

UC1843A-SP NDD (Neutron Displacement Damage) Characterization



ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the UC1843A-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/cm². 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 for 5962P8670409VYC.

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1 Overview

The UC1843A-SP control IC is a radiation hardened pin-for-pin compatible version of the UC184x family. Providing the necessary characteristics to control current-mode switched-mode power supplies, this device has improved features. Start-up current is specified to be less than 0.5 mA and oscillator discharge is trimmed to 8.3 mA. During UVLO, the output stage can sink at least 10 mA at less than 1.2 V for V_{CC} over 5 V.

General device information and testing conditions are listed in [Table 1-1](#).

Table 1-1. Overview Information

TI Part Number	UC1843A-SP
Device Function	Current-mode PWM controller
Die Name	SMEXARC1843VRH
Technology	J1-PWR1
A/T Lot Number / Date Code	6006096MMT/1629A
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 UC1843A-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 UC1843A-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. UC1843A-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 1×10^{12} n/cm² (1-MeV 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 1×10^6 n/cm²-s. The maximum neutron fluence rate is approximately 1.0×10^{11} n/cm²-s (both values are 1-MeV 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/cm². 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.

The output voltage parameter was reduced after neutron exposure. This parameter is measured with tests 1010.1 and 1010.2. Test 1010.1 showed this parameter drifted downward from an average value of 4.981 V to an average value of 4.962 V. Test 1010.2 showed this parameter drifted downward from an average value of 4.985 V to 4.965 V.

The input bias current parameter was reduced after neutron exposure. This parameter is measured with tests 1020.6, 1020.7, and 1020.8. Test 1020.6 showed this parameter drifted downward from an average value of $-0.103 \mu\text{A}$ to $-0.694 \mu\text{A}$. Test 1020.7 showed downward drift from an average value of $-0.093 \mu\text{A}$ to $-0.612 \mu\text{A}$. Test 1020.8 showed downward drift from an average value of $-0.084 \mu\text{A}$ to $-0.541 \mu\text{A}$.

A Test Results: Parameters

Table A-1 provides the list of tested parameters.

Table A-1. Test List

$V_{CC} = 15\text{ V}^{(1)}$, $R_T = 10\text{ k}\Omega$, $C_T = 3.3\text{ nF}$, $T_A = T_J = -55^\circ\text{C}$ to 125°C (unless otherwise noted)

PARAMETERS	TEST CONDITIONS	UC1843A-SP DATA SHEET SLUSCI6A – DECEMBER 2016 – REVISED FEBRUARY 2019				TEST# OR NAME
		MIN	TYP	MAX	UNIT	
REFERENCE						
Output voltage	$T_J = 25^\circ\text{C}$, $I_O = 1\text{ mA}$	4.95	5	5.06	V	1010.1, 1010.2
Line regulation	$V_{IN} = 12\text{ to }25\text{ V}$		6	20	mV	1010.3
Load regulation	$I_O = 1\text{ to }20\text{ mA}$		6	25	mV	1010.4
Temperature stability ^{(2) (3)}			0.2	0.4	mV/°C	
Total output variation ⁽²⁾	Over line, load, and temperature	4.9		5.1	V	
Output noise voltage	$10\text{ Hz} \leq f \leq 10\text{ kHz}$, $T_J = 25^\circ\text{C}$		50		μV	1010.7
Long-term stability	1000 hours, $T_A = 125^\circ\text{C}^{(2)}$		5	25	mV	
Short-circuit output current		-30	-100	-180	mA	1010.6
OSCILLATOR						
Initial accuracy	$T_J = 25^\circ\text{C}^{(4)}$	47	52	57	kHz	1015.1, 1015.2
Voltage stability	$V_{CC} = 12\text{ to }25\text{ V}$		0.2%	1%		1015.3
Temperature stability	$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}^{(2)}$		5%			
Amplitude peak-to-peak	V pin 4 ⁽²⁾		1.7		V	1015.6
Discharge current	V pin 4 = $2\text{ V}^{(5)}$, $T_J = 25^\circ\text{C}$	7.8	8.3	8.8	mA	1015.7
ERROR AMPLIFIER						
Input voltage	$V_{Comp} = 2.5\text{ V}$	2.45	2.50	2.55	V	1020.1
Input bias current			-0.3	-1	μA	1020.6, 1020.7, 1020.8
Open-loop voltage gain	$V_O = 2\text{ to }4\text{ V}$	65	90		dB	1020.9
Unity-gain bandwidth	$T_J = 25^\circ\text{C}^{(2)}$	0.7	1		MHz	
PSRR	$V_{CC} = 12\text{ to }25\text{ V}$	60	70		dB	1020.10
Output sink current	$V_{FB} = 2.7\text{ V}$, $V_{Comp} = 1.1\text{ V}$	2	6		mA	1020.5
Output source current	$V_{FB} = 2.3\text{ V}$, $V_{Comp} = 5\text{ V}$	-0.5	-0.8		mA	1020.4
High-level output voltage	$V_{FB} = 2.3\text{ V}$, $R_L = 15\text{ k}\Omega$ to ground	5	6		V	1020.2
Low-level output voltage	$V_{FB} = 2.7\text{ V}$, $R_L = 15\text{ k}\Omega$ to V_{REF}		0.7	1.1	V	1020.3
CURRENT SENSE						
Gain ^{(6) (7)}		2.85	3	3.15	V/V	1025.2
Maximum input signal	$V_{Comp} = 5\text{ V}^{(6)}$	0.9	1	1.1	V	1025.3
PSRR	$V_{CC} = 12\text{ to }25\text{ V}^{(6)}$		70		dB	1020.10
Input bias current			-2	-10	μA	1025.1
Delay to output	$V_{ISENSE} = 0\text{ to }2\text{ V}^{(2)}$		150	300	ns	1025.4

Table A-1. Test List (continued)
 $V_{CC} = 15\text{ V}^{(1)}$, $R_T = 10\text{ k}\Omega$, $C_T = 3.3\text{ nF}$, $T_A = T_J = -55^\circ\text{C}$ to 125°C (unless otherwise noted)

PARAMETERS	TEST CONDITIONS	UC1843A-SP DATA SHEET SLUSCI6A – DECEMBER 2016 – REVISED FEBRUARY 2019				TEST# OR NAME
		MIN	TYP	MAX	UNIT	
OUTPUT						
Output low-level voltage	$I_{SINK} = 20\text{ mA}$		0.1	0.4	V	1030.6
	$I_{SINK} = 200\text{ mA}$		1.5	2.2		1030.7
Output high-level voltage	$I_{SOURCE} = -20\text{ mA}$	13	13.5		V	1030.1
	$I_{SOURCE} = -200\text{ mA}$	12	13.5			1030.2
Rise time	$C_L = 1\text{ nF}$, $T_J = 25^\circ\text{C}^{(2)}$		50	150	ns	1030.9
Fall time	$C_L = 1\text{ nF}$, $T_J = 25^\circ\text{C}^{(2)}$		50	150	ns	1030.10
UVLO saturation	$V_{CC} = 5\text{ V}$, $I_{SINK} = 10\text{ mA}$		0.7	1.2	V	1030.5
UNDERVOLTAGE LOCKOUT						
Start threshold		7.8	8.4	9	V	1035.1
Minimum operation voltage after turnon		7	7.6	8.2	V	1035.2
PWM						
Maximum duty cycle		94%	96%	100%		1030.11, 1030.12
Minimum duty cycle				0%		1030.13
TOTAL STANDBY CURRENT						
Start-up current			0.3	0.5	mA	1005.1
Operating supply current	$V_{FB} = V_{ISENSE} = 0\text{ V}$		11	17	mA	1005.2, 1005.3
V_{CC} Zener voltage	$I_{CC} = 25\text{ mA}$	30	34		V	1035.4

- (1) Adjust V_{CC} above the start threshold before setting at 15 V.
- (2) Parameters ensured by design and/or characterization, if not production tested.
- (3) 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.
- (4) Output frequency equals oscillator frequency for the UC1842A-SP and UC1843A-SP.
- (5) This parameter is measured with $R_T = 10\text{ k}\Omega$ 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.
- (6) Parameter measured at trip point of latch with $V_{FB} = 0\text{ V}$.
- (7) Gain defined as: $G = \Delta V_{Comp} / \Delta V_{ISENSE}$; $V_{ISENSE} = 0$ to 0.8 V.

B Test Results: NDD Data

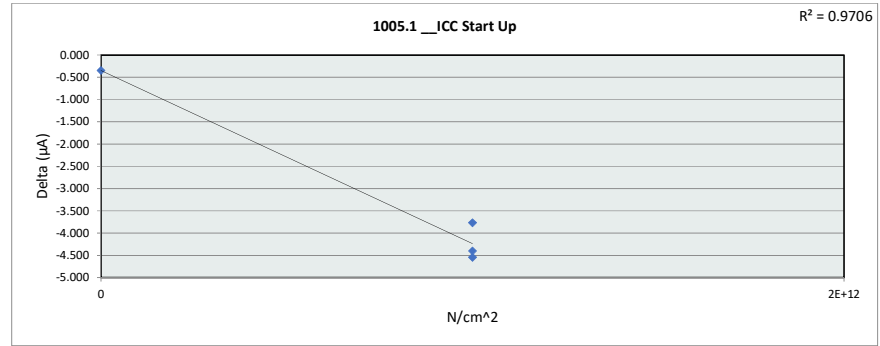
[Appendix B](#) shows the detailed test results.

NDD Report - Parametric Drift Graphs

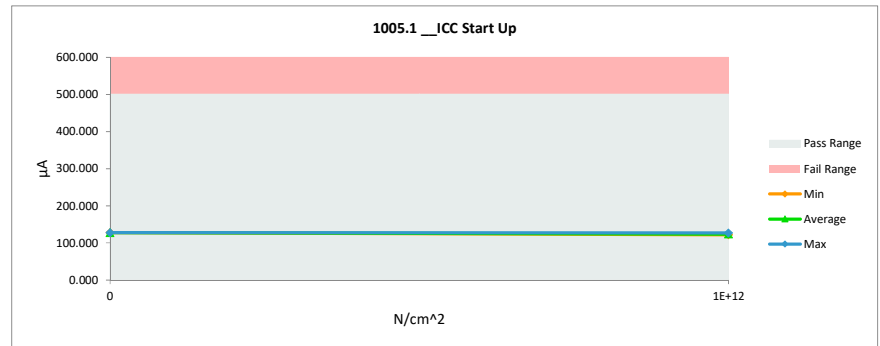
UC1843A-SP

NDD Report - Parametric Drift Graphs UC1843A-SP

1005.1 __ICC Start Up				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	µA		µA	
Max Limit	500		500	
Min Limit	0		0	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	127.332	122.787	-4.545
1E+12	231	130.379	126.613	-3.766
1E+12	232	126.523	122.120	-4.402
0	233	127.961	127.615	-0.346
	Max	130.379	127.615	-0.346
	Average	128.049	124.784	-3.265
	Min	126.523	122.120	-4.545
	Std Dev	1.661	2.735	1.975

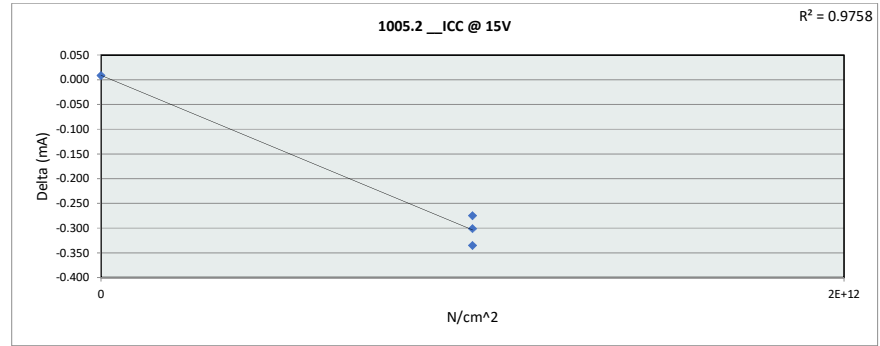


1005.1 __ICC Start Up		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	500	µA
Min Limit	0	µA
N/cm^2	0	1E+12
LL	0.000	0.000
Min	127.615	122.120
Average	127.615	123.840
Max	127.615	126.613
UL	500.000	500.000

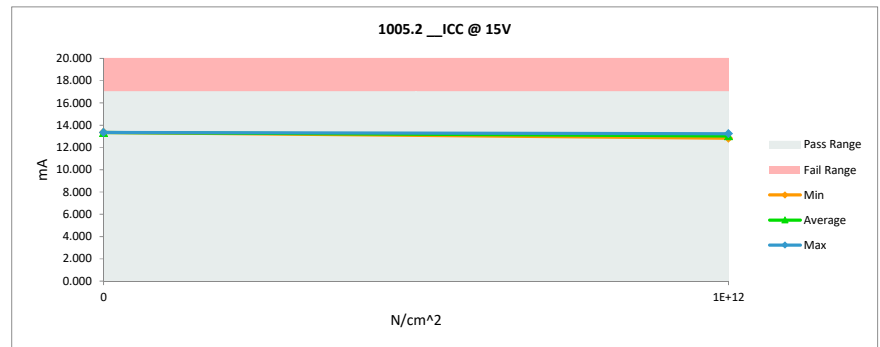


NDD Report - Parametric Drift Graphs UC1843A-SP

1005.2 __ ICC @ 15V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mA		mA	
Max Limit	17		17	
Min Limit	0		0	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	13.327	13.026	-0.301
1E+12	231	13.517	13.243	-0.275
1E+12	232	13.168	12.833	-0.335
0	233	13.340	13.349	0.009
	Max	13.517	13.349	0.009
	Average	13.338	13.113	-0.226
	Min	13.168	12.833	-0.335
	Std Dev	0.143	0.230	0.158

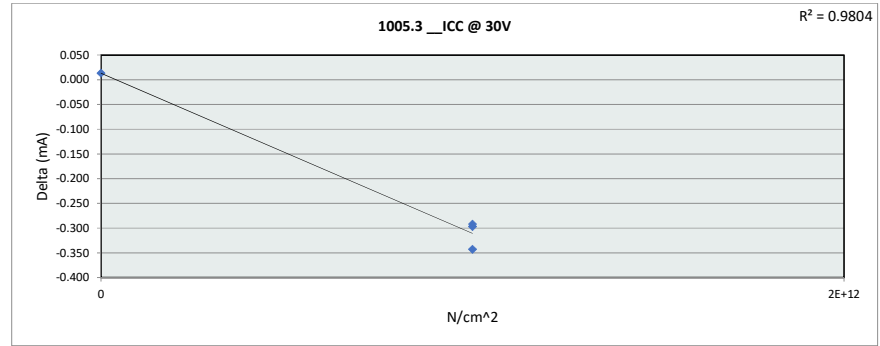


1005.2 __ ICC @ 15V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	17	mA
Min Limit	0	mA
N/cm^2	0	1E+12
LL	0.000	0.000
Min	13.349	12.833
Average	13.349	13.034
Max	13.349	13.243
UL	17.000	17.000

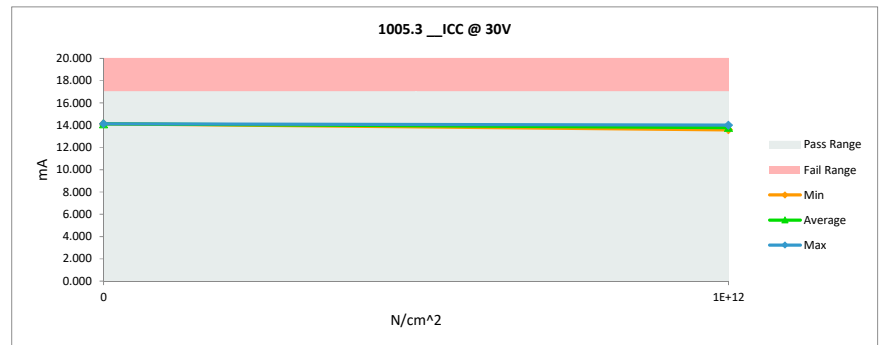


NDD Report - Parametric Drift Graphs UC1843A-SP

1005.3 ICC @ 30V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mA		mA	
Max Limit	17		17	
Min Limit	0		0	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	14.083	13.786	-0.297
1E+12	231	14.287	13.995	-0.292
1E+12	232	13.933	13.590	-0.343
0	233	14.100	14.113	0.013
	Max	14.287	14.113	0.013
	Average	14.101	13.871	-0.230
	Min	13.933	13.590	-0.343
	Std Dev	0.145	0.231	0.163

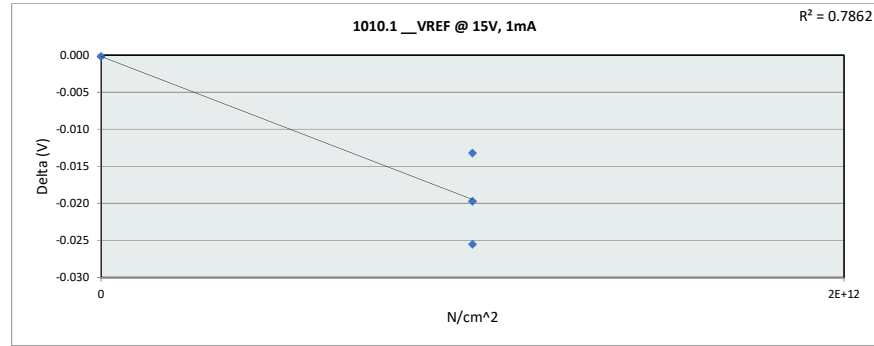


1005.3 ICC @ 30V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	17	mA
Min Limit	0	mA
N/cm ²	0	1E+12
LL	0.000	0.000
Min	14.114	13.590
Average	14.114	13.790
Max	14.114	13.995
UL	17.000	17.000

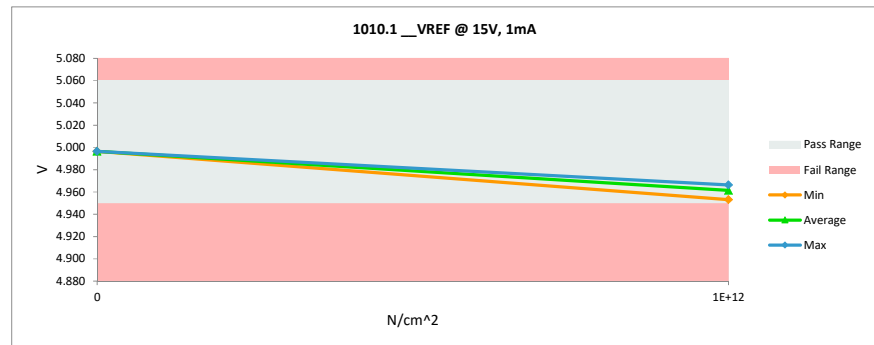


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.1_VREF @ 15V, 1mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	5.06		5.06	
Min Limit	4.95		4.95	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	4.986	4.966	-0.020
1E+12	231	4.966	4.953	-0.013
1E+12	232	4.991	4.965	-0.026
0	233	4.997	4.997	0.000
	Max	4.997	4.997	0.000
	Average	4.985	4.970	-0.015
	Min	4.966	4.953	-0.026
	Std Dev	0.013	0.019	0.011

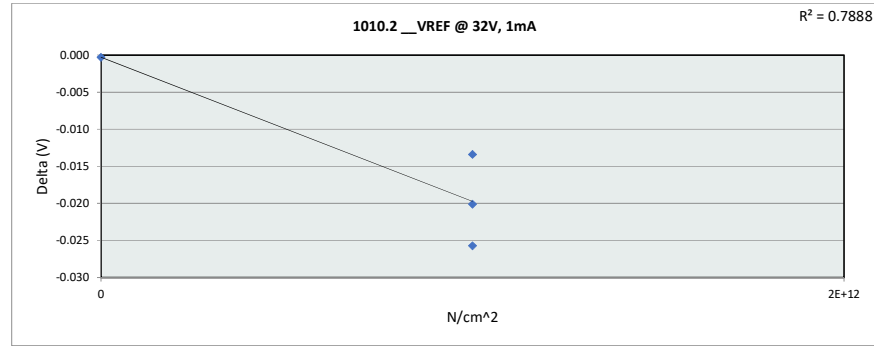


1010.1_VREF @ 15V, 1mA				
Test Site	Junkins Lab			
Tester	ETS364			
Test Number	EF230103			
Max Limit	5.06	V		
Min Limit	4.95	V		
N/cm ²	0	1E+12		
LL	4.950	4.950		
Min	4.997	4.953		
Average	4.997	4.962		
Max	4.997	4.966		
UL	5.060	5.060		

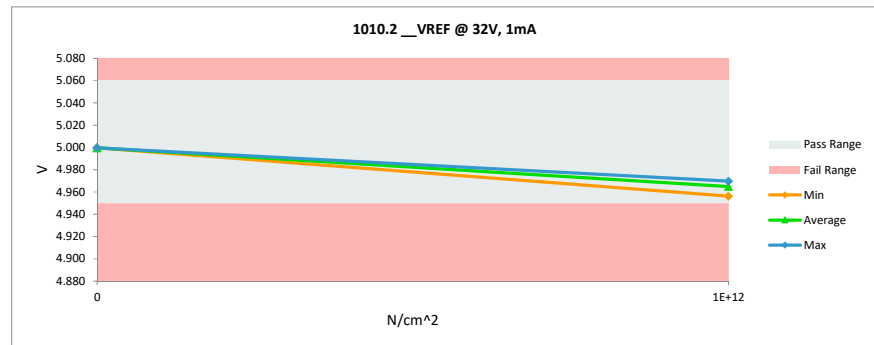


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.2_VREF @ 32V, 1mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	5.06		5.06	
Min Limit	4.95		4.95	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	4.990	4.970	-0.020
1E+12	231	4.970	4.956	-0.013
1E+12	232	4.995	4.969	-0.026
0	233	5.000	5.000	0.000
Max		5.000	5.000	0.000
Average		4.988	4.974	-0.015
Min		4.970	4.956	-0.026
Std Dev		0.013	0.018	0.011

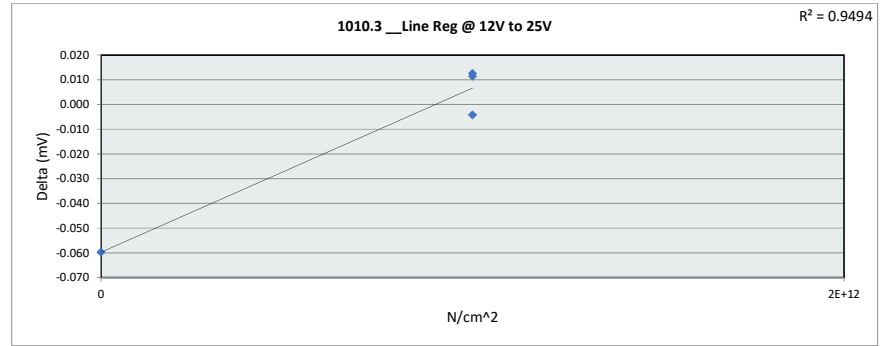


1010.2_VREF @ 32V, 1mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	5.06	V
Min Limit	4.95	V
N/cm ²	0	1E+12
LL	4.950	4.950
Min	5.000	4.956
Average	5.000	4.965
Max	5.000	4.970
UL	5.060	5.060

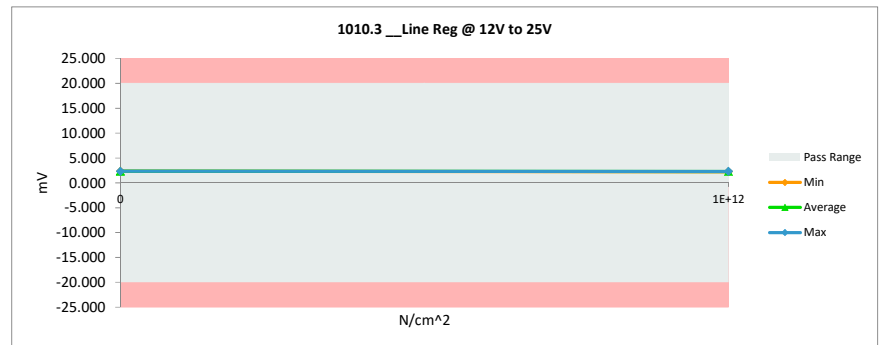


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.3 Line Reg @ 12V to 25V				
Test Site	Junkins Lab	Junkins Lab		
Tester	ETS364	ETS364		
Test Number	EF230103	EF230103		
Unit	mV	mV		
Max Limit	20	20		
Min Limit	-20	-20		
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	2.321	2.317	-0.004
1E+12	231	2.303	2.315	0.011
1E+12	232	2.225	2.237	0.013
0	233	2.391	2.331	-0.060
	Max	2.391	2.331	0.013
	Average	2.310	2.300	-0.010
	Min	2.225	2.237	-0.060
	Std Dev	0.068	0.042	0.034

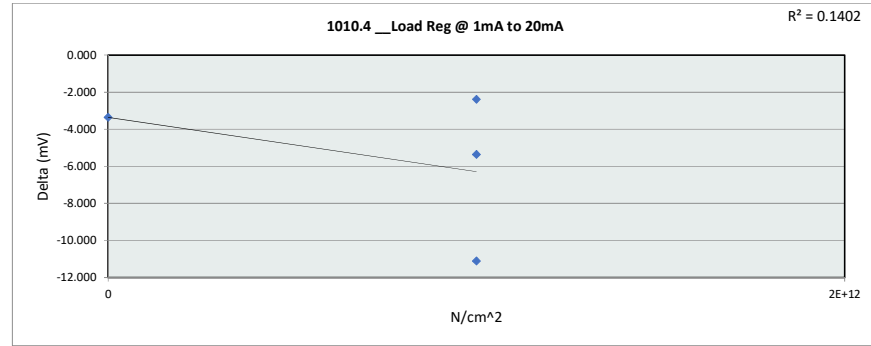


1010.3 Line Reg @ 12V to 25V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	20	mV
Min Limit	-20	mV
N/cm ²	0	1E+12
LL	-20.000	-20.000
Min	2.331	2.238
Average	2.331	2.290
Max	2.331	2.317
UL	20.000	20.000

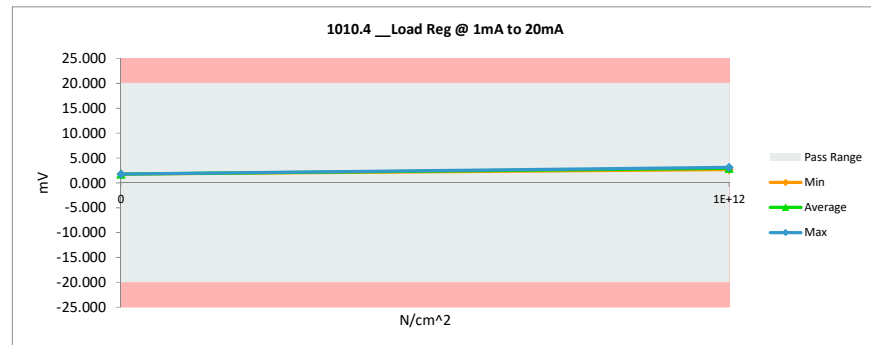


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.4 __ Load Reg @ 1mA to 20mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mV		mV	
Max Limit	20		20	
Min Limit	-20		-20	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	8.448	3.093	-5.355
1E+12	231	14.108	3.002	-11.106
1E+12	232	5.032	2.641	-2.391
0	233	5.110	1.748	-3.362
	Max	14.108	3.093	-2.391
	Average	8.175	2.621	-5.553
	Min	5.032	1.748	-11.106
	Std Dev	4.264	0.614	3.902

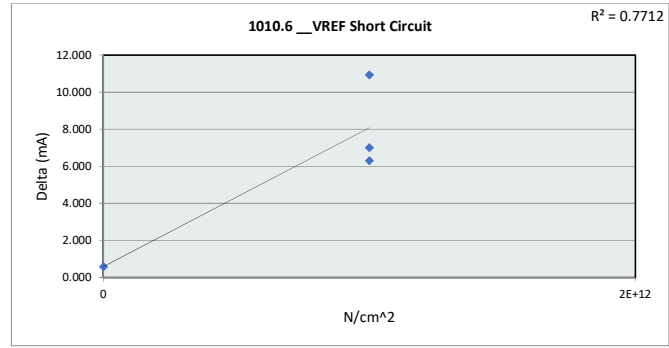


1010.4 __ Load Reg @ 1mA to 20mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	20	mV
Min Limit	-20	mV
N/cm^2	0	1E+12
LL	-20.000	-20.000
Min	1.748	2.641
Average	1.748	2.912
Max	1.748	3.093
UL	20.000	20.000

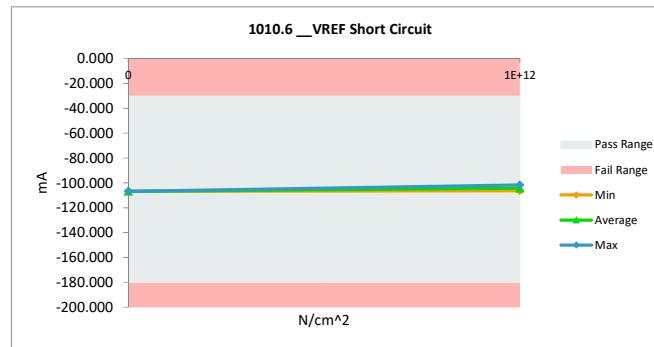


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.6 __VREF Short Circuit				
Test Site	Junkins Lab	Junkins Lab		
Tester	ETS364	ETS364		
Test Number	EF230103	EF230103		
Unit	mA	mA		
Max Limit	-30	-30		
Min Limit	-180	-180		
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	-112.633	-106.337	6.296
1E+12	231	-112.580	-101.649	10.931
1E+12	232	-111.962	-104.955	7.006
0	233	-107.307	-106.714	0.592
	Max	-107.307	-101.649	10.931
	Average	-111.120	-104.914	6.206
	Min	-112.633	-106.714	0.592
	Std Dev	2.561	2.304	4.262

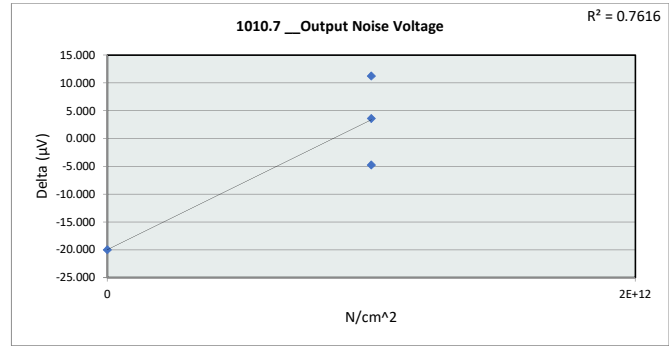


1010.6 __VREF Short Circuit		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	-30	mA
Min Limit	-180	mA
N/cm^2	0	1E+12
LL	-180.000	-180.000
Min	-106.714	-106.337
Average	-106.714	-104.314
Max	-106.714	-101.649
UL	-30.000	-30.000

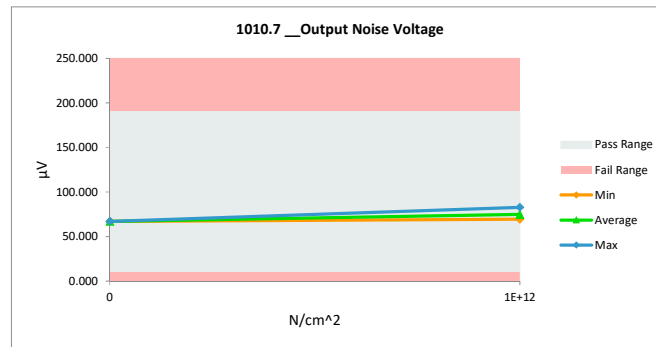


NDD Report - Parametric Drift Graphs UC1843A-SP

1010.7 __Output Noise Voltage				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	µV		µV	
Max Limit	190		190	
Min Limit	10		10	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	68.584	72.184	3.600
1E+12	231	71.389	82.623	11.234
1E+12	232	74.098	69.329	-4.769
0	233	86.921	66.913	-20.008
	Max	86.921	82.623	11.234
	Average	75.248	72.762	-2.486
	Min	68.584	66.913	-20.008
	Std Dev	8.101	6.918	13.385

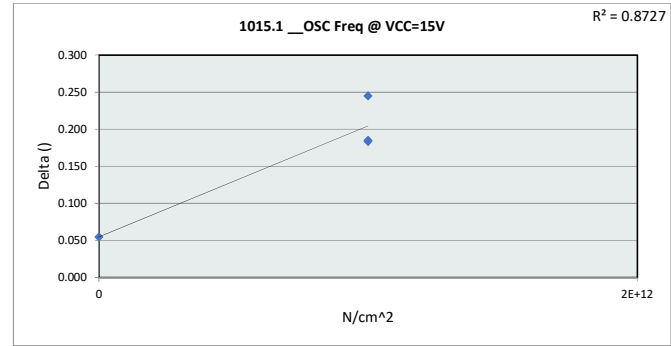


1010.7 __Output Noise Voltage		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	190	µV
Min Limit	10	µV
N/cm^2	0	1E+12
LL	10.000	10.000
Min	66.913	69.329
Average	66.913	74.712
Max	66.913	82.623
UL	190.000	190.000

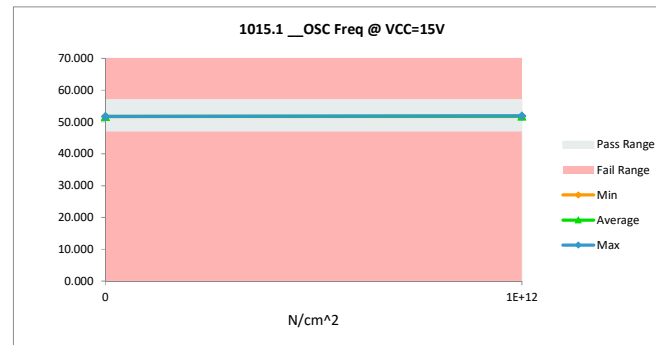


NDD Report - Parametric Drift Graphs UC1843A-SP

1015.1 __ OSC Freq @ VCC=15V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit				
Max Limit	57		57	
Min Limit	47		47	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	51.735	51.919	0.184
1E+12	231	51.543	51.728	0.185
1E+12	232	51.675	51.920	0.245
0	233	51.657	51.711	0.055
	Max	51.735	51.920	0.245
	Average	51.652	51.819	0.167
	Min	51.543	51.711	0.055
	Std Dev	0.081	0.116	0.080

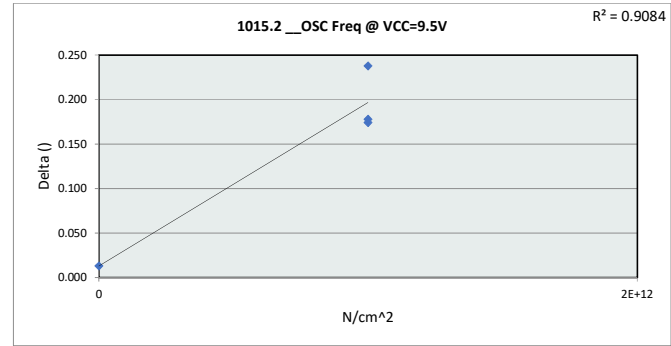


1015.1 __ OSC Freq @ VCC=15V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	57	
Min Limit	47	
N/cm^2	0	1E+12
LL	47.000	47.000
Min	51.711	51.728
Average	51.711	51.855
Max	51.711	51.920
UL	57.000	57.000

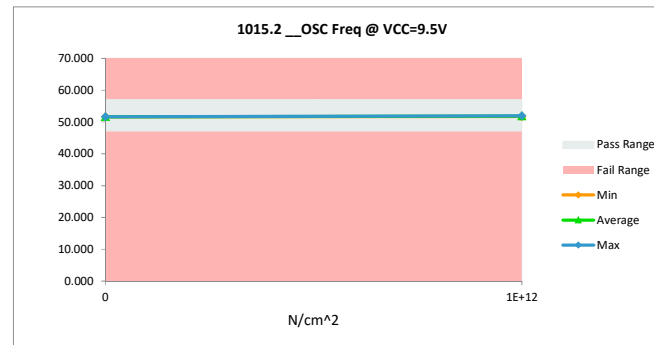


NDD Report - Parametric Drift Graphs UC1843A-SP

1015.2 __ OSC Freq @ VCC=9.5V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit				
Max Limit	57		57	
Min Limit	47		47	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	51.767	51.945	0.178
1E+12	231	51.550	51.724	0.174
1E+12	232	51.688	51.926	0.238
0	233	51.671	51.684	0.013
	Max	51.767	51.945	0.238
	Average	51.669	51.820	0.151
	Min	51.550	51.684	0.013
	Std Dev	0.090	0.135	0.096

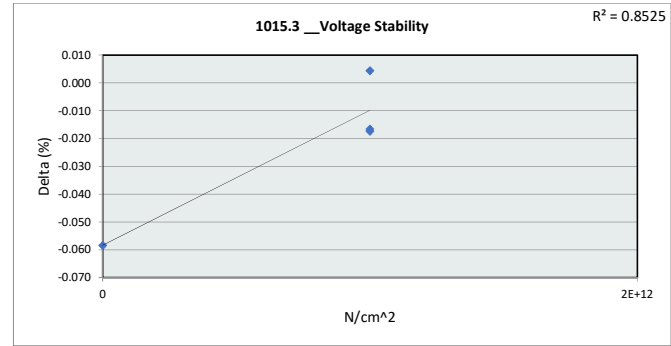


1015.2 __ OSC Freq @ VCC=9.5V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	57	
Min Limit	47	
N/cm^2	0	1E+12
LL	47.000	47.000
Min	51.684	51.725
Average	51.684	51.865
Max	51.684	51.945
UL	57.000	57.000

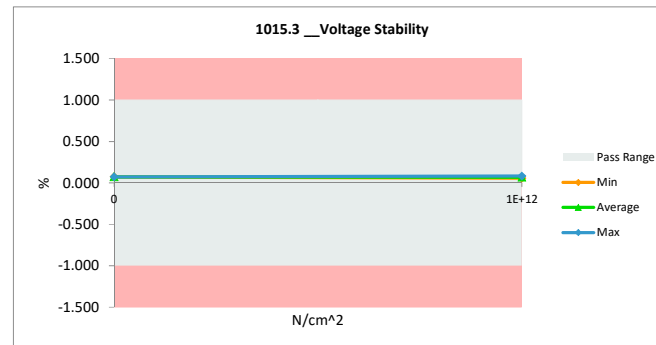


NDD Report - Parametric Drift Graphs UC1843A-SP

1015.3 Voltage Stability				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	%		%	
Max Limit	1		1	
Min Limit	-1		-1	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	0.078	0.082	0.004
1E+12	231	0.074	0.057	-0.017
1E+12	232	0.084	0.066	-0.017
0	233	0.132	0.073	-0.058
	Max	0.132	0.082	0.004
	Average	0.092	0.070	-0.022
	Min	0.074	0.057	-0.058
	Std Dev	0.027	0.011	0.026

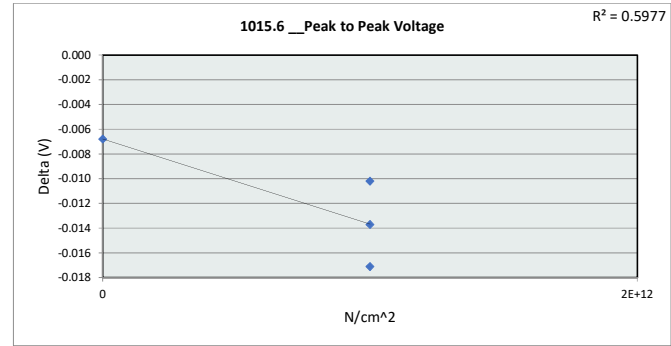


1015.3 Voltage Stability		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	1	%
Min Limit	-1	%
N/cm ²	0	1E+12
LL	-1.000	-1.000
Min	0.073	0.057
Average	0.073	0.068
Max	0.073	0.082
UL	1.000	1.000

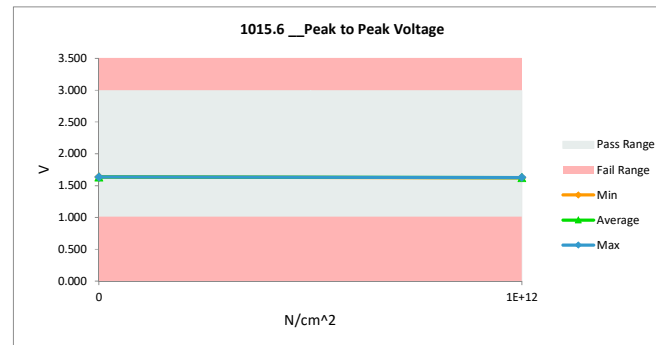


NDD Report - Parametric Drift Graphs UC1843A-SP

1015.6 Peak to Peak Voltage				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	2.989		2.989	
Min Limit	1.011		1.011	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	1.639	1.622	-0.017
1E+12	231	1.639	1.628	-0.010
1E+12	232	1.635	1.622	-0.014
0	233	1.642	1.635	-0.007
	Max	1.642	1.635	-0.007
	Average	1.639	1.627	-0.012
	Min	1.635	1.622	-0.017
	Std Dev	0.003	0.007	0.004

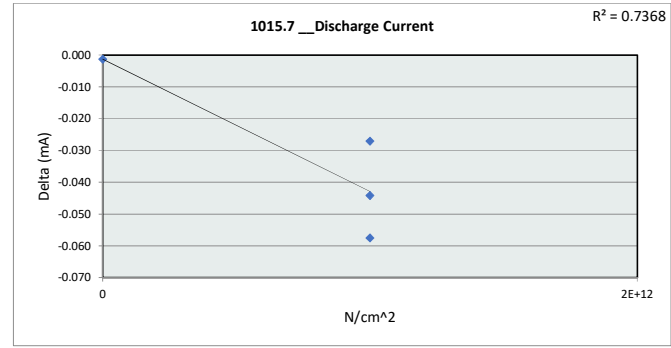


1015.6 Peak to Peak Voltage		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	2.989	V
Min Limit	1.011	V
N/cm ²	0	1E+12
LL	1.011	1.011
Min	1.635	1.622
Average	1.635	1.624
Max	1.635	1.629
UL	2.989	2.989

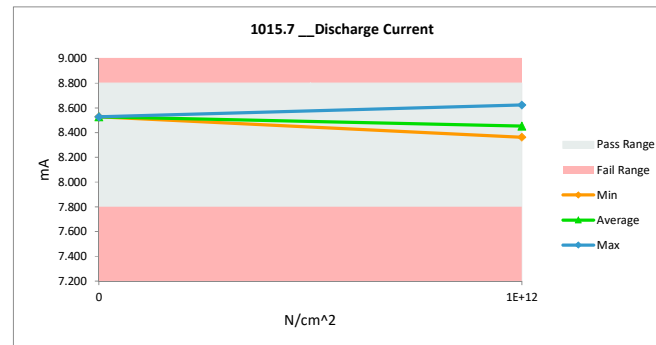


NDD Report - Parametric Drift Graphs UC1843A-SP

1015.7 Discharge Current				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mA		mA	
Max Limit	8.8		8.8	
Min Limit	7.8		7.8	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	8.667	8.623	-0.044
1E+12	231	8.400	8.373	-0.027
1E+12	232	8.419	8.362	-0.057
0	233	8.528	8.527	-0.001
	Max	8.667	8.623	-0.001
	Average	8.504	8.471	-0.033
	Min	8.400	8.362	-0.057
	Std Dev	0.123	0.126	0.024

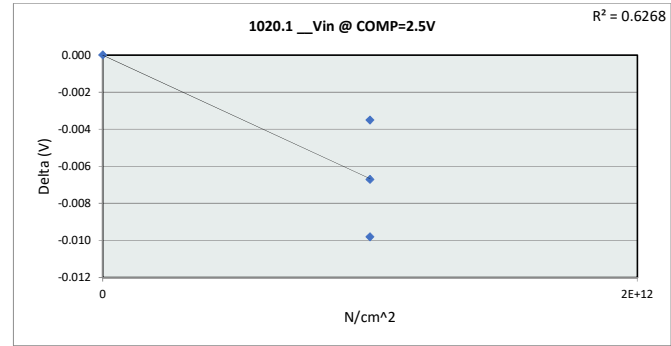


1015.7 Discharge Current		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	8.8	mA
Min Limit	7.8	mA
N/cm ²	0	1E+12
LL	7.800	7.800
Min	8.527	8.362
Average	8.527	8.453
Max	8.527	8.623
UL	8.800	8.800

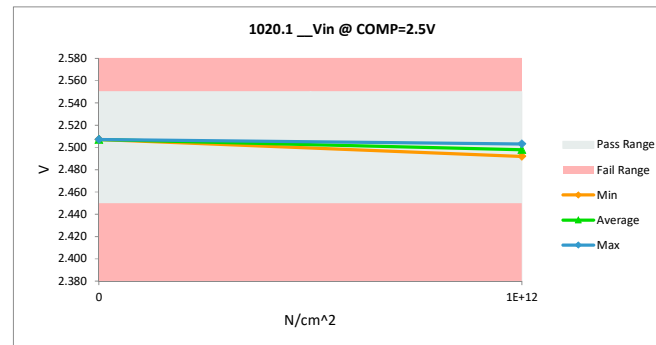


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.1 __Vin @ COMP=2.5V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	2.55		2.55	
Min Limit	2.45		2.45	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	2.510	2.503	-0.007
1E+12	231	2.496	2.492	-0.003
1E+12	232	2.509	2.499	-0.010
0	233	2.507	2.507	0.000
	Max	2.510	2.507	0.000
	Average	2.505	2.500	-0.005
	Min	2.496	2.492	-0.010
	Std Dev	0.007	0.007	0.004

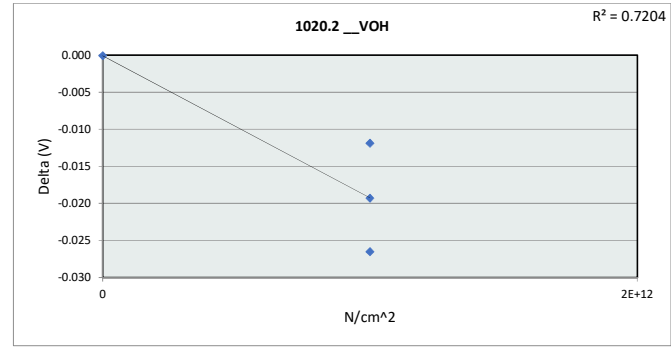


1020.1 __Vin @ COMP=2.5V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	2.55	V
Min Limit	2.45	V
N/cm^2	0	1E+12
LL	2.450	2.450
Min	2.507	2.492
Average	2.507	2.498
Max	2.507	2.503
UL	2.550	2.550

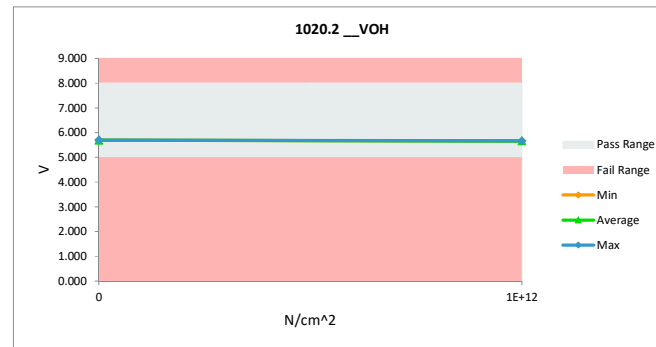


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.2_VOH				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	8		8	
Min Limit	5		5	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	5.683	5.664	-0.019
1E+12	231	5.671	5.659	-0.012
1E+12	232	5.689	5.662	-0.027
0	233	5.696	5.696	0.000
	Max	5.696	5.696	0.000
	Average	5.685	5.670	-0.014
	Min	5.671	5.659	-0.027
	Std Dev	0.011	0.017	0.011

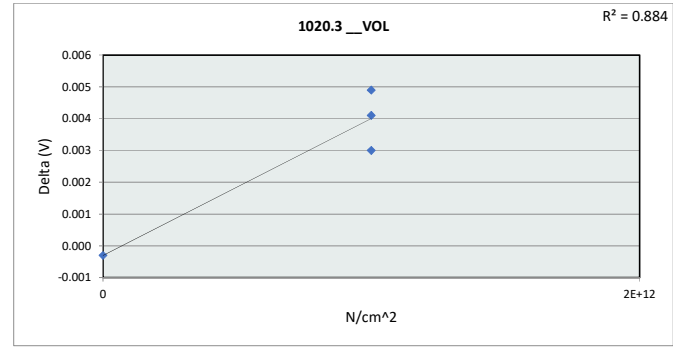


1020.2_VOH		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	8	V
Min Limit	5	V
N/cm^2	0	1E+12
LL	5.000	5.000
Min	5.696	5.659
Average	5.696	5.662
Max	5.696	5.664
UL	8.000	8.000

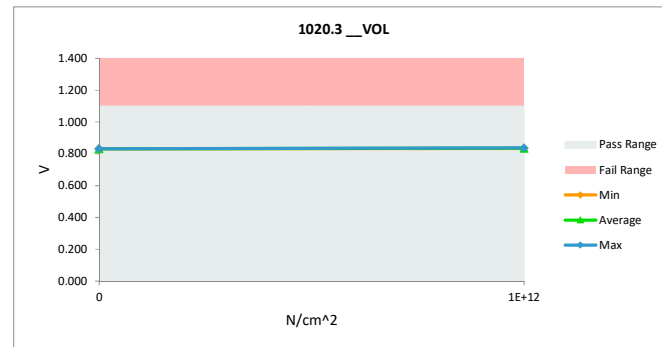


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.3 VOL				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	1.1		1.1	
Min Limit	0		0	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	0.833	0.837	0.004
1E+12	231	0.830	0.835	0.005
1E+12	232	0.832	0.835	0.003
0	233	0.832	0.832	0.000
	Max	0.833	0.837	0.005
	Average	0.832	0.834	0.003
	Min	0.830	0.832	0.000
	Std Dev	0.001	0.002	0.002

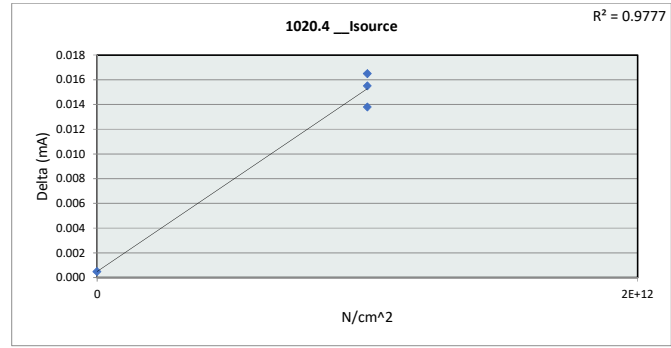


1020.3 VOL		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	1.1	V
Min Limit	0	V
N/cm ²	0	1E+12
LL	0.000	0.000
Min	0.832	0.835
Average	0.832	0.835
Max	0.832	0.837
UL	1.100	1.100

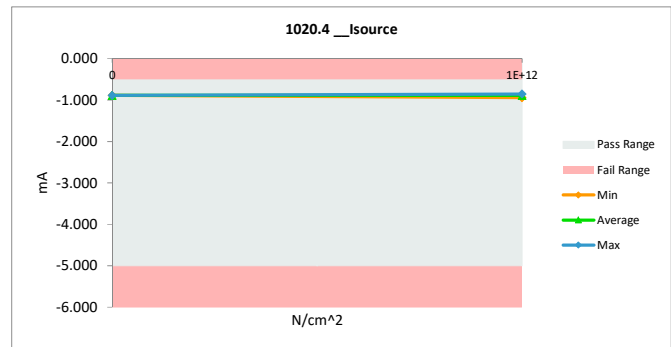


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.4 _Isource				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mA		mA	
Max Limit	-0.5		-0.5	
Min Limit	-5		-5	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	-0.887	-0.871	0.016
1E+12	231	-0.959	-0.945	0.014
1E+12	232	-0.874	-0.858	0.016
0	233	-0.892	-0.891	0.001
	Max	-0.874	-0.858	0.016
	Average	-0.903	-0.891	0.012
	Min	-0.959	-0.945	0.014
	Std Dev	0.038	0.038	0.007

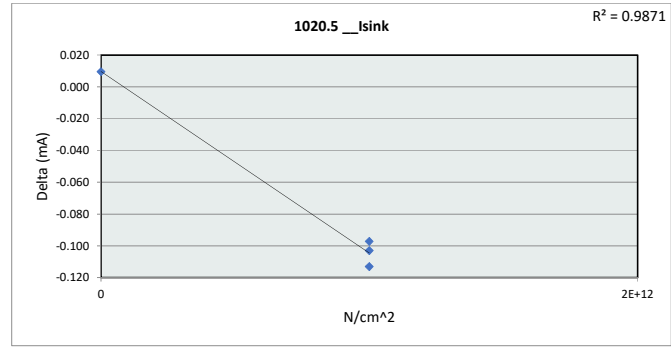


1020.4 _Isource		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	-0.5	mA
Min Limit	-5	mA
N/cm^2	0	1E+12
LL	-5.000	-5.000
Min	-0.891	-0.945
Average	-0.891	-0.892
Max	-0.891	-0.858
UL	-0.500	-0.500

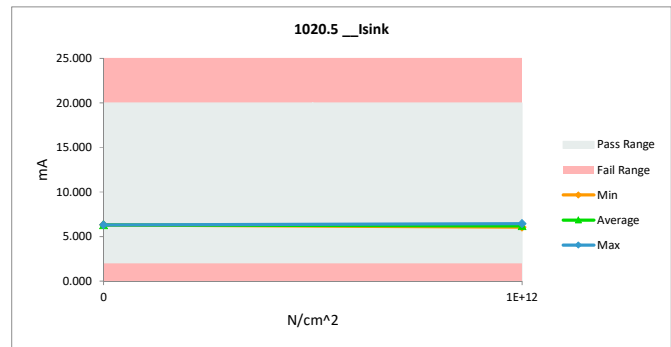


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.5 __Isink				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	mA		mA	
Max Limit	20		20	
Min Limit	2		2	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	6.163	6.060	-0.103
1E+12	231	6.546	6.433	-0.113
1E+12	232	6.209	6.112	-0.097
0	233	6.291	6.301	0.010
	Max	6.546	6.433	0.010
	Average	6.302	6.226	-0.076
	Min	6.163	6.060	-0.113
	Std Dev	0.171	0.172	0.057

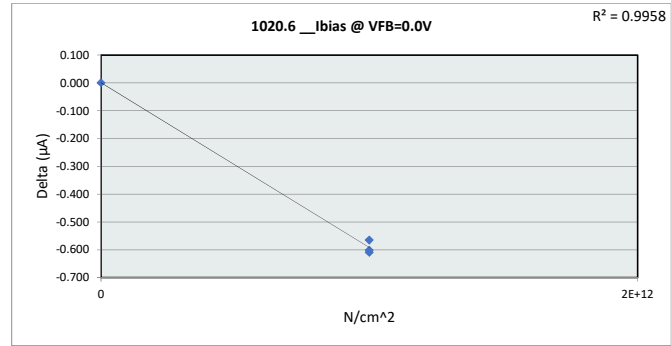


1020.5 __Isink		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	20	mA
Min Limit	2	mA
N/cm^2	0	1E+12
LL	2.000	2.000
Min	6.301	6.060
Average	6.301	6.201
Max	6.301	6.433
UL	20.000	20.000

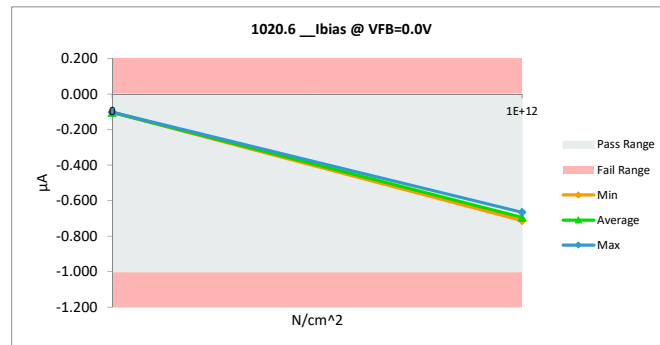


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.6 __Ibias @ VFB=0.0V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	µA		µA	
Max Limit	-0.001		-0.001	
Min Limit	-1		-1	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	-0.103	-0.712	-0.609
1E+12	231	-0.101	-0.666	-0.565
1E+12	232	-0.104	-0.705	-0.601
0	233	-0.103	-0.103	0.000
	Max	-0.101	-0.103	0.000
	Average	-0.103	-0.546	-0.444
	Min	-0.104	-0.712	-0.609
	Std Dev	0.001	0.297	0.297

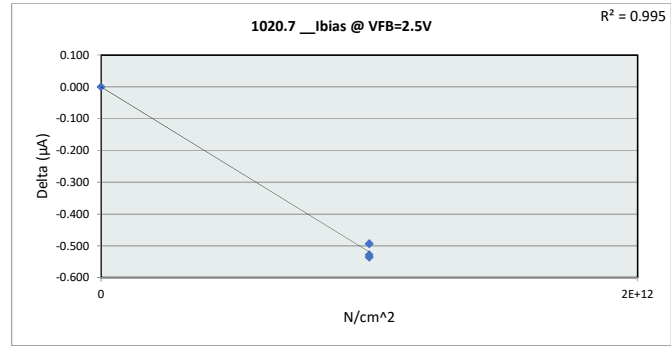


1020.6 __Ibias @ VFB=0.0V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	-0.001	µA
Min Limit	-1	µA
N/cm^2	0	1E+12
LL	-1.000	-1.000
Min	-0.103	-0.712
Average	-0.103	-0.694
Max	-0.103	-0.666
UL	-0.001	-0.001

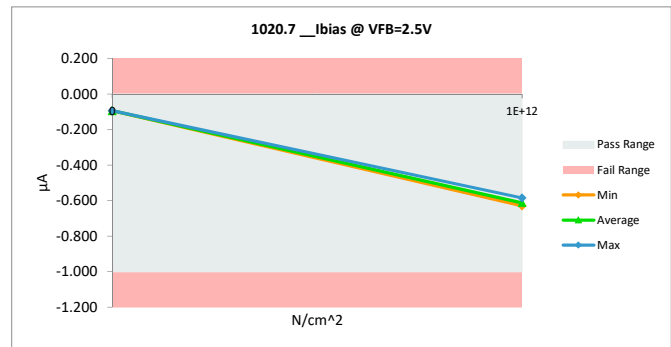


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.7 __Ibias @ VFB=2.5V				
Test Site	Junkins Lab	Junkins Lab		
Tester	ETS364	ETS364		
Test Number	EF230103	EF230103		
Unit	µA	µA		
Max Limit	-0.001	-0.001		
Min Limit	-1	-1		
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	-0.094	-0.629	-0.535
1E+12	231	-0.092	-0.585	-0.493
1E+12	232	-0.095	-0.623	-0.528
0	233	-0.094	-0.094	0.000
Max		-0.092	-0.094	0.000
Average		-0.094	-0.483	-0.389
Min		-0.095	-0.629	-0.535
Std Dev		0.001	0.260	0.260

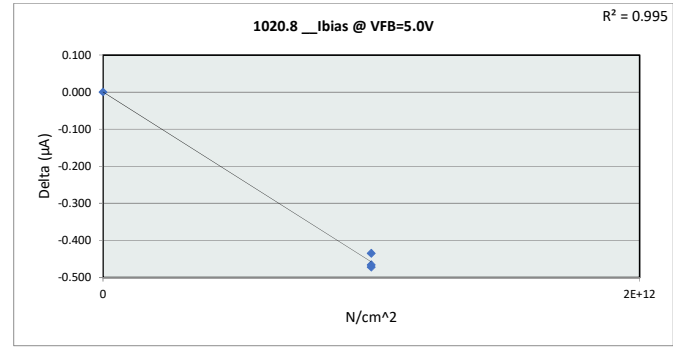


1020.7 __Ibias @ VFB=2.5V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	-0.001	µA
Min Limit	-1	µA
N/cm ²	0	1E+12
LL	-1.000	-1.000
Min	-0.094	-0.629
Average	-0.094	-0.612
Max	-0.094	-0.585
UL	-0.001	-0.001

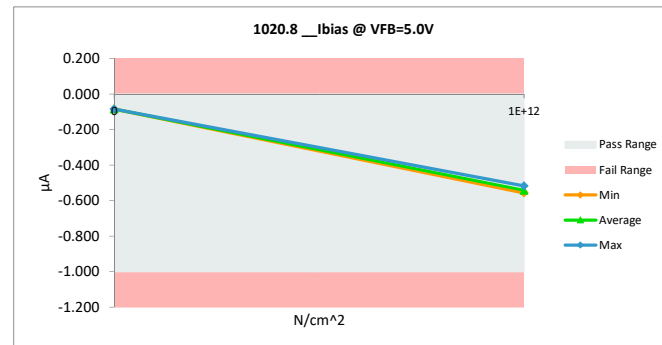


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.8 __Ibias @ VFB=5.0V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	µA		µA	
Max Limit	-0.001		-0.001	
Min Limit	-1		-1	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	-0.085	-0.556	-0.472
1E+12	231	-0.083	-0.517	-0.435
1E+12	232	-0.085	-0.551	-0.465
0	233	-0.085	-0.085	0.000
	Max	-0.083	-0.085	0.000
	Average	-0.084	-0.427	-0.343
	Min	-0.085	-0.556	-0.472
	Std Dev	0.001	0.229	0.229

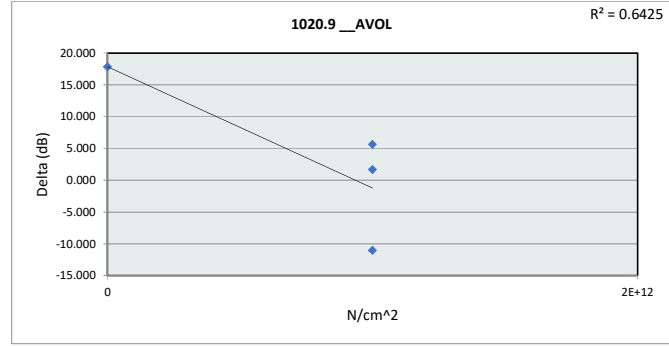


1020.8 __Ibias @ VFB=5.0V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	-0.001	µA
Min Limit	-1	µA
N/cm^2	0	1E+12
LL	-1.000	-1.000
Min	-0.085	-0.556
Average	-0.085	-0.541
Max	-0.085	-0.517
UL	-0.001	-0.001

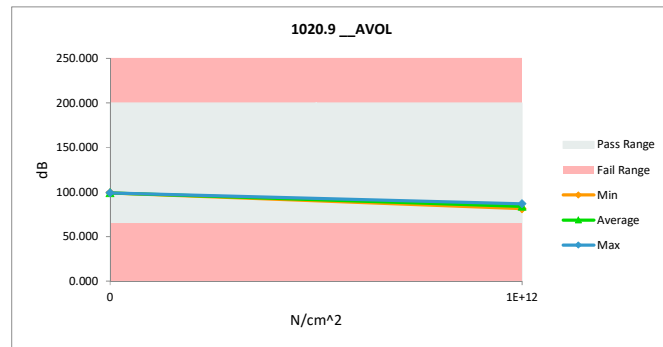


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.9_AVOL				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	dB		dB	
Max Limit	200		200	
Min Limit	65		65	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	97.804	86.787	-11.016
1E+12	231	82.259	83.950	1.692
1E+12	232	75.491	81.142	5.651
0	233	81.190	99.030	17.839
	Max	97.804	99.030	17.839
	Average	84.186	87.727	3.541
	Min	75.491	81.142	-11.016
	Std Dev	9.552	7.879	11.892

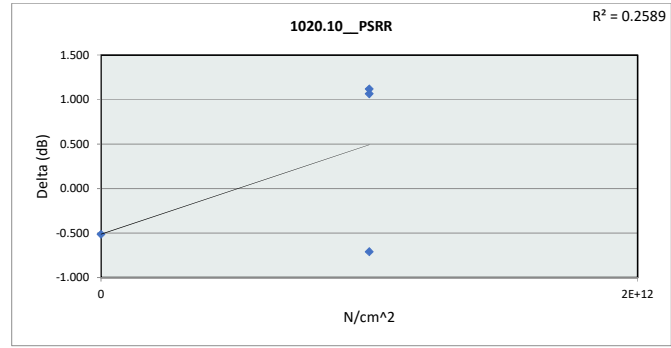


1020.9_AVOL		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	200	dB
Min Limit	65	dB
N/cm^2	0	1E+12
LL	65.000	65.000
Min	99.030	81.142
Average	99.030	83.960
Max	99.030	86.787
UL	200.000	200.000

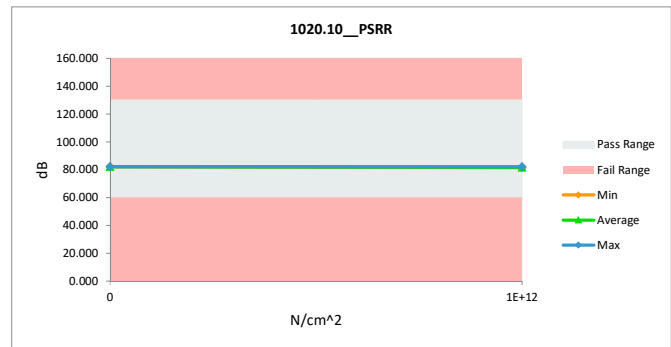


NDD Report - Parametric Drift Graphs UC1843A-SP

1020.10 PSRR				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	dB		dB	
Max Limit	130		130	
Min Limit	60		60	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	80.377	81.497	1.120
1E+12	231	82.223	81.514	-0.709
1E+12	232	81.070	82.134	1.064
0	233	82.734	82.222	-0.512
	Max	82.734	82.222	1.120
	Average	81.601	81.842	0.241
	Min	80.377	81.497	-0.709
	Std Dev	1.073	0.390	0.987

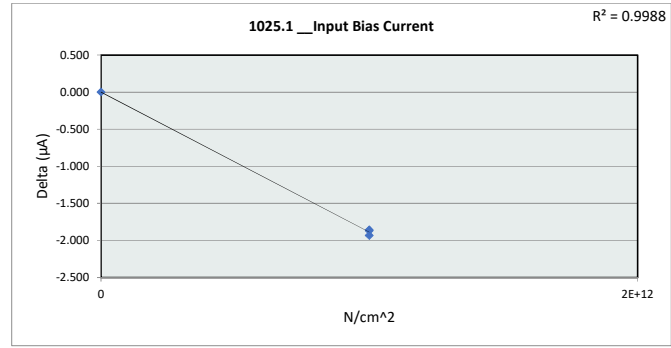


1020.10 PSRR		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	130	dB
Min Limit	60	dB
N/cm ²	0	1E+12
LL	60.000	60.000
Min	82.222	81.497
Average	82.222	81.715
Max	82.222	82.134
UL	130.000	130.000

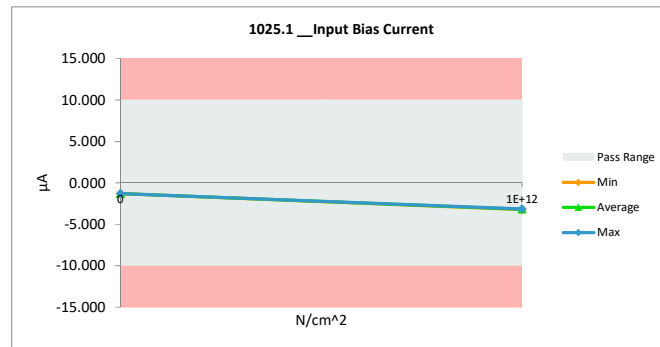


NDD Report - Parametric Drift Graphs UC1843A-SP

1025.1 __ Input Bias Current				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	µA		µA	
Max Limit	10		10	
Min Limit	-10		-10	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	-1.295	-3.227	-1.932
1E+12	231	-1.293	-3.149	-1.856
1E+12	232	-1.282	-3.149	-1.868
0	233	-1.280	-1.280	0.000
	Max	-1.280	-1.280	0.000
	Average	-1.287	-2.701	-1.414
	Min	-1.295	-3.227	-1.932
	Std Dev	0.008	0.948	0.943

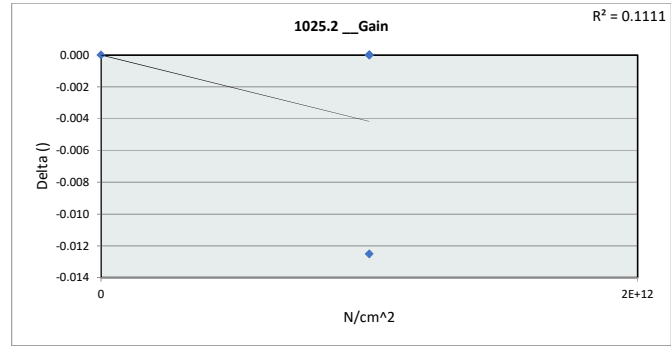


1025.1 __ Input Bias Current		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	10	µA
Min Limit	-10	µA
N/cm^2	0	1E+12
LL	-10.000	-10.000
Min	-1.280	-3.227
Average	-1.280	-3.175
Max	-1.280	-3.149
UL	10.000	10.000

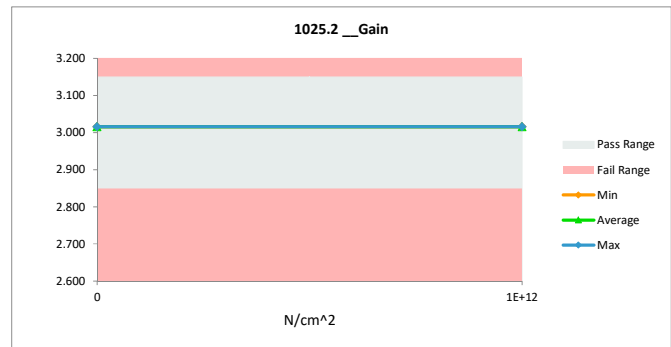


NDD Report - Parametric Drift Graphs UC1843A-SP

1025.2 __ Gain				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit				
Max Limit	3.15		3.15	
Min Limit	2.85		2.85	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	3.028	3.016	-0.013
1E+12	231	3.016	3.016	0.000
1E+12	232	3.016	3.016	0.000
0	233	3.016	3.016	0.000
	Max	3.028	3.016	0.000
	Average	3.019	3.016	-0.003
	Min	3.016	3.016	-0.013
	Std Dev	0.006	0.000	0.006

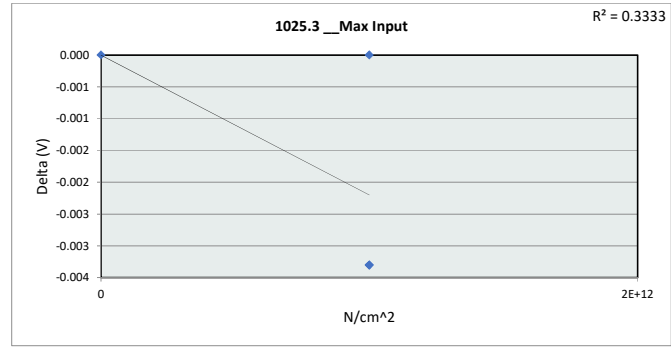


1025.2 __ Gain		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	3.15	
Min Limit	2.85	
N/cm^2	0	1E+12
LL	2.850	2.850
Min	3.016	3.016
Average	3.016	3.016
Max	3.016	3.016
UL	3.150	3.150

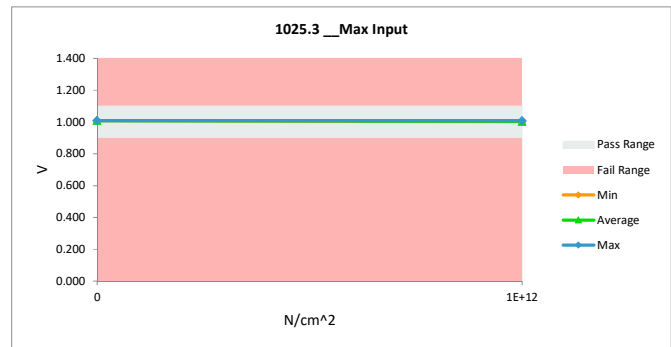


NDD Report - Parametric Drift Graphs UC1843A-SP

1025.3 __Max Input				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	1.1		1.1	
Min Limit	0.9		0.9	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	1.005	1.002	-0.003
1E+12	231	1.002	1.002	0.000
1E+12	232	1.012	1.008	-0.003
0	233	1.008	1.008	0.000
	Max	1.012	1.008	0.000
	Average	1.007	1.005	-0.002
	Min	1.002	1.002	-0.003
	Std Dev	0.004	0.004	0.002

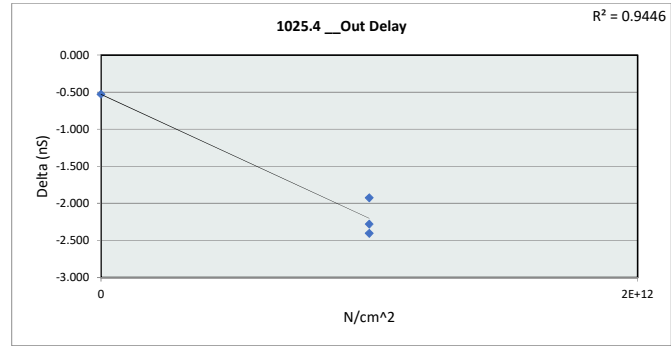


1025.3 __Max Input		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	1.1	V
Min Limit	0.9	V
N/cm^2	0	1E+12
LL	0.900	0.900
Min	1.008	1.002
Average	1.008	1.004
Max	1.008	1.008
UL	1.100	1.100

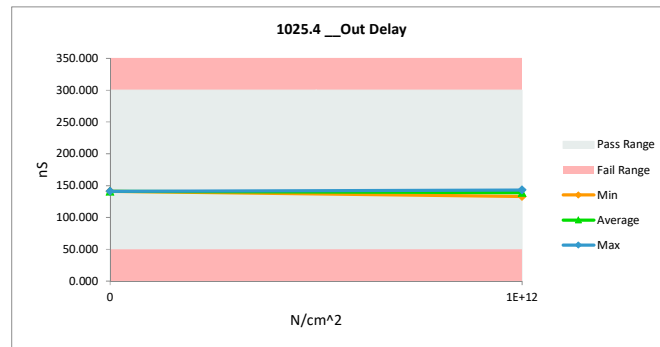


NDD Report - Parametric Drift Graphs UC1843A-SP

1025.4 __Out Delay				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	nS		nS	
Max Limit	300		300	
Min Limit	50		50	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	142.961	141.036	-1.925
1E+12	231	135.297	132.895	-2.403
1E+12	232	145.452	143.174	-2.278
0	233	141.583	141.053	-0.530
	Max	145.452	143.174	-0.530
	Average	141.323	139.540	-1.784
	Min	135.297	132.895	-2.403
	Std Dev	4.325	4.542	0.860

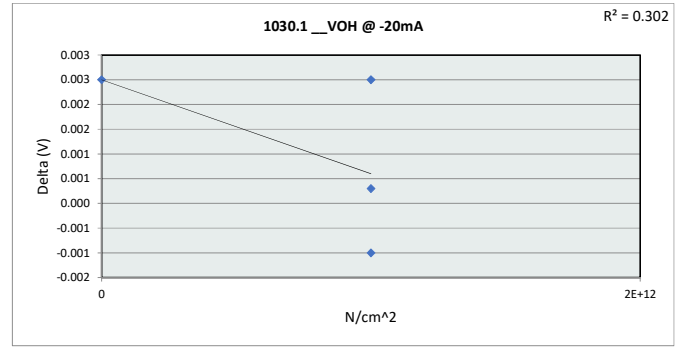


1025.4 __Out Delay		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	300	nS
Min Limit	50	nS
N/cm^2	0	1E+12
LL	50.000	50.000
Min	141.053	132.895
Average	141.053	139.035
Max	141.053	143.174
UL	300.000	300.000

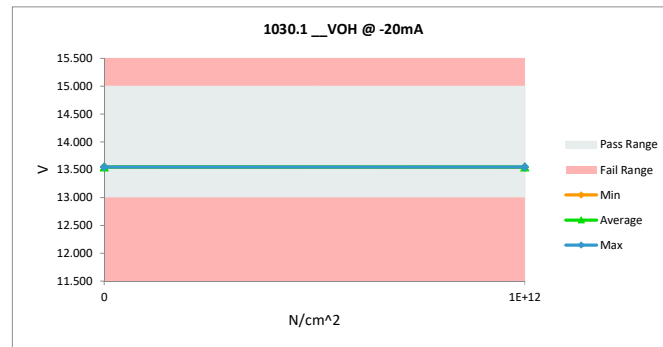


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.1 __VOH @ -20mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	15		15	
Min Limit	13		13	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	13.545	13.544	-0.001
1E+12	231	13.546	13.548	0.003
1E+12	232	13.547	13.547	0.000
0	233	13.547	13.549	0.003
	Max	13.547	13.549	0.003
	Average	13.546	13.547	0.001
	Min	13.545	13.544	-0.001
	Std Dev	0.001	0.002	0.002

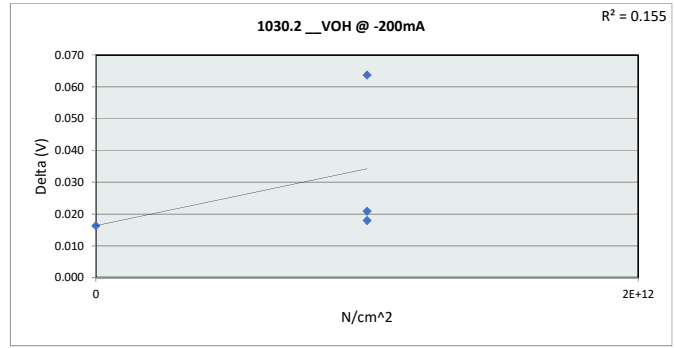


1030.1 __VOH @ -20mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	15	V
Min Limit	13	V
N/cm^2	0	1E+12
LL	13.000	13.000
Min	13.549	13.544
Average	13.549	13.546
Max	13.549	13.548
UL	15.000	15.000

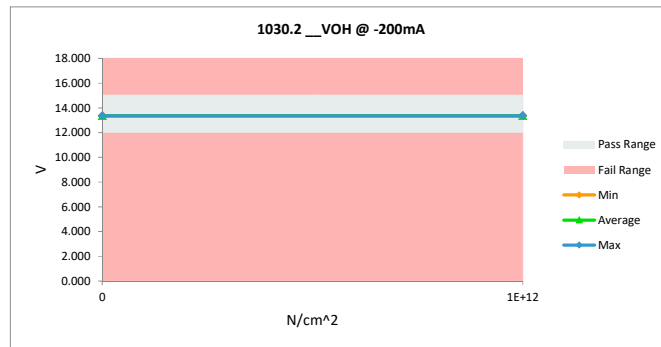


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.2 __VOH @ -200mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	15		15	
Min Limit	12		12	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	13.333	13.354	0.021
1E+12	231	13.305	13.369	0.064
1E+12	232	13.341	13.359	0.018
0	233	13.348	13.364	0.016
	Max	13.348	13.369	0.064
	Average	13.332	13.362	0.030
	Min	13.305	13.354	0.016
	Std Dev	0.019	0.006	0.023

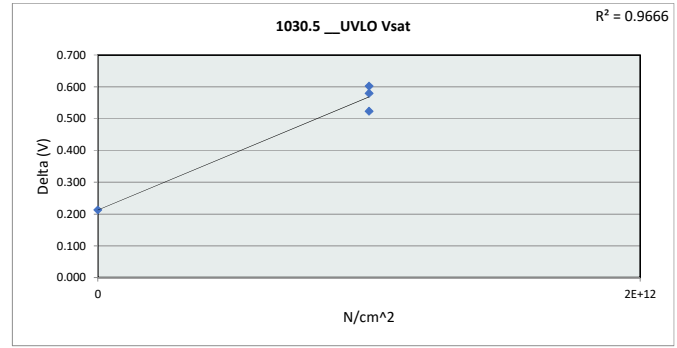


1030.2 __VOH @ -200mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	15	V
Min Limit	12	V
N/cm^2	0	1E+12
LL	12.000	12.000
Min	13.364	13.354
Average	13.364	13.361
Max	13.364	13.369
UL	15.000	15.000

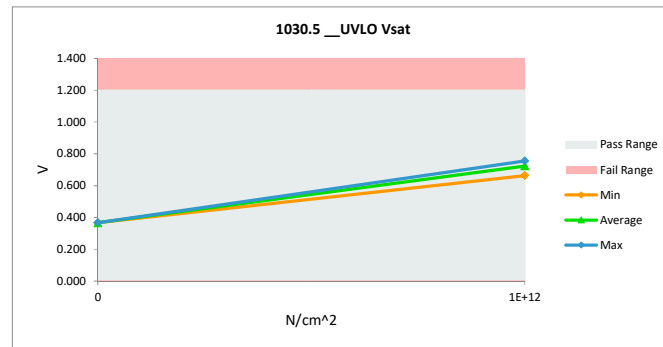


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.5 UVLO Vsat				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	1.2		1.2	
Min Limit	0.005		0.005	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	0.173	0.752	0.579
1E+12	231	0.154	0.756	0.602
1E+12	232	0.140	0.663	0.524
0	233	0.154	0.367	0.213
	Max	0.173	0.756	0.602
	Average	0.155	0.635	0.479
	Min	0.140	0.367	0.213
	Std Dev	0.014	0.183	0.181

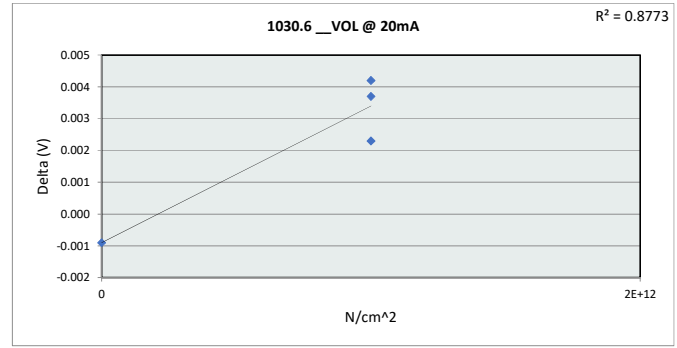


1030.5 UVLO Vsat		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	1.2	V
Min Limit	0.005	V
N/cm ²	0	1E+12
LL	0.005	0.005
Min	0.367	0.663
Average	0.367	0.724
Max	0.367	0.756
UL	1.200	1.200

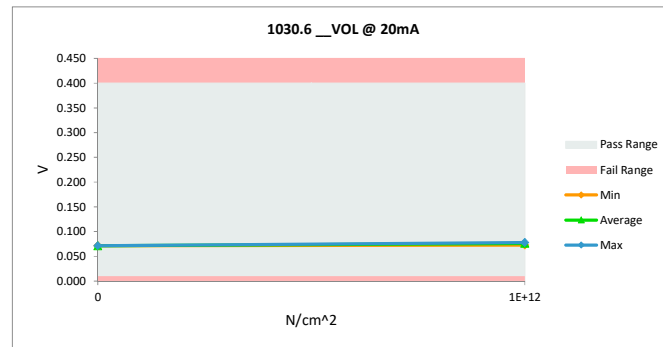


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.6 __VOL @ 20mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	0.4		0.4	
Min Limit	0.01		0.01	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	0.074	0.078	0.004
1E+12	231	0.071	0.073	0.002
1E+12	232	0.074	0.078	0.004
0	233	0.072	0.071	-0.001
	Max	0.074	0.078	0.004
	Average	0.073	0.075	0.002
	Min	0.071	0.071	-0.001
	Std Dev	0.002	0.003	0.002

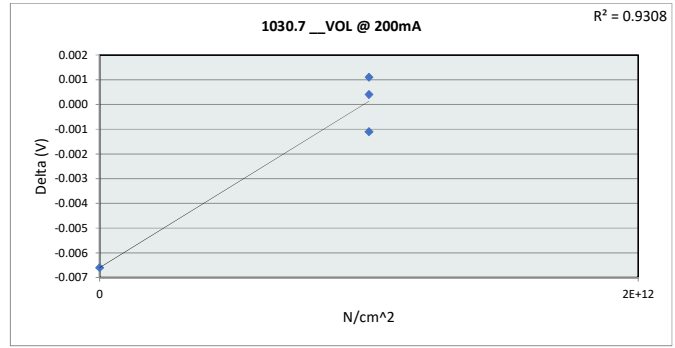


1030.6 __VOL @ 20mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	0.4	V
Min Limit	0.01	V
N/cm^2	0	1E+12
LL	0.010	0.010
Min	0.071	0.073
Average	0.071	0.076
Max	0.071	0.078
UL	0.400	0.400

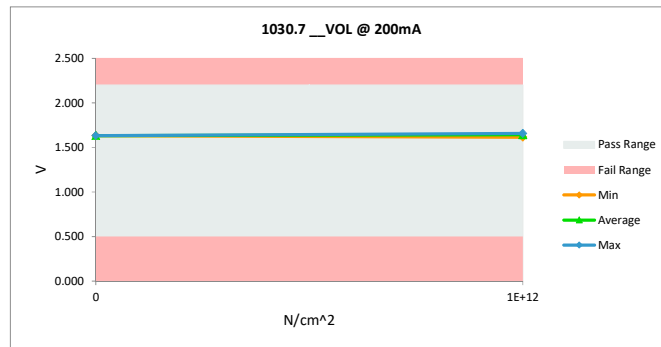


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.7 __VOL @ 200mA				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	2.2		2.2	
Min Limit	0.5		0.5	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	1.656	1.656	0.000
1E+12	231	1.617	1.615	-0.001
1E+12	232	1.652	1.653	0.001
0	233	1.640	1.633	-0.007
	Max	1.656	1.656	0.001
	Average	1.641	1.640	-0.002
	Min	1.617	1.615	-0.007
	Std Dev	0.018	0.019	0.003

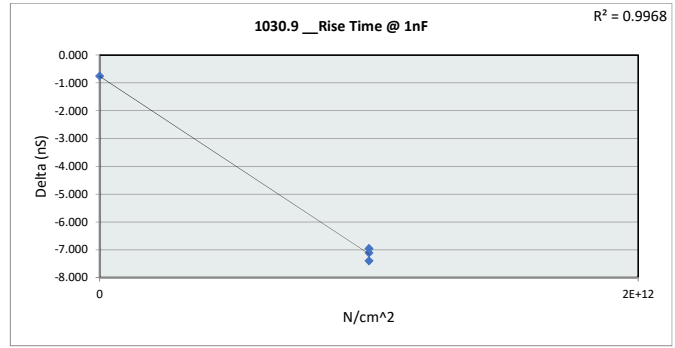


1030.7 __VOL @ 200mA		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	2.2	V
Min Limit	0.5	V
N/cm^2	0	1E+12
LL	0.500	0.500
Min	1.633	1.615
Average	1.633	1.642
Max	1.633	1.657
UL	2.200	2.200

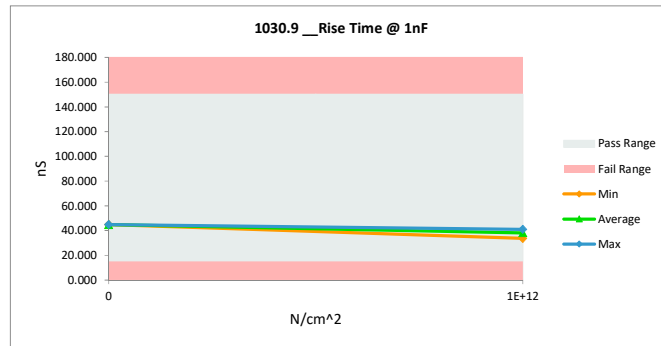


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.9_Rise Time @ 1nF				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	nS		nS	
Max Limit	150		150	
Min Limit	15		15	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	47.994	40.882	-7.112
1E+12	231	40.634	33.684	-6.950
1E+12	232	47.269	39.877	-7.392
0	233	45.537	44.778	-0.759
	Max	47.994	44.778	-0.759
	Average	45.359	39.805	-5.553
	Min	40.634	33.684	-7.392
	Std Dev	3.314	4.596	3.202

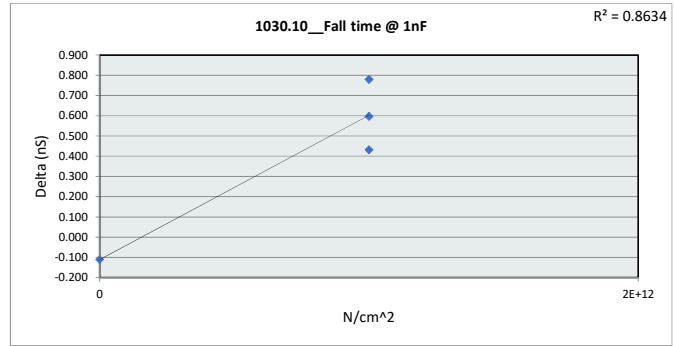


1030.9_Rise Time @ 1nF		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	150	nS
Min Limit	15	nS
N/cm^2	0	1E+12
LL	15.000	15.000
Min	44.778	33.684
Average	44.778	38.148
Max	44.778	40.882
UL	150.000	150.000

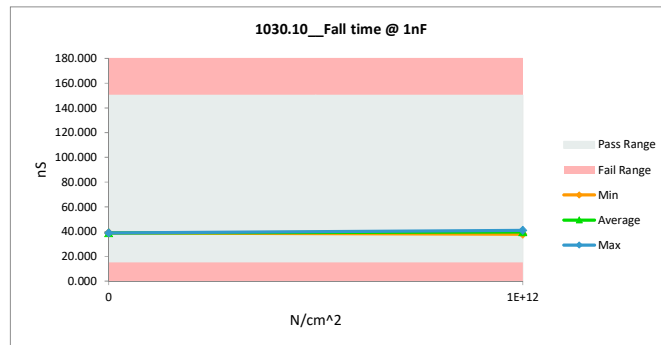


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.10_Fall time @ 1nF				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	nS		nS	
Max Limit	150		150	
Min Limit	15		15	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	39.609	40.205	0.596
1E+12	231	37.426	37.858	0.432
1E+12	232	40.121	40.900	0.780
0	233	38.999	38.887	-0.111
	Max	40.121	40.900	0.780
	Average	39.038	39.462	0.424
	Min	37.426	37.858	-0.111
	Std Dev	1.169	1.357	0.384

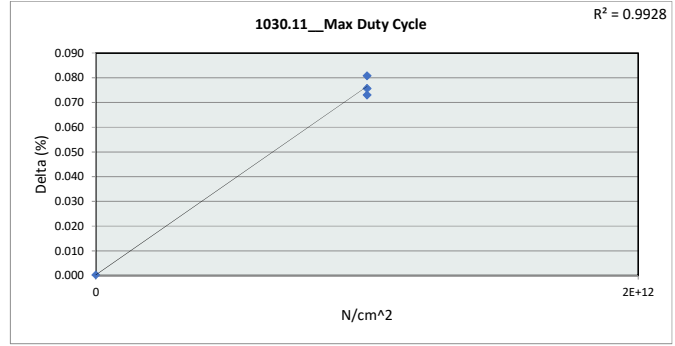


1030.10_Fall time @ 1nF		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	150	nS
Min Limit	15	nS
N/cm^2	0	1E+12
LL	15.000	15.000
Min	38.887	37.858
Average	38.887	39.654
Max	38.887	40.900
UL	150.000	150.000

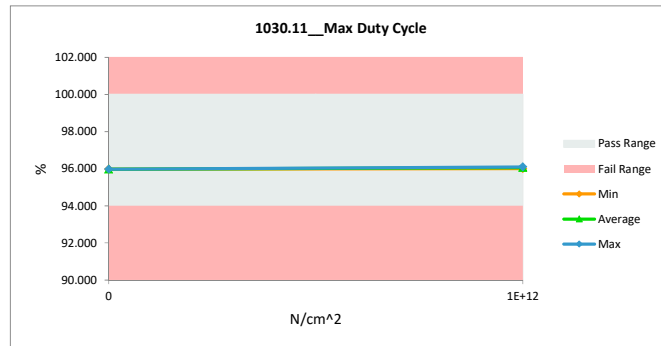


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.11 Max Duty Cycle				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	%		%	
Max Limit	100		100	
Min Limit	94		94	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	96.026	96.100	0.073
1E+12	231	96.014	96.095	0.081
1E+12	232	95.932	96.007	0.076
0	233	95.975	95.976	0.000
	Max	96.026	96.100	0.081
	Average	95.987	96.044	0.057
	Min	95.932	95.976	0.000
	Std Dev	0.043	0.062	0.038

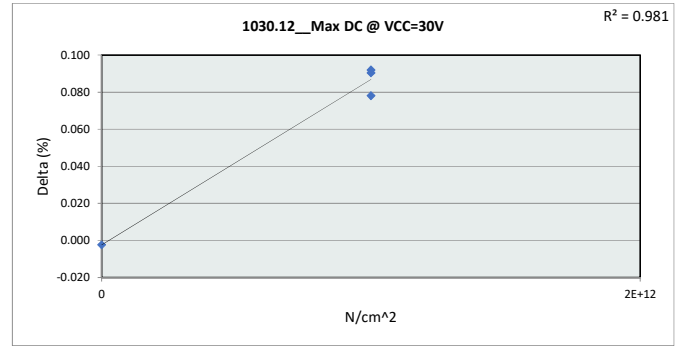


1030.11 Max Duty Cycle		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	100	%
Min Limit	94	%
N/cm^2	0	1E+12
LL	94.000	94.000
Min	95.976	96.007
Average	95.976	96.067
Max	95.976	96.100
UL	100.000	100.000

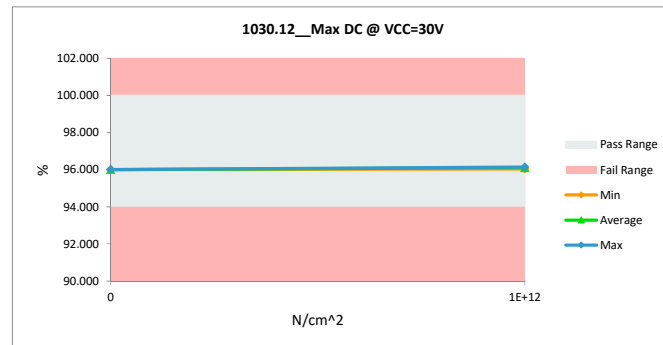


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.12 Max DC @ VCC=30V				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	%		%	
Max Limit	100		100	
Min Limit	94		94	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	96.047	96.139	0.092
1E+12	231	96.057	96.135	0.078
1E+12	232	95.958	96.049	0.090
0	233	96.007	96.004	-0.002
	Max	96.057	96.139	0.092
	Average	96.017	96.082	0.065
	Min	95.958	96.004	-0.002
	Std Dev	0.045	0.066	0.045

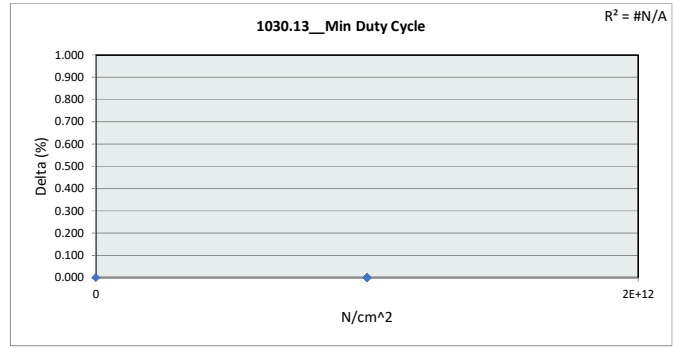


1030.12 Max DC @ VCC=30V		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	100	%
Min Limit	94	%
N/cm ²	0	1E+12
LL	94.000	94.000
Min	96.004	96.049
Average	96.004	96.108
Max	96.004	96.139
UL	100.000	100.000

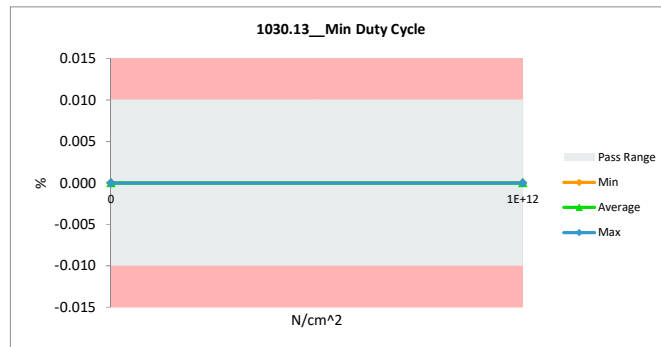


NDD Report - Parametric Drift Graphs UC1843A-SP

1030.13 Min Duty Cycle				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	%		%	
Max Limit	0.01		0.01	
Min Limit	-0.01		-0.01	
N/cm ²	Serial #	Pre	Post	Delta
1E+12	230	0.000	0.000	0.000
1E+12	231	0.000	0.000	0.000
1E+12	232	0.000	0.000	0.000
0	233	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

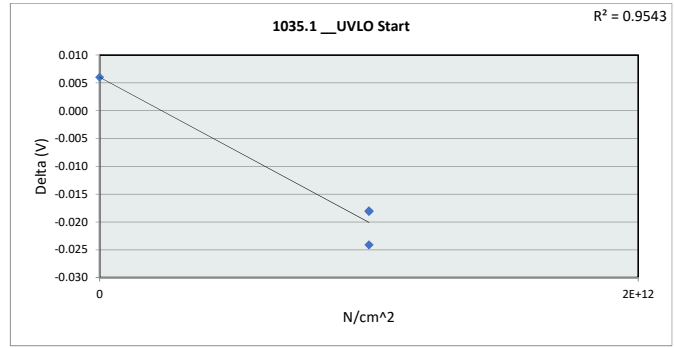


1030.13 Min Duty Cycle		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	0.01	%
Min Limit	-0.01	%
N/cm ²	0	1E+12
LL	-0.010	-0.010
Min	0.000	0.000
Average	0.000	0.000
Max	0.000	0.000
UL	0.010	0.010

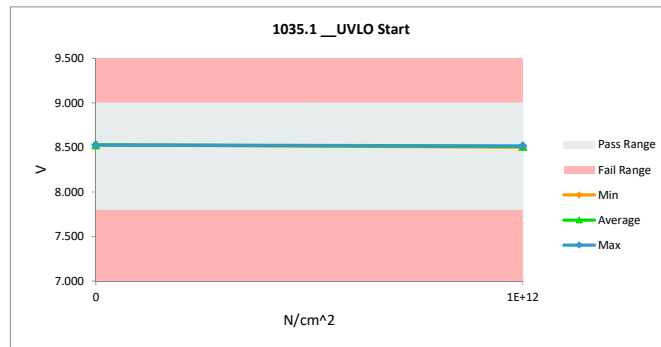


NDD Report - Parametric Drift Graphs UC1843A-SP

1035.1 __ UVLO Start				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	9		9	
Min Limit	7.8		7.8	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	8.534	8.516	-0.018
1E+12	231	8.534	8.510	-0.024
1E+12	232	8.522	8.504	-0.018
0	233	8.522	8.528	0.006
	Max	8.534	8.528	0.006
	Average	8.528	8.515	-0.014
	Min	8.522	8.504	-0.024
	Std Dev	0.007	0.010	0.013

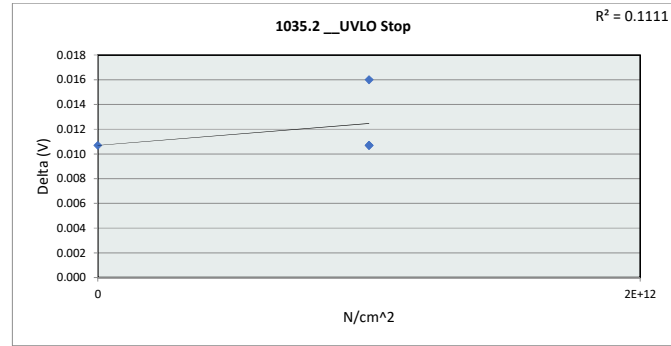


1035.1 __ UVLO Start		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	9	V
Min Limit	7.8	V
N/cm^2	0	1E+12
LL	7.800	7.800
Min	8.528	8.504
Average	8.528	8.510
Max	8.528	8.516
UL	9.000	9.000

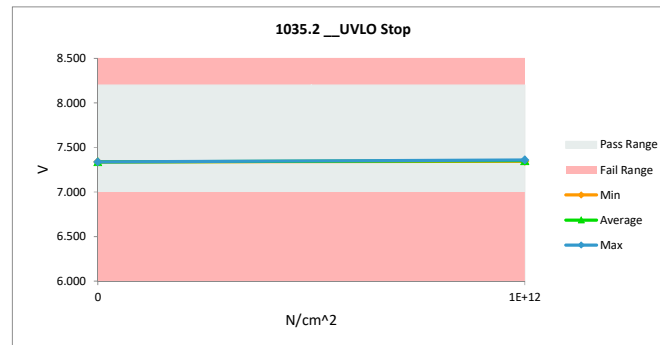


NDD Report - Parametric Drift Graphs UC1843A-SP

1035.2 __UVLO Stop				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	8.2		8.2	
Min Limit	7		7	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	7.339	7.350	0.011
1E+12	231	7.350	7.360	0.011
1E+12	232	7.328	7.344	0.016
0	233	7.328	7.339	0.011
	Max	7.350	7.360	0.016
	Average	7.336	7.348	0.012
	Min	7.328	7.339	0.011
	Std Dev	0.010	0.009	0.003

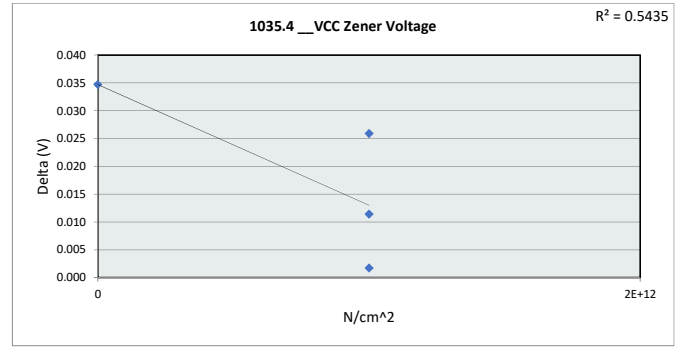


1035.2 __UVLO Stop		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	8.2	V
Min Limit	7	V
N/cm^2	0	1E+12
LL	7.000	7.000
Min	7.339	7.344
Average	7.339	7.351
Max	7.339	7.360
UL	8.200	8.200

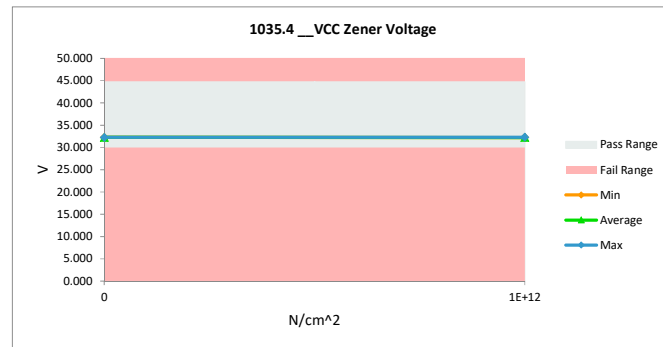


NDD Report - Parametric Drift Graphs UC1843A-SP

1035.4 __ VCC Zener Voltage				
Test Site	Junkins Lab		Junkins Lab	
Tester	ETS364		ETS364	
Test Number	EF230103		EF230103	
Unit	V		V	
Max Limit	44.7		44.7	
Min Limit	30		30	
N/cm^2	Serial #	Pre	Post	Delta
1E+12	230	32.250	32.262	0.011
1E+12	231	32.225	32.227	0.002
1E+12	232	32.225	32.251	0.026
0	233	32.218	32.253	0.035
	Max	32.250	32.262	0.035
	Average	32.230	32.248	0.018
	Min	32.218	32.227	0.002
	Std Dev	0.014	0.015	0.015



1035.4 __ VCC Zener Voltage		
Test Site	Junkins Lab	
Tester	ETS364	
Test Number	EF230103	
Max Limit	44.7	V
Min Limit	30	V
N/cm^2	0	1E+12
LL	30.000	30.000
Min	32.253	32.227
Average	32.253	32.246
Max	32.253	32.262
UL	44.700	44.700



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