XD010-EVAL

Test Fixture for Sirenza XD Module Series

Product Description

The XD010-EVAL connectorized fixture supports test and measurement of the XD 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 D2, D4, and D5 packages**

Applications

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

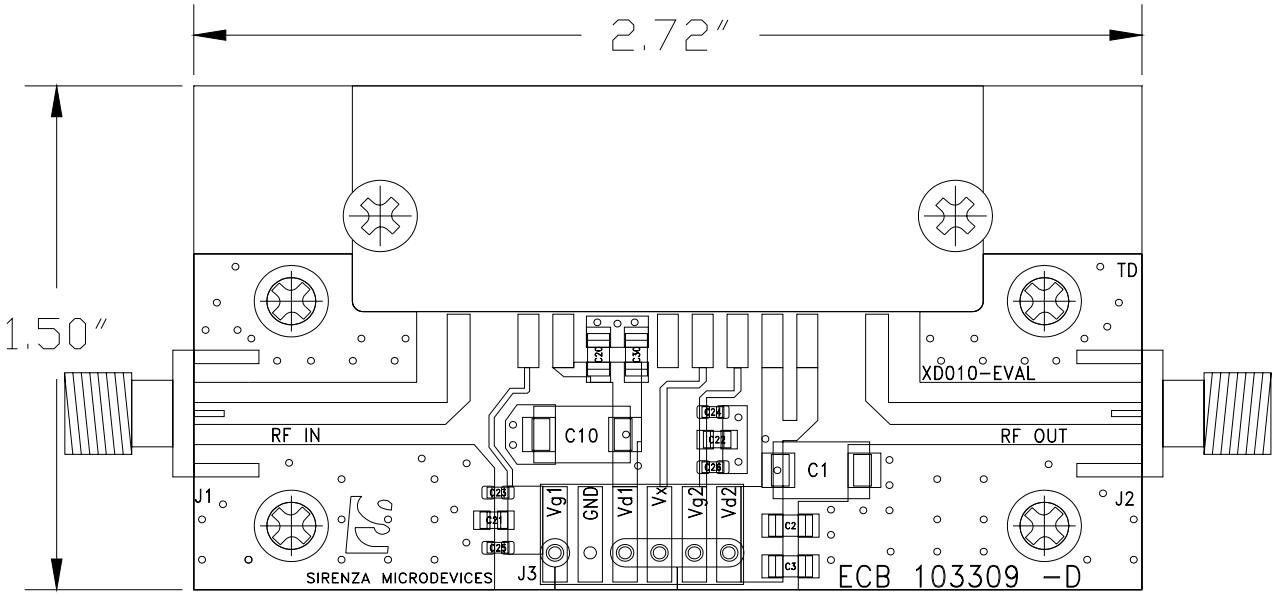
Basic Bill of Materials

Manufacturer	Mfg Part #	Item Description	Qty	Ref Des
Kemet	T494D106M035AS	CAP, 10 UF, 35V, 20%, TANT, ELECT, D	2	C1,C10
Johanson Technology	101R18W104KV4E	CAP, 0.1 UF,100V,10%,1206,LEAD FREE	2	C2,C20
Panasonic	ECJ2YB1H104K	CAP, 0.1 UF, 50V, 10%, 0805	2	C21,C22
AVX	06031C102JAT2A	CAP, 1000 PF, 100V, 10%, 0603	2	C23,C24
ATC	600S680JT250XT	CAP, 68PF,250V,5%,0603,LF LEAD FREE	2	C25,C26
Johanson Technology	101R18W102KV4E	CAP, 1000 PF,100V,10%,1206,LEAD FREE	2	C3,C30
Johnson Comp	142-0751-821	CONNECTOR,SMA END,0.037 JOHNSON COMP	2	J1,J2
Amp	640455-6	CONNECTOR, MTA,SMD,R/A,6 PIN	1	J3
Various		WASHER, #4 LOCK, SPLIT, S S	6	
Various		WASHER, #4 NARROW, .125 ID, .250 OD, .019 T, SS	6	
Various		SCREW, #4-40 PHILLIPS PAN HEAD, 5/16, SS	6	
Rogers 4350, er=3.48, 30 mils thick, 1 oz Cu both sides		PCB, XD010-EVAL	1	
Wakefield	2063-HS Extrusion	Heatsink - Extruded Aluminum, machined	1	

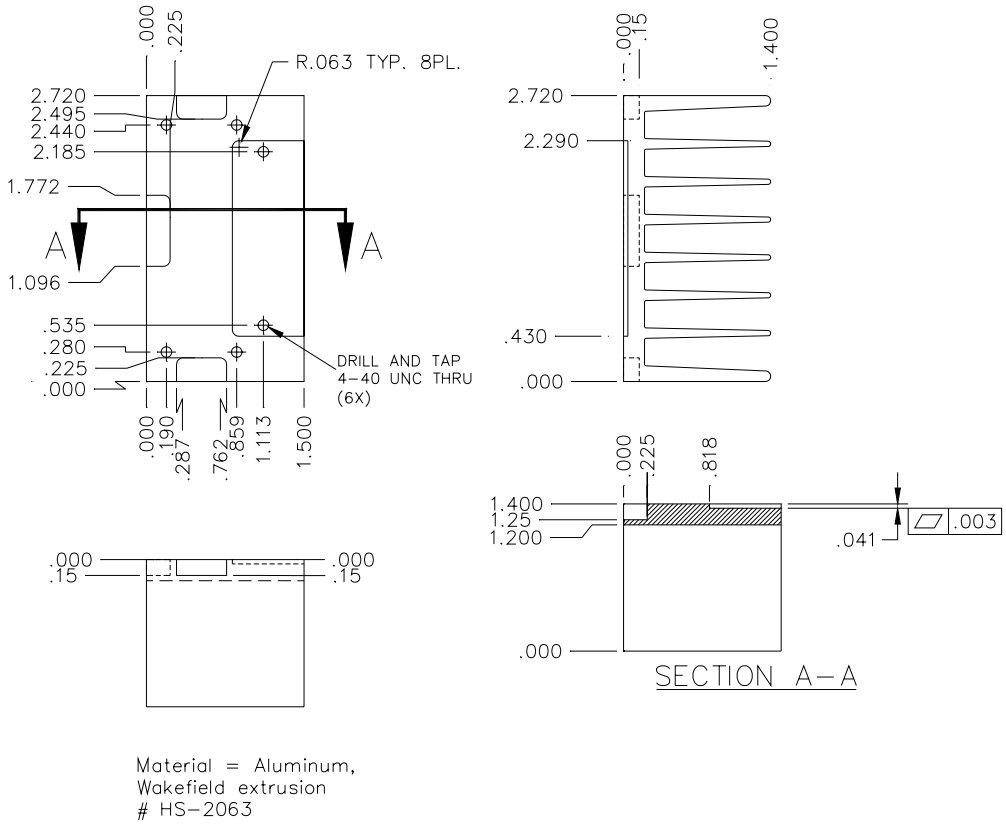
J3 - Pin Description

Pin #	Function	Description
1	V_{G1}	Gate control for stage 1. Sets the quiecent bias current on Pin 3 of the XD Module. Typical values 4.0 – 4.4Vdc. This pin is not used with D2 and D4 modules.
2	Gnd	DC ground for D package module. Also connected to RF ground.
3	V_{D1}	Drain voltage for the first stage. Nominally +28Vdc.
4	V_x	Not used.
5	V_{G2}	Gate control for stage 2. Sets the quiecent bias current on Pin 5. Typical values 4.0 – 4.4Vdc. This pin is not used with D2 and D4 modules.
6	V_{D2}	Drain voltage for the second stage. Nominally +28Vdc

Test Board Layout



Heatsink Diagram



To receive Gerber files, DXF drawings, a detailed BOM, and assembly recommendations for the test board with fixture, contact applications support at support@sirenza.com.