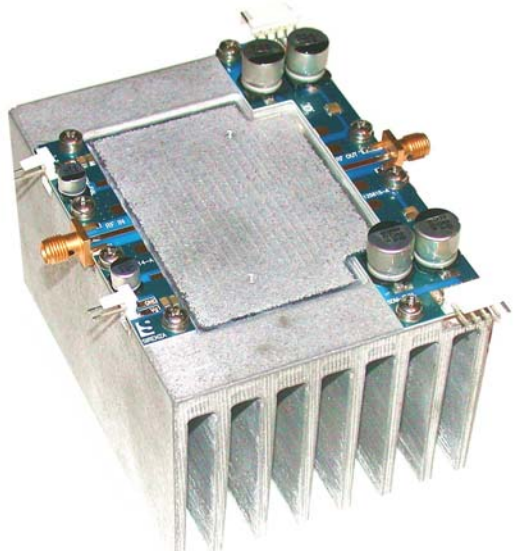
SDM-EVAL

Test Fixture for Sirenza SDM Module Series



Product Description

The SDM-EVAL connectorized fixture supports test and measurement of the SDM series of LDMOS modules available from Sirenza. The fixture includes convenient SMA female RF connectors along with a DC header to facilitate amplifier characterization, or rapid system prototyping. The test circuit is mounted on an aluminum heatsink that requires forced air cooling to ensure proper device operating temperatures.

Product Features

- **50 Ohm SMA (F) Interface**
- **Integrated Aluminum Heatsink**
- **Supports "B" packages**

Applications

- **Product Test and Evaluation**
- **Rapid System Prototyping**
- **Product Qualification**

Basic Bill of Materials

Manufacturer	Mfg Part #	Item Description	Qty	Ref Des
Panasonic	EEV-HB1V220P	CAP, 22 UF, 35V, 20%, Lytic	2	C1,C2
Johanson Technology	101R18W104KV4E	CAP 0.1 UF,100V,10%,1206,LEAD FREE	4	C11,C12, C3,C4
Johanson Technology	101R18W102KV4E	CAP 1000 PF,100V,10%,1206,LEAD FREE	4	C5,C6, C13,C14
Panasonic	ECE-V1HA221P	CAP, 220 UF, -40 TO 85°C, 50V, ELECT, G	4	C7,C8,C9,C10
Amp	640455-2	CONNECTOR ,MTA,SMD,R/A,2 PIN	2	J1,J2
Amp	640455-5	CONNECTOR MTA POST HEADER, 5PIN, RT ANGLE, POLARIZED, SM.	2	J3,J4
Johnson Comp	142-0751-821	CONNECTOR,SMA END,0.037 JOHNSON COMP	2	J5, J6
Various		SCREW, #4-40 PHILLIPS PAN HEAD, 1/4, SS	10	
Various		WASHER, #4 LOCK, SPLIT, S S	10	
Various		WASHER, #4 NARROW, .125 ID, .250 OD, .019 T, SS	10	
Rogers 4350, er=3.48, 30 mils thick, 1 oz Cu both sides		PCB's SDM-EVAL, INPUT and OUTPUT	2	
Wakefield	Die 10117	Heatsink - Extruded Aluminum, machined	1	

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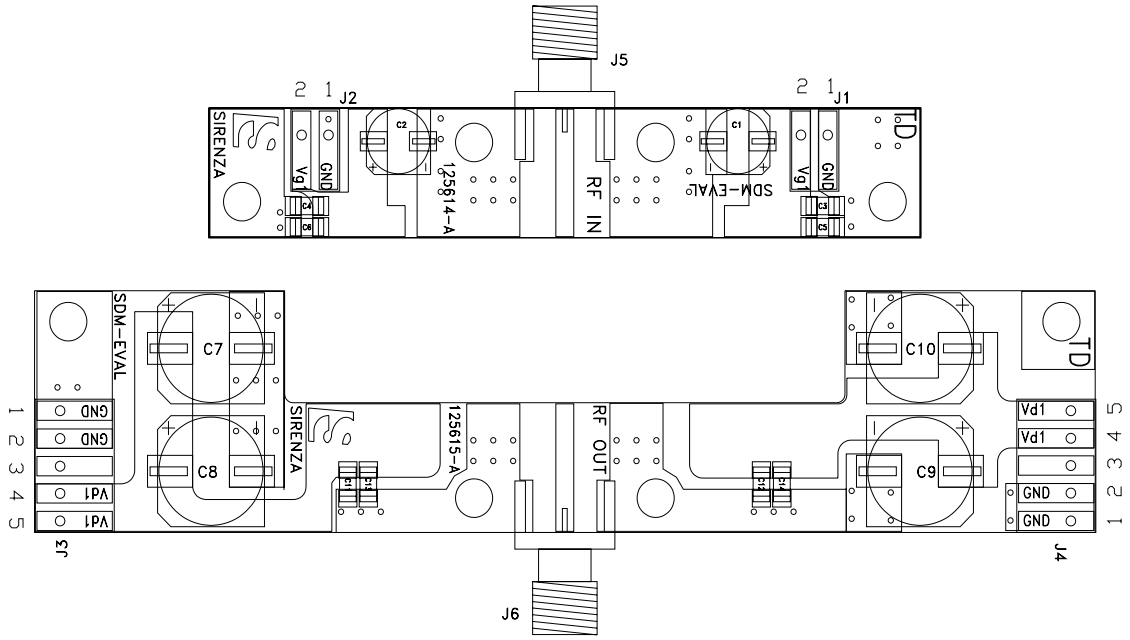
EDS-105005 Rev C

Pin Descriptions

Connector	Pin #	Function	Description
J1	1	Gnd	DC ground for D package module. Also connected to RF ground.
J1	2	V_{G1}	Gate control. Sets the quiecent bias current for the top half of the SDM Module. Typical values 4.0 – 4.5Vdc.
J2	1	Gnd	DC ground for D package module. Also connected to RF ground.
J2	2	V_{G2}	Gate control. Sets the quiecent bias current for the bottom half of the SDM Module. Typical values 4.0 – 4.5Vdc.
J3	1	Gnd	DC ground for D package module. Also connected to RF ground.
J3	2	Gnd	DC ground for D package module. Also connected to RF ground.
J3	3	Gnd	DC ground for D package module. Also connected to RF ground.
J3	4	V_{D1}	Drain voltage for the top half of the SDM module. Nominally +28Vdc.
J3	5	V_{D1}	Drain voltage for the top half of the SDM module. Nominally +28Vdc.
J4	1	Gnd	DC ground for D package module. Also connected to RF ground.
J4	2	Gnd	DC ground for D package module. Also connected to RF ground.
J4	3	Gnd	DC ground for D package module. Also connected to RF ground.
J4	4	V_{D2}	Drain voltage for the bottom half of the SDM module. Nominally +28Vdc.
J4	5	V_{D2}	Drain voltage for the bottom half of the SDM module. Nominally +28Vdc.
J5	Coax	RF in	RF input to test fixture (50 Ohm system)
J6	Coax	RF out	RF output to test fixture (50 Ohm system)

Test Board Layouts



Heatsink Drawing