

# Variable Attenuator VA101

# RFHIC

## Product Features

- SMD Type
- Single Voltage
- Low Cost
- Variable Analog Attenuator
- High Linearity

## Application

- Repeater
- Base Station
- RF Sub-Systems



Package Type: HY-46

## Description

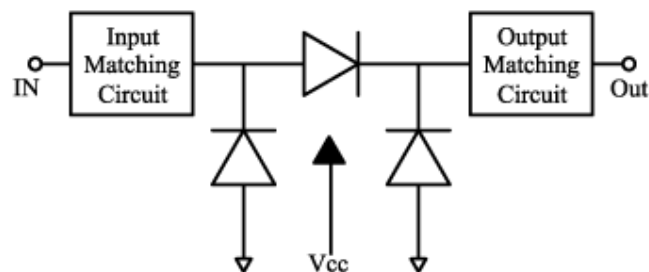
This Variable Attenuator has high gain throughout the broadband.

## Specifications

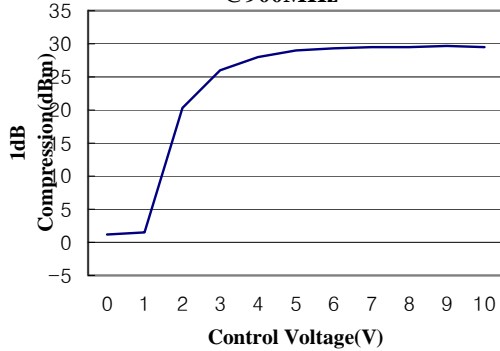
(Operating Temperature: -40°C~+100°C)

PARAMETER	VA101				
		Min	Typ	Max	Units
Insertion Loss (Min Attn) (Vctl=10 V)	50-1000 MHz		2.3		dB
	1000-2000MHz		2.5		dB
	2000-3000MHz		3.0		dB
Attenuation Range (Vctl= 0 to +10V)	50-1000 MHz	30		35	dB
	1000-2000MHz	25		30	dB
	2000-3000MHz	22		25	dB
Flatness (Peak to Peak)	50-1000 MHz		±0.5		dB
	1000-2000MHz		±0.5		dB
	2000~3000MHz		±0.5		dB
Input Return Loss	50-1000 MHz		25		dB
	1000-2000MHz		20		dB
	2000-3000MHz		15		dB
Output Return Loss	50-1000 MHz		25		dB
	1000-2000MHz		20		dB
	2000-3000MHz		15		dB
Input Power for 1dB Compression			30	32	dBm

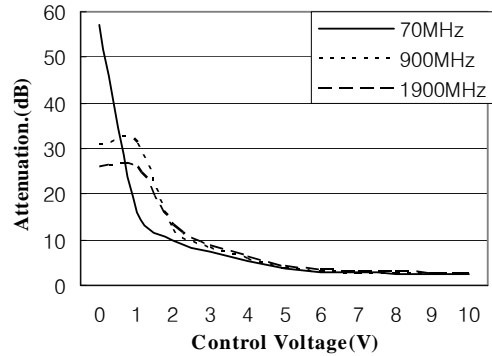
## Functional Diagram



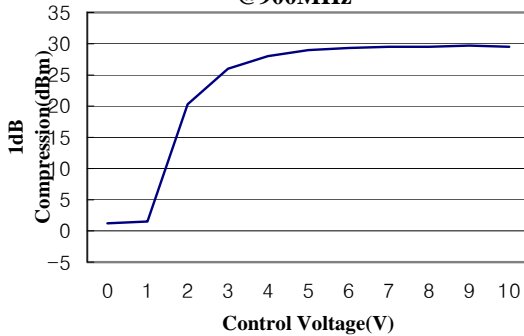
**Control Voltage vs. 1dB compression @900MHz**



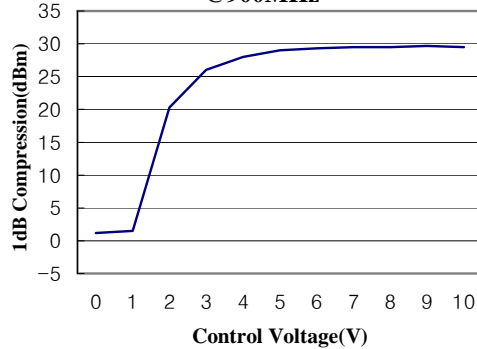
**Control Voltage vs. Attenuation**



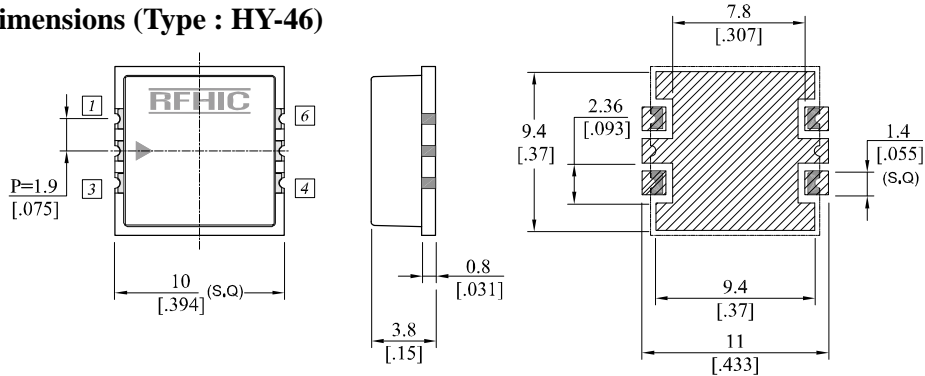
**Control Voltage vs. 1dB compression @900MHz**



**Control Voltage vs. 1dB compression @900MHz**



## Package Dimensions (Type : HY-46)



Pin No.	Function	Pin No.	Function
1	Input 1	4	Vcc+5V
2	Ground	5	Ground
3	Control	6	Output 1

### Recommended Pattern

Unit : $\frac{\text{mm}}{\text{[inch]}}$	Tolerance : $\pm \frac{0.2}{.008}$
--	------------------------------------

RFHIC Corporation (RFHIC) reserves the right to make changes to any products herein or to discontinue any product at any time without notice. RFHIC do not assume any liability for the suitability of its products for any particular purpose, and disclaims any and all liability, including without limitation consequential or incidental damages. The product specifications herein expressed have been carefully checked and are assumed to be reliable. However, RFHIC disclaims liability for inaccuracies and strongly recommends buyers to verify that the information they are using is current before placing purchase orders. RFHIC products are not intended for use in life support equipment or application where malfunction of the product can be expected to result in personal injury or death. Buyer uses or sells such products for any such unintended or unauthorized application, buyer shall indemnify, protect and hold RFHIC and its directors, officers, stockholders, employees, representatives and distributors harmless against any and all claims arising out of such use. RFHIC's liability under or arising out of damages, claims of whatsoever kind and nature which RFHIC products could cause shall be limited in amount to the net purchase price of the products sold to buyer by RFHIC.