



Hybrid Coupler

3 dB. 90°





#### **Description:**

The 1E1305-3 is a low profile 3dB hybrid coupler in an easy to use surface mount package covering the Japanese PDC bandwidth. The 1E1305-3 is ideal for balanced amplifiers and signal distribution and can be used in most high power designs. Parts have been subjected to rigorous qualification testing and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyamide.

## **Detailed Electrical Specifications:**

| Features:   | Frequency            | Isolation        | Insertion<br>Loss | VSWR    |                    |
|---|----------------------|------------------|-------------------|---------|--------------------|
| • 1.20 – 1.85 GHz   | GHz                  | dB Min           | dB Max            | Max:1   |                    |
| Low Loss  | 1.4 – 1.7            | 25               | 0.25              | 1.15    |                    |
| <ul> <li>High Isolation</li> <li>90° Quadrature</li> <li>Surface Mountable</li> </ul> | 1.20 – 1.85          | 21               | 0.25              | 1.20    |                    |
|   | Amplitude<br>Balance | Phase<br>Balance | Power             | ΘJC     | Operating<br>Temp. |
| <ul> <li>Tape And Reel</li> <li>Convenient Package</li> </ul>                         | dB Max               | Degrees          | Ave. CW Watts     | °C/Watt | °C                 |
| <ul> <li>Convenient Package</li> <li>100% Tested</li> </ul>                           | ± 0.30               | ± 3              | 100               | 13.6    | -55 to +85         |
| - 100/0100100   | $\pm 0.50$           | ± 4              | 100               | 13.6    | -55 to +85         |

\*\*Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. \*Specifications subject to change without notice.

### **Outline Drawing:**



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# Typical Performance: 1.0 GHz. to 2.0 GHz.



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## **Pin Configuration**



**Mounting Footprint** 

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