

Product Change Notice

Issue Date: 16 OCT 2015

Change Type:

1. IC change
2. Product specifications upgrade

Parts Affected:

ACPL-7900	ACPL-790A	ACPL-790B	ACPL-C790	ACPL-C79A	ACPL-C79B
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All associated options and specials will also be affected. See Appendix for full part number list.

Description and Extent of Change:

Change in IC.

Reasons for Change:

Product Improvement.

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

Electrical characteristics below are improved with this new IC.

Input Offset Voltage, V_{OS}	Min.	Typ	Max.	Unit	Test Conditions/Notes
Current Specification	-1	0.6	2	mV	$T_A = 25^\circ\text{C}$
New Specification	-1	0.4	2	mV	$T_A = 25^\circ\text{C}$

Magnitude of Input Offset Change vs. Temperature, $ dV_{OS}/dT_A $	Typ	Max.	Unit	Test Conditions/Notes
Current Specification	3	10	μV	$T_A = -40^\circ\text{C}$ to $+105^\circ\text{C}$
New Specification	-0.8	4	μV	$T_A = -40^\circ\text{C}$ to $+105^\circ\text{C}$

Nonlinearity over $\pm 100\text{mV}$ Input Voltage, NL_{100}	Typ	Max.	Unit	Test Conditions/Notes
Current Specification	0.02	0.06	%	$V_{IN+} = -100\text{mV}$ to $+100\text{mV}$, $T_A = 25^\circ\text{C}$
New Specification	0.013	0.06	%	$V_{IN+} = -100\text{mV}$ to $+100\text{mV}$, $T_A = 25^\circ\text{C}$

Magnitude of NL_{200} Change vs. Temperature, dNL_{200}/dT_A	Typ	Unit	Test Conditions/Notes
Current Specification	0.0003	%/°C	$T_A = -40^\circ\text{C}$ to $+85^\circ\text{C}$
	0.004	%/°C	$T_A = +85^\circ\text{C}$ to $+105^\circ\text{C}$
New Specification	0.0003	%/°C	$T_A = -40^\circ\text{C}$ to $+105^\circ\text{C}$

Equivalent Input Impedance, R_{IN}	Typ	Unit	Test Conditions/Notes
Current Specification	22	k Ω	V_{IN+} or V_{IN-} , single-ended
New Specification	27	k Ω	V_{IN+} or V_{IN-} , single-ended

Signal-to-Noise Ratio, SNR	Typ	Unit	Test Conditions/Notes
Current Specification	60	dB	$V_{IN+} = 300\text{mVpp}$ 10 kHz sine wave
New Specification	62	dB	$V_{IN+} = 300\text{mVpp}$ 10 kHz sine wave

Signal-to-(Noise + Distortion) Ratio, SNDR	Typ	Unit	Test Conditions/Notes
Current Specification	56	dB	$V_{IN+} = 300\text{mVpp}$ 10 kHz sine wave
New Specification	59	dB	$V_{IN+} = 300\text{mVpp}$ 10 kHz sine wave

Input Side Supply Current, I_{DD1}	Typ	Max.	Unit	Test Conditions/Notes
Current Specification	13	18.5	mA	$V_{IN+} = 400\text{mV}$
New Specification	11	18.5	mA	$V_{IN+} = 400\text{mV}$

Appropriate electrical characterization and reliability qualification have been performed on representative products to insure normal parametric distribution, consistent electrical performance, and reliability.

No change is required in customer's existing application to use the parts with these changes.

Effective Date of Change:

Product shipments using this change will begin with date-code starting from 1601 (yyww).

Timing of shipment of the changed part will vary by part number depending on qualification completion, customer demand, and inventory levels.

Qualification Data:

Qualification data has been generated and approved.

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.

Appendix 1:

Full affected part number list and options.

Affected Part Number	Part Description
ACPL-7900-000E	Precision Iso-Amp, IEC+LF
ACPL-7900-300E	Precision Iso-Amp, IEC+LF
ACPL-7900-300ME	Precision Iso-Amp, IEC+LF
ACPL-7900-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-7900-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-790A-000E	Precision Iso-Amp, IEC+LF
ACPL-790A-300E	Precision Iso-Amp, IEC+LF
ACPL-790A-300ME	Precision Iso-Amp, IEC+LF
ACPL-790A-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-790A-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-790B-000E	Precision Iso-Amp, IEC+LF
ACPL-790B-000ME	Precision Iso-Amp, IEC+LF
ACPL-790B-300E	Precision Iso-Amp, IEC+LF
ACPL-790B-300ME	Precision Iso-Amp, IEC+LF
ACPL-790B-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-000E	Precision Iso-Amp, IEC+LF
ACPL-C790-000ME	Precision Iso-Amp, IEC+LF
ACPL-C790-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-500EE	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79A-000E	Precision Iso-Amp, IEC+LF
ACPL-C79A-000ME	Precision Iso-Amp, IEC+LF
ACPL-C79A-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79A-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79B-000E	Precision Iso-Amp, IEC+LF
ACPL-C79B-000ME	Precision Iso-Amp, IEC+LF
ACPL-C79B-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79B-500ME	Precision Iso-Amp, T/R+IEC+LF
QCPL-C79B-500E	Precision Iso-Amp, T/R+IEC+LF+SDC
QCPL-C79G-000E	Precision Iso-Amp, IEC+LF
QCPL-C79G-500E	Precision Iso-Amp, T/R+IEC+LF
QCPL-C79G-500ME	Precision Iso-Amp, T/R+IEC+LF
QCPL-CA2M-500ME	Precision Iso-Amp, T/R+IEC+LF

Affected Part Number	Part Description
ACPL-7900-000E	Precision Iso-Amp, IEC+LF
ACPL-7900-300E	Precision Iso-Amp, IEC+LF
ACPL-7900-300ME	Precision Iso-Amp, IEC+LF
ACPL-7900-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-7900-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-790A-000E	Precision Iso-Amp, IEC+LF
ACPL-790A-300E	Precision Iso-Amp, IEC+LF
ACPL-790A-300ME	Precision Iso-Amp, IEC+LF
ACPL-790A-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-790A-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-790B-000E	Precision Iso-Amp, IEC+LF
ACPL-790B-000ME	Precision Iso-Amp, IEC+LF
ACPL-790B-300E	Precision Iso-Amp, IEC+LF
ACPL-790B-300ME	Precision Iso-Amp, IEC+LF
ACPL-790B-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-000E	Precision Iso-Amp, IEC+LF
ACPL-C790-000ME	Precision Iso-Amp, IEC+LF
ACPL-C790-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-500EE	Precision Iso-Amp, T/R+IEC+LF
ACPL-C790-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79A-000E	Precision Iso-Amp, IEC+LF
ACPL-C79A-000ME	Precision Iso-Amp, IEC+LF
ACPL-C79A-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79A-500ME	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79B-000E	Precision Iso-Amp, IEC+LF
ACPL-C79B-000ME	Precision Iso-Amp, IEC+LF
ACPL-C79B-500E	Precision Iso-Amp, T/R+IEC+LF
ACPL-C79B-500ME	Precision Iso-Amp, T/R+IEC+LF
QCPL-C79B-500E	Precision Iso-Amp, T/R+IEC+LF+SDC
QCPL-C79G-000E	Precision Iso-Amp, IEC+LF
QCPL-C79G-500E	Precision Iso-Amp, T/R+IEC+LF
QCPL-C79G-500ME	Precision Iso-Amp, T/R+IEC+LF
QCPL-CA2M-500ME	Precision Iso-Amp, T/R+IEC+LF