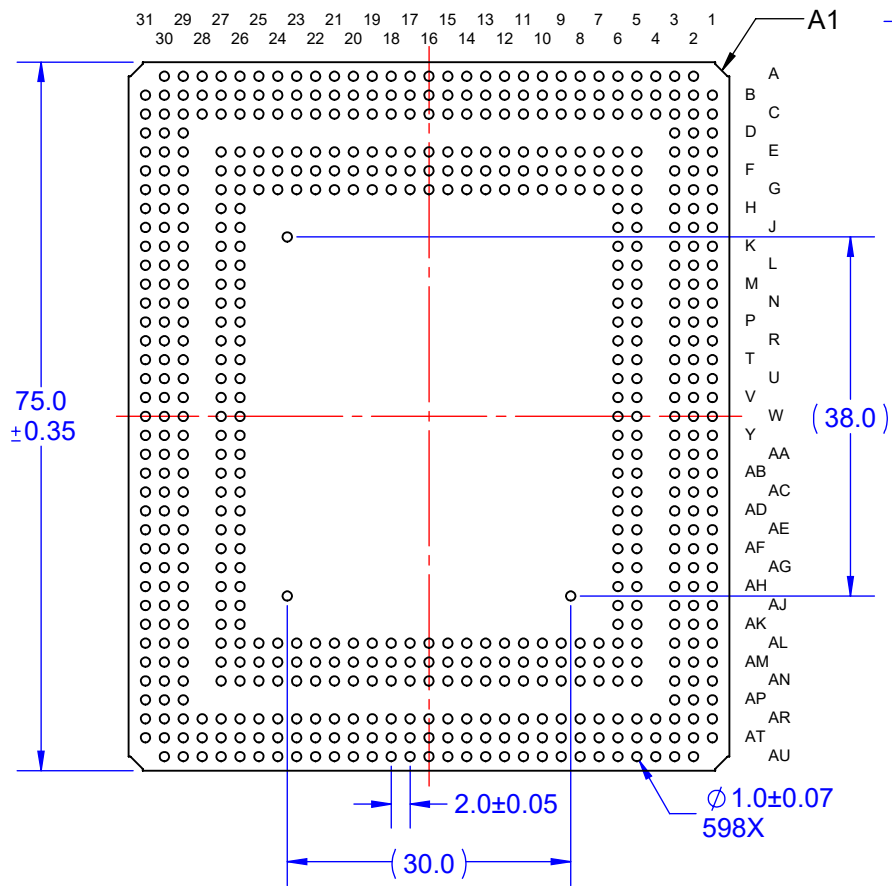
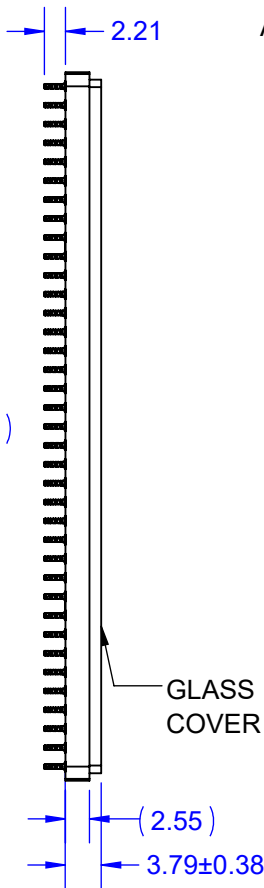


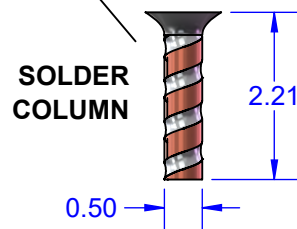
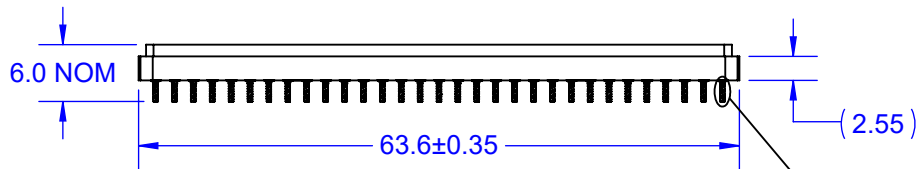
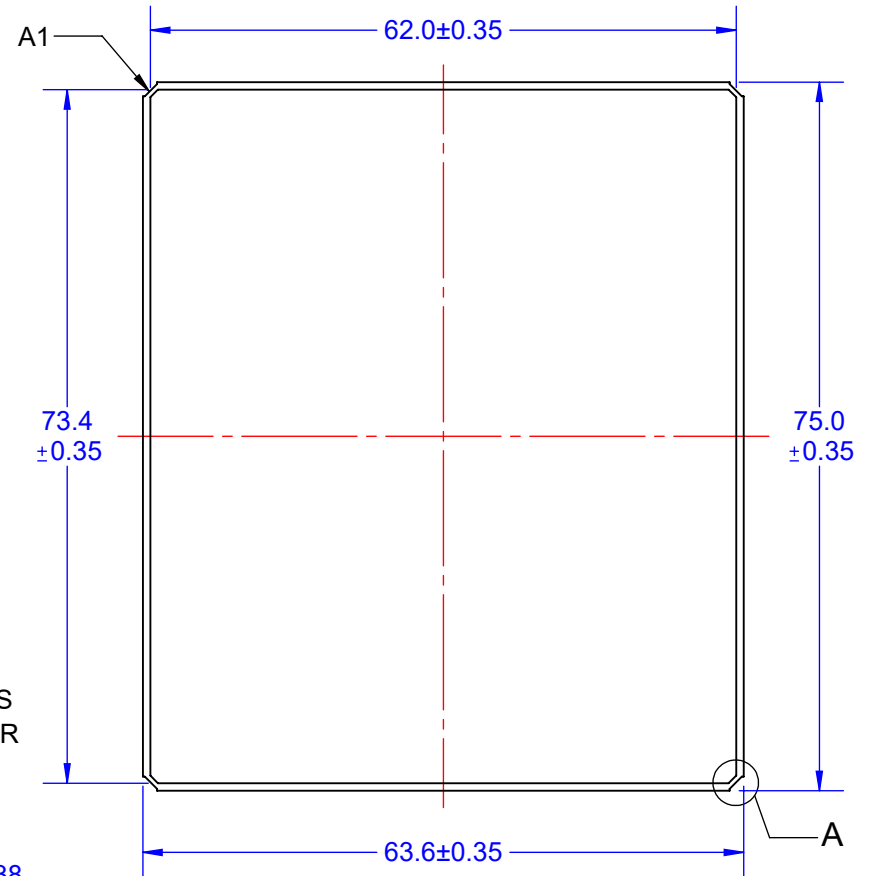
BOTTOM VIEW



SIDE VIEW



TOP VIEW

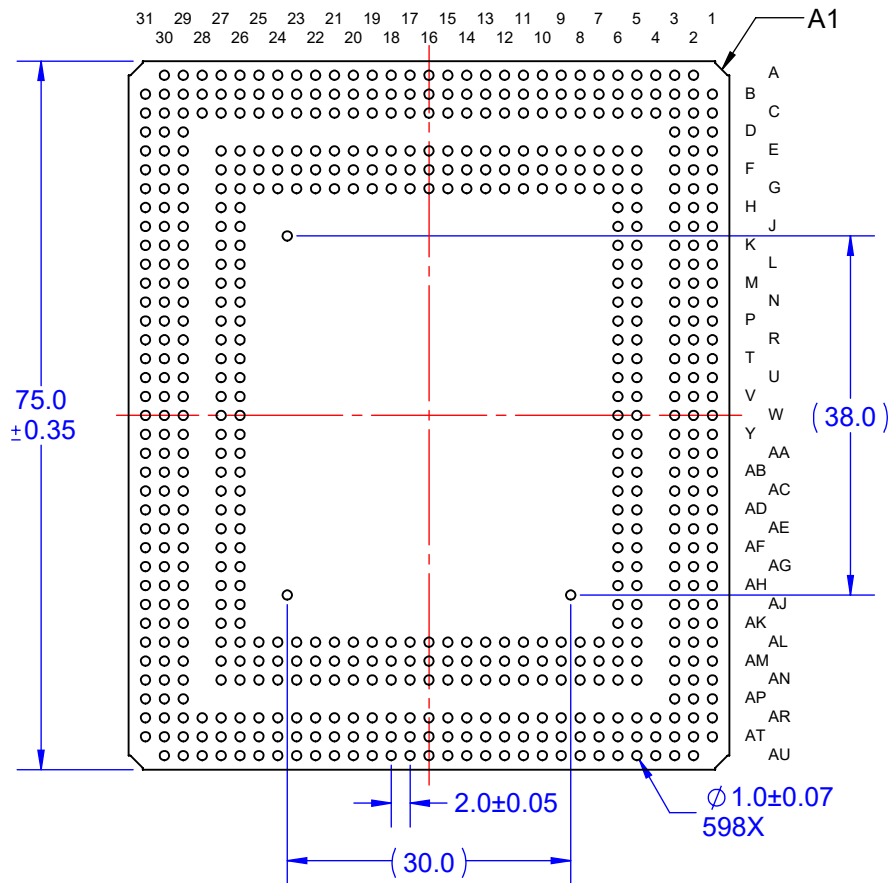


Notes: (Unless Otherwise Specified).
 1) DIMENSIONS ARE MILLIMETER.
 2) SONY IMX661-AAQR-C CMOS SENSOR.

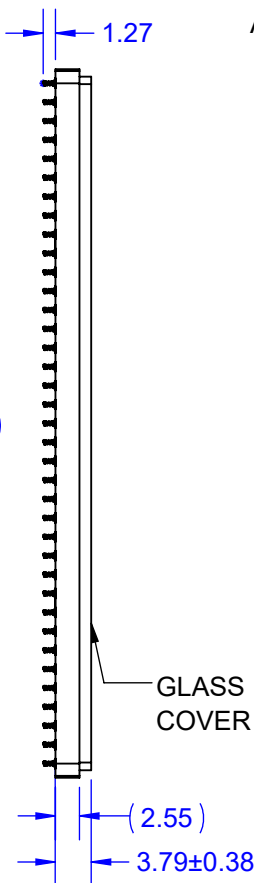
TERMINATIONS:
 1) SHOWN WITH Pb80/Sn20 COPPER WRAP COLUMNS.
 2) ALTERNATIVE SIZE COLUMNS AVAILABLE.

| | | | | | |
|-------------|-----------|--|-----------|-----------------------|---------------|
| APPROVALS | DATE | TopLine® | | | |
| DRAWN T.Au | 3/12/2021 | | | | |
| ENG M. Hart | 3/12/2021 | TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| MFG | | SCALE 1.75:1 | SIZE A | DRAWING NO. 160085 | REV A |
| QA | | | | | |
| CUST | | DO NOT SCALE DRAWING | | | SHEET 1 OF 12 |
| REVISED | | | | | |

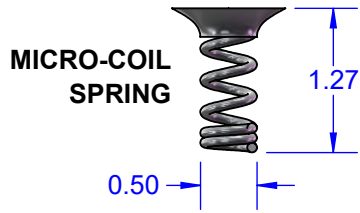
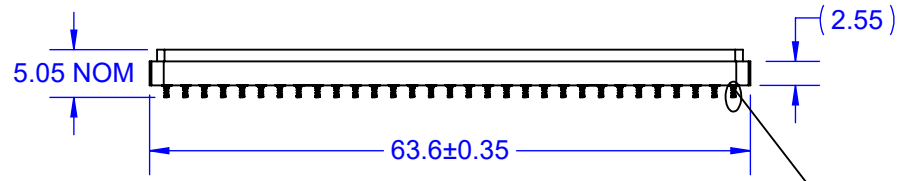
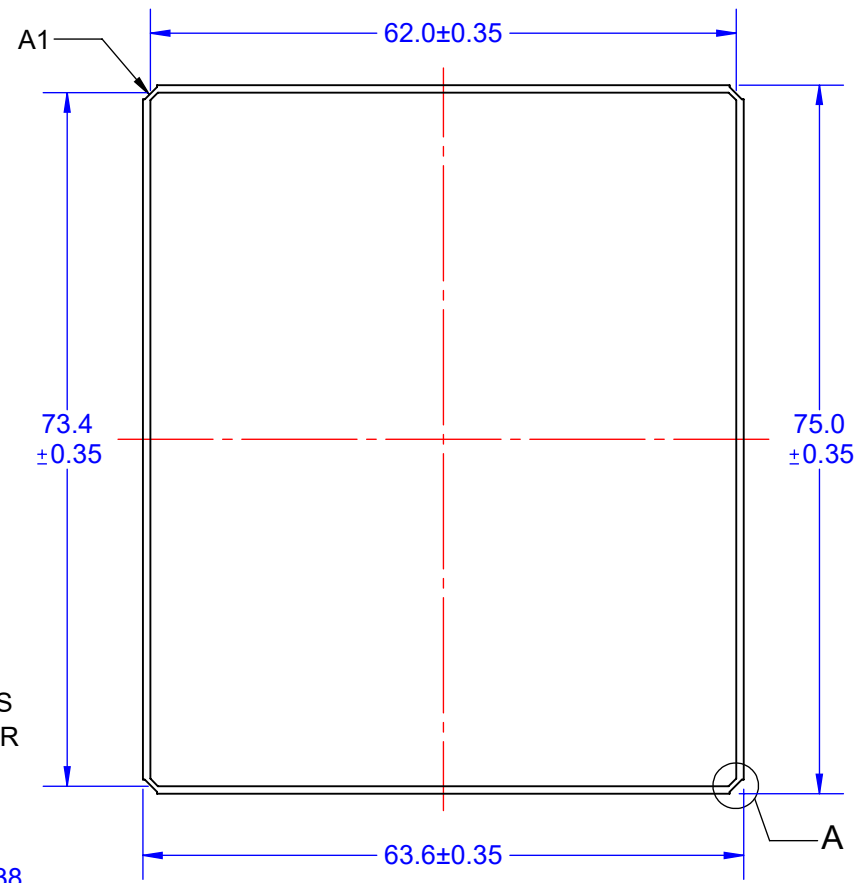
BOTTOM VIEW



SIDE VIEW



TOP VIEW

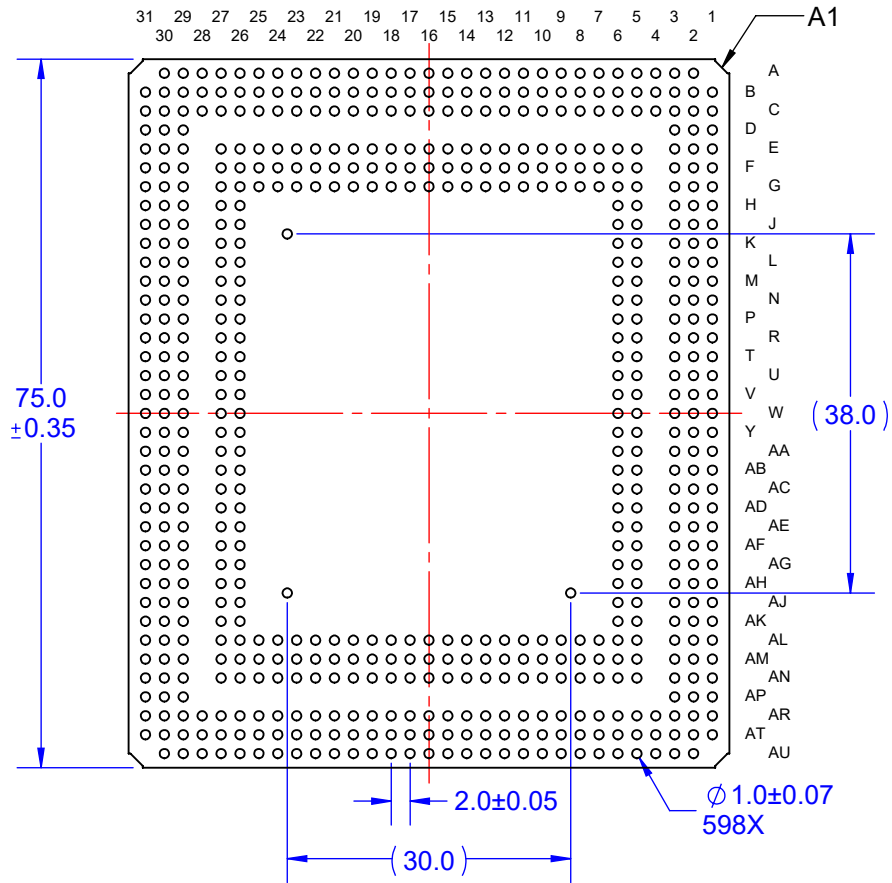


TERMINATIONS:
 1) SHOWN WITH MICRO-COIL SPRINGS.
 2) ALTERNATIVE SIZE SPRINGS AVAILABLE.

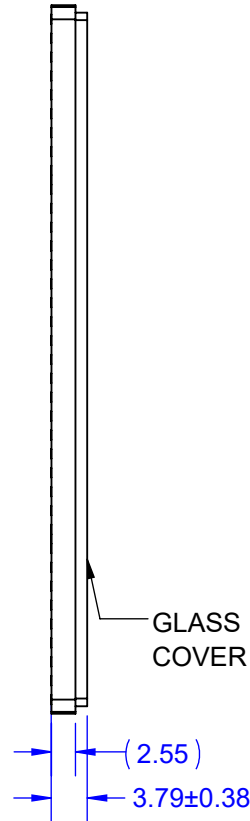
Notes: (Unless Otherwise Specified).
 1) DIMENSIONS ARE MILLIMETER.
 2) SONY IMX661-AAQR-C CMOS SENSOR.

| | | | |
|--|-----------|-----------------------|---------------|
| TopLine® | | | |
| TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| SCALE 1.75:1 | SIZE A | DRAWING NO. 160085 | REV A |
| DO NOT SCALE DRAWING | | | SHEET 2 OF 12 |

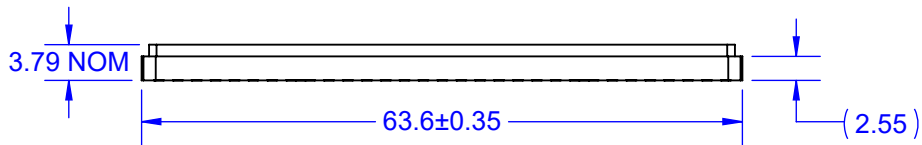
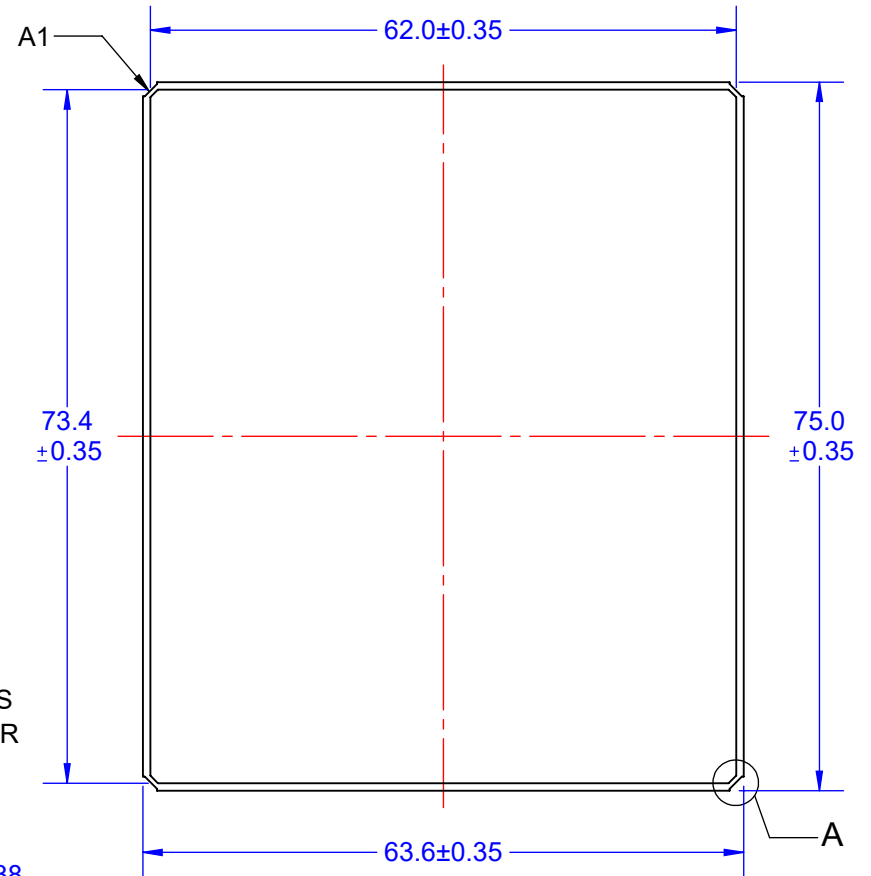
BOTTOM VIEW



SIDE VIEW



TOP VIEW



TERMINATIONS:

1) LGA Ni/Au PADS WITHOUT COLUMNS.

Notes: (Unless Otherwise Specified).

1) DIMENSIONS ARE MILLIMETER.

2) SONY IMX661-AAQR-C CMOS SENSOR.

TopLine[®]

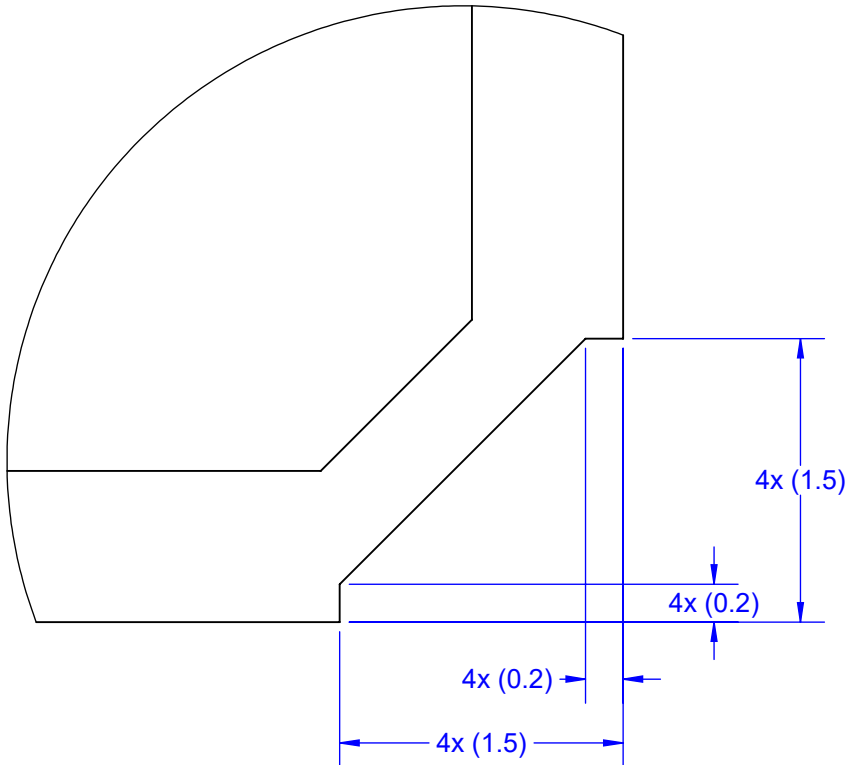
TITLE CCGA598 PITCH 2.0mm
SONY IMX661

| SCALE | SIZE | DRAWING NO. | REV |
|--------|------|-------------|-----|
| 1.75:1 | A | 160085 | A |

DO NOT SCALE DRAWING

SHEET 3 OF 12

**DETAIL A
CORNERS (4X)**



TopLine®

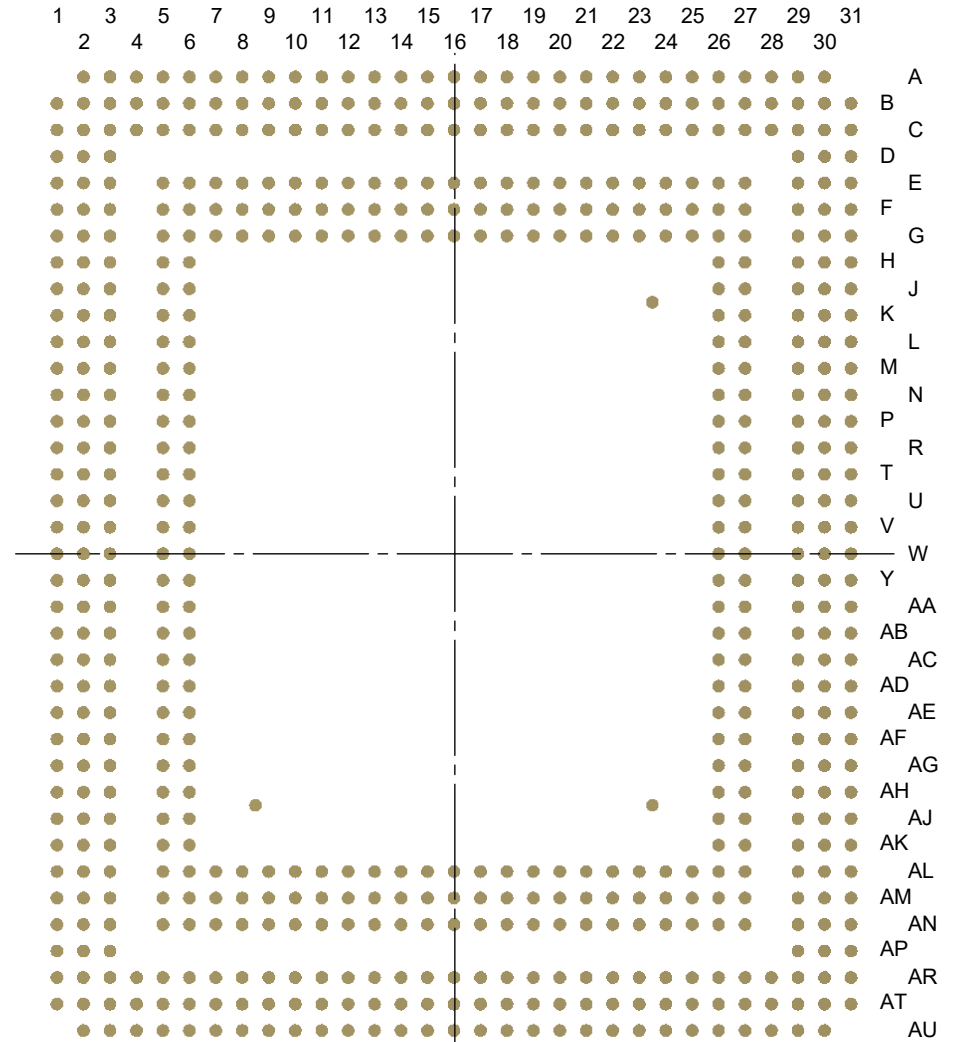
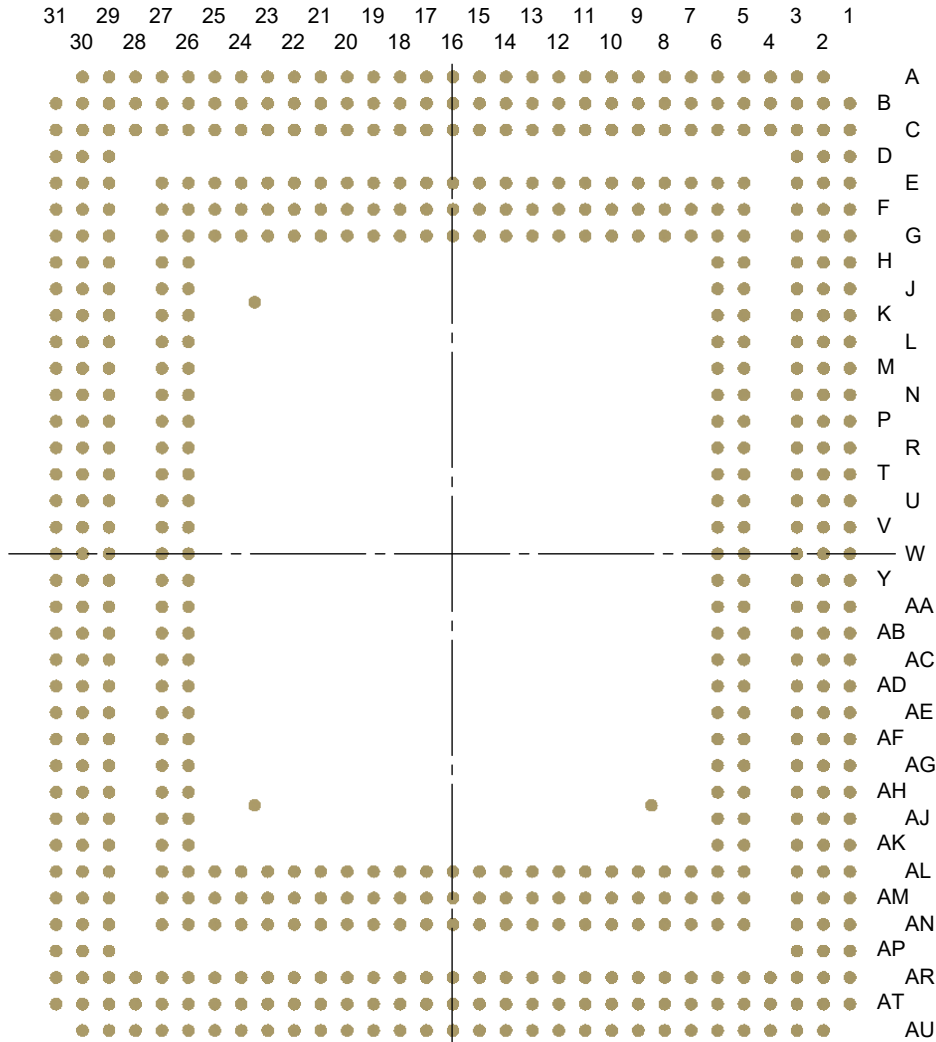
TITLE CCGA598 PITCH 2.0mm
SONY IMX661

| | | | |
|---------------|-----------|-----------------------|----------|
| SCALE 25:1 | SIZE A | DRAWING NO. 160085 | REV A |
|---------------|-----------|-----------------------|----------|

PAD PATTERN

COLUMN (PAD) VIEW

BOTTOM X-RAY VIEW FROM TOP



TopLine®

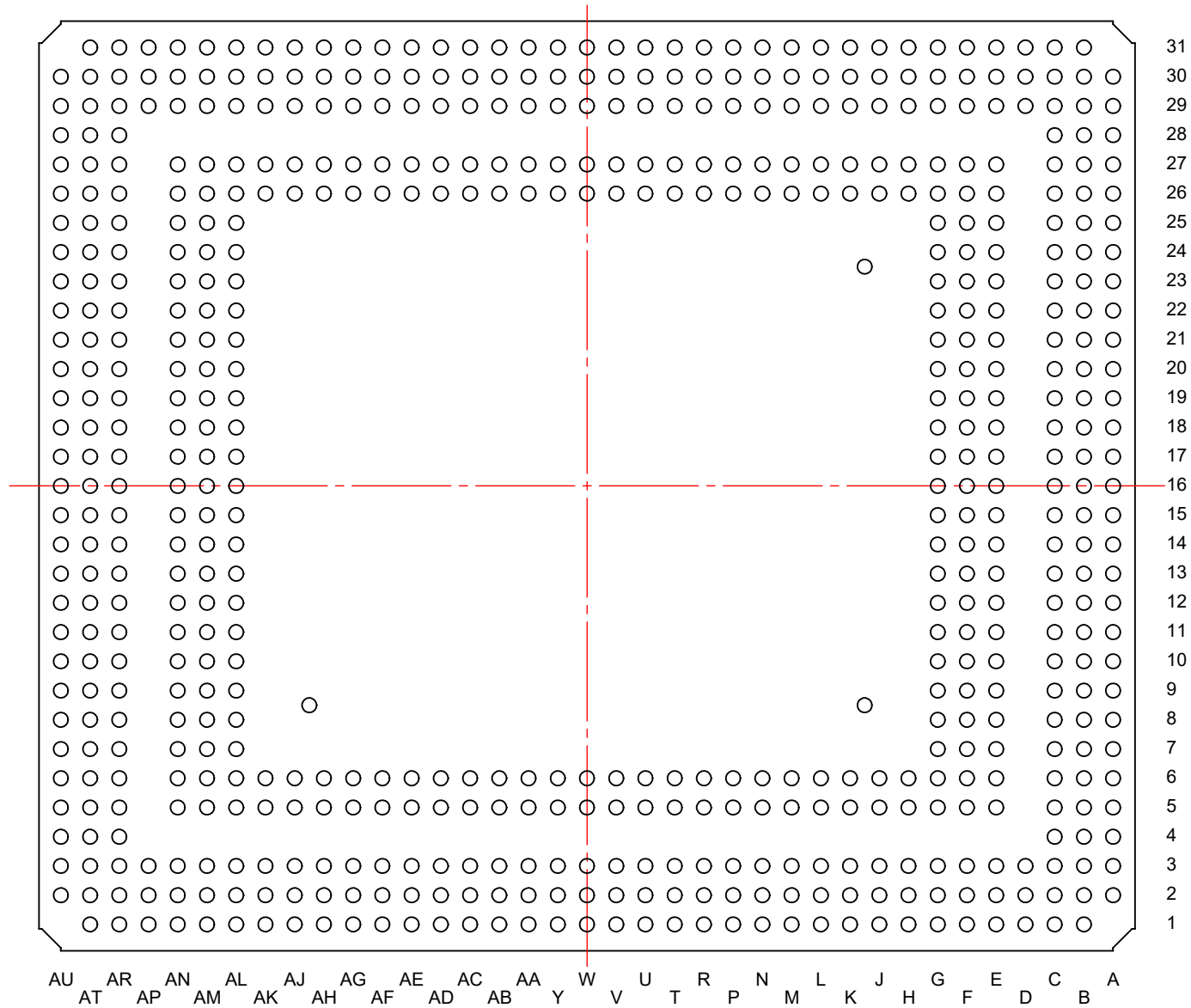
TITLE CCGA598 PITCH 2.0mm
SONY IMX661

| | | | |
|-----------------|-----------|-----------------------|----------|
| SCALE 1.75:1 | SIZE A | DRAWING NO. 160085 | REV A |
|-----------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 5 OF 12

PAD VIEW



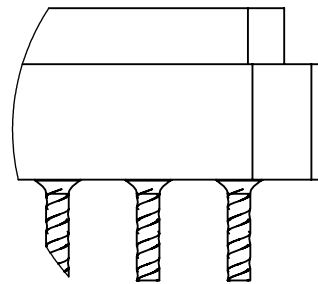
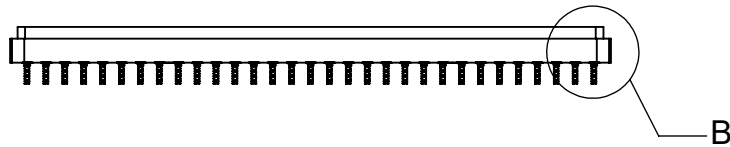
TopLine®

TITLE CCGA598 PITCH 2.0mm
SONY IMX661

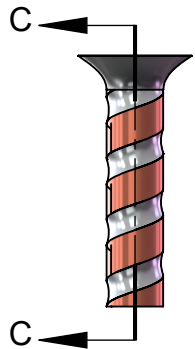
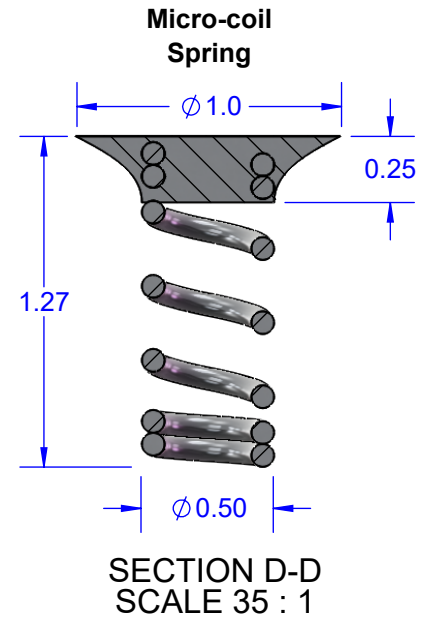
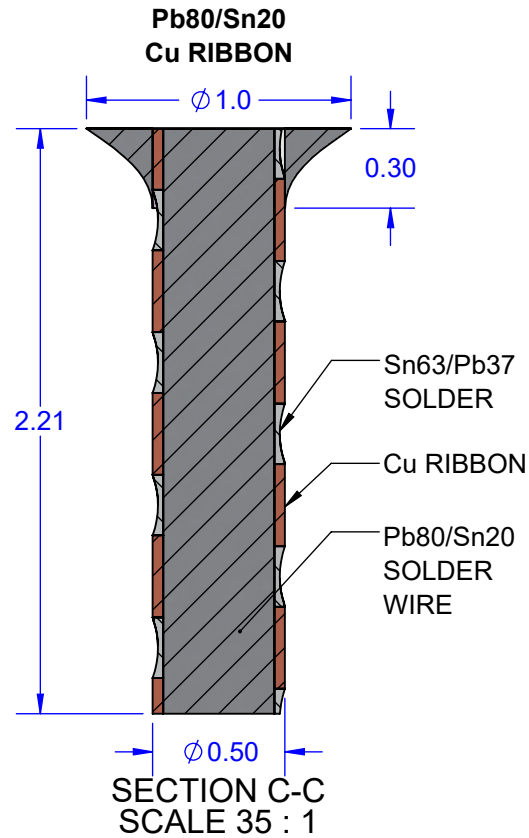
| | | | |
|-----------------|-----------|-----------------------|----------|
| SCALE 2.25:1 | SIZE A | DRAWING NO. 160085 | REV A |
|-----------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING SHEET 6 OF 12

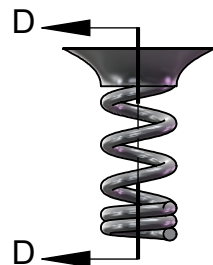
SOLDER PIN OPTIONS



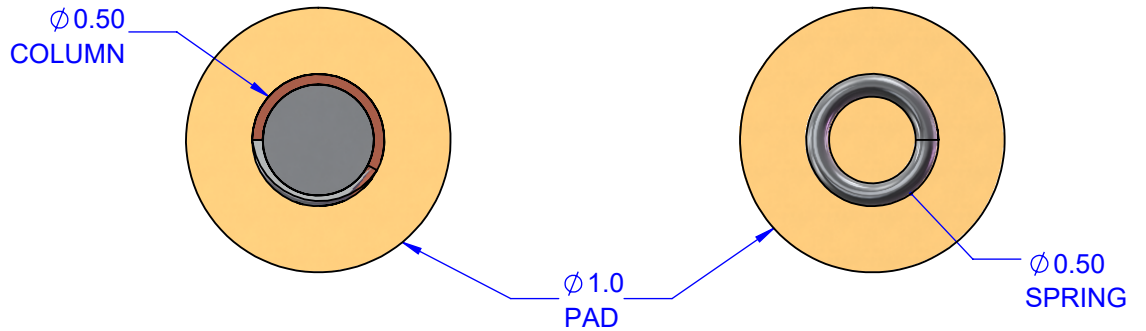
DETAIL B
SCALE 6 : 1



Pb80/Sn20
Cu RIBBON
SCALE 15:1



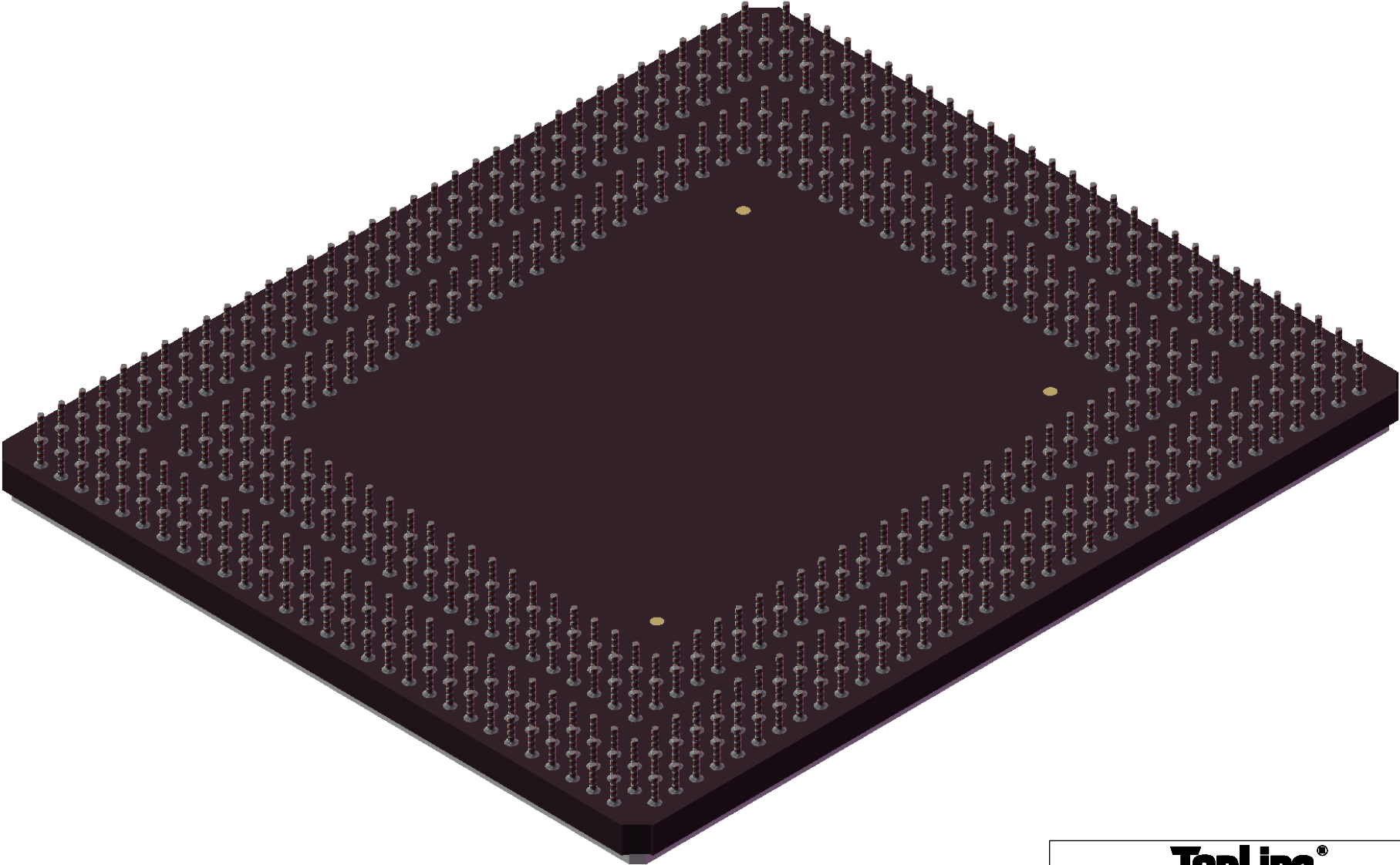
Micro-Coil
Spring
SCALE 20:1



NOTE:
ALTERNATIVE SIZE COLUMNS
AND MICRO-COIL SPRINGS AVAILABLE

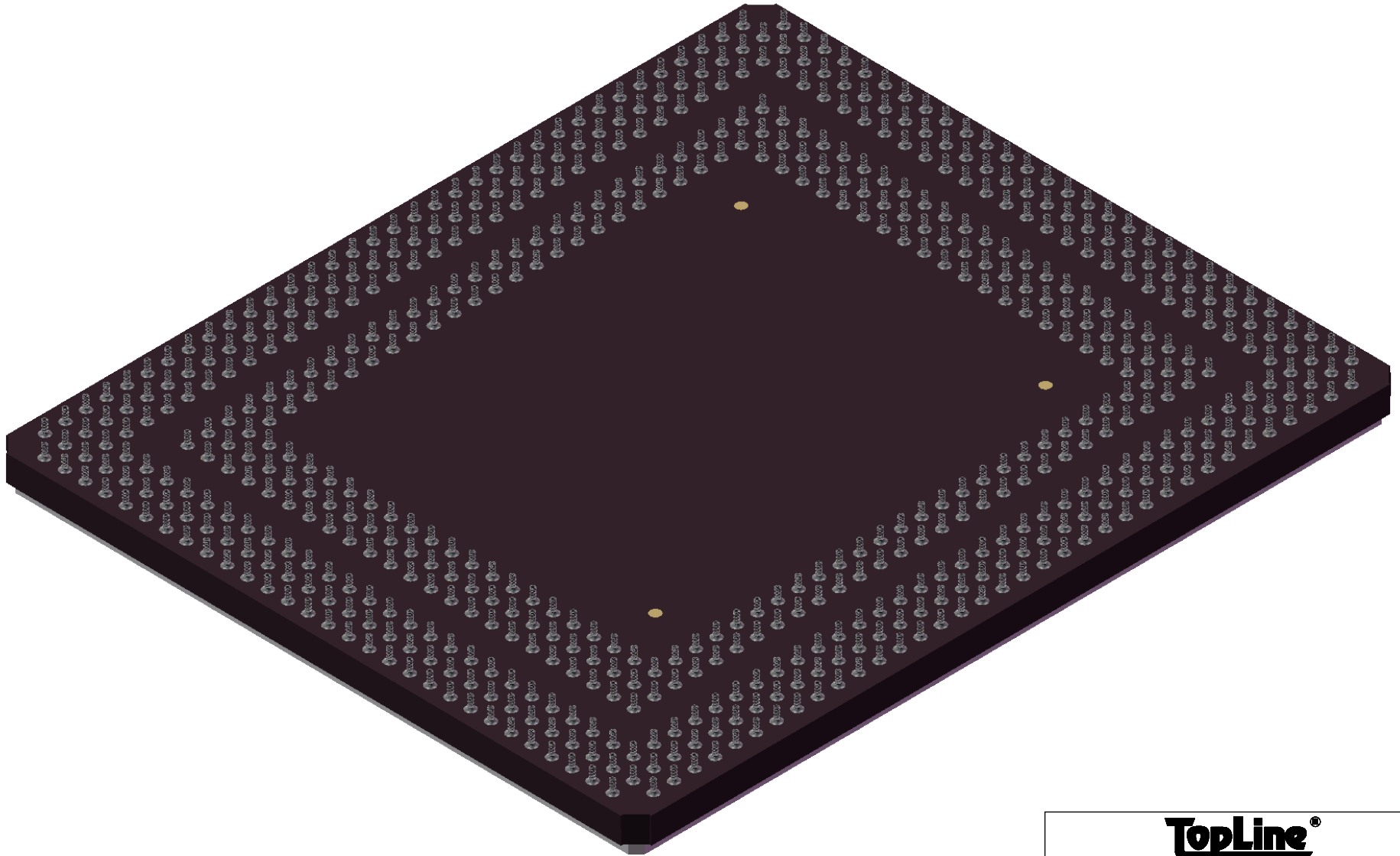
| | | | |
|--|-----------|-----------------------|---------------|
| TopLine® | | | |
| TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| SCALE 1.25:1 | SIZE A | DRAWING NO. 160085 | REV A |
| DO NOT SCALE DRAWING | | | SHEET 7 OF 12 |

**MODEL
Pb80/Sn COLUMNS**



| | | | |
|---|------|-------------|---------------|
| TopLine® | | | |
| TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| SCALE | SIZE | DRAWING NO. | REV |
| 3:2 | A | 160085 | A |
| DO NOT SCALE DRAWING | | | SHEET 8 OF 12 |

MODEL MICRO COIL SPRINGS



TopLine[®]

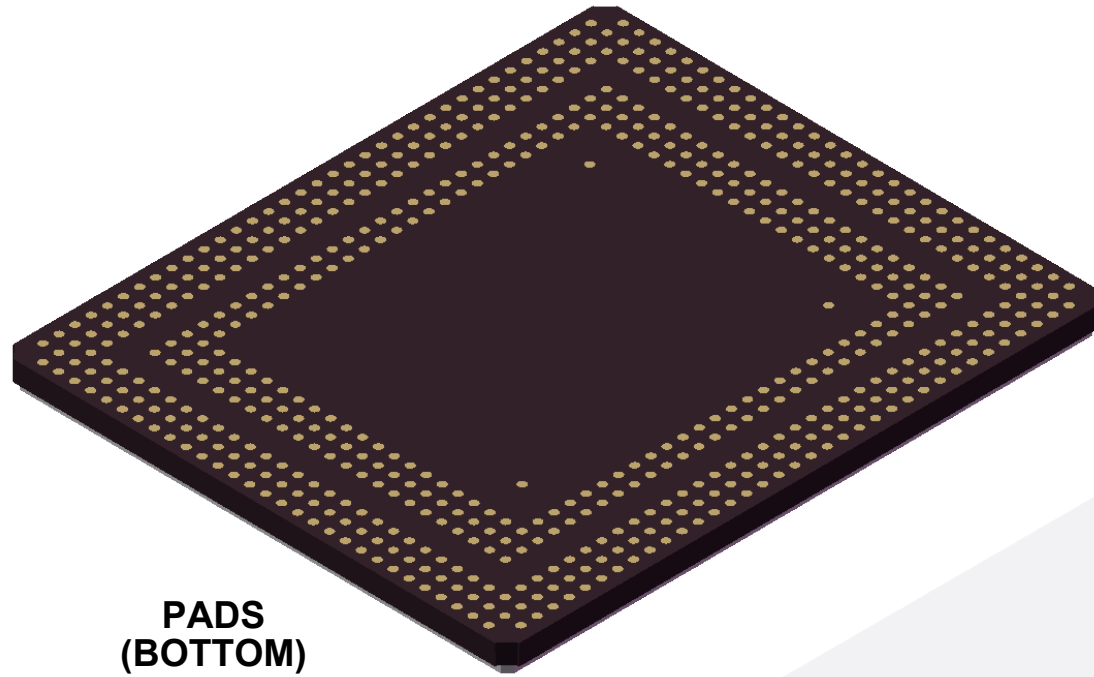
TITLE CCGA598 PITCH 2.0mm
SONY IMX661

| | | | |
|--------------|-----------|-----------------------|----------|
| SCALE 3:2 | SIZE A | DRAWING NO. 160085 | REV A |
|--------------|-----------|-----------------------|----------|

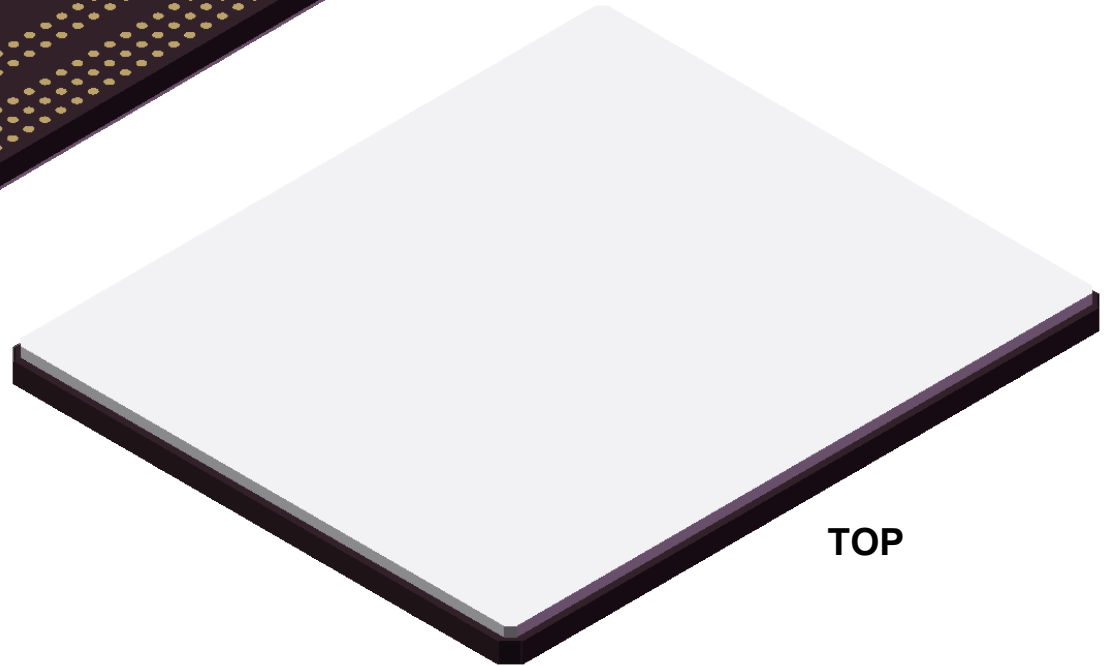
DO NOT SCALE DRAWING

SHEET 9 OF 12

MODEL



**PADS
(BOTTOM)**



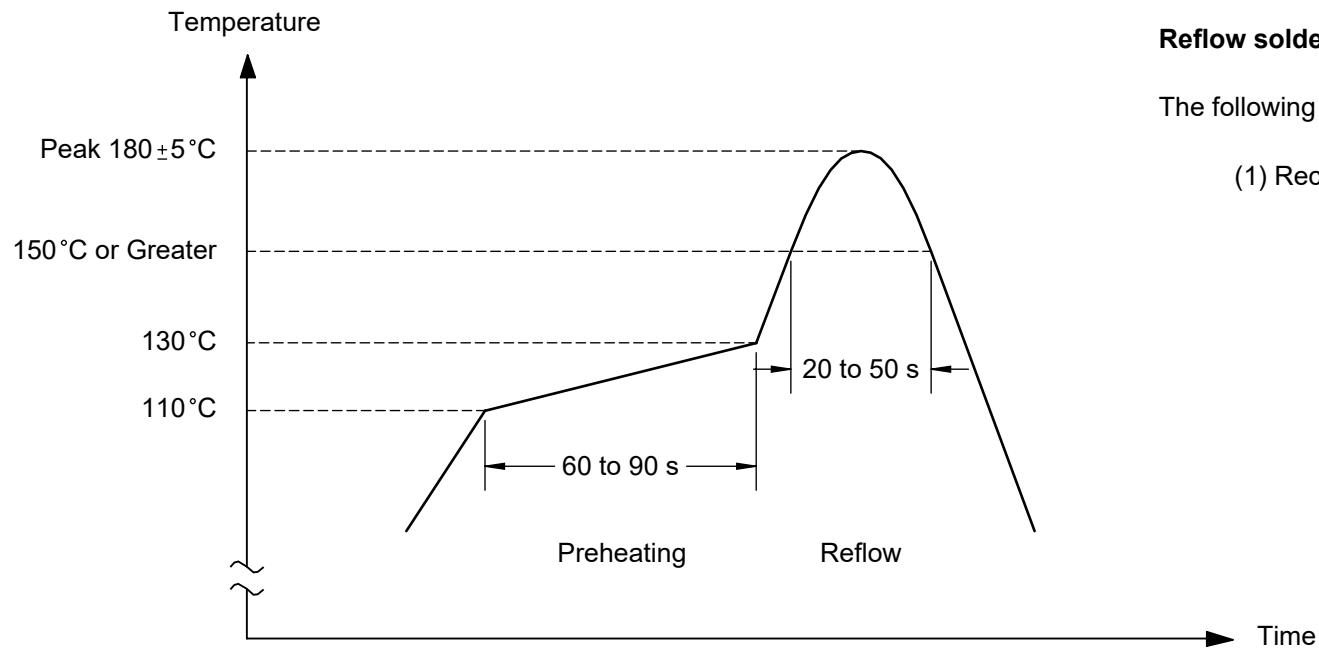
TOP

NOTE:
1) TOP VIEW PRELIMINARY

| | | | |
|--|-----------|-----------------------|----------------|
| TopLine[®] | | | |
| TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| SCALE 3:2 | SIZE A | DRAWING NO. 160085 | REV A |
| DO NOT SCALE DRAWING | | | SHEET 10 OF 12 |

REFLOW TEMPERATURE APPLICATION NOTES

| Control item | Profile (at part side surface) |
|--------------------------|--|
| 1. Preheating | 110 to 130 °C 60 to 90 s |
| 2. Temperature up (down) | ±4 °C/s or less |
| 3. Reflow temperature | 150 °C or Greater 20 to 50 s Max. 5 °C/s |
| 4. Peak temperature | Max. 180 ± 5 °C |



Reflow soldering conditions

The following items should be observed for reflow soldering.

- (1) Recommended temperature profile for reflow soldering.

| | | | |
|--|-----------|-----------------------|----------------|
| TopLine® | | | |
| TITLE CCGA598 PITCH 2.0mm SONY IMX661 | | | |
| SCALE NONE | SIZE A | DRAWING NO. 160085 | REV A |
| DO NOT SCALE DRAWING | | | SHEET 11 OF 12 |


APPLICATION NOTES

(A) Reflow conditions

- (1) Maximum temperature of the upper surface of the seal glass resin adhesive portion of the package does not exceed 185°C.
- (2) Maximum reflow soldering only one time.
- (3) Finish reflow soldering within 72 h after unsealing the degassed packing.
Store the products under the condition of temperature of 30°C or less and humidity of 70% RH or less after unsealing the package.
- (4) Perform re-baking only one time under the condition at 125°C for 24 h.
- (5) Note that condensation on glass or discoloration on resin interfaces may occur if the actual temperature and time exceed the conditions mentioned above.

(B) Other Notes:

- (1) Do not expose to strong light (sun rays) for long periods, as the color filters of color devices will be discolored.
- (2) Exposure to high temperature or humidity will affect the characteristics. Accordingly avoid storage or use in such conditions.
- (3) This product is precision optical parts, so care should be taken to not apply excessive mechanical shocks or force.
- (4) Note that imaging characteristics of the sensor may be affected when approaching strong electromagnetic wave or magnetic field during operation.
- (5) Note that image may be affected by the light leaked to optical black when using an infrared cut filter that has transparency in near infrared ray area during shooting subjects with high luminance.
- (6) Note that X-ray inspection may damage characteristics of the sensor.

| | | | |
|---|------|------------------------------------|----------------|
|  | | | |
| TITLE | | CCGA598 PITCH 2.0mm SONY IMX661 | |
| SCALE | SIZE | DRAWING NO. | REV |
| NONE | A | 160085 | A |
| DO NOT SCALE DRAWING | | | SHEET 12 OF 12 |