Radiation Report

UC1845A-SP Neutron Displacement Damage Characterization

ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the UC1845A-SP device. The results show that all devices were fully functional and within production test limits after having been irradiated up to 1 × 10^{12} n/cm^2. A sample size of three units were exposed to radiation testing per (MIL-STD-883, Method 1017 for Neutron Irradiation). Electrical testing was performed at Texas Instruments before and after neutron irradiation using the production test program.

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1 Overview

The UCx84x series of control-integrated circuits provide the features that are necessary to implement off-line or DC-to-DC fixed-frequency current-mode control schemes, with a minimum number of external components. The internally implemented circuits include an undervoltage lockout (UVLO), featuring a start-up current of less than 1 mA, and a precision reference trimmed for accuracy at the error amplifier input. Other internal circuits include logic to ensure latched operation, a pulse-width modulation (PWM) comparator that also provides current-limit control, and a totem-pole output stage that is designed to source or sink high-peak current. The output stage, suitable for driving N-channel MOSFETs, is low when it is in the off state.

General device information and testing conditions are listed in Table 1-1.

Table 1-1. Overview Information

TI Part Number	UC1845A-SP
SMD Number	5962P8670411
Device Function	Current-mode PWM Controller
Die Name	SMEXARC1845VRH
Technology	JI1-PWR
A/T Lot Number / Date Code	7004430MMT / 1733A
Biased Quantity Tested	0
Unbiased Quantity Tested	3
Exposure Facility	VPT Rad
Neutron Fluence (1 MeV equivalent)	1.0×10^{12} n/cm^2
Irradiation Temperature	25°C
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2 Test Procedures

The UC1845A-SP was electrically pre-tested using the production automated test equipment program. General test procedures were IAW MIL-STD-883, Method 1017 for Neutron Irradiation of UC1845A-SP as modified in Table 2-1.

Table 2-1. Neutron Irradiation Conditions

Group	Sample Qty	Neutron Fluence (n/cm^2)	Bias
A	3	1.0×10^{12} n/cm^2	Unbiased

Figure 2-1. UC1845A-SP Device

3 Facility

VPT Rad performs all neutron displacement damage irradiations in a Low-Enriched, open-pool, water moderated, thermal neutron reactor. It utilizes flat-plate type fuel, and having a maximum thermal energy output of up to 1 MW. The Fast Neutron Irradiator (FNI) faces one side of the reactor core, its design produces a geometrical planar *beam* of fast neutrons that is approximately uniform over an area of 12 in × 20 in. Lead and thermal neutron absorbing compounds are combined to filter out both fission gammas and thermal neutrons. The ratio of fast-to-thermal neutrons is approximately 400:1, with a gamma exposure of less than 150 rad (Si) for a 1E12 n/cm^2 (1 MeV Si equivalent) exposure. The FNI can accommodate a sample or samples with size up to 30 cm in diameter and 15-cm thick including packaging materials. The minimum neutron fluence rate is 1E6 n/cm^2-s. The maximum neutron fluence rate is approximately 1.0 E11 n/cm^2-s. (both values are 1 MeV Si equivalent).

The neutron fluence rate is determined using the previously-measured neutron radiation field for the FNI, performed in accordance with ASTM standards (ASTM F1190 &), and correlated to the measured reactor power level. The neutron dose is timed to meet the customer-specified fluence for the irradiation. Neutron dosimetry meeting ASTM standards (ASTM E265) is utilized to track and ensure irradiations meet the required minimum. The facility retains *source-suitability* with the Defense Logistics Agency (DLA) Laboratory Suitability Program for ASTM Test Method 1017. The DUTS are typically irradiation in an unbiased condition as per TM1017. If bias conditions are required, they can be maintained via dry thimbles connected to the irradiation volume.

4 Results

The device passed all parametric measurements well within all data sheet limits for the exposure level 1.0×10^{12} n/cm^2. All parametric measurements remained well within the production test limits which are guard banded from the data sheet limits. An overview of the largest drifts seen post-test is discussed later in this section. The data sheet parameters that were tested pre- and post-neutron radiation and their corresponding test names are included in Appendix A. Appendix B has the graphs showing the drift between pre- and post-neutron radiation for these parameters.

Input bias current is increased after neutron exposure. This parameter is measured with test number 1020.6. This parameter drifts upwards by an average of about 28% from an average of 0.123 µA to an average of 0.684 µA.

A Test Results

Table A-1 provides the list of tested parameters.

Table A-1. Test List

V_{CC} = 15 V(1) , R_T = 10 kΩ, C_T = 3.3 nF, T_A = T_J = –55°C to 125°C (unless otherwise noted)(2)

Parameters Description	Test Conditions	UC1845A-SP Data Sheet SLUSC14A –MAY 2015–REVISED FEBRUARY 2019				Test# or Name
		MIN	TYP	MAX	Unit	
REFERENCE						
Outuput voltage	T_J = 25°C, I_O = 1 mA, V_{CC} = 15 V (Pre-Radiation Limits)	4.94	5	5.06	V	1010.1
Line regulation	V_{IN} = 12 to 25 V		6	20	mV	1010.3
Load regulation	I_O = 1 to 20 mA		6	25	mV	1010.4
Temperature Stability(3)(4)(5)			0.2	0.4	mV/°C	
Total output variation(3)	Over line, load, and temperature	4.9		5.1	V	1010.2
Output noise variation	10 Hz ≤ f ≤ 10 kHz, T_J = 25°C		50		µV	1010.7
Long-term stability(5)	1000 hours, TA = 125°C (3)		5	25	mV	
Short-circuit output current		-30	-100	-180	mA	1010.6
OSCILLATOR						
Initial accuracy	T_J = 25°C (6)	47	52	57	kHz	1015.1
Voltage stability	V_{CC} = 12 to 25 V		0.2%	1%		1015.3
Temperature stability	T_J = –55°C to 125°C (3)		5%			
Amplitude	$V_{RT/CT}$ peak to peak(3)		1.7		V	
Discharge current	V pin 4 = 2 V (7) T_J = Full range	7.5		8.8	mA	1015.7
ERROR AMPLIFIER						
Input voltage	V_{Comp} = 2.5 V	2.45	2.50	2.55	V	1020.1
Input bias current			-0.3	-1	µA	1020.6
Open-loop voltage gain	V_O = 2 to 4 V	65	90		dB	1020.9
Unity-gain bandwidth	T_J = 25°C (3)	0.7	1		MHz	
PSRR	V_{CC} = 12 to 25 V	60	70		dB	2010.10
Output sink current	V_{FB} = 2.7 V, V_{Comp} = 1.1 V	2	6		mA	1020.5
Output Source current	V_{FB} = 2.3 V, V_{Comp} = 5 V	-0.5	-0.8		mA	1020.4
High-level output voltage	V_{FB} = 2.3 V, R_L = 15 kΩ to ground	5	6		V	1030.3
Low-level output voltage	V_{FB} = 2.7 V, RL = 15 kΩ to V_{REF}		0.7	1.1	V	1030.8
CURRENT SENSE						
Gain(8) (9)		2.85	3	3.15	V/V	1025.2
Maximum input signal	V_{Comp} = 5 V (8)	0.9	1	1.1	V	1025.3
PSRR	V_{CC} = 12 to 25 V (8)		70		dB	
Input bias current			-2	-10	µA	1025.1
Delay to output	V_{ISENSE} = 0 to 2 V (3)		150	300	ns	1025.4
OUTPUT						
Output low-level voltage	I_{SINK} = 20 mA		0.1	0.4	V	1030.1
	I_{SINK} = 200 mA		1.5	2.2		1030.2

Table A-1. Test List (continued)

V_{CC} = 15 V(1) , R_T = 10 kΩ, C_T = 3.3 nF, T_A = T_J = –55°C to 125°C (unless otherwise noted)(2)

Parameters	Test Conditions	UC1845A-SP Data Sheet SLUSC14A –MAY 2015–REVISED FEBRUARY 2019				Test# or Name
Description		MIN	TYP	MAX	Unit	
Output high-level voltage	I_{SOURCE} = –20 mA	13	13.5		V	1030.6
	I_{SOURCE} = –200 mA	12	13.5			1030.7
Rise time	C_L = 1 nF, T_J = 25°C (3)		50	150	ns	1030.9
Fall time	C_L = 1 nF, T_J = 25°C (3)		50	150	ns	1030.10
UVLO saturation	V_{CC} = 5 V, I_{SINK} = 10 mA		0.7	1.2	V	1030.5
UNDERVOLTAGE LOCKOUT						
Start threshold		7.8	8.4	9	V	1035.1
Minimum opertion voltage after turn-on		7	7.6	8.2	V	1035.2
PWM SECTION						
Maximum duty cycle		47%	48%	50%		1030.11
Minimum duty cycle				0%		1030.13
TOTAL STANDBY CURRENT						
Start-up current			0.2	0.5	mA	1005.1
Operating supply current	V_{FB} = V_{ISENSE} = 0 V		11	17	mA	1005.2
V_{CC} Zener voltage	I_{CC} = 25 mA	30	34		V	1035.4

(1) Adjust V_{CC} above the start threshold before setting at 15 V.

(2) See the *Mechanical, Packaging, and Orderable Information* section in the data sheet for radiation improved devices.

(3) Parameters ensured by design, or characterization, or both, if not production tested.

(4) Temperature stability, sometimes referred to as average temperature coefficient, is described by the equation: Temperature Stability = V_{REF} (max) – V_{REF} (min) / T_J (max) – T_J (min). V_{REF} (max) and V_{REF} (min) are the maximum and minimum reference voltage measured over the appropriate temperature range. Note that the extremes in voltage do not necessarily occur at the extremes in temperature.

(5) Parameter applies only for 5962-8670408VxA.

(6) Output frequency is one-half oscillator frequency for UC1845A.

(7) This parameter is measured with R_T = 10 kΩ to V_{REF}. This contributes approximately 300 µA of current to the measurement. The total current flowing into the R_T or C_T pin will be approximately 300 µA higher than the measured value.

(8) Parameter measured at trip point of latch with V_{FB} = 0 V.

(9) Gain defined as: G = ΔV_{Comp} / ΔV_{ISENSE}; V_{ISENSE} = 0 to 0.8 V.

B Test Results

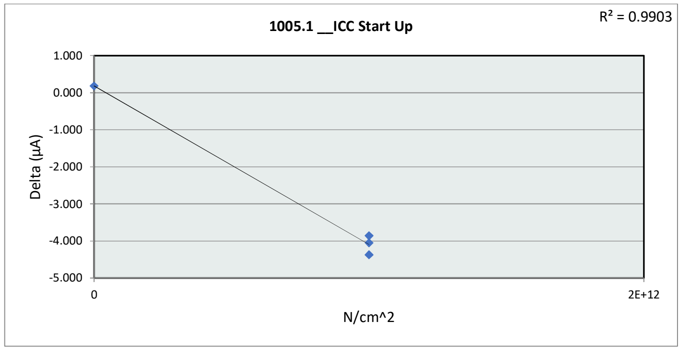
Appendix B shows the detailed test results.

NDD Report - Parametric Drift Graphs

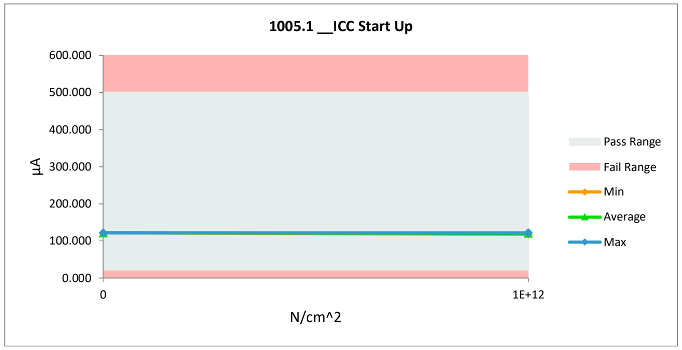
UC1845A-SP

NDD Report - Parametric Drift Graphs
UC1845A-SP

		1005.1 __ICC Start Up		
Test Site		Junkins Lab	Junkins Lab	
Tester		ETS364	ETS364	
Test Number		EF2301	EF2301	
Unit		µA	µA	
Max Limit		500	500	
Min Limit		20	20	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	126.667	122.297	-4.370
1E+12	228	121.684	117.635	-4.049
1E+12	229	125.160	121.303	-3.857
0	231	121.278	121.459	0.181
	Max	126.667	122.297	0.181
	Average	123.697	120.673	-3.024
	Min	121.278	117.635	-4.370
	Std Dev	2.637	2.072	2.147

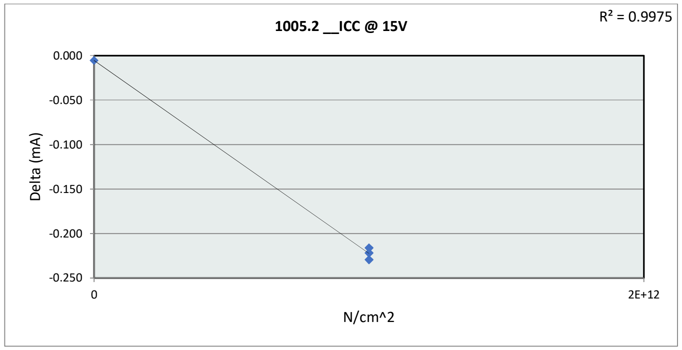


	1005.1 __ICC Start Up	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	500	µA
Min Limit	20	µA
N/cm^2	0	1E+12
LL	20.000	20.000
Min	121.459	117.635
Average	121.459	120.412
Max	121.459	122.297
UL	500.000	500.000

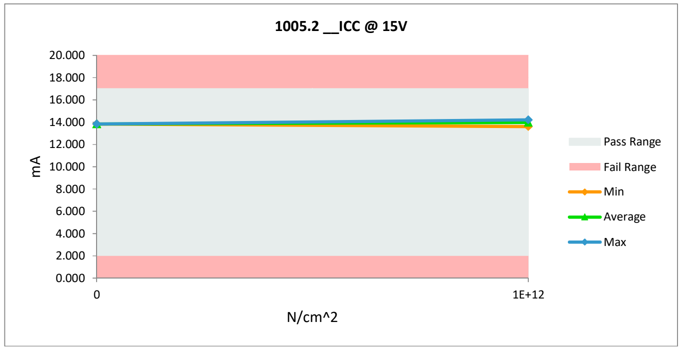


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1005.2 __ICC @ 15V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mA	mA	
	Max Limit	17	17	
	Min Limit	2	2	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	14.336	14.115	-0.222
1E+12	228	13.837	13.608	-0.229
1E+12	229	14.429	14.213	-0.216
0	231	13.844	13.839	-0.005
	Max	14.429	14.213	-0.005
	Average	14.112	13.944	-0.168
	Min	13.837	13.608	-0.229
	Std Dev	0.315	0.274	0.109

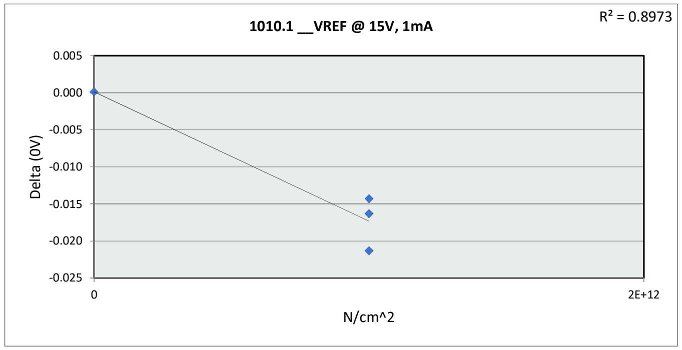


	1005.2 __ICC @ 15V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	17	mA
Min Limit	2	mA
N/cm^2	0	1E+12
LL	2.000	2.000
Min	13.839	13.608
Average	13.839	13.978
Max	13.839	14.213
UL	17.000	17.000

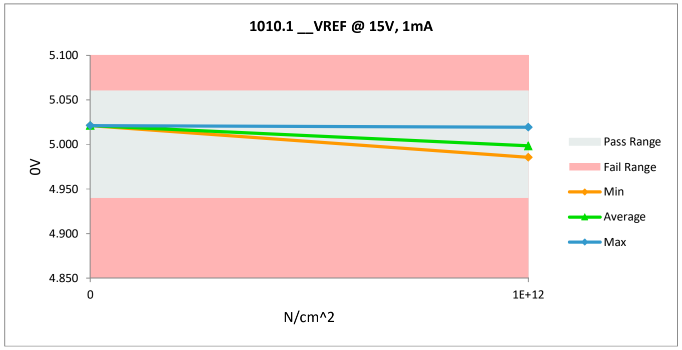


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.1 __VREF @ 15V, 1mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	5.06	5.06	
	Min Limit	4.94	4.94	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	5.006	4.990	-0.016
1E+12	228	5.007	4.986	-0.021
1E+12	229	5.034	5.019	-0.014
0	231	5.021	5.021	0.000
	Max	5.034	5.021	0.000
	Average	5.017	5.004	-0.013
	Min	5.006	4.986	-0.021
	Std Dev	0.013	0.019	0.009

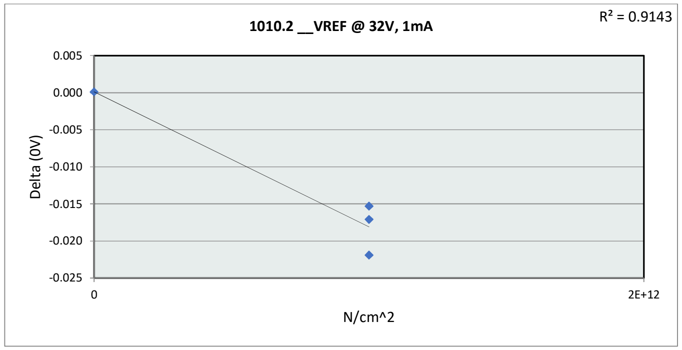


	1010.1 __VREF @ 15V, 1mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	5.06	0V
Min Limit	4.94	0V
N/cm^2	0	1E+12
LL	4.940	4.940
Min	5.021	4.986
Average	5.021	4.998
Max	5.021	5.019
UL	5.060	5.060

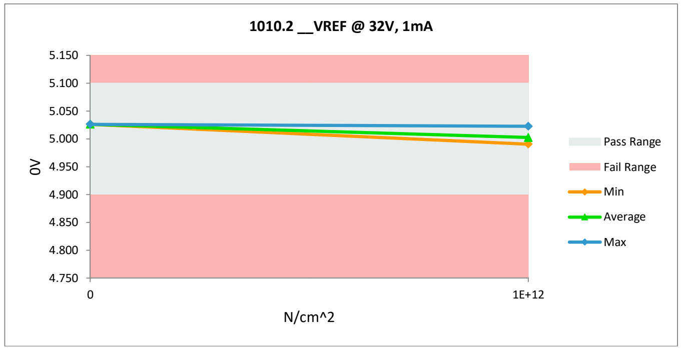


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.2 __VREF @ 32V, 1mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	5.1	5.1	
	Min Limit	4.9	4.9	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	5.011	4.994	-0.017
1E+12	228	5.012	4.990	-0.022
1E+12	229	5.038	5.023	-0.015
0	231	5.026	5.026	0.000
	Max	5.038	5.026	0.000
	Average	5.022	5.008	-0.014
	Min	5.011	4.990	-0.022
	Std Dev	0.013	0.019	0.010

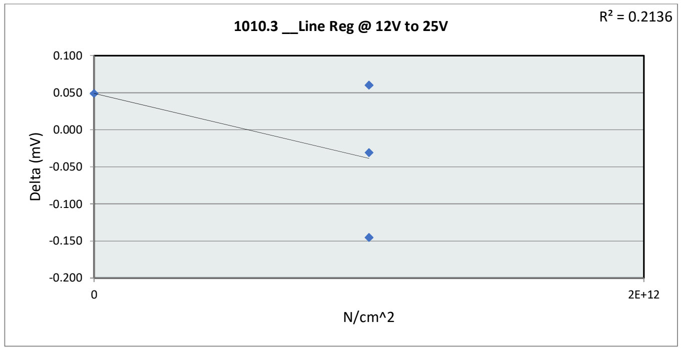


	1010.2 __VREF @ 32V, 1mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	5.1	0V
Min Limit	4.9	0V
N/cm^2	0	1E+12
LL	4.900	4.900
Min	5.026	4.991
Average	5.026	5.003
Max	5.026	5.023
UL	5.100	5.100

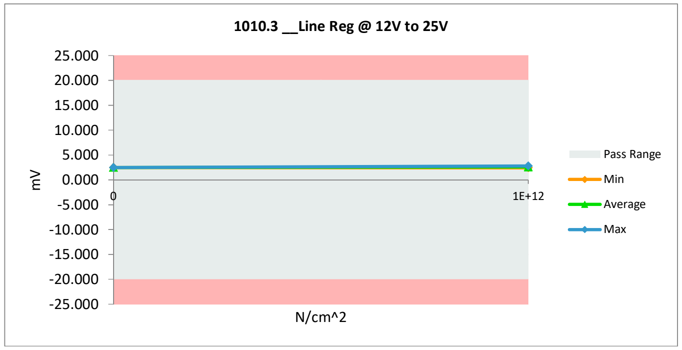


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.3 __Line Reg @ 12V to 25V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mV	mV	
	Max Limit	20	20	
	Min Limit	-20	-20	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	2.721	2.781	0.060
1E+12	228	2.470	2.439	-0.031
1E+12	229	2.691	2.546	-0.145
0	231	2.441	2.489	0.049
	Max	2.721	2.781	0.060
	Average	2.581	2.564	-0.017
	Min	2.441	2.439	-0.145
	Std Dev	0.146	0.151	0.095

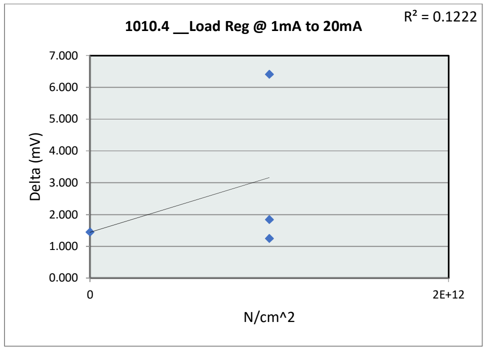


	1010.3 __Line Reg @ 12V to 25V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	20	mV
Min Limit	-20	mV
N/cm^2	0	1E+12
LL	-20.000	-20.000
Min	2.489	2.439
Average	2.489	2.589
Max	2.489	2.781
UL	20.000	20.000

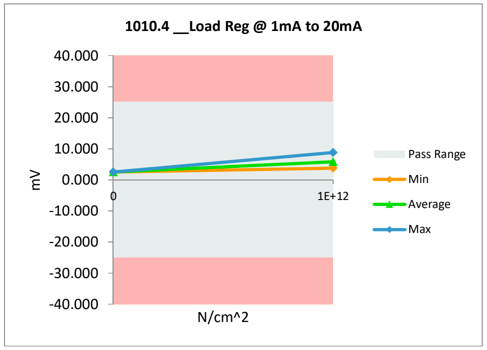


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.4 __Load Reg @ 1mA to 20mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mV	mV	
	Max Limit	25	25	
	Min Limit	-25	-25	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	2.369	8.777	6.408
1E+12	228	1.947	3.785	1.838
1E+12	229	3.776	5.026	1.250
0	231	1.086	2.531	1.445
	Max	3.776	8.777	6.408
	Average	2.294	5.030	2.735
	Min	1.086	2.531	1.250
	Std Dev	1.123	2.698	2.461

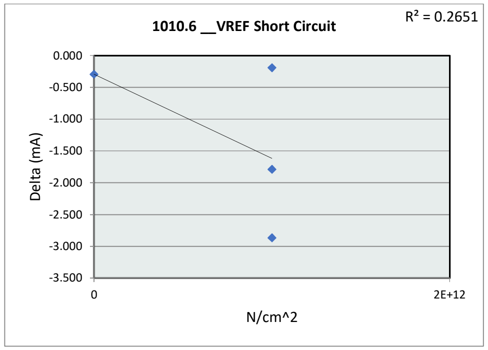


	1010.4 __Load Reg @ 1mA to 20mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	25	mV
Min Limit	-25	mV
N/cm^2	0	1E+12
LL	-25.000	-25.000
Min	2.531	3.785
Average	2.531	5.863
Max	2.531	8.777
UL	25.000	25.000

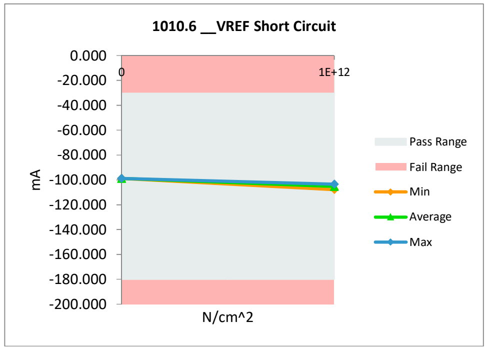


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.6 __VREF Short Circuit		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mA	mA	
	Max Limit	-30	-30	
	Min Limit	-180	-180	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	-107.530	-107.721	-0.191
1E+12	228	-100.657	-103.525	-2.868
1E+12	229	-103.003	-104.793	-1.790
0	231	-98.511	-98.806	-0.295
	Max	-98.511	-98.806	-0.191
	Average	-102.425	-103.711	-1.286
	Min	-107.530	-107.721	-2.868
	Std Dev	3.866	3.712	1.283

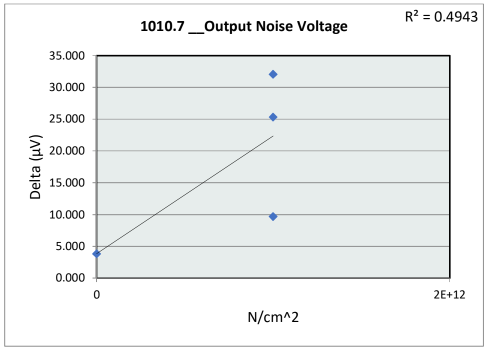


	1010.6 __VREF Short Circuit	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	-30	mA
Min Limit	-180	mA
N/cm^2	0	1E+12
LL	-180.000	-180.000
Min	-98.806	-107.721
Average	-98.806	-105.346
Max	-98.806	-103.525
UL	-30.000	-30.000

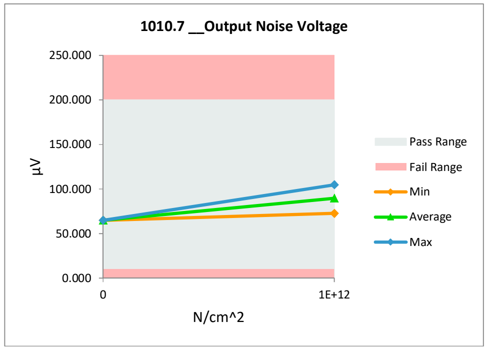


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1010.7 __Output Noise Voltage		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	µV	µV	
	Max Limit	200	200	
	Min Limit	10	10	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	72.574	104.615	32.041
1E+12	228	62.946	72.626	9.680
1E+12	229	66.126	91.450	25.324
0	231	61.034	64.858	3.824
	Max	72.574	104.615	32.041
	Average	65.670	83.387	17.717
	Min	61.034	64.858	3.824
	Std Dev	5.059	18.026	13.174

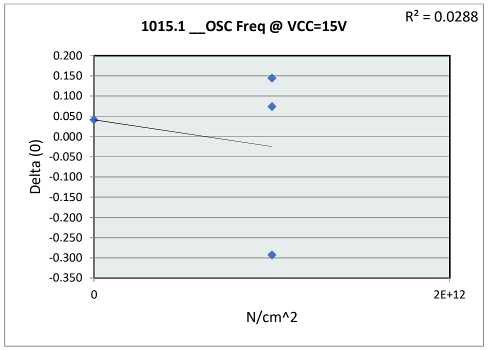


	1010.7 __Output Noise Voltage	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	200	µV
Min Limit	10	µV
N/cm^2	0	1E+12
LL	10.000	10.000
Min	64.858	72.626
Average	64.858	89.564
Max	64.858	104.615
UL	200.000	200.000

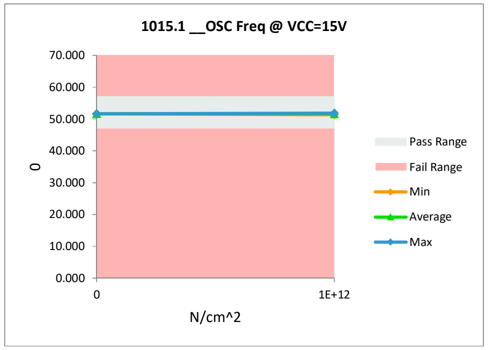


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1015.1 __OSC Freq @ VCC=15V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0	0	
	Max Limit	57	57	
	Min Limit	47	47	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	51.923	51.630	-0.293
1E+12	228	51.678	51.822	0.144
1E+12	229	51.248	51.322	0.074
0	231	51.612	51.653	0.041
	Max	51.923	51.822	0.144
	Average	51.615	51.607	-0.008
	Min	51.248	51.322	-0.293
	Std Dev	0.279	0.208	0.194

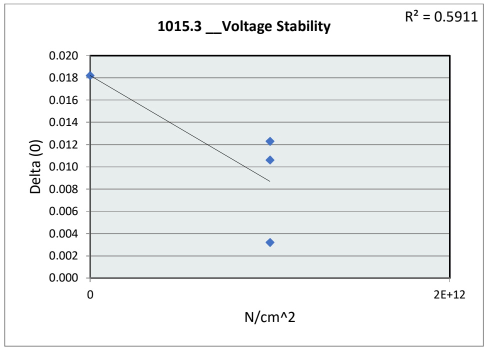


	1015.1 __OSC Freq @ VCC=15V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	57	0
Min Limit	47	0
N/cm^2	0	1E+12
LL	47.000	47.000
Min	51.653	51.322
Average	51.653	51.591
Max	51.653	51.822
UL	57.000	57.000

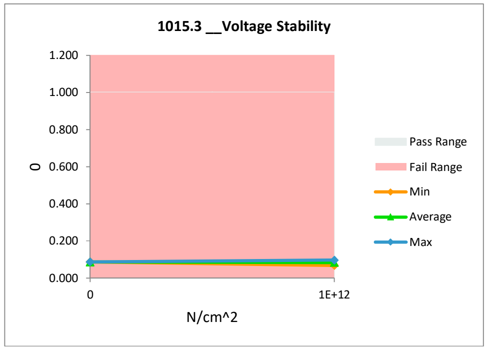


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1015.3 __Voltage Stability		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0%	0%	
	Max Limit	1	1	
	Min Limit	1	1	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	0.077	0.088	0.011
1E+12	228	0.084	0.096	0.012
1E+12	229	0.064	0.068	0.003
0	231	0.069	0.087	0.018
	Max	0.084	0.096	0.018
	Average	0.074	0.085	0.011
	Min	0.064	0.068	0.003
	Std Dev	0.009	0.012	0.006

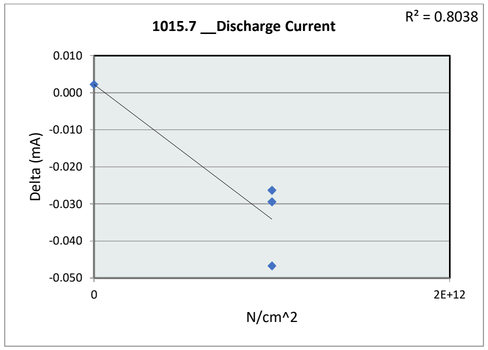


	1015.3 __Voltage Stability	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	1	0%
Min Limit	1	0%
N/cm^2	0	1E+12
LL	1.000	1.000
Min	0.087	0.068
Average	0.087	0.084
Max	0.087	0.096
UL	1.000	1.000

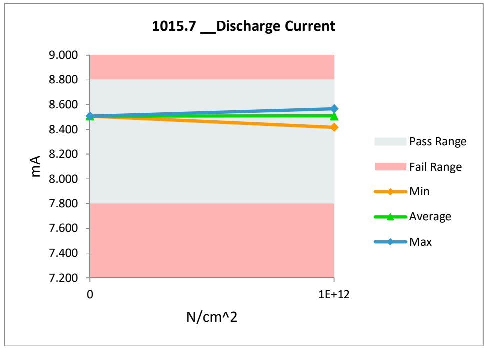


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1015.7 __Discharge Current		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mA	mA	
	Max Limit	8.8	8.8	
	Min Limit	7.8	7.8	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	8.446	8.417	-0.029
1E+12	228	8.588	8.542	-0.047
1E+12	229	8.594	8.568	-0.026
0	231	8.506	8.508	0.002
	Max	8.594	8.568	0.002
	Average	8.534	8.509	-0.025
	Min	8.446	8.417	-0.047
	Std Dev	0.071	0.066	0.020

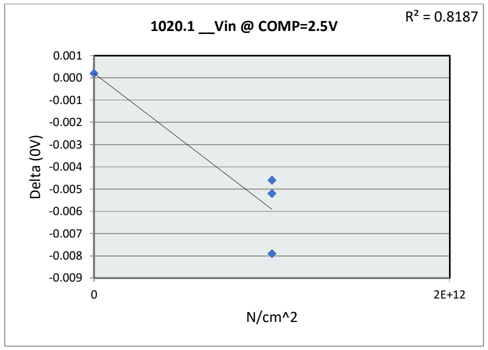


	1015.7 __Discharge Current	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	8.8	mA
Min Limit	7.8	mA
N/cm^2	0	1E+12
LL	7.800	7.800
Min	8.508	8.417
Average	8.508	8.509
Max	8.508	8.568
UL	8.800	8.800

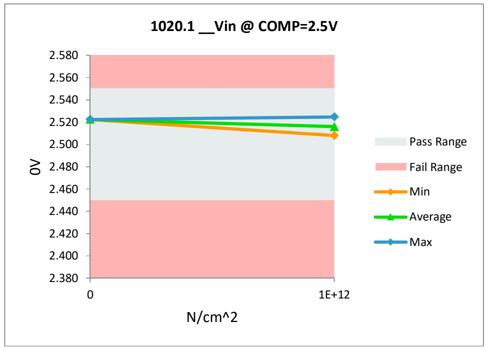


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.1 __Vin @ COMP=2.5V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	2.55	2.55	
	Min Limit	2.45	2.45	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	2.520	2.515	-0.005
1E+12	228	2.516	2.508	-0.008
1E+12	229	2.529	2.525	-0.005
0	231	2.522	2.523	0.000
	Max	2.529	2.525	0.000
	Average	2.522	2.518	-0.004
	Min	2.516	2.508	-0.008
	Std Dev	0.006	0.008	0.003

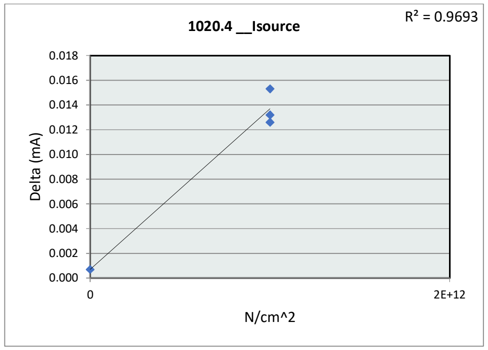


	1020.1 __Vin @ COMP=2.5V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	2.55	0V
Min Limit	2.45	0V
N/cm^2	0	1E+12
LL	2.450	2.450
Min	2.523	2.508
Average	2.523	2.516
Max	2.523	2.525
UL	2.550	2.550

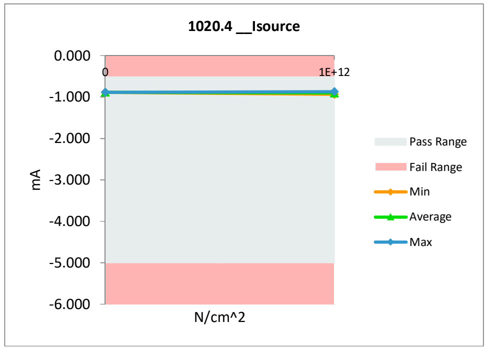


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.4 __Isource		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mA	mA	
	Max Limit	-0.5	-0.5	
	Min Limit	-5	-5	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	-0.922	-0.909	0.013
1E+12	228	-0.888	-0.873	0.015
1E+12	229	-0.949	-0.936	0.013
0	231	-0.885	-0.885	0.001
	Max	-0.885	-0.873	0.015
	Average	-0.911	-0.901	0.010
	Min	-0.949	-0.936	0.001
	Std Dev	0.030	0.028	0.007

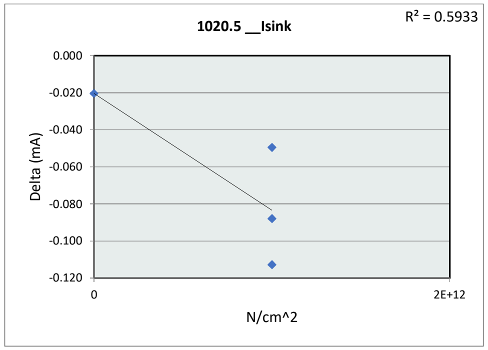


	1020.4 __Isource	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	-0.5	mA
Min Limit	-5	mA
N/cm^2	0	1E+12
LL	-5.000	-5.000
Min	-0.885	-0.936
Average	-0.885	-0.906
Max	-0.885	-0.873
UL	-0.500	-0.500

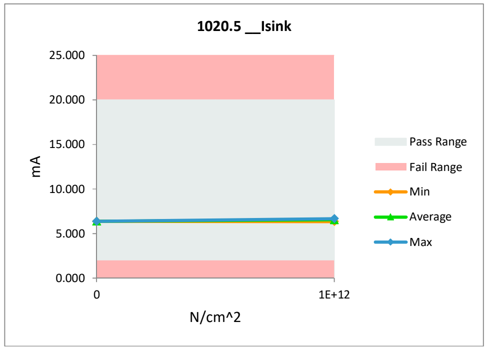


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.5 __Isink		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	mA	mA	
	Max Limit	20	20	
	Min Limit	2	2	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	6.746	6.633	-0.113
1E+12	228	6.433	6.345	-0.088
1E+12	229	6.719	6.670	-0.049
0	231	6.405	6.385	-0.020
	Max	6.746	6.670	-0.020
	Average	6.576	6.508	-0.068
	Min	6.405	6.345	-0.113
	Std Dev	0.182	0.167	0.041

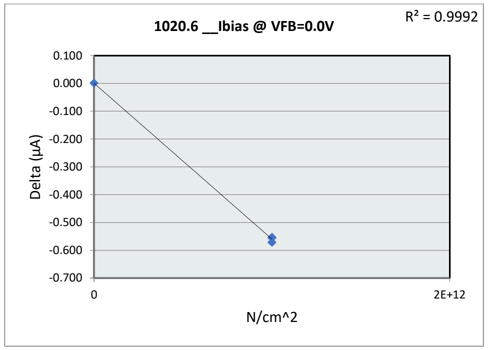


	1020.5 __Isink	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	20	mA
Min Limit	2	mA
N/cm^2	0	1E+12
LL	2.000	2.000
Min	6.385	6.345
Average	6.385	6.549
Max	6.385	6.670
UL	20.000	20.000

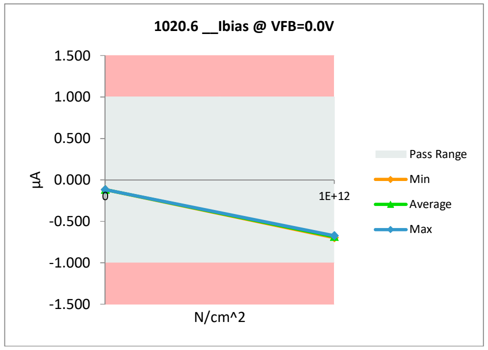


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.6 __Ibias @ VFB=0.0V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	µA	µA	
	Max Limit	1	1	
	Min Limit	-1	-1	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	-0.127	-0.698	-0.571
1E+12	228	-0.121	-0.674	-0.553
1E+12	229	-0.125	-0.680	-0.555
0	231	-0.118	-0.117	0.001
	Max	-0.118	-0.117	0.001
	Average	-0.123	-0.542	-0.420
	Min	-0.127	-0.698	-0.571
	Std Dev	0.004	0.284	0.280

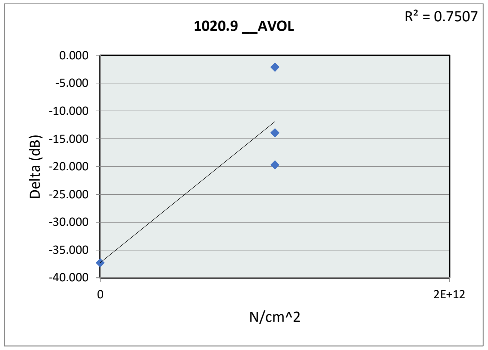


	1020.6 __Ibias @ VFB=0.0V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	1	µA
Min Limit	-1	µA
N/cm^2	0	1E+12
LL	-1.000	-1.000
Min	-0.117	-0.698
Average	-0.117	-0.684
Max	-0.117	-0.674
UL	1.000	1.000

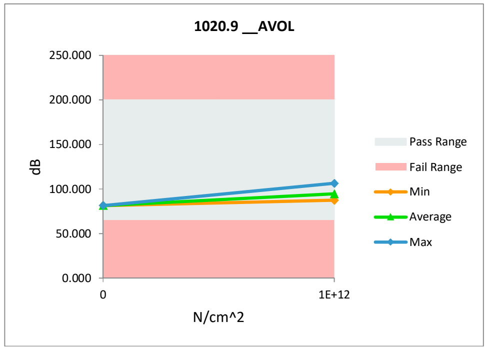


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.9 __AVOL		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	dB	dB	
	Max Limit	200	200	
	Min Limit	65	65	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	103.689	89.763	-13.926
1E+12	228	106.973	87.292	-19.681
1E+12	229	108.417	106.296	-2.121
0	231	118.632	81.357	-37.275
	Max	118.632	106.296	-2.121
	Average	109.428	91.177	-18.251
	Min	103.689	81.357	-37.275
	Std Dev	6.447	10.679	14.638

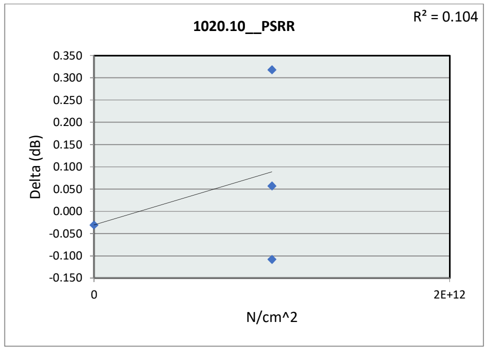


	1020.9 __AVOL	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	200	dB
Min Limit	65	dB
N/cm^2	0	1E+12
LL	65.000	65.000
Min	81.357	87.292
Average	81.357	94.450
Max	81.357	106.296
UL	200.000	200.000

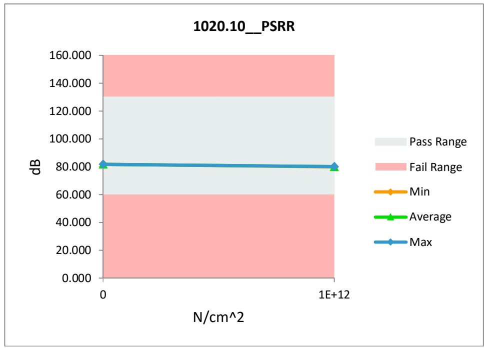


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1020.10__PSRR		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	dB	dB	
	Max Limit	130	130	
	Min Limit	60	60	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	79.851	79.908	0.057
1E+12	228	79.861	80.179	0.318
1E+12	229	80.097	79.989	-0.108
0	231	81.790	81.760	-0.030
	Max	81.790	81.760	0.318
	Average	80.400	80.459	0.059
	Min	79.851	79.908	-0.108
	Std Dev	0.934	0.875	0.185

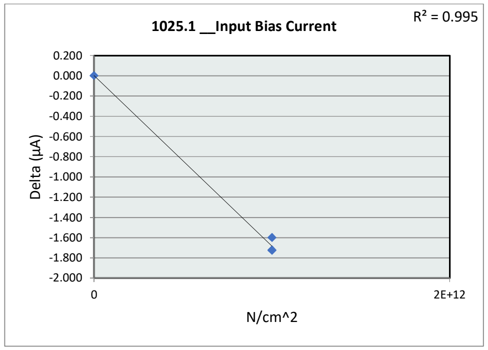


	1020.10__PSRR	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	130	dB
Min Limit	60	dB
N/cm^2	0	1E+12
LL	60.000	60.000
Min	81.760	79.908
Average	81.760	80.026
Max	81.760	80.179
UL	130.000	130.000

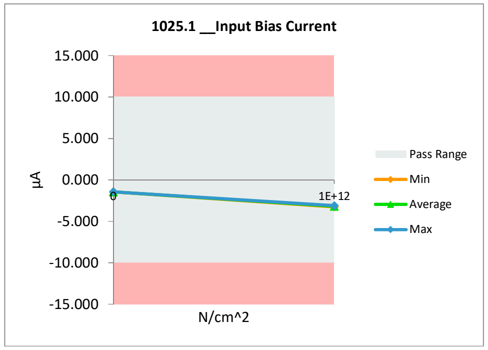


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1025.1 __Input Bias Current		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	µA	µA	
	Max Limit	10	10	
	Min Limit	-10	-10	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	-1.515	-3.114	-1.598
1E+12	228	-1.487	-3.209	-1.722
1E+12	229	-1.519	-3.245	-1.726
0	231	-1.449	-1.447	0.002
	Max	-1.449	-1.447	0.002
	Average	-1.493	-2.754	-1.261
	Min	-1.519	-3.245	-1.726
	Std Dev	0.033	0.873	0.844

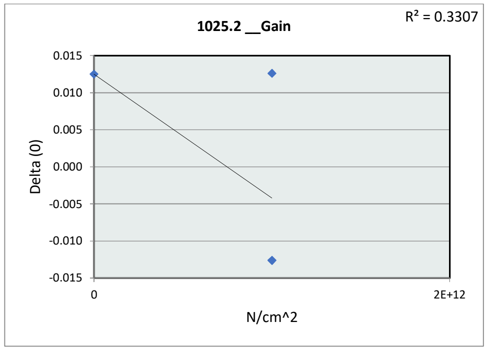


	1025.1 __Input Bias Current	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	10	µA
Min Limit	-10	µA
N/cm^2	0	1E+12
LL	-10.000	-10.000
Min	-1.447	-3.245
Average	-1.447	-3.189
Max	-1.447	-3.114
UL	10.000	10.000

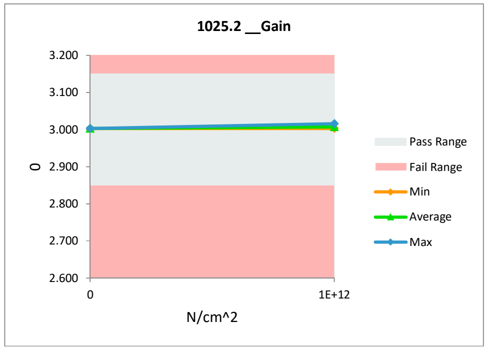


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1025.2 __Gain		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0	0	
	Max Limit	3.15	3.15	
	Min Limit	2.85	2.85	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	3.003	3.016	0.013
1E+12	228	3.016	3.003	-0.013
1E+12	229	3.016	3.003	-0.013
0	231	2.991	3.003	0.013
	Max	3.016	3.016	0.013
	Average	3.006	3.006	0.000
	Min	2.991	3.003	-0.013
	Std Dev	0.012	0.006	0.015

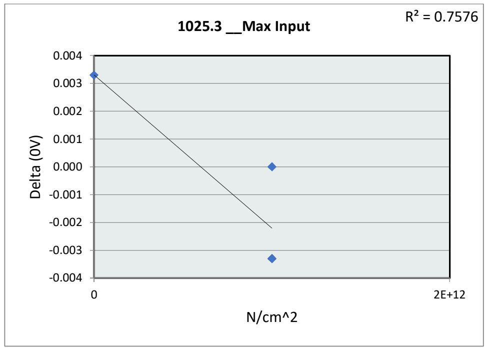


	1025.2 __Gain	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	3.15	0
Min Limit	2.85	0
N/cm^2	0	1E+12
LL	2.850	2.850
Min	3.003	3.003
Average	3.003	3.007
Max	3.003	3.016
UL	3.150	3.150

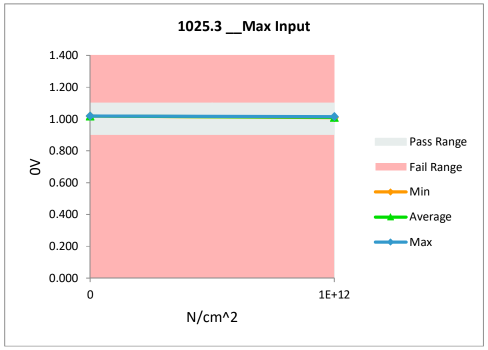


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1025.3 __Max Input		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	1.1	1.1	
	Min Limit	0.9	0.9	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	1.012	1.008	-0.003
1E+12	228	1.012	1.008	-0.003
1E+12	229	1.015	1.015	0.000
0	231	1.015	1.018	0.003
	Max	1.015	1.018	0.003
	Average	1.013	1.013	-0.001
	Min	1.012	1.008	-0.003
	Std Dev	0.002	0.005	0.003

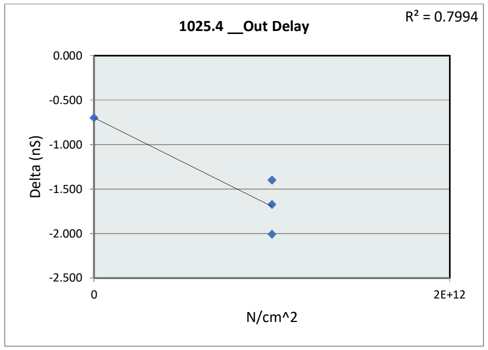


	1025.3 __Max Input	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	1.1	0V
Min Limit	0.9	0V
N/cm^2	0	1E+12
LL	0.900	0.900
Min	1.018	1.008
Average	1.018	1.011
Max	1.018	1.015
UL	1.100	1.100

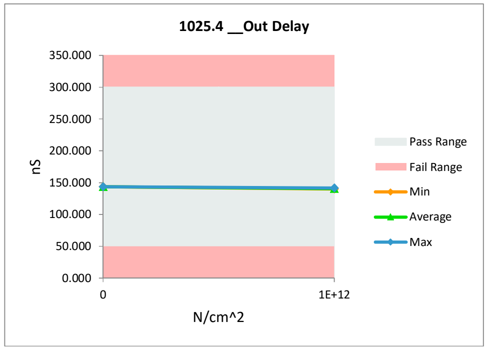


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1025.4 __Out Delay		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	nS	nS	
	Max Limit	300	300	
	Min Limit	50	50	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	142.411	140.404	-2.007
1E+12	228	143.220	141.547	-1.673
1E+12	229	141.476	140.078	-1.398
0	231	144.309	143.610	-0.699
	Max	144.309	143.610	-0.699
	Average	142.854	141.410	-1.444
	Min	141.476	140.078	-2.007
	Std Dev	1.204	1.596	0.555



	1025.4 __Out Delay	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	300	nS
Min Limit	50	nS
N/cm^2	0	1E+12
LL	50.000	50.000
Min	143.610	140.078
Average	143.610	140.676
Max	143.610	141.547
UL	300.000	300.000



NDD Report - Parametric Drift Graphs
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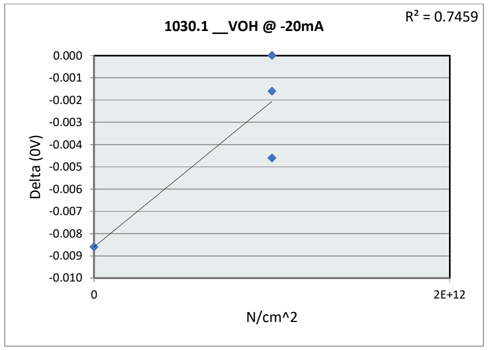
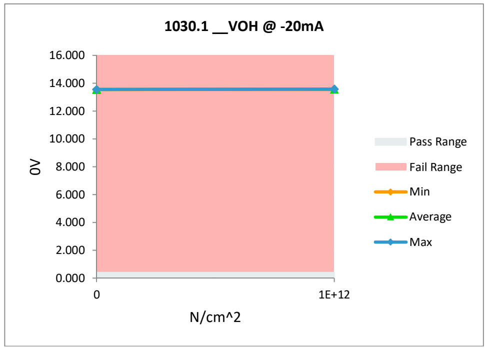
		1030.1 __VOH @ -20mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	0.4	0.4	
	Min Limit	0.01	0.01	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	13.569	13.565	-0.005
1E+12	228	13.559	13.558	-0.002
1E+12	229	13.569	13.569	0.000
0	231	13.554	13.546	-0.009
	Max	13.569	13.569	0.000
	Average	13.563	13.559	-0.004
	Min	13.554	13.546	-0.009
	Std Dev	0.007	0.010	0.004

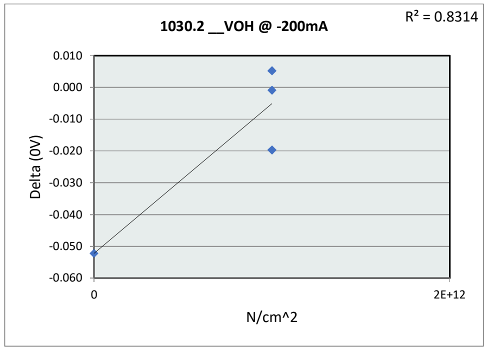


	1030.1 __VOH @ -20mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	0.4	0V
Min Limit	0.01	0V
N/cm^2	0	1E+12
LL	0.010	0.010
Min	13.546	13.558
Average	13.546	13.564
Max	13.546	13.569
UL	0.400	0.400

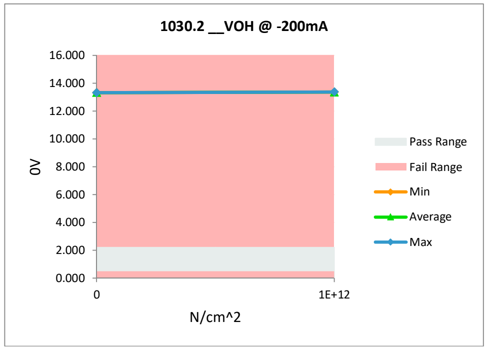


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.2 __VOH @ -200mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	2.2	2.2	
	Min Limit	0.5	0.5	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	13.383	13.363	-0.020
1E+12	228	13.368	13.373	0.005
1E+12	229	13.378	13.377	-0.001
0	231	13.376	13.324	-0.052
	Max	13.383	13.377	0.005
	Average	13.376	13.359	-0.017
	Min	13.368	13.324	-0.052
	Std Dev	0.006	0.024	0.026

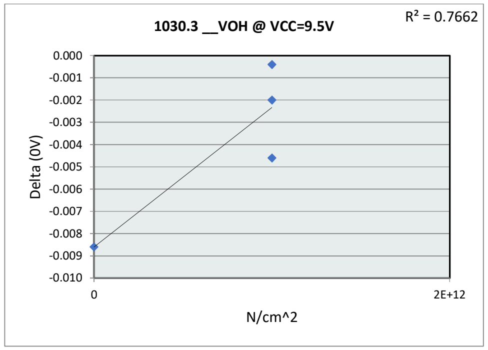


	1030.2 __VOH @ -200mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	2.2	0V
Min Limit	0.5	0V
N/cm^2	0	1E+12
LL	0.500	0.500
Min	13.324	13.363
Average	13.324	13.371
Max	13.324	13.377
UL	2.200	2.200

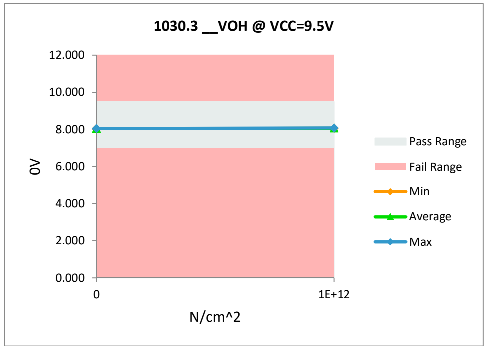


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.3 __VOH @ VCC=9.5V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	9.5	9.5	
	Min Limit	7	7	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	8.072	8.068	-0.005
1E+12	228	8.063	8.061	-0.002
1E+12	229	8.072	8.072	0.000
0	231	8.057	8.049	-0.009
	Max	8.072	8.072	0.000
	Average	8.066	8.062	-0.004
	Min	8.057	8.049	-0.009
	Std Dev	0.007	0.010	0.004



	1030.3 __VOH @ VCC=9.5V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	9.5	0V
Min Limit	7	0V
N/cm^2	0	1E+12
LL	7.000	7.000
Min	8.049	8.061
Average	8.049	8.067
Max	8.049	8.072
UL	9.500	9.500



NDD Report - Parametric Drift Graphs
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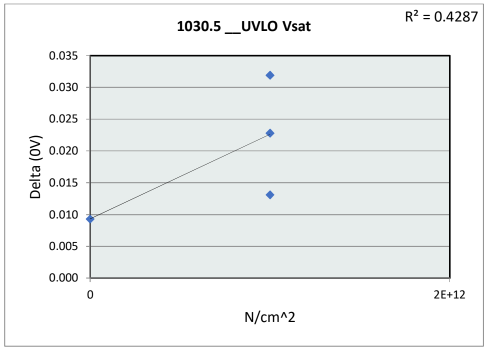
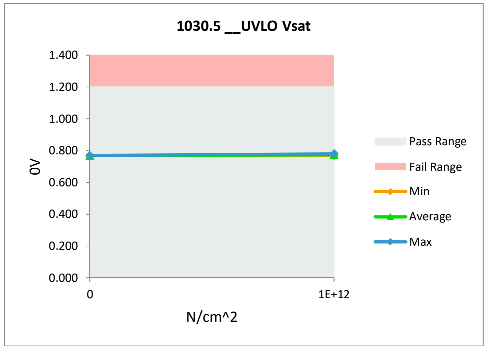
		1030.5 __UVLO Vsat		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	1.2	1.2	
	Min Limit	0.005	0.005	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	0.748	0.771	0.023
1E+12	228	0.767	0.780	0.013
1E+12	229	0.737	0.769	0.032
0	231	0.759	0.769	0.009
	Max	0.767	0.780	0.032
	Average	0.753	0.772	0.019
	Min	0.737	0.769	0.009
	Std Dev	0.013	0.005	0.010

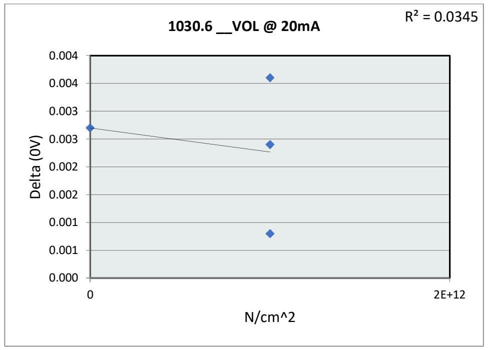


	1030.5 __UVLO Vsat	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	1.2	0V
Min Limit	0.005	0V
N/cm^2	0	1E+12
LL	0.005	0.005
Min	0.769	0.769
Average	0.769	0.773
Max	0.769	0.780
UL	1.200	1.200

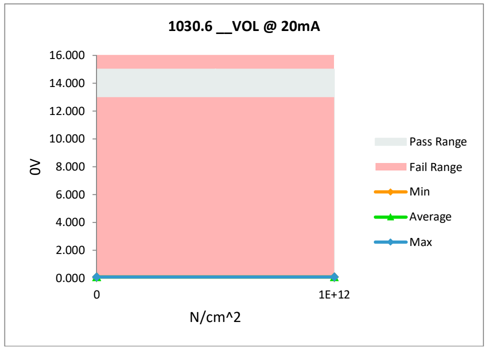


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.6 __VOL @ 20mA		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	15	15	
	Min Limit	13	13	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	0.073	0.077	0.004
1E+12	228	0.076	0.079	0.002
1E+12	229	0.077	0.078	0.001
0	231	0.074	0.077	0.003
	Max	0.077	0.079	0.004
	Average	0.075	0.078	0.002
	Min	0.073	0.077	0.001
	Std Dev	0.002	0.001	0.001

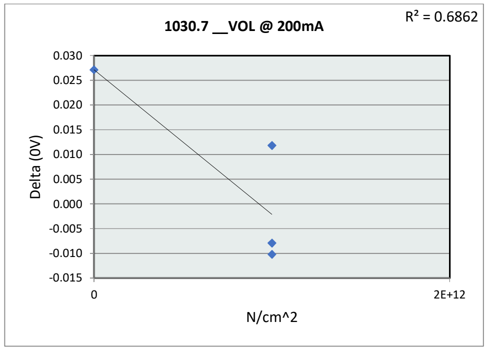


	1030.6 __VOL @ 20mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	15	0V
Min Limit	13	0V
N/cm^2	0	1E+12
LL	13.000	13.000
Min	0.077	0.077
Average	0.077	0.078
Max	0.077	0.079
UL	15.000	15.000

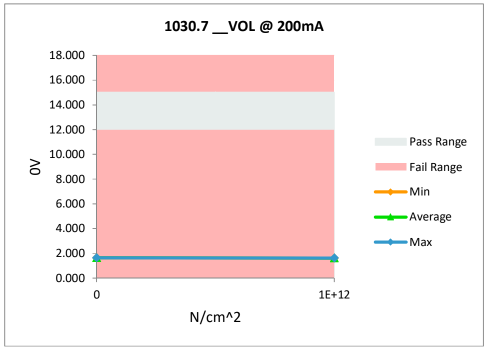


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.7 __VOL @ 200mA		
Test Site		Junkins Lab	Junkins Lab	
Tester		ETS364	ETS364	
Test Number		EF2301	EF2301	
Unit		0V	0V	
Max Limit		15	15	
Min Limit		12	12	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	1.610	1.622	0.012
1E+12	228	1.632	1.622	-0.010
1E+12	229	1.626	1.618	-0.008
0	231	1.615	1.642	0.027
	Max	1.632	1.642	0.027
	Average	1.621	1.626	0.005
	Min	1.610	1.618	-0.010
	Std Dev	0.010	0.011	0.018

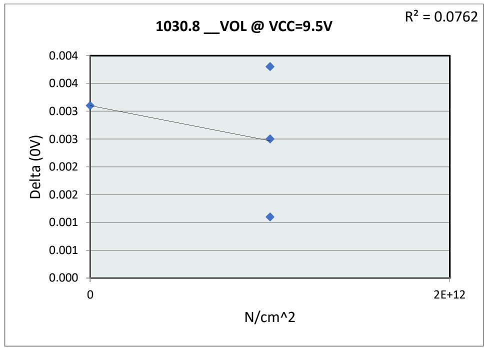


	1030.7 __VOL @ 200mA	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	15	0V
Min Limit	12	0V
N/cm^2	0	1E+12
LL	12.000	12.000
Min	1.642	1.618
Average	1.642	1.621
Max	1.642	1.622
UL	15.000	15.000

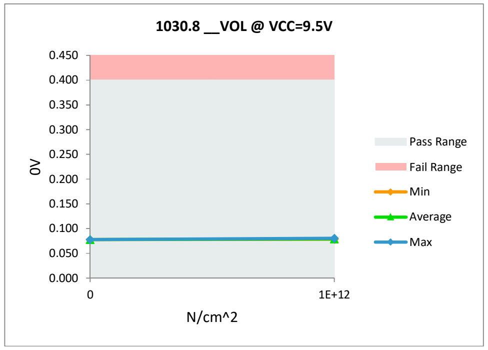


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.8 __VOL @ VCC=9.5V		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	0.4	0.4	
	Min Limit	0	0	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	0.074	0.078	0.004
1E+12	228	0.078	0.080	0.002
1E+12	229	0.078	0.079	0.001
0	231	0.075	0.078	0.003
	Max	0.078	0.080	0.004
	Average	0.076	0.079	0.003
	Min	0.074	0.078	0.001
	Std Dev	0.002	0.001	0.001

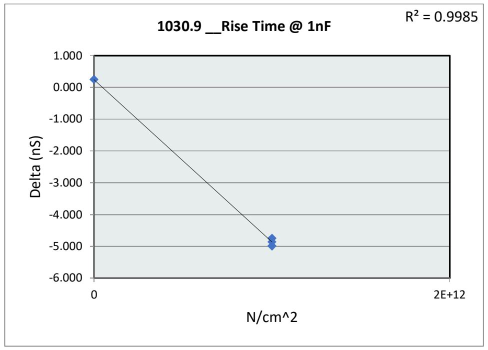


	1030.8 __VOL @ VCC=9.5V	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	0.4	0V
Min Limit	0	0V
N/cm^2	0	1E+12
LL	0.000	0.000
Min	0.078	0.078
Average	0.078	0.079
Max	0.078	0.080
UL	0.400	0.400

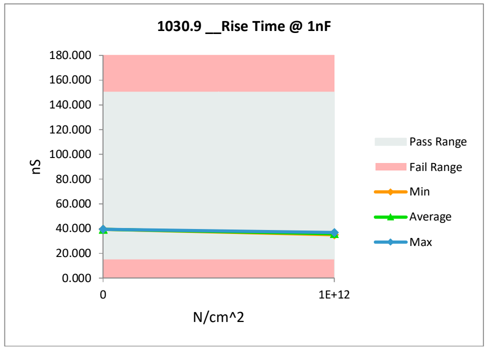


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.9 __Rise Time @ 1nF		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	nS	nS	
	Max Limit	150	150	
	Min Limit	15	15	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	41.588	36.730	-4.858
1E+12	228	39.893	34.908	-4.985
1E+12	229	40.485	35.738	-4.746
0	231	39.186	39.431	0.245
	Max	41.588	39.431	0.245
	Average	40.288	36.702	-3.586
	Min	39.186	34.908	-4.985
	Std Dev	1.016	1.966	2.556

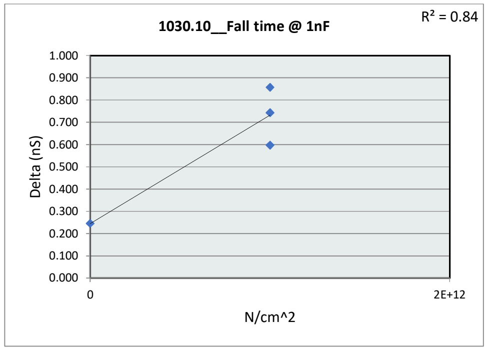


	1030.9 __Rise Time @ 1nF	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	150	nS
Min Limit	15	nS
N/cm^2	0	1E+12
LL	15.000	15.000
Min	39.431	34.908
Average	39.431	35.792
Max	39.431	36.730
UL	150.000	150.000

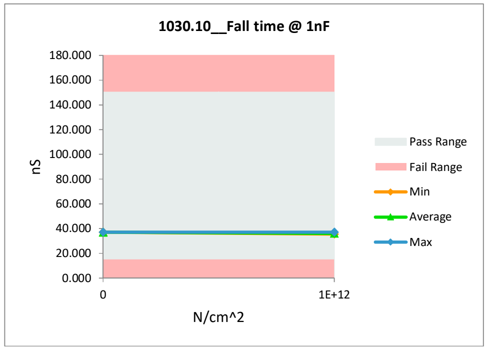


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.10__Fall time @ 1nF		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	nS	nS	
	Max Limit	150	150	
	Min Limit	15	15	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	35.233	35.976	0.743
1E+12	228	36.140	36.998	0.857
1E+12	229	34.939	35.536	0.597
0	231	36.784	37.029	0.245
	Max	36.784	37.029	0.857
	Average	35.774	36.385	0.611
	Min	34.939	35.536	0.245
	Std Dev	0.845	0.748	0.266

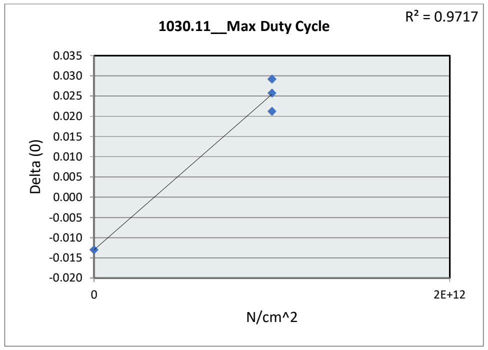


	1030.10__Fall time @ 1nF	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	150	nS
Min Limit	15	nS
N/cm^2	0	1E+12
LL	15.000	15.000
Min	37.029	35.537
Average	37.029	36.170
Max	37.029	36.998
UL	150.000	150.000

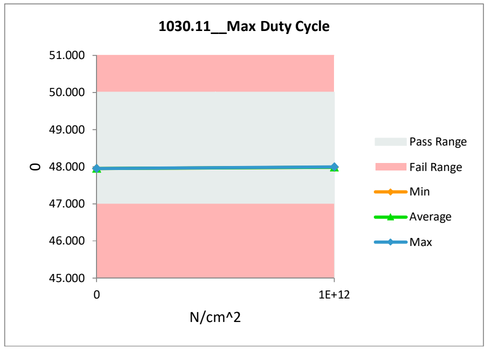


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.11__Max Duty Cycle		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0%	0%	
	Max Limit	50	50	
	Min Limit	47	47	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	47.966	47.987	0.021
1E+12	228	47.953	47.982	0.029
1E+12	229	47.970	47.996	0.026
0	231	47.968	47.955	-0.013
	Max	47.970	47.996	0.029
	Average	47.964	47.980	0.016
	Min	47.953	47.955	-0.013
	Std Dev	0.008	0.018	0.019

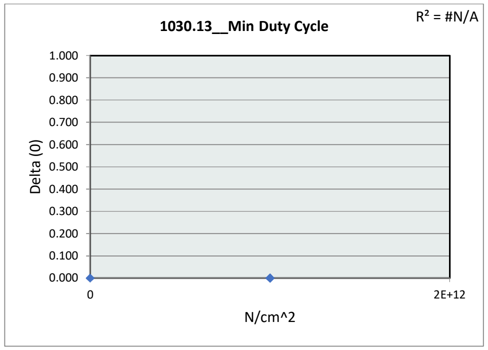


	1030.11__Max Duty Cycle	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	50	0%
Min Limit	47	0%
N/cm^2	0	1E+12
LL	47.000	47.000
Min	47.955	47.983
Average	47.955	47.989
Max	47.955	47.996
UL	50.000	50.000

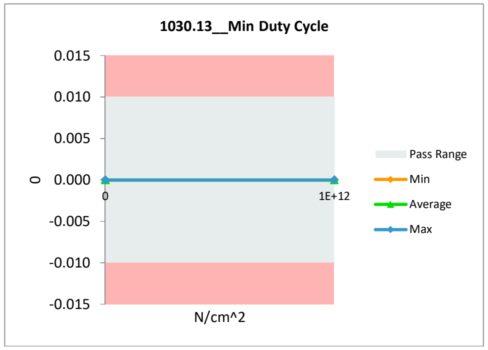


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1030.13__Min Duty Cycle		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0%	0%	
	Max Limit	0.01	0.01	
	Min Limit	-0.01	-0.01	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	0.000	0.000	0.000
1E+12	228	0.000	0.000	0.000
1E+12	229	0.000	0.000	0.000
0	231	0.000	0.000	0.000
	Max	0.000	0.000	0.000
	Average	0.000	0.000	0.000
	Min	0.000	0.000	0.000
	Std Dev	0.000	0.000	0.000

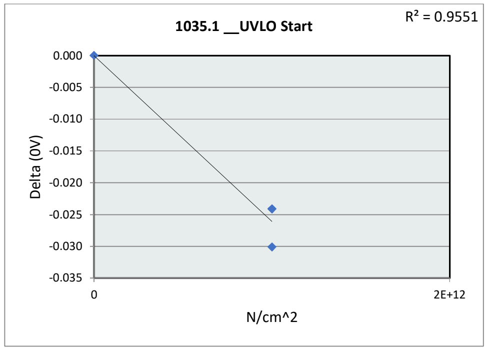


	1030.13__Min Duty Cycle	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	0.01	0%
Min Limit	-0.01	0%
N/cm^2	0	1E+12
LL	-0.010	-0.010
Min	0.000	0.000
Average	0.000	0.000
Max	0.000	0.000
UL	0.010	0.010

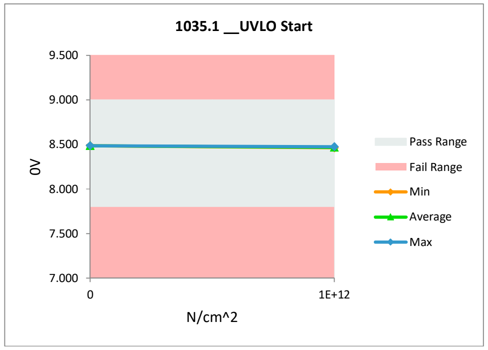


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1035.1 __UVLO Start		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	9	9	
	Min Limit	7.8	7.8	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	8.492	8.468	-0.024
1E+12	228	8.492	8.462	-0.030
1E+12	229	8.498	8.474	-0.024
0	231	8.486	8.486	0.000
	Max	8.498	8.486	0.000
	Average	8.492	8.472	-0.020
	Min	8.486	8.462	-0.030
	Std Dev	0.005	0.010	0.013

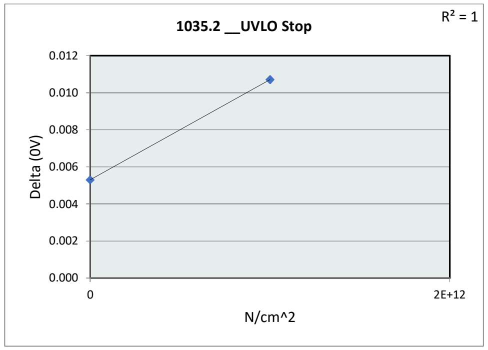


	1035.1 __UVLO Start	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	9	0V
Min Limit	7.8	0V
N/cm^2	0	1E+12
LL	7.800	7.800
Min	8.486	8.462
Average	8.486	8.468
Max	8.486	8.474
UL	9.000	9.000

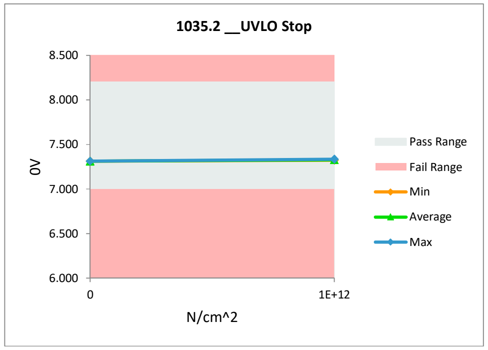


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1035.2 __UVLO Stop		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	8.2	8.2	
	Min Limit	7	7	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	7.323	7.333	0.011
1E+12	228	7.312	7.323	0.011
1E+12	229	7.317	7.328	0.011
0	231	7.307	7.312	0.005
	Max	7.323	7.333	0.011
	Average	7.315	7.324	0.009
	Min	7.307	7.312	0.005
	Std Dev	0.007	0.009	0.003

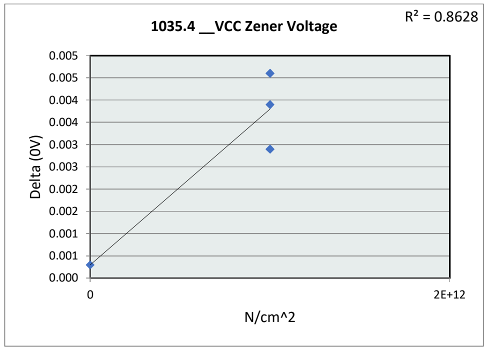


	1035.2 __UVLO Stop	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	8.2	0V
Min Limit	7	0V
N/cm^2	0	1E+12
LL	7.000	7.000
Min	7.312	7.323
Average	7.312	7.328
Max	7.312	7.333
UL	8.200	8.200

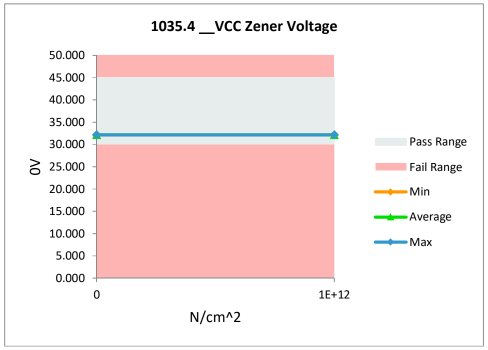


NDD Report - Parametric Drift Graphs
UC1845A-SP

		1035.4 __VCC Zener Voltage		
	Test Site	Junkins Lab	Junkins Lab	
	Tester	ETS364	ETS364	
	Test Number	EF2301	EF2301	
	Unit	0V	0V	
	Max Limit	45	45	
	Min Limit	30	30	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	227	32.130	32.134	0.004
1E+12	228	32.164	32.167	0.003
1E+12	229	32.148	32.152	0.005
0	231	32.156	32.156	0.000
	Max	32.164	32.167	0.005
	Average	32.150	32.152	0.003
	Min	32.130	32.134	0.000
	Std Dev	0.014	0.014	0.002



	1035.4 __VCC Zener Voltage	
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF2301	
Max Limit	45	0V
Min Limit	30	0V
N/cm^2	0	1E+12
LL	30.000	30.000
Min	32.156	32.134
Average	32.156	32.151
Max	32.156	32.167
UL	45.000	45.000



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