

TEST COVERAGE REPORT

Board: 828-905-009

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*****
*                               *                               *
*      Section                   *      Part Information      *      Pin Information      *
*                               *      Total      Parts      *      Total      Pins      *
*                               *      Number     Untested  Coverage *      Number     Untested  Coverage *
*****
* JUMPERS                       *      24       0      100.00% *      48         0      100.00% *
* RESISTORS                     *     459       0      100.00% *     918         0      100.00% *
* CAPACITORS                   *     110       0      100.00% *     220         0      100.00% *
* RPACKS                       *      17       0      100.00% *     261         0      100.00% *
* DIODES                       *      66       0      100.00% *     236         0      100.00% *
* ZENERS                       *       1       0      100.00% *       2         0      100.00% *
* TRANSISTORS                  *      10       0      100.00% *      30         0      100.00% *
* ANALOG                       *       1       0      100.00% *       7         0      100.00% *
* LINEAR                       *      13       0      100.00% *     124         0      100.00% *
* DIG+DS+FS                    *     117       0      100.00% *     2306        96      94.32% *
*****
* Board Total                   *     818       0      100.00% *    4152        96      97.68% *
*****
  
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For Information Only

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*****
* DELTA_SCAN                   *     117       26      77.78% *    2331        426      81.72% *
* FRAME_SCAN                   *       3       0      100.00% *      99         0      100.00% *
* DIGITALS                     *     117       6      94.87% *    2289        347      84.84% *
*****
  
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Problems with supplied sample board:
 =====

- (1) The following 0 Ohm Resistors are installed on the sample board but According to the B.O.M the value should be 30.1 Ohm . Tests for these Resistors can be active if 30.1 Ohm Resistors are installed. (Jumpers tests need to be disabled)
 R75 , R76 , R78 , R79
- (2) Due to the defective Q2, the test is disabled and it can be active once the part is replaced.
- (3) On the sample board, U133 and U141 (EEPROM) appear to be blank. The tests can be learned in case of having programmed EEPROMS installed on the board.

***** List of the components with CAPSCAN test *****

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Component
=====
C1
C2
C3
C4
C5
C6
C8
C11
C12
C14
C15
C17
C28
C35
C48
C50
C551      *
C714
    
```

*) The polarizing test for C551 is disabled due to the board topology.

***** List of learned components *****

Component	Old Val.	Old Tol.	New Val.	New Tol.	Reason
=====	=====	=====	=====	=====	=====
R7	100K	12.5%	18K	12.5%	U49
R19	100K	12.5%	18K	12.5%	U49
C35-OTHERS	6.9U	-32.1/+12%	6.9U	+/-25%	Board Topology
C1,C2-OTHERS	20.2U	12.5%	31U	12.5%	Board Topology
C3,C5-OTHERS	20.2U	12.5%	31U	12.5%	Board Topology

***** Total pin coverage DScan + FScan + Digital *****

Component	Name	Coverage
=====	=====	=====
U6	MSM6650	100.00%
U49	AD7891	100.00%
U76	85230	100.00%
U1	HI8382	100.00%
U2	HI8382	100.00%
U3	HI8382	100.00%
U4	HI8382	100.00%
U5	7404	100.00%
U9	7845	26.67%
U11	HI8382	100.00%
U12	HI8382	100.00%
U13	HI8382	100.00%
U14	HI8382	100.00%
U15	ABUS	100.00%
U17	29F800	97.50%
U18	742245	100.00%

***** Total pin coverage DScan + FScan + Digital *****

U19	74244	100.00%
U20	74244	100.00%
U21	74244	100.00%
U22	HI8382	100.00%
U23	HI8382	100.00%
U24	HI8382	100.00%
U25	ABUS	100.00%
U27	HI8382	100.00%
U28	HI8382	100.00%
U29	71124	92.86%
U30	71124	92.86%
U33	74273	100.00%
U34	29F400	100.00%
U36	ABUS	100.00%
U37	ABUS	100.00%
U38	ABUS	100.00%
U39	ABUS	100.00%
U40	ABUS	100.00%
U41	ABUS	100.00%
U42	ABUS	100.00%
U43	74273	100.00%
U44	74244	100.00%
U47	744053	100.00%
U48	ADG426	100.00%
U50	744053	100.00%
U51	744051	100.00%
U52	82C59	100.00%
U55	742245	100.00%
U58	OSC20MHZ	100.00%
U59	74244	100.00%
U62	744053	100.00%
U64	ADG426	100.00%
U66	742245	100.00%
U67	29F400	100.00%
U68	29F400	100.00%
U70	MAX238	100.00%
U71	744538	87.50%
U74	74132	100.00%
U75	74244	100.00%
U77	7404	100.00%
U78	7400	100.00%
U79	7404	100.00%
U80	7404	100.00%
U81	742245	100.00%
U82	74244	100.00%
U83	74244	100.00%
U84	74244	100.00%
U87	74244	100.00%
U88	742245	100.00%
U89	74244	100.00%
U90	71124	92.86%
U95	742245	100.00%
U97	74244	100.00%
U98	74244	100.00%
U99	74244	100.00%
U100	742245	100.00%
U101	74244	100.00%
U102	74244	100.00%
U103	74244	100.00%
U106	74374	100.00%
U107	7410	100.00%

***** Total pin coverage DScan + FScan + Digital *****

U108	74244	100.00%
U109	74244	100.00%
U111	71124	92.86%
U114	74244	100.00%
U115	74244	100.00%
U116	DS1603	100.00%
U120	74244	100.00%
U121	74244	100.00%
U122	74273	100.00%
U123	74244	100.00%
U127	7404	100.00%
U129	82C59	100.00%
U130	71124	92.86%
U131	74244	100.00%
U132	74273	100.00%
U133	28C256	7.69%
U135	MIC5801	89.47%
U136	MIC5801	100.00%
U137	MIC5801	94.74%
U139	71124	92.86%
U140	82C54	100.00%
U141	28C256	30.77%
U145	742245	100.00%
U146	742245	100.00%
U147	742245	100.00%
U148	742245	100.00%
U150	74244	100.00%
U151	742245	100.00%
U152	742245	100.00%
U153	742245	100.00%
U154	742245	100.00%
U155	742245	100.00%
U110	U110	100.00%
U128	U128	100.00%
U149	U149	100.00%
U32	U32	100.00%
U57	U57	100.00%
U7	U7	100.00%
U85	U85	100.00%
U94	U94	100.00%

***** List of components with DScan test *****

Component	Name	Coverage
=====	=====	=====
U1	DSCAN	0.00%
U2	DSCAN	0.00%
U3	DSCAN	0.00%
U4	DSCAN	0.00%
U5	DSCAN	100.00%
U6	DSCAN	100.00%
U7	DSCAN	98.89%
U9	DSCAN	0.00%
U11	DSCAN	0.00%
U12	DSCAN	0.00%
U13	DSCAN	0.00%
U14	DSCAN	0.00%
U15	DSCAN	100.00%

***** List of components with DScan test *****

U17	DSCAN	97.50%
U18	DSCAN	100.00%
U19	DSCAN	100.00%
U20	DSCAN	100.00%
U21	DSCAN	100.00%
U22	DSCAN	0.00%
U23	DSCAN	0.00%
U24	DSCAN	0.00%
U25	DSCAN	100.00%
U27	DSCAN	0.00%
U28	DSCAN	0.00%
U29	DSCAN	0.00%
U30	DSCAN	0.00%
U32	DSCAN	100.00%
U33	DSCAN	100.00%
U34	DSCAN	100.00%
U36	DSCAN	100.00%
U37	DSCAN	100.00%
U38	DSCAN	100.00%
U39	DSCAN	100.00%
U40	DSCAN	100.00%
U41	DSCAN	100.00%
U42	DSCAN	100.00%
U43	DSCAN	100.00%
U44	DSCAN	100.00%
U47	DSCAN	0.00%
U48	DSCAN	52.38%
U49	DSCAN	64.71%
U50	DSCAN	0.00%
U51	DSCAN	0.00%
U52	DSCAN	100.00%
U55	DSCAN	100.00%
U57	DSCAN	100.00%
U58	DSCAN	0.00%
U59	DSCAN	100.00%
U62	DSCAN	0.00%
U64	DSCAN	0.00%
U66	DSCAN	100.00%
U67	DSCAN	87.50%
U68	DSCAN	87.50%
U70	DSCAN	50.00%
U71	DSCAN	66.67%
U74	DSCAN	100.00%
U75	DSCAN	100.00%
U76	DSCAN	100.00%
U77	DSCAN	100.00%
U78	DSCAN	100.00%
U79	DSCAN	100.00%
U80	DSCAN	100.00%
U81	DSCAN	100.00%
U82	DSCAN	100.00%
U83	DSCAN	100.00%
U84	DSCAN	100.00%
U85	DSCAN	100.00%
U87	DSCAN	100.00%
U88	DSCAN	100.00%
U89	DSCAN	100.00%
U90	DSCAN	0.00%
U94	DSCAN	100.00%
U95	DSCAN	100.00%

***** List of components with DScan test *****

U97	DSCAN	100.00%
U98	DSCAN	100.00%
U99	DSCAN	100.00%
U100	DSCAN	100.00%
U101	DSCAN	100.00%
U102	DSCAN	100.00%
U103	DSCAN	100.00%
U106	DSCAN	81.25%
U107	DSCAN	100.00%
U108	DSCAN	100.00%
U109	DSCAN	88.89%
U110	DSCAN	100.00%
U111	DSCAN	0.00%
U114	DSCAN	100.00%
U115	DSCAN	100.00%
U116	DSCAN	80.00%
U120	DSCAN	100.00%
U121	DSCAN	100.00%
U122	DSCAN	100.00%
U123	DSCAN	100.00%
U127	DSCAN	100.00%
U128	DSCAN	100.00%
U129	DSCAN	100.00%
U130	DSCAN	0.00%
U131	DSCAN	100.00%
U132	DSCAN	100.00%
U133	DSCAN	7.69%
U135	DSCAN	63.16%
U136	DSCAN	89.47%
U137	DSCAN	73.68%
U139	DSCAN	0.00%
U140	DSCAN	100.00%
U141	DSCAN	30.77%
U145	DSCAN	100.00%
U146	DSCAN	100.00%
U147	DSCAN	100.00%
U148	DSCAN	100.00%
U149	DSCAN	97.78%
U150	DSCAN	93.33%
U151	DSCAN	100.00%
U152	DSCAN	100.00%
U153	DSCAN	100.00%
U154	DSCAN	100.00%
U155	DSCAN	100.00%

***** List of components with FScan test *****

Component	Name	Coverage
=====	=====	=====
U6	FSCAN	100.00%
U49	FSCAN	100.00%
U76	FSCAN	100.00%

***** List of components tested in Linear Section *****

Component =====	Name =====	Coverage =====
U8	7805	100.00%
U63	79L05	100.00%
U10	OP	100.00%
U26	OP	100.00%
U45	OP	100.00%
U46	OP	100.00%
U53	LM335	100.00%
U56	OP	100.00%
U60	OP	100.00%
U61	OP	100.00%
U73	OP	100.00%
U35	8921	100.00%
U65	OP	100.00%

***** List of components tested in Digital Section *****

Component =====	Name =====	Coverage =====	Reason =====
U74	74132	100.00%	
U78	7400	100.00%	
U5	7404	100.00%	
U77	7404	100.00%	
U79	7404	100.00%	
U80	7404	100.00%	
U127	7404	100.00%	
U107	7410	100.00%	
U19	74244	100.00%	
U20	74244	100.00%	
U21	74244	100.00%	
U44	74244	100.00%	
U59	74244	92.31%	
U75	74244	100.00%	
U82	74244	100.00%	
U83	74244	100.00%	
U84	74244	100.00%	
U87	74244	100.00%	
U89	74244	100.00%	
U97	74244	100.00%	
U98	74244	100.00%	
U99	74244	100.00%	
U101	74244	100.00%	
U102	74244	100.00%	
U103	74244	100.00%	
U108	74244	100.00%	
U109	74244	100.00%	
U114	74244	100.00%	
U115	74244	100.00%	
U120	74244	100.00%	
U121	74244	100.00%	
U123	74244	100.00%	
U131	74244	100.00%	
U150	74244	100.00%	
U33	74273	100.00%	
U43	74273	100.00%	
U122	74273	100.00%	

***** List of components tested in Digital Section *****

U132	74273	100.00%	
U106	74374	100.00%	
U148	742245	94.44%	
U147	742245	94.44%	
U146	742245	94.44%	
U145	742245	94.44%	
U95	742245	94.44%	
U100	742245	94.44%	
U88	742245	94.44%	
U18	742245	94.44%	
U55	742245	94.44%	
U66	742245	94.44%	
U81	742245	94.44%	
U155	742245	94.44%	
U152	742245	94.44%	
U151	742245	94.44%	
U154	742245	94.44%	
U52	82C59	82.61%	
U129	82C59	82.61%	
U133	28C256	0.00%	Existence Test
U141	28C256	0.00%	Existence Test
U1	HI8382	100.00%	
U2	HI8382	100.00%	
U3	HI8382	100.00%	
U11	HI8382	100.00%	
U12	HI8382	100.00%	
U13	HI8382	100.00%	
U14	HI8382	100.00%	
U22	HI8382	100.00%	
U23	HI8382	100.00%	
U24	HI8382	100.00%	
U27	HI8382	100.00%	
U4	HI8382	100.00%	
U28	HI8382	100.00%	
U9	7845	26.67%	
U15	ABUS	100.00%	
U25	ABUS	100.00%	
U36	ABUS	100.00%	
U37	ABUS	100.00%	
U38	ABUS	100.00%	
U39	ABUS	100.00%	
U40	ABUS	100.00%	
U41	ABUS	100.00%	
U42	ABUS	100.00%	
U17	29F800	57.50%	
U34	29F400	76.67%	
U67	29F400	58.97%	
U68	29F400	58.97%	
U47	744053	100.00%	
U50	744053	100.00%	
U62	744053	100.00%	
U51	744051	100.00%	
U48	ADG426	100.00%	
U64	ADG426	100.00%	
U70	MAX238	100.00%	
U135	MIC5801	81.82%	
U136	MIC5801	71.43%	
U137	MIC5801	81.82%	
U71	744538	84.00%	
U116	DS1603	33.33%	Existence Test
U29	71124	92.86%	

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***** List of components tested in Digital Section *****
U30                71124                92.86%
U90                71124                92.86%
U111               71124                92.86%
U130               71124                92.86%
U139               71124                92.86%
U140               82C54                0.00%      No Template
U58                OSC20MHZ             100.00%

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***** Vector Disable Table *****

Component	Logic Level
=====	=====
U149-nRST	H
U149-CLKIN	L
U77	L
U68-nRST	H
U68-nCE	H
U68-nOE	H
U67-nCE	H
U129-nCS	H
U148-nOE	H
U145-nOE	H
U111-nCS	H
U109-CTL	H
U110-ENBLE	L
U5	H
U7-nRST	L
U17-nCE	H
U17-nOE	H
U52-nCS	H
U7-CLKIN	L
U108-n1G	H
U100-nOE	H
U29-nCS	H
U32-ENBL	L
U43-nRST	L
U43-CLK	L
U49-nCS	H
U19-n1G	H
U33-nRST	L
U33-CLK	L
U34-nCE	H
U34-nOE	H
U76-nCE	H
U150-nCE	H
U150-nCE	H
U6-nRST	L
U85-nRST	L
U85-nCS	H
U85-CLK	L
U57-nRST	L
U57-nCS	H
U94-nCS	H
U48-nRST	L
U48-ENBL	L
U133-nCE	H
U133-nOE	H
U140-nCS	H

***** Vector Disable Table *****

Component =====	Logic Level =====
U130-nCS	H
U123-nOE	H
U132-CLK	L
U122-CLK	L
U55-nOE	H
U44-nOE	H
U58-ENBL	L
U58-OUT	L
U59-nOE	H
U59-nOE	H
U71-nRST	L
Q502	L
U99-nEN	H
U98-nEN	H
U137-CLR	H
U137-nOE	H
U83-nOE	H
U66-T/nR	H
U66-nOE	H
U103-n1G	H
U101-n2G	H
U106-CLK	L
U97-nOE	H
U121-nOE	H
U82-nOE	H
U153-T/nR	H
U151-T/nR	H
U151-nOE	H
U6_XT/OSC1	L

TCK	L
TMS	H
TDO	x
TDI	H
TRST	H

***** List of components tested together *****

- Group 1: R542-R605
- Group 2: C1-C2-OTHERS
- Group 3: C3-C5-OTHERS
- Group 4: C4-OTHERS
- Group 5: C6-C48-OTHERS
- Group 6: C12-C15-C17
- Group 7: C28-OTHERS
- Group 8: C35-OTHERS
- Group 9: C505-OTHERS
- Group 10: C526-C664-OTHERS

*) See \REPORTS\828-905-009.ANALOG.LOG for more details.

***** General Notes *****

For the list of not covered pins per device refer to nt_pins.txt file

The tolerance limits for all components are adjusted to include system accuracy as per Spectrum technical specification.

Parallel components are treated as one component in the coverage calculations.

Power, ground, no connect and tied pins are excluded from the pin count in the coverage calculations.

Glossary of Suffixes

=====

- NC - not connected
- NI - not installed
- NA - not accessible
- NU - not used
- NT - not tested
- Cl or Cls - cluster
- DS - delta scan
- FS - frame scan
- DIG - digital
- L - logic low
- H - logic high