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

Job number:	LD909	Material:	RO3003, RO4350B
Part number:	UU-PCBA-MANT	Impedance:	No
Customer:	SKYLARK WIRELESS	Date:	21-Nov-2019
Panel size:	16X18	Created by:	LERBI.DELEON

# Stackup Report Report v1.40 External

GORILLA
CIRCUITS INC.



Layer	Туре	CU Weight	CU %	Material Description	Via Structure	Segment	Glass Style	Material Family	Copper Plating Thickness [mil]	Thickness after lamination [mil]
Soldermask										0.80
L1	Signal	1.0	25							2.60
				60.0 mil 1/1		Core		RO3003		60.00
L2	Signal	1.0	25							1.20
				Press thk = 2.85 mil		Prepreg	4450F(1)	RO4350B		2.85
	Filler			60.0 mil —/—		Core		RO3003		60.00
				Press thk = 3.75 mil		Prepreg	4450F(1)	RO4350B		3.75
	Filler			60.0 mil —/—		Core		RO3003		60.00
				Press thk = 3.75 mil		Prepreg	4450F(1)	RO4350B		3.75
L3	Signal	1.0	25			Foil			1.40	2.60 \star
Soldermask										0.80

## \* Estimated Cu Plating for reference use only.

Specification (Over mask on plated copper:):	mil
Overall Board Thickness:	184.53
Tolerance:	+18.5/-18.5
Min-Max Board Thickness:	166.1-203.0

Anticipated Board Thickness:	mil
After lamination:	193.95
Over mask on plated copper::	198.35

#### Remarks:

Please Note: The stackup may change if the final manufacturing data is different from the information used to create this stackup

Mat Typ	Material Description	Rsn%	PNL	1 Pnl	Notes
Foil	Foil - 1 oz - Foil		16x18	1	
Core	RO3003 - 60.0 mil 1/1		16x18	1	
Core	RO3003 - 60.0 mil 0/0		16x18	2	
Prepreg	RO4350B - 4450F	1%	16x18	3	

Drill Progs	Technology	Depth	
Drill1	Mechanical	193.95	

#### Please Note:

IPC-6012 has a minimum dielectric requirement of 0.003543" and any targeted dielectric thickness of 0.0045" or less may violate this requirement.

Acceptance of this proposed stack-up will be taken as a waiver for this requirement. Note that with this exception, the minimum dielectric thickness shall be 0.000984". If this is not acceptable please get back to us ASAP so we can make the necessary changes.

If we do not hear back from you within 24 hours, we will proceed with this stack-up. Note that the granting of this waiver does not affect the product meeting IPC-6012 Class 2 or Class 3 requirements. Also note that targeted thickness .0046" and greater shall have a minimum tolerance of +/-.001 after lamination.