## Head Tissue Simulating Liquids

| **Head Tissue** | Parameters according to IEEE Std 1528-2013 / IEC 62209 / FCC KDB 865664 D01 | | |
|---|---|---|---|
| **Narrow-Band Solutions (±5% tolerance)** | **Product** | **Test Frequency (MHz)** | **Main Ingredients** |
| | HSL300V2 | 300 | Water, Sugar |
| | HSL450V2 | 450 | Water, Sugar |
| | HSL750V2 | 750 | Water, Sugar |
| | HSL900V2 | 835, 900 | Water, Sugar |
| | HSL1450V2 | 1450, 1500, 1640 | Water, DGBE |
| | HSL1750V2 | 1750 | Water, DGBE |
| | HSL1800V2 | 1800, 1900 | Water, DGBE |
| | HSL1900V2 | 1900 | Water, DGBE |
| | HSL1950V2 | 1950, 2000 | Water, DGBE |
| | HSL2450V2 | 2450, 2600 | Water, DGBE |
| **Broad-Band Solutions (±5% tolerance)** | **Product** | **Test Frequency (MHz)** | **Main Ingredients** |
| | HBBL30-250V3 | 30-250 | Water, Tween |
| | HBBL1350-1850V3 | 1400-1800 | Water, Tween |
| | HBBL1550-1950V3 | 1750-1900 | Water, Tween |
| | HBBL1900-3800V3 | 1950-3000 | Water, Tween |
| | HBBL3500-5800V5 | 3500-5800 | Water, Oil |

## Body Tissue Simulating Liquids

| **Body Tissue (Muscle)** | Parameters according to FCC KDB 865664 D01 | | |
|---|---|---|---|
| **Narrow-Band Solutions (±5% tolerance)** | **Product** | **Test Frequency (MHz)** | **Main Ingredients** |
| | MSL300V2 | 300 | Water, Sugar |
| | MSL450V2 | 400, 450 | Water, Sugar |
| | MSL750V2 | 750 | Water, Sugar |
| | MSL900V2 | 835, 900 | Water, Sugar |
| | MSL1450V2 | 1450, 1500, 1640 | Water, DGBE |
| | MSL1750V2 | 1750 | Water, DGBE |
| | MSL1800V2 | 1800, 1900 | Water, DGBE |
| | MSL1900V2 | 1900 | Water, DGBE |
| | MSL1950V2 | 1950, 2100 | Water, DGBE |
| | MSL2450V2 | 2450, 2600 | Water, DGBE |
| **Broad-Band Solutions (±5% tolerance)** | **Product** | **Test Frequency (MHz)** | **Main Ingredients** |
| | MBBL130-250V3 | 130-250 | Water, Tween |
| | MBBL1350-1850V3 | 1350-1800 | Water, Tween |
| | MBBL1550-1950V3 | 1550-1850 | Water, Tween |
| | MBBL1900-3800V3 | 1950-3800 | Water, Tween |
| | MBBL3500-5800V5 | 3500-5800 | Water, Oil |

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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL750V2)** |
| Product No. | SL AAH 075 AA (Charge: 140210-5) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

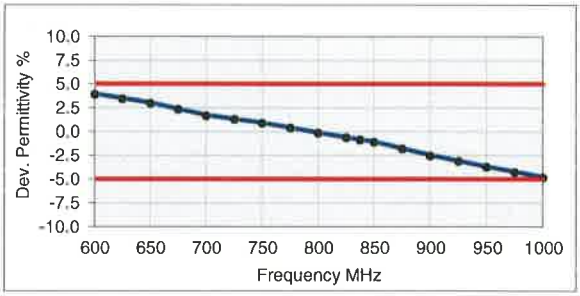
### Test Condition

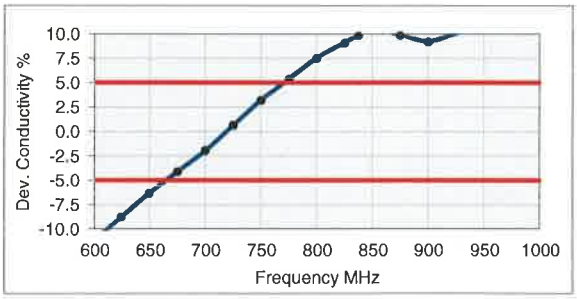
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 12-Feb-14 |
| Operator | IEN |

### Additional Information

| | |
|---|---|
| TSL Density | 1.284 g/cm$^3$ |
| TSL Heat-capacity | 2.701 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 600 | 44.4 | 23.49 | 0.78 | 42.7 | 0.88 | 3.9 | -11.1 |
| 625 | 44.1 | 23.23 | 0.81 | 42.6 | 0.88 | 3.5 | -8.6 |
| 650 | 43.7 | 22.96 | 0.83 | 42.5 | 0.89 | 3.0 | -6.2 |
| 675 | 43.3 | 22.68 | 0.85 | 42.3 | 0.89 | 2.4 | -4.1 |
| 700 | 42.9 | 22.40 | 0.87 | 42.2 | 0.89 | 1.7 | -1.9 |
| 725 | 42.6 | 22.25 | 0.90 | 42.1 | 0.89 | 1.3 | 0.7 |
| **750** | **42.3** | **22.10** | **0.92** | **41.9** | **0.89** | **0.9** | **3.2** |
| 775 | 42.0 | 21.89 | 0.94 | 41.8 | 0.90 | 0.4 | 5.4 |
| 800 | 41.6 | 21.67 | 0.96 | 41.7 | 0.90 | -0.1 | 7.5 |
| 825 | 41.3 | 21.55 | 0.99 | 41.6 | 0.91 | -0.6 | 9.0 |
| 838 | 41.2 | 21.49 | 1.00 | 41.5 | 0.91 | -0.8 | 9.8 |
| 850 | 41.1 | 21.42 | 1.01 | 41.5 | 0.92 | -1.1 | 10.6 |
| 875 | 40.8 | 21.29 | 1.04 | 41.5 | 0.94 | -1.8 | 9.9 |
| 900 | 40.5 | 21.15 | 1.06 | 41.5 | 0.97 | -2.5 | 9.2 |
| 925 | 40.2 | 21.01 | 1.08 | 41.5 | 0.98 | -3.1 | 10.0 |
| 950 | 39.9 | 20.87 | 1.10 | 41.4 | 0.99 | -3.7 | 10.9 |
| 975 | 39.6 | 20.79 | 1.13 | 41.4 | 1.00 | -4.3 | 12.2 |
| 1000 | 39.4 | 20.71 | 1.15 | 41.3 | 1.01 | -4.8 | 13.5 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL900V2)** |
| Product No. | SL AAH 090 BB (Charge: 140205-4) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

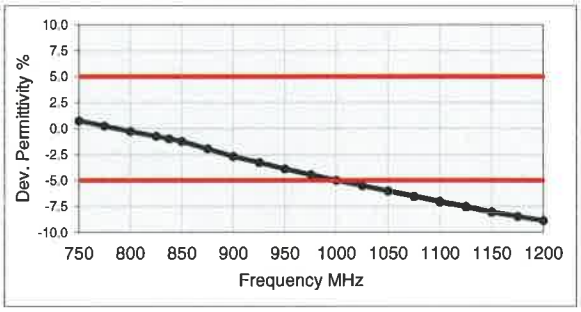
### Test Condition

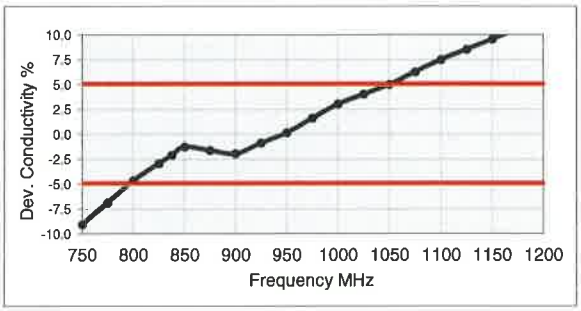
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 12-Feb-14 |
| Operator | IEN |

### Additional Information

| | |
|---|---|
| TSL Density | 1.280 g/cm$^3$ |
| TSL Heat-capacity | 2.942 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 700 | 42.9 | 19.58 | 0.76 | 42.2 | 0.89 | 1.6 | -14.3 |
| 725 | 42.6 | 19.52 | 0.79 | 42.1 | 0.89 | 1.2 | -11.7 |
| 750 | 42.3 | 19.47 | 0.81 | 41.9 | 0.89 | 0.8 | -9.1 |
| 775 | 41.9 | 19.35 | 0.83 | 41.8 | 0.90 | 0.3 | -6.8 |
| 800 | 41.6 | 19.23 | 0.86 | 41.7 | 0.90 | -0.3 | -4.6 |
| 825 | 41.3 | 19.18 | 0.88 | 41.6 | 0.91 | -0.7 | -2.9 |
| 838 | 41.1 | 19.16 | 0.89 | 41.5 | 0.91 | -1.0 | -2.1 |
| 850 | 41.0 | 19.13 | 0.90 | 41.5 | 0.92 | -1.2 | -1.2 |
| 875 | 40.7 | 19.07 | 0.93 | 41.5 | 0.94 | -1.9 | -1.6 |
| 900 | 40.4 | 19.00 | 0.95 | 41.5 | 0.97 | -2.7 | -1.9 |
| 925 | 40.1 | 18.92 | 0.97 | 41.5 | 0.98 | -3.3 | -0.9 |
| 950 | 39.8 | 18.85 | 1.00 | 41.4 | 0.99 | -3.9 | 0.2 |
| 975 | 39.6 | 18.82 | 1.02 | 41.4 | 1.00 | -4.4 | 1.6 |
| 1000 | 39.3 | 18.80 | 1.05 | 41.3 | 1.01 | -5.0 | 3.0 |
| 1025 | 39.0 | 18.71 | 1.07 | 41.3 | 1.03 | -5.5 | 4.0 |
| 1050 | 38.8 | 18.62 | 1.09 | 41.2 | 1.04 | -6.0 | 5.0 |
| 1075 | 38.5 | 18.59 | 1.11 | 41.2 | 1.05 | -6.5 | 6.3 |
| 1100 | 38.3 | 18.55 | 1.14 | 41.2 | 1.06 | -7.0 | 7.5 |
| 1125 | 38.0 | 18.50 | 1.16 | 41.1 | 1.07 | -7.5 | 8.5 |
| 1150 | 37.8 | 18.44 | 1.18 | 41.1 | 1.08 | -8.0 | 9.6 |
| 1175 | 37.5 | 18.39 | 1.20 | 41.0 | 1.09 | -8.4 | 10.6 |
| 1200 | 37.3 | 18.35 | 1.22 | 41.0 | 1.10 | -8.9 | 11.6 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL1750V2)** |
| Product No. | SL AAH 175 (Charge: 120907-2) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

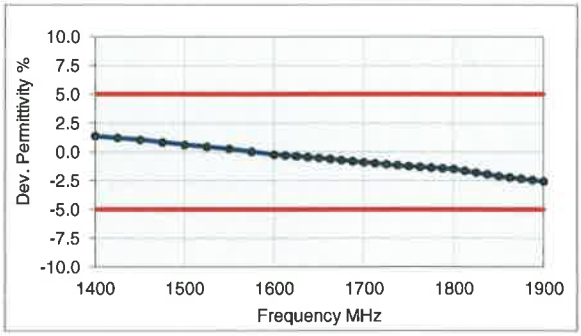
### Test Condition

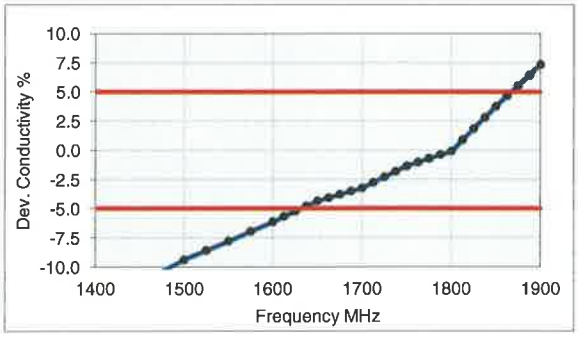
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 13-Sep-12 |
| Operator | CL |

### Additional Information

| | |
|---|---|
| TSL Density | 0.998 g/cm$^3$ |
| TSL Heat-capacity | 3.572 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1400 | 41.2 | 13.09 | 1.02 | 40.6 | 1.18 | 1.4 | -13.6 |
| 1425 | 41.0 | 13.14 | 1.04 | 40.5 | 1.19 | 1.2 | -12.4 |
| 1450 | 40.9 | 13.19 | 1.06 | 40.5 | 1.20 | 1.1 | -11.3 |
| 1475 | 40.8 | 13.26 | 1.09 | 40.5 | 1.21 | 0.8 | -10.3 |
| 1500 | 40.7 | 13.34 | 1.11 | 40.4 | 1.23 | 0.6 | -9.4 |
| 1525 | 40.6 | 13.39 | 1.14 | 40.4 | 1.24 | 0.4 | -8.6 |
| 1550 | 40.5 | 13.44 | 1.16 | 40.4 | 1.26 | 0.3 | -7.8 |
| 1575 | 40.3 | 13.49 | 1.18 | 40.3 | 1.27 | 0.0 | -6.9 |
| 1600 | 40.2 | 13.55 | 1.21 | 40.3 | 1.28 | -0.2 | -6.1 |
| 1613 | 40.2 | 13.58 | 1.22 | 40.3 | 1.29 | -0.3 | -5.7 |
| 1625 | 40.1 | 13.62 | 1.23 | 40.3 | 1.30 | -0.4 | -5.2 |
| 1638 | 40.1 | 13.65 | 1.24 | 40.3 | 1.31 | -0.5 | -4.8 |
| 1650 | 40.0 | 13.68 | 1.26 | 40.2 | 1.31 | -0.5 | -4.3 |
| 1663 | 40.0 | 13.70 | 1.27 | 40.2 | 1.32 | -0.6 | -4.1 |
| 1675 | 39.9 | 13.71 | 1.28 | 40.2 | 1.33 | -0.7 | -3.8 |
| 1688 | 39.8 | 13.72 | 1.29 | 40.2 | 1.33 | -0.8 | -3.5 |
| 1700 | 39.8 | 13.73 | 1.30 | 40.2 | 1.34 | -0.9 | -3.2 |
| 1713 | 39.7 | 13.77 | 1.31 | 40.1 | 1.35 | -1.0 | -2.7 |
| 1725 | 39.7 | 13.81 | 1.33 | 40.1 | 1.36 | -1.1 | -2.3 |
| 1738 | 39.6 | 13.85 | 1.34 | 40.1 | 1.36 | -1.2 | -1.8 |
| 1750 | 39.6 | 13.89 | 1.35 | 40.1 | 1.37 | -1.3 | -1.4 |
| 1763 | 39.5 | 13.91 | 1.36 | 40.1 | 1.38 | -1.3 | -1.0 |
| 1775 | 39.5 | 13.93 | 1.38 | 40.0 | 1.39 | -1.4 | -0.7 |
| 1788 | 39.4 | 13.95 | 1.39 | 40.0 | 1.39 | -1.4 | -0.4 |
| 1800 | 39.4 | 13.97 | 1.40 | 40.0 | 1.40 | -1.5 | -0.1 |
| 1813 | 39.3 | 14.01 | 1.41 | 40.0 | 1.40 | -1.7 | 0.9 |
| 1825 | 39.3 | 14.04 | 1.43 | 40.0 | 1.40 | -1.8 | 1.8 |
| 1838 | 39.2 | 14.08 | 1.44 | 40.0 | 1.40 | -2.0 | 2.8 |
| 1850 | 39.2 | 14.11 | 1.45 | 40.0 | 1.40 | -2.1 | 3.8 |
| 1863 | 39.1 | 14.14 | 1.47 | 40.0 | 1.40 | -2.2 | 4.7 |
| 1875 | 39.1 | 14.17 | 1.48 | 40.0 | 1.40 | -2.3 | 5.6 |
| 1888 | 39.0 | 14.19 | 1.49 | 40.0 | 1.40 | -2.5 | 6.5 |
| 1900 | 39.0 | 14.22 | 1.50 | 40.0 | 1.40 | -2.6 | 7.4 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL 1900)** |
| Product No. | SL AAH 190 AA (Charge: 120112-1) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe (type DAK).

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

### Test Condition

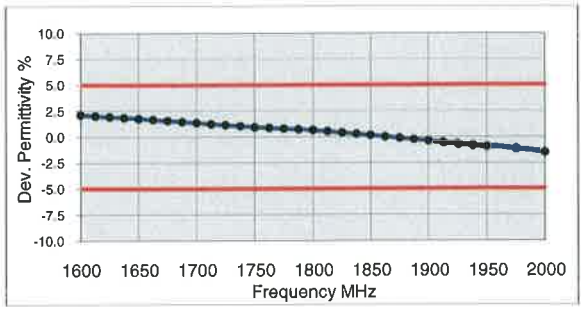
| | |
|---|---|
| Ambient Condition | 22°C ; 30% humidity |
| TSL Temperature | 22°C |
| Test Date | 18-Jan-12 |

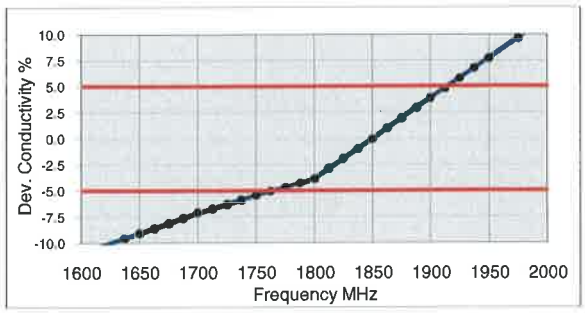
### Additional Information

| | |
|---|---|
| TSL Density | 0.985 g/cm$^3$ |
| TSL Heat-capacity | 3.710 kJ/(kg*K) |

### Results

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e" | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1600 | 41.2 | 12.84 | 1.14 | 40.3 | 1.28 | 2.1 | -11.0 |
| 1613 | 41.1 | 12.88 | 1.16 | 40.3 | 1.29 | 2.0 | -10.5 |
| 1625 | 41.1 | 12.93 | 1.17 | 40.3 | 1.30 | 1.9 | -10.0 |
| 1638 | 41.0 | 12.97 | 1.18 | 40.3 | 1.31 | 1.8 | -9.5 |
| 1650 | 40.9 | 13.01 | 1.19 | 40.2 | 1.31 | 1.8 | -9.1 |
| 1663 | 40.9 | 13.05 | 1.21 | 40.2 | 1.32 | 1.7 | -8.6 |
| 1675 | 40.8 | 13.10 | 1.22 | 40.2 | 1.33 | 1.6 | -8.1 |
| 1688 | 40.8 | 13.14 | 1.23 | 40.2 | 1.33 | 1.4 | -7.6 |
| 1700 | 40.7 | 13.18 | 1.25 | 40.2 | 1.34 | 1.3 | -7.1 |
| 1713 | 40.6 | 13.22 | 1.26 | 40.1 | 1.35 | 1.2 | -6.7 |
| 1725 | 40.6 | 13.25 | 1.27 | 40.1 | 1.36 | 1.1 | -6.3 |
| 1738 | 40.5 | 13.28 | 1.28 | 40.1 | 1.36 | 1.0 | -5.9 |
| 1750 | 40.5 | 13.31 | 1.30 | 40.1 | 1.37 | 0.9 | -5.5 |
| 1763 | 40.4 | 13.35 | 1.31 | 40.1 | 1.38 | 0.9 | -5.1 |
| 1775 | 40.4 | 13.38 | 1.32 | 40.0 | 1.39 | 0.8 | -4.7 |
| 1788 | 40.3 | 13.41 | 1.33 | 40.0 | 1.39 | 0.7 | -4.3 |
| 1800 | 40.3 | 13.44 | 1.35 | 40.0 | 1.40 | 0.6 | -3.9 |
| 1813 | 40.2 | 13.48 | 1.36 | 40.0 | 1.40 | 0.5 | -2.9 |
| 1825 | 40.2 | 13.52 | 1.37 | 40.0 | 1.40 | 0.4 | -2.0 |
| 1838 | 40.1 | 13.55 | 1.39 | 40.0 | 1.40 | 0.3 | -1.0 |
| 1850 | 40.1 | 13.59 | 1.40 | 40.0 | 1.40 | 0.1 | -0.1 |
| 1863 | 40.0 | 13.63 | 1.41 | 40.0 | 1.40 | 0.0 | 0.9 |
| 1875 | 39.9 | 13.67 | 1.43 | 40.0 | 1.40 | -0.1 | 1.9 |
| 1888 | 39.9 | 13.71 | 1.44 | 40.0 | 1.40 | -0.3 | 2.9 |
| 1900 | 39.8 | 13.75 | 1.45 | 40.0 | 1.40 | -0.4 | 3.8 |
| 1913 | 39.8 | 13.79 | 1.47 | 40.0 | 1.40 | -0.5 | 4.8 |
| 1925 | 39.7 | 13.83 | 1.48 | 40.0 | 1.40 | -0.7 | 5.8 |
| 1938 | 39.7 | 13.86 | 1.49 | 40.0 | 1.40 | -0.8 | 6.7 |
| 1950 | 39.6 | 13.90 | 1.51 | 40.0 | 1.40 | -0.9 | 7.7 |
| 1975 | 39.5 | 13.97 | 1.53 | 40.0 | 1.40 | -1.2 | 9.6 |
| 2000 | 39.4 | 14.04 | 1.56 | 40.0 | 1.40 | -1.5 | 11.6 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL1950V2)** |
| Product No. | SL AAH 195 CA (Charge: 120717-3) |
| Manufacturer | SPEAG |

**Measurement Method**

TSL dielectric parameters measured using calibrated OCP probe.

**Setup Validation**

Validation results were within ± 2.5% towards the target values of Methanol.

**Target Parameters**

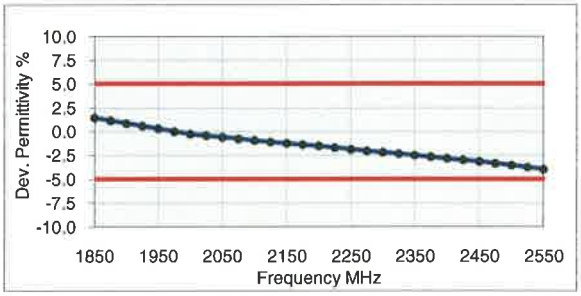
Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

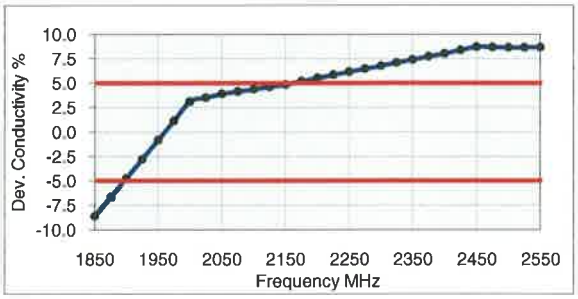
**Test Condition**

| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 18-Jul-12 |
| Operator | DI |

| | |
|---|---|
| TSL Density | 0.995 g/cm$^3$ |
| TSL Heat-capacity | 3.720 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e" | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1850 | 40.6 | 12.43 | 1.28 | 40.0 | 1.40 | 1.5 | -8.6 |
| 1875 | 40.5 | 12.53 | 1.31 | 40.0 | 1.40 | 1.2 | -6.7 |
| 1900 | 40.3 | 12.62 | 1.33 | 40.0 | 1.40 | 0.9 | -4.7 |
| 1925 | 40.2 | 12.71 | 1.36 | 40.0 | 1.40 | 0.6 | -2.8 |
| 1950 | 40.1 | 12.80 | 1.39 | 40.0 | 1.40 | 0.3 | -0.8 |
| 1975 | 40.0 | 12.89 | 1.42 | 40.0 | 1.40 | 0.0 | 1.1 |
| 2000 | 39.9 | 12.98 | 1.44 | 40.0 | 1.40 | -0.3 | 3.1 |
| 2025 | 39.8 | 13.07 | 1.47 | 40.0 | 1.42 | -0.4 | 3.5 |
| 2050 | 39.7 | 13.16 | 1.50 | 39.9 | 1.44 | -0.6 | 3.9 |
| 2075 | 39.6 | 13.23 | 1.53 | 39.9 | 1.47 | -0.8 | 4.2 |
| 2100 | 39.5 | 13.30 | 1.55 | 39.8 | 1.49 | -0.9 | 4.4 |
| 2125 | 39.3 | 13.37 | 1.58 | 39.8 | 1.51 | -1.1 | 4.6 |
| 2150 | 39.2 | 13.44 | 1.61 | 39.7 | 1.53 | -1.2 | 4.9 |
| 2175 | 39.1 | 13.52 | 1.64 | 39.7 | 1.56 | -1.4 | 5.2 |
| 2200 | 39.1 | 13.61 | 1.67 | 39.6 | 1.58 | -1.5 | 5.5 |
| 2225 | 38.9 | 13.68 | 1.69 | 39.6 | 1.60 | -1.7 | 5.9 |
| 2250 | 38.8 | 13.76 | 1.72 | 39.6 | 1.62 | -1.9 | 6.2 |
| 2275 | 38.7 | 13.83 | 1.75 | 39.5 | 1.64 | -2.0 | 6.5 |
| 2300 | 38.6 | 13.91 | 1.78 | 39.5 | 1.67 | -2.2 | 6.8 |
| 2325 | 38.5 | 13.98 | 1.81 | 39.4 | 1.69 | -2.3 | 7.1 |
| 2350 | 38.4 | 14.06 | 1.84 | 39.4 | 1.71 | -2.5 | 7.4 |
| 2375 | 38.3 | 14.13 | 1.87 | 39.3 | 1.73 | -2.7 | 7.7 |
| 2400 | 38.2 | 14.21 | 1.90 | 39.3 | 1.76 | -2.8 | 8.0 |
| 2425 | 38.1 | 14.28 | 1.93 | 39.2 | 1.78 | -3.0 | 8.4 |
| 2450 | 38.0 | 14.36 | 1.96 | 39.2 | 1.80 | -3.1 | 8.7 |
| 2475 | 37.9 | 14.42 | 1.99 | 39.2 | 1.83 | -3.3 | 8.7 |
| 2500 | 37.8 | 14.49 | 2.02 | 39.1 | 1.85 | -3.5 | 8.7 |
| 2525 | 37.6 | 14.56 | 2.04 | 39.1 | 1.88 | -3.7 | 8.7 |
| 2550 | 37.5 | 14.62 | 2.07 | 39.1 | 1.91 | -3.9 | 8.7 |
| 2575 | 37.4 | 14.69 | 2.10 | 39.0 | 1.94 | -4.1 | 8.7 |
| 2600 | 37.3 | 14.76 | 2.13 | 39.0 | 1.96 | -4.3 | 8.7 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HSL2450V2)** |
| Product No. | SL AAH 245 BA (Charge: 130430-3) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

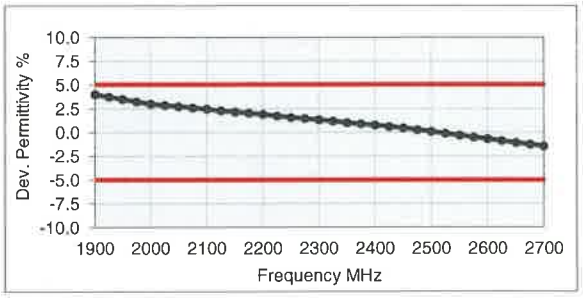
### Test Condition

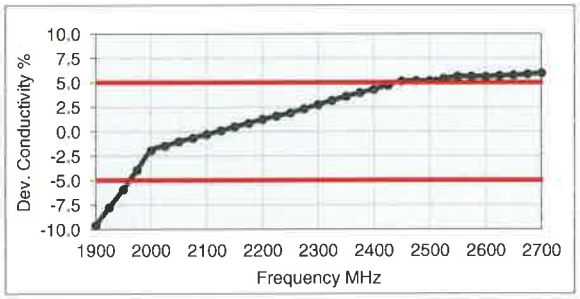
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 23°C |
| Test Date | 2-May-13 |
| Operator | CL |

### Additional Information

| | |
|---|---|
| TSL Density | 0.988 g/cm$^3$ |
| TSL Heat-capacity | 3.680 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1900 | 41.6 | 11.98 | 1.27 | 40.0 | 1.40 | 4.0 | -9.6 |
| 1925 | 41.5 | 12.06 | 1.29 | 40.0 | 1.40 | 3.8 | -7.7 |
| 1950 | 41.4 | 12.15 | 1.32 | 40.0 | 1.40 | 3.5 | -5.9 |
| 1975 | 41.3 | 12.24 | 1.35 | 40.0 | 1.40 | 3.3 | -3.9 |
| 2000 | 41.2 | 12.34 | 1.37 | 40.0 | 1.40 | 3.0 | -1.9 |
| 2025 | 41.1 | 12.44 | 1.40 | 40.0 | 1.42 | 2.9 | -1.5 |
| 2050 | 41.0 | 12.54 | 1.43 | 39.9 | 1.44 | 2.8 | -1.0 |
| 2075 | 40.9 | 12.62 | 1.46 | 39.9 | 1.47 | 2.6 | -0.6 |
| 2100 | 40.8 | 12.71 | 1.48 | 39.8 | 1.49 | 2.5 | -0.3 |
| 2125 | 40.7 | 12.80 | 1.51 | 39.8 | 1.51 | 2.3 | 0.1 |
| 2150 | 40.6 | 12.88 | 1.54 | 39.7 | 1.53 | 2.2 | 0.5 |
| 2175 | 40.5 | 12.97 | 1.57 | 39.7 | 1.56 | 2.0 | 0.9 |
| 2200 | 40.4 | 13.05 | 1.60 | 39.6 | 1.58 | 1.9 | 1.3 |
| 2225 | 40.3 | 13.13 | 1.63 | 39.6 | 1.60 | 1.7 | 1.6 |
| 2250 | 40.2 | 13.21 | 1.65 | 39.6 | 1.62 | 1.6 | 1.9 |
| 2275 | 40.1 | 13.30 | 1.68 | 39.5 | 1.64 | 1.5 | 2.4 |
| **2300** | **40.0** | **13.39** | **1.71** | **39.5** | **1.67** | **1.3** | **2.8** |
| 2325 | 39.9 | 13.48 | 1.74 | 39.4 | 1.69 | 1.2 | 3.2 |
| 2350 | 39.8 | 13.56 | 1.77 | 39.4 | 1.71 | 1.0 | 3.6 |
| 2375 | 39.7 | 13.64 | 1.80 | 39.3 | 1.73 | 0.9 | 4.0 |
| 2400 | 39.6 | 13.72 | 1.83 | 39.3 | 1.76 | 0.8 | 4.3 |
| 2425 | 39.5 | 13.80 | 1.86 | 39.2 | 1.78 | 0.6 | 4.8 |
| **2450** | **39.4** | **13.89** | **1.89** | **39.2** | **1.80** | **0.5** | **5.2** |
| 2475 | 39.3 | 13.96 | 1.92 | 39.2 | 1.83 | 0.3 | 5.2 |
| 2500 | 39.2 | 14.03 | 1.95 | 39.1 | 1.85 | 0.1 | 5.2 |
| 2525 | 39.1 | 14.12 | 1.98 | 39.1 | 1.88 | -0.1 | 5.4 |
| 2550 | 39.0 | 14.22 | 2.02 | 39.1 | 1.91 | -0.3 | 5.6 |
| 2575 | 38.9 | 14.28 | 2.05 | 39.0 | 1.94 | -0.5 | 5.6 |
| **2600** | **38.7** | **14.34** | **2.07** | **39.0** | **1.96** | **-0.7** | **5.6** |
| 2625 | 38.6 | 14.41 | 2.10 | 39.0 | 1.99 | -0.9 | 5.7 |
| 2650 | 38.5 | 14.48 | 2.13 | 38.9 | 2.02 | -1.1 | 5.8 |
| 2675 | 38.4 | 14.55 | 2.17 | 38.9 | 2.05 | -1.3 | 5.9 |
| 2700 | 38.3 | 14.62 | 2.20 | 38.9 | 2.07 | -1.4 | 6.0 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HBBL1550-1950V3)** |
| Product No. | SL AAH 181 AA (Charge: 140206-3) |
| Manufacturer | SPEAG |

**Measurement Method**

TSL dielectric parameters measured using calibrated OCP probe.

**Setup Validation**

Validation results were within ± 2.5% towards the target values of Methanol.

**Target Parameters**

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

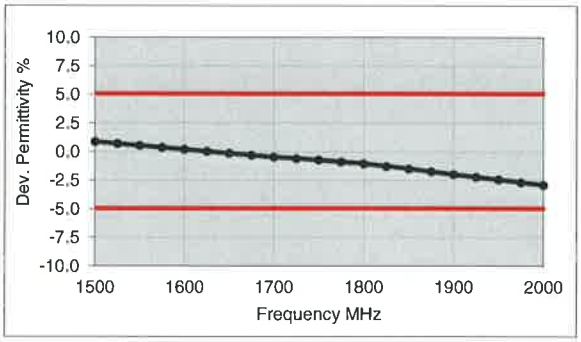
**Test Condition**

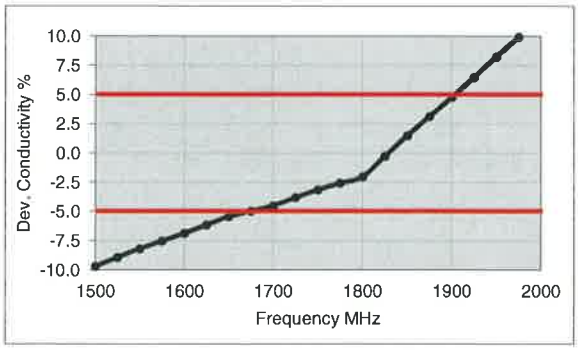
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 12-Feb-14 |
| Operator | IEN |

**Additional Information**

| | |
|---|---|
| TSL Density | 1.052 g/cm$^3$ |
| TSL Heat-capacity | 3.322 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e" | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1500 | 40.8 | 13.29 | 1.11 | 40.4 | 1.23 | 0.9 | -9.7 |
| 1525 | 40.7 | 13.34 | 1.13 | 40.4 | 1.24 | 0.7 | -8.9 |
| 1550 | 40.6 | 13.38 | 1.15 | 40.4 | 1.26 | 0.6 | -8.2 |
| 1575 | 40.5 | 13.41 | 1.17 | 40.3 | 1.27 | 0.4 | -7.5 |
| 1600 | 40.4 | 13.44 | 1.20 | 40.3 | 1.28 | 0.2 | -6.9 |
| 1625 | 40.3 | 13.48 | 1.22 | 40.3 | 1.30 | 0.1 | -6.2 |
| 1650 | 40.2 | 13.53 | 1.24 | 40.2 | 1.31 | -0.1 | -5.4 |
| 1675 | 40.1 | 13.54 | 1.26 | 40.2 | 1.33 | -0.3 | -5.0 |
| 1700 | 40.0 | 13.55 | 1.28 | 40.2 | 1.34 | -0.4 | -4.5 |
| 1725 | 39.9 | 13.60 | 1.30 | 40.1 | 1.36 | -0.6 | -3.8 |
| 1750 | 39.8 | 13.64 | 1.33 | 40.1 | 1.37 | -0.7 | -3.1 |
| 1775 | 39.7 | 13.67 | 1.35 | 40.0 | 1.39 | -0.9 | -2.6 |
| 1800 | 39.6 | 13.70 | 1.37 | 40.0 | 1.40 | -1.0 | -2.0 |
| 1825 | 39.5 | 13.75 | 1.40 | 40.0 | 1.40 | -1.2 | -0.3 |
| 1850 | 39.4 | 13.81 | 1.42 | 40.0 | 1.40 | -1.5 | 1.5 |
| 1875 | 39.3 | 13.84 | 1.44 | 40.0 | 1.40 | -1.7 | 3.1 |
| 1900 | 39.2 | 13.88 | 1.47 | 40.0 | 1.40 | -2.0 | 4.8 |
| 1925 | 39.1 | 13.92 | 1.49 | 40.0 | 1.40 | -2.2 | 6.5 |
| 1950 | 39.0 | 13.97 | 1.52 | 40.0 | 1.40 | -2.4 | 8.3 |
| 1975 | 38.9 | 14.01 | 1.54 | 40.0 | 1.40 | -2.6 | 10.0 |
| 2000 | 38.8 | 14.05 | 1.56 | 40.0 | 1.40 | -2.9 | 11.6 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HBBL1900-3800V3)** |
| Product No. | SL AAH 196 AB (Charge: 131212-1) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

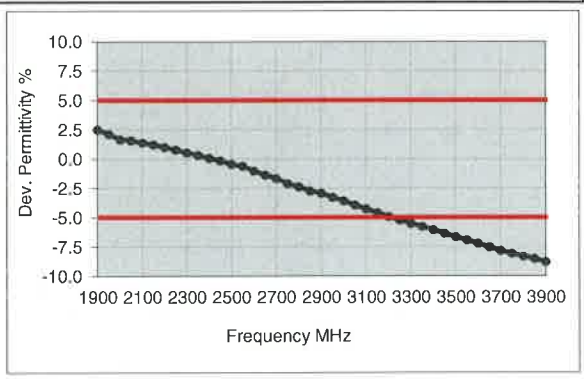
### Test Condition

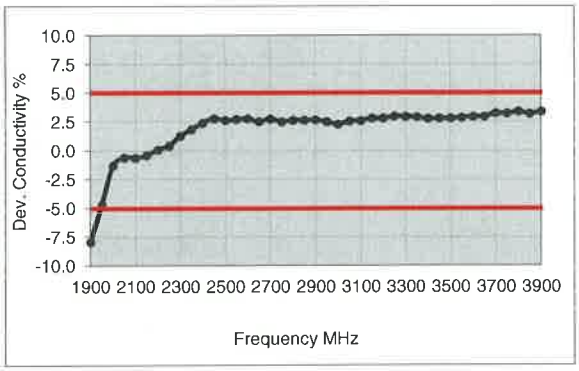
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 18-Dec-13 |
| Operator | IEN |

### Additional Information

| | |
|---|---|
| TSL Density | 1.054 g/cm$^3$ |
| TSL Heat-capacity | 3.389 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e" | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 1900 | 41.0 | 12.2 | 1.3 | 40.0 | 1.4 | 2.5 | -7.9 |
| 1950 | 40.8 | 12.3 | 1.3 | 40.0 | 1.4 | 2.1 | -4.7 |
| 2000 | 40.7 | 12.4 | 1.4 | 40.0 | 1.4 | 1.7 | -1.3 |
| 2050 | 40.5 | 12.6 | 1.4 | 39.9 | 1.4 | 1.6 | -0.6 |
| 2100 | 40.4 | 12.7 | 1.5 | 39.8 | 1.5 | 1.4 | -0.6 |
| 2150 | 40.2 | 12.8 | 1.5 | 39.7 | 1.5 | 1.2 | -0.4 |
| 2200 | 40.0 | 12.9 | 1.6 | 39.6 | 1.6 | 1.0 | 0.1 |
| 2250 | 39.9 | 13.0 | 1.6 | 39.6 | 1.6 | 0.8 | 0.4 |
| 2300 | 39.7 | 13.2 | 1.7 | 39.5 | 1.7 | 0.5 | 1.3 |
| 2350 | 39.5 | 13.3 | 1.7 | 39.4 | 1.7 | 0.3 | 1.8 |
| 2400 | 39.3 | 13.5 | 1.8 | 39.3 | 1.8 | 0.1 | 2.4 |
| 2450 | 39.1 | 13.6 | 1.9 | 39.2 | 1.8 | -0.1 | 2.8 |
| 2500 | 39.0 | 13.7 | 1.9 | 39.1 | 1.9 | -0.4 | 2.6 |
| 2550 | 38.8 | 13.8 | 2.0 | 39.1 | 1.9 | -0.6 | 2.7 |
| 2600 | 38.6 | 14.0 | 2.0 | 39.0 | 2.0 | -1.0 | 2.8 |
| 2650 | 38.4 | 14.0 | 2.1 | 38.9 | 2.0 | -1.4 | 2.5 |
| 2700 | 38.2 | 14.2 | 2.1 | 38.9 | 2.1 | -1.7 | 2.7 |
| 2750 | 38.0 | 14.3 | 2.2 | 38.8 | 2.1 | -2.1 | 2.5 |
| 2800 | 37.8 | 14.4 | 2.2 | 38.8 | 2.2 | -2.4 | 2.6 |
| 2850 | 37.6 | 14.5 | 2.3 | 38.7 | 2.2 | -2.7 | 2.6 |
| 2900 | 37.5 | 14.6 | 2.4 | 38.6 | 2.3 | -2.9 | 2.6 |
| 2950 | 37.3 | 14.6 | 2.4 | 38.6 | 2.3 | -3.3 | 2.5 |
| 3000 | 37.1 | 14.7 | 2.5 | 38.5 | 2.4 | -3.6 | 2.3 |
| 3050 | 36.9 | 14.8 | 2.5 | 38.4 | 2.5 | -3.9 | 2.6 |
| 3100 | 36.7 | 14.9 | 2.6 | 38.4 | 2.5 | -4.3 | 2.6 |
| 3150 | 36.6 | 15.0 | 2.6 | 38.3 | 2.6 | -4.6 | 2.8 |
| 3200 | 36.4 | 15.0 | 2.7 | 38.3 | 2.6 | -4.9 | 2.8 |
| 3250 | 36.2 | 15.1 | 2.7 | 38.2 | 2.7 | -5.2 | 3.0 |
| 3300 | 36.1 | 15.2 | 2.8 | 38.2 | 2.7 | -5.5 | 3.0 |
| 3350 | 35.9 | 15.2 | 2.8 | 38.1 | 2.8 | -5.8 | 2.9 |
| 3400 | 35.7 | 15.3 | 2.9 | 38.0 | 2.8 | -6.0 | 2.8 |
| 3450 | 35.6 | 15.3 | 2.9 | 38.0 | 2.9 | -6.3 | 2.8 |
| 3500 | 35.4 | 15.4 | 3.0 | 37.9 | 2.9 | -6.6 | 2.8 |
| 3550 | 35.3 | 15.4 | 3.0 | 37.9 | 3.0 | -6.9 | 2.9 |
| 3600 | 35.1 | 15.5 | 3.1 | 37.8 | 3.0 | -7.2 | 2.9 |
| 3650 | 34.9 | 15.5 | 3.2 | 37.8 | 3.1 | -7.5 | 2.9 |
| 3700 | 34.7 | 15.6 | 3.2 | 37.7 | 3.1 | -7.8 | 3.2 |
| 3750 | 34.6 | 15.7 | 3.3 | 37.6 | 3.2 | -8.1 | 3.2 |
| 3800 | 34.5 | 15.7 | 3.3 | 37.6 | 3.2 | -8.3 | 3.4 |
| 3850 | 34.3 | 15.8 | 3.4 | 37.5 | 3.3 | -8.5 | 3.2 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HBBL3500-5800V5)** |
| Product No. | SL AAH 502 AB (Charge: 130123-1) |
| Manufacturer | SPEAG |

### Measurement Method

TSL dielectric parameters measured using calibrated OCP probe.

### Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

### Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

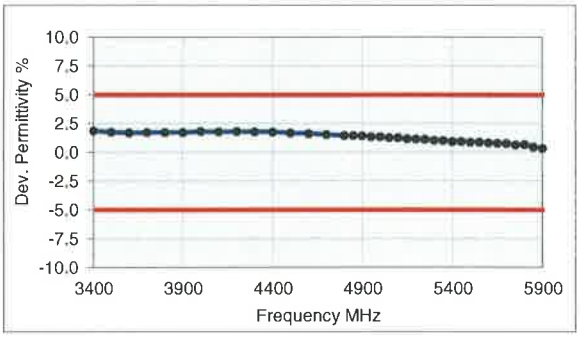
### Test Condition

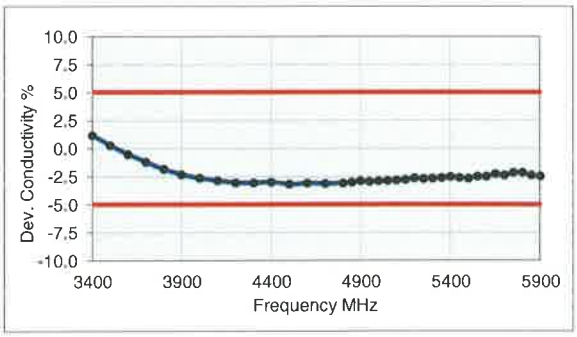
| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 23-Jan-13 |
| Operator | DI |

### Additional Information

| | |
|---|---|
| TSL Density | 0.985 g/cm$^3$ |
| TSL Heat-capacity | 3.383 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | HP-e' | HP-e'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 3400 | 38.8 | 15.03 | 2.84 | 38.0 | 2.81 | 1.9 | 1.2 |
| **3500** | **38.6** | **15.00** | **2.92** | **37.9** | **2.91** | **1.8** | **0.3** |
| 3600 | 38.5 | 14.98 | 3.00 | 37.8 | 3.02 | 1.7 | -0.5 |
| **3700** | **38.4** | **14.97** | **3.08** | **37.7** | **3.12** | **1.7** | **-1.2** |
| 3800 | 38.2 | 14.95 | 3.16 | 37.6 | 3.22 | 1.7 | -1.8 |
| 3900 | 38.1 | 14.96 | 3.25 | 37.5 | 3.32 | 1.7 | -2.3 |
| 4000 | 38.0 | 14.99 | 3.34 | 37.4 | 3.43 | 1.8 | -2.6 |
| 4100 | 37.9 | 15.03 | 3.43 | 37.2 | 3.53 | 1.8 | -2.8 |
| 4200 | 37.8 | 15.06 | 3.52 | 37.1 | 3.63 | 1.8 | -3.0 |
| 4300 | 37.7 | 15.13 | 3.62 | 37.0 | 3.73 | 1.8 | -3.1 |
| 4400 | 37.6 | 15.20 | 3.72 | 36.9 | 3.84 | 1.8 | -3.0 |
| 4500 | 37.4 | 15.23 | 3.81 | 36.8 | 3.94 | 1.7 | -3.2 |
| 4600 | 37.3 | 15.30 | 3.92 | 36.7 | 4.04 | 1.6 | -3.1 |
| 4700 | 37.1 | 15.35 | 4.01 | 36.6 | 4.14 | 1.5 | -3.1 |
| 4800 | 37.0 | 15.41 | 4.11 | 36.4 | 4.25 | 1.5 | -3.1 |
| 4850 | 36.9 | 15.45 | 4.17 | 36.4 | 4.30 | 1.5 | -3.0 |
| 4900 | 36.8 | 15.49 | 4.22 | 36.3 | 4.35 | 1.4 | -2.9 |
| 4950 | 36.8 | 15.51 | 4.27 | 36.3 | 4.40 | 1.4 | -2.9 |
| 5000 | 36.7 | 15.54 | 4.32 | 36.2 | 4.45 | 1.4 | -2.9 |
| 5050 | 36.6 | 15.57 | 4.37 | 36.2 | 4.50 | 1.3 | -2.8 |
| 5100 | 36.6 | 15.60 | 4.42 | 36.1 | 4.55 | 1.3 | -2.8 |
| 5150 | 36.5 | 15.63 | 4.48 | 36.0 | 4.60 | 1.2 | -2.7 |
| **5200** | **36.4** | **15.67** | **4.53** | **36.0** | **4.66** | **1.2** | **-2.6** |
| 5250 | 36.3 | 15.68 | 4.58 | 35.9 | 4.71 | 1.1 | -2.7 |
| 5300 | 36.2 | 15.71 | 4.63 | 35.9 | 4.76 | 1.0 | -2.6 |
| 5350 | 36.2 | 15.74 | 4.68 | 35.8 | 4.81 | 1.0 | -2.6 |
| 5400 | 36.1 | 15.78 | 4.74 | 35.8 | 4.86 | 0.9 | -2.5 |
| 5450 | 36.0 | 15.78 | 4.78 | 35.7 | 4.91 | 0.9 | -2.6 |
| **5500** | **36.0** | **15.79** | **4.83** | **35.6** | **4.96** | **0.9** | **-2.6** |
| 5550 | 35.9 | 15.84 | 4.89 | 35.6 | 5.01 | 0.9 | -2.5 |
| 5600 | 35.8 | 15.86 | 4.94 | 35.5 | 5.07 | 0.8 | -2.5 |
| 5650 | 35.8 | 15.91 | 5.00 | 35.5 | 5.12 | 0.8 | -2.2 |
| 5700 | 35.7 | 15.91 | 5.05 | 35.4 | 5.17 | 0.8 | -2.4 |
| 5750 | 35.6 | 15.97 | 5.11 | 35.4 | 5.22 | 0.7 | -2.1 |
| **5800** | **35.5** | **15.98** | **5.16** | **35.3** | **5.27** | **0.7** | **-2.1** |
| 5850 | 35.5 | 16.01 | 5.21 | 35.3 | 5.34 | 0.5 | -2.4 |
| 5900 | 35.4 | 16.05 | 5.27 | 35.3 | 5.40 | 0.3 | -2.4 |



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## Measurement Certificate / Material Test

| | |
|---|---|
| Item Name | **Head Tissue Simulating Liquid (HBBL4-250V3)** |
| Product No. | SL AAH 005 AD (Batch: 210921-1) |
| Manufacturer | SPEAG |

**Measurement Method**

TSL dielectric parameters measured using calibrated DAK probe.

**Setup Validation**

Validation results were within ± 2.5% towards the target values of Methanol.

**Target Parameters**

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

**Test Condition**

| | |
|---|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 24-Sep-21 |
| Operator | WM |

**Additional Information**

| | |
|---|---|
| TSL Density | 1.042 g/cm3 |
| TSL Heat-capacity | 3.574 kJ/(kg*K) |

| | Measured | | | Target | | Diff.to Target [%] | |
|---|---|---|---|---|---|---|---|
| f [MHz] | ε' | ε'' | sigma | eps | sigma | Δ-eps | Δ-sigma |
| 5 | 52.8 | 2566.54 | 0.71 | 55.5 | 0.75 | -4.7 | -4.8 |
| 10 | 53.2 | 1283.56 | 0.71 | 55.5 | 0.75 | -4.0 | -4.8 |
| 15 | 53.2 | 856.45 | 0.71 | 55.3 | 0.75 | -3.9 | -4.7 |
| 20 | 53.2 | 642.92 | 0.72 | 55.1 | 0.75 | -3.5 | -4.6 |
| 25 | 53.2 | 514.83 | 0.72 | 55.0 | 0.75 | -3.3 | -4.5 |
| 30 | 53.2 | 429.47 | 0.72 | 55.0 | 0.75 | -3.3 | -4.4 |
| 35 | 53.1 | 368.53 | 0.72 | 54.9 | 0.75 | -3.2 | -4.3 |
| 40 | 53.0 | 322.85 | 0.72 | 54.8 | 0.75 | -3.2 | -4.2 |
| 45 | 53.0 | 287.36 | 0.72 | 54.7 | 0.75 | -3.1 | -4.1 |
| 50 | 52.8 | 258.99 | 0.72 | 54.6 | 0.75 | -3.1 | -4.0 |
| 55 | 52.7 | 235.82 | 0.72 | 54.4 | 0.75 | -3.2 | -3.9 |
| 60 | 52.5 | 216.53 | 0.72 | 54.3 | 0.75 | -3.3 | -3.8 |
| 65 | 52.4 | 200.23 | 0.72 | 54.2 | 0.75 | -3.4 | -3.7 |
| 70 | 52.2 | 186.28 | 0.73 | 54.1 | 0.75 | -3.5 | -3.6 |
| 75 | 52.1 | 174.20 | 0.73 | 54.0 | 0.75 | -3.6 | -3.4 |
| 80 | 51.9 | 163.65 | 0.73 | 53.9 | 0.75 | -3.6 | -3.3 |
| 85 | 51.9 | 154.34 | 0.73 | 53.8 | 0.75 | -3.5 | -3.1 |
| 90 | 51.8 | 146.08 | 0.73 | 53.7 | 0.75 | -3.5 | -3.0 |
| 95 | 51.7 | 138.70 | 0.73 | 53.5 | 0.75 | -3.4 | -2.8 |
| 100 | 51.6 | 132.07 | 0.73 | 53.4 | 0.75 | -3.4 | -2.7 |
| 105 | 51.5 | 126.07 | 0.74 | 53.3 | 0.76 | -3.4 | -2.5 |
| 110 | 51.4 | 120.63 | 0.74 | 53.2 | 0.76 | -3.3 | -2.3 |
| 115 | 51.3 | 115.67 | 0.74 | 53.1 | 0.76 | -3.3 | -2.1 |
| 120 | 51.2 | 111.12 | 0.74 | 53.0 | 0.76 | -3.3 | -1.9 |
| 125 | 51.1 | 106.94 | 0.74 | 52.9 | 0.76 | -3.3 | -1.7 |
| 130 | 51.0 | 103.09 | 0.75 | 52.8 | 0.76 | -3.3 | -1.5 |
| 135 | 50.9 | 99.53 | 0.75 | 52.6 | 0.76 | -3.3 | -1.3 |
| 140 | 50.8 | 96.23 | 0.75 | 52.5 | 0.76 | -3.2 | -1.1 |
| 145 | 50.7 | 93.16 | 0.75 | 52.4 | 0.76 | -3.2 | -0.9 |
| 150 | 50.6 | 90.30 | 0.75 | 52.3 | 0.76 | -3.2 | -0.7 |
| 155 | 50.5 | 87.63 | 0.76 | 52.1 | 0.76 | -2.9 | -0.9 |
| 160 | 50.5 | 85.12 | 0.76 | 51.8 | 0.77 | -2.7 | -1.1 |
| 165 | 50.4 | 82.77 | 0.76 | 51.6 | 0.77 | -2.4 | -1.3 |
| 170 | 50.3 | 80.56 | 0.76 | 51.4 | 0.77 | -2.1 | -1.5 |
| 175 | 50.2 | 78.48 | 0.76 | 51.1 | 0.78 | -1.9 | -1.7 |
| 180 | 50.1 | 76.51 | 0.77 | 50.9 | 0.78 | -1.6 | -1.9 |
| 185 | 50.0 | 74.66 | 0.77 | 50.7 | 0.78 | -1.3 | -2.1 |
| 190 | 49.9 | 72.90 | 0.77 | 50.4 | 0.79 | -1.0 | -2.2 |
| 195 | 49.8 | 71.23 | 0.77 | 50.2 | 0.79 | -0.7 | -2.4 |
| 200 | 49.7 | 69.65 | 0.77 | 50.0 | 0.80 | -0.5 | -2.6 |
| 205 | 49.7 | 68.15 | 0.78 | 49.7 | 0.80 | -0.2 | -2.8 |
| 210 | 49.6 | 66.72 | 0.78 | 49.5 | 0.80 | 0.1 | -2.9 |
| 215 | 49.5 | 65.35 | 0.78 | 49.3 | 0.81 | 0.4 | -3.1 |
| 220 | 49.4 | 64.05 | 0.78 | 49.0 | 0.81 | 0.8 | -3.2 |
| 225 | 49.3 | 62.81 | 0.79 | 48.8 | 0.81 | 1.1 | -3.4 |
| 230 | 49.2 | 61.62 | 0.79 | 48.6 | 0.82 | 1.4 | -3.6 |
| 235 | 49.2 | 60.49 | 0.79 | 48.3 | 0.82 | 1.7 | -3.7 |
| 240 | 49.1 | 59.40 | 0.79 | 48.1 | 0.82 | 2.0 | -3.9 |
| 245 | 49.0 | 58.36 | 0.80 | 47.9 | 0.83 | 2.4 | -4.0 |
| 250 | 48.9 | 57.36 | 0.80 | 47.6 | 0.83 | 2.7 | -4.1 |