

DESCRIPTION

AMCOM's AM007040TM-CM-R is a broadband SPDT T/R power switch. It has less than 4dB insertion loss and better than 2:1 VSWR over the 0.05 to 7.0GHz band. This T/R switch can handle up to 15W RF power in the transmit mode (TX ON) and up to 1W in the Receive mode (RX ON). The AM007040TM-CM-R is in a small ceramic package suitable for SMT assembly. The AM007040TM-CM-R is RHoS compliant.

FEATURES

- Broadband from 0.05 to 7.0GHz
- Power handling is 42 dBm
- Typical 1dB Insertion Loss
- Input & output matched to 50 Ohms

APPLICATIONS

- T/R modules
- Instrumentation
- Lab Measurements
- Modulators

TYPICAL PERFORMANCE *

Parameters	Minimum	Typical	Maximum
A) TX ON / RX OFF			
CTL1 (TX ON/ RX OFF)	-0.5V	0V	+0.5V
CTL2 (TX ON/ RX OFF)	-20V	-15V	-5V
Frequency	DC – 6.0GHz	DC – 7.0GHz	
TX ON Insertion Loss	-	1.0dB	1.5dB
Input Return Loss	10dB	15dB	
TX-to-RX Isolation (TX ON)	25dB	30dB	-
Input power at 0.1dB compression (TX ON)	37dB	40dBm	-
Maximum TX RF power handling	40dBm	43dBm	
B) TX OFF / RX ON			
Frequency	DC – 6.0GHz	DC – 7.0GHz	
CTL1 (TX OFF/ RX ON)	-20V	-15V	-5V
CTL2 (TX OFF/ RX ON)	-0.5V	0V	+0.5V
RX ON Insertion Loss	-	1.5dB	2.0dB
Input Return Loss	10dB	15dB	
RX-to-TX Isolation (RX ON)	10dB	13dB	-
Input power at 0.1dB compression (RX ON)	27dB	30dBm	-
Maximum RX RF power handling	30dBm	33dBm	

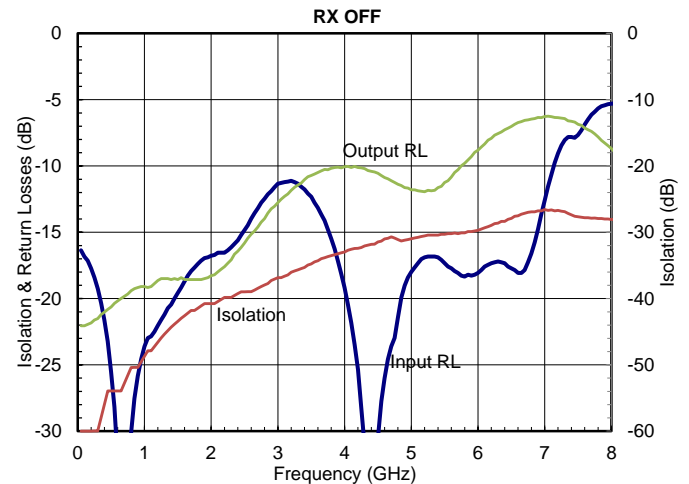
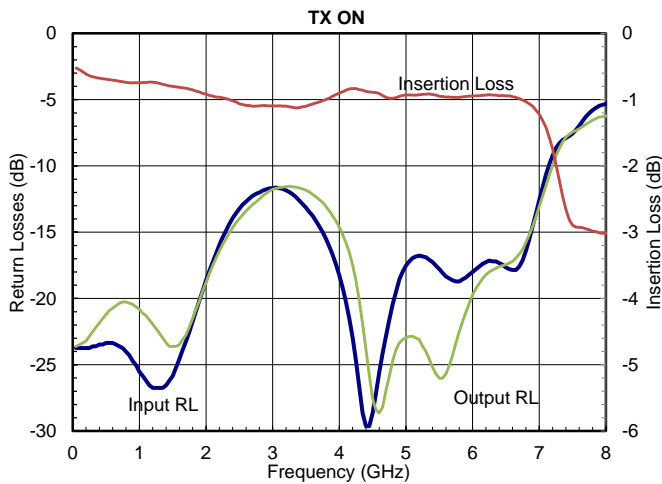
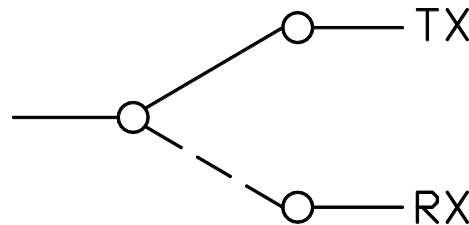
* Specifications subject to change without notice

ABSOLUTE MAXIMUM RATING

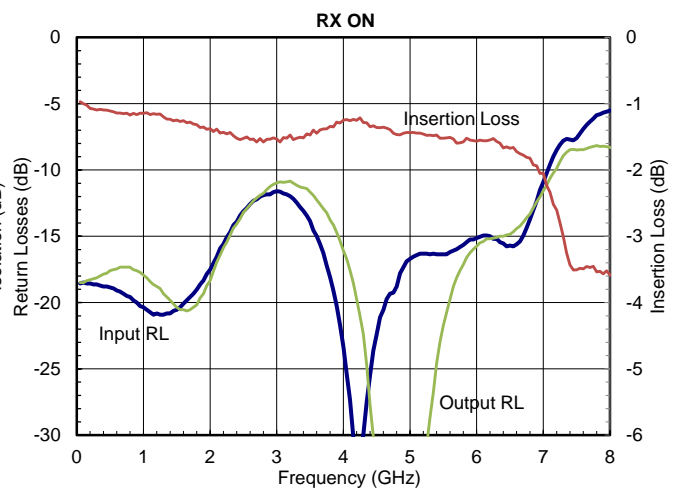
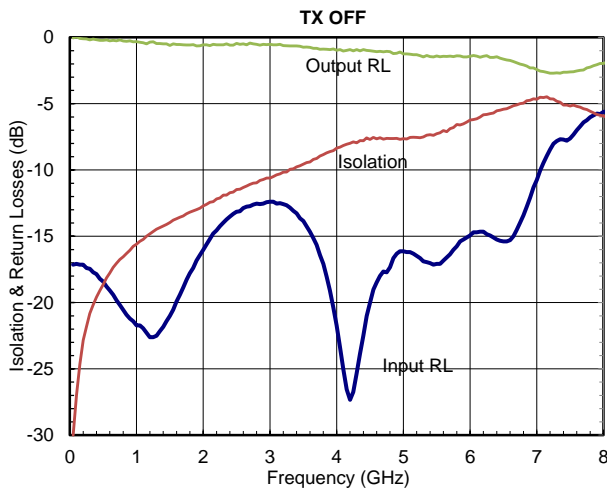
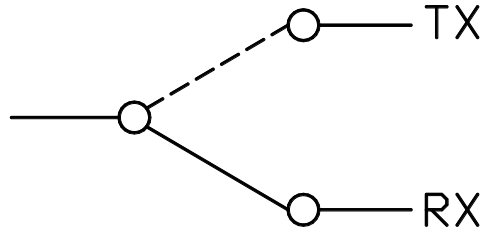
Parameters	Symbol	Rating
CTL1 & CTL2 Voltage	Vdc	-20V to +0.5V
CTL1 & CTL2 DC Current	Idc	5mA
RF Power	Pin	43dBm

SMALL SIGNAL DATA*

A) TX ON & RX OFF

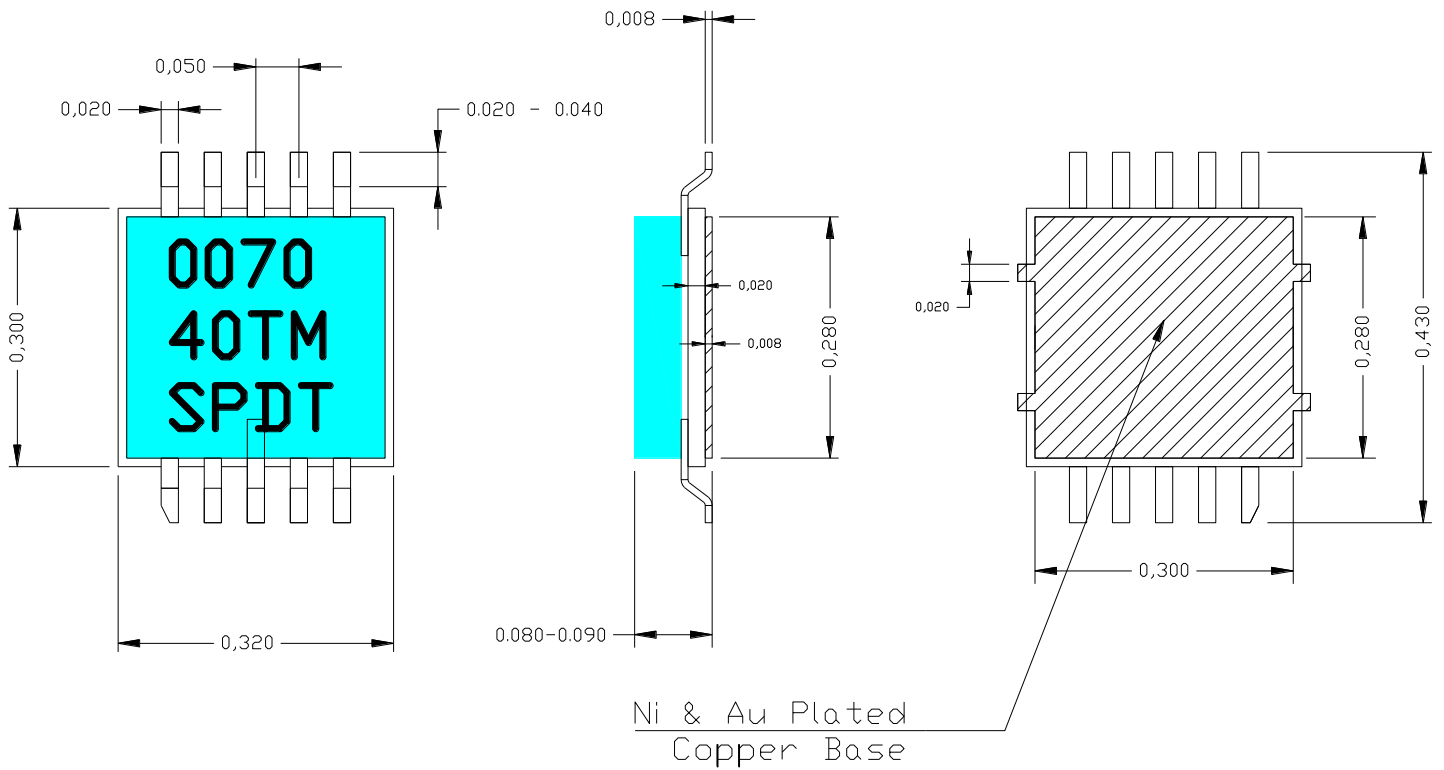


B) RX ON & TX OFF

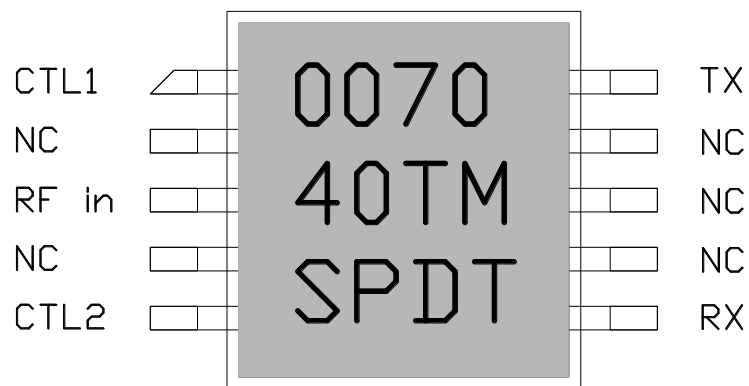


* Specifications subject to change without notice

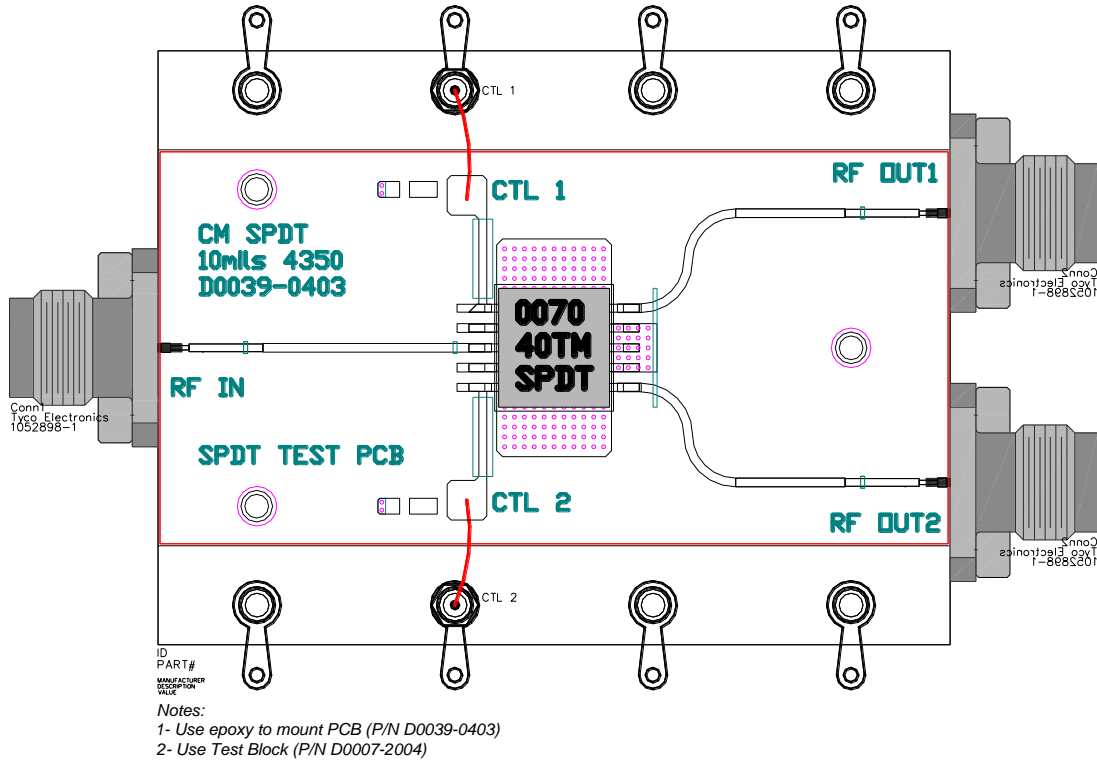
PACKAGE OUTLINE*



* Dimensions in inch



TEST FIXTURE



Notes:

- 1- Maximum DC current through CTL1 & CTL2 bias pin is 5mA.
- 2- Maximum input RF power is 43dBm
- 3- Maximum negative CTL1 & CTL2 voltage is -20V.
- 4- Maximum positive CTL1 & CTL2 voltage is +0.5V.
- 5- T/R switch needs a good heat sink particularly when more than 2W TF power is going through the input in "TX ON" mode.