

## Product Change Notice

**Revised Date: 24 Jan 2018**

**Issue Date: 8 Jan 2018**

**Change Type:**

Datasheet upgrade

**Parts Affected:**

ACPL-P345	ACPL-W345	ACPL-P346	ACPL-W346	QCPL-WB4A
ACPL-P347	ACPL-W347	ACPL-P349	ACPL-W349	ACPL-352J
ACML-7400	ACML-7410	ACML-7420		

All associated options will also be affected. See Appendix for full part number list.

**Description and Extent of Change:**

1. Upgrade Output Common Mode Transient Immunity,  $|ICM_H|$  and  $|CM_L|$  to 100kV/ $\mu$ s(min) at  $V_{CM} = 1500V$  for

ACPL-P345	ACPL-W345	ACPL-P346	ACPL-W346	QCPL-WB4A
ACPL-P347	ACPL-W347	ACPL-P349	ACPL-W349	ACPL-352J

2. Upgrade Common Mode Transient Immunity,  $|ICM_H|$  and  $|CM_L|$  to 75kV/ $\mu$ s(min) at  $V_{CM} = 1500V$  for

ACML-7400	ACML-7410	ACML-7420
-----------	-----------	-----------

**Current Specifications**

Part Number	Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
ACPL-P345, ACPL-W345, ACPL-P346, ACPL-W346, QCPL-WB4A	Output High Level Common Mode Transient Immunity	$ ICM_H $	50	70		kV/ $\mu$ s	$T_A = 25^\circ C$ , $V_{CM} = 1500 V$ , $I_F = 9 mA$ , $V_{CC} = 20 V$ , with split resistors
ACPL-P345, ACPL-W345, ACPL-P346, ACPL-W346, QCPL-WB4A	Output Low Level Common Mode Transient Immunity	$ CM_L $	50	70		kV/ $\mu$ s	$T_A = 25^\circ C$ , $V_{CM} = 1500 V$ , $V_F = 0 V$ , $V_{CC} = 20 V$ , with split resistors
ACPL-P347, ACPL-W347, ACPL-P349, ACPL-W349	Output High Level Common Mode Transient Immunity	$ ICM_H $	50	70		kV/ $\mu$ s	$T_A = 25^\circ C$ , $V_{CM} = 1500 V$ , $I_F = 9 mA$ , $V_{CC} = 30 V$ , with split resistors
ACPL-P347, ACPL-W347, ACPL-P349, ACPL-W349	Output Low Level Common Mode Transient Immunity	$ CM_L $	50	70		kV/ $\mu$ s	$T_A = 25^\circ C$ , $V_{CM} = 1500 V$ , $V_F = 0 V$ , $V_{CC} = 30 V$ , with split resistors
ACPL-352J	Output High Level Common Mode Transient Immunity	$ ICM_H $	50			kV/ $\mu$ s	$T_A = 25^\circ C$ , $V_{CM} = 2000 V$ , $I_F = 8 mA$ , $V_{DD1} = 5 V$ , $C_F = 330 pF$ , $R_F = 10 k\Omega$

ACPL-352J	Output Low Level Common Mode Transient Immunity	$ CM_L $	50			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 2000\text{ V}$ , $V_F = 0\text{ V}$ , $V_{DD1} = 5\text{ V}$ , $C_F = 330\text{ pF}$ , $R_F = 10\text{ k}\Omega$
ACML-7400, ACML-7410, ACML-7420	Common Mode Transient Immunity at Logic High Output	$ICM_H $	25	>40		kV/ $\mu$ s	$V_{CM} = 1000\text{ V}$ , $T_A = 25^\circ\text{ C}$ , $V_{IN} = V_{DD}$ , $V_O > 0.8 \times V_{DD}$
ACML-7400, ACML-7410, ACML-7420	Common Mode Transient Immunity at Logic Low Output	$ CM_L $	25	>40		kV/ $\mu$ s	$V_{CM} = 1000\text{ V}$ , $T_A = 25^\circ\text{ C}$ , $V_{IN} = 0\text{ V}$ , $V_O < 0.8\text{ V}$

### New Specifications

Part Number	Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
ACPL-P345, ACPL-W345, ACPL-P346, ACPL-W346, QCPL-WB4A	Output High Level Common Mode Transient Immunity	$ICM_H $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $I_F = 9\text{ mA}$ , $V_{CC} = 20\text{ V}$ , with split resistors
ACPL-P345, ACPL-W345, ACPL-P346, ACPL-W346, QCPL-WB4A	Output Low Level Common Mode Transient Immunity	$ CM_L $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $V_F = 0\text{ V}$ , $V_{CC} = 20\text{ V}$ , with split resistors
ACPL-P347, ACPL-W347, ACPL-P349, ACPL-W349	Output High Level Common Mode Transient Immunity	$ICM_H $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $I_F = 9\text{ mA}$ , $V_{CC} = 30\text{ V}$ , with split resistors
ACPL-P347, ACPL-W347, ACPL-P349, ACPL-W349	Output Low Level Common Mode Transient Immunity	$ CM_L $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $V_F = 0\text{ V}$ , $V_{CC} = 30\text{ V}$ , with split resistors
ACPL-352J	Output High Level Common Mode Transient Immunity	$ICM_H $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $I_F = 8\text{ mA}$ , $V_{DD1} = 5\text{ V}$ , $C_F = 330\text{ pF}$ , $R_F = 10\text{ k}\Omega$
ACPL-352J	Output Low Level Common Mode Transient Immunity	$ CM_L $	100			kV/ $\mu$ s	$T_A = 25^\circ\text{C}$ , $V_{CM} = 1500\text{ V}$ , $V_F = 0\text{ V}$ , $V_{DD1} = 5\text{ V}$ , $C_F = 330\text{ pF}$ , $R_F = 10\text{ k}\Omega$
ACML-7400, ACML-7410, ACML-7420	Common Mode Transient Immunity at Logic High Output	$ICM_H $	75			kV/ $\mu$ s	$V_{CM} = 1500\text{ V}$ , $T_A = 25^\circ\text{ C}$ , $V_{IN} = V_{DD}$ , $V_O > 0.8 \times V_{DD}$
ACML-7400, ACML-7410, ACML-7420	Common Mode Transient Immunity at Logic Low Output	$ CM_L $	75			kV/ $\mu$ s	$V_{CM} = 1500\text{ V}$ , $T_A = 25^\circ\text{ C}$ , $V_{IN} = 0\text{ V}$ , $V_O < 0.8\text{ V}$

### Reasons for Change:

Better laboratory testing equipment enable manufacturing to guarantee a higher common mode rejection (CMR) transient immunity, reflecting the device's true electrical performance.

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

No change in fit, form and function. No change requires in customer's existing application. All other remaining electrical specifications in datasheet and physical characteristics have not been changed.

**Effective Date of Change:**

Implementation of the change and update of the datasheets will be effective from the issue date of this product change notice.

**Qualification Data:**

Data has been generated and approved.

---

These changes have been reviewed and approved by Broadcom Limited engineers and managers per Broadcom Limited procedure: Change Control and Customer Notification, 5962-6052-80.

Please contact your Broadcom Limited field sales for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.

**Appendix:**

<b>Affected Part Number</b>	
ACPL-P345-000E	QCPL-WB4A-560ME
ACPL-P345-060E	ACPL-352J-500E
ACPL-P345-500E	ACPL-352J-000E
ACPL-P346-000E	ACML-7400-000E
ACPL-P346-060E	ACML-7400-500E
ACPL-P346-500E	ACML-7410-000E
ACPL-P346-500ME	ACML-7410-500E
ACPL-P346-560E	ACML-7420-000E
ACPL-P347-000E	ACML-7420-500E
ACPL-P347-060E	
ACPL-P349-000E	
ACPL-P349-060E	
ACPL-P349-500E	
ACPL-P349-560E	
ACPL-W345-000E	
ACPL-W345-060E	
ACPL-W345-500E	
ACPL-W345-560E	
ACPL-W346-000E	
ACPL-W346-060E	
ACPL-W346-500E	
ACPL-W346-560E	
ACPL-W347-000E	
ACPL-W347-060E	
ACPL-W347-500E	
ACPL-W347-560E	
ACPL-W349-000E	
ACPL-W349-060E	
ACPL-W349-500E	
ACPL-W349-560E	