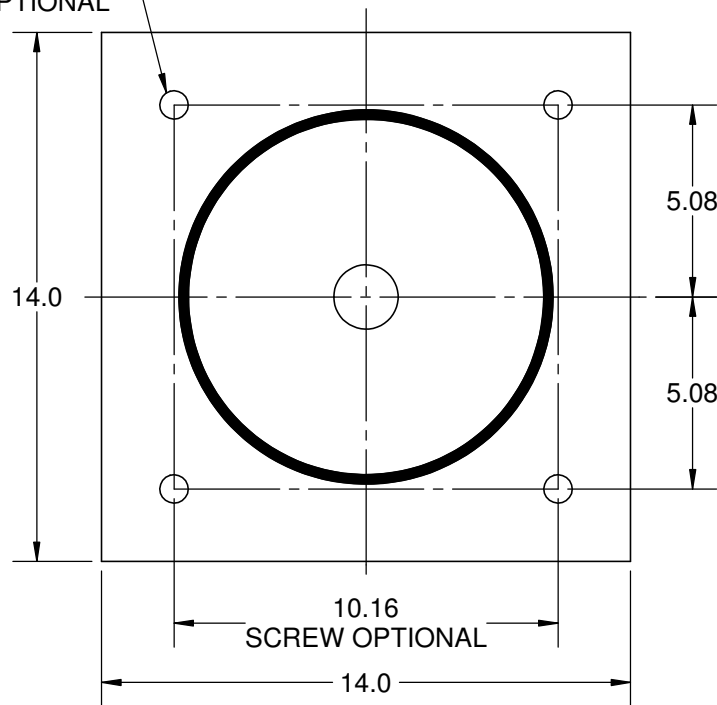
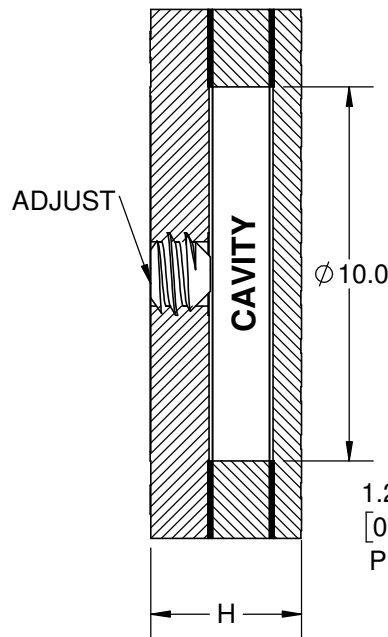


STYLE FS
SCREW HOLE
OPTIONAL

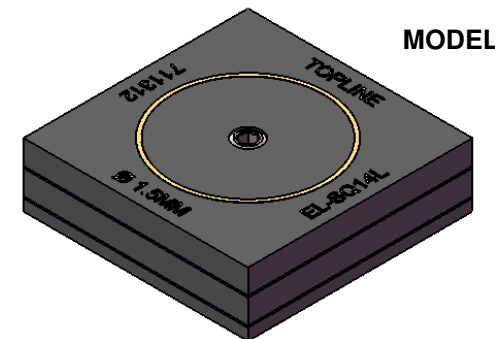
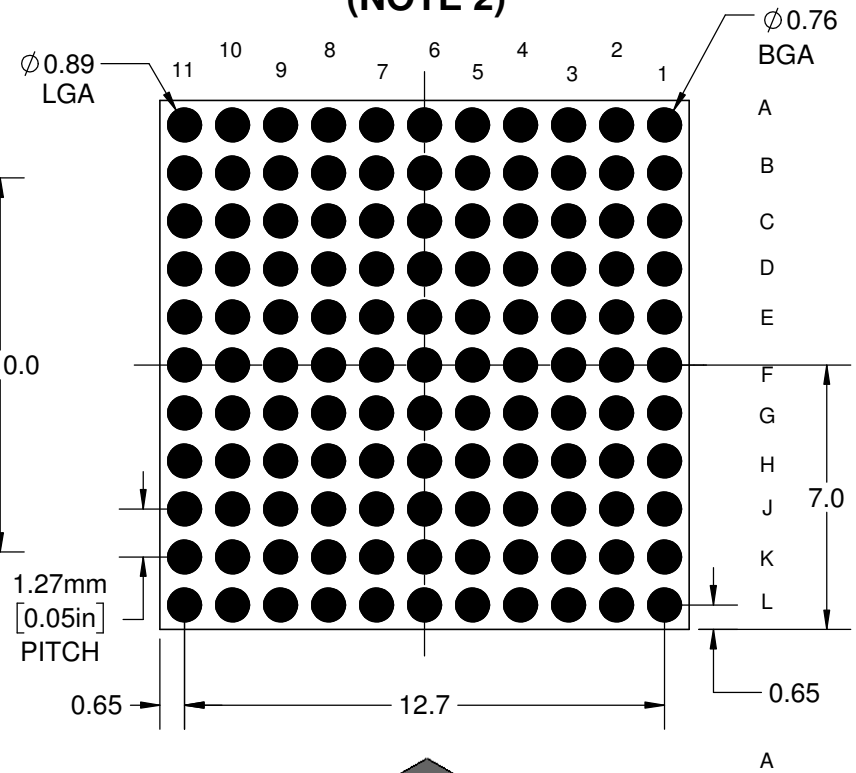
TOP



SIDE



BOTTOM
(NOTE 2)



MODEL

U.S. PATENT 9,521,753 B1
OTHER PATENTS PENDING

DIMENSION AND WEIGHT (MASS) TABLE

H HEIGHT ±0.5mm	PCB MASS NOM	TUNGSTEN BALLS IN CAVITY				Total PID MASS	SCREW ADJUST	SCREW HEX HEAD
		Ø DIA	Per Ball	QTY	MASS			
4.0mm	10 g	1.5mm	0.031g	32~33	1.0g	2.4g	2-56	0.035
4.5mm	11 g	2.0mm	0.073g	16~17	1.1g	2.7g	4-40	0.050
5.0mm	12 g	2.3mm	0.102g	12~13	1.2g	2.8g	6-32	1/16
7.5mm	13 g	2.5mm	0.143g	9~10	1.3g	3.8g	6-32	1/16

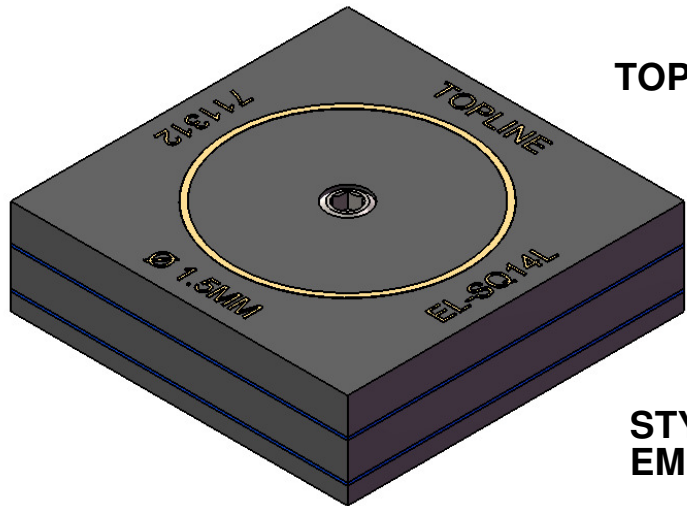
NOTES: (Unless Otherwise Specified).
1. DIMENSIONS IN mm.

NOTE 2: SELECT MOUNTING STYLE

- 1 = LGA (FL)
- 2 = SCREW (FS)
- 3 = ADHESIVE (FA)
- 4 = BGA SAC305 (FB)
- 5 = BGA SnPb (FP)
- 9 = CUSTOM

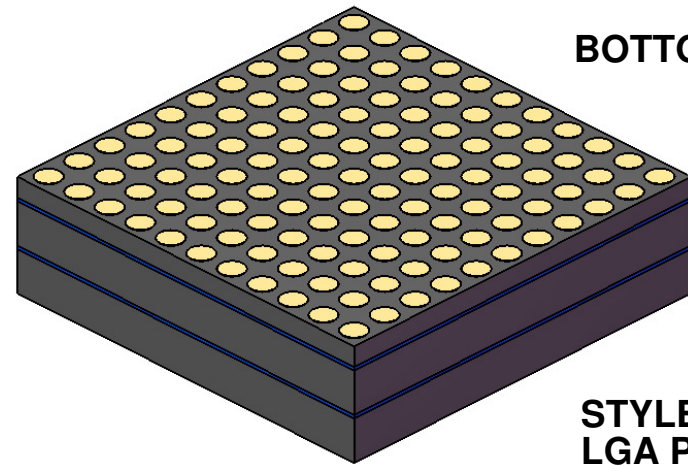
APPROVALS	DATE	TopLine®			
DRAWN T.Au	11/8/2017				
ENG M. Hart	11/8/2017	TITLE EL-SQ14L PID VIBRATION DAMPER			
MFG		SCALE 3:1	SIZE A	DRAWING NO. 701412	REV A
QA		DO NOT SCALE DRAWING			SHEET 1 OF 3
CUST					
REVISED					

MODELS ATTACHMENT VARIATIONS



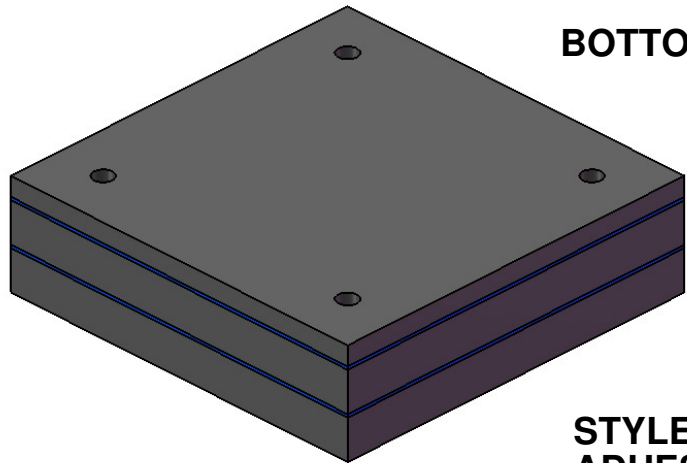
TOP

STYLE EL
EMPTY



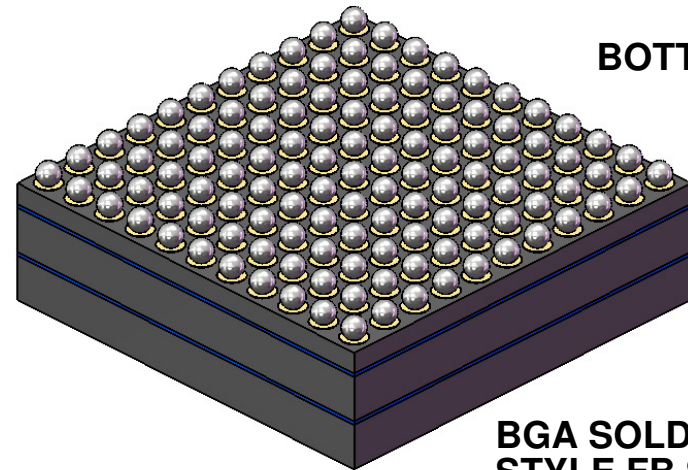
BOTTOM

STYLE FL
LGA PADS



BOTTOM

STYLE FA
ADHESIVE
(GLUE)



BOTTOM

BGA SOLDERBALL
STYLE FB SAC305 RoHS
STYLE FP Sn63/Pb37

NOTES:

1. FA (ADHESIVE) AND FS (SCREW) HAVE BARE BOTTOM.
2. CONTACT TOPLINE FOR OTHER MOUNTING OPTIONS.

TopLine®			
TITLE EL-SQ14L PID VIBRATION DAMPER			
SCALE 5:1	SIZE A	DRAWING NO. 701412	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 3	

Part Number System

<u>F</u>	<u>A</u>	<u>1.3</u>	<u>SQ</u>	<u>14x</u>	<u>4.5</u>	<u>A</u>
Series	Mounting on PCB	Tungsten Payload Grams	Exterior Shape	X/Y Size	Height	Version/Option
<u>Filled</u>	<u>Mounting Style</u>	<u>Code</u> <u>Grams</u>	<u>Code</u> <u>Shape</u>	<u>Code</u> <u>Size</u>	<u>Code</u> <u>Height</u>	<u>Code</u> <u>Version</u>
F = FR4 Single Layer A = Aluminum Case	A = Adhesive L = LGA NiAu Solderable Bottom Terminal	1.0 = 1.0gm 1.2 = 1.2gm 1.3 = 1.3gm 1.4 = 1.4gm	SQ Square R Rectangle C Cylindrical T Toroid Z Custom	14X = 14mm SQ	4.0 = 4.0mm 4.5 = 4.5mm 5.0 = 5.0mm 7.5 = 7.5mm	A Standard
<u>Empty</u>	B = BGA SAC305 P = BGA Sn63/Pb37 S = SCREW Fastener	Other Mass Available		Other Sizes Available	Other Sizes Available	Other Version Available
E = FR4 Case L = AL Case						

Order Number

<u>1</u>	<u>1</u>	<u>190</u>	<u>1</u>
DESCRIPTION	Mount Style	Mass (gm) 9 = Decimal	Option Code
<u>Code</u> <u>Description</u>	<u>Code</u> <u>Description</u>	<u>Code</u> <u>MASS</u>	<u>Code</u> <u>Option</u>
1 = Filled PID 5 = Eng Dev Kit 7 = Empty Pkg	1 = LGA 2 = Screw 3 = Adhesive 4 = BGA SAC305 5 = BGA Sn63 Pb37 9 = Custom 0 = Master DWG	190 = 1.0 gm 192 = 1.2 gm 193 = 1.3 gm 194 = 1.4 gm Blank = Empty	1 = Version A 2 = Version B 3 = Version C ... 9 = Version J



TopLine®			
TITLE EL-SQ14L PID VIBRATION DAMPER			
SCALE NONE	SIZE A	DRAWING NO. 701412	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 3