





FADOS MUX MULTIPLEXER MODULE

FADOS Multiplexer Module uses for testing and checking electronic circuit boards. The main purposes is creates VI graphs of circuit board test points in a while. So; the user measure much tests points in a short time.

FADOS MUX Multiplexer Module works with FADOS9F1 together. It connects to FADOS9F1 with a connector and takes energy from FADOS9F1. FADOS MUX has 96 outputs. The first (front) 48 output is "A" channel; the second (back) 48 output is "B" channel. A - B channels measure at the same time.

FADOS MUX connects parallel to each other so that the output changes according to how many products connect parallel. For example; if 2 FADOS MUX connect parallel the output is $96 \times 2 = 192$.



FADOS MUX has 3 accessories; A – B channel 50 pin connectors and 10 pin connectors for connection to FADOS9F1.

The Multiplexer button is clicked in the FADOS9F1 program to open the multiplexer screen.

All the keys to be used for trouble shooting are placed on the left hand side of the panel.



	Voltage Stage(s)	: The voltage to be applied to the board is selected by manually setting									
1.5 V 3 V	the ±1.5 V, ±3 V, =	\pm 6 V, \pm 12 V stages from the voltage stage selector. Only one voltage may									
12 V	be selected at a time for a given test.										
	Frequency Stage	(s) : The Frequency to be applied to the board is selected by									
Low Frq.	manually setting th	ne Low Frequency, Test Frequency, stages from the Frequency stage									
Test Fig.	selector. Only one F	requency may be selected at a time for a given test.									
Low	Current Stage(s) : The current to be applied to the board is selected by manually setting										
Med1	the Low Current, Medium1 Current, Medium2 Current, stages from the Current stage selector.										
Medz	Only one Current m	ay be selected at a time for a given test.									
C Show Pin VI	Show Pin VI	: We can see VI graph of pin which we test or measure.									
• Ref Test VI	Ref. Test VI	: Show the VI graph of reference pin (saved electronic circuit board)									
	can measure the i	nternal resistance of the capacitor and determine its quality when this									
Pin: 9 -	feature is selected.										
Tolerance: 5	Pin	: Show the VI graph of pin that measure.									
Set	Tolerance %	: Defines the tolerance range for the test point. It can be changed by									
	the user.										
1 To 40	Set	: Set the voltage, frequency and current stage for testing component.									
	То	: Shows which datas that checks.									
Test Point: 41	Test Point	: Shows the name or code of the point under test.									
REFERENCE	Reference	: Before the data are recorded in the memory, create VI graphs of									
	reference board fro	m pin to pin.									
Recording	Recording	: Opens the Recording window. The recording window menu is used for									
	Recording or retriev	ing the recorded data.									
TEST	Test	: Test pins from Memory.									
Data Form	Data Form	: Shows Mux Data Form.									
CLEAR TABLE	Clear Table	: Clear the table of Mux Data Form.									

Voltage, Frequency, Current Selection

The Multiplexer test voltage stages are ± 1.5 V, ± 3 V, ± 6 V, and ± 12 V. The FADOS apply a current-limited sinusoidal test voltage in the above test voltage values to the point selected on the electronic circuit board through a series resistor.

VI Test screen is also divided in to squares of the same size. The squares on the horizontal axis provide information on the voltage ranges.

The Multiplexer current stages are Low Current, Medium1 Current, and Medium2 Current.

The Multiplexer frequency stages are Low Frq, and Test Frq.

Select voltage, current and frequency stages by buttons that are placed on the left hand side of the panel.

GENERAL USAGE oF MULTIPLEXER INFORMATION

- When run software, <u>Power The IR Temperature</u> <u>Test Screen</u> opens and an input is entered to the <u>Multiplexer Screen</u> with the <u>Multiplexer Button</u>.
- Firstly, determine how many pins that you II check from _____ to ____.
- Set the voltage current and frequency of pins.

For example;

Pin1: Select 6V, Test Freq and Med1 Current and click "Set"

Pin2: Select 12V, Test Freq and Med1 Current and click "Set"

Pin3: Select 6V, Test Freq and Low Current and click "Set"

Also we Set the "Tolerance"

Every data be able to see in Mux Data table.



Note: Mux data table is moveable; you can move it as you want from top bar part according to resolution of screen especially for low resolution.

• After Set the Voltage, Current, Freq and Tolerance; click "Reference" for creating VI graph of electronic pins. Wait a while for "REFERENCE OK"

													No	Pin	Volt	Fra	Cur	Tol	Diff % Resul	
	and mul	6 V											1	1.A	6 V	Test	M. 1	5	Din. 70 Teodu	<u> </u>
	1.5 V 3 V	TE											2	1 B	6 V	Test	M. 1	5		10
5	6 V	1.11.											3	2 A	12 V	Test	M. 1	5		11
Ë	12 V	M. 1											4	2 B	12 V	Test	M. 1	5		1
α I													5	3 A	6 V	Test	Low	5		
-	Low Frq.												6	3 B	6 V	Test	Low	5		
œ	Test Frg.												7	4 A	6 V	Test	Low	3		
岁		_											8	4 B	6 V	Test	Low	3		-81
0	Low												9	5 A	6 V	Test	M. 2	3		-81
	Med1												10	5 B	6 V	Test	M. 2	3		-81
	Mod?												11	6 A	6V	Test	M. 2	3	-	-81
	Meuz												12	0 0	6 V	lest	NI. 2	3		-11
-												_	14	78	6 V	L.F.	M 2	3		-
	C Show Pin VI												15	8 4	6V	LE	M 2	3	-	11
	Ref - Test VI												16	8 8	6 V	LE	M 2	3		11
	Hor Host H												17	9 A	6 V	Test	M. 2	3		11
С													18	9 B	6 V	Test	M. 2	3		11
ш	Pin: 14 🔆												19	10 A	6 V	Test	M. 1	3		11
S													20	10 B	6 V	Test	M. 1	3		
ш	Tolerance: 3																			
-																				
5	Set																			н.
-																				-81
	1 To 20																			
													-							-11
	Test Point: 21												-							10
		-			275					arter a			-							10
	REFERENCE	Set	: Adjust	voltage, frequ	ency and cu	rrent of pin	13 and 14	(Front 7	A and Re	ar 7B)			-							10
~		Poforo	co Croate	VI Graphs of	oforanco bo	ard from 1	nin to 20 r	vin												11
ũ.	Down How	Referen	ice . Oreate	vi orapris ori	ciciance bu	arunomi	pinto 20 p	////												
×	Recording	Record	ing : Open a	a mux file or sa	ve the refera	ance														
"																				
٩													-							
F I													_							-81
1	TT. Data Farm												_							-81
N N	✓ Data Form	_											-							-81
_					F	REFERENCE OK			-					-	-11					
	CLEAR TABLE	1.0										1.1.1.1.1.1.1.1								
-																				

 After taking reference; click the "Recording" Button for record the VI graph of pin. The Record Mux File window open.



New Folder: New Folder opens a new folder on the hard disk with the name written to that line. **File:** The name of the data to be saved is entered.

Open: Opens the saved test data selected from "Data".

Save: Saves the graph of the pins. (Reference)

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• The file selected from menu and click "open".

				No	Die	Valt	Ere	Cur	Tel		W.
management and	C I SV			1	1.4	6 V	Test	M 1	5	Din. % Result	
1.5 V 3 V	80			2	1.8	6V	Test	M 1	5		
6 V	I.Fr.			3	2 A	12 V	Test	M. 1	5		1
12 V	M. 2			4	2 B	12 V	Test	M. 1	5		1
				5	3 A	6 V	Test	Low	5		1
Low Frg.				6	3 B	6 V	Test	Low	5		1
Test Fra				7	4 A	6 V	Test	Low	3		1
				8	4 B	6 V	Test	Low	3		
Low				9	5 A	6 V	Test	M. 2	3		1
Med1				10	5 B	6 V	Test	M. 2	3		1
Hed?		_	-	11	6 A	6 V	Test	M. 2	3		1
Medz				12	6 B	6 V	lest	M. 2	3		1
-				10	7 8	6 V	L.F.	M 2	3		1
C Show Pin VI				14	8 4	6V	L.F.	M 2	3		1
@ Ref - Test VI				16	8 B	6V	L.F.	M 2	3		1
1101 1031 11				17	9 A	6V	Test	M. 2	3		1
				18	9 B	6 V	Test	M. 2	3		1
Pin: 11				19	10 A	6 V	Test	M. 1	3		1
TIME				20	10 B	6 V	Test	M. 1	3		н
I loierance: 3											
Cat											
											1
											1
1 To 20											1
											1
Test Point: 21											1
	Cot : Adjust upltage frequency and surrent of pip 11 and 12 / Front 6A and Dear 6P										1
REFERENCE	Set . Adjust voltage, nequency and current or pin 11 and 12 (Front oA and Rear ob	,									
	Reference : Create VI Graphs of referance board from 1 pin to 20 pin										4
Recording	Departing Coron a must file or caup the reference										1
	Recording . Open a muxilie of save the relefance										1
·	Test : You can test to a board										1
TEST											1
											1
Data Form											1
	File Opened										
CLEAR TABLE	File Opened										

• Click "Test" and software test pins with reference pins (saved pins)

				No	Pin	Volt	Frq.	Cur.	Tol.	Diff. %	Result
	and made	6 V		1	1 A	6 V	Test	M. 1	5	0	OK
	1.5 V 3 V			2	1 B	6 V	Test	M. 1	5	0	OK
31	6 V			3	2 A	6 V	Test	M. 1	5	0	OK
Ű	12 V	M. 1		4	2 B	6 V	Test	M. 1	5	0	OK
or				5	3 A	6 V	Test	M. 1	5	0	OK
-	Low Frq.		/	6	3 B	6 V	Test	M. 1	5	13 0	ut of T.
œ	Test Frg.			1	4 A	6 V	Test	M. 1	5	0	OK
¥				8	4 8	6V	Test	M. 1	5	0	OK
ō	Low			10	5 B	6 V	Test	M. 1	5	0	OK
	Med1	Recorded data		11	6.4	6V	Test	M 1	5	0	OK
	Med2			12	6.8	6 V	Test	M 1	5	0	OK
	Insta			13	7 A	6 V	Test	M. 1	5	0	ОК
				14	7 B	6 V	Test	M. 1	5	11 O	st of T.
	Show Pin VI			15	8 A	6 V	Test	M. 1	5	0	OK
	· Ref Test VI			16	8 B	6 V	Test	M. 1	5	2	OK
1000		Taulty Date. Taution		17	9 A	6 V	Test	M. 1	5	0	ОК
€¥	Pin: 24	Faulty Data - Testing		18	9 B	6 V	Test	M. 1	5	31 O	st of T.
Ĕ	FIII. 24			19	10 A	6 V	Test	M. 1	5	1	OK
S	Tolerance: 5			20	10 B	6 V	Test	M. 1	5	0	OK
Ë	rolerance. 5			21	11 8	6 V	Test	M. 1	5	3	OK
	Set			23	12 A	6 V	Test	M 1	5	0	OK
>				24	12 B	6 V	Test	M. 1	5	49 O	st of T.
	The The Lorent			25	13 A	6 V	Test	M. 1	5	0	OK
	1 10 40			26	13 B	6 V	Test	M. 1	5	0	OK
				27	14 A	6 V	Test	M. 1	5	0	OK
	Test Point: 41			28	14 B	6 V	Test	M. 1	5	0	OK
		Set Adjust voltage frequency and current of pin 23 and 24 (Front 12A)	and Rear 12B)	29	15 A	6 V	Test	M. 1	5	1	OK
	REFERENCE		ind ricuities y	30	15 D	6 V	Test	ML 1	5	1	OK
2		Reference : Create VI Graphs of referance board from 1 pin to 40 pin		32	16 B	6V	Test	M. 1	5	0	OK
×	Recording	Recording Open a mux file or save the referance		33	17 A	6 V	Test	M. 1	5	1	OK
ш		Recording . Open a maxime of safe the recordine		34	17 B	6 V	Test	M. 1	5	0	OK
2	TFOT	Test : You can test to a board		35	18 A	6 V	Test	M. 1	5	0	OK
E	IESI			36	18 B	6 V	Test	M. 1	5	0	OK
<u> </u>				37	19 A	6 V	Test	M. 1	5	0	OK
2	Data Form			38	19 B	6 V	Test	M. 1	5	0	OK
2	1	4 POINTS OUT OF TOI FRAME	3	39	20 A	6 V	Test	M. 1	5	1	OK
	CLEAR TABLE			40	20 8	6 V	lest	M. 1	5	U	UK
				U	-					_	
-											

• See result of the Test.

FADOS MUX; Dimension : 120 x 110 x 35 mm

Weight: 200 grams

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