

CH 系列 IC 常用封装尺寸

版本: 3F

<http://wch.cn>

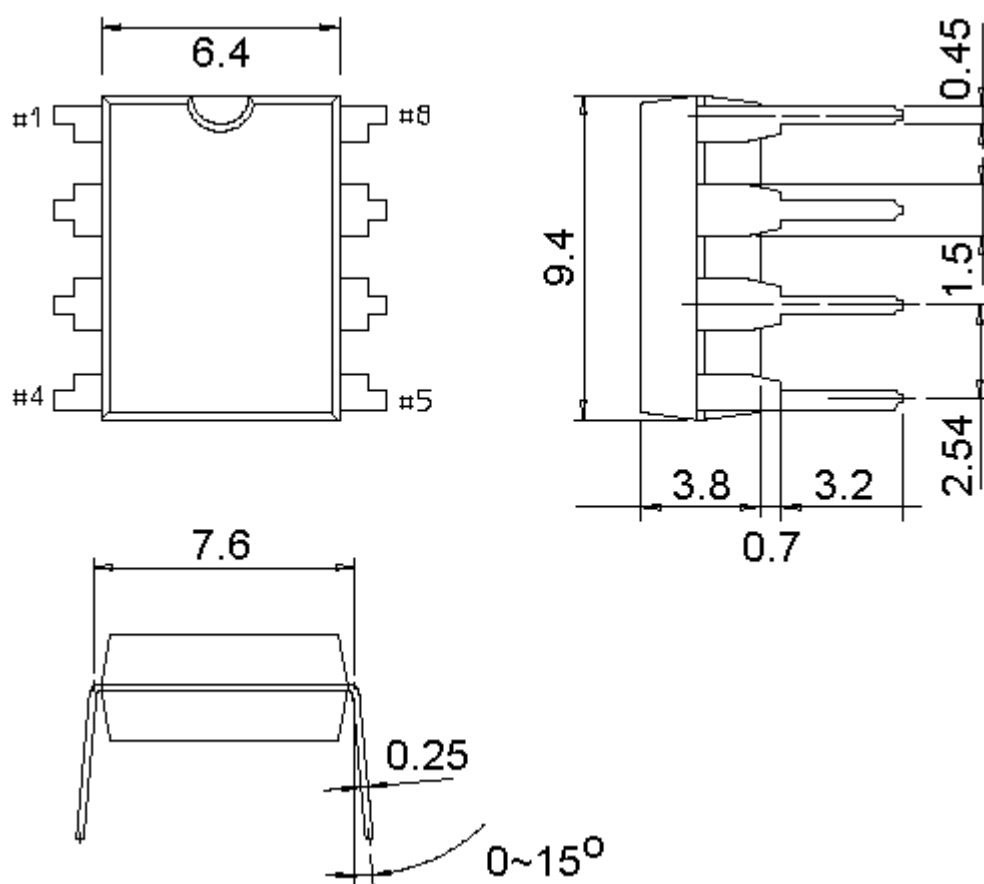
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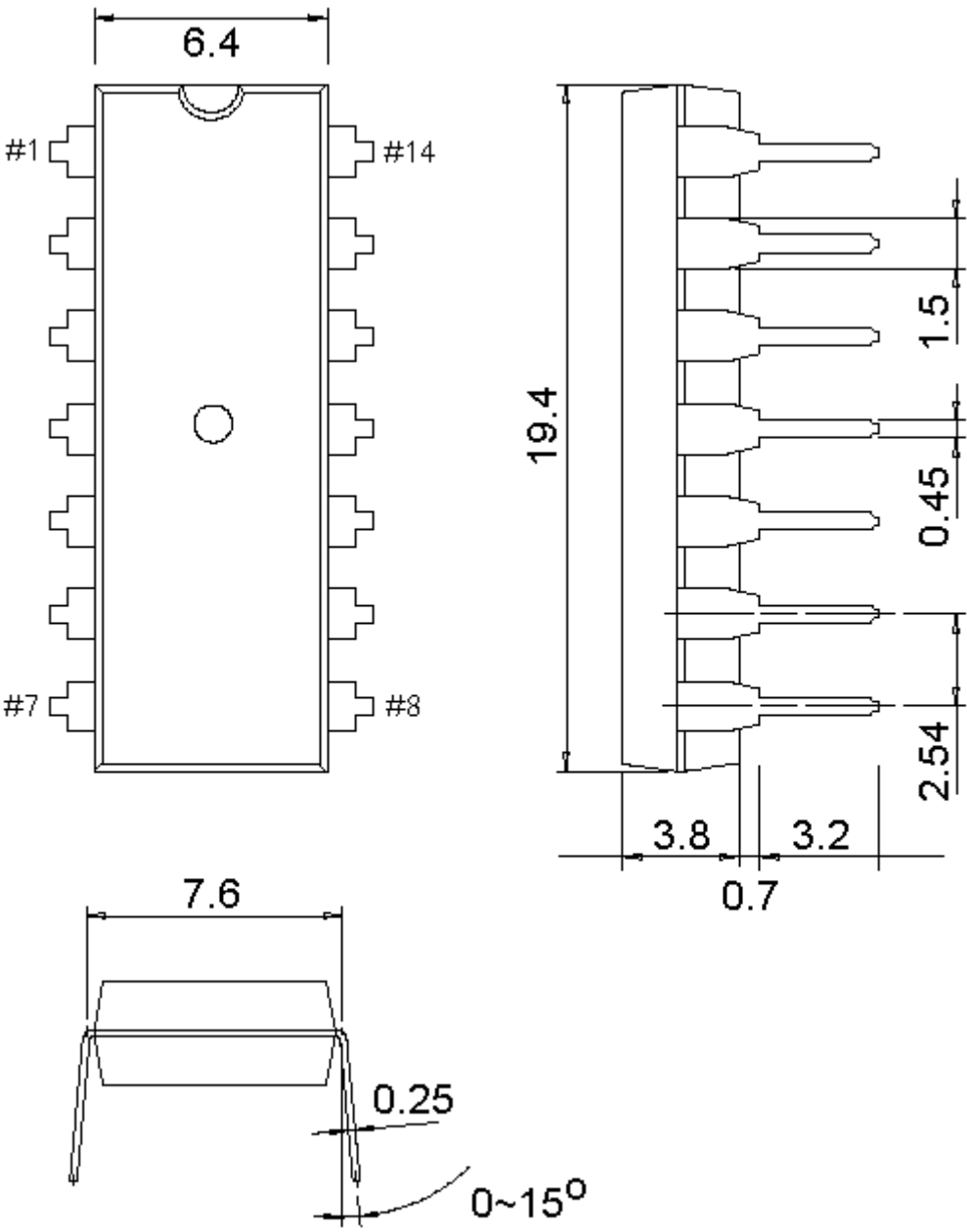
说明：所有尺寸标注的单位都是 mm（毫米），
引脚中心间距总是标称值，没有误差；
除此之外的尺寸误差不大于 ±0.2mm 或者 ±10%两者中的较大值。

DIP 类 (PDIP)

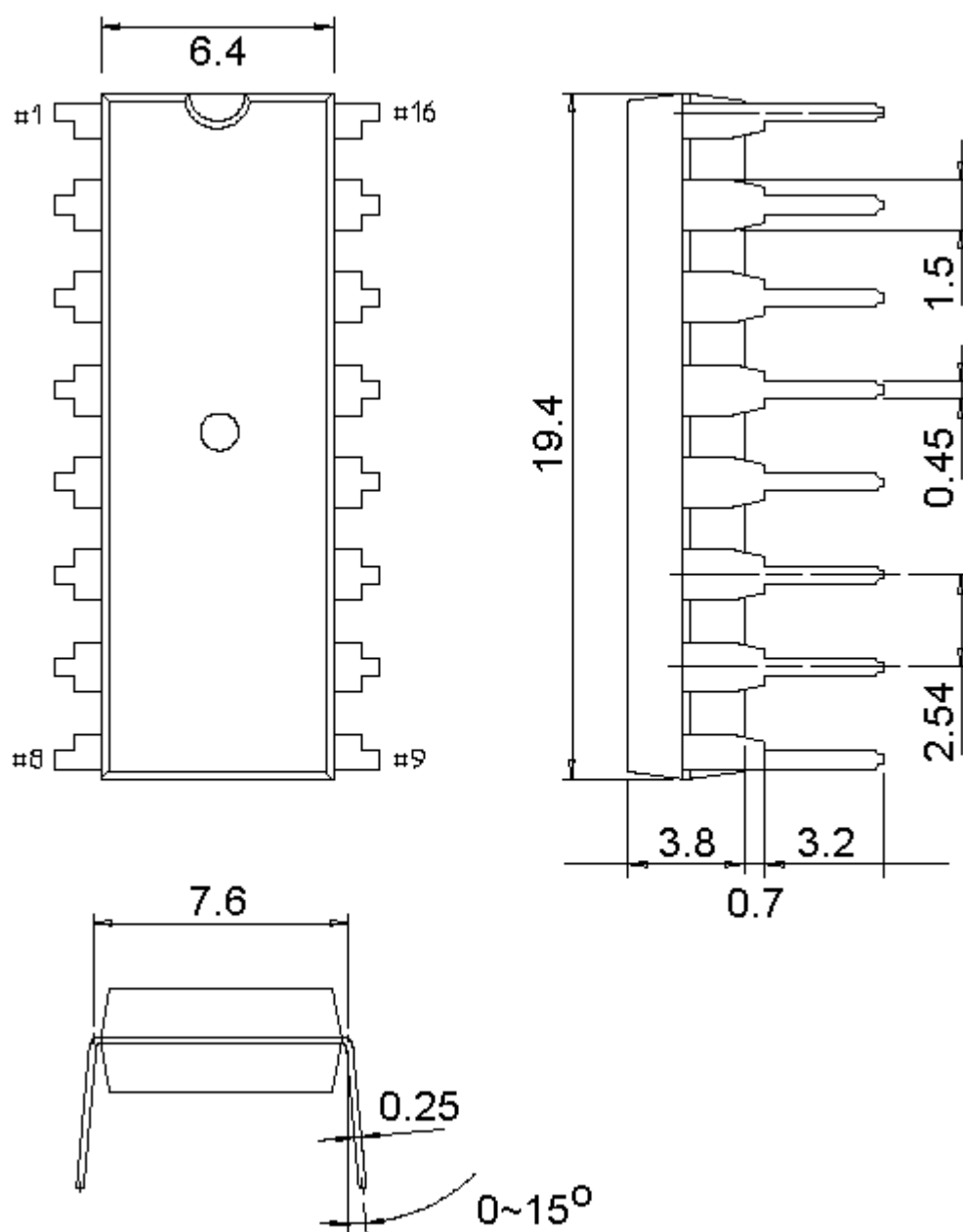
DIP8



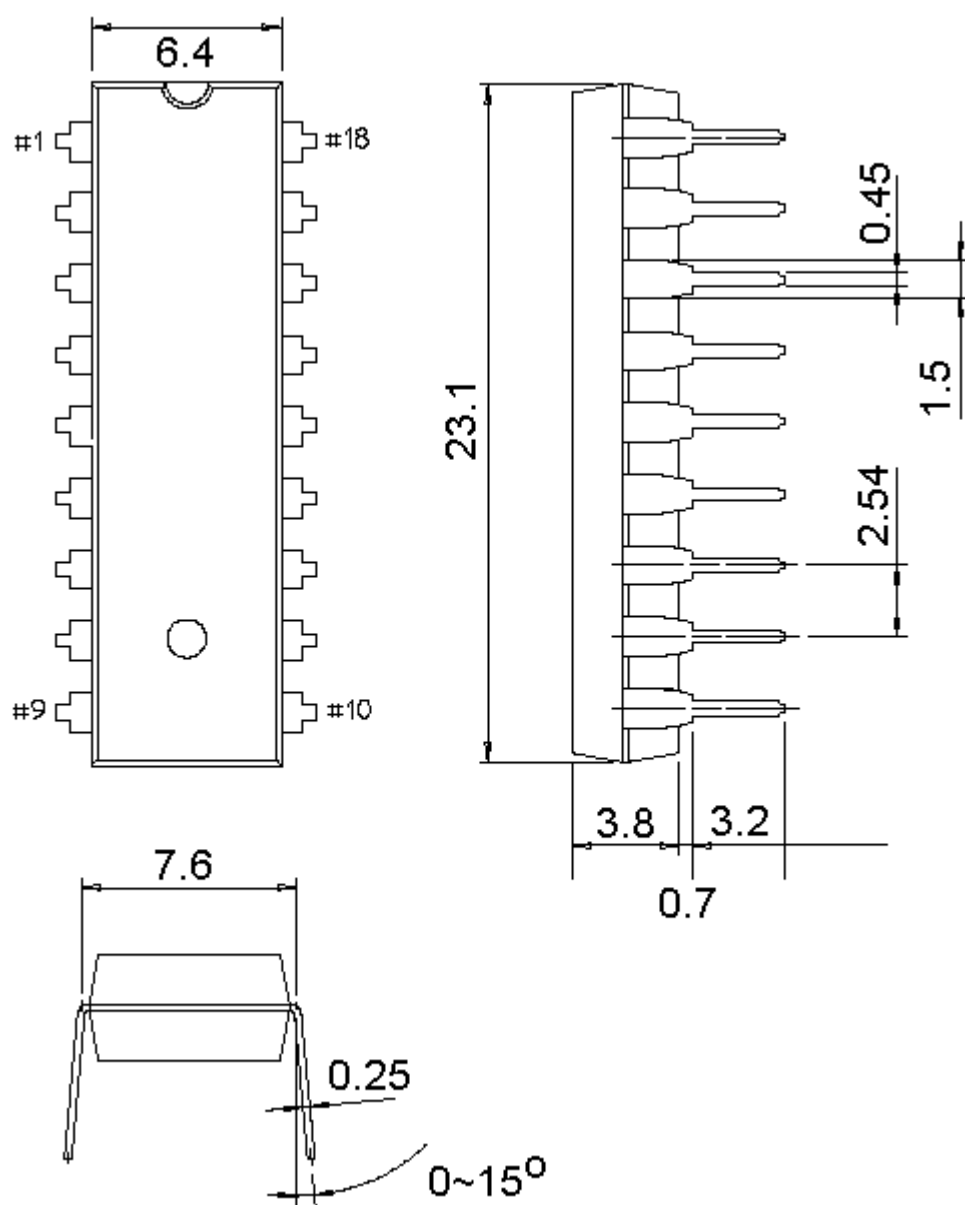
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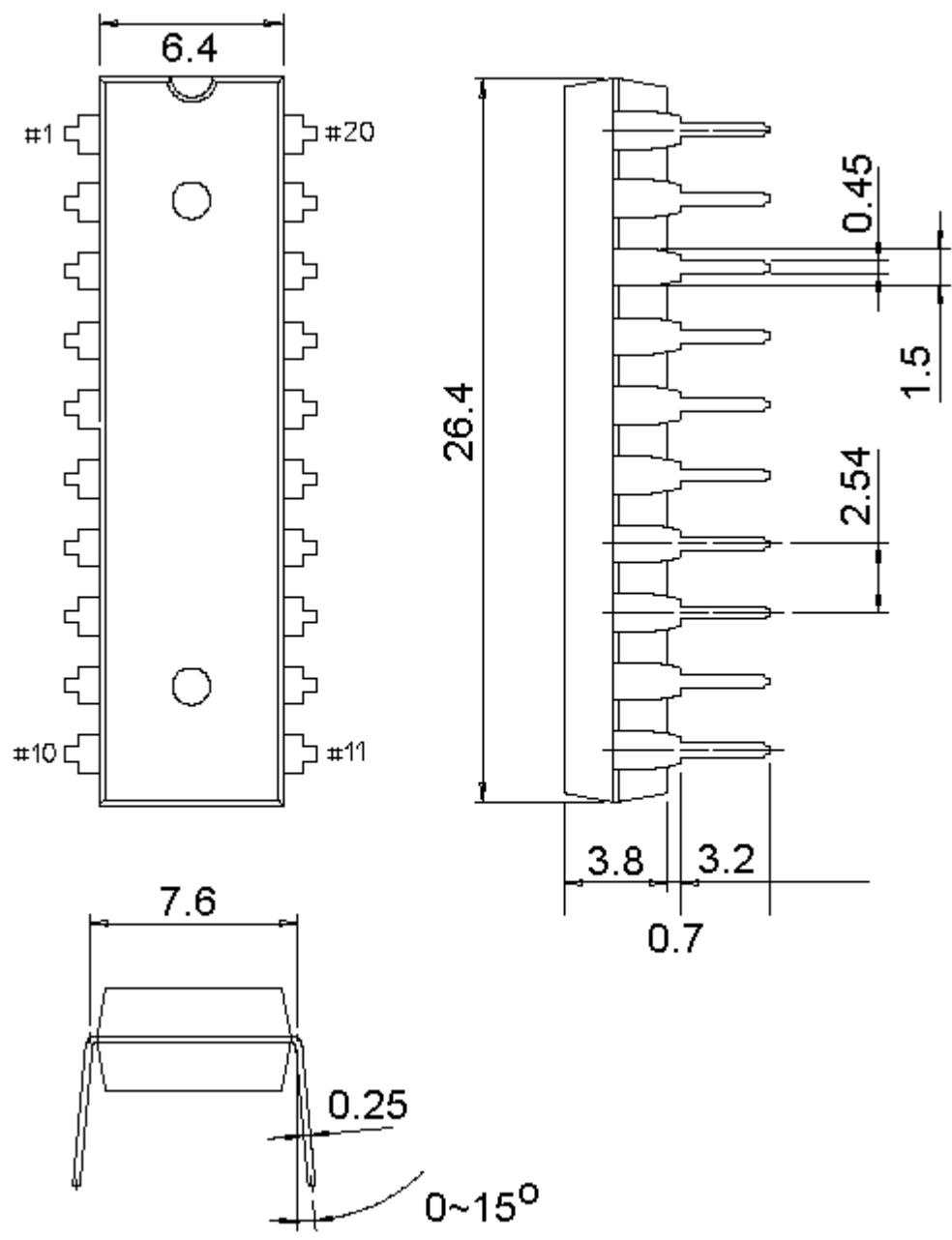
DIP16



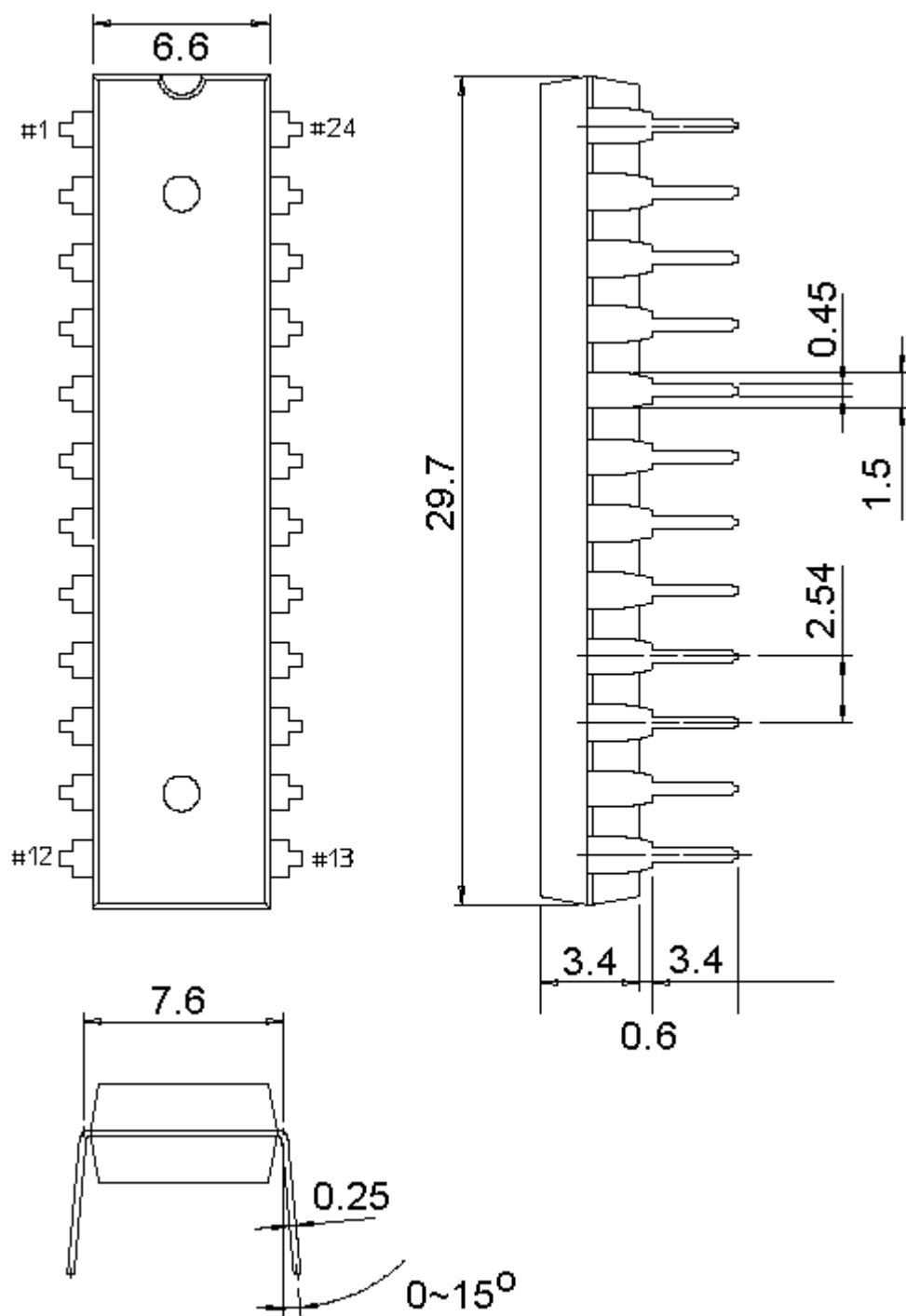
DIP18



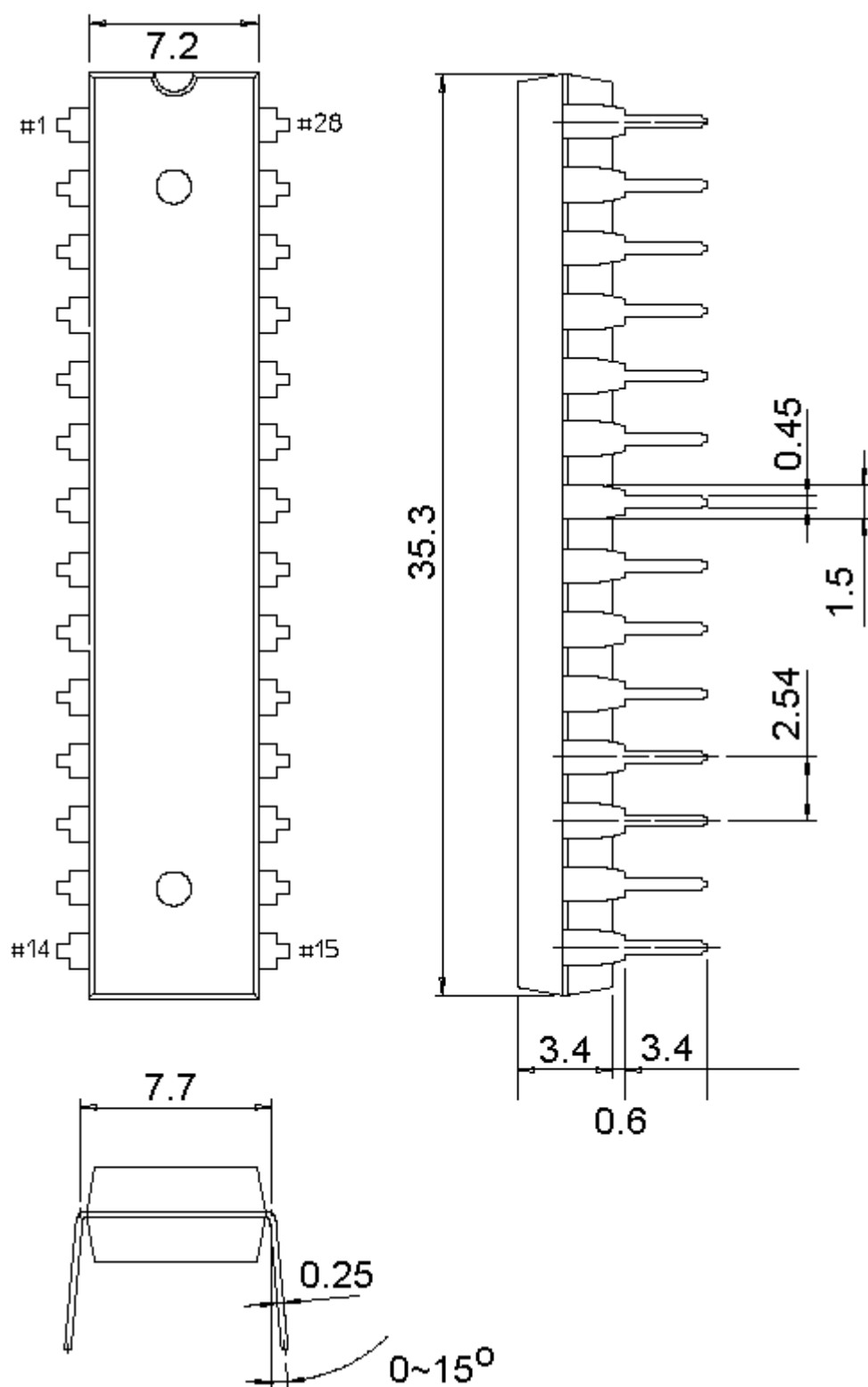
DIP20



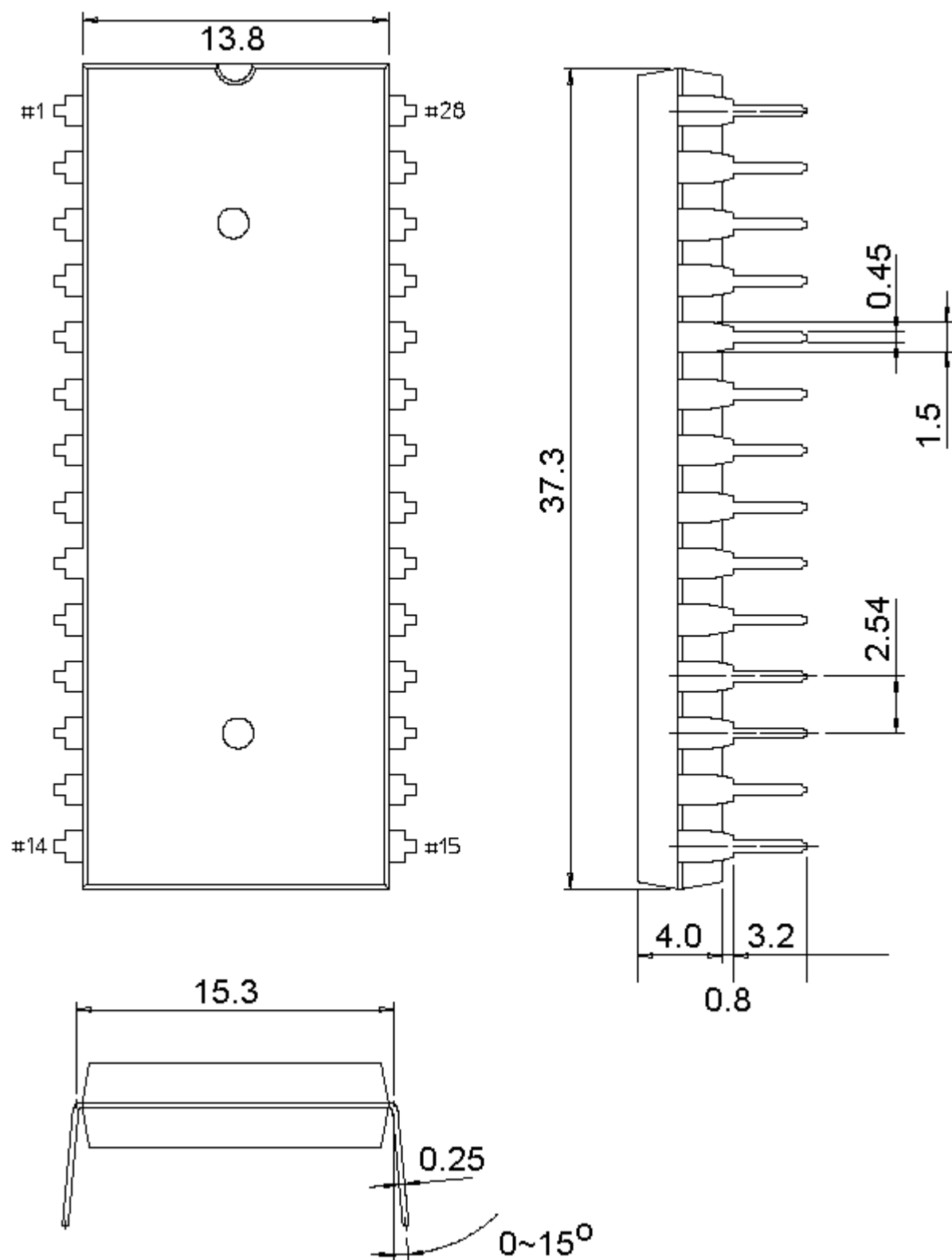
DIP24S (SKDIP24、DIP24-300mil)



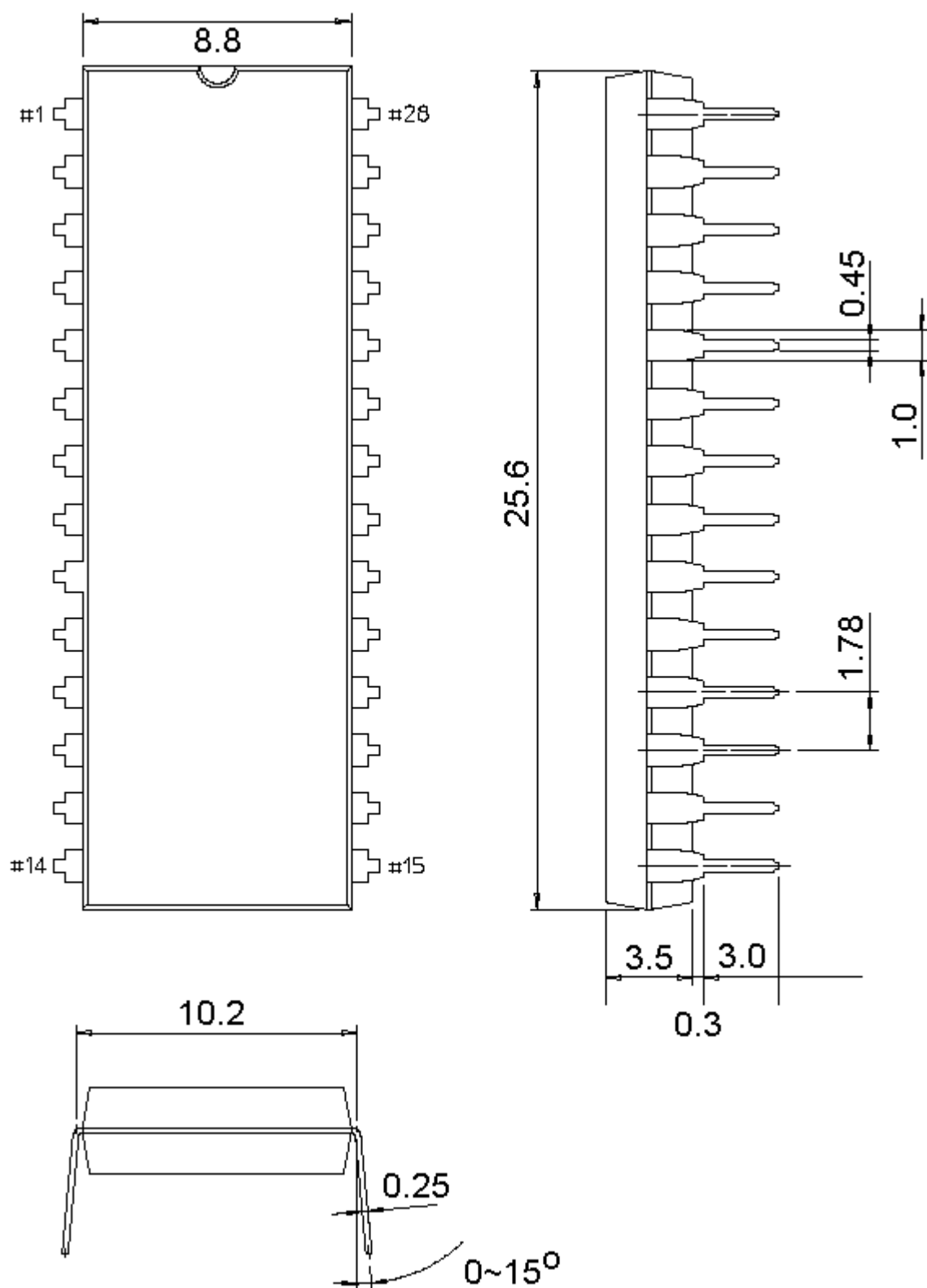
DIP28S (SKDIP28、DIP28-300mil)



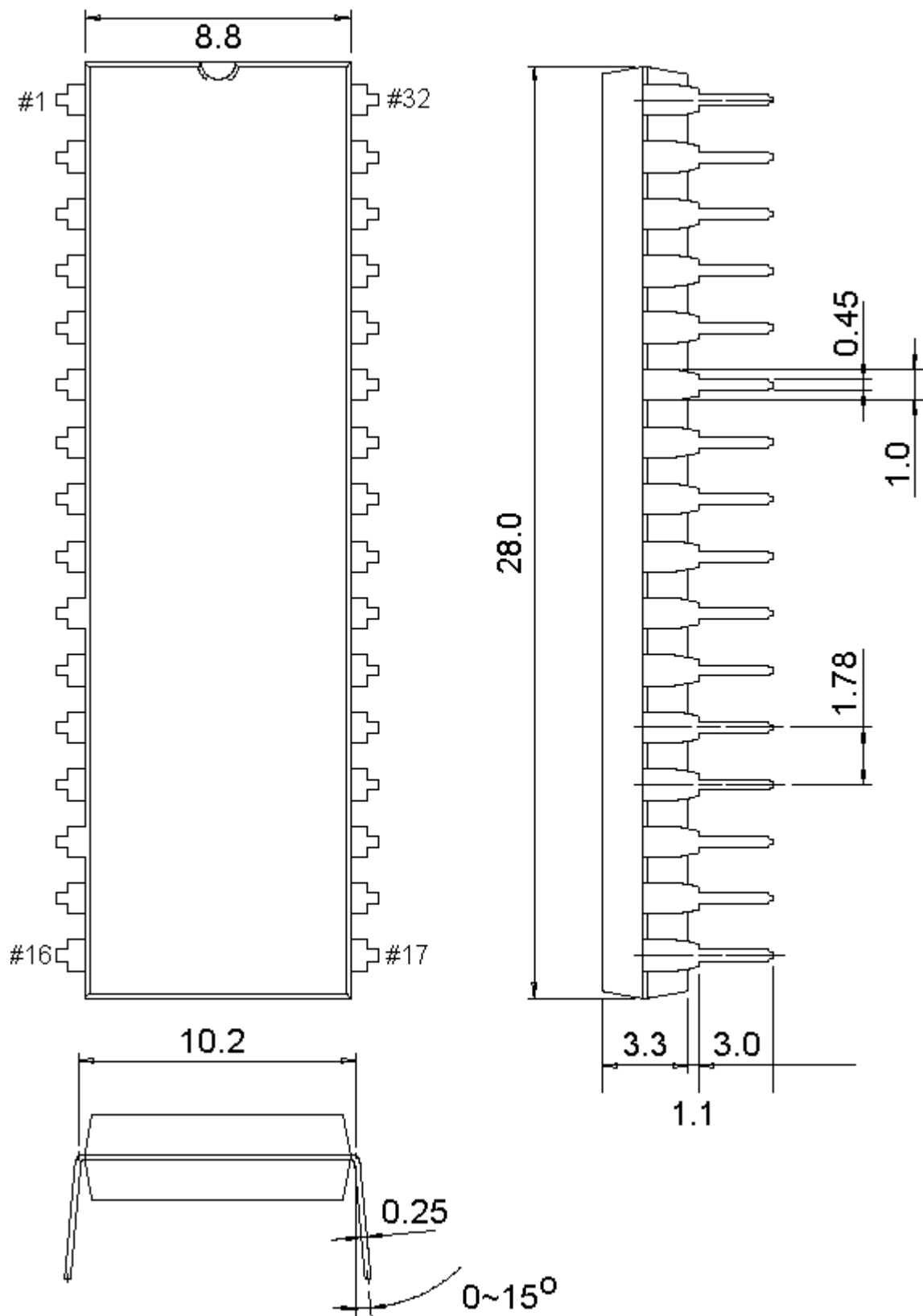
DIP28 (DIP28W、DIP28-600mil)



SDIP28 (SDIP28-400mil)



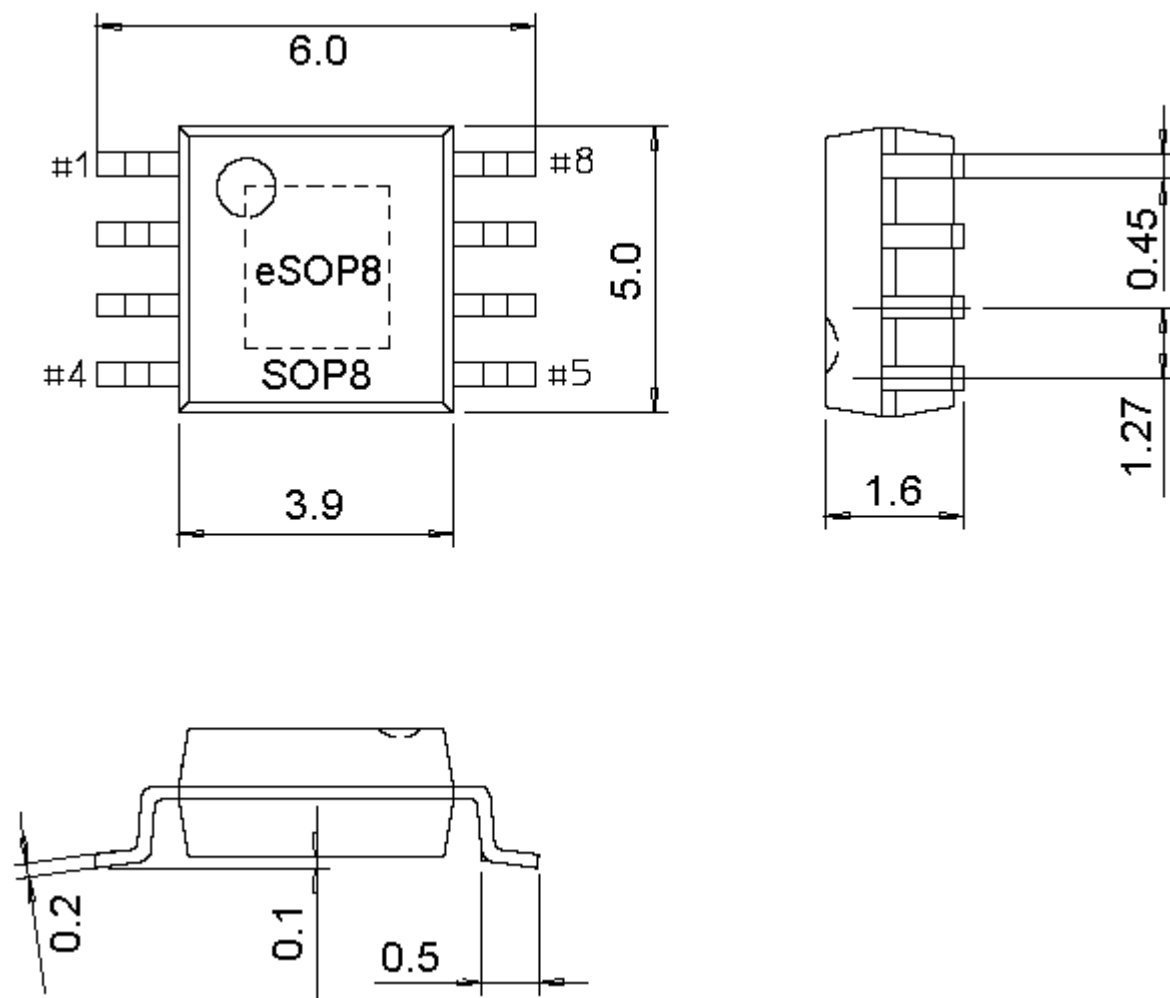
SDIP32 (SDIP32-400mil)



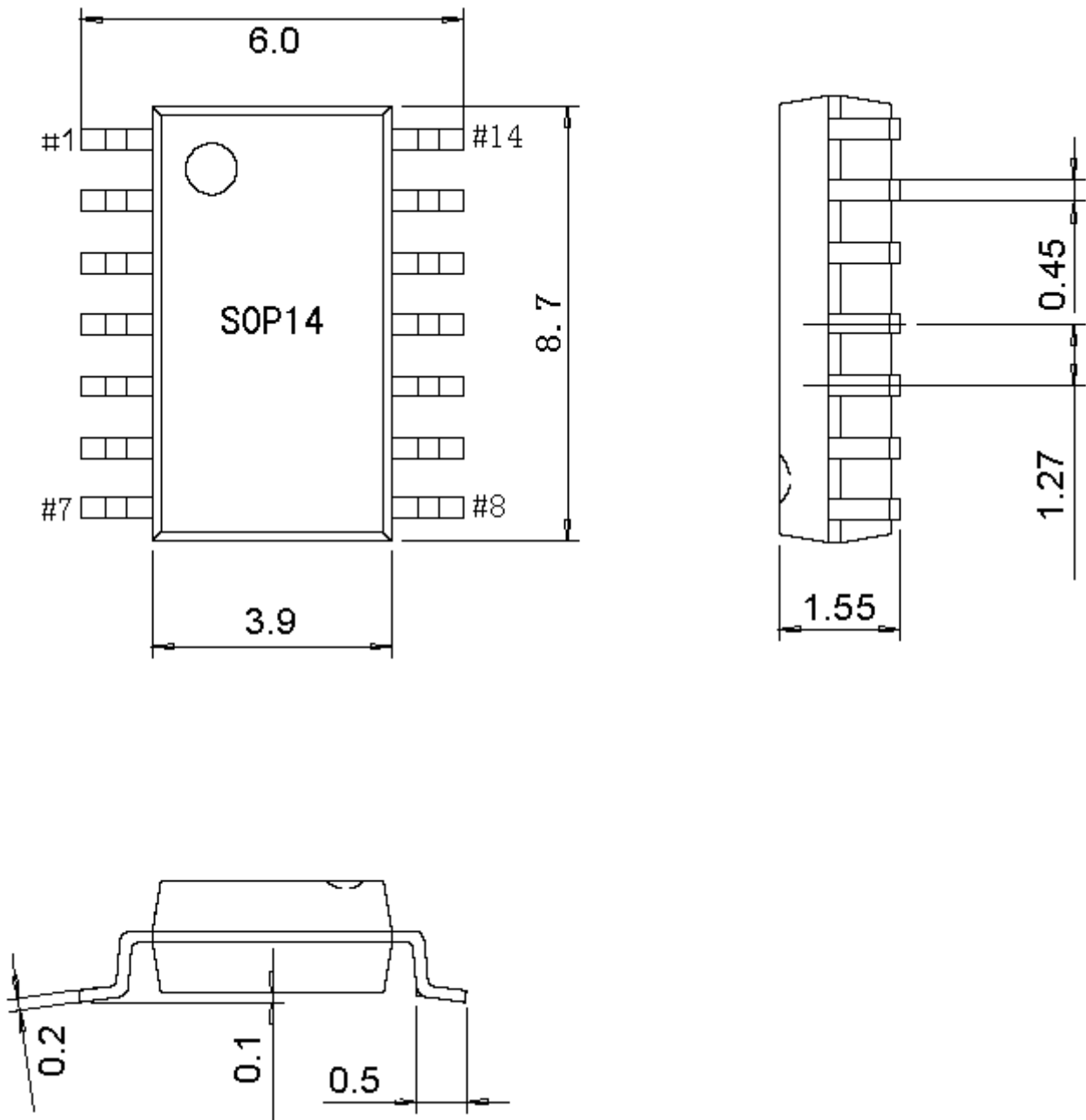
SOP 类 (S01C)

SOP8、eSOP8

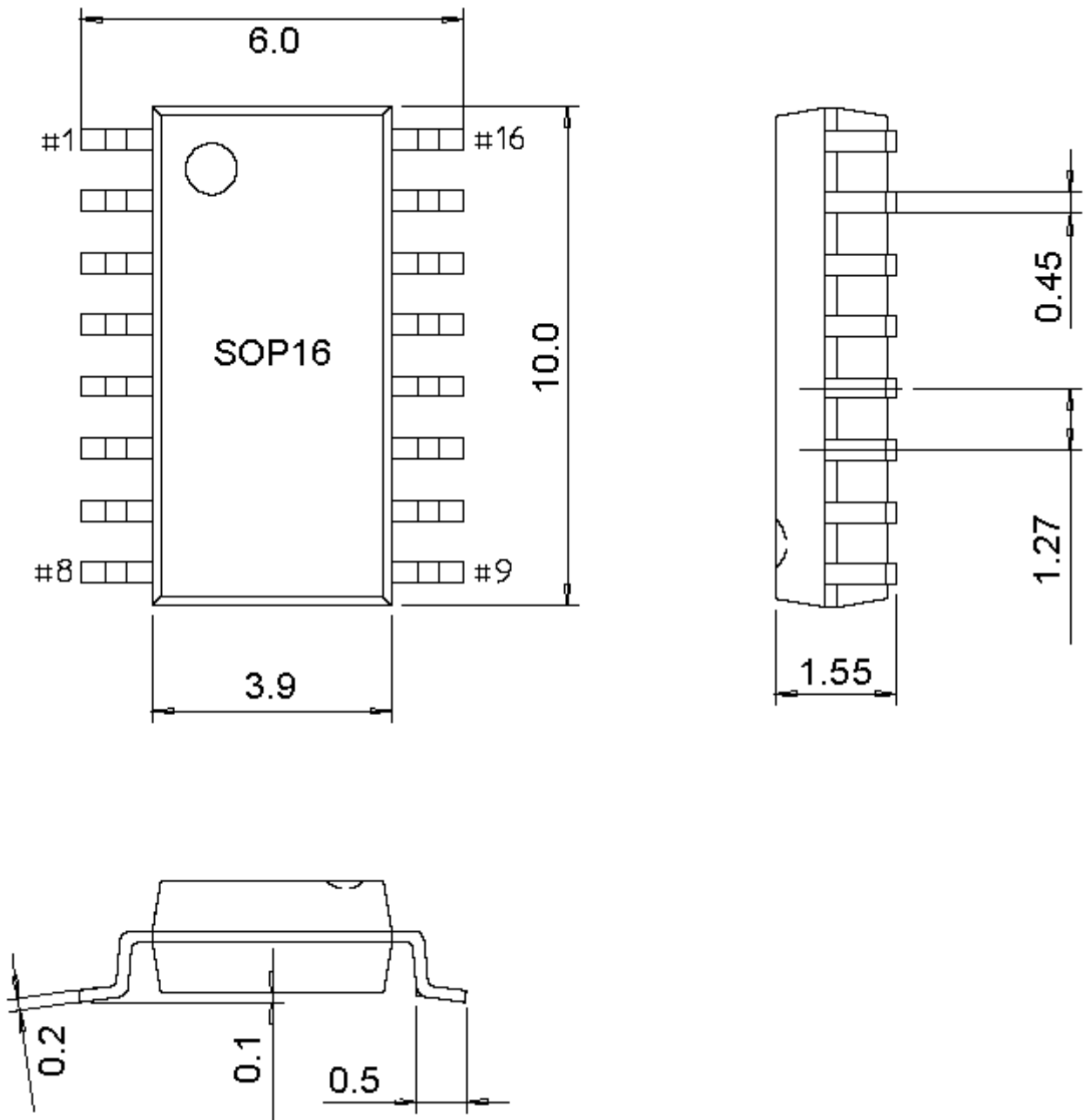
eSOP8 Exposed Pad: 2.1*3.3、2.1*2.1



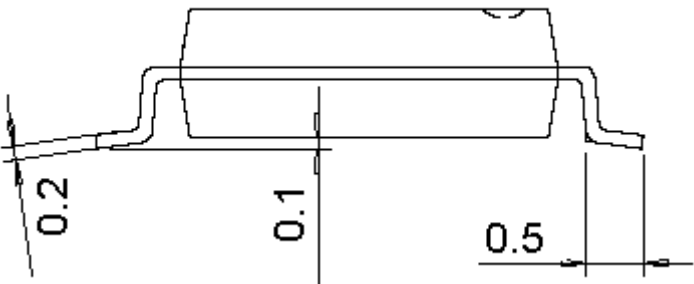
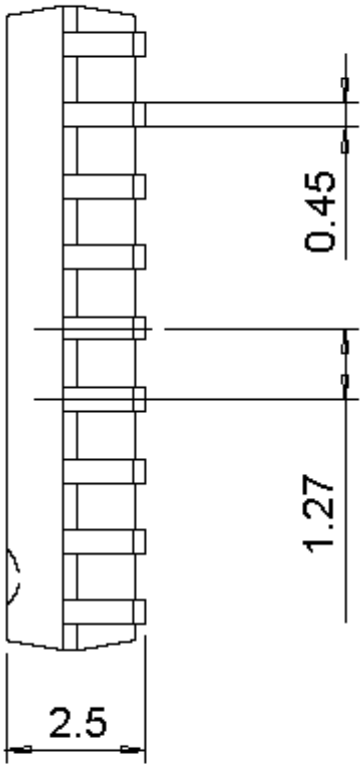
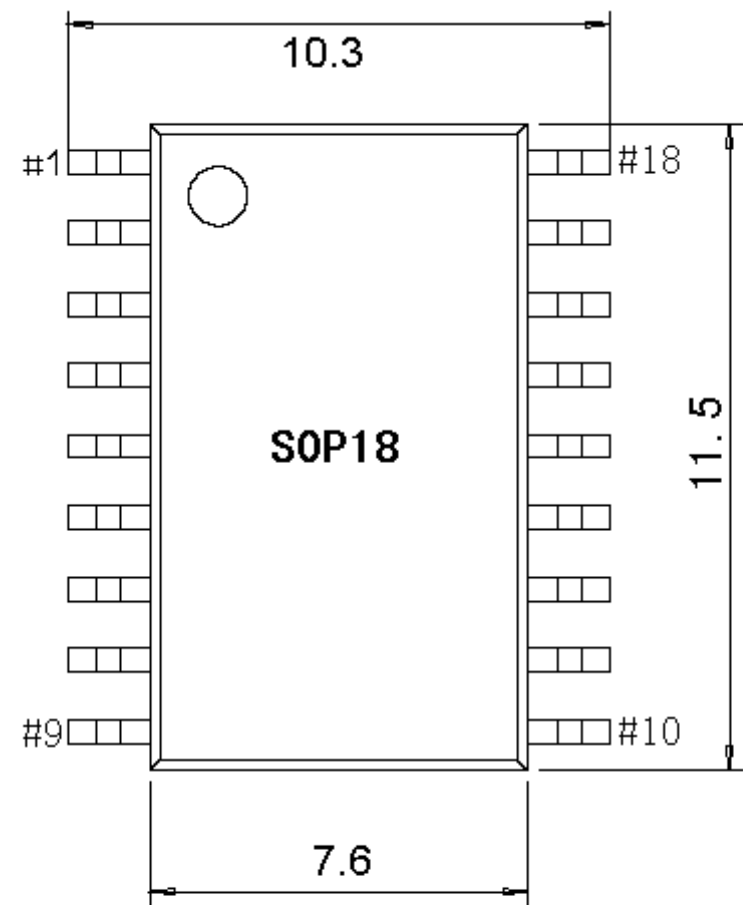
SOP14



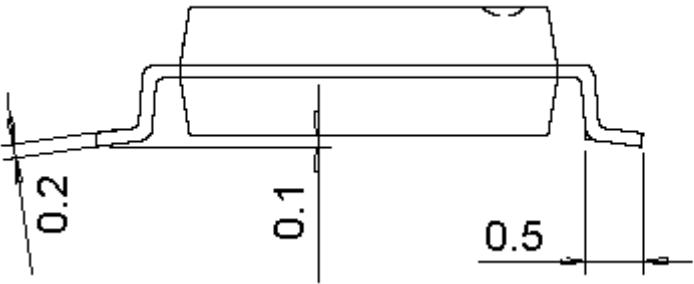
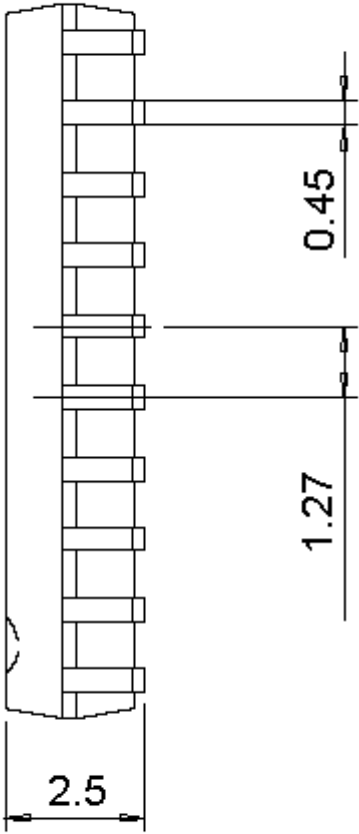
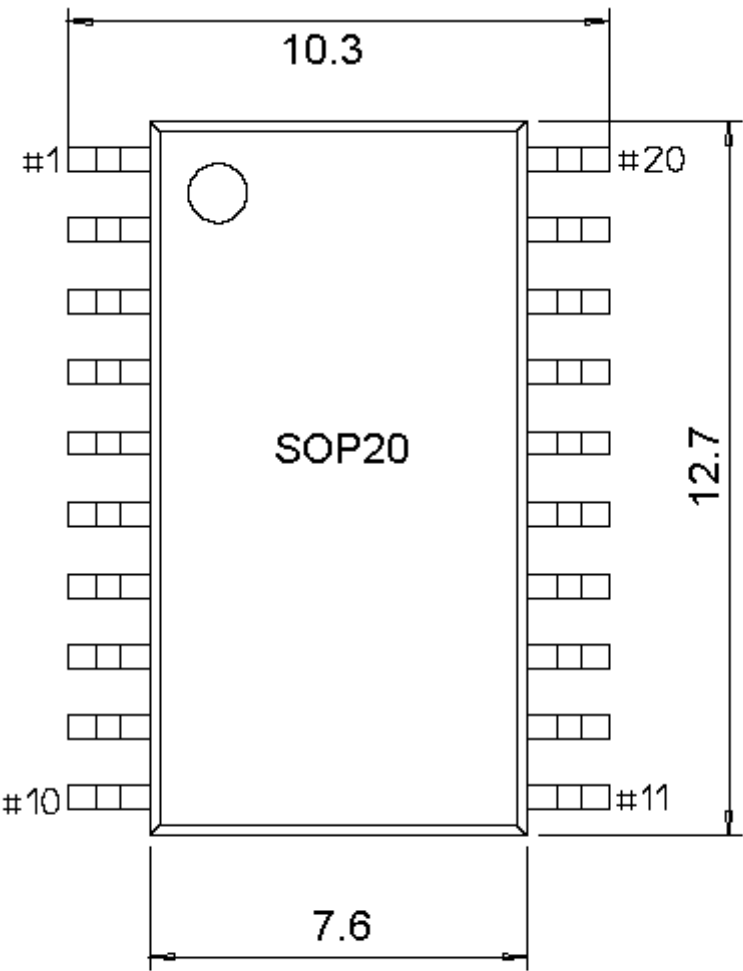
SOP16 (SOP16-150mil)



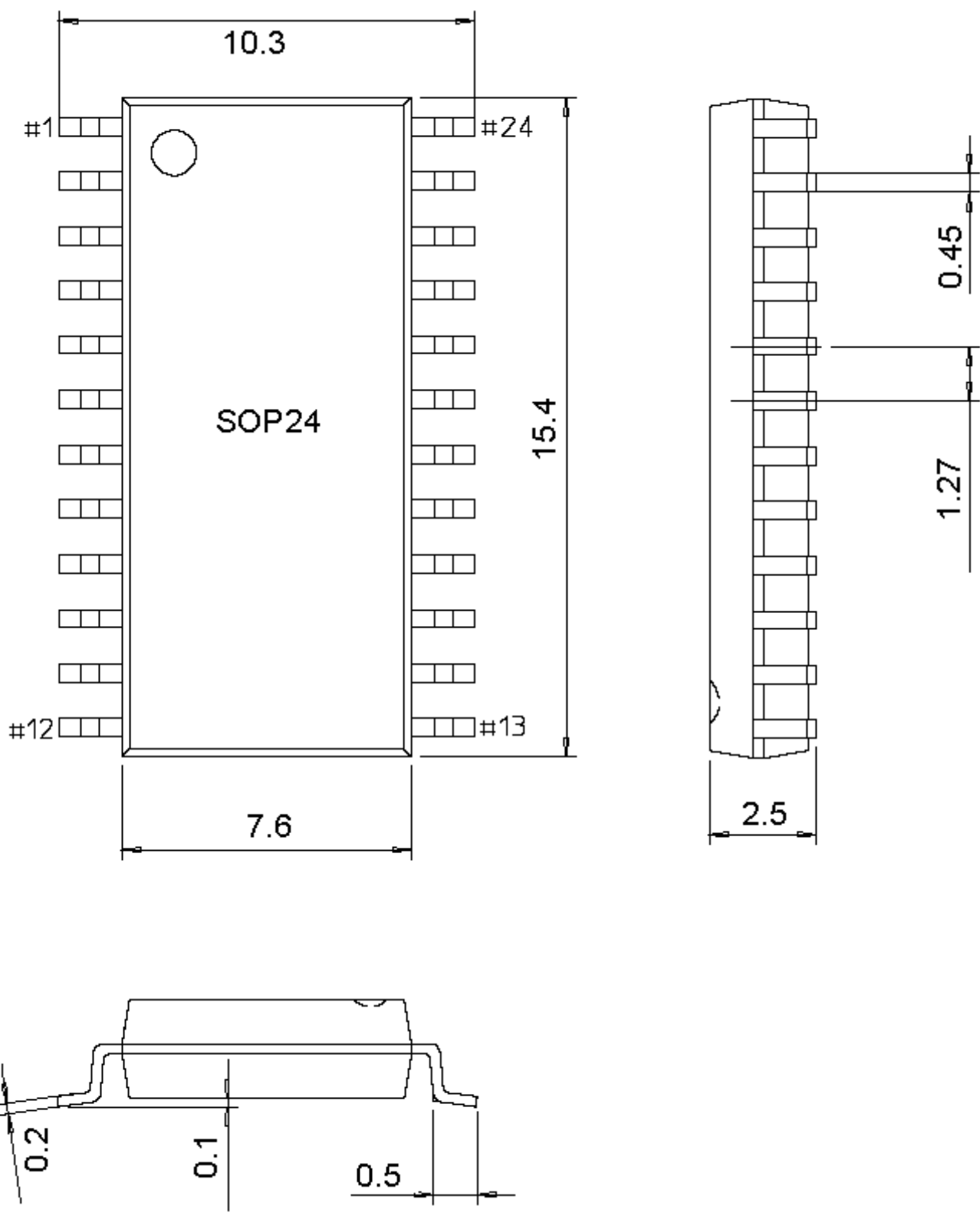
SOP18



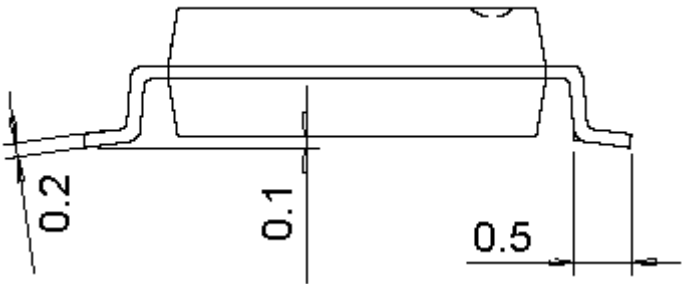
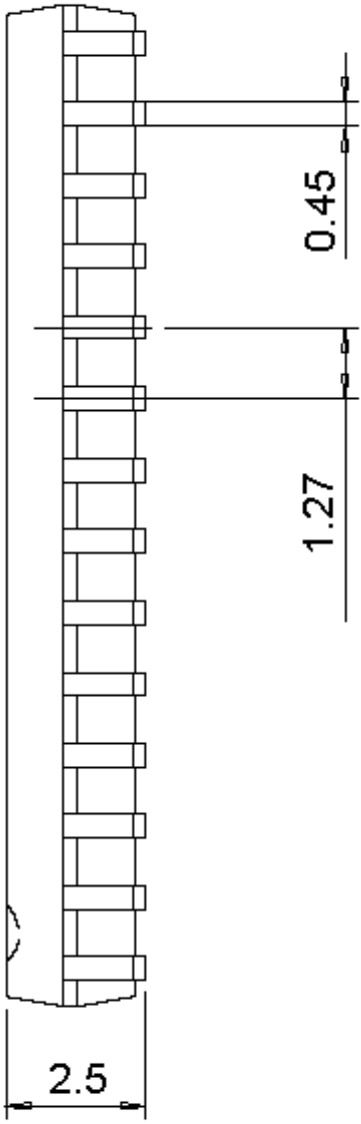
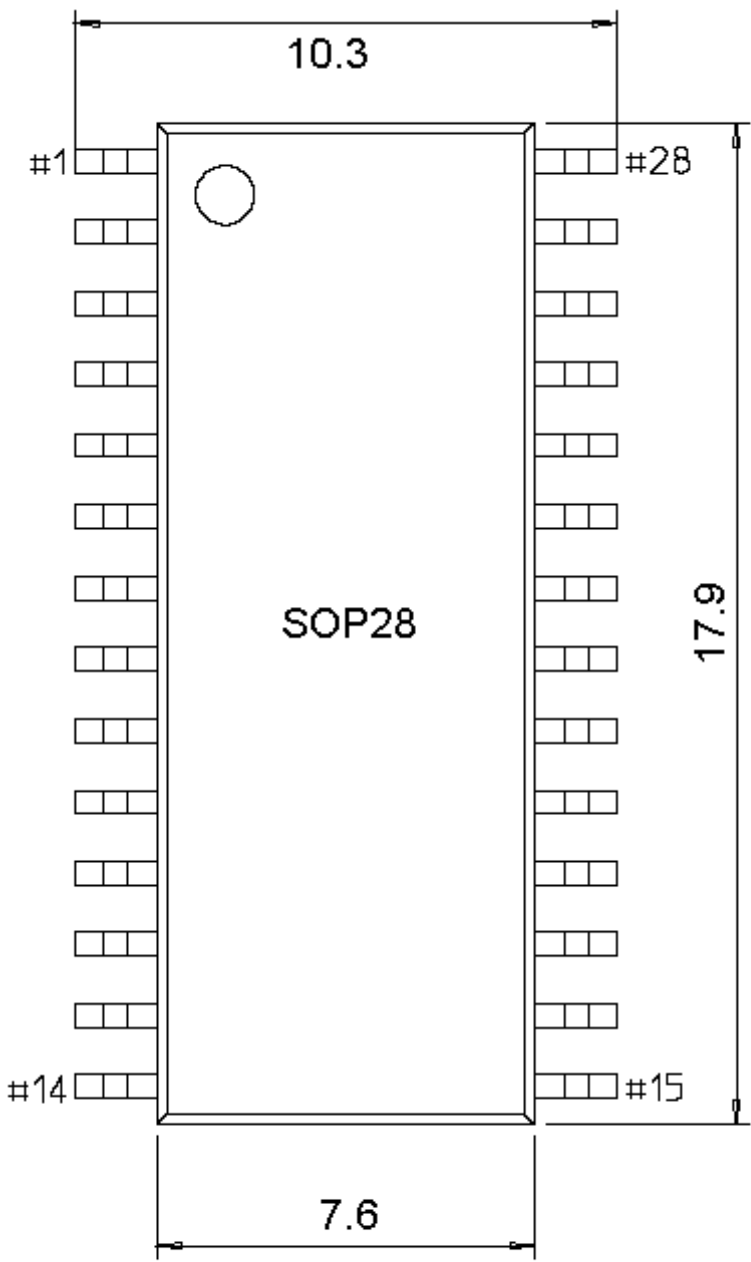
SOP20



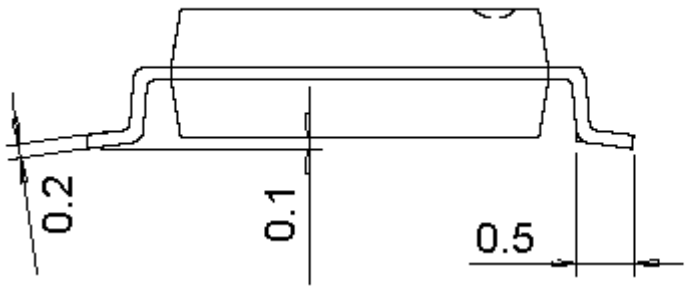
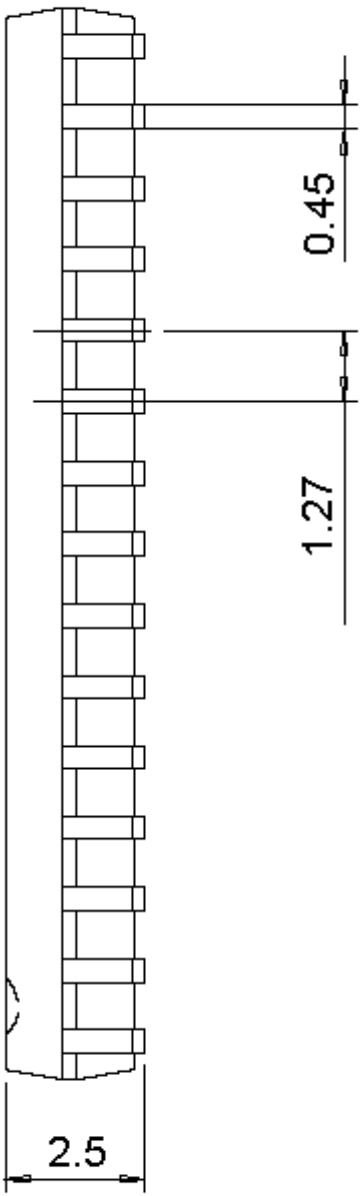
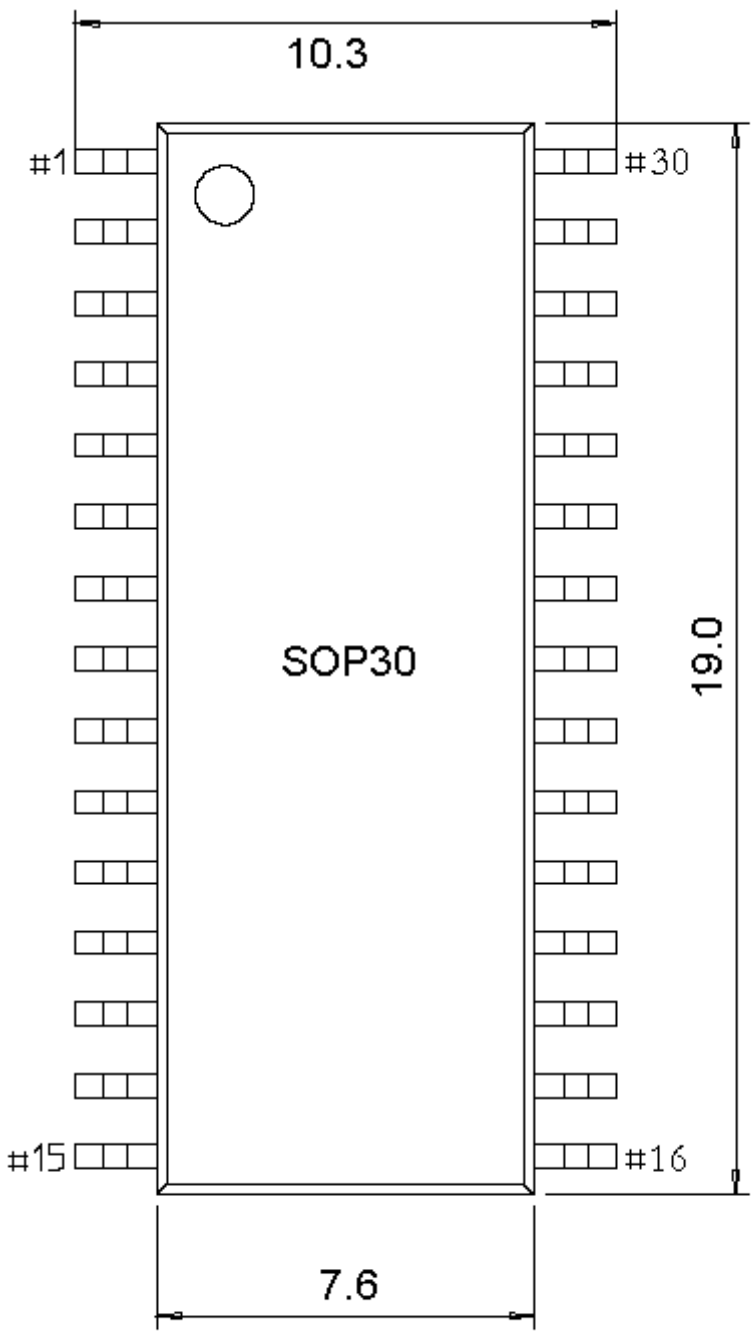
SOP24



SOP28



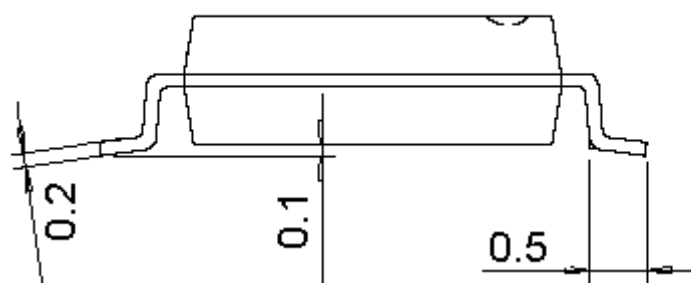
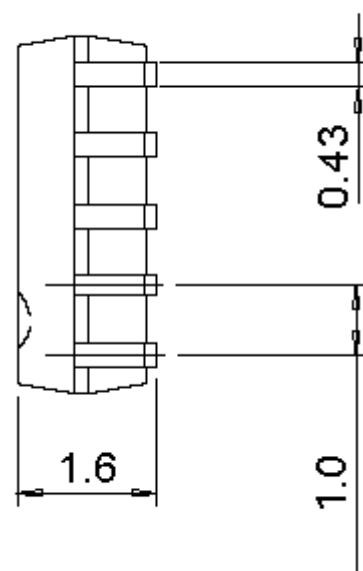
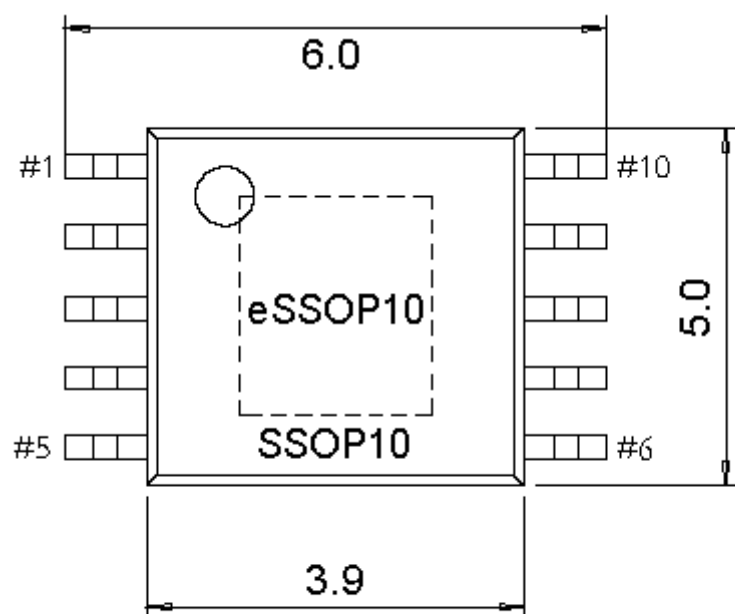
SOP30



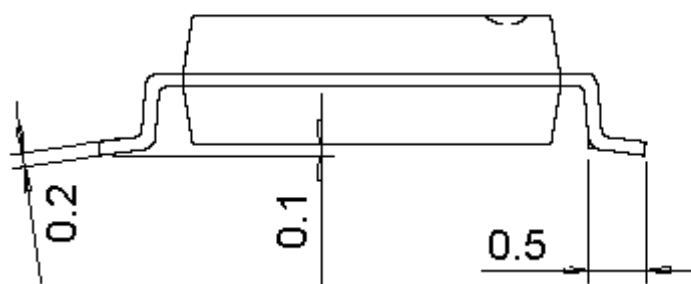
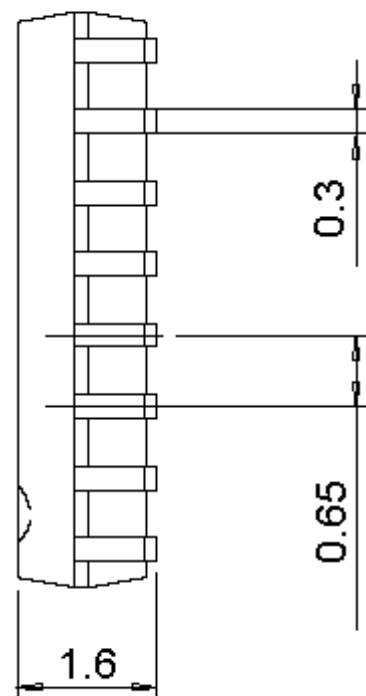
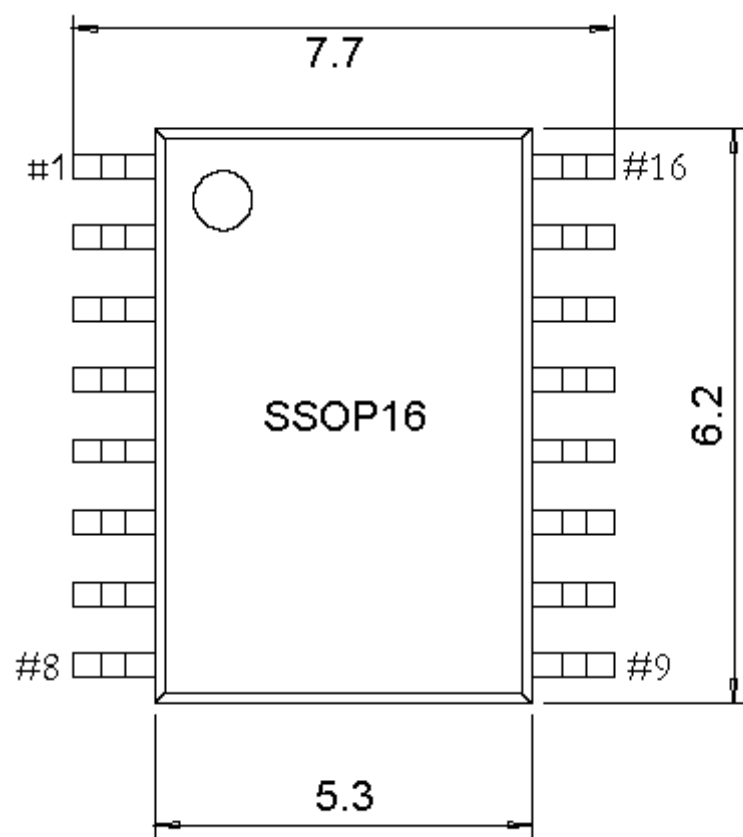
SSOP 类

SSOP10 (SSOP10-150mil-1.00)、eSSOP10

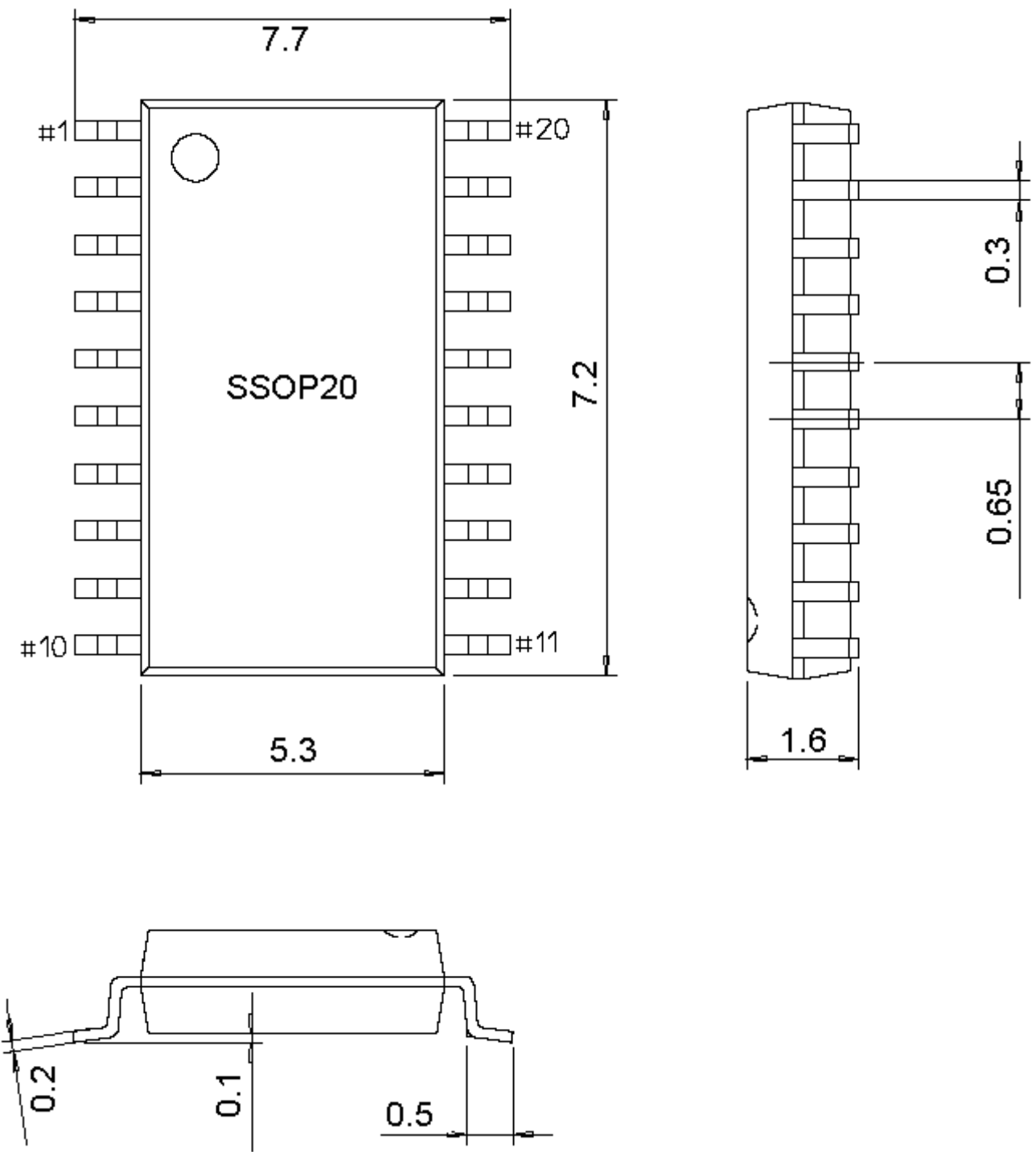
eSSOP10 Exposed Pad: 2.1*3.3



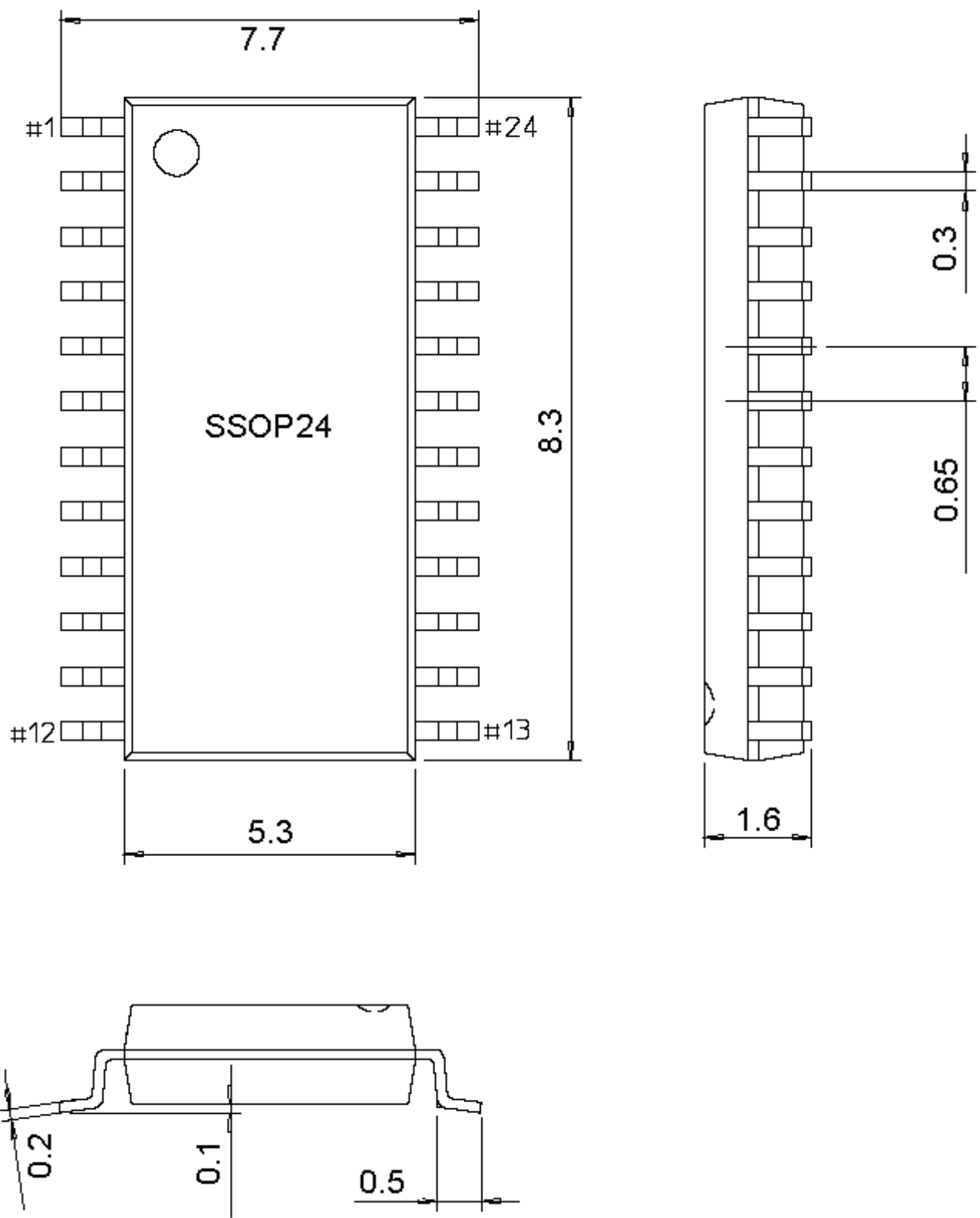
SSOP16 (SSOP16-209mil-0.65)



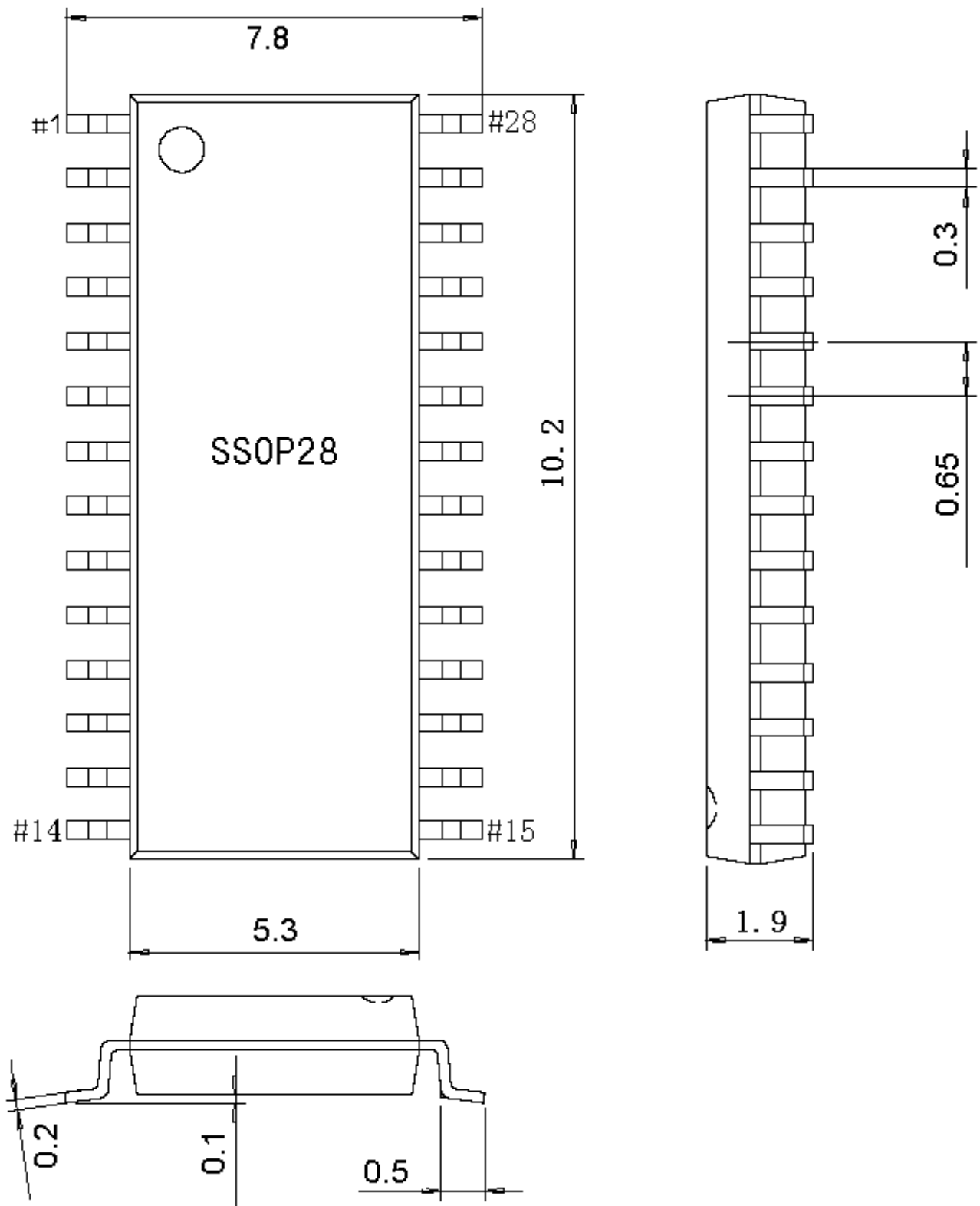
SSOP20 (SSOP20-209mil-0.65)



SSOP24 (SSOP24-209mil-0.65)

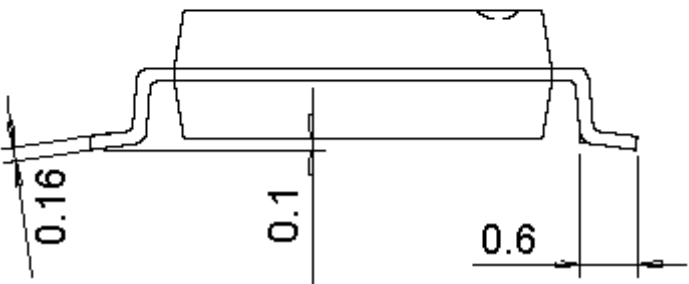
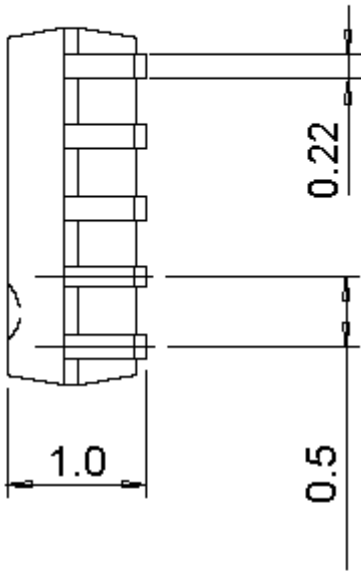
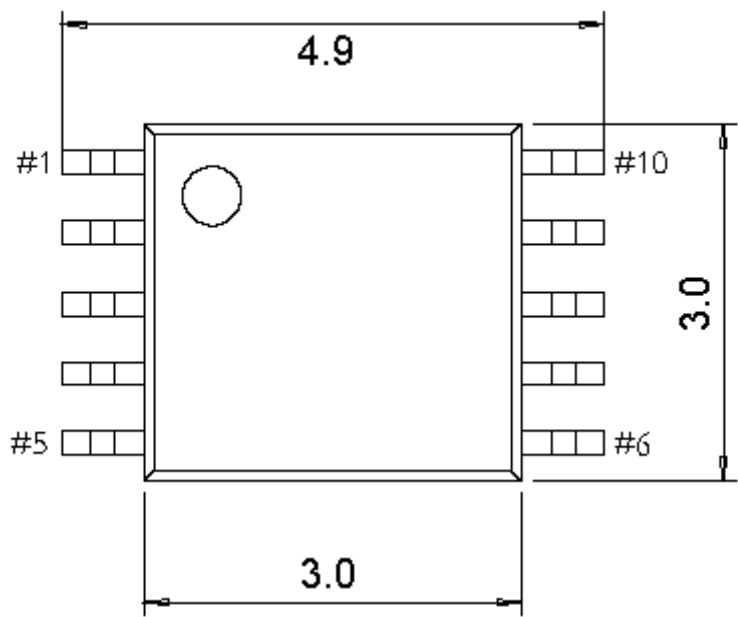


SSOP28 (SSOP28-209mil-0.65)



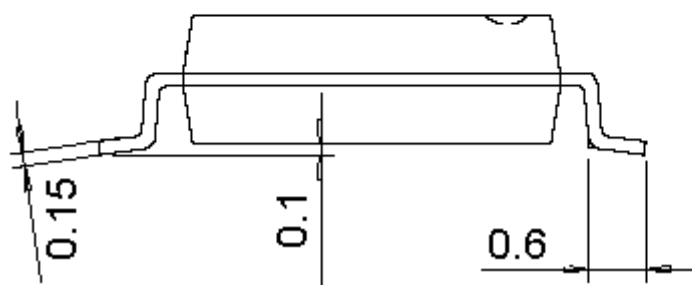
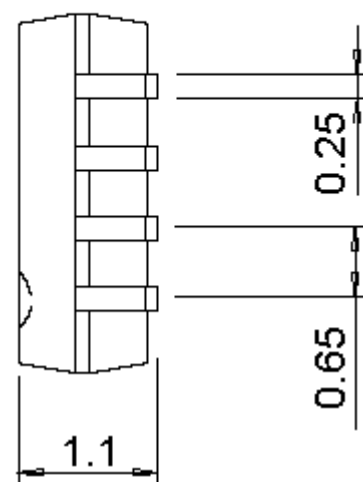
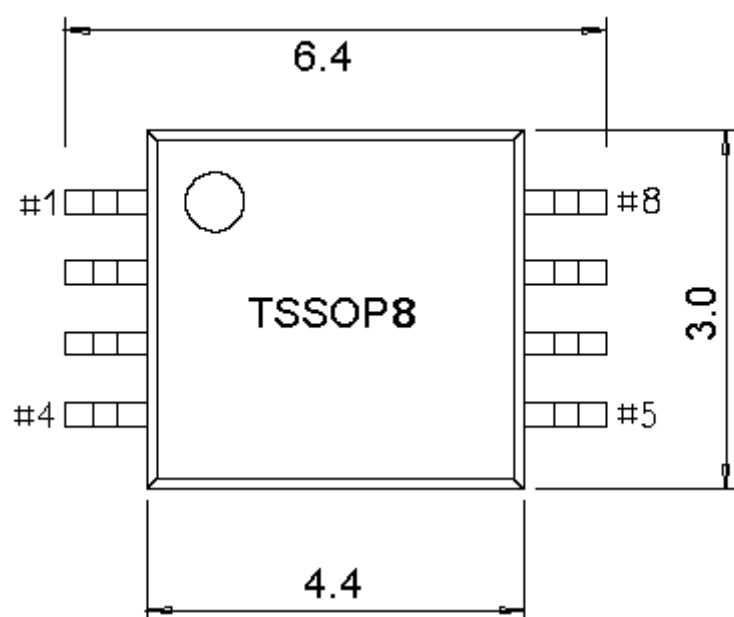
MSOP 类

MSOP10



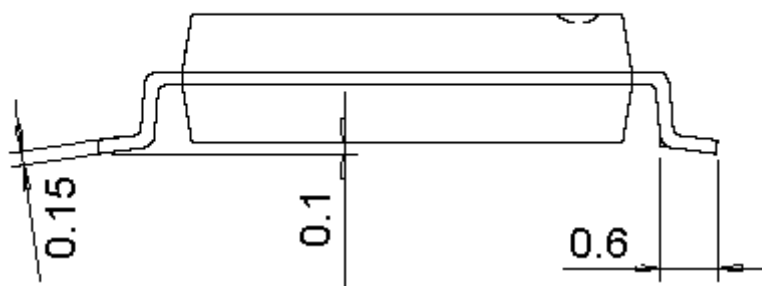
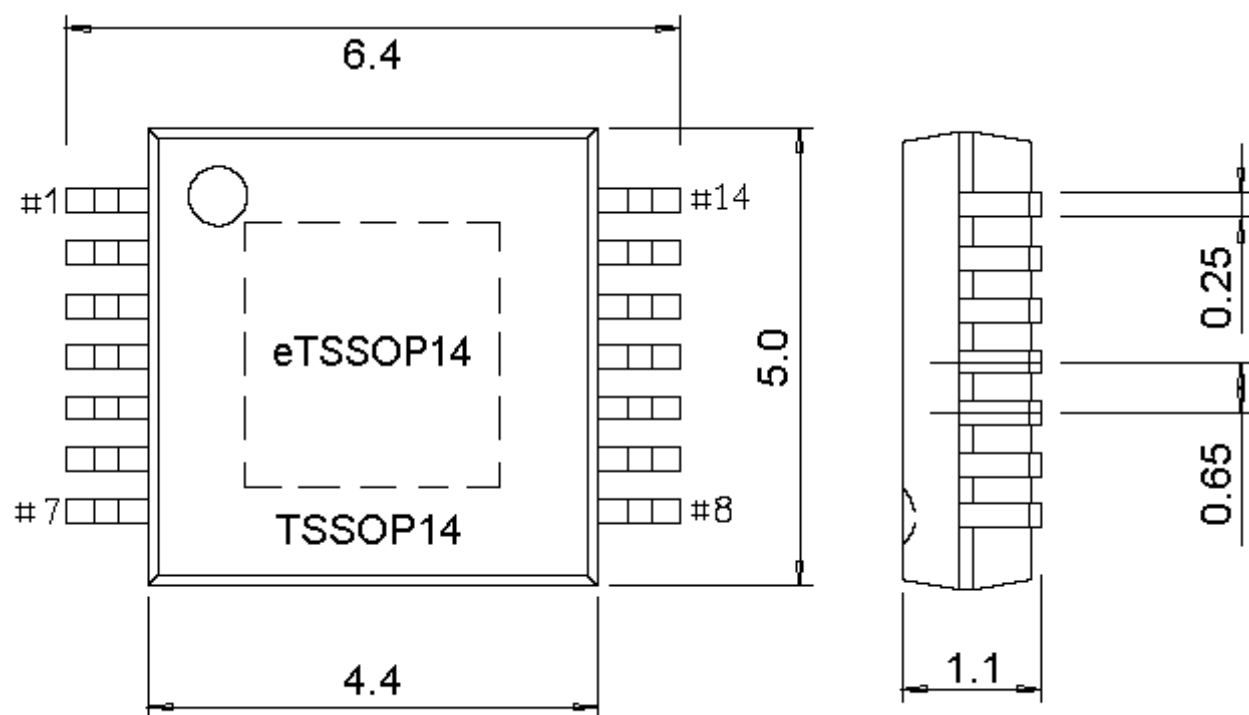
TSSOP 类 (4.4mm, 173mil)

TSSOP8



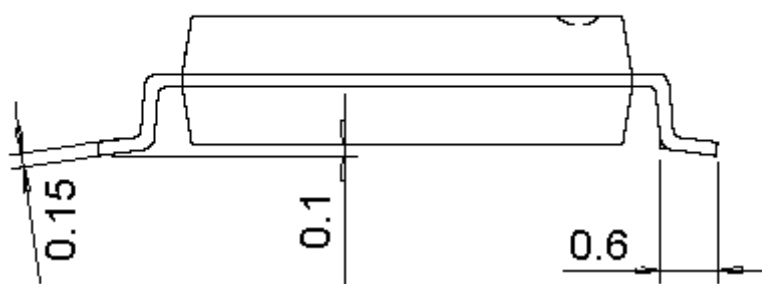
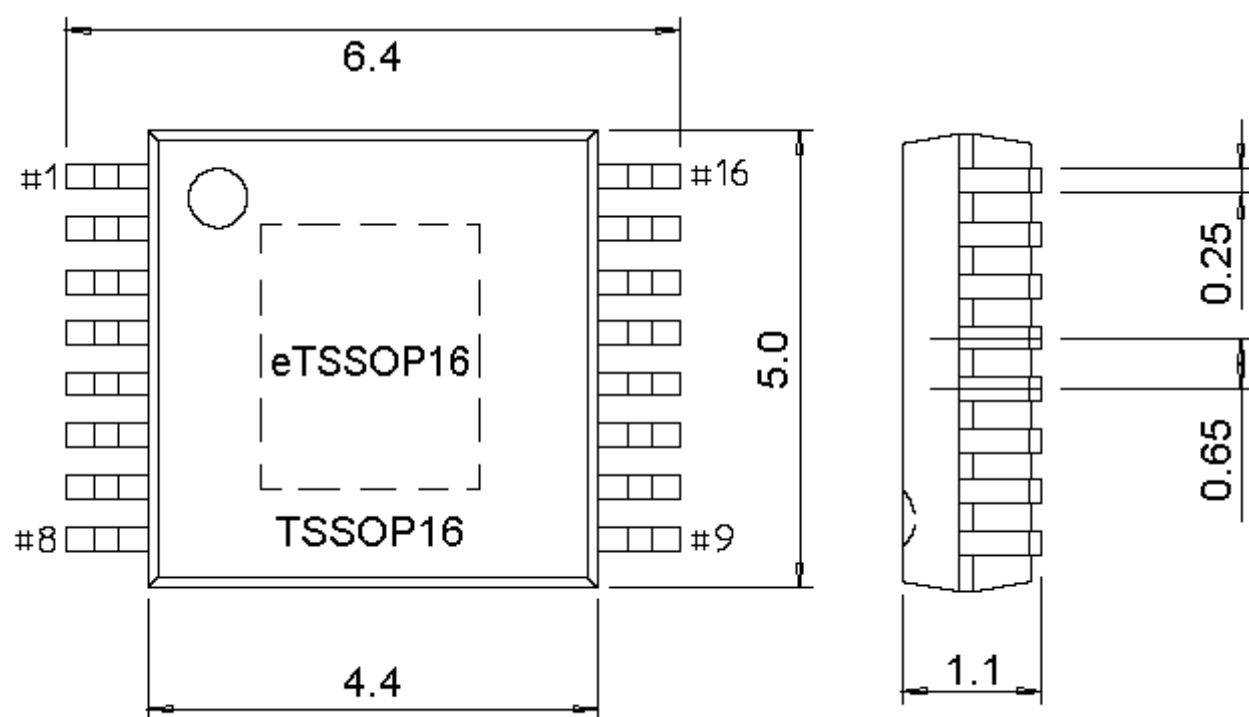
TSSOP14、eTSSOP14

eTSSOP14 Exposed Pad: 3.0*3.0



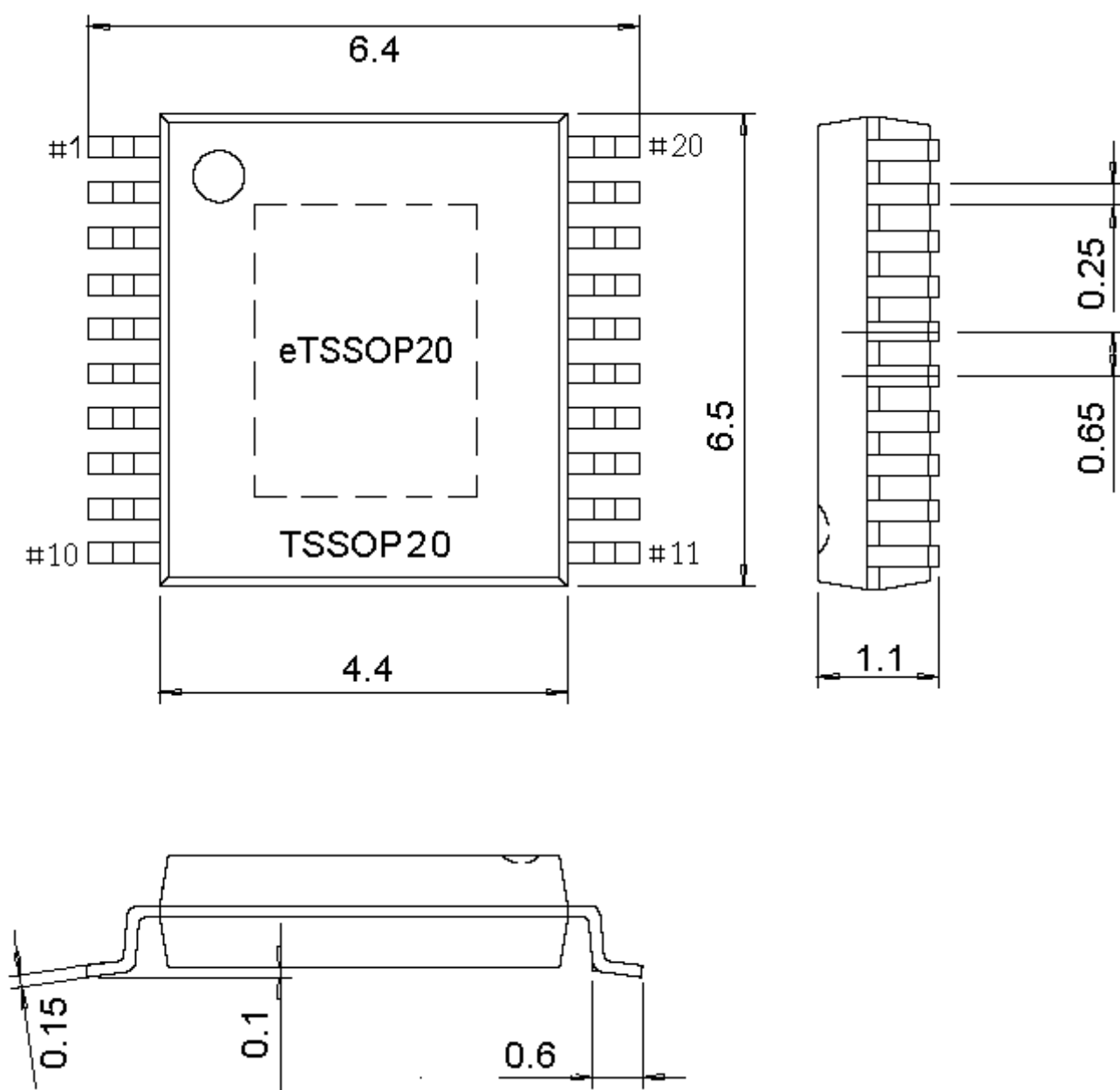
TSSOP16、eTSSOP16

eTSSOP16 Exposed Pad: 2.8*3.0

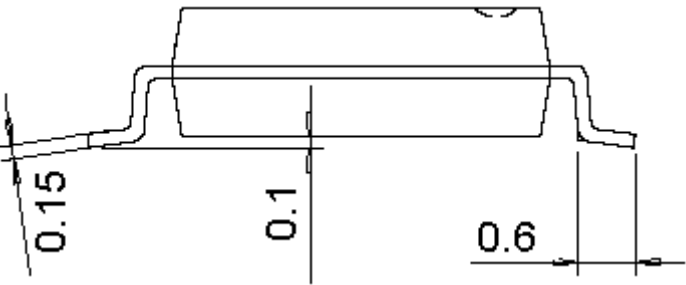
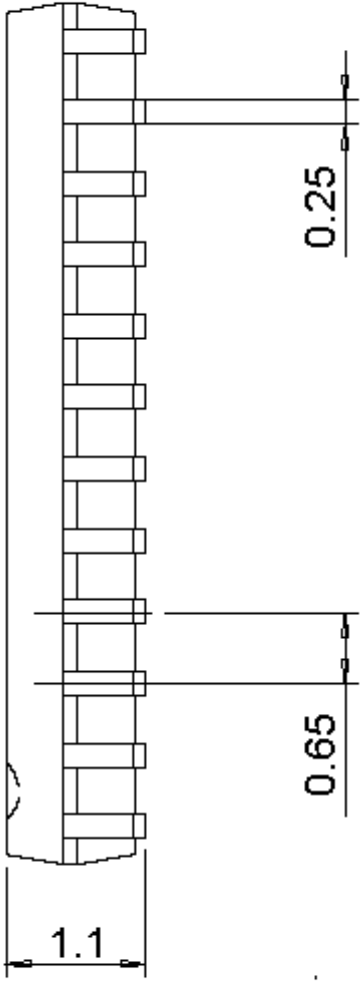
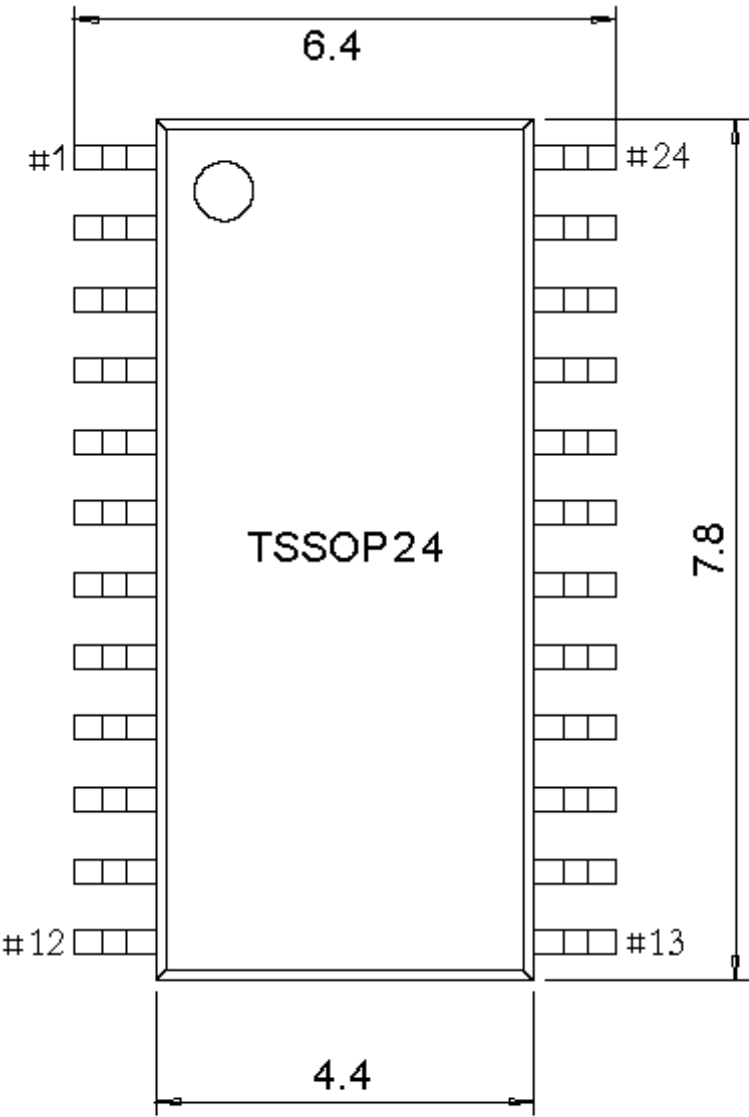


TSSOP20、eTSSOP20

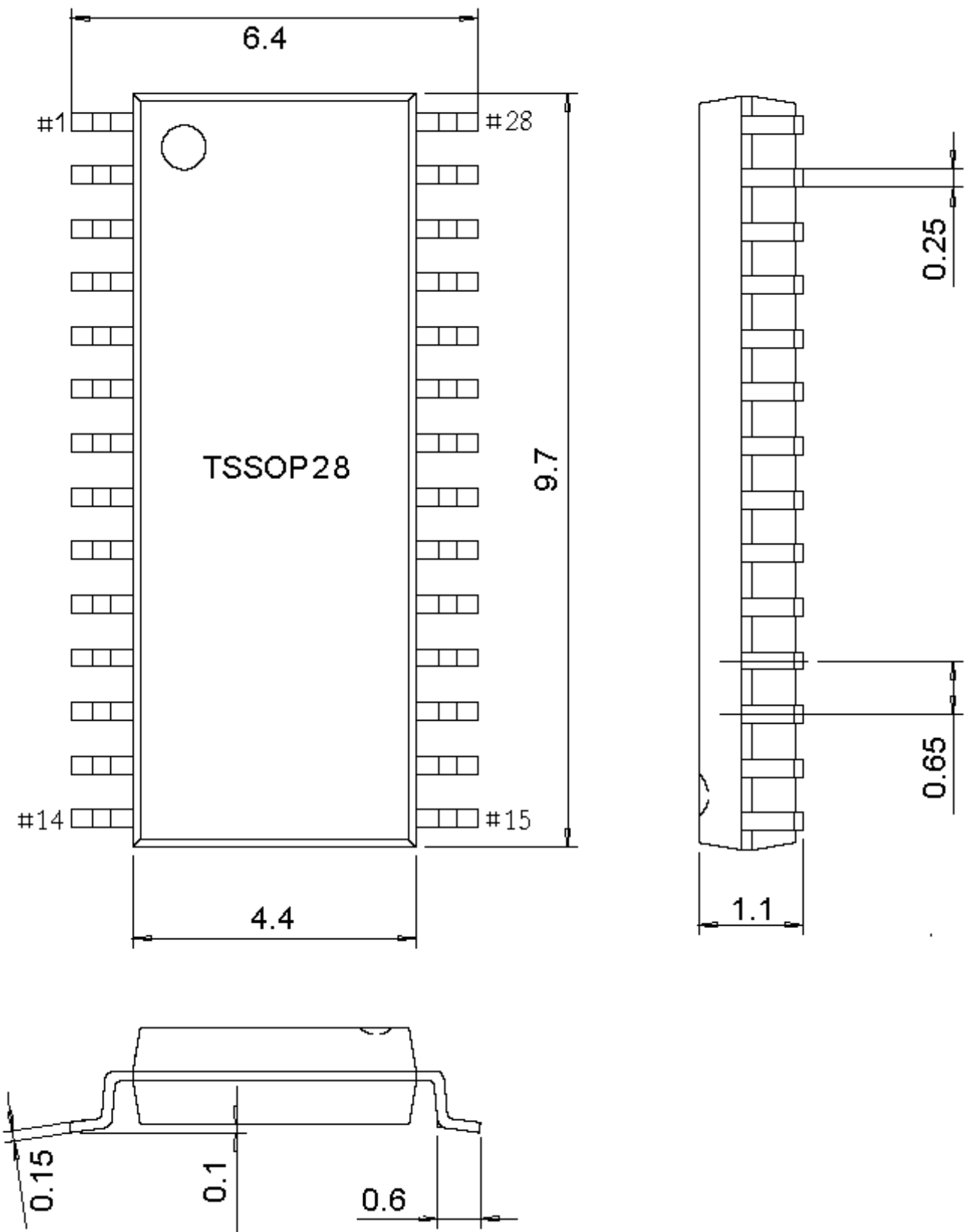
eTSSOP20 Exposed Pad: 3.0*4.2



TSSOP24

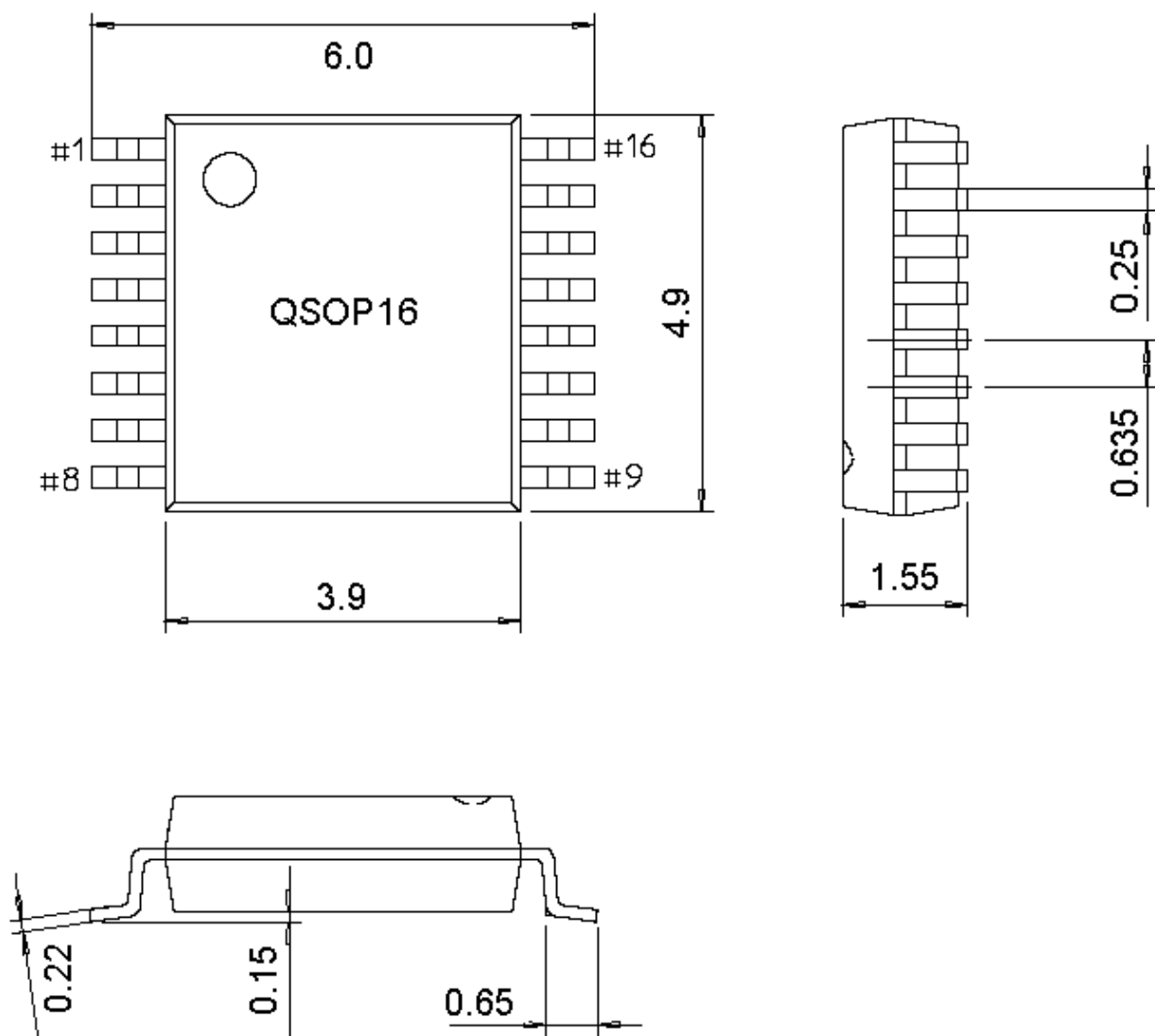


TSSOP28

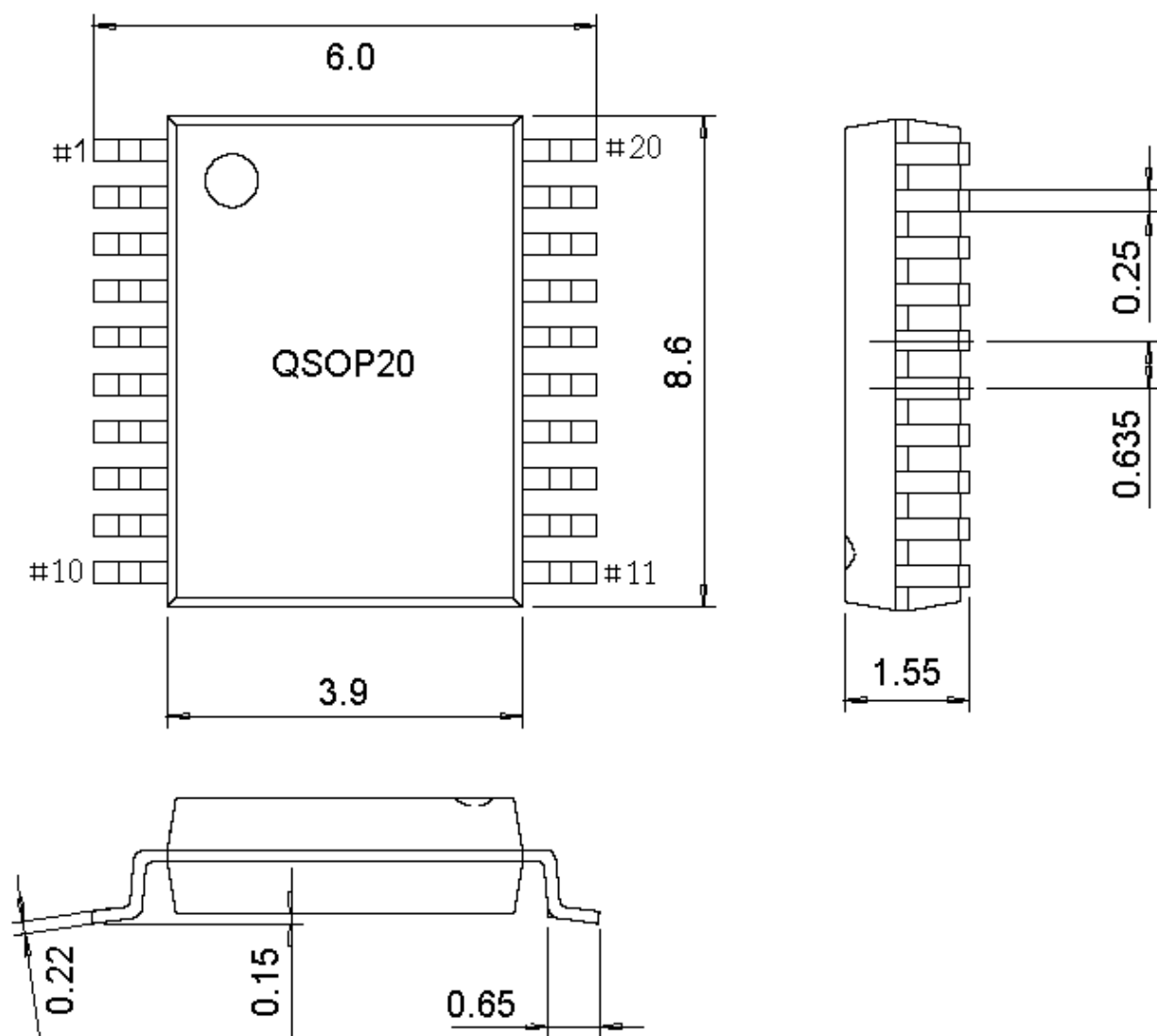


QSOP 类 (3.9mm, 150mil)

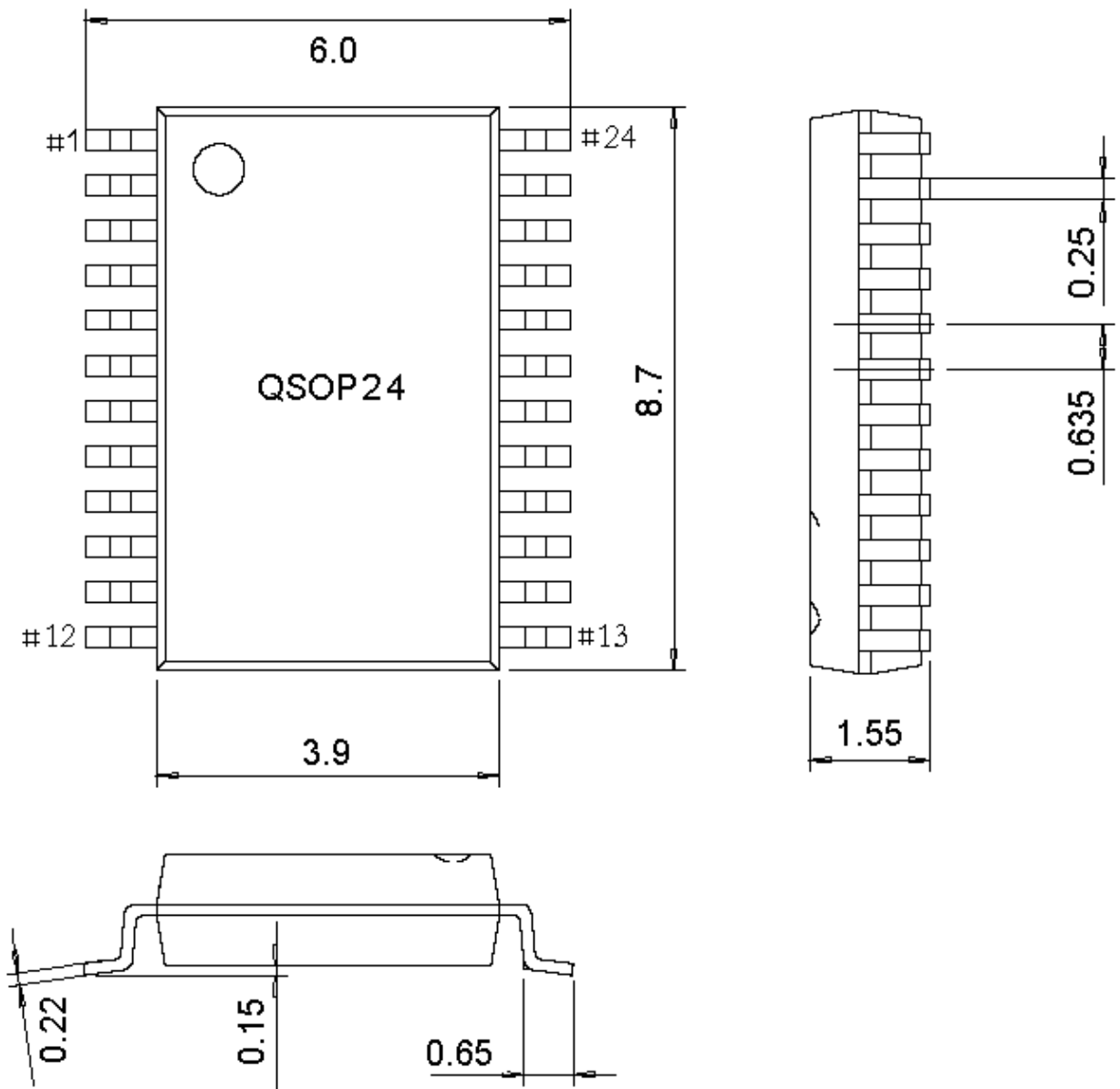
QSOP16 (SSOP16-150mil-0.635)



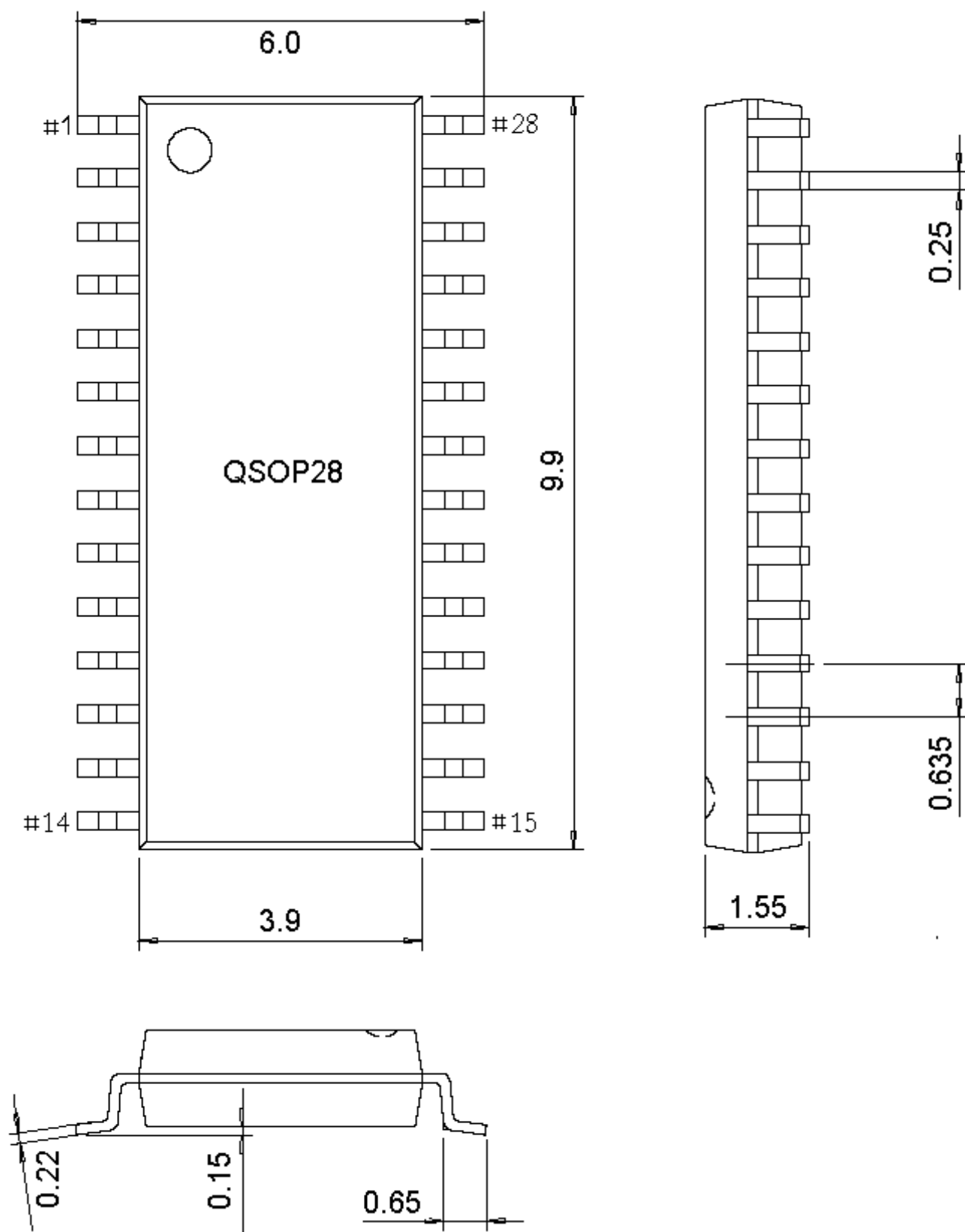
QSOP20 (SSOP20-150mil-0.635)



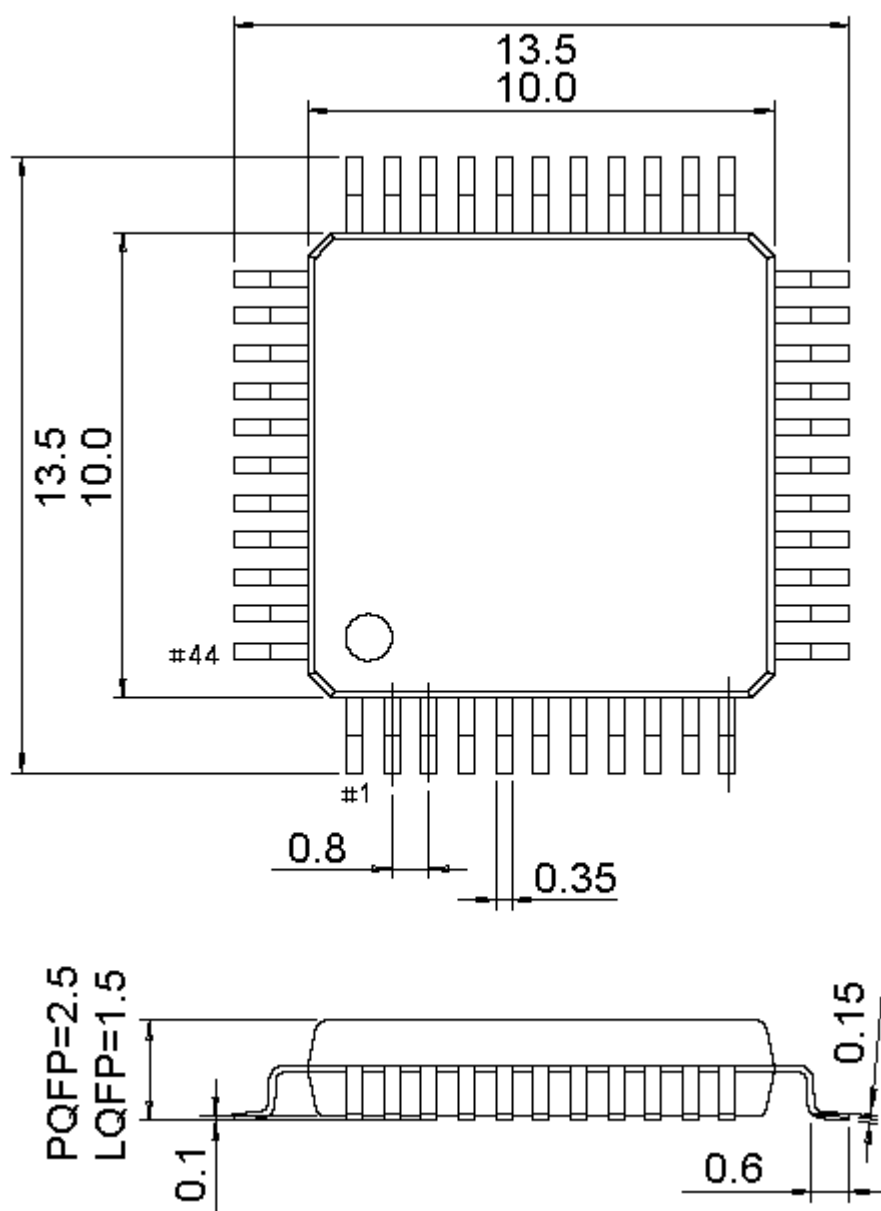
QSOP24 (SSOP24-150mil-0.635)



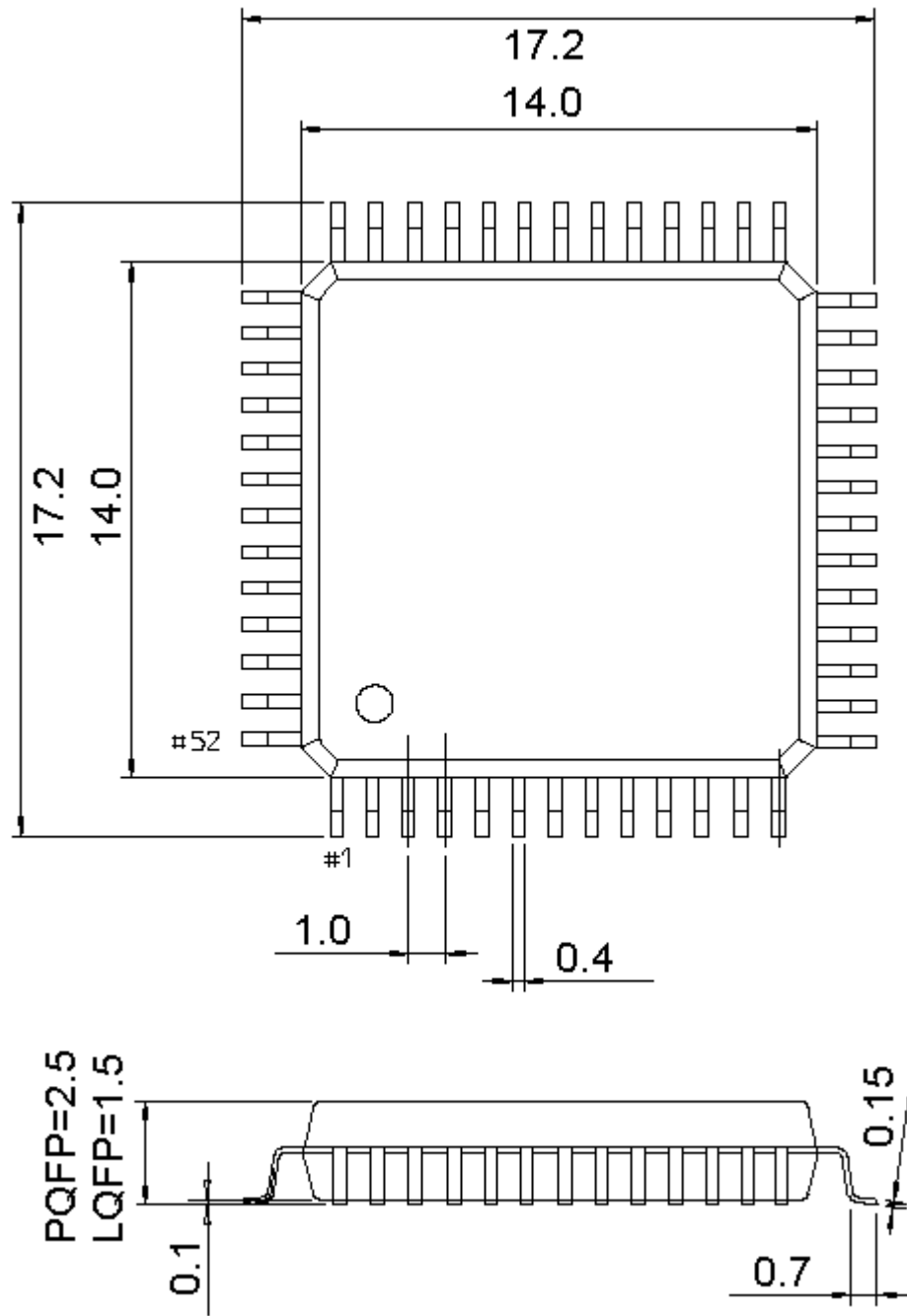
QSOP28 (SSOP28-150mil-0.635)



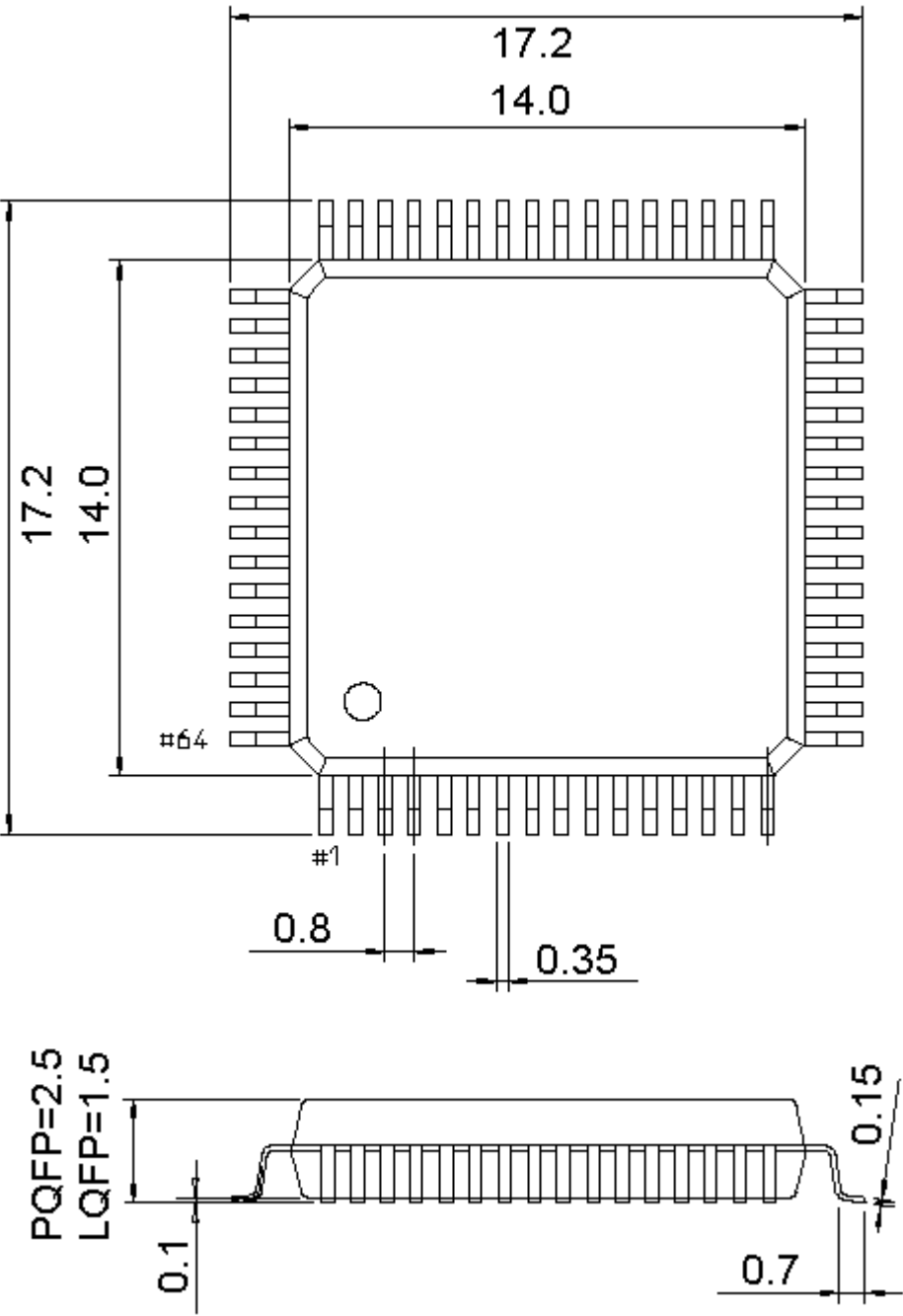
PQFP44 (QFP44)



PQFP52 (QFP52)

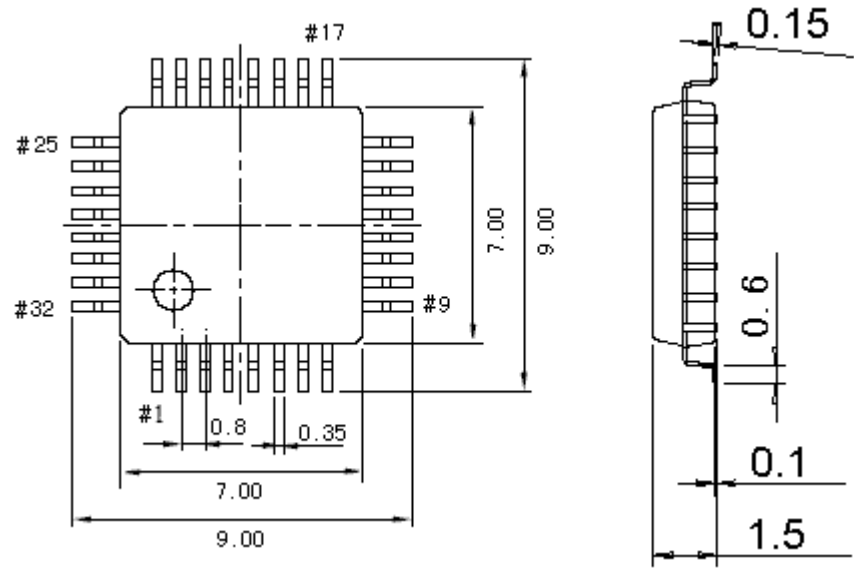


PQFP64 (QFP64)、LQFP64-14*14

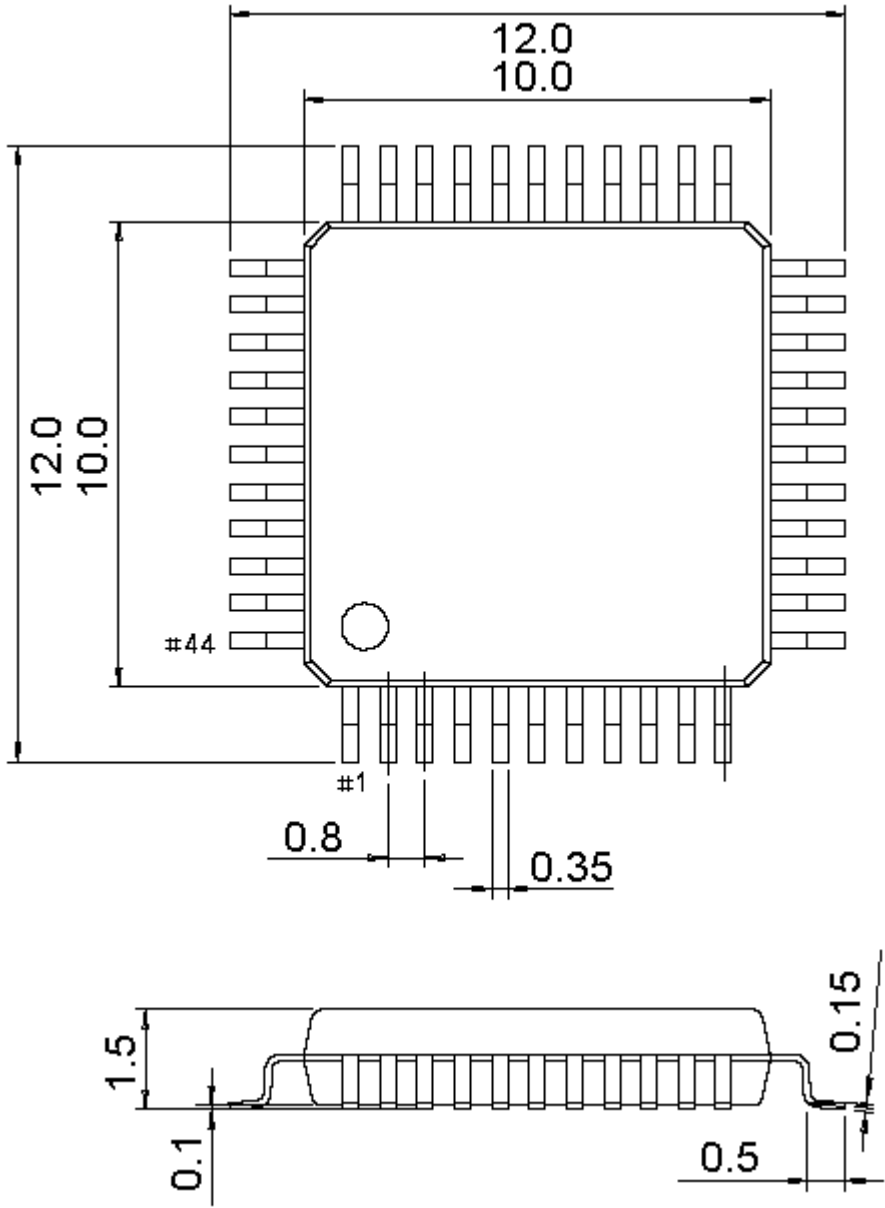


Technical drawing of a 24-pin DIP package. The top view shows a rectangular package with overall dimensions of 24.0 mm by 18.0 mm. The pin array is 20.0 mm wide and 14.0 mm high. A central hole is labeled #80. The side view shows a package height of 3.3 mm, with a pin height of 0.8 mm and a pin pitch of 0.1 mm. The package is labeled #1.

LQFP32 (LQFP32-7*7)

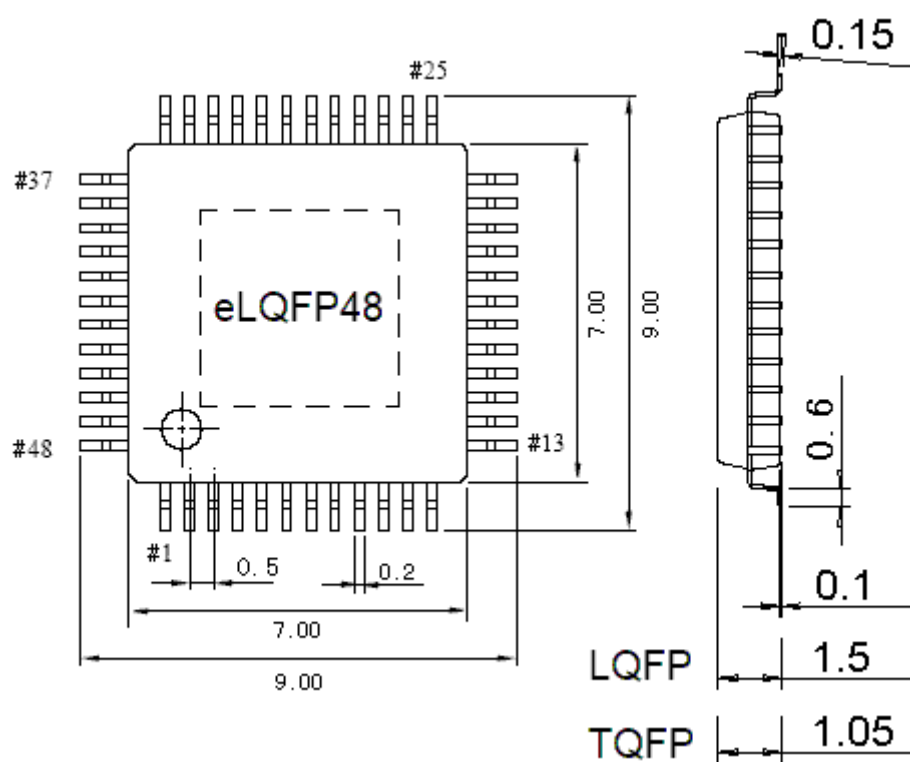


LQFP44 (LQFP44-10*10)



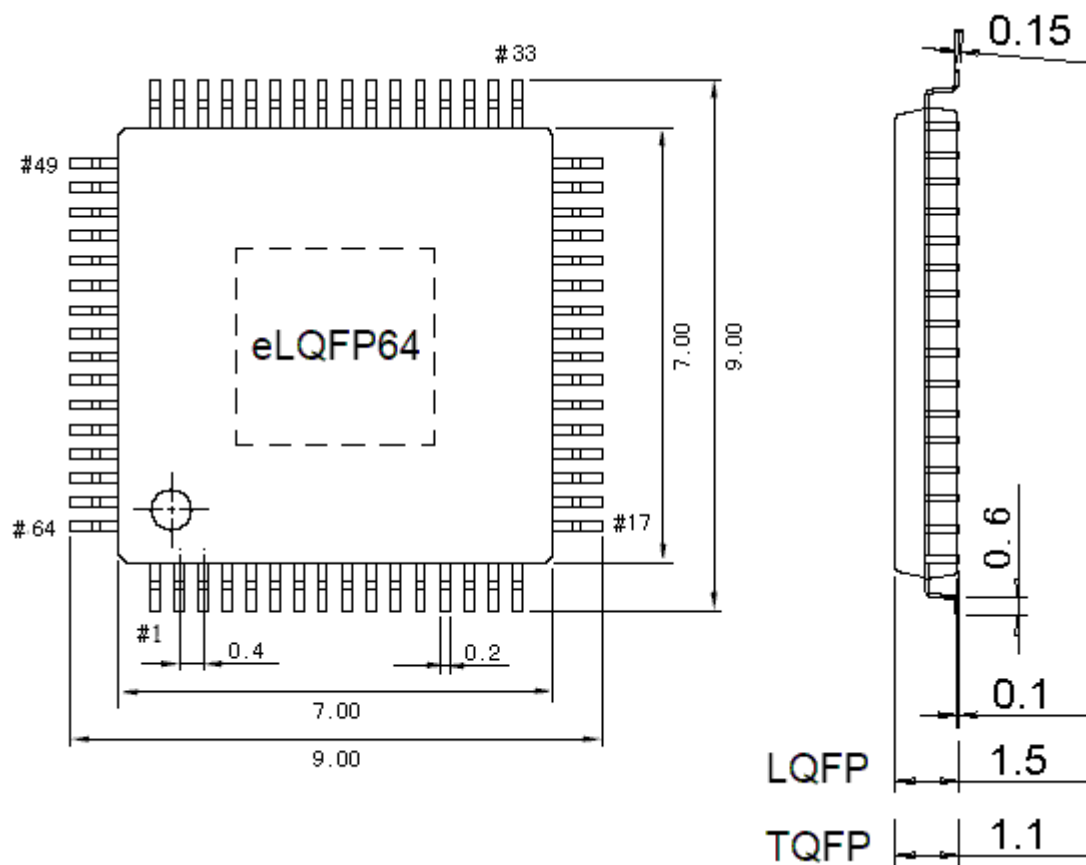
LQFP48 (LQFP48-7*7)、TQFP48、eLQFP48

eLQFP48 Exposed Pad: 3.2*3.2

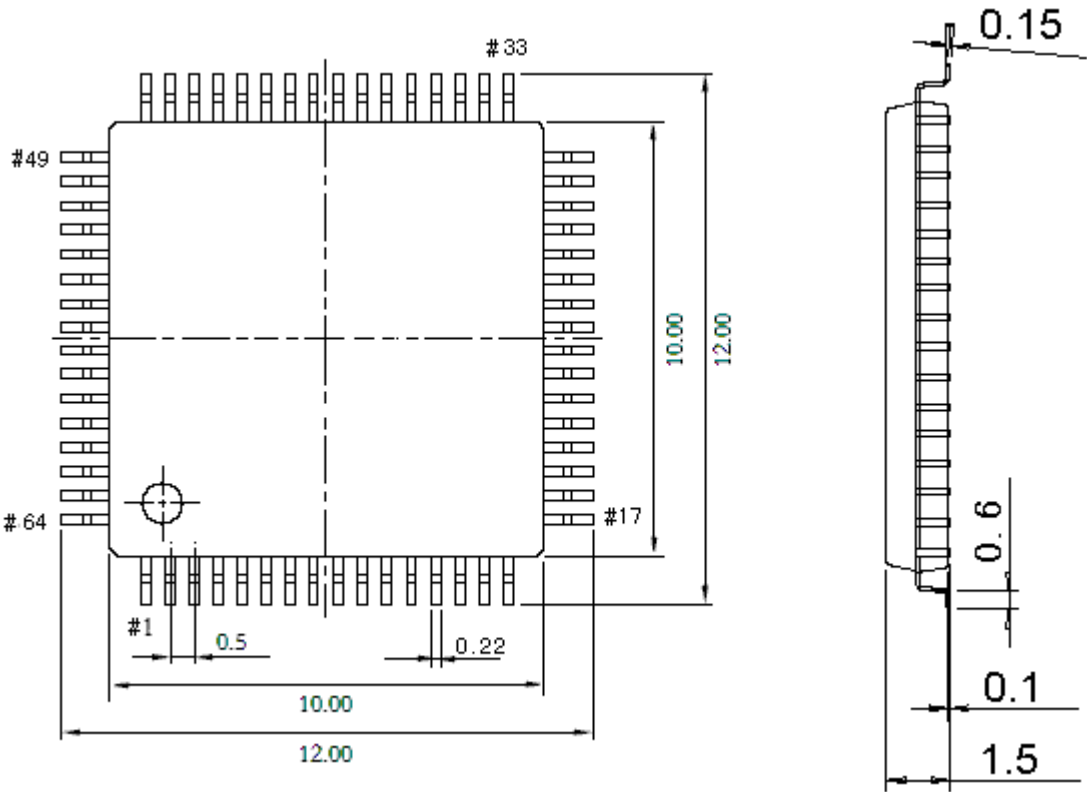


LQFP64 (LQFP64-7*7)、TQFP64、eLQFP64

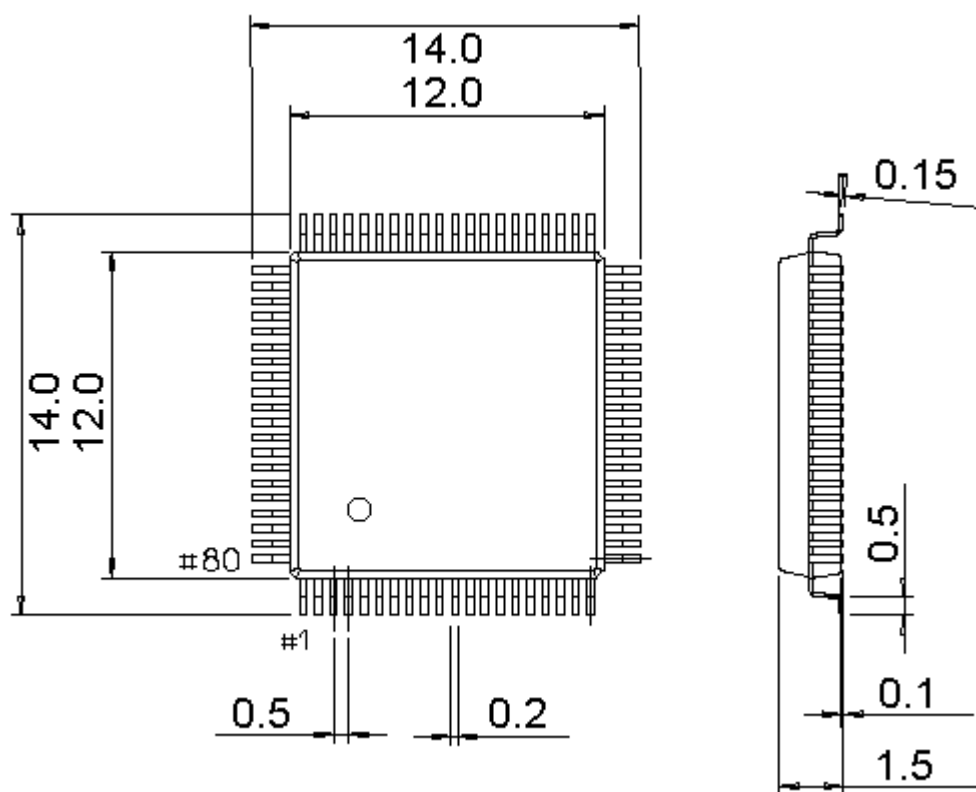
eLQFP64 Exposed Pad: 3.2*3.2



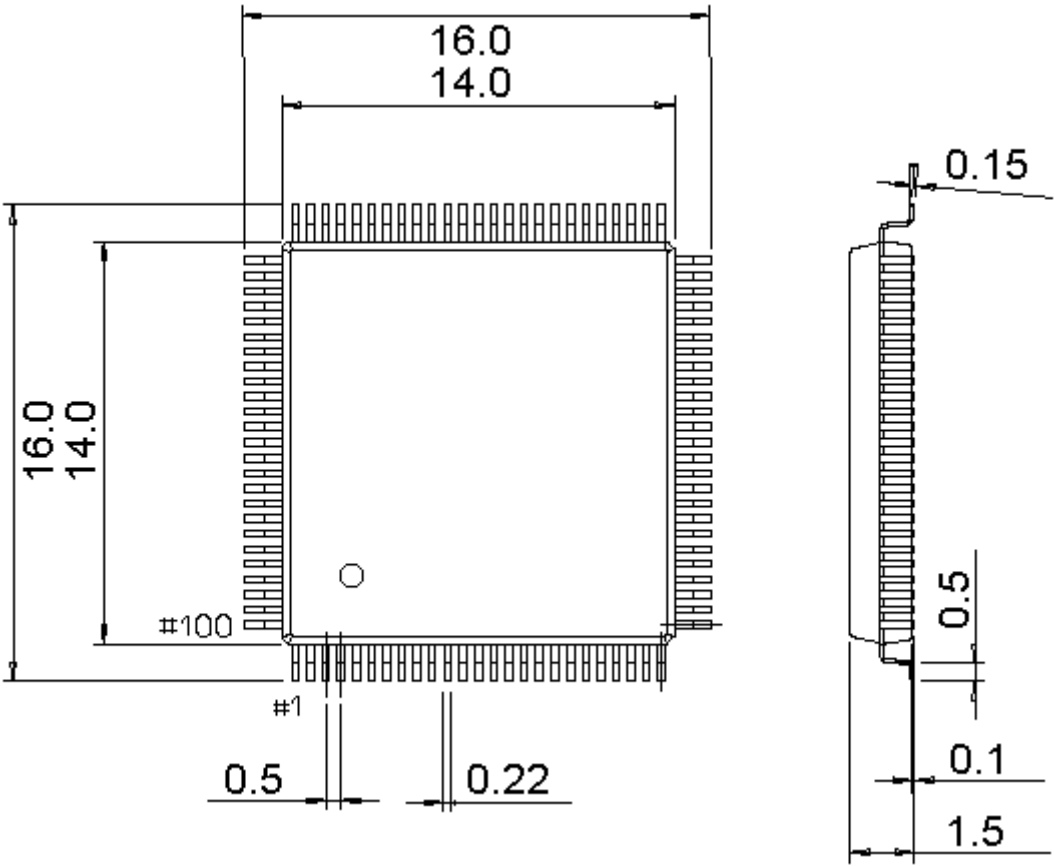
LQFP64M (LQFP64-10*10)



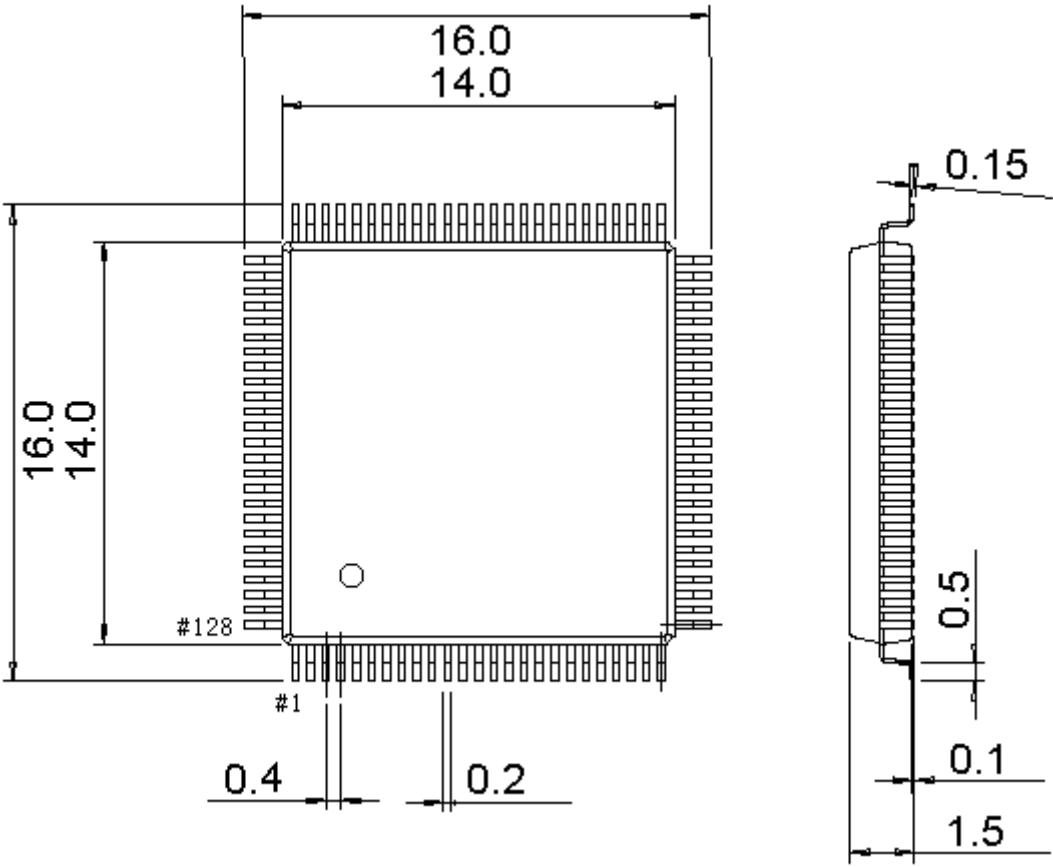
LQFP80 (LQFP80-12*12)



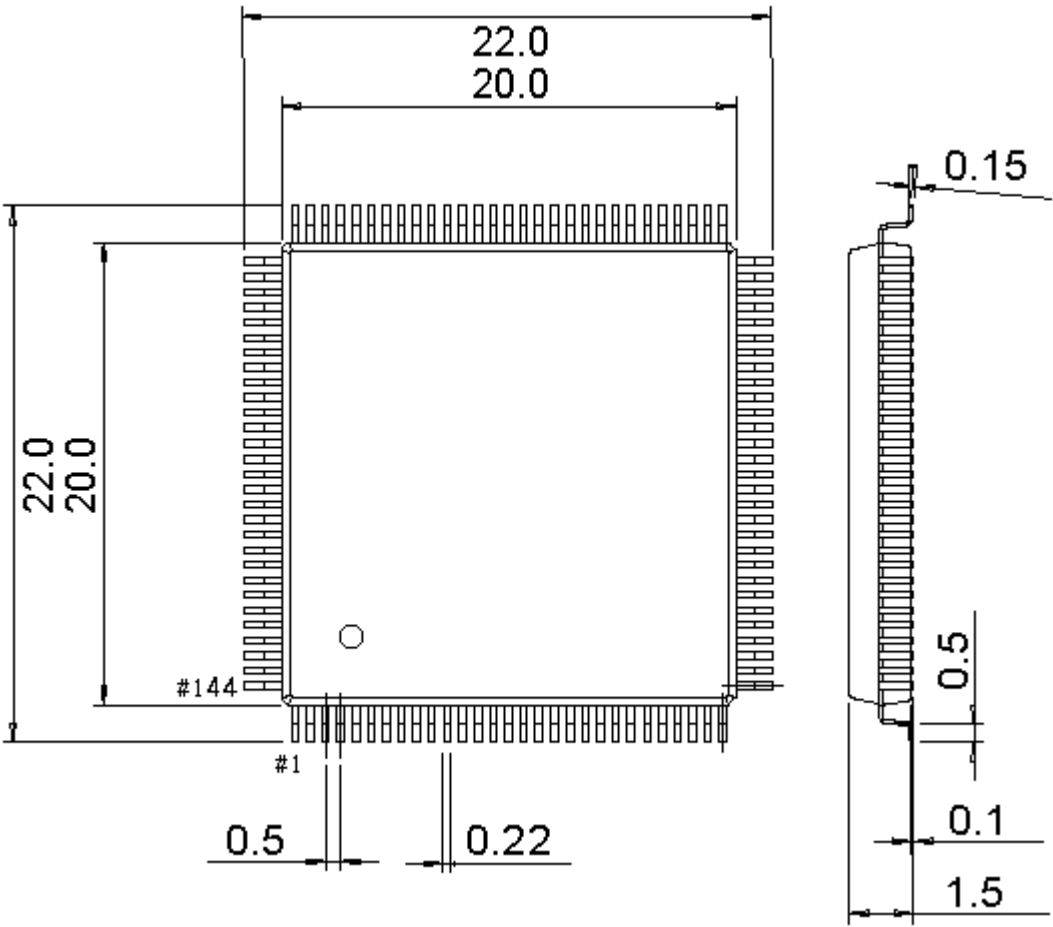
LQFP100 (LQFP100-14*14)



LQFP128 (LQFP128-14*14)



LQFP144 (LQFP144-20*20)



QFN 类

QFN 命名规则参考

标准命名

QFN ab - d * e * t - p

数字 ab: QFN 封装 4 边累计引脚数。

数字 d 和 e: d 和 e 代表 QFN 外形的长和宽。

数字 t: t 代表 QFN 外形的厚度, 常用 0.55 和 0.75 等。

数字 p: p 代表相邻引脚的中心的间距, 即 pitch, 如有两种则取其小, 常用 0.4 和 0.5 等。

参考简化命名

QFN ab c d X e

数字 ab: QFN 封装 4 边累计引脚数。

字母 c: 无 c 代表通用 QFN, 有 Exposed Pad, 默认尺寸;

字母 X 代表通用 QFN, 有 Exposed Pad, 非默认尺寸;

字母 C 代表 WCH 设计的通用 QFN, 有 Exposed Pad;

字母 F 代表 WCH 定制的专用 QFN, 无 Exposed Pad;

字母 E 代表 WCH 定制的专用 QFN, 有 Exposed Pad。

数字 d 和 e: d 和 e 代表 QFN 外形的长和宽;

无 d 无 e 代表默认尺寸 (常用尺寸);

有 d 无 e 代表尺寸为 d*d 正方形;

如果数字超过 13 则需除以 10, 例如 45 表示 4.5。

默认尺寸通常是指 pitch=0.4 时的最小正方形尺寸, 也是常用尺寸:

QFN12、QFN14 默认为 2*2 正方形;

QFN16、QFN20 默认为 3*3 正方形;

QFN24、QFN28、QFN32 默认为 4*4 正方形;

QFN36、QFN40、QFN44 默认为 5*5 正方形。

以 QFN20 为例:

QFN20: 通用 QFN, 有 Exposed Pad, 默认尺寸 (QFN20 默认为 3*3);

QFN20X4: 通用 QFN, 有 Exposed Pad, 尺寸为 4*4;

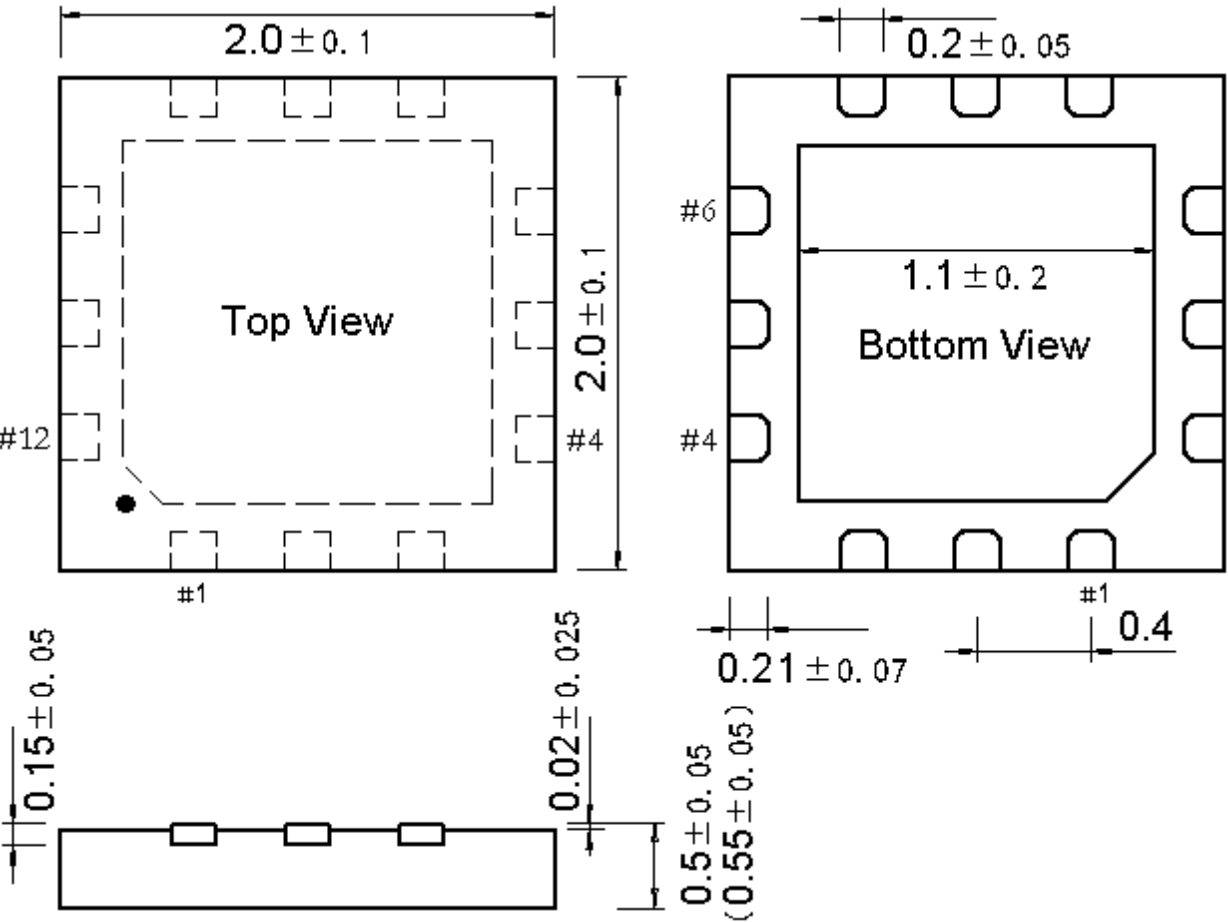
QFN20X25X45: 通用 QFN, 有 Exposed Pad, 尺寸为 2.5*4.5;

QFN20C2: WCH 设计的通用 QFN, 有 Exposed Pad, 尺寸为 2*2;

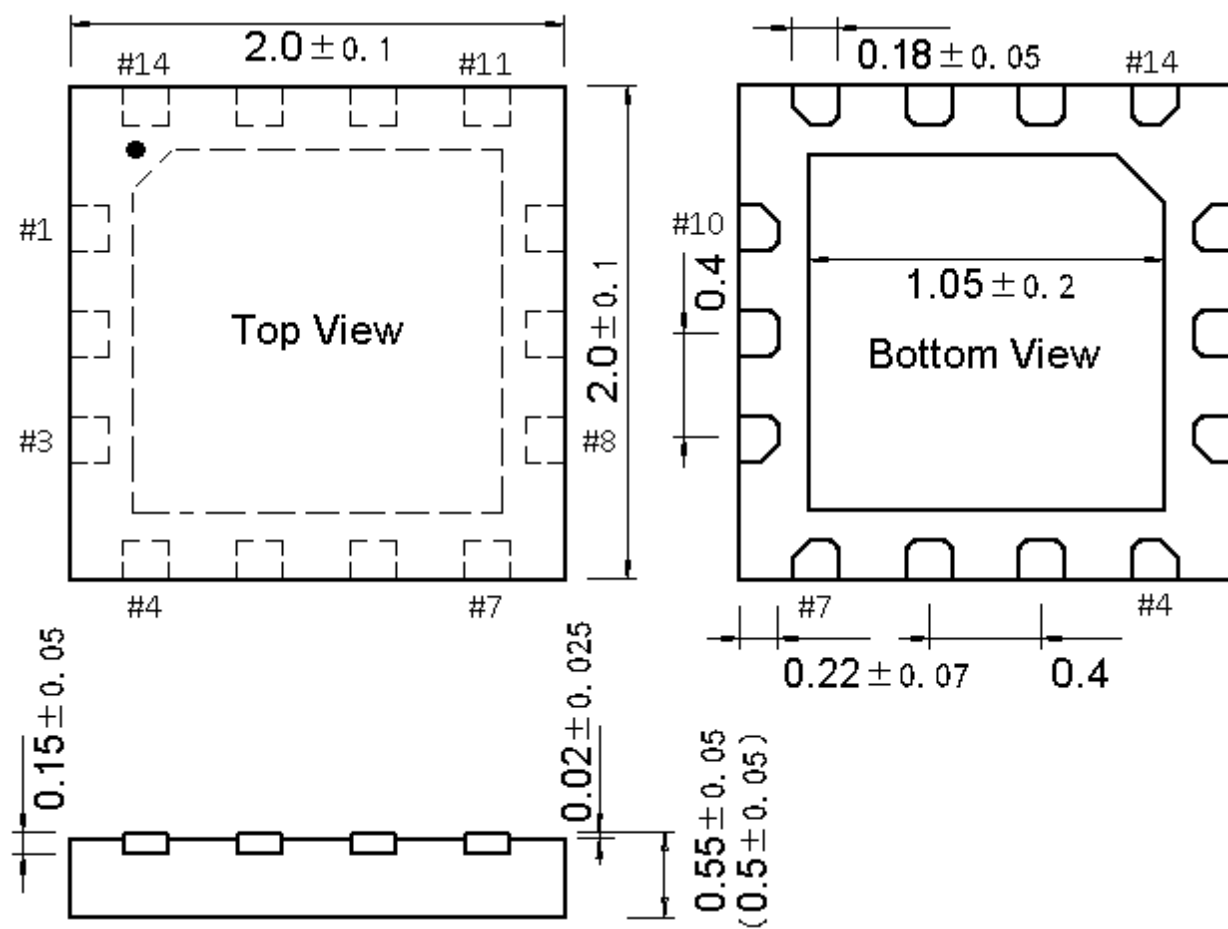
QFN20F3: WCH 定制的专用 QFN, 无 Exposed Pad, 尺寸为 3*3;

QFN20E3X4: WCH 定制的专用 QFN, 有 Exposed Pad, 尺寸为 3*4。

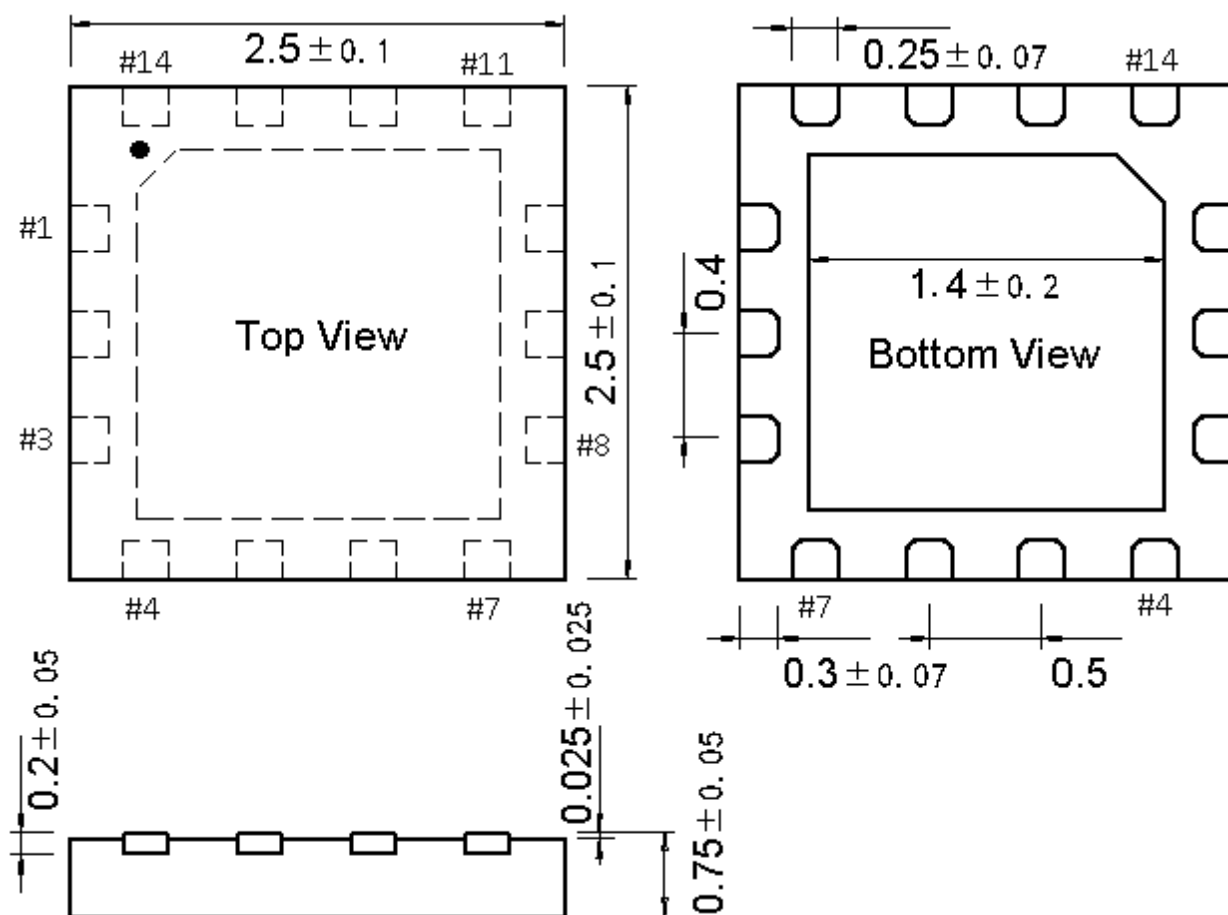
QFN12 (QFN12-2*2*0.5-0.4)



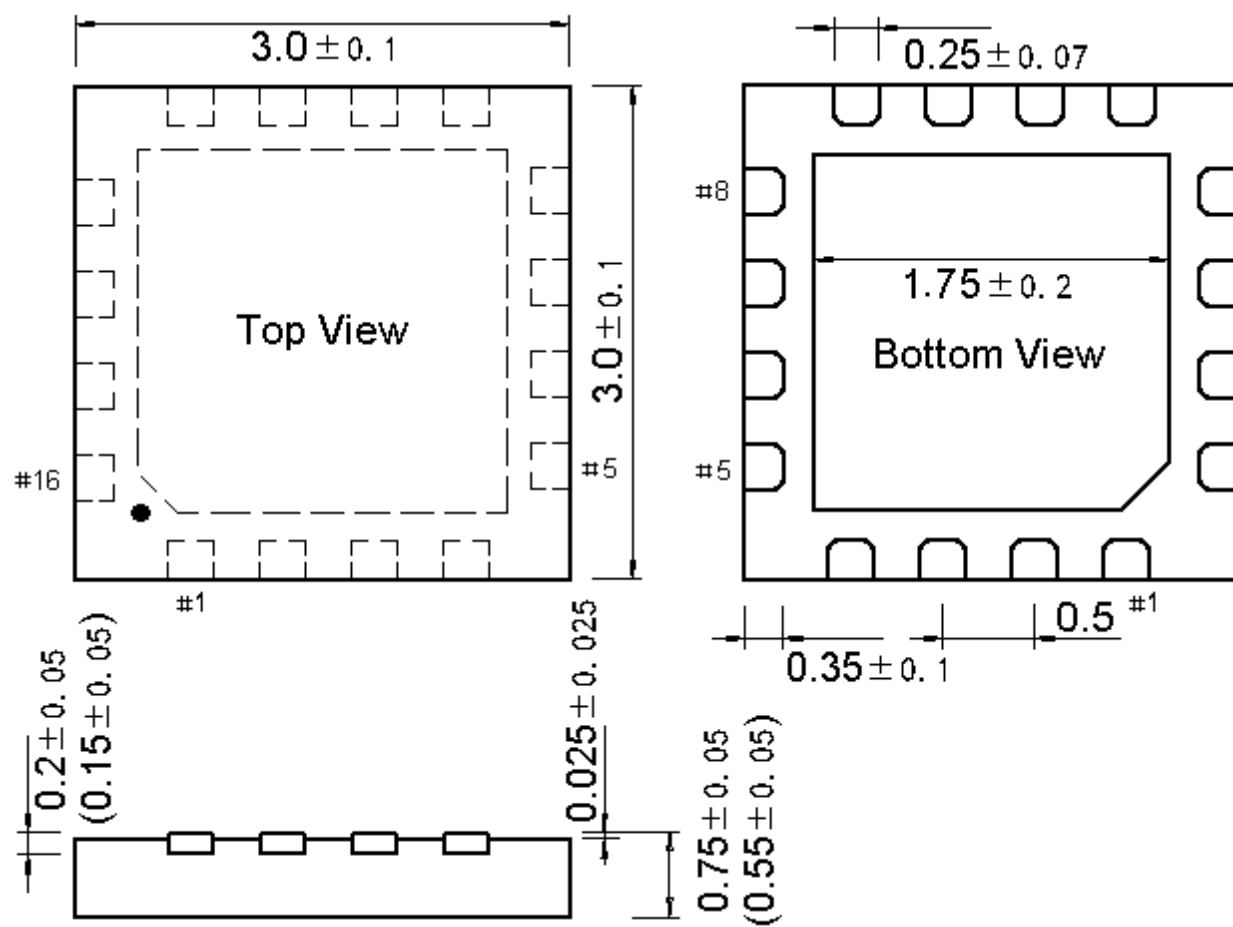
QFN14 (QFN14-2*2*0.55-0.4)



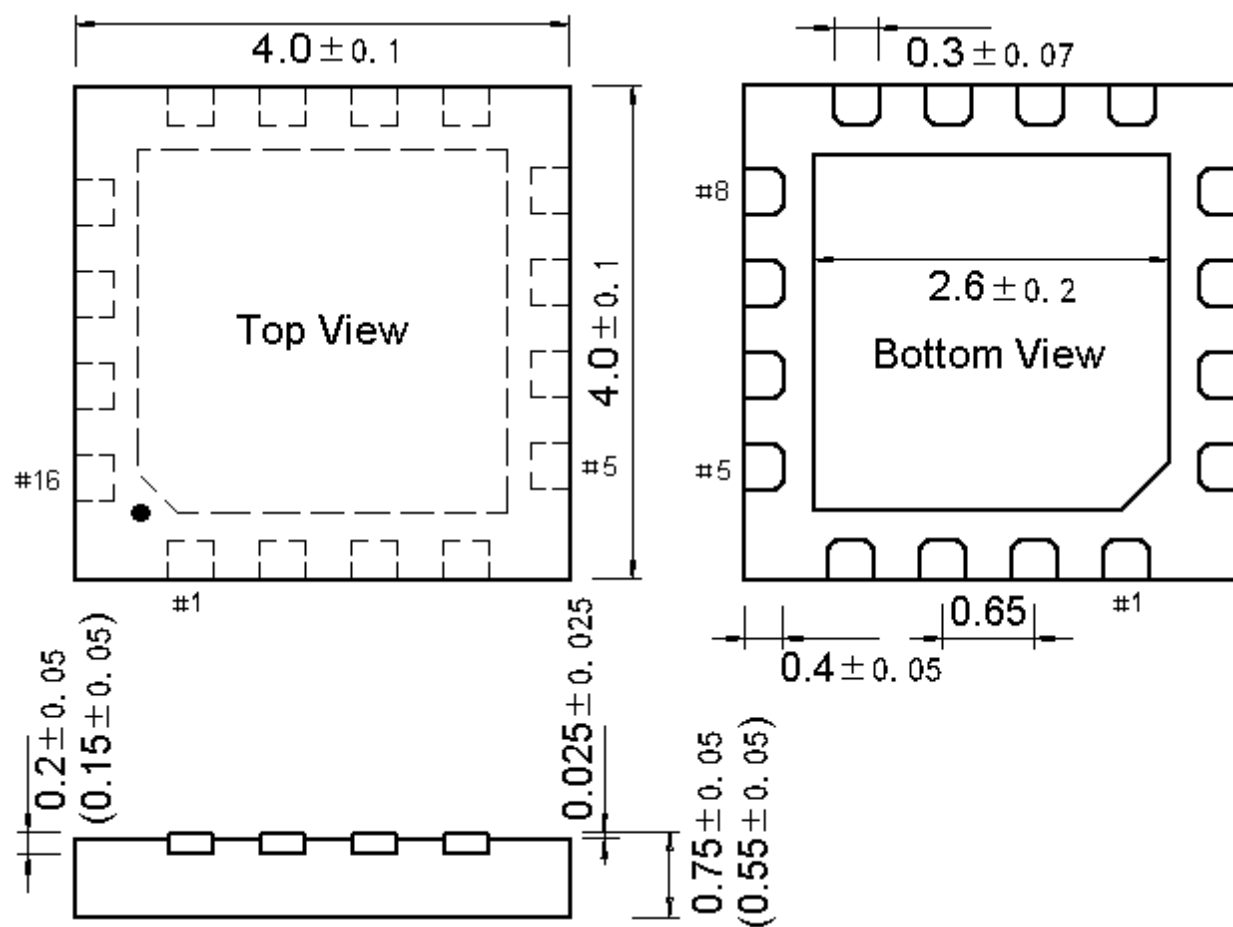
QFN14X25 (QFN14-2.5*2.5*0.75-0.5)



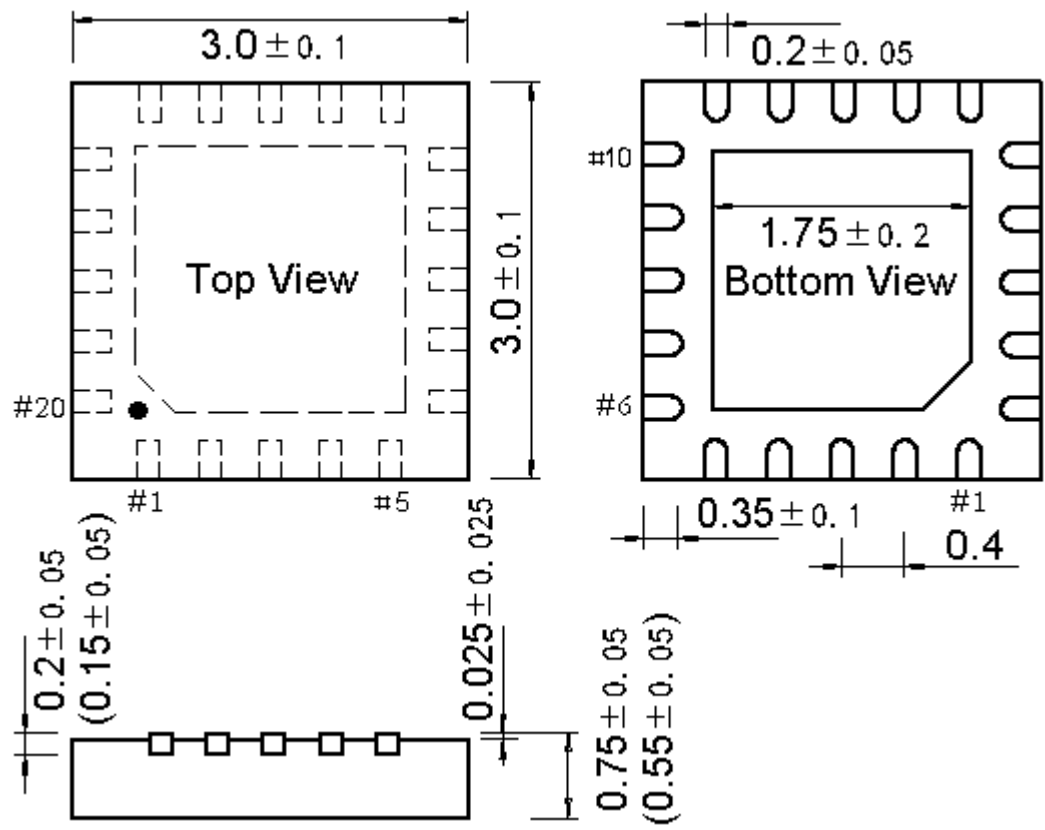
QFN16 (QFN16-3*3)



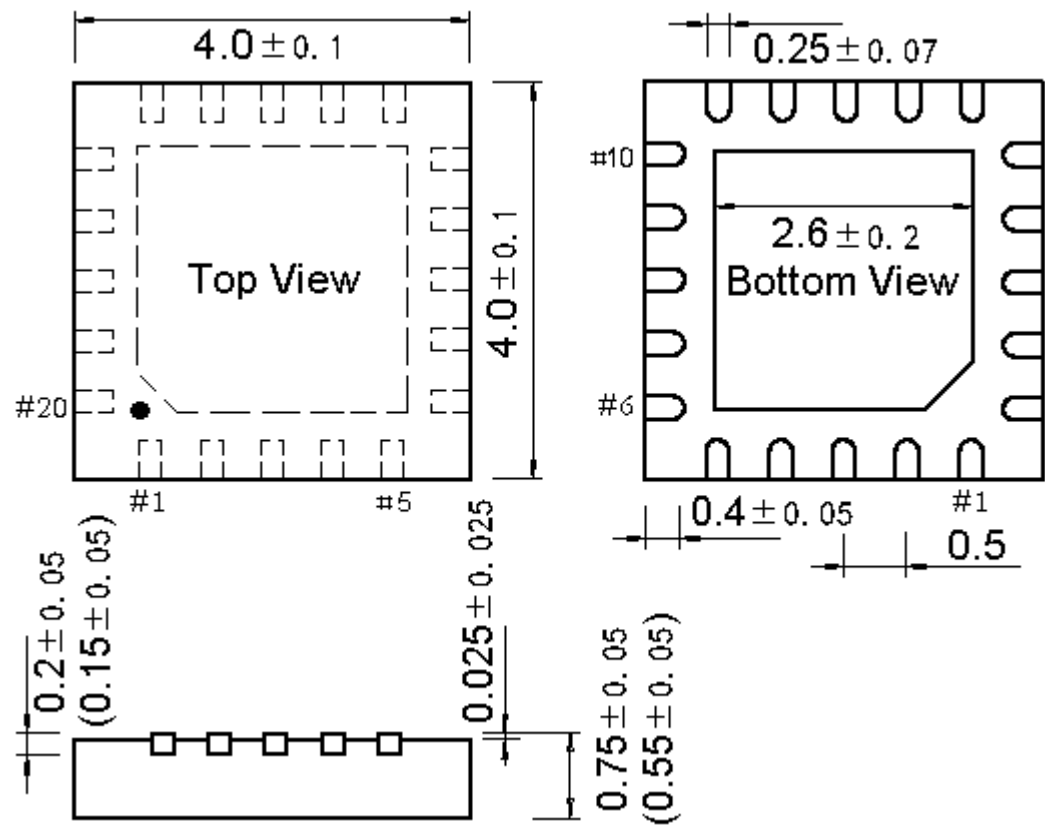
QFN16X4 (QFN16-4*4)



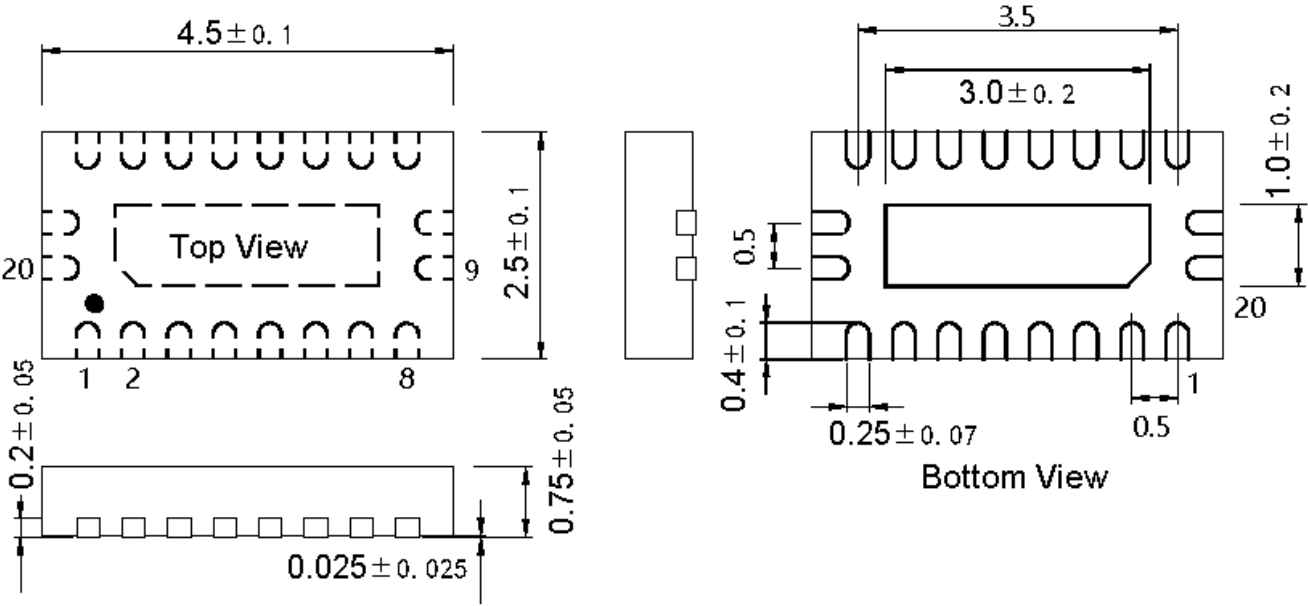
QFN20 (QFN20-3*3)



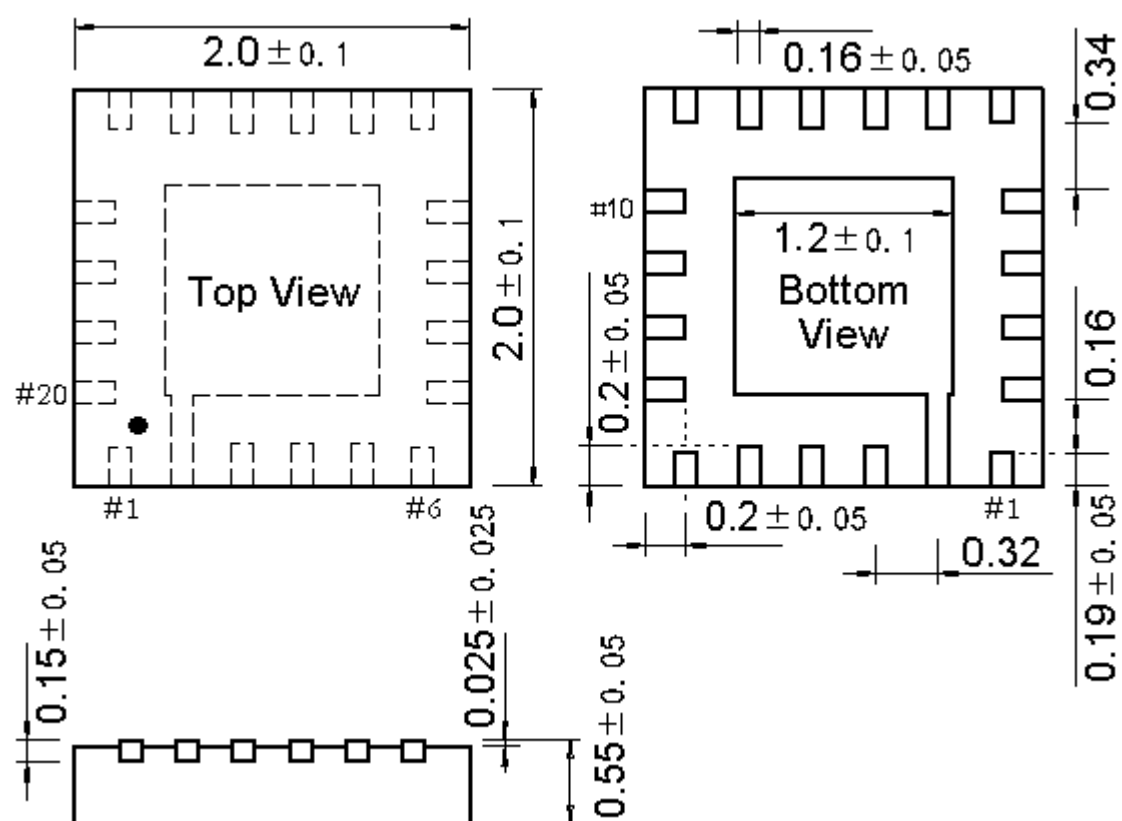
QFN20X4 (QFN20-4*4)



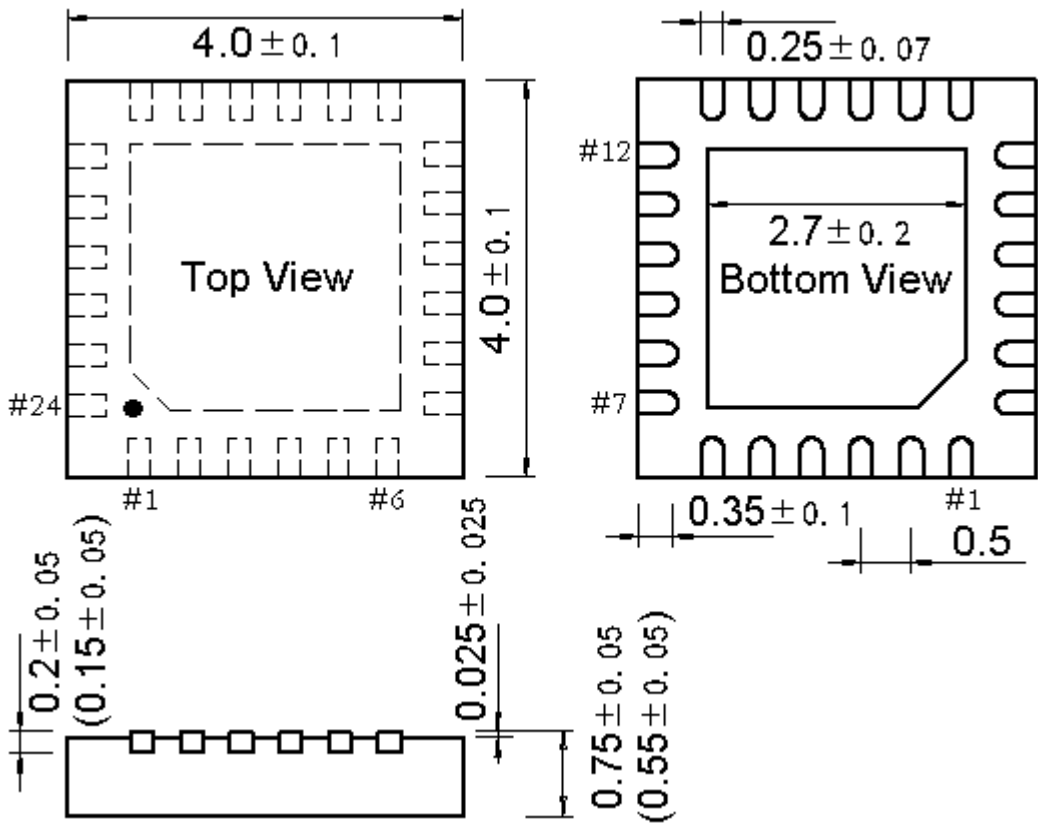
QFN20X25X45 (QFN20-2.5*4.5*0.75-0.5)



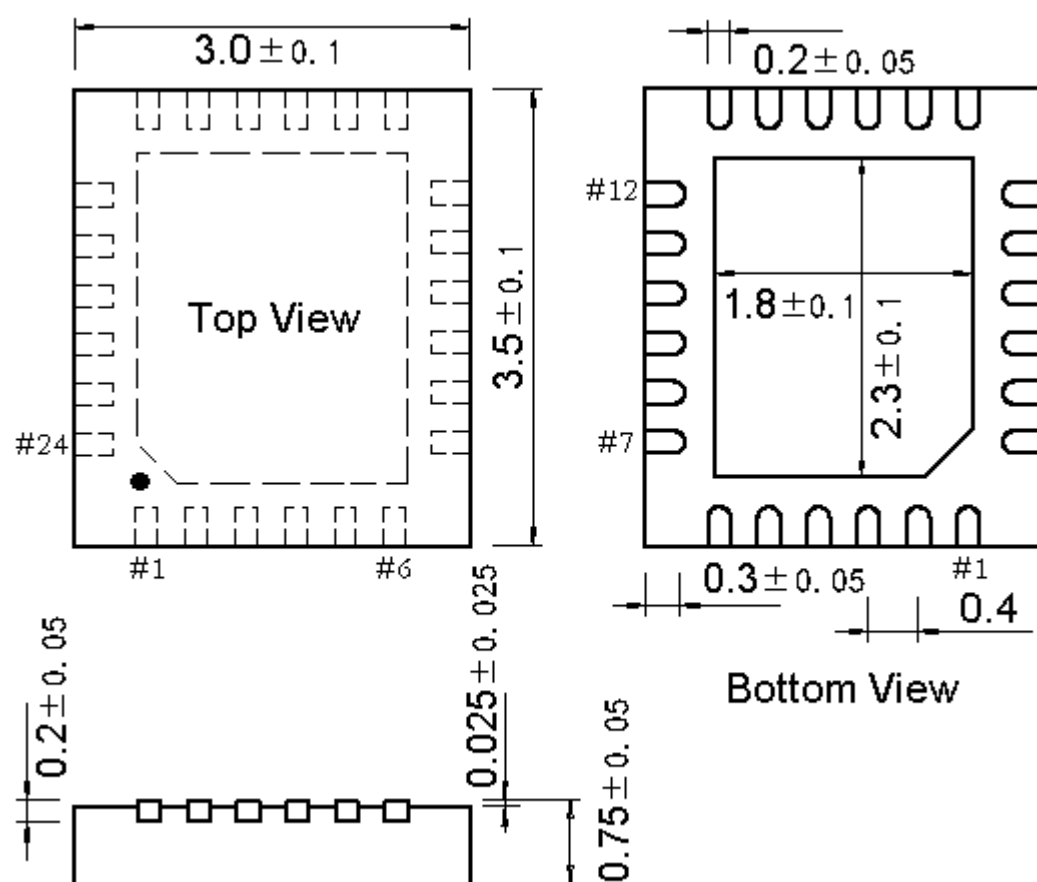
QFN20C2 (QFN20C-2*2*0.55-0.32)



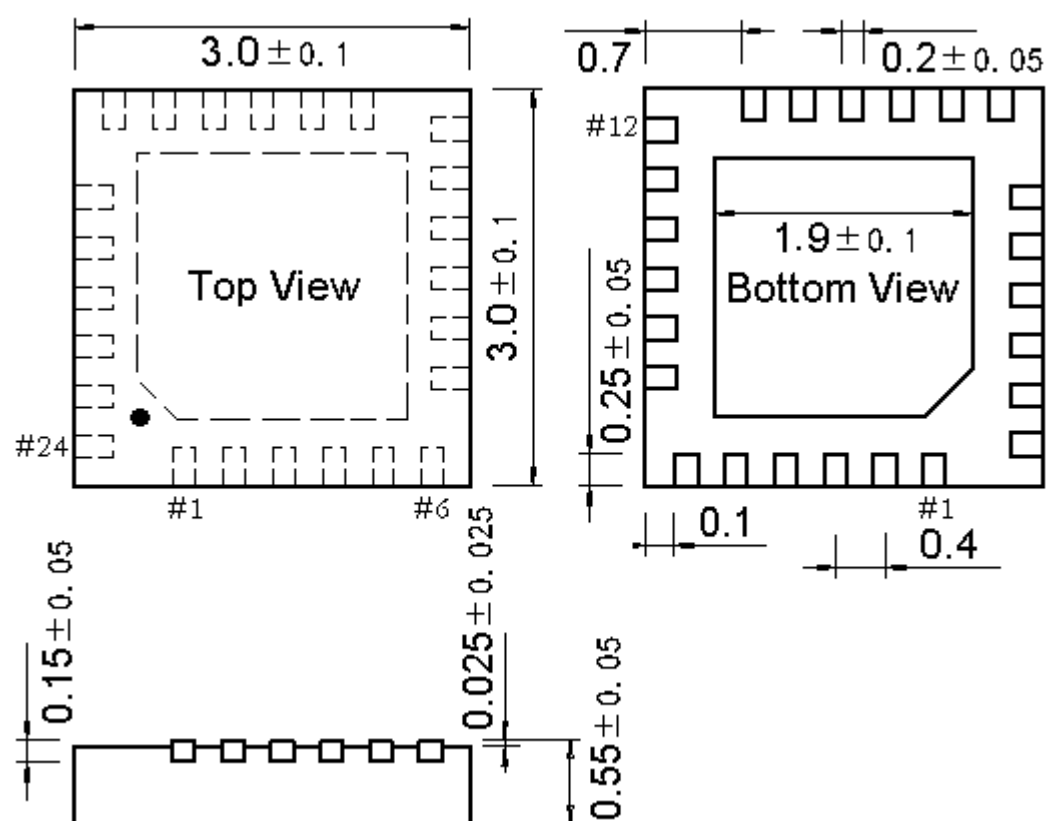
QFN24 (QFN24-4*4)



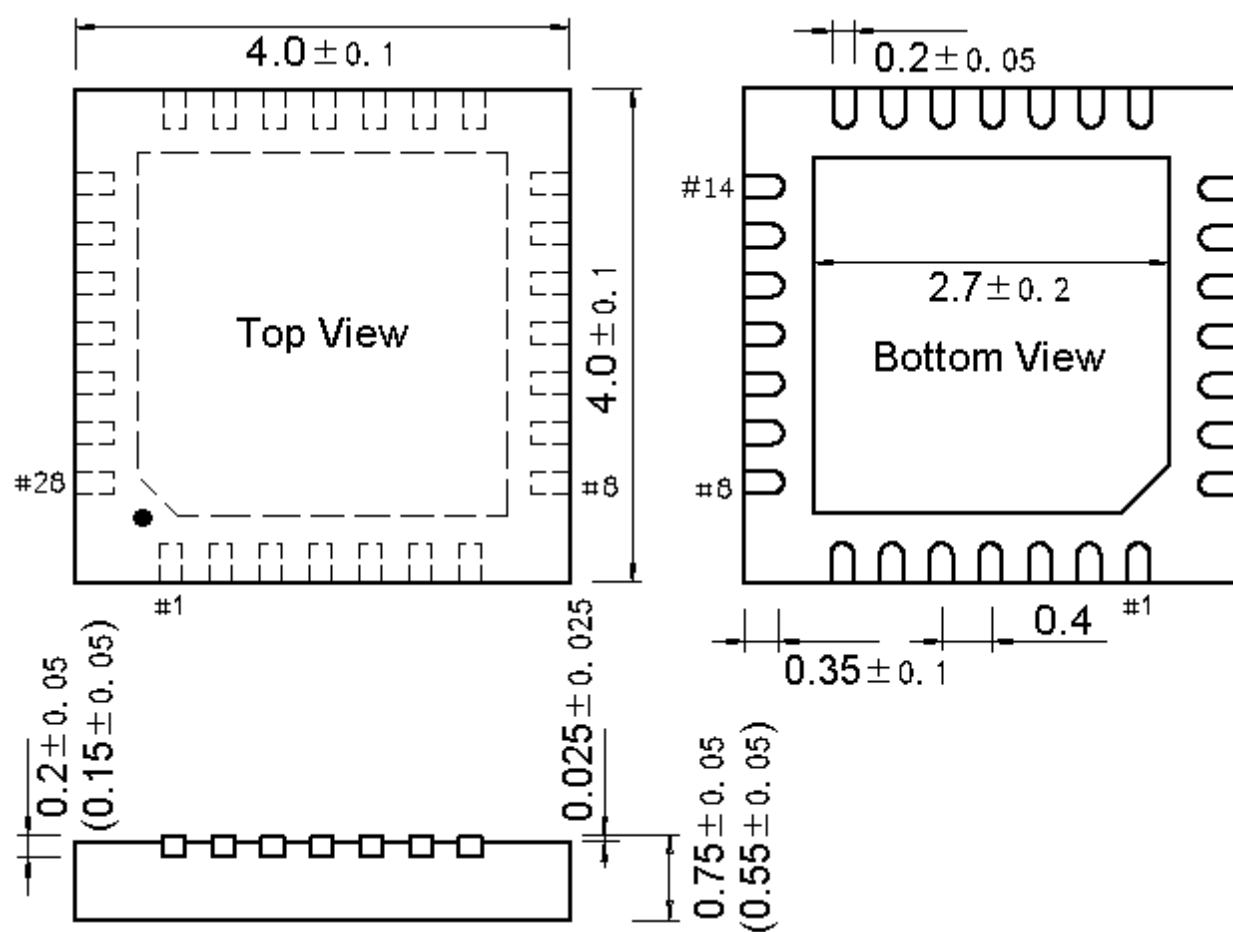
QFN24X3X35 (QFN24-3*3.5*0.75-0.4)



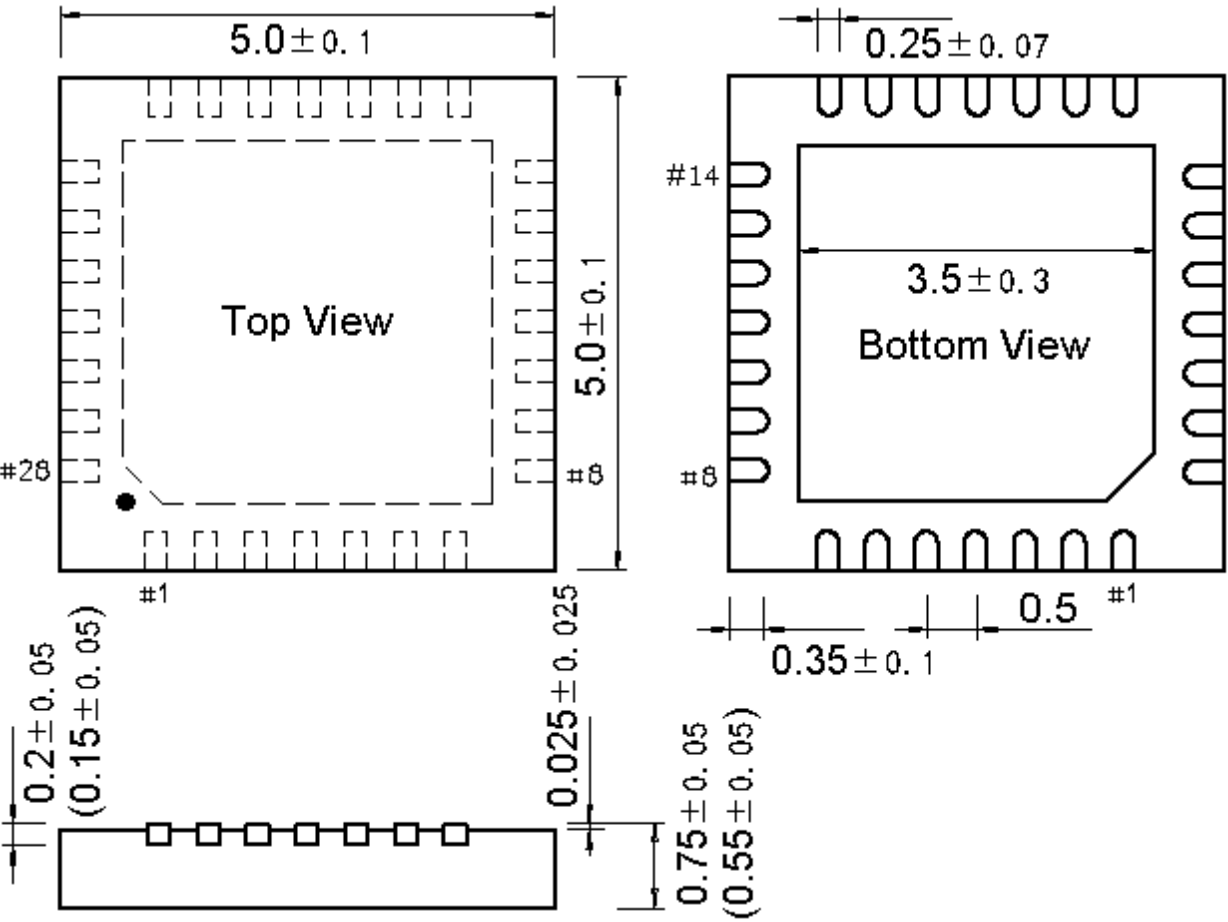
QFN24X3 (QFN24-3*3*0.55-0.4)



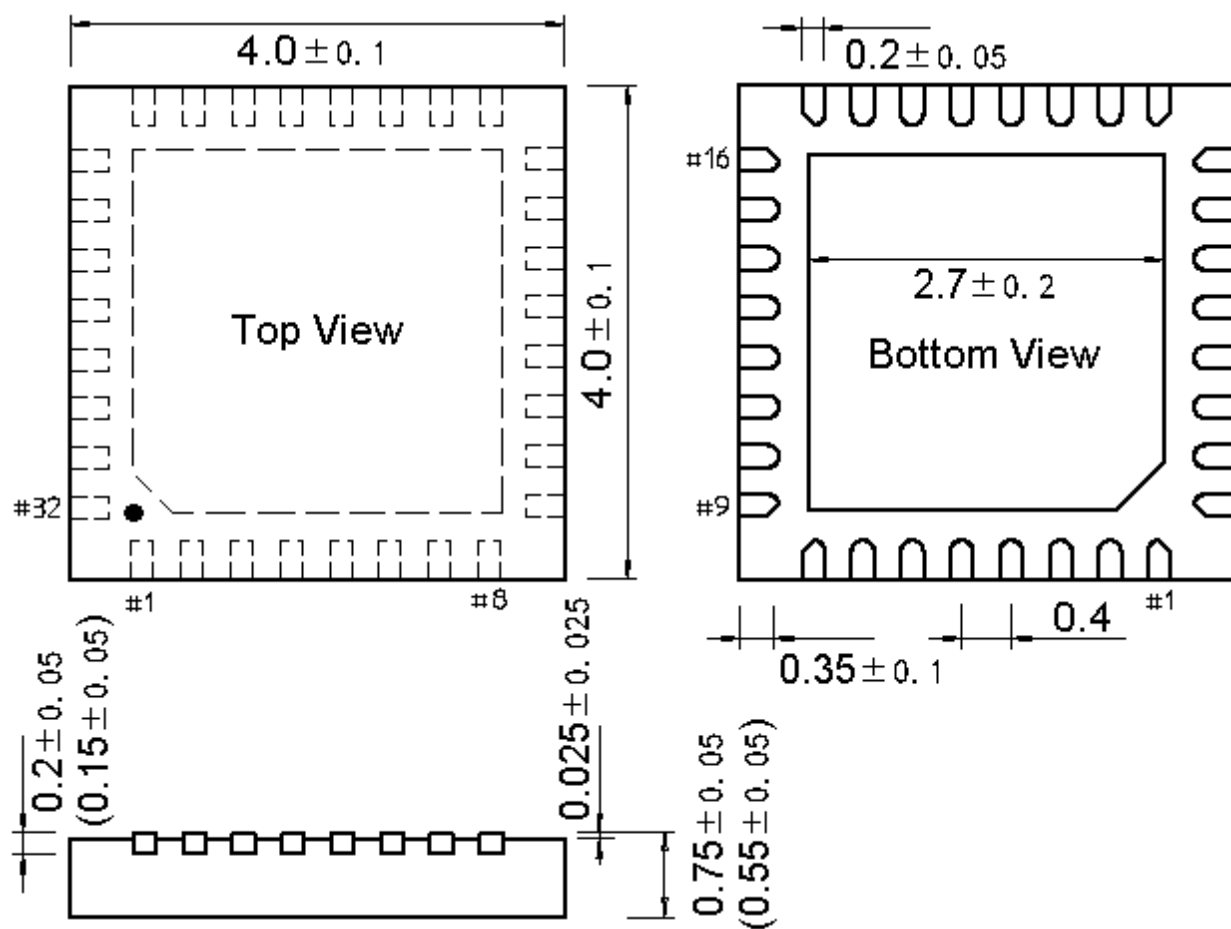
QFN28 (QFN28-4*4)



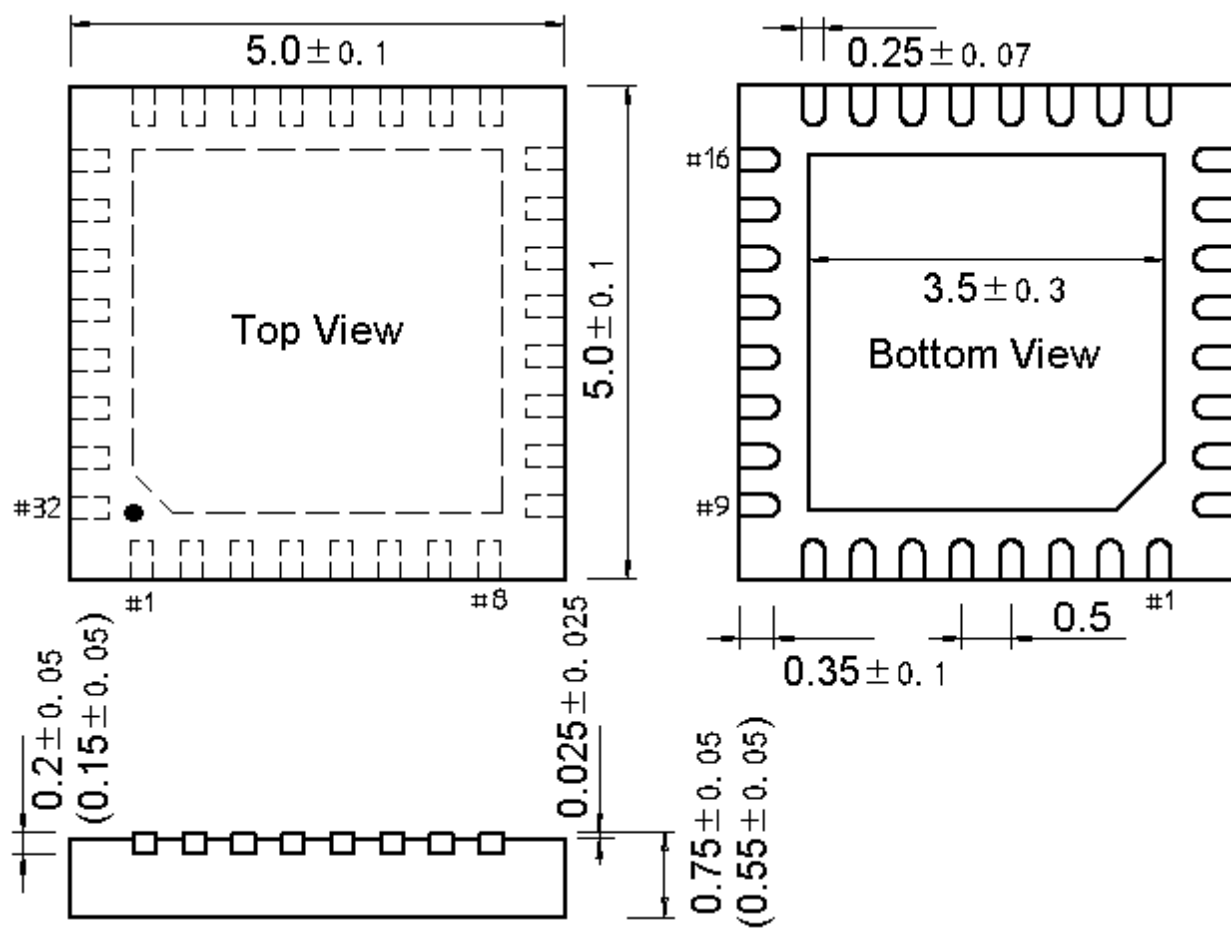
QFN28X5 (QFN28-5*5)



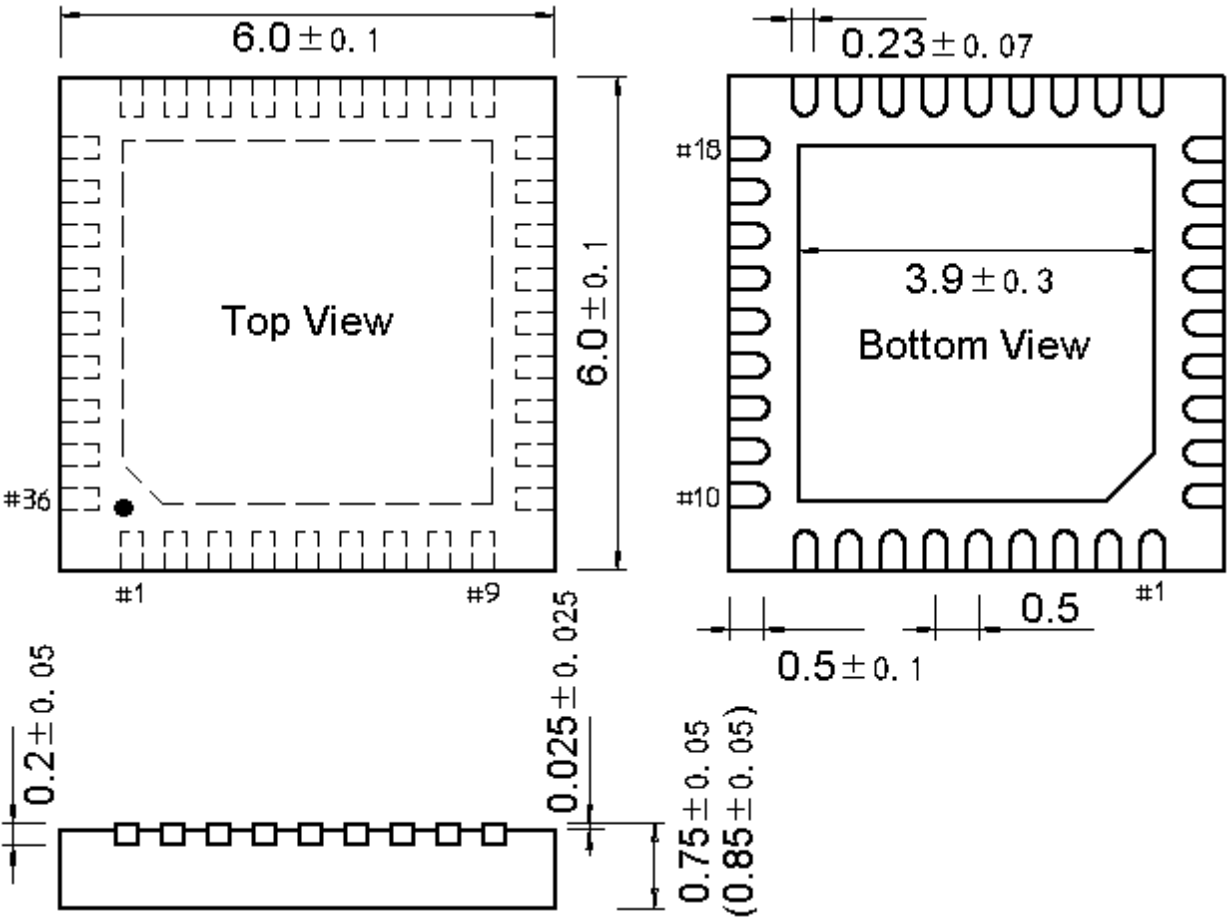
QFN32 (QFN32-4*4)



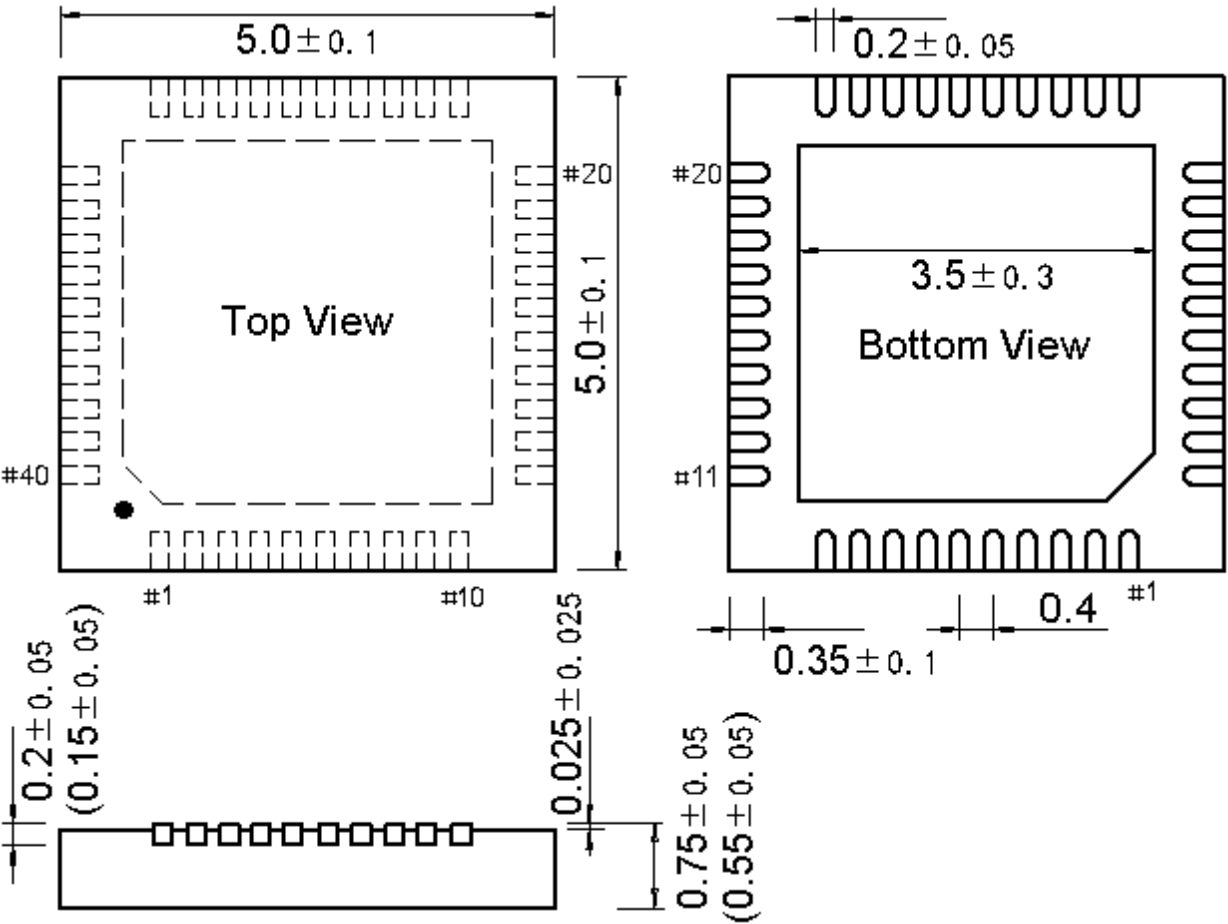
QFN32X5 (QFN32-5*5)



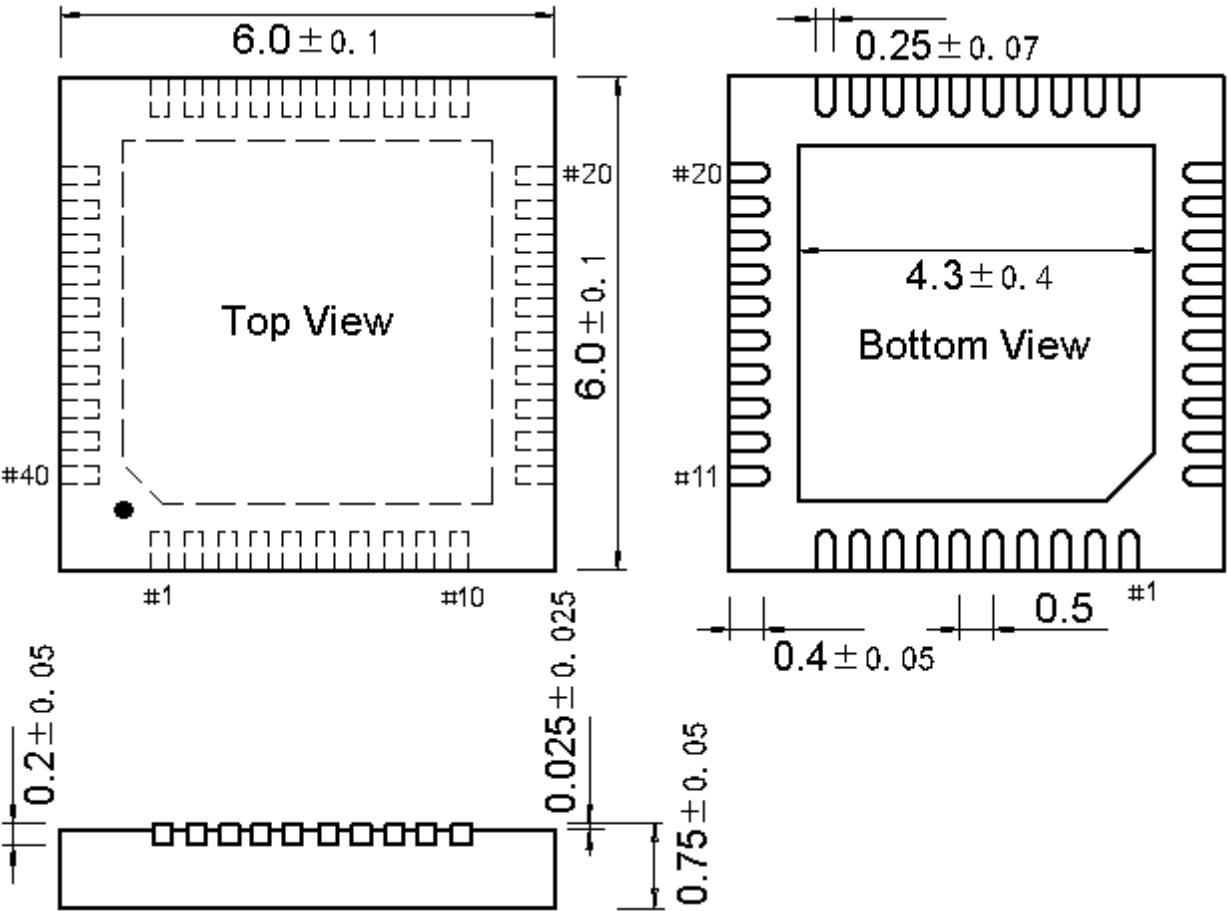
QFN36X6 (QFN36-6*6)



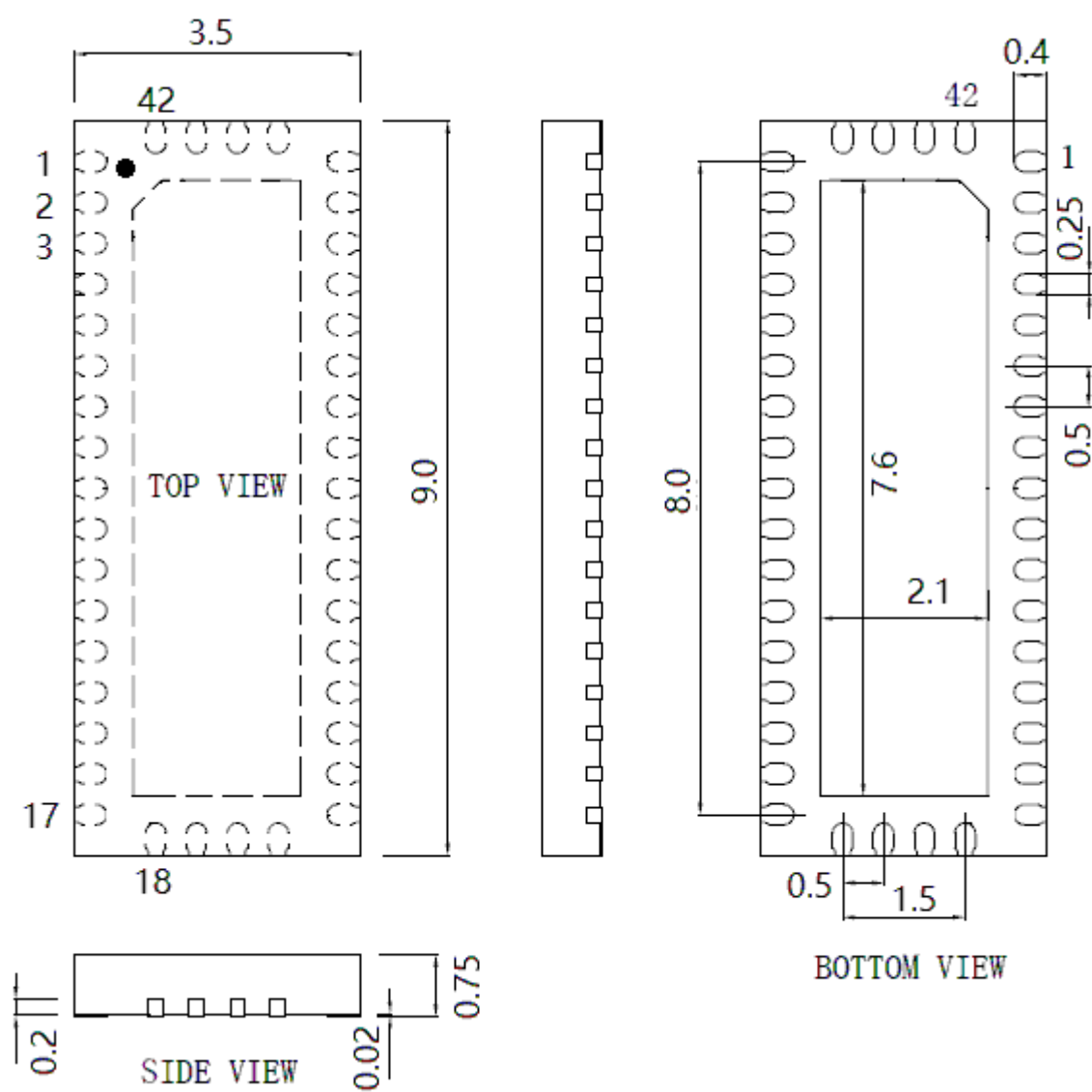
QFN40 (QFN40-5*5)



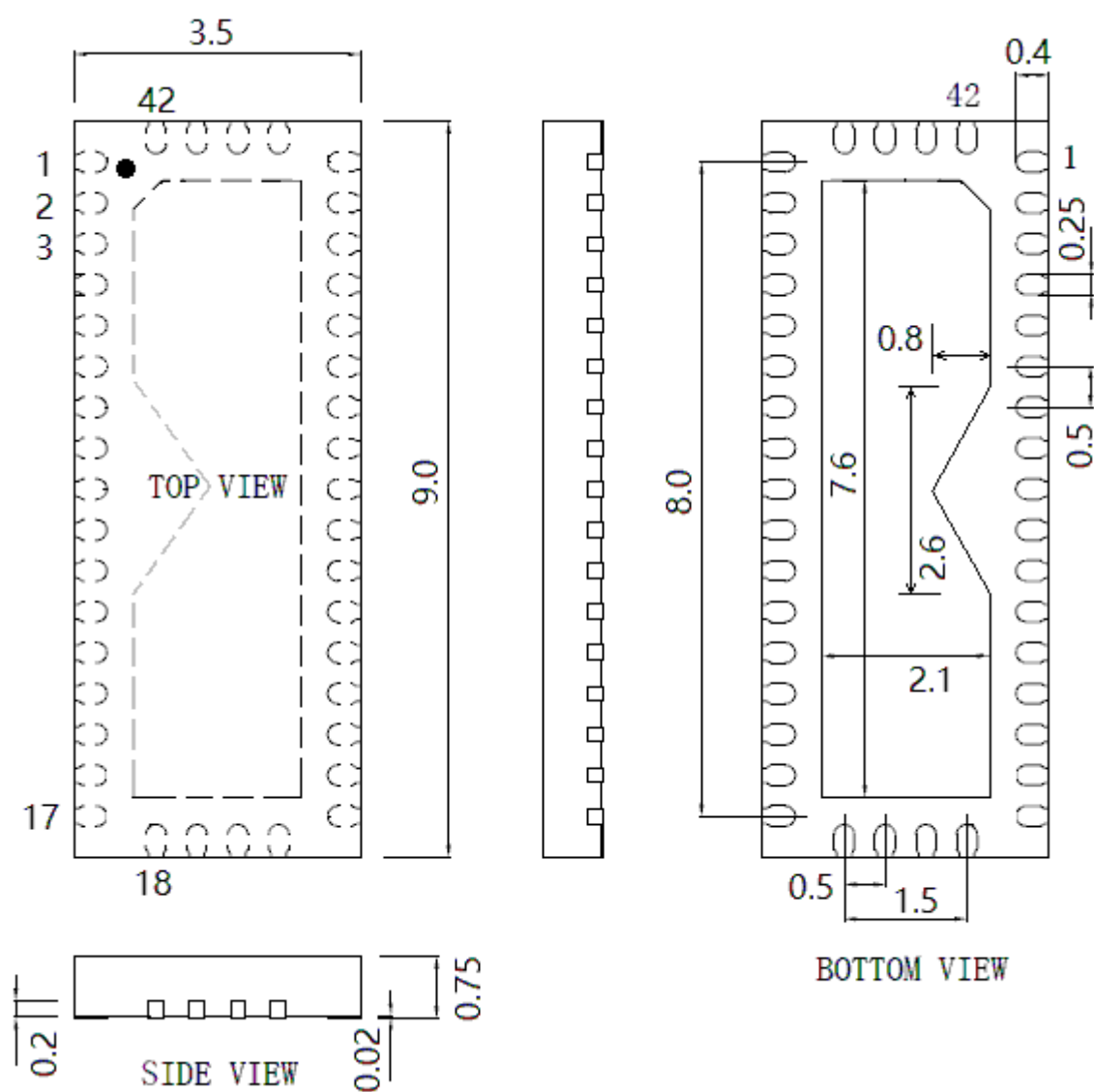
QFN40X6 (QFN40-6*6)



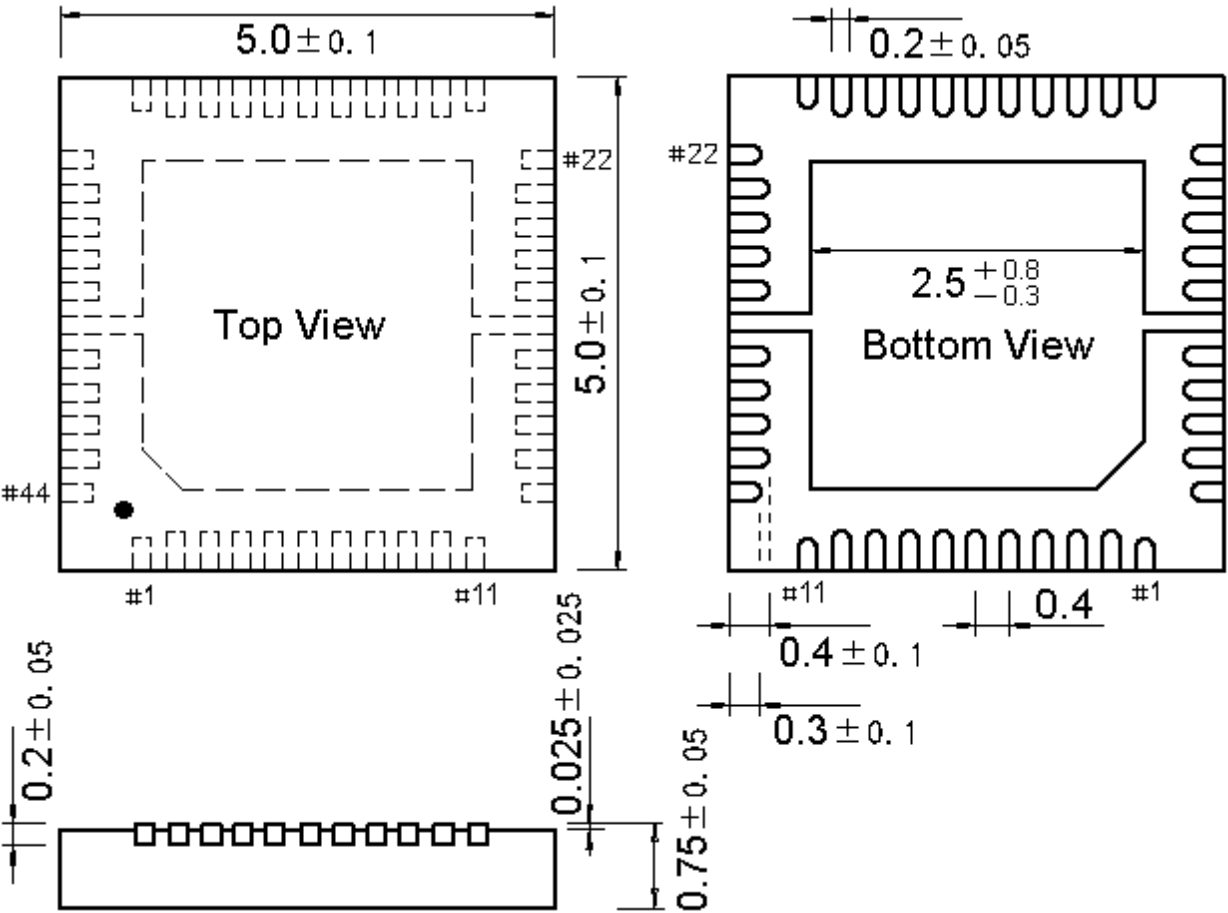
QFN42-3.5*9



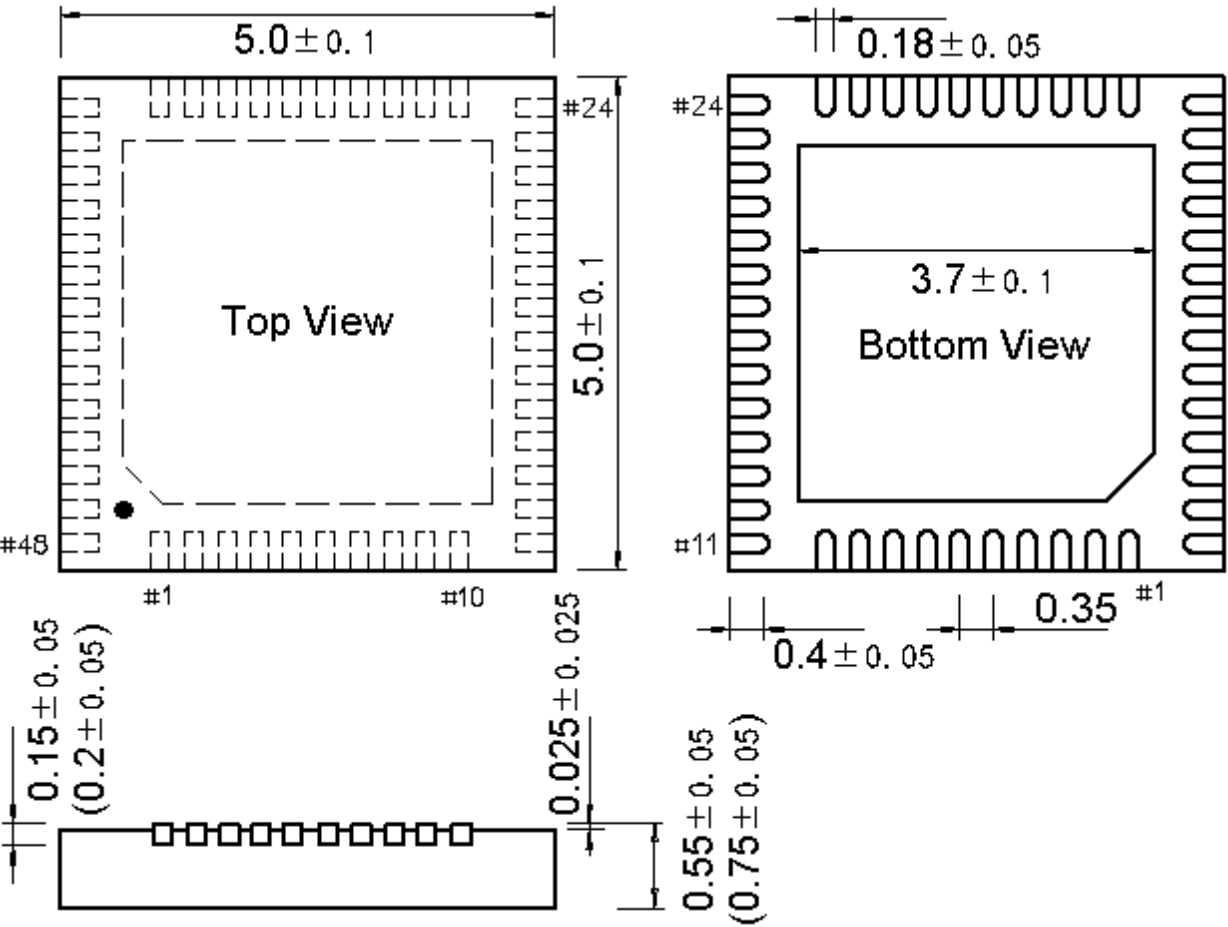
QFN42C-3.5*9



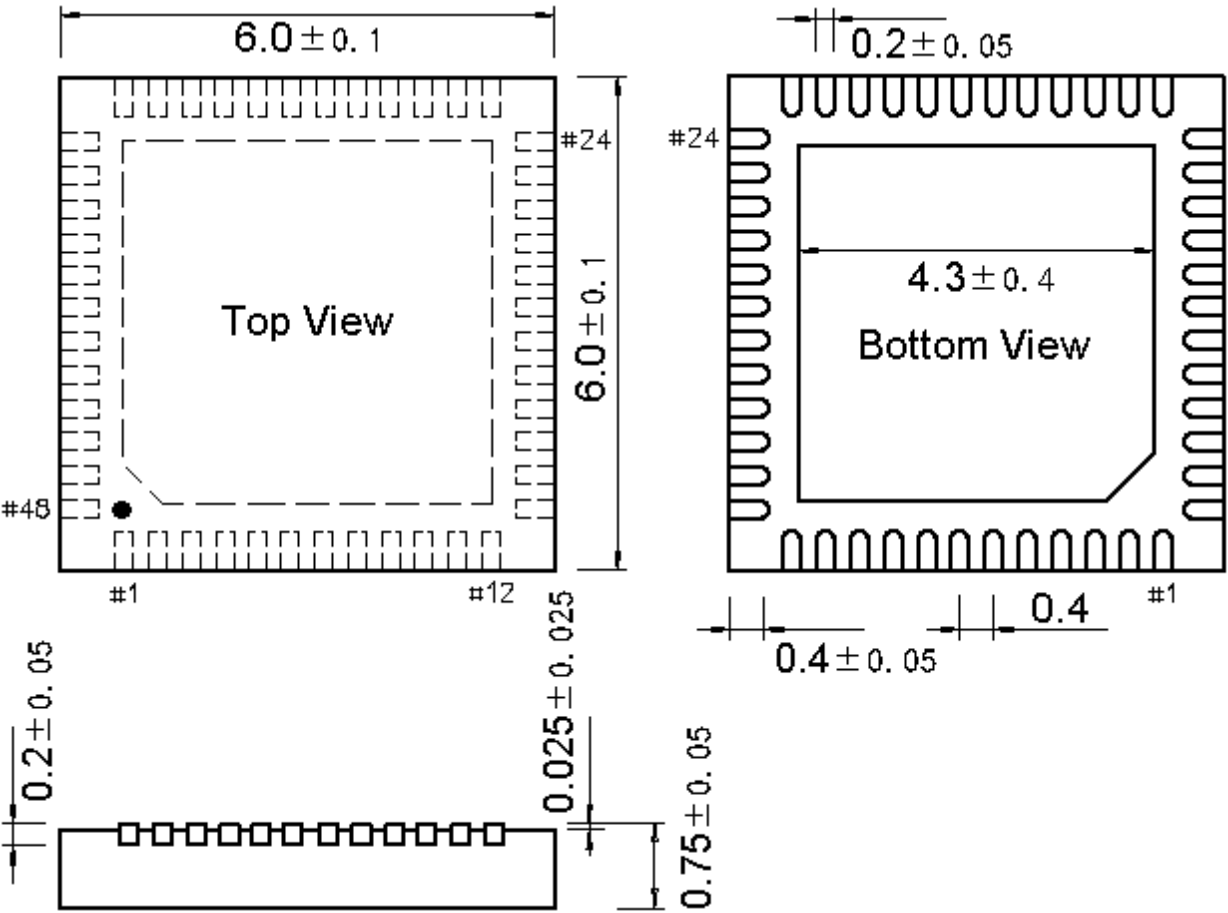
QFN44 (QFN44-5*5*0.75-0.4)



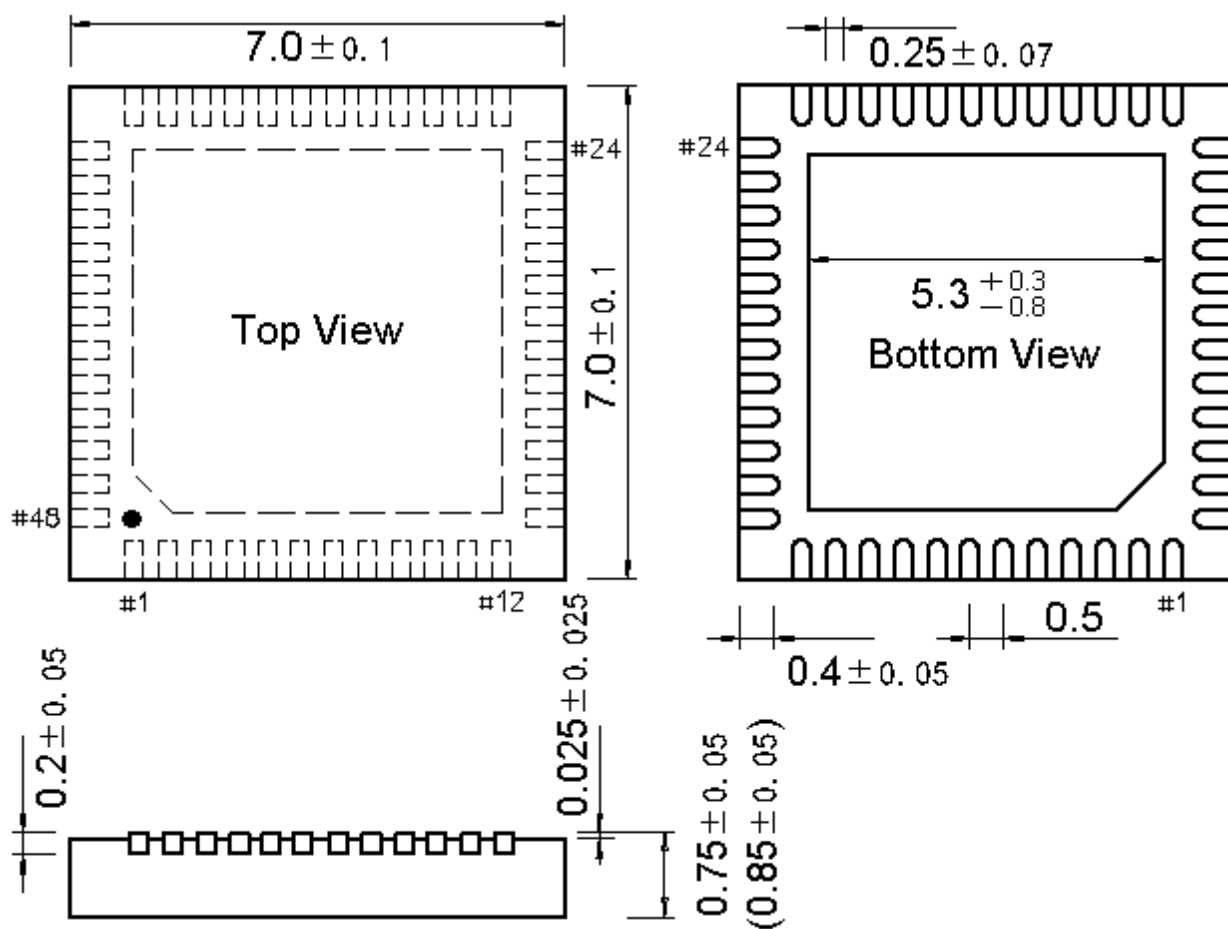
QFN48 (QFN48-5*5*0.55-0.35)



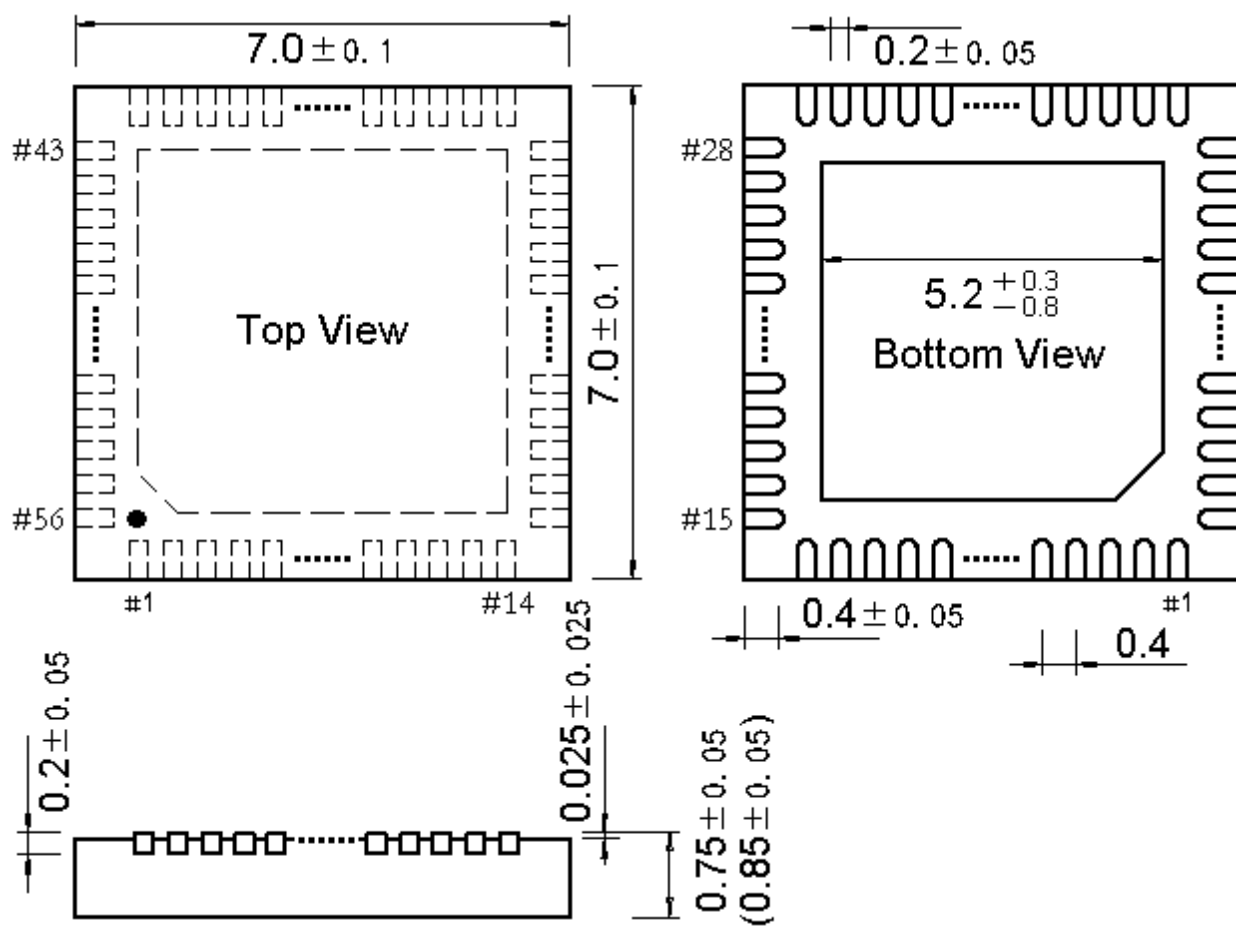
QFN48X6 (QFN48-6*6)



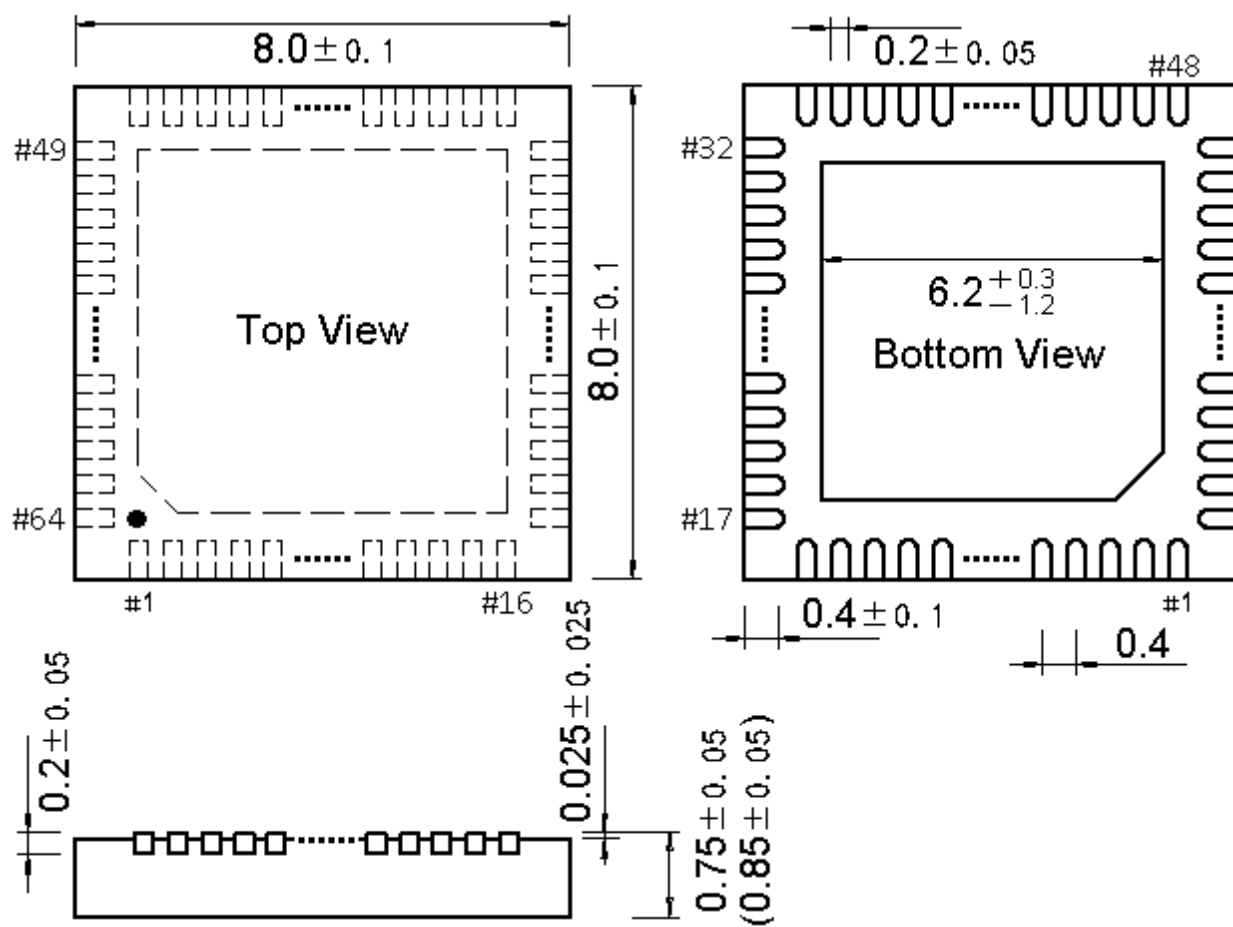
QFN48X7 (QFN48-7*7)



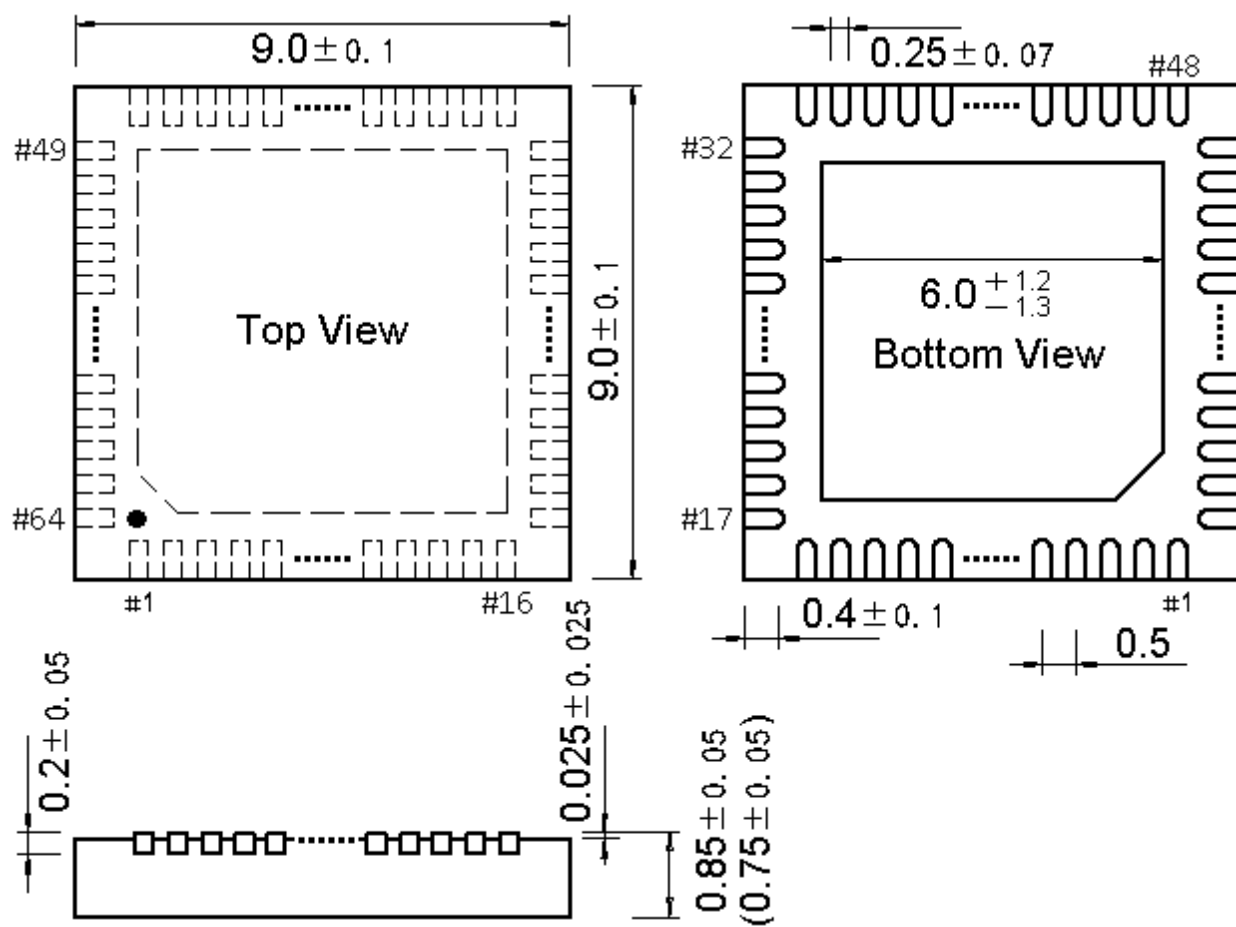
QFN56 (QFN56-7*7)



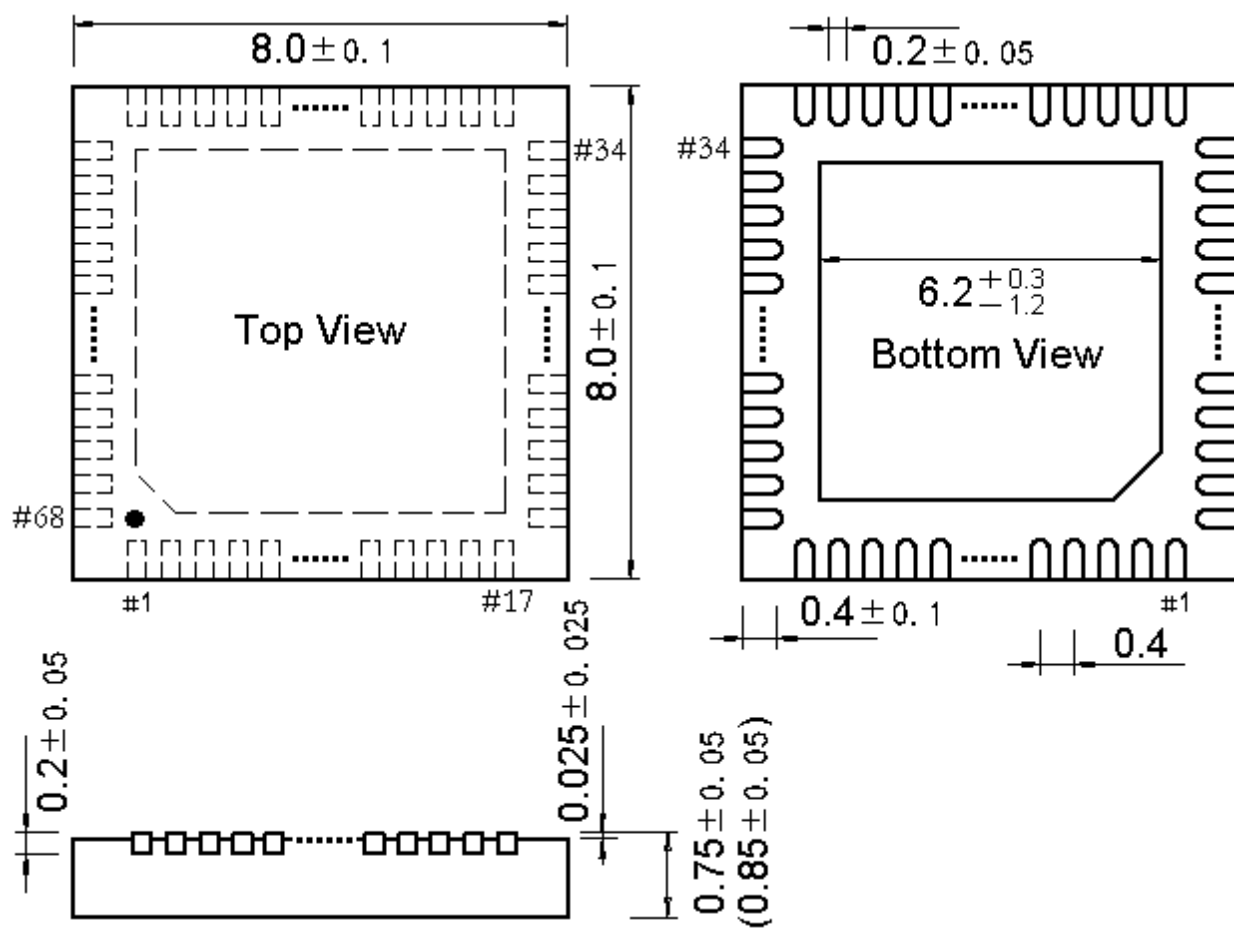
QFN64 (QFN64-8*8)



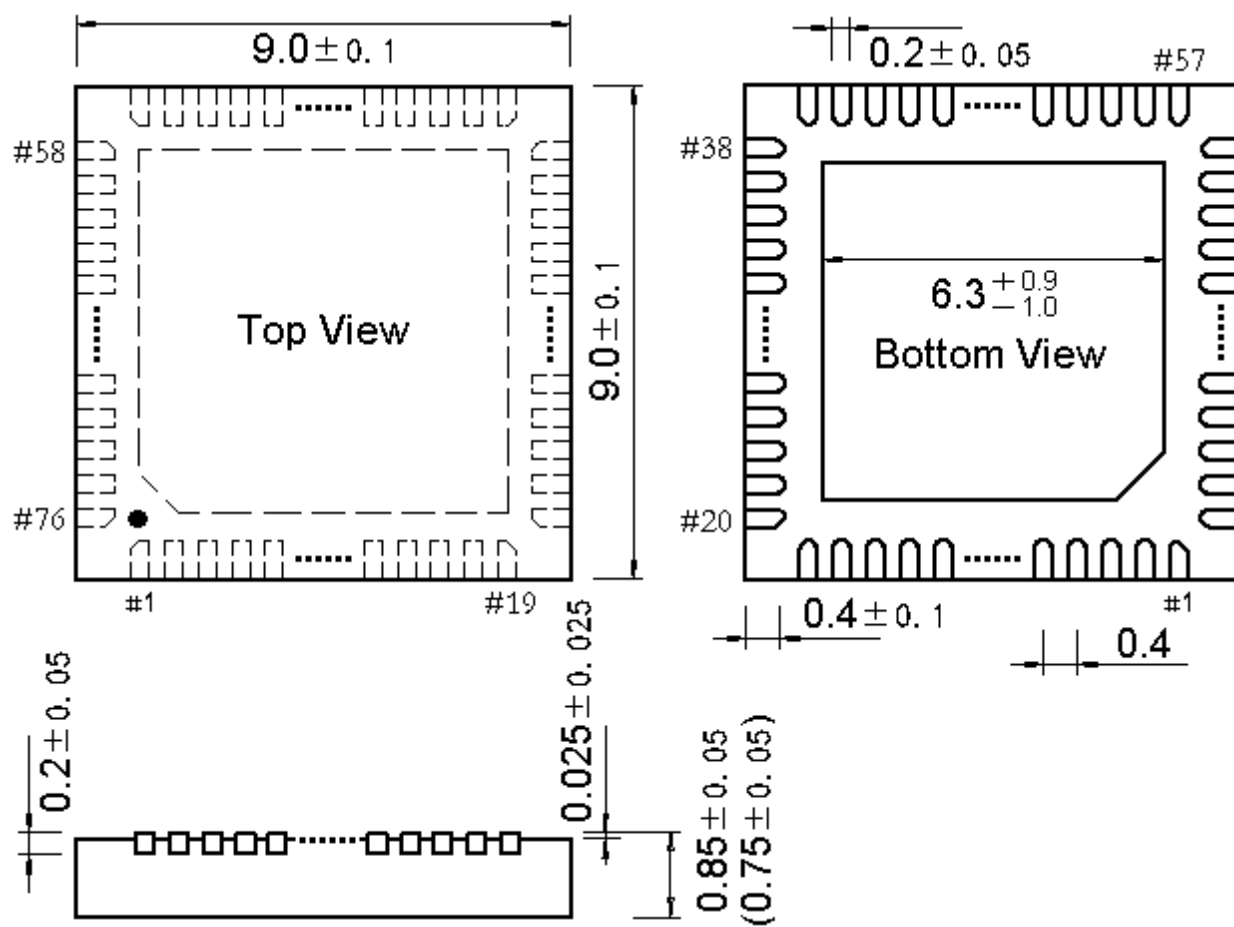
QFN64X9 (QFN64-9*9)



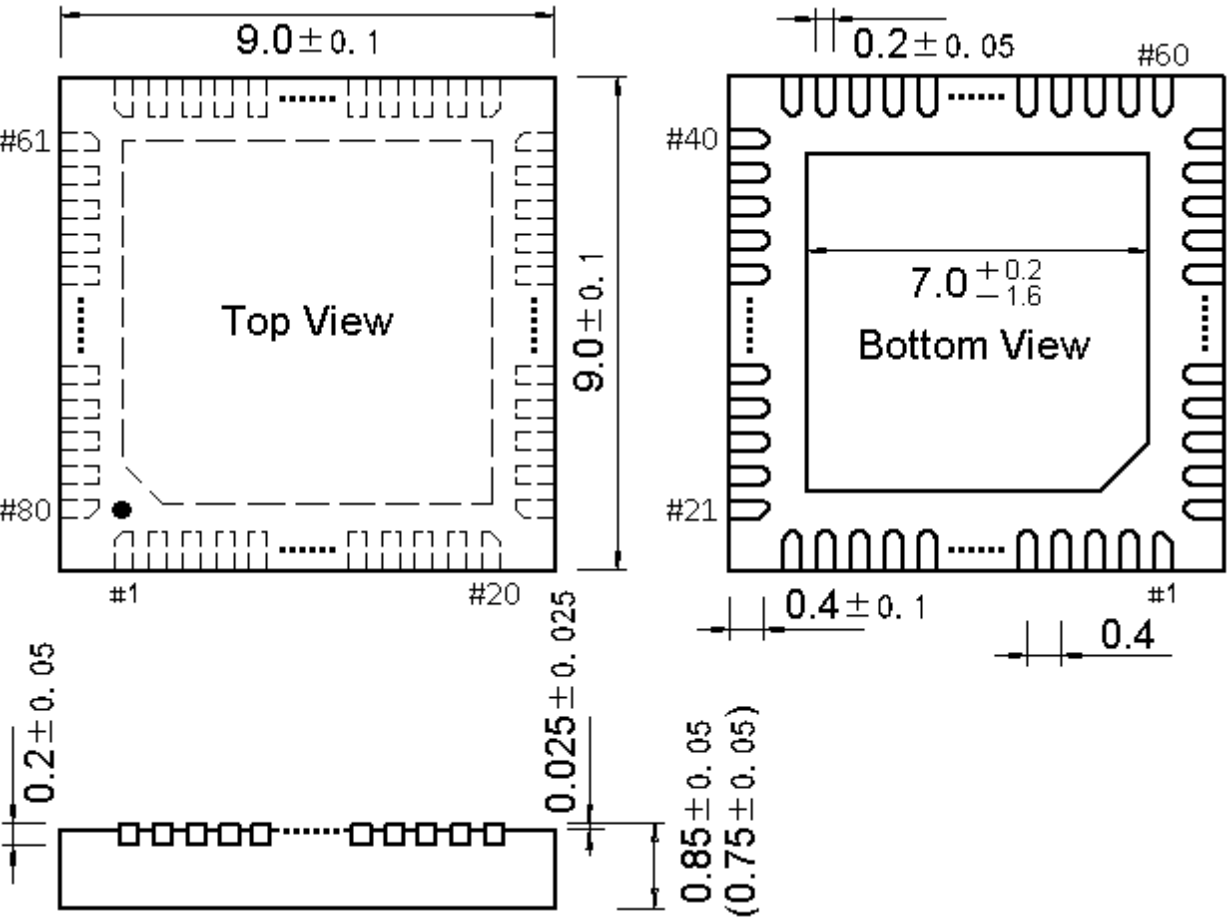
QFN68 (QFN68-8*8)



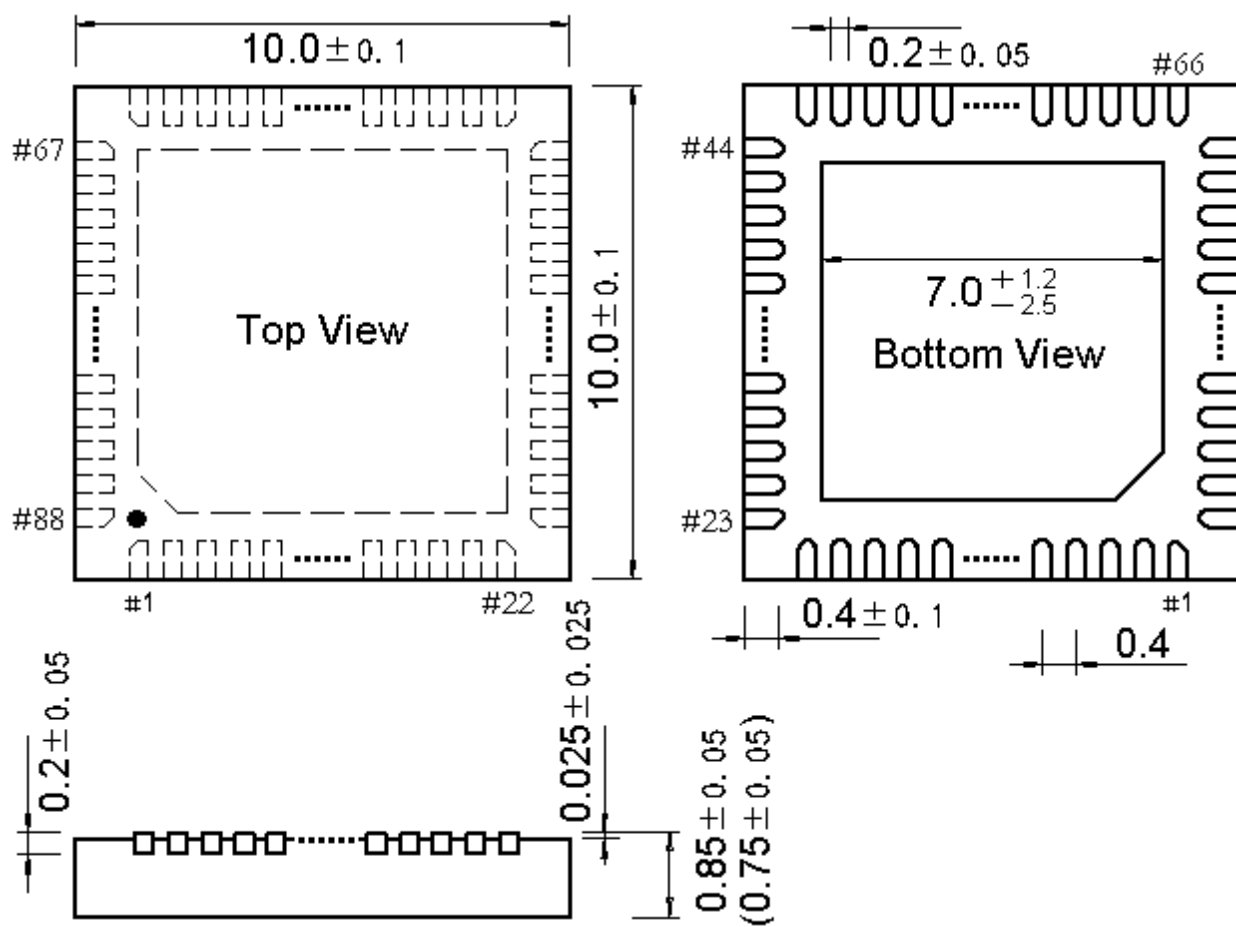
QFN76 (QFN76-9*9)



QFN80 (QFN80-9*9)

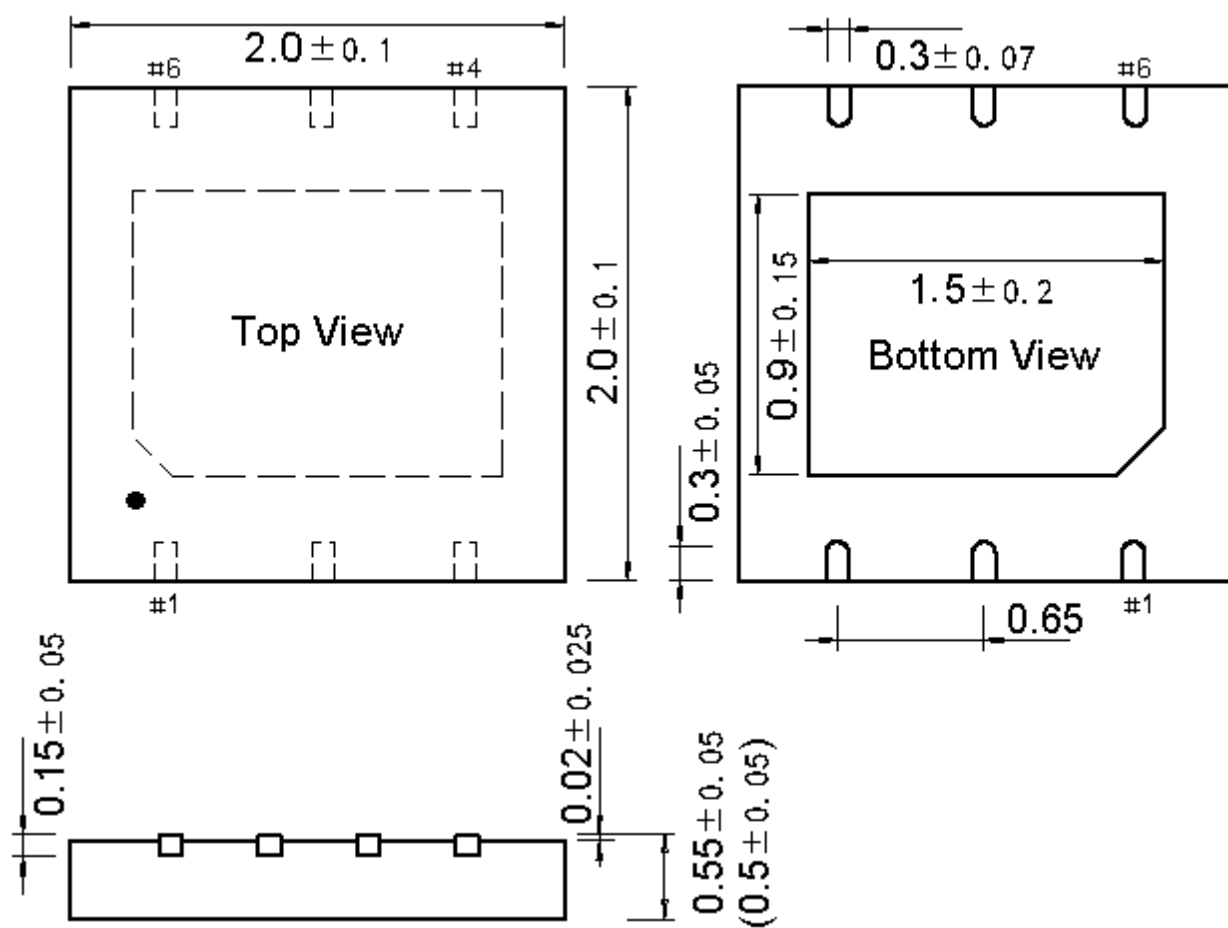


QFN88 (QFN88-10*10)

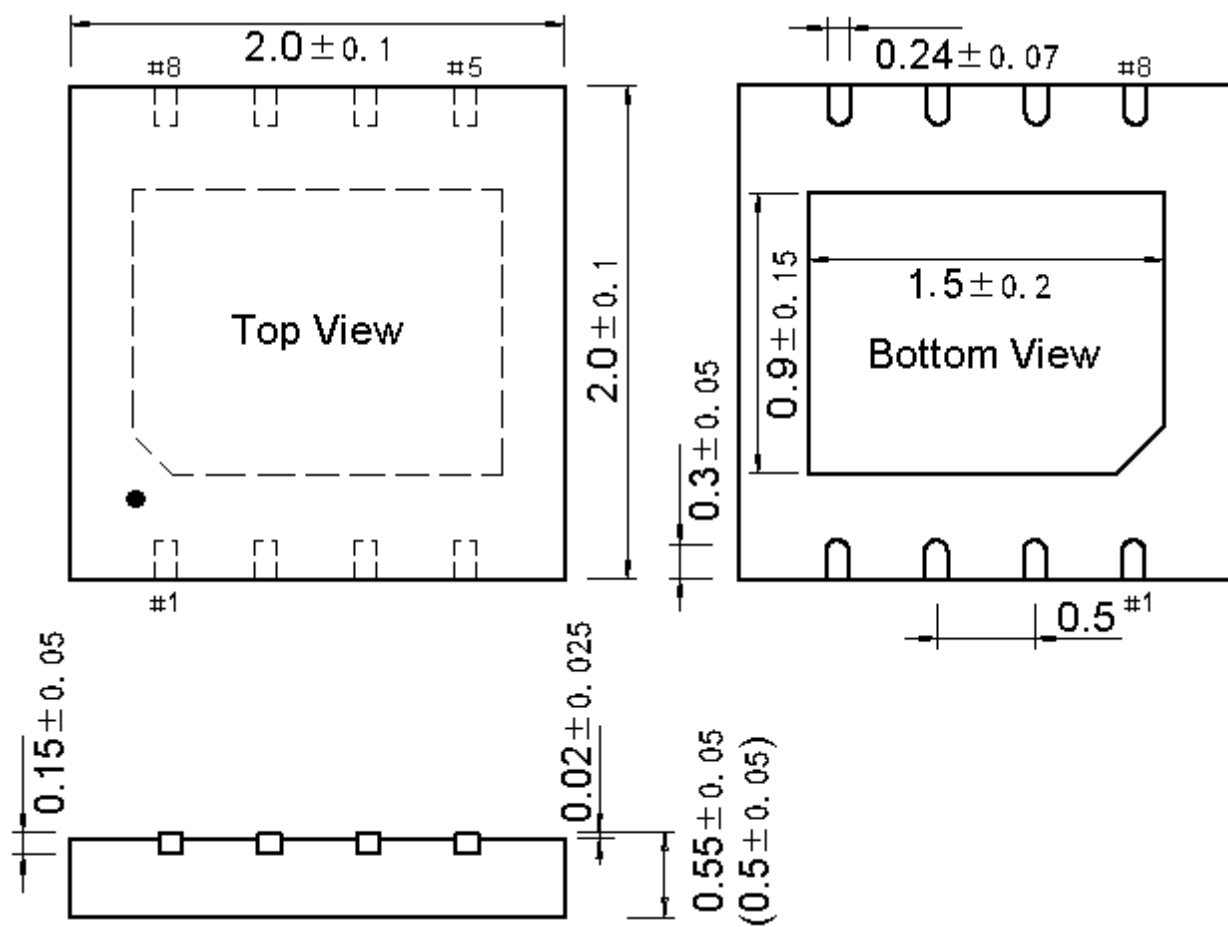


DFN 类

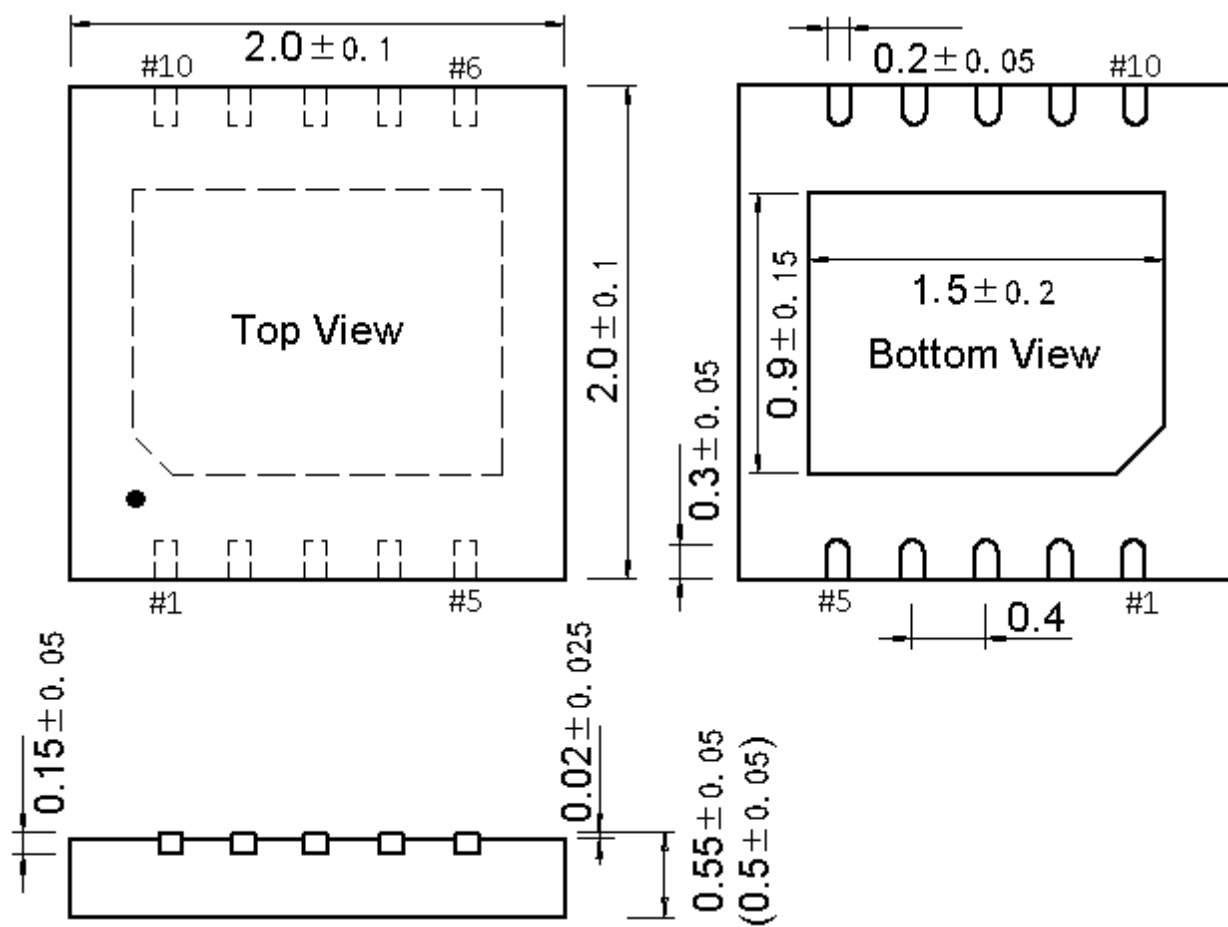
DFN6 (DFN6-2*2)



DFN8 (DFN8-2*2)

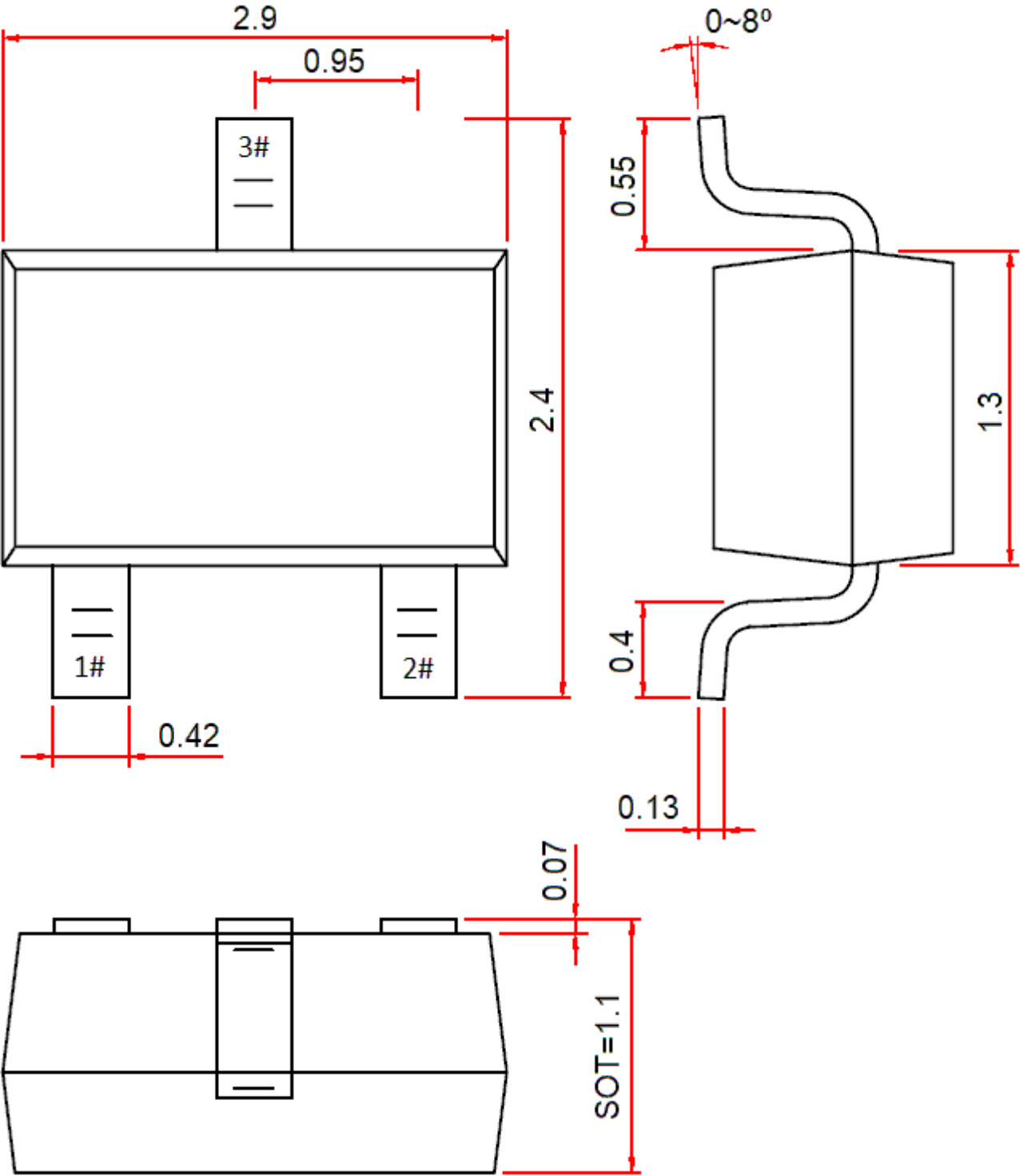


DFN10 (DFN10-2*2)

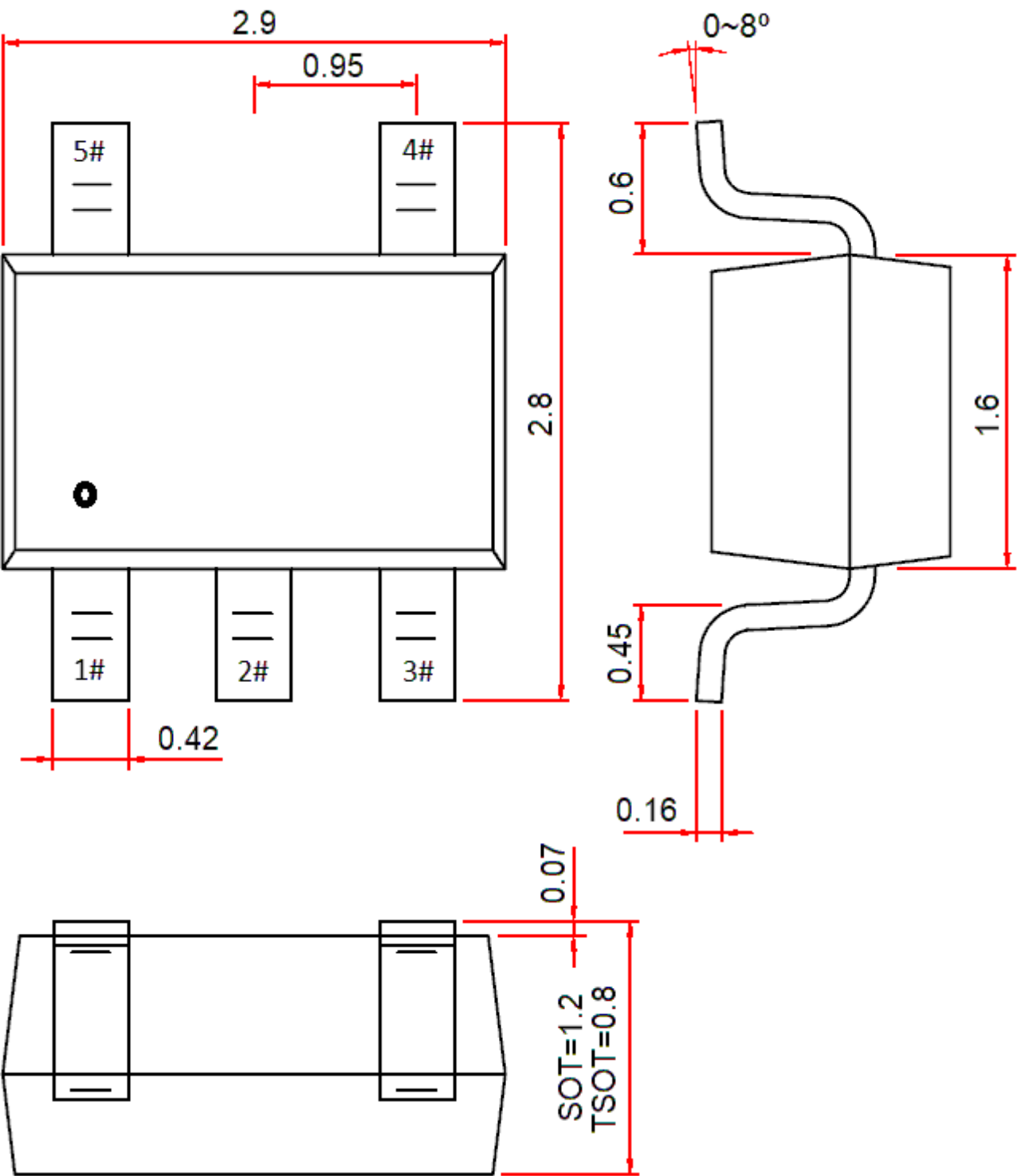


SOT 类

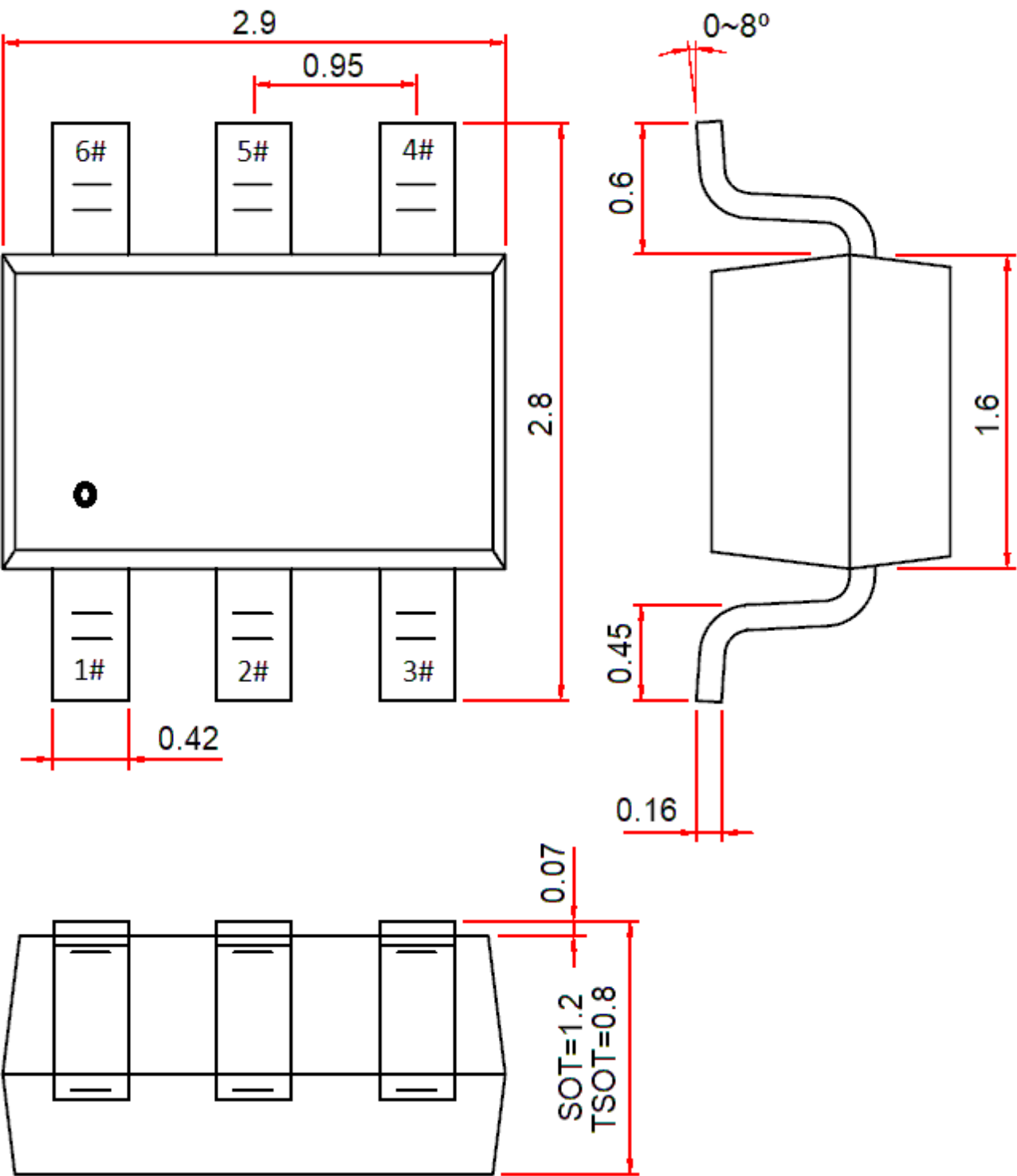
SOT23-3



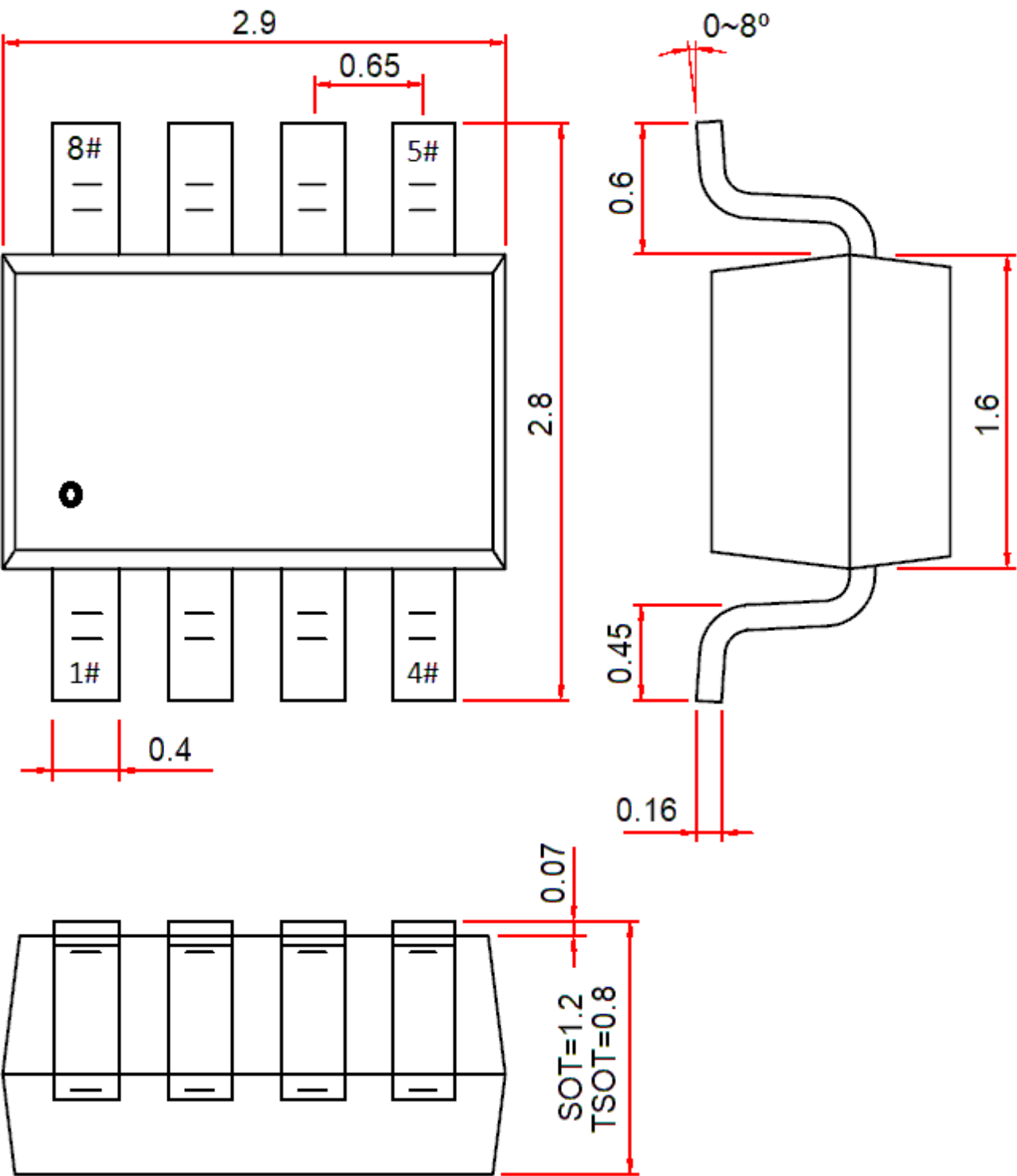
SOT23-5、TSOT23-5L



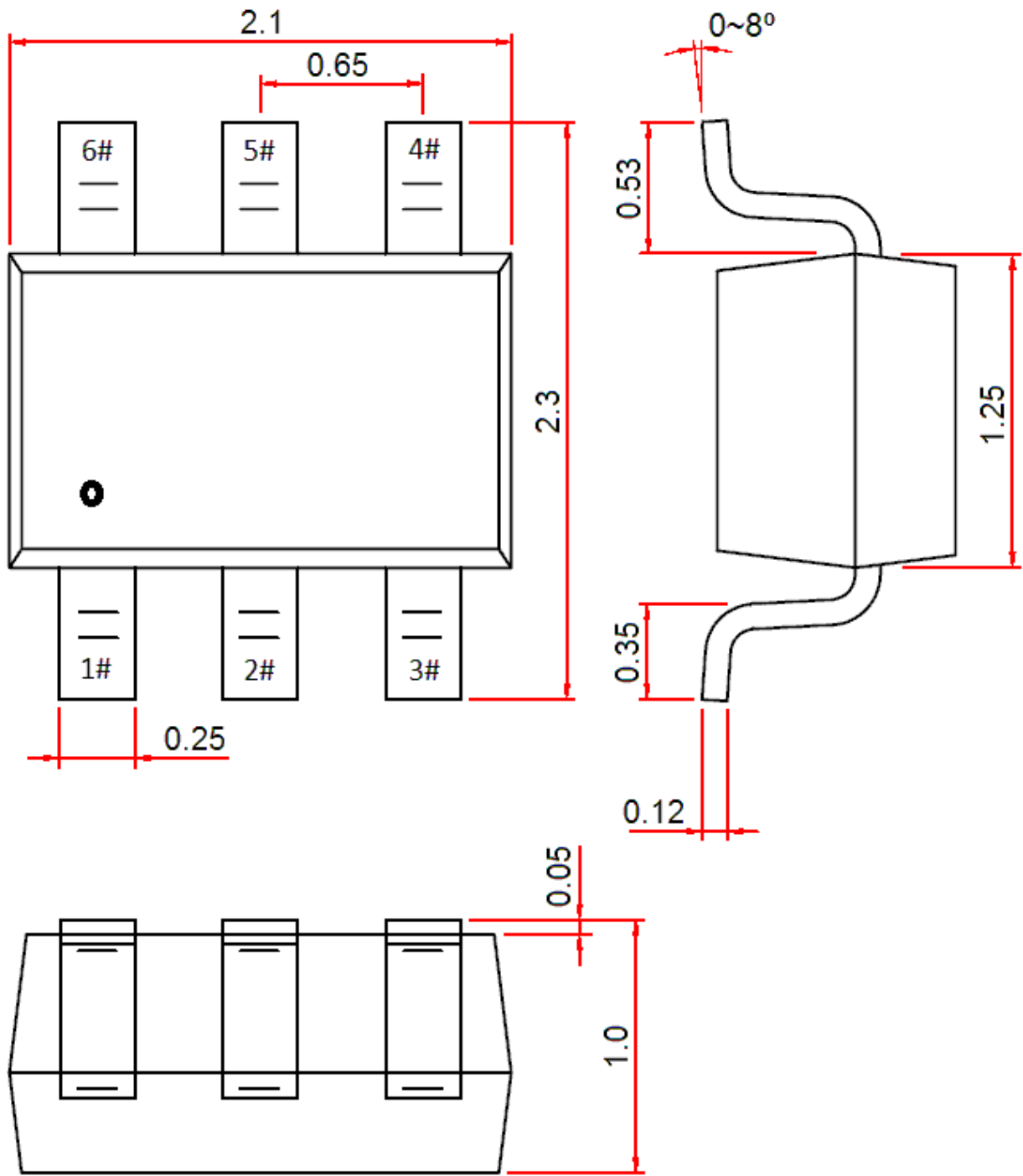
SOT23-6、TSOT23-6L



SOT23-8、TSOT23-8L



SOT363 (SC70-6L)



SOT353 (SC70-5L)

