PCN: V08-059-E47540-MA

Product Change Notice

Issued Date: 4 November 2008

Change Type:
Major

Parts Affected:

Non-RoHS			
HFBR-2505A	HFBR-2525E	QFBR-2549	QFBR-5592
HFBR-2506AM	HFBR-2528	QFBR-5581	
HFBR-2515B	HFBR-2540	QFBR-5583	
RoHS			
HFBR-2505AZ	HFBR-2525EZ	QFBR-2549Z	QFBR-5592Z
HFBR-2506AMZ	HFBR-2528Z	QFBR-5581Z	
HFBR-2515BZ	HFBR-2540Z	QFBR-5583Z	

Description and Extent of Change:

1. Qualify an IC redesign.
2. Qualify a lead frame layout redesign to have both ceramic capacitors in horizontal position.

Reasons for Change:

1. To eliminate the receiver output latching found in the previous design when the optical cable is removed during data transmission.
2. To minimize mechanical stress on the ceramic capacitor.

Effect of Change on Fit, Form, Function, Quality, or Reliability:

The device datasheet specification will remain the same, which will ensure product electrical performance remains the same. Appropriate electrical characterization and reliability qualification will be performed to insure compliance to datasheet specification performance and reliability.

Effective Date of Change:

All the above mentioned changes will be effective on or after 9 February, 2009, (work week 0907). Timing of shipment of the changed part will vary by part number depending on qualification completion, customer demand, and inventory levels.

Recommended Action to be Taken by Customer:

1) Please return any response as soon as possible, but not to exceed 30 days.
2) Sample requests must specify the PCN # stated above and shall be placed by your Avago Technologies Field Sales Representative through the Avago Technologies FOMFGS ordering system.

Qualification Plan for IC redesign:

Qualification data expected to be available upon request.
Characterization data expected to be available: End November 2008 (work week 0848)

Table 1: Quality and Reliability test vehicle is the HFBR-2528Z

Leg	Test	Reference	Condition	Sample Size	Test Points
1	High Temp. Operating Life (HTOL)	Section 5.18 (GR-468-CORE)	Ta = 85°C, Vcc = 5.25V	Eval – 25 Control - 6	0, 168, 500, 1000 hrs @25°C
2	HBM (ESD)	MIL-STD-883 Method 3015	1000V	Eval – 6 Control - 3	1000V
3	MM (ESD)	JEDEC A115A	200V	Eval – 6 Control - 3	200V
4	Temp. Cycling (TMCL)	MIL-STD-883 Method 1010	Ta = -40°C to +85°C	Eval – 11 Control - 3	0, 100 cycles, 500cycles @25°C
5a	Manufacturing Verification Build	-	20 temperature cycles plus 48 hours HTOL stress	200	Meet Production Expectations
5b	Manufacturing Verification Build	-	Test at room temperature	400	Meet Production Expectations
Full product characterization as per product datasheet parameters.					

Qualification Plan for lead frame redesign :

Table 2: Quality and Reliability test vehicle is the HFBR-2528Z

Leg	Test	Reference	Condition	Sample Size	Test Points
1	High Temp. Operating Life (HTOL)	Section 5.18 (GR-468-CORE)	Ta = 85°C, Vcc = 5.25V	Eval – 11 Control – 3	0, 168, 500, 1000 hrs @25°C
2	Biased Damp Heat (B85/85)	MIL-STD-202 Method 103	Ta= 85°C, RH=85%, 1000hrs, rated power	Eval – 11 Control – 3	0, 168, 500, 1000 hrs @25°C
3	Temperature Cycling (TMCL)	MIL-STD-883 Method 1010	Ta = -40°C to +85°C, 1000cycles	Eval – 11 Control – 3	0cyc, 100cyc, 500cyc, and 1000cyc @ 25°C
4	MSL – 3	JEDEC 020A	24hrs bake @125°C, 192 +5/-0 hrs soak at 30°C /60%RH, SHR 260°C, 10s	Eval – 11 Control – 3	NA
5	MSL – 4	JEDEC 020A	24hrs bake @125°C, 72 +5/-0 hrs soak at 30°C/60%RH, SHR 260°C, 10s	Eval – 11 Control – 3	NA
6a	Mechanical Shock (MS)	MIL-STD-883 Method 2002B	1500g (peak), 0.5ms, 5 pulses/surface, 6 surfaces	Eval – 11 Control – 3	Post MS/MV
6b	Mechanical Vibration (MV)	MIL-STD-883 Method 2007A	20 – 2000Hz, 20 G 4min/cycle, 4cycle/axis, 3 axis		

These changes have been reviewed and approved by Avago Technologies engineers and managers per Avago Technologies' procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Avago Technologies field sales engineer or Contact Center (http://www.avagotech.com/contact/) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.