

**μPG2417T6M-EVAL-A**

**Evaluation Board**

- Description
- Assembly Drawing

## **Description:**

The uPG2417T6M-EVAL-A evaluation board provides a quick and convenient means of evaluating the performance of the Renesas uPG2417T6M switch. In addition to the device, the board provides DC block capacitors, power supply bypass capacitors, and RF and DC connectors.

A DC block capacitor is required at ANT, RF1 and RF2 ports. On this board, a 10000pF capacitor is used for this purpose. The chosen capacitance value is for operation at 13MHz. Smaller value capacitance might be used for applications at higher frequencies. Generally the performance of the switch circuit is not sensitive, to a certain extent, to the value of DC blocking capacitors.

A 10000pF capacitor is used for DC bypass on all control lines. For high speed applications the user may choose smaller capacitance.

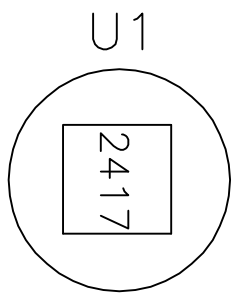
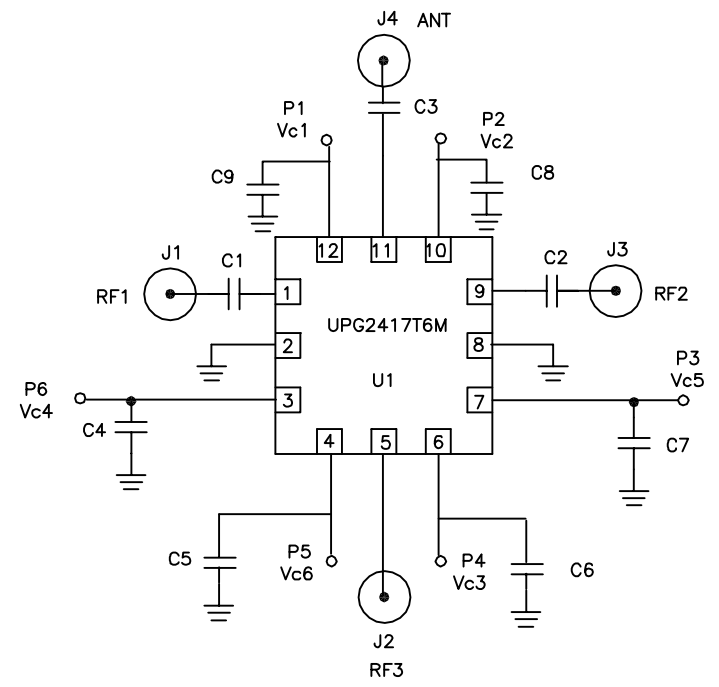
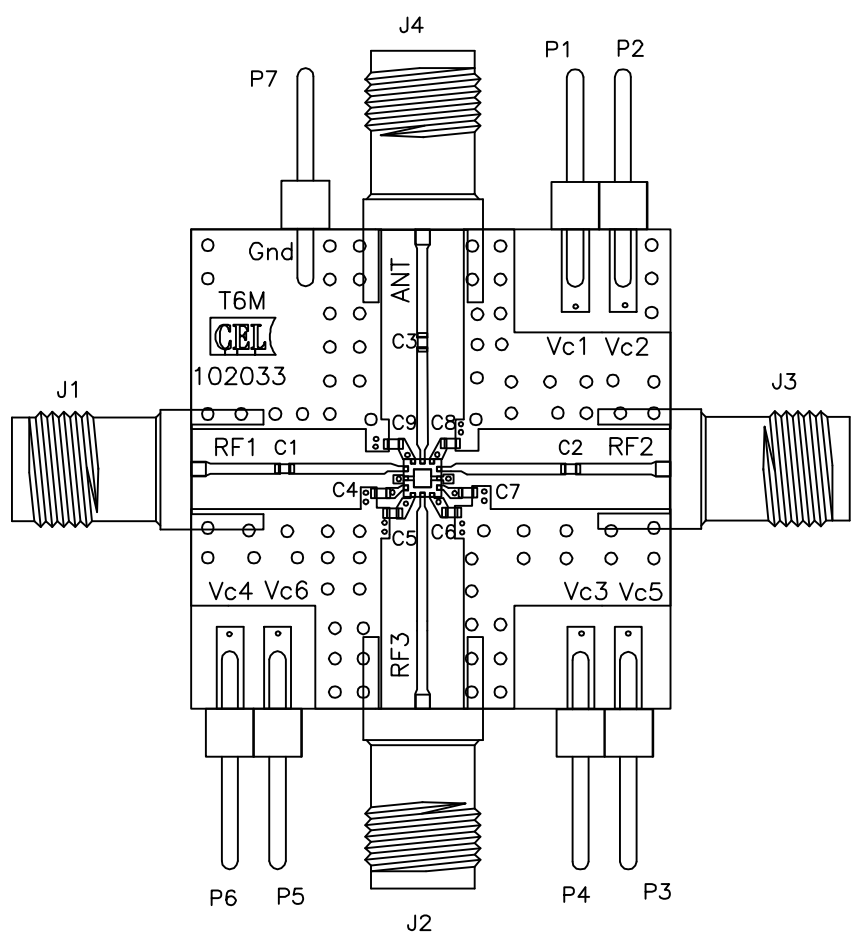
## **DC and RF Connections**

All ports for DC and RF connections are labeled on the board. For the complete pin-out description, refer to the data sheet. The data sheet is available from CEL's website at: [www.cel.com](http://www.cel.com).

## **Information on Board Material:**

The PCB is a four layer board. The top layer is 10mil thick RO4350B. Its dielectric constant is 3.48. The middle and bottom layers are 45mil and 10mil FR4 respectively. All RF transmission lines are on top metal layer. The second metal layer is ground. The third metal layer is for DC routing and the bottom metal layer is ground.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



QTY	PART NUMBER OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL/SPECIFICATION	ITEM NO.
9	GRM1555R71E103KA01D	C1-C9	0402 10,000pF CAP MURATA	5
7	2340-6111 TG	P1,P2,P3,P4,P5,P6,P7	PIN HEADER 3M	4
4	142-0711-821	J1,J2,J3,J4	SMA FEMALE CONNECTOR E.F. JOHNSON	3
1	uPG2417T6M	U1	RENESAS uPG2417T6M	2
1	CL-102033	DRAWING	COMPONENT LAYOUT DRAWING	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS .XX±.01 ANGULAR ±1° .XXX±.005 DO NOT SCALE DRAWING		APPROVALS		<b>CEL CALIFORNIA EASTERN LABS</b> 4590 PATRICK HENRY DR. SANTA CLARA CA. 95054 TITLE: uPG2417T6M-EVAL-A ASSEMBLY DRAWING		
		M Dong 03/08/2011 Designed by: M Dong 02/08/2011 Checked by:	Project Engineer:  Quality Control:			SCALE: C
NEXT ASSY	USED ON	FINISH	PARTS LIST			
APPLICATION		SCALE		RELEASE DATE	PROTOTYPE	SHEET 1 OF 1