



FABRICATION NOTES:

ALL DIMENSIONS IN mm, UNLESS OTHERWISE STATED

1. BOARD TYPE AND DIMENSION

NOMINAL THICKNESS: 0.80mm +/- 0.08mm

MATERIAL: (CORE AND PREPREG) ISOLA FR406

LOSS TANGENT @ 1 MHz = 0.014

STACK-UP PER FIGURE 1. (AT LEFT)

3. COPPER

Cu PLATING THICKNESS ON OUTER LAYERS: 25um
COPPER ON ALL LAYERS MUST NOT BE RECESSED AT THE EDGE OF THE BOARD

EXPOSED COPPER ALONG THE BOARD EDGE IS PERMISSIBLE ON ALL LAYERS

4. VIAS

VIA DIAMETER AS SPECIFIED BY DESIGN
ALL PLATED HOLES TO HAVE 25 μ m (.001") MIN. Cu

ALL VIAS AND PLATED THRU-HOLES TO BE LOCATED WITHIN 75 μ m
ANNULAR RING OF 125 μ m (.005") NOMINAL, 100 μ m (.004") MINIMUM

5. METALLIZATION FINIS

IMMERSION GOLD (E

6. SOLDER MASK

COLOUR: TRANSPARENT GREEN
APPLICATION TO TOP AND BOTTOM SIDES PER DESIGN ARTWORK

THICKNESS 25 μm \pm 10 μm (.001" \pm .0004")
REGISTRATION \pm 50 μm (.002")

COMPONENT PADS TO BE FREE OF SOLDER MASK, EXCEPT WHERE SPECIFIED BY DESIGN
(e.g. SOLDERMASK DEFINED PADS)

7. CONDUCTORS

REGISTRATION $\pm 50 \mu\text{m}$ (.002")

COPLANAR WAVEGUIDE WIDTH = 0.486mm, GAP = 0.500mm;

TRANSMISSION LINE IMPEDANCE MEASUREMENT REPORT REQUIRED

8. SILKSCREEN

SHOOT SILKSCREEN THROUGH SOLDER MASK; COMPONENT PADS TO BE FREE OF SILKSCREEN BY MEANS OF CROPPING, IF NECESSARY;

[illegible]

FABRICATOR SHALL SILKSCREEN DATE/LOT CODE ON BOTTOM SIDE
FABRICATOR LOGO SHALL APPLY ON BOTTOM SILKSCREEN

10. ELECTRICAL TEST STAMP

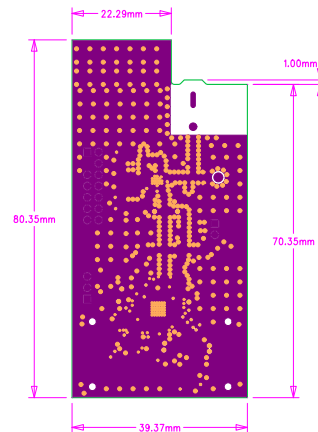
FABRICATOR SHALL TEST AND STAMP PASSED CIRCUITS ON THE BOTTOM SIDE

12. PANELIZATION
CIRCUIT ARRAY NOT REQUIRED; OPTIMIZE CIRCUIT ARRANGEMENT FOR BEST PANEL YIELD

BOARDS MUST BE ROOTED AND FREE OF BURRS

PRINTED CIRCUIT BOARD WORKMANSHIP SHALL CONFORM

SHEETS BY GORE LTD. WITH ABOVE SPECIFICATIONS, PRINTED SHEET SHOULD SHOW SHEET BE IDENTIFIED PER # 0-0076



INNER LAYER 1 GND PLANE (NEXT TO TOP)

DRILL LAYER

HOLE SIZES ARE FINAL DIMENSIONS AFTER PLATING



SKYWORKS

1050 Morrison Drive, Suite 100 Ottawa, Ontario, Canada K2H 8K7			DATE Aug-16-2014	
DRAWN Applications Eng.		DIMENSIONS ARE IN MM		
ELEC ENG	-			
MECH ENG	-			
PROD				
MATERIAL				
Note # 2				
FINISH				
Note # 5,6,8				
TITLE				
FABRICATION DRAWING				
CODE IDENT NO	SIZE	PART NUMBER	SHEET 1	REV A
		7657		

0.80mm +/- 0.08mm

- SILKSCREEN TOP
- SOLDER MASK - TOP
- METAL LAYER 1 - TOP; 1-0Z Cu
- CORE 1: ISOLA FR406; THICKNESS=0.254mm [0.10"]
- COPPER 1 - 2 - PLANE LAYER; 1-0Z Cu
- PREPREG: ISOLA FR406; 45% GLASS; PREPREG THICKNESS
- METAL LAYER 3 - 1 - PLANE LAYER; 1-0Z Cu
- CORE 2: ISOLA FR406; THICKNESS=0.254mm [0.10"]
- METAL LAYER 4 - BOTTOM; 1-0Z Cu
- SOLDER MASK - BOTTOM
- SILKSCREEN BOTTOM

ALL DIMENSIONS IN mm, UNLESS OTHERWISE STATED

1. BOARD TYPE AND DIMENSION
4-LAYER LAMINATE
NOMINAL THICKNESS: 0.80mm +/- 0.08mm

MATERIAL: (CORE AND PREPREG) ISOLA FR406

ELECTRICAL PROPERTIES: $T_g = 170^\circ \text{C}$,
LOSS TANGENT @ 1 MHz = 0.014
DIELECTRIC CONSTANT @ 1.0 GHz = 4.29
STACK-UP PER FIGURE 1. (AT LEFT)

Cu FOIL THICKNESS (ALL LAYERS): 1/2-OZ, 17.8 μm \pm 5 μm [.0007" \pm .0002"]

EXPOSED COPPER ALONG THE BOARD EDGE IS PERMISSIBLE ON ALL LAYERS

VIA DIAMETER AS SPECIFIED BY DESIGN
ALL PLATED HOLES TO HAVE 25 μ m MIN.

ALL PLATED HOLES TO HAVE 25 μm (.001") MIN CU
ALL VIAS AND PLATED THRU-HOLES TO BE LOCATED WITHIN 75 μm (.003") OF TRUE POSITION
ANNULAR RING OF 125 μm (.005") NOMINAL, 100 μm (.004") MINIMUM

**GOLD OVER NICKEL
IMMERSION GOLD (ENIG)**

SOLDER MASK PER IPC-SM-840, TYPE A, CLASS 3

COLOUR: TRANSPARENT GREEN
APPLICATION TO TOP AND BOTTOM SIDES, PER DESIGN ARTWORK
THICKNESS 25 μm +/- 10 μm (.001" +/- .0004")
REGISTRATION +/- 50 μm (.002")
COMPONENT PADS TO BE FREE OF SOLDER MASK, EXCEPT WHERE SPECIFIED BY DESIGN
(e.g. SOLDERMASK DEFINED PADS)

FINAL CONDUCTOR AND PAD WIDTHS TO BE WITHIN 25 μm (.001") OF ARTWORK ORIGINALS
REGISTRATION \pm 50 μm (.002")

50-OHM (+/-10%) IMPEDANCE TRANSMISSION LINES REQUIRED ON TOP LAYER
COPLANAR WAVEGUIDE WIDTH = 0.486mm, GAP = 0.500mm;
FABRICATOR MUST INFORM, BEFOREHAND, OF DEVIATIONS REQUIRED TO ACHIEVE IMPEDANCE
TRANSMISSION LINE IMPEDANCE MEASUREMENT REPORT REQUIRED

APPLY PER ARTWORK DRAWINGS TO BOARD USING WHITE COLOUR
SHOOT SILKSCREEN THROUGH SOLDER MASK; COMPONENT PADS TO BE FREE OF SILKSCREEN BY MEANS OF CROPPING, IF NECESSARY;
T1-PIN1 SILKSCREEN DOT CAN BE SHIFTED OR CROPPED TO CLEAR U1 KEEPOUT AREA

FABRICATOR SHALL SILKSCREEN DATE/LOT CODE ON BOTTOM SIDE
FABRICATOR LOGO SHALL APPLY ON BOTTOM SILKSCREEN

FABRICATOR SHALL TEST AND STAMP PASSED CIRCUITS ON THE BOTTOM SIDE

11. PANELIZATION
CIRCUIT ARRAY NOT REQUIRED; OPTIMIZE CIRCUIT ARRANGEMENT FOR BEST PANEL YIELD
BOARDS MUST BE ROUTED AND FREE OF BURRS

PRINTED CIRCUIT BOARD WORKMANSHIP SHALL CONFORM TO IPC-A-600 CLASS 3
UNLESS IN CONFLICT WITH ABOVE SPECIFICATIONS, PRINTED CIRCUIT BOARD SHALL BE FABRICATED PER IPC-6010

INNER LAYER 2 GND PLANE (NEXT TO BOTTOM)

DRILL LAYER

HOLE SIZES ARE FINAL DIMENSIONS AFTER PLATING



1050 Morrison Drive, Suite 100 Orléans, Ontario, Canada K2H 8K7				DATE Aug-28-2014	
DRAWN Applications Eng.				Aug-28-2014	
DIMENSIONS ARE IN MM					
ELEC ENG		--			
MECH ENG		--			
PROD					
MATERIAL					
Note # 2					
FINISH					
Note # 5,6,8					
TITLE					
FABRICATION DRAWING					
CODE IDENT NO		SIZE		PART NUMBER	
1		D		Z657	
SHEET		1		REV.	
1		A		A	

