



**Sierra Wireless America, Inc**

2290 Cosmos Ct.  
Carlsbad CA, 92011  
Tel. 760-476-8700  
Fax 760-476-8701

Federal Communications Commission  
7435 Oakland Mills Road  
Columbia MD 21046

DATE: 30 July, 2008

Subject: Label for USB 598

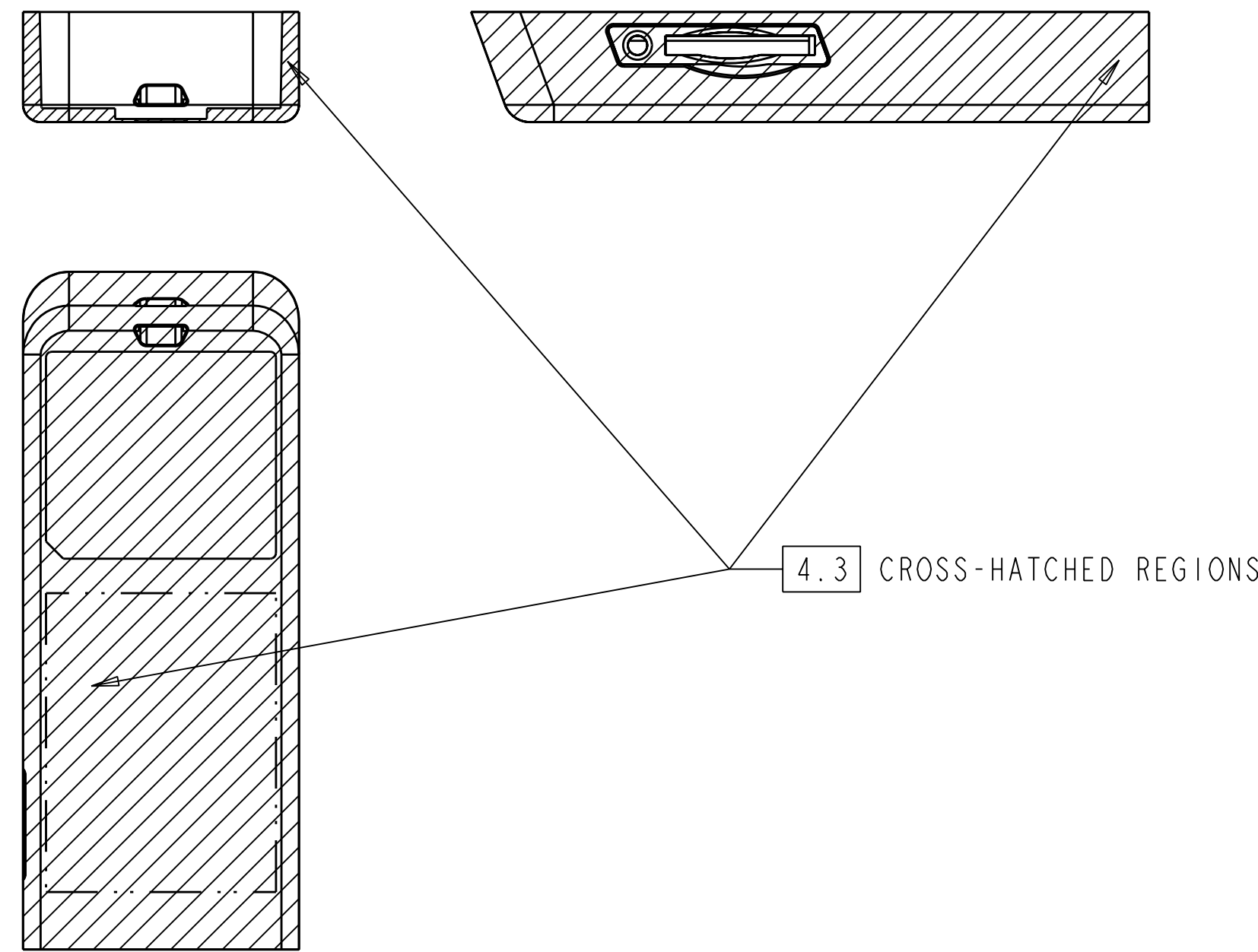


**I NOTES APPLICABLE TO PART MANUFACTURER:**

- DESCRIPTION AND APPLICATION: BOTTOM HOUSING FOR USE IN A WIRELESS DEVICE.
- APPLICABLE DOCUMENTS:
  - ASME Y14.5M-1994 GEOMETRIC DIMENSIONING AND TOLERANCING
  - SPI COSMETIC SPECIFICATIONS OF INJECTION MOLDED PARTS-1994 EDITION
  - DOC NO. 2140122 SIERRA WIRELESS- GENERAL COSMETIC SPECIFICATION
  - DOC NO. 2140322 SIERRA WIRELESS- SMART PHONE COSMETIC SPECIFICATION
- MATERIAL:
  - 3.1 HIGH-FLOW PC/ABS RESIN, G.E. CYCOLOY C1200HF, COLOR: SEE FINISH PART TABLE
- SURFACE FINISH:
  - 4.1 ALL EXTERNAL SURFACES TO HAVE SPI-C1 POLISH UNLESS OTHERWISE SPECIFIED.
  - 4.2 SURFACES CROSS-HATCHED TO HAVE MT-11010 TEXTURE OR APPROVED EQUIVALENT.
  - 4.3 SURFACES CROSS-HATCHED TO BE PAINTED. USE APPROVED PPG & TPK BRAND PAINT & INKS LISTED IN THE FINISH PART TABLE.
- MECHANICAL REQUIREMENTS:
  - 5.1 DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
  - 5.2 A REFERENCE DIMENSION IS USED FOR INFORMATIONAL PURPOSES ONLY AND HAS NO TOLERANCE. IT IS DESIGNATED BY: (XX.XX).
  - 5.3 CONTROLLING GEOMETRY IS DEFINED BY 3D PRO/ENGINEER DATABASE. ALL SURFACES TO BE WITHIN 0.13mm OF DATABASE UNLESS OTHERWISE SPECIFIED. WHEREVER A CONFLICT EXISTS BETWEEN THE DRAWING AND THE DATABASE, THE DRAWING SHALL TAKE PRECEDENCE.
  - 5.4 DRAFT ANGLES SHALL BE PER THE 3D PART MODEL UNLESS OTHERWISE SPECIFIED.
  - 5.5 MIN RADIUS SHALL BE 0.2mm FOR ALL UNMARKED FILLETS AND RADIUS INCLUDING INTERNAL BOSSES, RIBS, AND WALLS, UNLESS OTHERWISE SPECIFIED.
  - 5.6 PARTING LINE MISMATCH SHALL NOT EXCEED 0.05mm ON EXTERIOR SURFACES AND 0.13mm ON OTHER SURFACES.
  - 5.7 FLASH SHALL BE TRIMMED TO WITHIN ± 0.1 OF ADJACENT SURFACE.
  - 5.8 ALL EJECTOR PIN MARKS SHALL BE 0 TO 0.25mm BELOW SURFACE.
  - 5.9 GATE VESTIGE SHALL BE 0.05mm MAX ABOVE ADJACENT SURFACE.
  - 5.10 ALL COSMETIC SURFACES SHALL HAVE NO SINK MARKS, HAZE MARKS, BLUSH, SPLAY, BLEMISHES, WELD LINES, OR DRAG MARKS.
  - 5.11 MFI SHALL BE 20% OR LESS BETWEEN RESIN AND MOLDED PARTS. CERTIFICATION DATA SHALL BE PROVIDED WITH EACH LOT.
  - 5.12 PARTS SHALL BE CLEAN AND FREE OF ALL FOREIGN MATTER.
  - 5.13 VIRGIN RESIN ONLY. NO REGRIND PERMITTED.
- TOOLING REQUIREMENTS:
  - 6.1 TOOL DESIGN, GATES, PARTING LINES, AND EJECTOR PIN LOCATIONS SHALL BE SUBMITTED TO SIERRA WIRELESS BEFORE TOOLING IS STARTED. COMPLETE TOOL DRAWINGS AND/OR DFM MUST BE SUBMITTED FOR APPROVAL PRIOR TO PRODUCTION START.
  - 6.2 NO EJECTOR PIN MARKS PERMITTED IN INDICATED AREA.
  - 6.3 NO MOLD RELEASE PERMITTED.
- MARKING REQUIREMENTS:
  - 7.1 SIERRA WIRELESS PART NUMBER, MOLD REVISION I.D., CAVITY I.D., RESIN ID, AND RECYCLE SYMBOL SHALL BE MOLDED INTO THE PART AT LOCATION SHOWN. MOLD REVISION I.D. AND CAVITY I.D. SHALL BE MARKED ON EJECTOR PINS. ALL CHARACTERS TO BE 2.0 TO 2.5mm TALL AND MAY FLUSH TO 0.25mm MAX BELOW FLUSH. SEE FINISH PART TABLE FOR CURRENT MOLD REVISION I.D.
- QUALITY ASSURANCE REQUIREMENTS:
  - 8.1 ALL DIMENSIONS INDICATED ON DRAWING ARE CRITICAL TO FORM, FIT, OR FUNCTION.
  - 8.2 DIMENSIONS INDICATED WITH A X SYMBOL DENOTE QUALITY PROCESS CONTROL, (QPC), DIMENSIONS.
  - 8.3 QUALITY ASSURANCE PLAN:
    - 8.3.1 THE SUPPLIER MUST DEVELOP A QUALITY ASSURANCE PLAN TO ENSURE CRITICAL PARAMETER COMPLIANCE. THE PLAN MUST BE SUBMITTED TO SIERRA WIRELESS FOR REVIEW.
    - 8.3.2 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL, (SPC), OR 100% INSPECTION ON X PARAMETERS.
    - 8.3.3 PRODUCTION LOT SAMPLES MUST DEMONSTRATE A Cpk VALUE OF 1.33 OR HIGHER. IF THE Cpk DROPS BELOW 1.33 AT ANY TIME DURING THE MANUFACTURE OF THIS PART, THEN THE SUPPLIER MUST 100% SCREEN ALL THOSE PARTS TO THOSE SPECIFIED CRITICAL PARAMETERS.
  - 8.4 FIRST ARTICLE:
    - 8.4.1 FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOLING CHANGE. FIRST ARTICLE SHALL BE VERIFIED BY A RUN OF AT LEAST 100 PIECES UNDER CONDITIONS REPRESENTATIVE OF PRODUCTION.
  - 8.5 DIMENSIONAL REPORT:
    - 8.5.1 CRITICAL PARAMETER CONFORMANCE MUST BE DEMONSTRATED BY INSPECTION OF AT LEAST 30 PIECES, PER CAVITY, FROM THE FIRST ARTICLE RUN. ALL DRAWING DIMENSIONS MUST BE MEASURED ON AT LEAST 5 PARTS, PER CAVITY, OF THE FIRST ARTICLE RUN. A DIMENSIONAL REPORT MUST BE SUBMITTED TO SIERRA WIRELESS ALONG WITH THE MEASURED PARTS.
- PACKAGING:
  - 9.1 PARTS SHALL BE PACKAGED IN REUSABLE, DIVIDED BOXES OF 50 TO 100 PARTS PER BOX.
- PAD PRINTING:
  - 10.1 PAD PRINT IMAGE USING TPK BRAND INKS. LOCATE PRINTING WHERE SHOWN. ARTWORK MASTER PART NUMBER IS THE SAME AS THE FINISH PART'S NUMBER. SEE FINISH PART TABLE.
- EXCEPTIONS:
  - 11.1 NO CHANGE SHALL BE ALLOWED ON PRODUCTION MATERIAL, REGARDLESS OF WHETHER SUCH CHANGE AFFECTS REQUIREMENTS SPECIFIED, WITHOUT PRIOR EXPLICIT WRITTEN APPROVAL BY SIERRA WIRELESS.

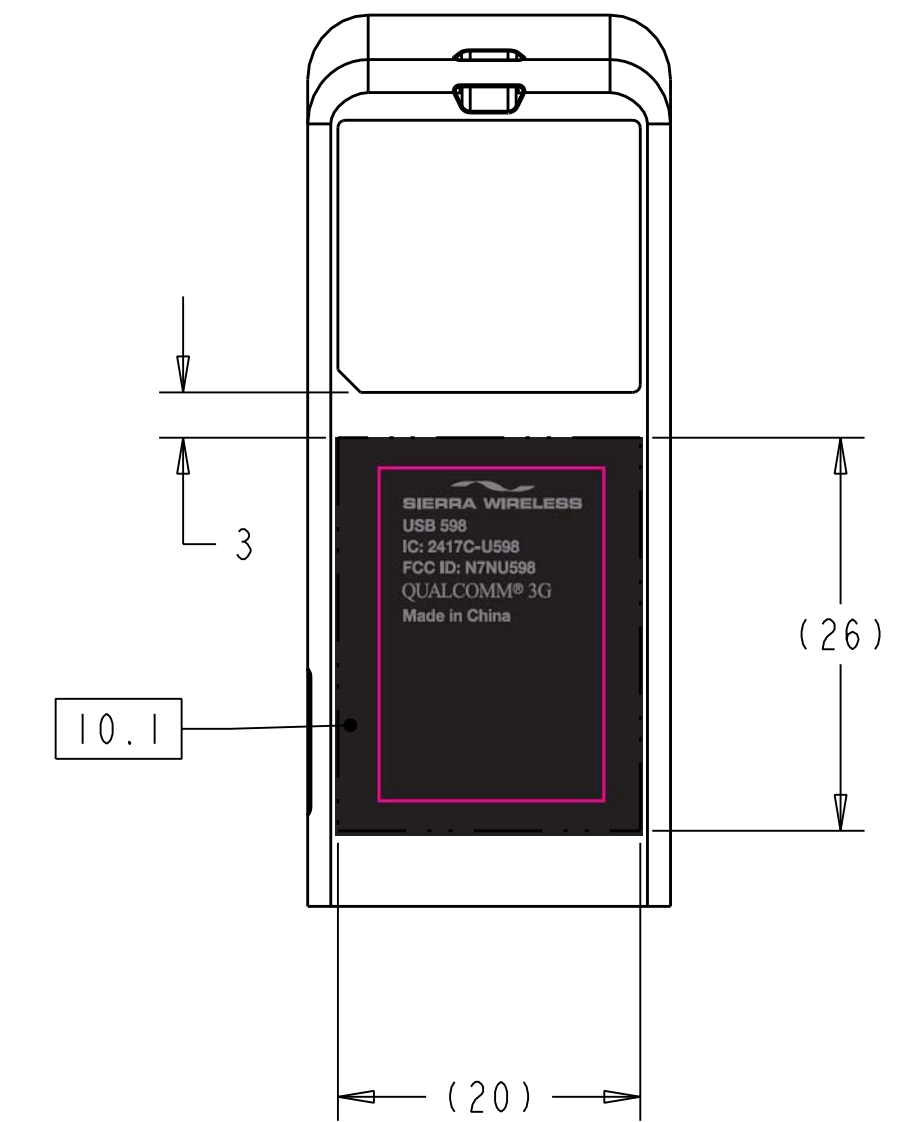
**II NOTES APPLICABLE TO CONTRACT MANUFACTURER:**

- INCOMING INSPECTION DIMENSION MARKED BY (XX.XX)
- SAMPLE INSPECTION PER QE1-11-0000-18.
- CONTRACT MANUFACTURER SHALL REQUIRE PART MANUFACTURER TO PROVIDE SPC DATA AND REVIEW WITH SIERRA WIRELESS.



**FINISH PART PAINTED REGIONS**

REV	DESCRIPTION	EEO	DATE	DRAWN	APPO
A	INITIAL RELEASE	****	06/18/08	AK	PG
B	DECREASED SCREW BOSS INSIDE DIAMETER FROM 2.2MM TO 1.8 MM (SEE ZONE F6). INCREASED SCREW BOSS INSIDE MATERIAL THICKNESS FROM 0.38MM TO 1.38 MM (SEE ZONE G4).	****	06/24/08	PG	BG
F	REVISIONS C THROUGH F MADE PERTAINING TO CHANGES IN DFM REVIEW	****	07/30/08	AK	PG



**FINISH PART PAD PRINTING LOCATION**

FINISH PART TABLE						
FINISH PART NO.	MOLD REV ID.	DWG REV	DESCRIPTION	RESIN COLOR	PAINT	PAD PRINTING INK
1391218	F	N/A	BOTTOM HOUSING, TIGER 598	N/A	N/A	PANTONE COOL GREY 10C
1391250	N/A	1.0	BOTTOM HOUSING, TIGER 598, GENERIC	BLACK	SOFT TOUCH PAINT COLOR: BLACK HGB9228M-1 (PPG CODE #900005)	N/A

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE PER THE FOLLOWING TOLERANCES:			PROJECT NAME <b>TIGER 598</b>	PART DESCRIPTION <b>BOTTOM HOUSING, BASE</b>	
INCHES .X ± .05 .XX ± .01 .XXX ± .005	MM .X ± .25 .XX ± .13 .XXX ± .05		ANGLES X ± 15° X.X ± 1°	DATE 06/20/08	DATE 06/18/08
SEE NOTES			DESIGNER A. KIM	13811 Wireless Way Richmond, British Columbia Canada, V6V 3A4 Tel: 604.231.1100 Fax: 604.231.1109	
PART NUMBER 1391218			DRAWN P. GUTIERREZ		
FINISH N/A			CHECKED B. GILBERT	<b>SIERRA WIRELESS</b> <small>HEART OF THE WIRELESS MACHINE™</small>	
SCALE: 2:000			SIZE D	UNITS MM	DRAWING NO. 1391218
DO NOT SCALE PRINT			REVISIONS 1	REV F	SHEET 1 OF 3

UNLESS OTHERWISE NOTED, THIS DOCUMENT CONTAINS SIERRA WIRELESS CONFIDENTIAL INFORMATION. REPRODUCTION, USE, DISCLOSURE OR TRANSMITTAL OF ALL OR ANY PORTION OF THIS DOCUMENT IS PROHIBITED, EXCEPT TO THE EXTENT APPROVED BY SIERRA WIRELESS. SIERRA WIRELESS EXPRESSLY RESERVES ALL RIGHTS UNDER PATENTS, TRADEMARKS, COPYRIGHTS AND TRADE SECRETS. COPYRIGHT (C) 2008, SIERRA WIRELESS.