

**Features**

- Low insertion loss, High isolation
- Perfect phase/amplitude balance
- Low VSWR
- 50 Ω impedance
- Hermetic SP-2, DIP-15 package
- Operating temperature: -55°C ~ +85°C

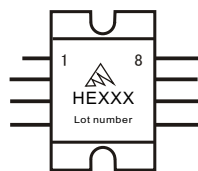
**Specifications** (measured in a 50 Ω system T<sub>A</sub> = -55°C ~ +85°C)

Parameter number	Frequency Range MHz	Insertion loss dB (Max)	Isolation dB (Min)	Phase Balance deg (Max)	Amplitude Balance dB (Max)	VSWR (Max)
HE021-4A	20~1200	2.1	15 Δ	7° Δ	1.0	1.5 : 1
HE021-4D	20~1200	2.0	20 Δ	5° Δ	0.8	1.5 : 1

“ Δ ” Measured at T<sub>c</sub> = 24 ± 1°C

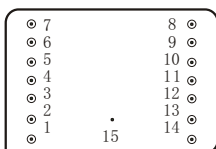
**Absolute Maximum Ratings**

Input power : 1W  
Storage temp: +125°C



SP-2

- 1. N/C
  - 2. Input
  - 3. N/C
  - 4. N/C
  - 5. Output
  - 6. Output
  - 7. Output
  - 8. Output
- Metal case is ground



DIP-15

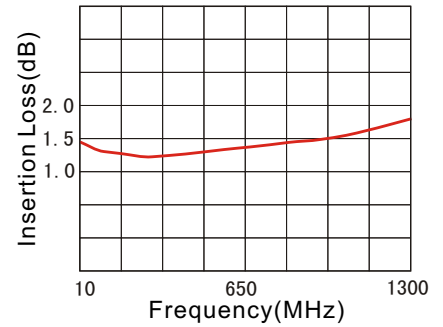
- 4 Input
- 8, 10, 12, 14 Output
- 1, 2, 3, 5, 6, 7, 9, 13 GND
- 11 N/C

**Application Notes**

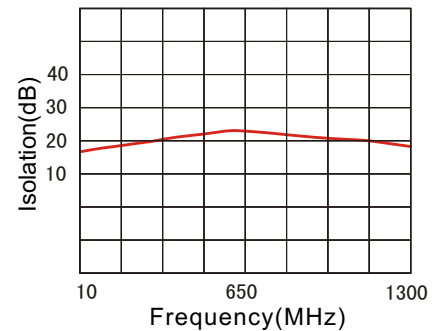
1. Input/output pins should be connected to 50 Ω microstrip.
2. The bottom should be place as close to ground as possible for better RF grounding.
3. See assembly section for mounting information
4. HE021-4A : SP-2 package  
HE021-4D : DIP-15package

**Typical Performance**

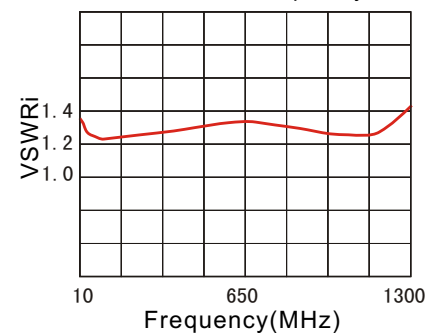
Insertion Loss vs. Frequency



Isolation vs. Frequency



VSWRi vs. Frequency



VSWRo vs. Frequency

