

## Product Change Notice

Issue Date: 14 Apr 2015

**Change Type:**

1. Update Electrical Specifications in Datasheet
2. Change in process flow to include IR reflow
3. Change to better silicone
4. Change to high reliability gold wire

**Parts Affected:**

ACPL-M43T	
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All associated options and specials will also be affected.

**Description and Extent of Change:**

1. Only change in CTR room temperature specifications. No change to existing specifications across temperature. New CTR and propagation delay specifications across temperature range for low  $I_F$  drive added.

- a. To **change** CTR ( $I_F=10\text{mA}$ ) Typical and Maximum Limit specification. This is a room temperature specification only.

Current Transfer Ratio (CTR)	Min.	Typ.	Max.	Units	Test Conditions
<b>Current</b> Specification	32	45	80	%	$T_A = 25^\circ\text{C}$ $V_{CC} = 4.5\text{V}$ , $V_O = 0.4\text{V}$ , $I_F = 10\text{mA}$
<b>New</b> Specification	32	65	100	%	

- b. To incorporate **additional** CTR (Current Transfer Ratio) Test with low  $I_F$  drive into datasheet specification

New DC Test Parameter	Min.	Typ.	Max.	Units	Test Conditions
Current Transfer Ratio (CTR)	33	160		%	$V_{CC} = 4.5\text{V}$ , $V_O = 0.4\text{V}$ , $I_F = 1.5\text{mA}$
	25	165		%	$V_{CC} = 4.5\text{V}$ , $V_O = 0.4\text{V}$ , $I_F = 0.8\text{mA}$

- c. To incorporate **additional**  $T_p$  (Propagation Delay) Test with low  $I_F$  drive into datasheet specification

New AC Test Parameter	Min.	Typ.	Max.	Units	Test Conditions
Propagation Delay Time to Logic Low at Output ( $t_{PLH}$ )		0.7	5	$\mu\text{s}$	$I_F = 1.5\text{mA}$ , $R_L = 10\text{k}\Omega$
		1.0	10	$\mu\text{s}$	$I_F = 0.8\text{mA}$ , $R_L = 27\text{k}\Omega$
Propagation Delay Time to Logic High at Output ( $t_{PLH}$ )		0.9	5	$\mu\text{s}$	$I_F = 1.5\text{mA}$ , $R_L = 10\text{k}\Omega$
		2.0	10	$\mu\text{s}$	$I_F = 0.8\text{mA}$ , $R_L = 27\text{k}\Omega$

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**Reasons for Change:**

1. Customers request for upgrades in datasheet specification to enhance device performance by incorporating new test conditions.
2. Change to higher reliability gold wire, silicone and addition of IR process as part of Avago's continuous quality and reliability improvement initiatives.

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

The product will be tested according to the new electrical datasheet specifications. All other remaining electrical specifications in datasheet and fit, form, function have not been changed. Appropriate electrical characterization has been performed on product to ensure normal parametric distribution, consistent electrical performance, and reliability.

**Effective Date of Change:**

Implementation of tightened specification limits will be effective from product date code **1601** (yyww) inclusive, product marking **1601** (yyww).

**Qualification Data:**

Qualification data is currently being generated for approval. These changes will be reviewed and approved by Avago Technologies engineers and managers per Avago Technologies procedure.

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.

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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.

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