



APPENDIX E - MEASURED FLUID DIELECTRIC PARAMETERS

Title

SubTitle

November 14, 2013 07:56 AM

Frequency	e'	e''
800.000000 MI	53.4731	20.1925
803.000000 MI	53.4281	20.1918
806.000000 MI	53.3881	20.2009
809.000000 MI	53.3341	20.1701
812.000000 MI	53.3111	20.2121
815.000000 MI	53.2841	20.1774
818.000000 MI	53.2571	20.1875
821.000000 MI	53.1991	20.2031
824.000000 MI	53.1661	20.1932
827.000000 MI	53.1481	20.2109
830.000000 MI	53.1211	20.2154
833.000000 MI	53.0941	20.2198
836.000000 MI	53.0741	20.2272
839.000000 MI	53.0371	20.2462
842.000000 MI	53.0001	20.2213
845.000000 MI	52.9801	20.2395
848.000000 MI	52.9281	20.2150
851.000000 MI	52.9011	20.2252
854.000000 MI	52.9081	20.2117
857.000000 MI	52.8871	20.2086
860.000000 MI	52.8561	20.2089
863.000000 MI	52.8291	20.1868
866.000000 MI	52.8151	20.1706
869.000000 MI	52.7951	20.1672
872.000000 MI	52.7781	20.1416
875.000000 MI	52.7411	20.0917
878.000000 MI	52.7471	20.0996
881.000000 MI	52.7101	20.1029
884.000000 MI	52.6741	20.0532
887.000000 MI	52.6921	20.0355
890.000000 MI	52.6341	20.0364
893.000000 MI	52.6271	19.9920
896.000000 MI	52.5921	19.9689
899.000000 MI	52.5861	19.9399
902.000000 MI	52.5681	19.9314

905.000000 MI	52.540%	19.8852
908.000000 MI	52.515%	19.8997
911.000000 MI	52.489%	19.8839
914.000000 MI	52.474%	19.8796
917.000000 MI	52.451%	19.8575
920.000000 MI	52.390%	19.8404
923.000000 MI	52.384%	19.8325
926.000000 MI	52.367%	19.8489
929.000000 MI	52.349%	19.8355
932.000000 MI	52.307%	19.8619
935.000000 MI	52.271%	19.8509
938.000000 MI	52.261%	19.8294
941.000000 MI	52.238%	19.8633
944.000000 MI	52.188%	19.8529
947.000000 MI	52.151%	19.8623
950.000000 MI	52.116%	19.8758



APPENDIX F – PHANTOM CERTIFICATE OF CONFORMITY

Certificate of conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 C
Series No	TP-1150 and higher
Manufacturer / Origin	Untersee Composites Hauptstr. 69 CH-8559 Fruthwilen Switzerland

Tests

The series production process used allows the limitation to test of first articles. Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series units (called samples).

Test	Requirement	Details	Units tested
Shape	Compliance with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness	Compliant with the requirements according to the standards	2mm +/- 0.2mm in specific areas; 6mm +/- 0.2mm at ERP	First article, Samples
Material parameters	Dielectric parameters for required frequencies	200 MHz – 3 GHz Relative permittivity < 5 Loss tangent < 0.05.	Material sample TP 104-5
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructions	DEGMBE based simulating liquids	Pre-series, First article, Samples

Standards

[1] CENELEC EN 50361

[2] IEEE Std 1528-200x Draft CD 1.1 (Dec 02)

[3] IEC 62209/CD (Nov 02)

(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformity

Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standard [1] and draft standards [2] and [3].

Date

7.8.2003

Signature / Stamp

s p e a g

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