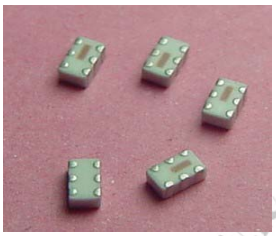
# Multilayer Chip Couplers

## Features

- Monolithic SMD with small, low-profile and Light-weight type.



## Applications

- 0.8-6 GHz wireless communication systems, including DECT/PACS/PHS/GSM/DCS/PCS phones, WLAN card Bluetooth modules, etc.

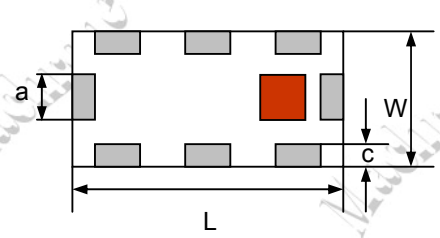
## Part Number Systems

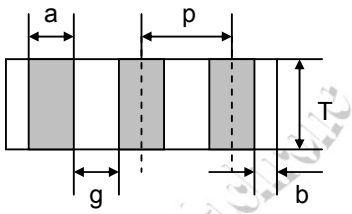
**MCP - 2012 – 20 – A – 1747 - LF**

(1) (2) (3) (4) (5) (6)

| | | | |
|---|---|---|---|
| **(1)** | **Product series** | **(2)** | **Dimensions (L x W): 2.0 x 1.25 mm** |
| **(3)** | **20 = 20dB** | **(4)** | **Material Type** |
| **(5)** | **Frequency Range: 1747 = 1747MHz** | **(6)** | **ROHs Compliant** |

## Shape And Dimensions




**Unit: mm**

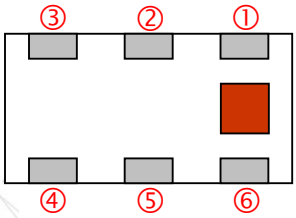
| Type | L | W | T | a | b | c | g | p |
|---|---|---|---|---|---|---|---|---|
| **2012** | **2.0 ± 0.1** | **1.25 ± 0.1** | **0.85±0.1** | **0.3 ± 0.1** | **0.2 ± 0.1** | **0.3 + 0.1/-0.2** | **0.35 ± 0.1** | **0.65 ± 0.05** |

**MCP-2012-Series** **ELECTRICAL CHARACTERISTICS**

| Part Number | Passband (MHz) | Insertion Loss (dB) | Return Loss (dB) | Coupling (dB) | Isolation (dB) | Power Capacity |
|---|---|---|---|---|---|---|
| MCP-2012-20-A-0897-LF | 880 ~ 915 | 0.5 Max. | 14.0 Min. | 20.0 ± 1.0 | 25.0 Min. | 3W Max |
| MCP-2012-20-A-1747-LF | 1710 ~ 1785 | 0.5 Max. | 14.0 Min. | 20.0 ± 1.0 | 25.0 Min. | 3W Max |

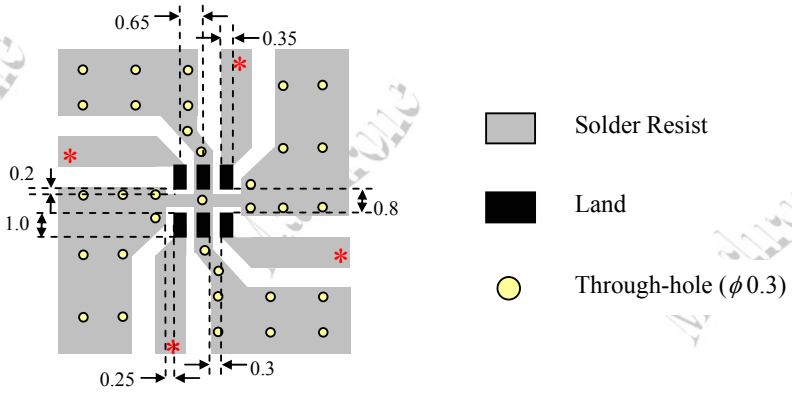
*** All specifications are subjected to change without prior notice.**

## Terminal Configuration



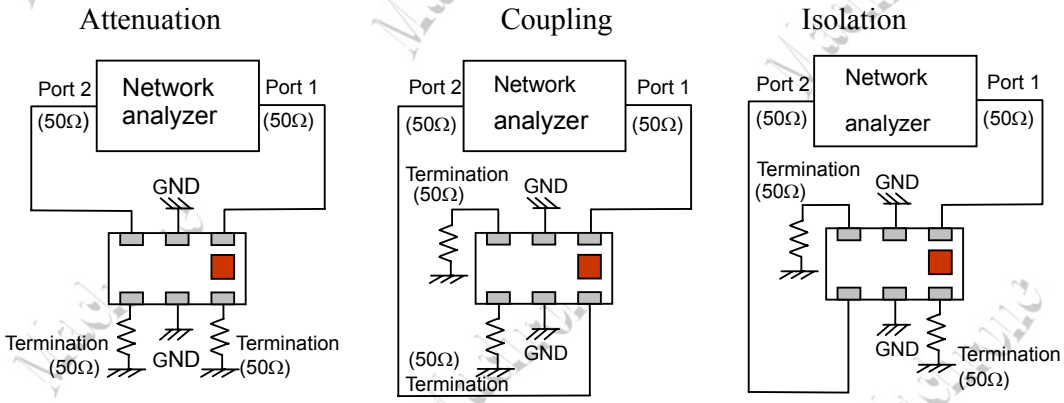

| No. | Terminal Name | No. | Terminal Name |
|---|---|---|---|
| 1 | IN | 4 | Termination |
| 2 | GND | 5 | GND |
| 3 | Main Out | 6 | Coupled Out |

## Recommended PC Board Pattern (Unit: mm)



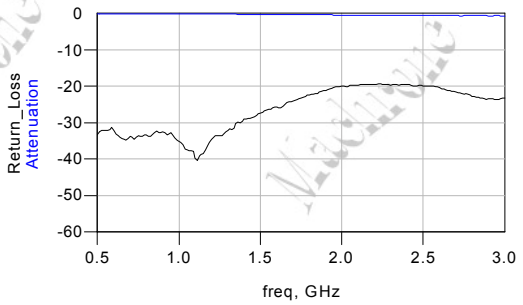

* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

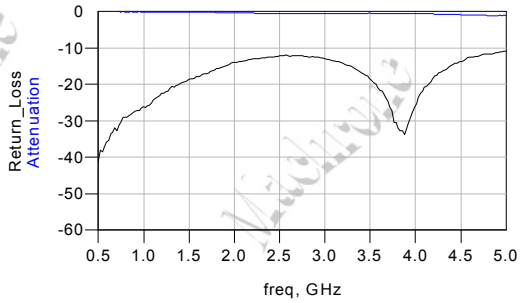
## Measuring Diagram



## Typical Electrical Characteristics (Temperature = 25ºC)

❖ MCP-2012-20-A-0897-LF




❖ MCP-2012-20-A-1747-LF