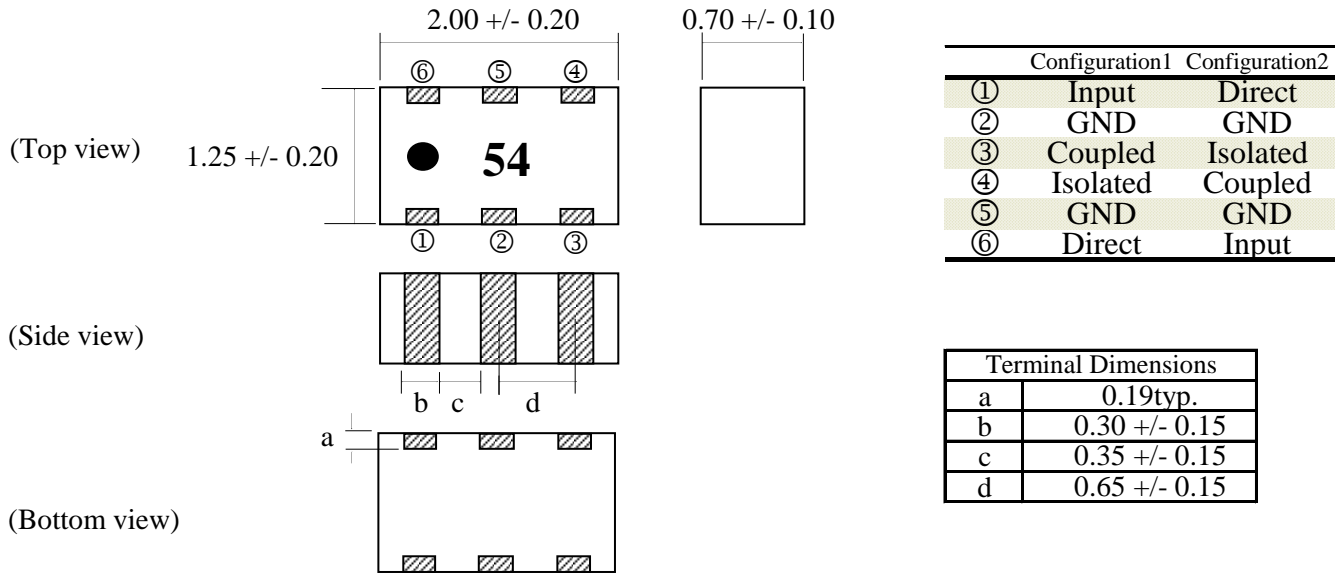
Application : 20dB Directional Coupler for 3300-5000MHz

1. Type No.

HMD8709D-20M4000

RoHS Compliant Part

2. Dimension (Unit : mm)



3. Electrical characteristics

| Parameter | | Band1 | Band2 | Band3 | Unit | Remark |
|---------------------------|--------------|--------------|--------------|--------------|------|--------------------|
| Pass band frequency | Specificaton | 3300-3800 | 3600-4200 | 4400-5000 | MHz | |
| Nominal impedance | Specificaton | 50 | 50 | 50 | ohm | |
| Input port return loss | Specificaton | 18.0 Min. | 18.0 Min. | 18.0 Min. | dB | |
| | Typical | 33.9 | 30.3 | 24.6 | | |
| Directivity | Specificaton | 18.0 Min. | 18.0 Min. | 18.0 Min. | dB | |
| | Typical | 25.0 | 26.5 | 22.6 | | |
| Insertion Loss at 25degC. | Specificaton | 0.10 Max. | 0.10 Max. | 0.10 Max. | dB | |
| | Typical | 0.05 | 0.04 | 0.07 | | |
| Mean Coupling | Specificaton | 18.5 to 21.5 | 18.5 to 21.5 | 18.5 to 21.5 | dB | |
| | Typical | 20.0 | 19.7 | 19.8 | | |
| Frequency sensitivity | Specificaton | 0.70 Max. | 0.70 Max. | 0.70 Max. | dB | Cpl(max)-Cpl(mean) |
| | Typical | 0.22 | 0.16 | 0.18 | | |

4. Note

- | | |
|---------------------------------|--|
| 4.1 Operating Temperature Range | : -40 to +105 deg.C |
| 4.2 Storage Temperature Range | : -20 to +35 deg.C (In a Taping Package) |
| 4.3 Max Input Power | : 10W Avg/CW |
| 4.4 Standard Reel Quantity | : 2,000 pcs (per reel, per bag) |

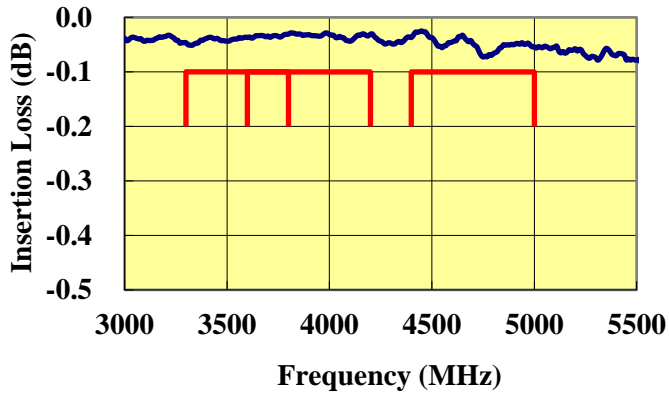
| Approved by | Confirmed by | Raised by |
|-------------|--------------|-----------|
| Y. Mizutani | T. Hasegawa | M. Aiba |

SOSHIN ELECTRIC CO., LTD

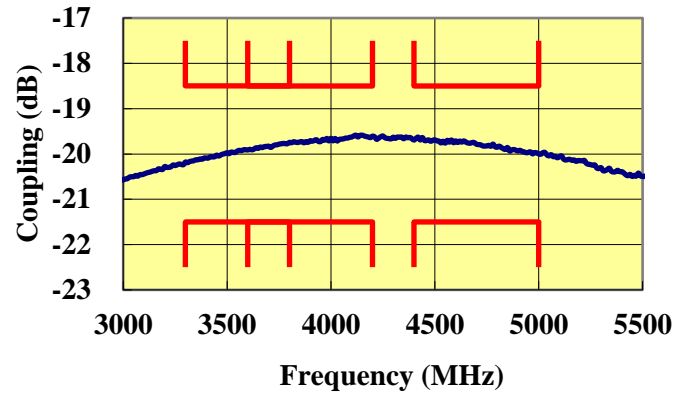
5.Representative characteristics

Measured data

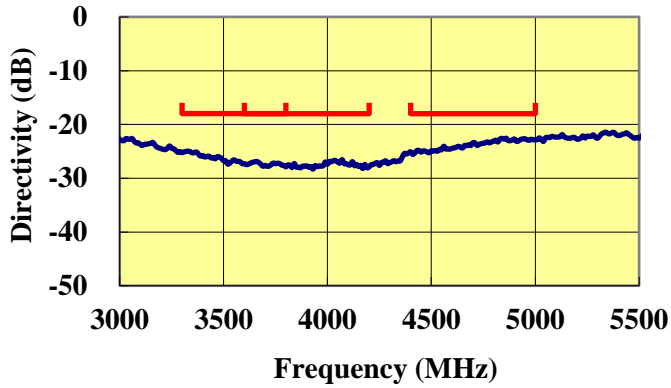
Frequency vs. Insertion Loss



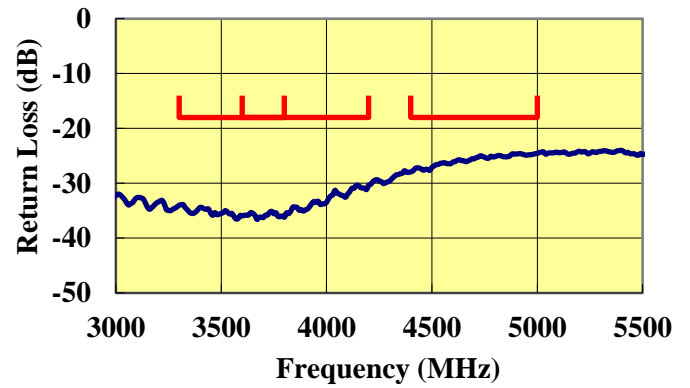
Frequency vs. Coupling



Frequency vs. Directivity

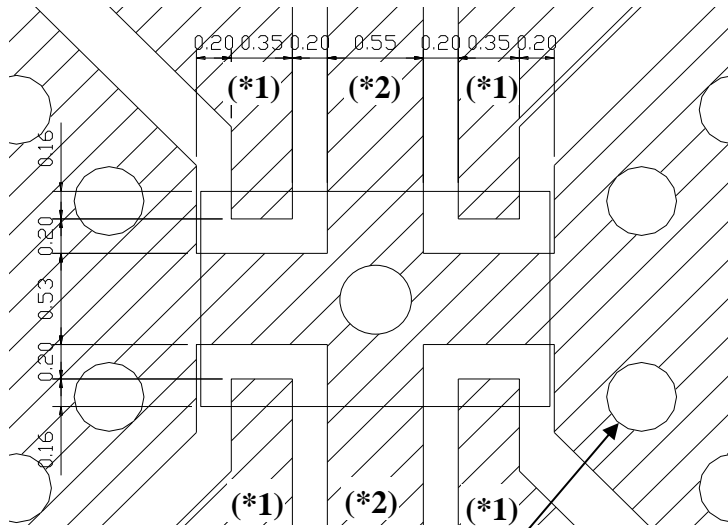


Frequency vs. Return Loss



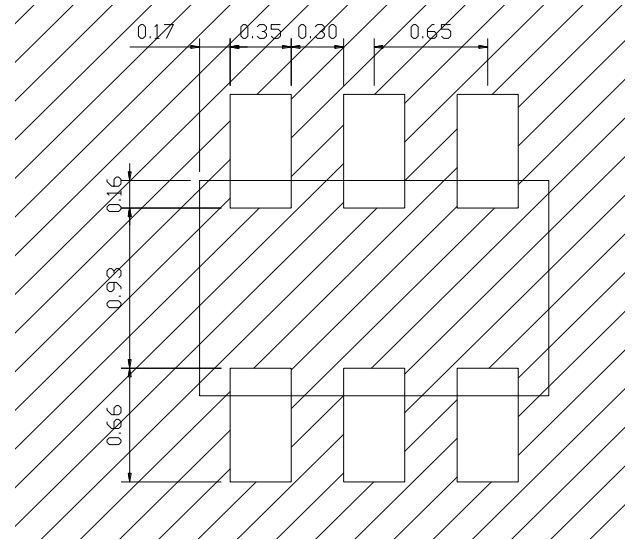
6.Recommended Land Pattern (Unit:mm)

*Land Pattern



Through hole ($\phi 0.4\text{mm}$)

*Resist Pattern



*1 50 ohm impedance Line

*2 Ground Plane

7.Power Derating Curve

