SLNT®

Silent Pocket®

MULTISHIELD®

MULTISHIELD® TESTING: MIL-STD-188-125-2

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REPORT NO.: 2106-125EB
REVISION: A

SHIELDING EFFECTIVENESS TEST REPORT FOR SILENT POCKET® MULTISHIELD® FARADAY MATERIAL

Configuration

Testing performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations, and settings used to complete the evaluation. The actual test parameters specified in the test data; this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation, indicated in the test data.

EUT		
Description	Manufacturer	
Fabric Material Samples	SLNT Inc	
Model Number	Part Number	Serial Number
N/A	N/A	N/A

Samples Tested	
SAMPLE	SAMPLE NAME
Sample 1	Double Layer
Sample 2	Triple Layer

EUT
Fabric Material

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Summary of Tests Performed & Results

Table 1 Tests Performed & Results

Report Paragraph	Test Description	Specification	Notes	Results
MIL-STD-188-125-2				
3.1	Shielding Effectiveness	MIL-STD-188-125-2	10kHz – 1GHz	Compliant

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Section 2 – References

2.1 Applicable Specifications

Reference Specification Title	MIL-STD-188-125-2 Department Of Defense Interface Standard High-Altitude Electromagnetic Pulse (Hemp) Protection for Ground-Based C4i Facilities Performing Critical, Time-Urgent Missions Part 2 Transportable Systems
Calibration Information	ANSI/NCSL Z540-3-2006 Calibration Laboratories and Measuring Test Equipment— General Requirements

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Shielding Effectiveness
Sample Placed on Fixture

Shielding Effectiveness
Sample Clamped on Fixture

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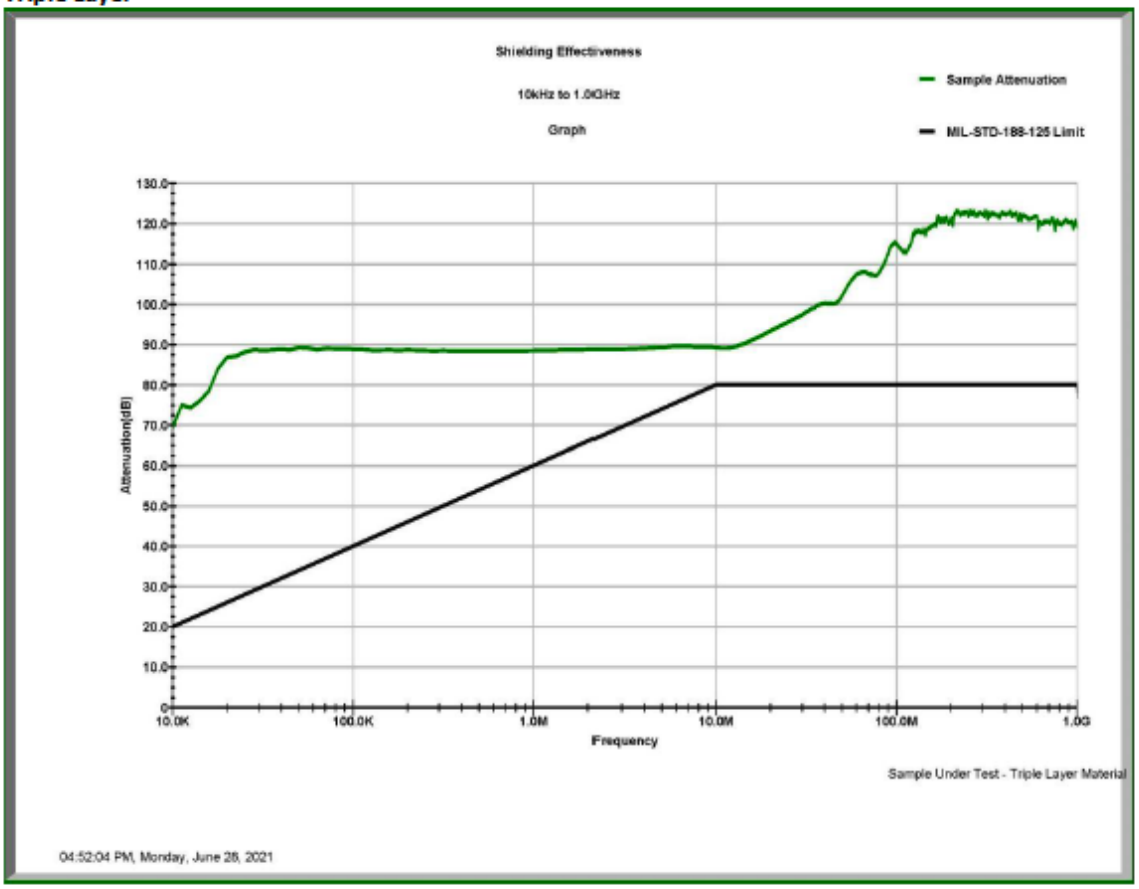
Triple Layer



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SHIELDING EFFECTIVENESS TEST REPORT FOR SILENT POCKET® MULTISHIELD® FARADAY MATERIAL

Section 4 – Conclusion

a) The Fabric Material Samples, Model Number: N/A; Part Number: N/A; Serial Number: N/A, were subjected to the following EMC Tests in accordance with MIL-STD-188-125-2 and the specifications as shown in Table 2:

Table 2 Tests Performed & Results

Test Description	Specification	Results
MIL-STD-188-125-2		
Shielding Effectiveness	MIL-STD-188-125-2	Compliant

b) The Fabric Material Samples were returned to SLNT Inc after completion of the Shielding Effectiveness Test.

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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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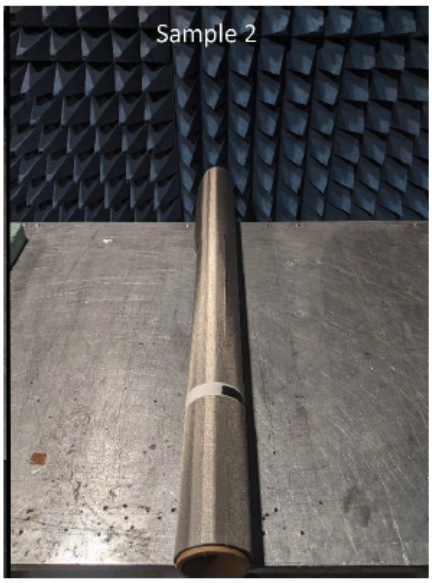
REPORT NO.: 2203-117EB-2
REVISION: B

SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Configuration

Testing performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations, and settings used to complete the evaluation. The actual test parameters specified in the test data; this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation, indicated in the test data.

EUT		
Description	Manufacturer	
SLNT® Multishield® Faraday Material	SLNT, Inc	
Model Number	Part Number	Serial Number
N/A	N/A	N/A
Notes		
A Single Layer was tested		



EUT
SLNT® Multishield® Faraday Material

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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Summary of Tests Performed & Results

Table 1 Tests Performed & Results

Report Paragraph	Test Description	Specification	Notes	Results
IEEE 299-2006				
3.1	Shielding Effectiveness	IEEE 299-2006	1GHz-40GHz	Pass

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SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

3.1.3 Shielding Effectiveness Test Data

Shielding Effectiveness Data Sheet					
Customer:	SLNT, Inc				
Date:	5/2/22			Test Engineer:	M. Gennaro
Config. #:	1	Power:	N/A	Job Site:	Keystone Compliance
Test Specifications					
Test Spec.:	IEEE 299-2006				

Test Data

Test Parameters					
Start Frequency:	1GHz	Stop Frequency:	40GHz	Step Size:	1GHz
EUT Operating Modes					
N/A					
Comments					
A Single Layer was tested					
Deviations From Test Standard					
None					
Results					
Compliant					

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SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Shielding Effectiveness Data Table

Frequency	Shielding Effectiveness	Frequency	Shielding Effectiveness
GHz	dB	GHz	dB
1	84.3	21	88.1
2	92.3	22	87.3
3	92.5	23	89.3
4	93.4	24	90.4
5	91.8	25	87.0
6	81.2	26	84.0
7	91.2	27	92.9
8	85.5	28	92.9
9	89.2	29	91.5
10	92.7	30	94.0
11	93.4	31	94.9
12	87.0	32	85.4
13	86.9	33	85.2
14	84.0	34	86.0
15	88.2	35	85.7
16	88.8	36	83.6
17	85.3	37	84.3
18	84.4	38	81.5
19	90.6	39	82.3
20	89.3	40	79.8

Data Table Additional Information
Sample Calculations
20dB = 10:1 Reduction 40dB = 100:1 Reduction 60dB = 1,000:1 Reduction 80dB = 10,000:1 Reduction 100dB = 100,000:1 Reduction
Common Mobile Phone Frequencies
2G/3G - 900MHz & 1.8GHz 4G - 1.8GHz & 2.6GHz 5G - 700MHz-2.5GHz, 28GHz & 39GHz WiFi - 2.4GHz & 5GHz Bluetooth - 2.4GHz NFC - 13.56MHz RFID - 125kHz, 134kHz, 433MHz & 860-960MHz

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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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REPORT NO.: 2203-117EB-2
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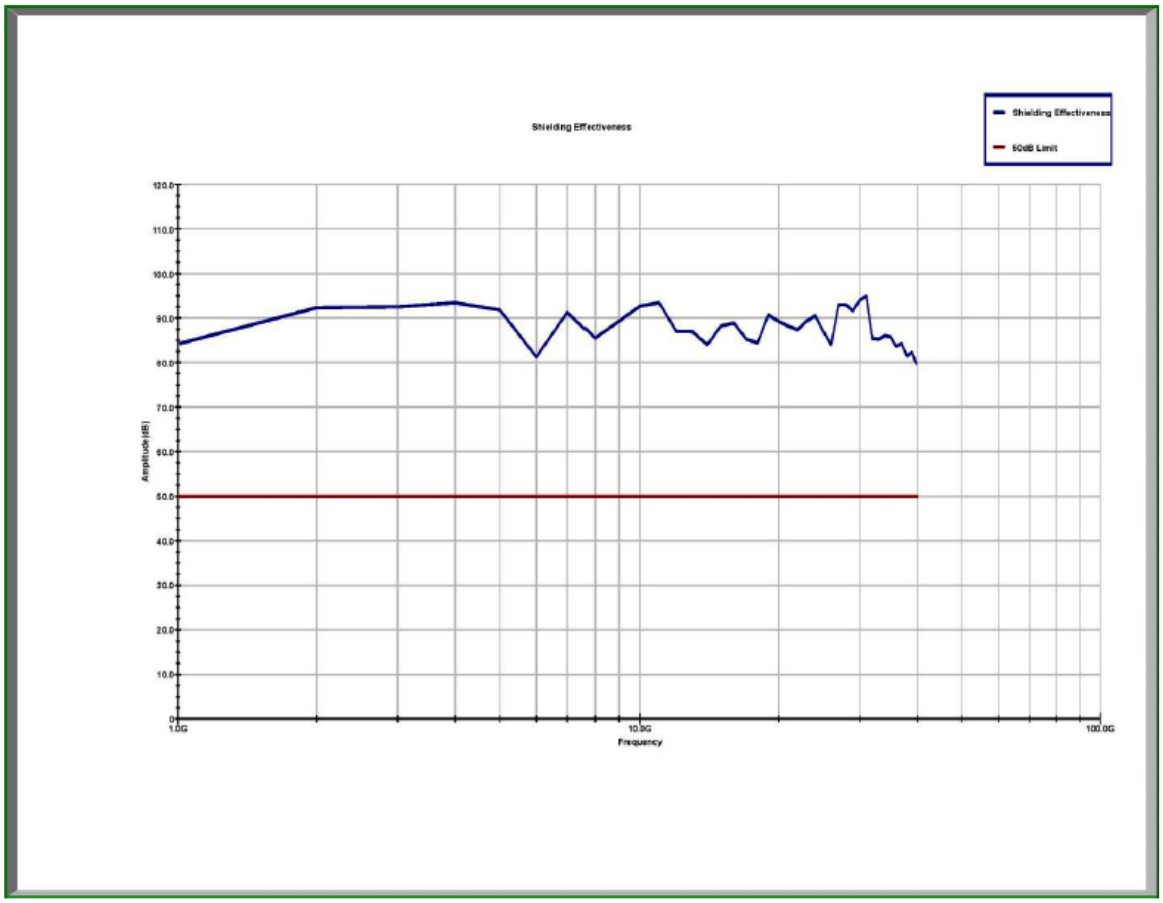
SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Shielding Effectiveness Graph



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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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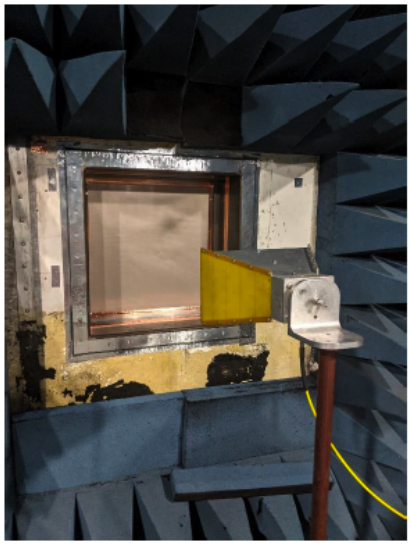
3.1.4 Shielding Effectiveness Test Setup Photographs

Shielding Effectiveness
1GHz - 18GHz Receive



Shielding Effectiveness
1GHz - 18GHz Transmit

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SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Shielding Effectiveness
19GHz - 40GHz Receive

Shielding Effectiveness
19GHz - 26GHz Transmit

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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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SHIELDING EFFECTIVENESS TEST REPORT FOR SLNT, INC

Shielding Effectiveness
27GHz - 31GHz Transmit

Shielding Effectiveness
32GHz - 40GHz Transmit

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MULTISHIELD® TESTING: IEEE 299-2006 (1 - 40GHZ)

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Section 4 – Conclusion

a) The SLNT® Multishield® Faraday Material, Model Number: N/A; Part Number: N/A; Serial Number: N/A, were subjected to the following EMC Tests in accordance with IEEE 299-2006 and the specifications as shown in Table 2:

Table 2 Tests Performed & Results

Test Description	Specification	Results
IEEE 299-2006		
Shielding Effectiveness	IEEE 299-2006	Pass

b) The SLNT® Multishield® Faraday Material were returned to SLNT, Inc after completion of the Shielding Effectiveness Test.