***** Valued Customer: If this stackup is accepted, please add this PDF to the production data package. *****

Job number: a3184	**Material:** MEGTRON-5775, R	**External Stackup Report** Report v1.74	STREAMLINE CIRCUITS TIME AND TECHNOLOGY EXPERTS
Part number: ACD32RF4XXEVM, Rev: D	**Impedance:** Yes		
Customer: SVTRONICS, INC	**Date:** 20-Oct-2015		
Panel size: 18X24	**Created by:** Cesar Navarro		

Layer	Type	CU Weight	CU %	Material Description	Via Structure	Segment	Glass Style	Material Family	Dielectric constant @ 1GHz	Thickness After lamination [mil]
Soldermask										0.80
1	Mixed	H	71							1.60
				7.8 mil H/H		Core	2-3313	MEGTRON-5775	3.71	7.80
2	Plane	H	86							0.60
				Press thk = 3.91 mil		Prepreg	3313(56)	R-1650V	4.20	3.91
3	Plane	H	82							0.60
				12.0 mil H/H		Core	2-1506	R-1755V	4.50	12.00
4	Mixed	H	76							0.60
				Press thk = 3.87 mil		Prepreg	3313(56)	R-1650V	4.20	3.87
5	Plane	H	86							0.60
				12.0 mil H/H		Core	2-1506	R-1755V	4.50	12.00
6	Mixed	H	82							0.60
				Press thk = 3.91 mil		Prepreg	3313(56)	R-1650V	4.20	3.91
7	Plane	H	86							0.60
				8.0 mil H/H		Core	2-2116	R-1755V	4.40	8.00
8	Mixed	H	75							1.60
Soldermask										0.80

Specification (Over mask on plated copper):	mil
Overall Board Thickness:	60.0
Tolerance:	+6.0/-6.0
Min-Max Board Thickness:	54.0-66.0

Anticipated Board Thickness:	mil
After lamination:	55.89
Over mask on plated copper:	59.89

Grain in 18" Dimension

Impedance Table

InSolver

Layer	Impedance Requirement [ohms]	Tolerance [ohms] +	Tolerance [ohms] -	Type	Upper Reference	Lower Ref	Designed Line Width [Mil]	Designed Spacing [Mil]	Finished Line Width [Mil]	Finished Spacing [Mil]	Impedance Simulation [ohms]
1	100	10	10	Differential		2	9	6.00	8.4	6.60	100.197
1	50	5	5	Single Ended		2	19		15		49.398
8	100	10	10	Differential		7	8	6.00	7.4	6.60	99.520
8	50	5	5	Single Ended		7	19		13.5		49.440

Remarks

* Any targeted thickness .0046" and greater shall have a minimum tolerance of +/-.001 after lamination.
* Any targeted thickness .0045" and below shall not be held to the minimum dielectric .0035429" as specified in IPC-6012 section 3.6.2.15. Unless agreed upon in writing from Streamline Circuits Inc. The minimum thickness per this exception shall not be less than .0009839" per IPC-6012 section 3.6.2.15.
* Streamline is not responsible for any build that does not meet IPC-6012 Bow & Twist requirements due to unbalanced dielectrics, unbalanced copper percentages or copper weights.