TEST & SPECIFICATIONS

Form No. 716, Nov 2005

Layout No: 1308E, 1299G
Circuit Diagram No:
Program Version: 3, Build: 24

Product: Oxygen Optode 3835
Serial No: 1794

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1. Visual and Mechanical Checks:

1.1. O-ring surface
1.2. Soldering quality
1.3. Visual surface
1.4. Galvanic isolation between housing and electronics

2. Current Drain and Voltages:

2.1. Average current drain at 0.5Hz sampling (Max: 38mA)	31 mA
2.2. Current drain in sleep (Max: 300µA)	217 µA
2.3. Quiescent current drain from –9V (Max: 5µA)	µA
2.4. DSP voltage, IC5.1 (3.3 ±0.15V)	3.30 V
2.5. Excitation driver voltage, IC1.1 (3.3 ±0.15V)	3.31 V
2.6. Flash/RS232 driver voltage, IC7.4 (5 ±0.2V)	5.07 V

3. Receiver test:

3.1. Average of Receiver readings (0 ±50mV)	-15 mV
3.2. Standard Deviation of Receiver readings (Max: 10mV)	2.62 mV

4. Performance Test in Air, 0°C Temperature:

4.1. Amplitude measurement (Blue: 220 – 470mV)	387.62 mV
4.2. Phase measurement (Blue: 30 ±5)	33.7 °
4.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.001 °
4.4. Temperature measurement: (700 ±300mV)	649.18 mV
4.5. SR10 Output tested (Set_Output(-100))	

5. Performance Test in Air, 20°C Temperature:

5.1. Amplitude measurement (Blue: 290 – 470mV)	385.49 mV
5.2. Phase measurement (Blue: 25 ±5°)	28.9 °
5.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.011 °
5.4. Temperature measurement: (100 ±300mV)	-37.84 mV
5.5. SR10 Output tested (Set_Output(-100))	

6. Performance Test in Air, 40°C Temperature:

6.1. Amplitude measurement (Blue: 320 – 500mV)	361.53 mV
6.2. Phase measurement (Blue: 22 ±5°)	25.5 °
6.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.007 °
6.4. Temperature measurement: (-500 ±300mV)	-495.46 mV
6.5. SR10 Output tested (Set_Output(-100))	

Date: 09 Apr 2013

Sign:

Jan Øyvind Trellevik

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TEST & SPECIFICATIONS

Form No. 716, Nov 2005

Layout No: 1308E, 1299G
Circuit Diagram No:
Program Version: 3, Build: 24

Product: Oxygen Optode 3835
Serial No: 1795

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1. Visual and Mechanical Checks:

1.1. O-ring surface
1.2. Soldering quality
1.3. Visual surface
1.4. Galvanic isolation between housing and electronics

2. Current Drain and Voltages:

2.1. Average current drain at 0.5Hz sampling (Max: 38mA)	31 mA
2.2. Current drain in sleep (Max: 300µA)	214 µA
2.3. Quiescent current drain from –9V (Max: 5µA)	µA
2.4. DSP voltage, IC5.1 (3.3 ±0.15V)	3.29 V
2.5. Excitation driver voltage, IC1.1 (3.3 ±0.15V)	3.33 V
2.6. Flash/RS232 driver voltage, IC7.4 (5 ±0.2V)	5.07 V

3. Receiver test:

3.1. Average of Receiver readings (0 ±50mV)	-6 mV
3.2. Standard Deviation of Receiver readings (Max: 10mV)	2.84 mV

4. Performance Test in Air, 0°C Temperature:

4.1. Amplitude measurement (Blue: 220 – 470mV)	376.29 mV
4.2. Phase measurement (Blue: 30 ±5)	33.4 °
4.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.002 °
4.4. Temperature measurement: (700 ±300mV)	645.32 mV
4.5. SR10 Output tested (Set_Output(-100))	

5. Performance Test in Air, 20°C Temperature:

5.1. Amplitude measurement (Blue: 290 – 470mV)	384.35 mV
5.2. Phase measurement (Blue: 25 ±5°)	28.6 °
5.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.011 °
5.4. Temperature measurement: (100 ±300mV)	-34.92 mV
5.5. SR10 Output tested (Set_Output(-100))	

6. Performance Test in Air, 40°C Temperature:

6.1. Amplitude measurement (Blue: 320 – 500mV)	362.89 mV
6.2. Phase measurement (Blue: 22 ±5°)	25.3 °
6.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.020 °
6.4. Temperature measurement: (-500 ±300mV)	-484.25 mV
6.5. SR10 Output tested (Set_Output(-100))	

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TEST & SPECIFICATIONS

Form No. 716, Nov 2005

Layout No: 1308E, 1299G
Circuit Diagram No:
Program Version: 3, Build: 24

Product: Oxygen Optode 3835
Serial No: 1797

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1. Visual and Mechanical Checks:

1.1. O-ring surface
1.2. Soldering quality
1.3. Visual surface
1.4. Galvanic isolation between housing and electronics

2. Current Drain and Voltages:

2.1. Average current drain at 0.5Hz sampling (Max: 38mA)	31 mA
2.2. Current drain in sleep (Max: 300µA)	220 µA
2.3. Quiescent current drain from –9V (Max: 5µA)	µA
2.4. DSP voltage, IC5.1 (3.3 ±0.15V)	3.29 V
2.5. Excitation driver voltage, IC1.1 (3.3 ±0.15V)	3.30 V
2.6. Flash/RS232 driver voltage, IC7.4 (5 ±0.2V)	5.06 V

3. Receiver test:

3.1. Average of Receiver readings (0 ±50mV)	-17 mV
3.2. Standard Deviation of Receiver readings (Max: 10mV)	2.25 mV

4. Performance Test in Air, 0°C Temperature:

4.1. Amplitude measurement (Blue: 220 – 470mV)	392.53 mV
4.2. Phase measurement (Blue: 30 ±5)	33.8 °
4.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.001 °
4.4. Temperature measurement: (700 ±300mV)	656.21 mV
4.5. SR10 Output tested (Set_Output(-100))	

5. Performance Test in Air, 20°C Temperature:

5.1. Amplitude measurement (Blue: 290 – 470mV)	383.36 mV
5.2. Phase measurement (Blue: 25 ±5°)	28.9 °
5.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.014 °
5.4. Temperature measurement: (100 ±300mV)	-49.53 mV
5.5. SR10 Output tested (Set_Output(-100))	

6. Performance Test in Air, 40°C Temperature:

6.1. Amplitude measurement (Blue: 320 – 500mV)	359.56 mV
6.2. Phase measurement (Blue: 22 ±5°)	25.8 °
6.3. Standard deviation of Phase measurement: (Max: 0.02°)	0.018 °
6.4. Temperature measurement: (-500 ±300mV)	-504.49 mV
6.5. SR10 Output tested (Set_Output(-100))	

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