

RD RD082

RD Title: TB6642FTG Evaluation circuit

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package	Not Mount
1	IC1	1		TB6642FTG	TOSHIBA			
2	OUT1	0		ST-1-3	Mac-Eight	Check terminal for logic		✓
3	R1	0		Leaded resistor				✓
4	C3	1		Leaded capacitor				
5	CON	1		DF1BZ-4P-2.5DSA	Hirose Elec	CONN HEADER VERT 4POS		
6	RSGND	1		LC-22-G	Mac-Eight	Check terminal for oscilloscope		
7	R2	1	0Ω	chip resistor			5.0mm×2.5mm	
8	OUT2	1		ST-1-3	Mac-Eight	Check terminal for logic		
9	VM	1		ST-1-3	Mac-Eight	Check terminal for logic		
10	C1	1	100μF,50V	Electrolytic capacitor				
11	C2	0	0.1μF,25V	Chip capacitor			3.2mmX1.6mm	✓
12	VISD/VREG	0		LC-22-G	Mac-Eight	Check terminal for oscilloscope		✓
13	R4/C5	1	10kΩ, 1/4W	chip resistor			3.2mmX1.6mm	
14	R4/C5	0	10kΩ, 1/4W	Leaded resistor				✓
15	R4/C5	0	0.1μF, 25V	Chip capacitor			3.2mmX1.6mm	✓
16	R4/C5	0	0.1μF, 25V	Leaded capacitor				✓
17	JP_VREG	0		XJ8B-0211	OMRON	Single row plugs		✓
18	JP_VREG	0		M7567-05	Harwin Inc.	Position Shunt Connector		✓
19	TISD	0		LC-22-G	Mac-Eight	Check terminal for oscilloscope		✓
20	R3	1	5kΩ, 1/4W	chip resistor			3.2mmX1.6mm	
21	R3	1	5kΩ, 1/4W	Leaded resistor				
22	PWM	0		LC-22-G	Mac-Eight	Check terminal for oscilloscope		✓
23	SW_PWM	1		ATE1E-2J3-10	Nidec Copal Elec.	SPDT Toggle Switch		
24	SW_PWM	1		XJ8B-0311	OMRON	Single row plugs		
25	SW_PWM	0		M7567-05	Harwin Inc.	Position Shunt Connector		✓
26	VREF	1		ST-1-3	Mac-Eight	Check terminal for logic		

27	JP_VREF	1		XJ8B-0211	OMRON	Single row plugs		
28	JP_VREF	0		M7567-05	Harwin Inc.	Position Shunt Connector		✓
29	R6	0	-	chip resistor			3.2mmX1.6mm	✓
30	R6	0	-	Leaded resistor				✓
31	R7	0	-	chip resistor			3.2mmX1.6mm	✓
32	R7	1	-	Leaded resistor				
33	ALERT	1		LC-22-G	Mac-Eight	Check terminal for oscilloscope		
34	R5	0	100kΩ, 1/4W	Leaded resistor				✓
35	C4/R8(OSC)	1	-	Chip capacitor			3.2mmX1.6mm	
36	C4/R8(OSC)	1	0Ω	chip resistor			3.2mmX1.6mm	
37	IN1	0		LC-22-G	Mac-Eight	Check terminal for oscilloscope		✓
38	SW_IN1	1		ATE1E-2J3-10	Nidec Copal Elec.	SPDT Toggle Switch		
39	SW_IN1	1		XJ8B-0211	OMRON	Single row plugs		
40	SW_IN1	5		M7567-05	Harwin Inc.	Position Shunt Connector		
41	GND(SGND)	1		ST-1-3	Mac-Eight	Check terminal for logic		
42	IN2	0		LC-22-G	Mac-Eight	Check terminal for oscilloscope		✓
43	SW_IN2	1		ATE1E-2J3-10	Nidec Copal Elec.	SPDT Toggle Switch		
44	SW_IN2	1		XJ8B-0211	OMRON	Single row plugs		
45	SW_IN2	1		M7567-05	Harwin Inc.	Position Shunt Connector		
46	VDD	0		ST-1-3	Mac-Eight	Check terminal for logic		✓
47	C6	1	10μF,25V	Electrolytic capacitor				
48	C7	1	0.1μF,25V	Chip capacitor			3.2mmX1.6mm	
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								

95								
96								
97								
98								
99								
100								

Terms of Use

This terms of use is made between Toshiba Electronic Devices and Storage Corporation ("We") and customers who use documents and data that are consulted to design electronics applications on which our semiconductor devices are mounted ("this Reference Design"). Customers shall comply with this terms of use. Please note that it is assumed that customers agree to any and all this terms of use if customers download this Reference Design. We may, at its sole and exclusive discretion, change, alter, modify, add, and/or remove any part of this terms of use at any time without any prior notice. We may terminate this terms of use at any time and for any reason. Upon termination of this terms of use, customers shall destroy this Reference Design. In the event of any breach thereof by customers, customers shall destroy this Reference Design, and furnish us a written confirmation to prove such destruction.

1. Restrictions on usage

1. This Reference Design is provided solely as reference data for designing electronics applications. Customers shall not use this Reference Design for any other purpose, including without limitation, verification of reliability.
2. This Reference Design is for customer's own use and not for sale, lease or other transfer.
3. Customers shall not use this Reference Design for evaluation in high or low temperature, high humidity, or high electromagnetic environments.
4. This Reference Design shall not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable laws or regulations.

2. Limitations

1. We reserve the right to make changes to this Reference Design without notice.
2. This Reference Design should be treated as a reference only. We are not responsible for any incorrect or incomplete data and information.
3. Semiconductor devices can malfunction or fail. When designing electronics applications by referring to this Reference Design, customers are responsible for complying with safety standards and for providing adequate designs and safeguards for their hardware, software and systems which minimize risk and avoid situations in which a malfunction or failure of semiconductor devices could cause loss of human life, bodily injury or damage to property, including data loss or corruption. Customers must also

refer to and comply with the latest versions of all relevant our information, including without limitation, specifications, data sheets and application notes for semiconductor devices, as well as the precautions and conditions set forth in the "Semiconductor Reliability Handbook".

4. When designing electronics applications by referring to this Reference Design, customers must evaluate the whole system adequately. Customers are solely responsible for all aspects of their own product design or applications. WE ASSUME NO LIABILITY FOR CUSTOMERS' PRODUCT DESIGN OR APPLICATIONS.
5. No responsibility is assumed by us for any infringement of patents or any other intellectual property rights of third parties that may result from the use of this Reference Design. No license to any intellectual property right is granted by this terms of use, whether express or implied, by estoppel or otherwise.
6. THIS REFERENCE DESIGN IS PROVIDED "AS IS". WE (a) ASSUME NO LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, INDIRECT, CONSEQUENTIAL, SPECIAL, OR INCIDENTAL DAMAGES OR LOSS, INCLUDING WITHOUT LIMITATION, LOSS OF PROFITS, LOSS OF OPPORTUNITIES, BUSINESS INTERRUPTION AND LOSS OF DATA, AND (b) DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES AND CONDITIONS RELATED TO THIS REFERENCE DESIGN, INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY OF INFORMATION, OR NONINFRINGEMENT.

3. Export Control

Customers shall not use or otherwise make available this Reference Design for any military purposes, including without limitation, for the design, development, use, stockpiling or manufacturing of nuclear, chemical, or biological weapons or missile technology products (mass destruction weapons). This Reference Design may be controlled under the applicable export laws and regulations including, without limitation, the Japanese Foreign Exchange and Foreign Trade Law and the U.S. Export Administration Regulations. Export and re-export of this Reference Design are strictly prohibited except in compliance with all applicable export laws and regulations.

4. Governing Laws

This terms of use shall be governed and construed by laws of Japan.