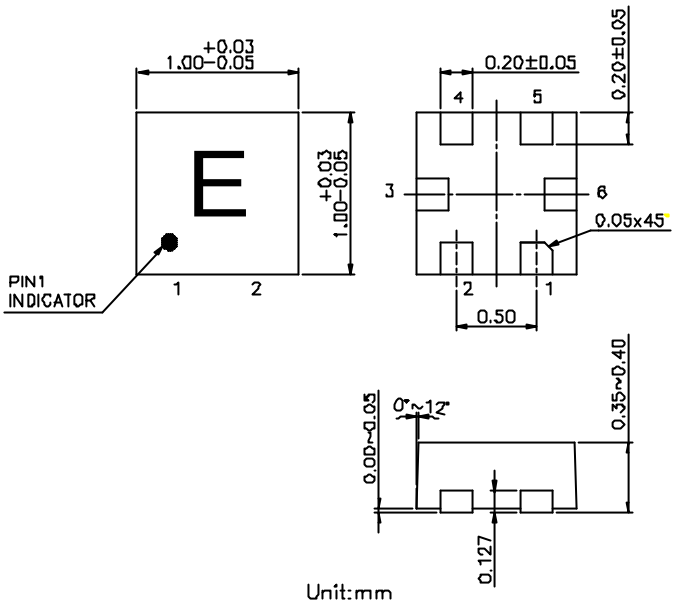
Features

- **Low Insertion Loss:** 0.4 dB @ 2.5 GHz
- **Isolation:** 22 dB @ 2.5 GHz
- **Low DC Power Consumption**
- **Miniature UQFN6L (1.0x1.0x0.4 mm)**
  Using Lead (Pb) free materials with RoHS compliant
- **PHEMT process**

UQFN6L (1.0X1.0X0.4mm)



Description

The HWS522 is a GaAs SPDT switch operating at 0.5-6.0 GHz in a low cost UQFN6L (1x1x0.4 mm) plastic lead (Pb) free package. The HWS522 features low insertion loss with very low DC power consumption. This switch can be used in IEEE 802.11a/b/g WLAN systems for transmit/receive or antenna diversity functions.

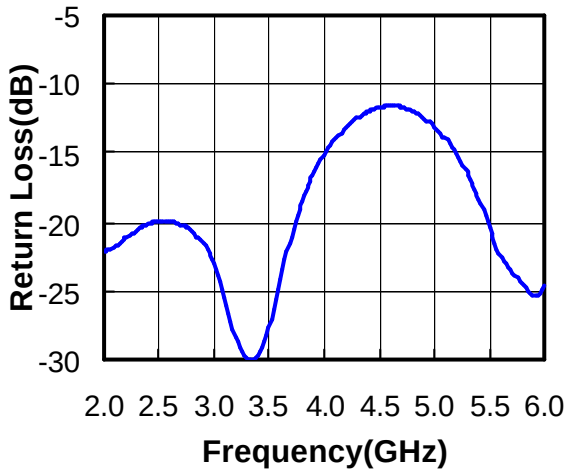
Electrical Specifications at 25°C with 0, +1.8 5V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	0.5-3.0 GHz 3.0-6.0 GHz		0.40 0.70	0.60 0.90	dB dB
Isolation	0.5-3.0 GHz 3.0-6.0 GHz	16	22 18		dB dB
Return Loss	0.5-3.0 GHz 3.0-6.0 GHz		20 12		dB dB
Input Power for One dB Compression	0.5-3.0 GHz @ 0/+1.8V @ 0/+3V		 24 32		 dBm dBm
Switching Time			60		ns
Control Current			5	20	uA

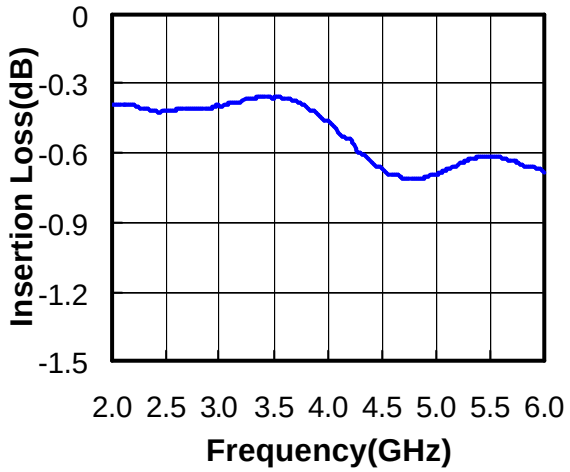
Note: All measurements made in a 50 ohm system with 0/+1.8 5V control voltages, unless otherwise specified.

Typical Performance Data with 8 pF Capacitors @ +25°C

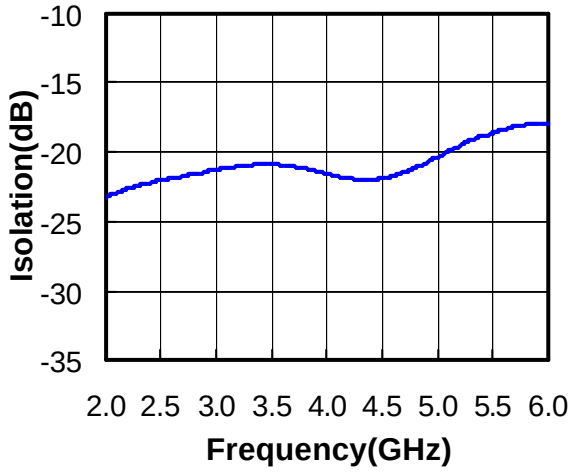
Return Loss vs. Frequency



Insertion Loss vs. Frequency



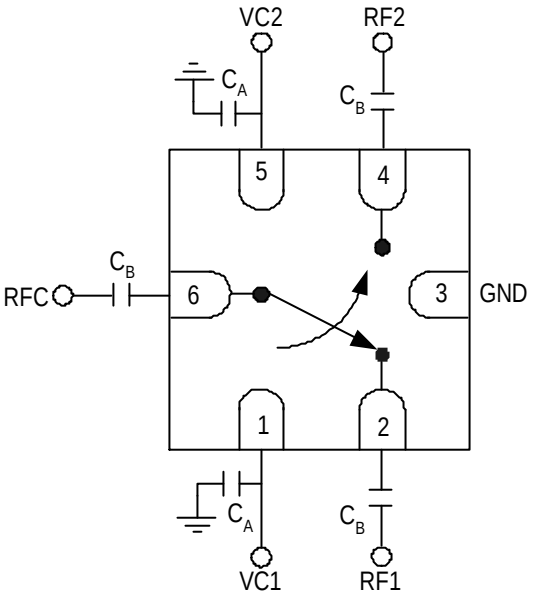
Isolation vs. Frequency



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power 0.5-3.0 GHz	+34 dBm
Control Voltage	+6V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

Pin Out (Top View)



Note:
1. DC blocking capacitors C_B are required on all RF ports C_B=C_A=8pF for operating frequency > 2GHz.
2. C_B=C_A=47pF for operating frequency < 2GHz.

Logic Table for Switch On-Path

VC1	VC2	RFC-RF1	RFC-RF2
1	0	Insertion Loss	Isolation
0	1	Isolation	Insertion Loss

'1' = +1.8V to +5V
'0' = 0V to +0.2V