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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DATA SHEET

HY22-73, HY22-73LF: 90-Degree Hybrid 2.1–2.3 GHz

Features

- Low cost
- Low profile
- Small SOT-6 package
- Available on tape and reel
- Available lead (Pb)-free and RoHS-compliant MSL-1 @ 260 °C per JEDEC J-STD-020

Description

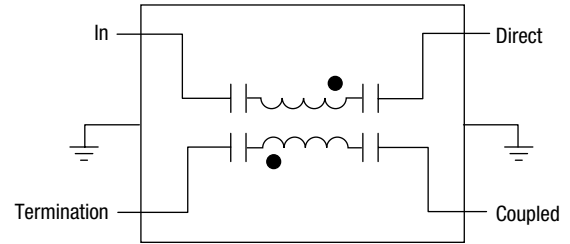
The HY22-73 is a 50 Ω, 90-degree hybrid tuned for the 2.1–2.3 GHz band. The monolithic circuitry is 100% passive and offers low loss, high isolation and exceptional phase/amplitude balance. It is available in the SOT-6 surface mount package. HY22-73LF is packaged in a lead (Pb)-free, fully RoHS-compliant SOT-6 package and is electrically identical to HY22-73.

NEW

Skyworks offers lead (Pb)-free, RoHS (Restriction of Hazardous Substances)-compliant packaging.



Block Diagram

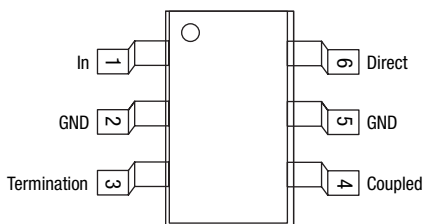


Electrical Specifications at 25 °C

Z₀ = 50 Ω, unless otherwise noted

| Parameter | Frequency | Min. | Typ. | Max. | Unit |
|--------------------------------|-----------|------|-------|-------|------|
| Frequency | | 2.1 | | 2.3 | GHz |
| Insertion loss less 3 dB split | | | 0.55 | 0.7 | dB |
| Isolation | | 20 | 23 | | dB |
| Input VSWR | | | 1.2:1 | 1.5:1 | |
| Output VSWR | | | 1.2:1 | 1.5:1 | |
| Amplitude balance | | | ±0.4 | ±1.1 | dB |
| Phase balance | | | ±2 | ±4 | Deg. |

Pin Out

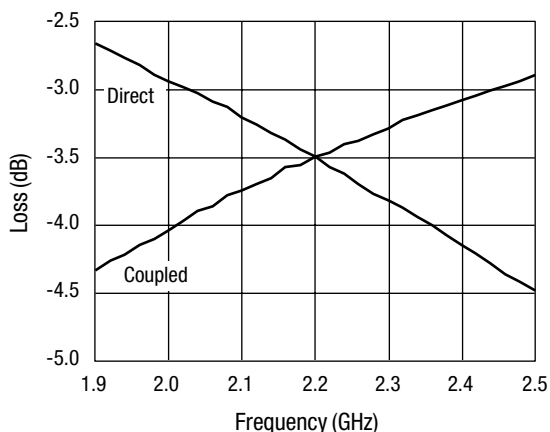


The Pin Out diagram shows the HY22-73 configured for a divider/coupler with Pin 1 as the input port and a 50 Ω termination to be placed at Pin 3. Since the HY22-73 is symmetric, any nonground pin may be used as the input port. The following table shows the possible pin connection combinations for the HY22-73 used as a divider/coupler:

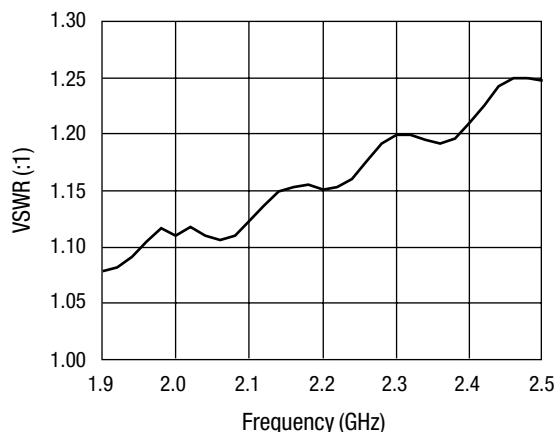
| Input | Termination | Direct | Coupled |
|-------|-------------|--------|---------|
| Pin 1 | Pin 3 | Pin 6 | Pin 4 |
| Pin 3 | Pin 1 | Pin 4 | Pin 6 |
| Pin 4 | Pin 6 | Pin 3 | Pin 1 |
| Pin 6 | Pin 4 | Pin 1 | Pin 3 |

Typical Performance Data

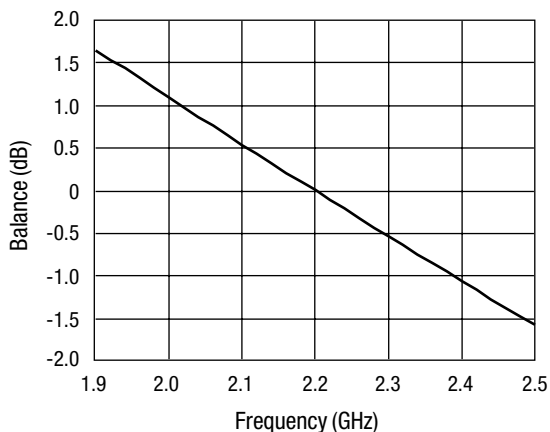
$Z_0 = 50 \Omega$, unless otherwise noted



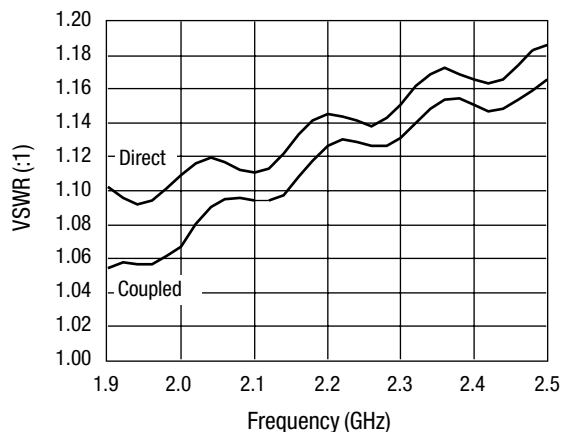
Path Losses vs. Frequency



Input VSWR vs. Frequency



Amplitude Balance vs. Frequency



Output VSWR vs. Frequency

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