

CH 系列 IC 常用封装尺寸

版本: 3I

<https://wch.cn>

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QFN 类	5 1
· QFN/DFN 命名规则参考	5 1
· QFN10L14X18 (QFN10-1.4*1.8*0.55-0.4)	5 2
· QFN10L15X2 (QFN10-1.5*2*0.55-0.4)	5 3
· QFN12 (QFN12-2*2*0.5-0.4)	5 4
· QFN14 (QFN14-2*2*0.55-0.4)	5 5
· QFN14X25 (QFN14-2.5*2.5*0.75-0.5)	5 6
· QFN16C2 (QFN16C-2*2*0.55-0.4)	5 7
· QFN16 (QFN16-3*3)	5 8
· QFN16-3*3*0.5-0.4	5 9
· QFN16X4 (QFN16-4*4)	6 0
· QFN18X2X28 (QFN18-2*2.8*0.5-0.4)	6 1
· QFN20 (QFN20-3*3)	6 2
· QFN20-3*3*0.55-0.4	6 3
· QFN20X4 (QFN20-4*4)	6 4
· QFN20X25X45 (QFN20-2.5*4.5*0.75-0.5)	6 5
· QFN20C2 (QFN20C-2*2*0.55-0.32)	6 6
· QFN24 (QFN24-4*4)	6 7
· QFN24X3 (QFN24-3*3*0.55-0.4)	6 8
· QFN26C3 (QFN26C-3*3*0.75-0.4)	6 9
· QFN28 (QFN28-4*4)	7 0
· QFN28X5 (QFN28-5*5)	7 1
· QFN32 (QFN32-4*4)	7 2
· QFN32X5 (QFN32-5*5)	7 3
· QFN32C28X45 (QFN32C-2.8*4.5*0.75-0.4)	7 4
· QFN36C4 (QFN36C-4*4*0.75-0.4)	7 5
· QFN36X6 (QFN36-6*6)	7 6
· QFN40 (QFN40-5*5)	7 7
· QFN40X6 (QFN40-6*6)	7 8
· QFN42X35X9 (QFN42-3.5*9*0.75-0.5)	7 9
· QFN42C35X9 (QFN42C-3.5*9*0.75-0.5)	8 0
· QFN46C5 (QFN46C-5*5*0.75-0.4)	8 1
· QFN48 (QFN48-5*5*0.75-0.35)	8 2
· QFN48-5*5*0.55-0.35	8 3
· QFN48X6 (QFN48-6*6)	8 4
· QFN48X7 (QFN48-7*7)	8 5
· QFN52X35X9 (QFN52-3.5*9*0.75-0.4)	8 6
· QFN56 (QFN56-7*7)	8 7
· QFN56X8 (QFN56-8*8)	8 8

. QFN64 (QFN64-8*8)	8 9
. QFN64X9 (QFN64-9*9)	9 0
. QFN68 (QFN68-8*8)	9 1
. QFN76 (QFN76-9*9)	9 2
. QFN80 (QFN80-9*9)	9 3
. QFN88 (QFN88-10*10)	9 4
. QFN128 (QFN128-12.3*12.3)	9 5
DFN 类.....	9 6
. DFN6X12 (DFN6-1.2*1.2*0.45-0.4)	9 6
. DFN6 (DFN6-2*2)	9 7
. DFN8 (DFN8-2*2)	9 8
. DFN10 (DFN10-2*2)	9 9
. DFN10X3 (DFN10-3*3)	1 0 0
SOT 类.....	1 0 1
. SOT23-3	1 0 1
. SOT23-5、TSOT23-5L	1 0 2
. SOT23-6、TSOT23-6L	1 0 3
. SOT23-8、TSOT23-8L	1 0 4
. SOT363 (SC70-6L)	1 0 5
. SOT353 (SC70-5L)	1 0 6

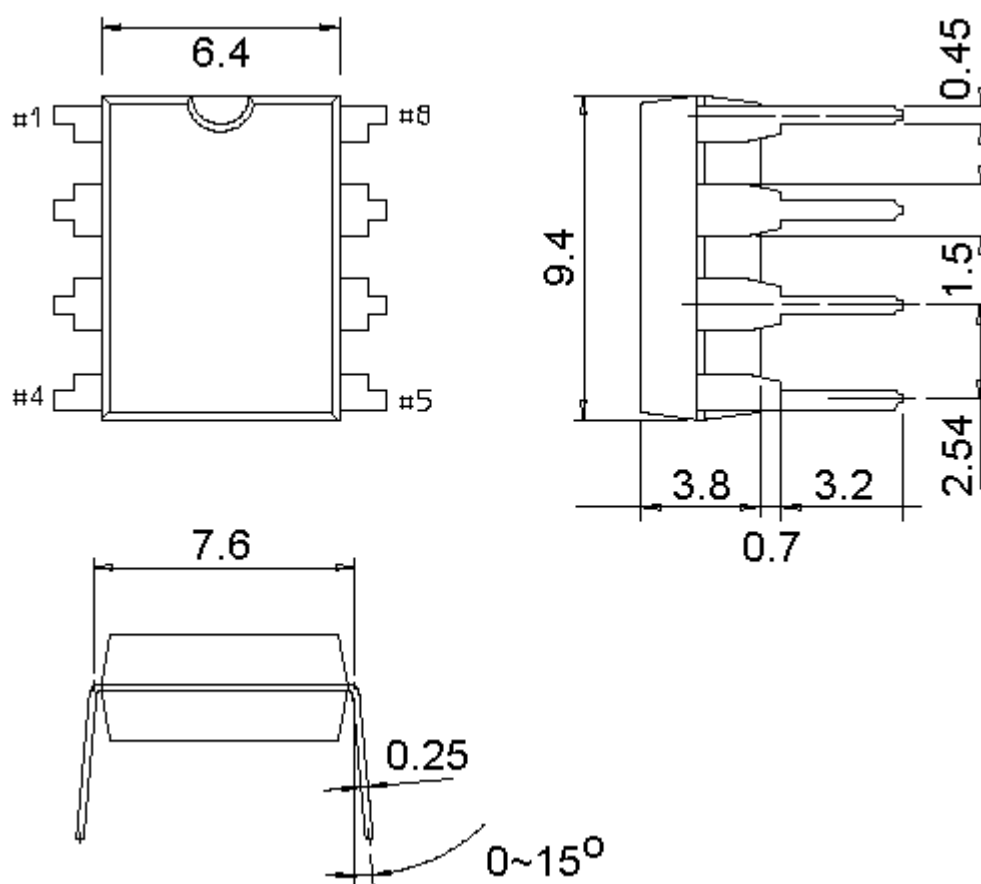
说明：所有尺寸标注的单位都是 mm（毫米），

引脚节距（中心间距）总是标称值，没有误差值；

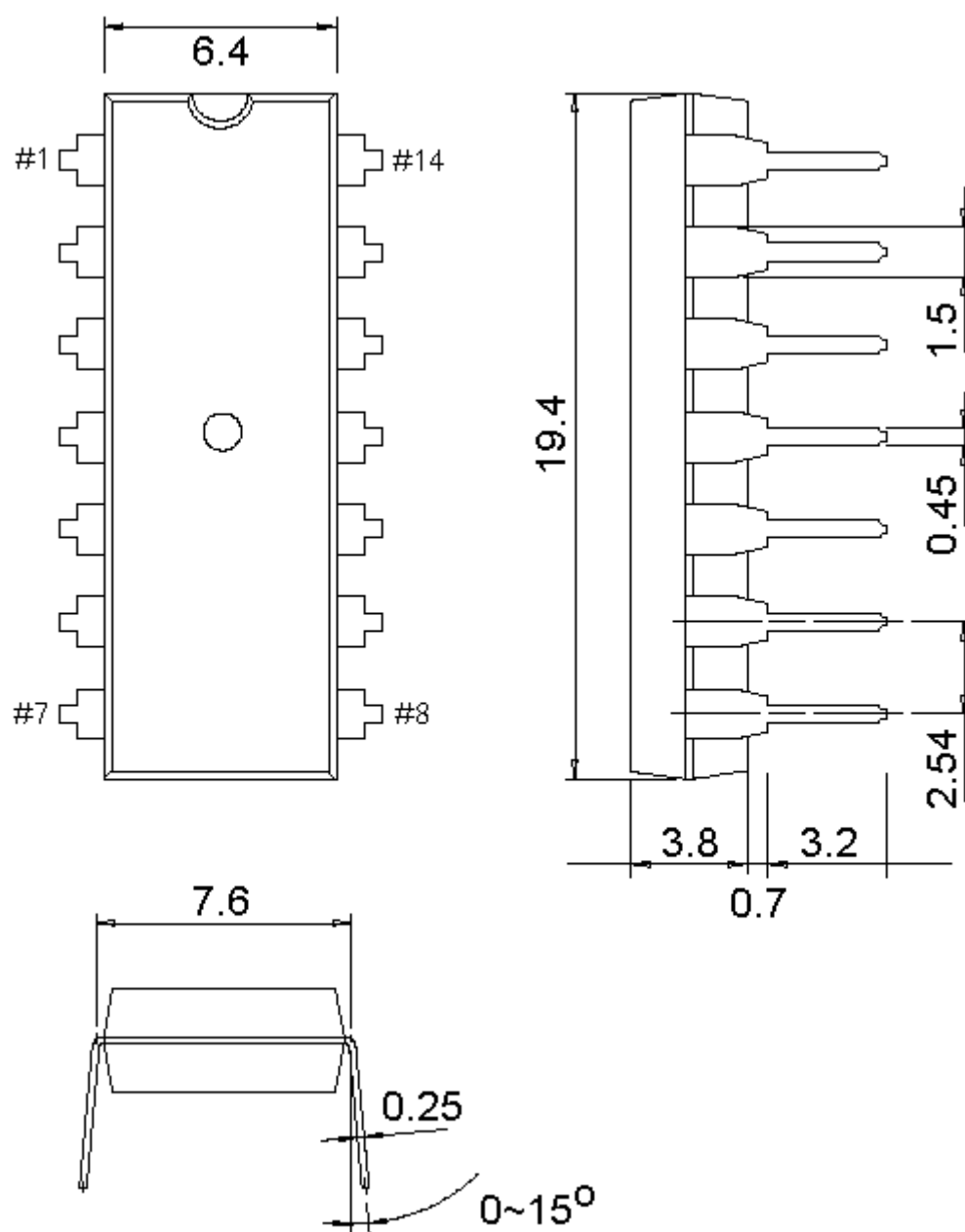
除此之外的尺寸误差不大于±0.2mm 或者±10%两者中的较大值。

DIP 类 (PDIP)

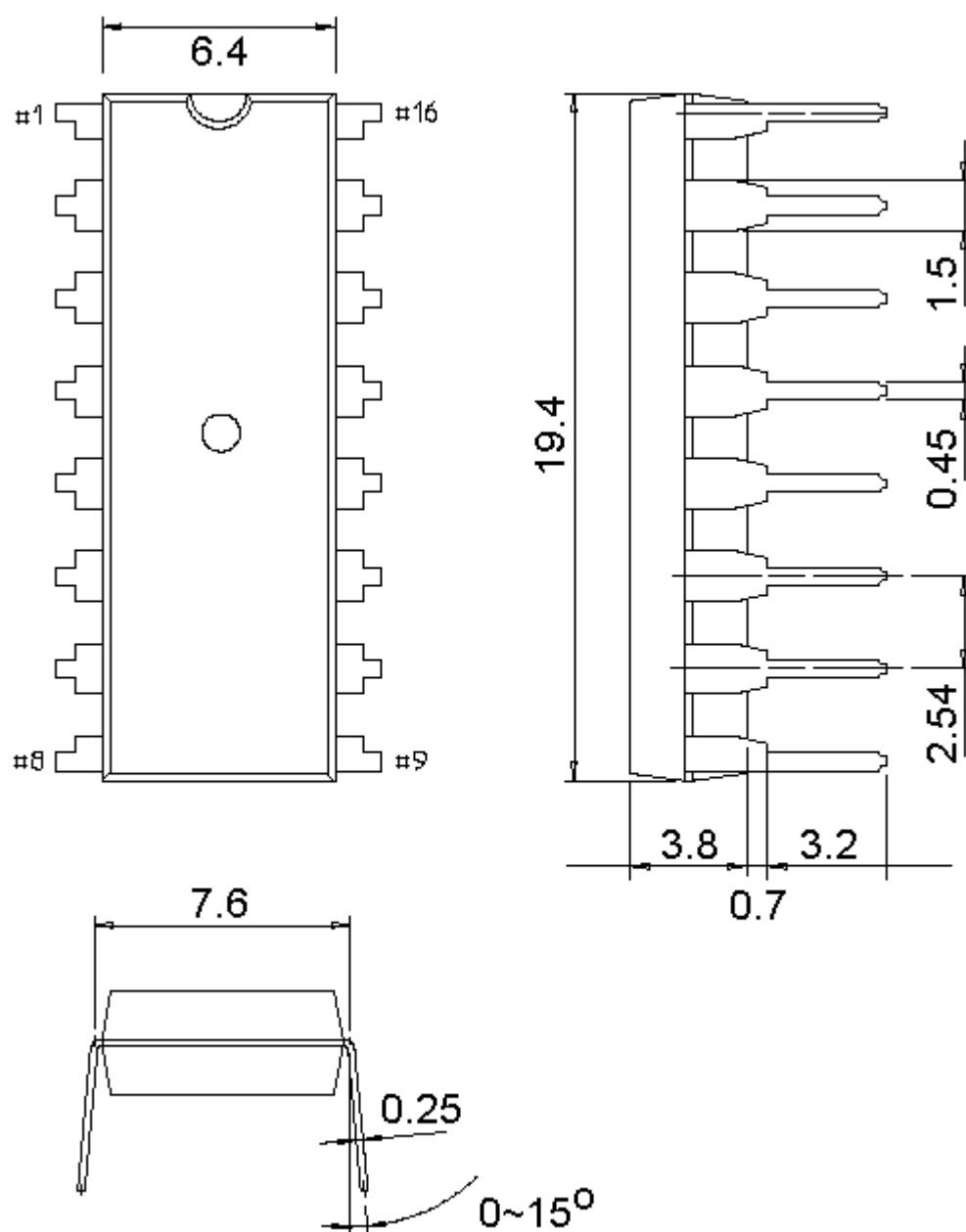
. DIP8



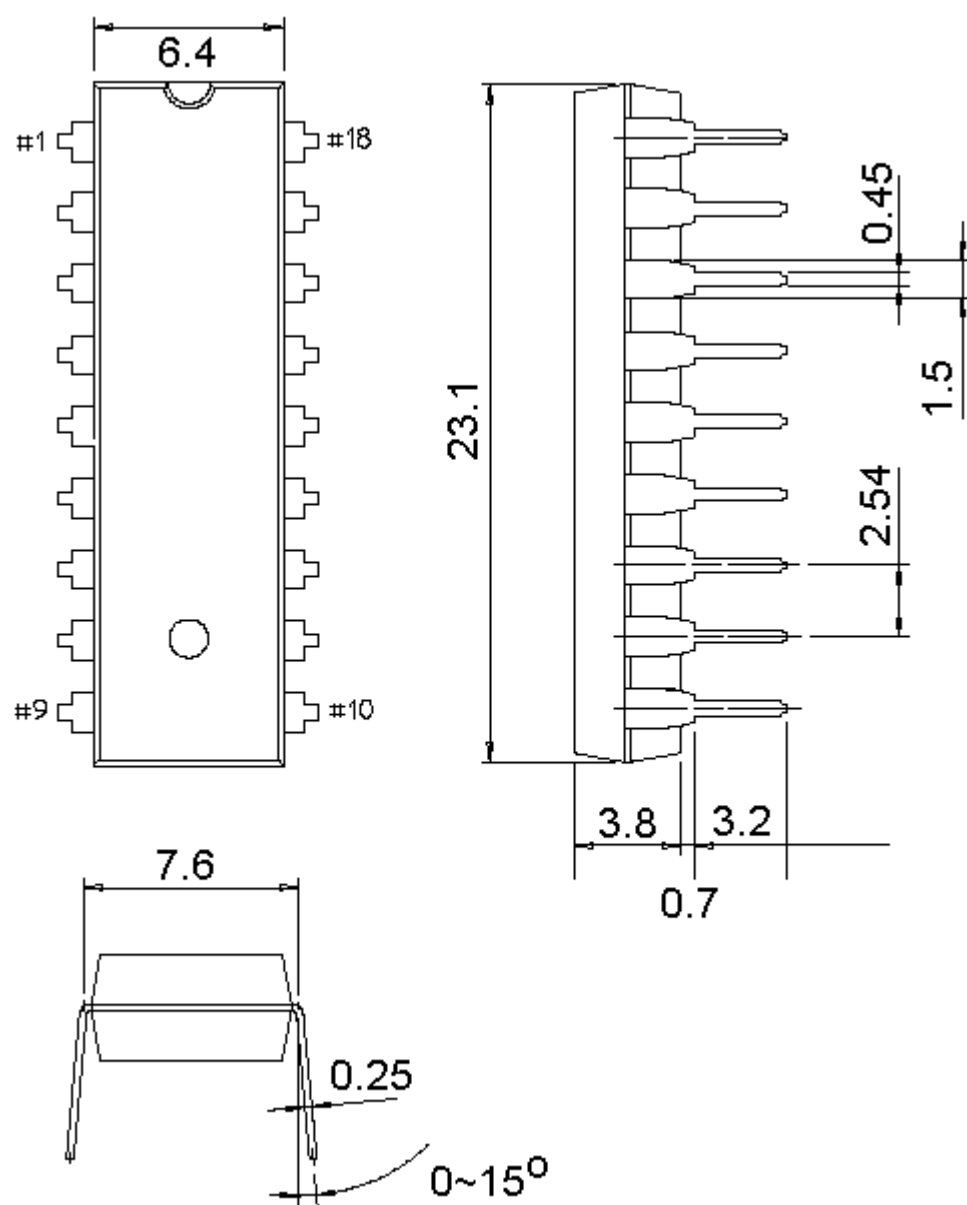
. DIP14



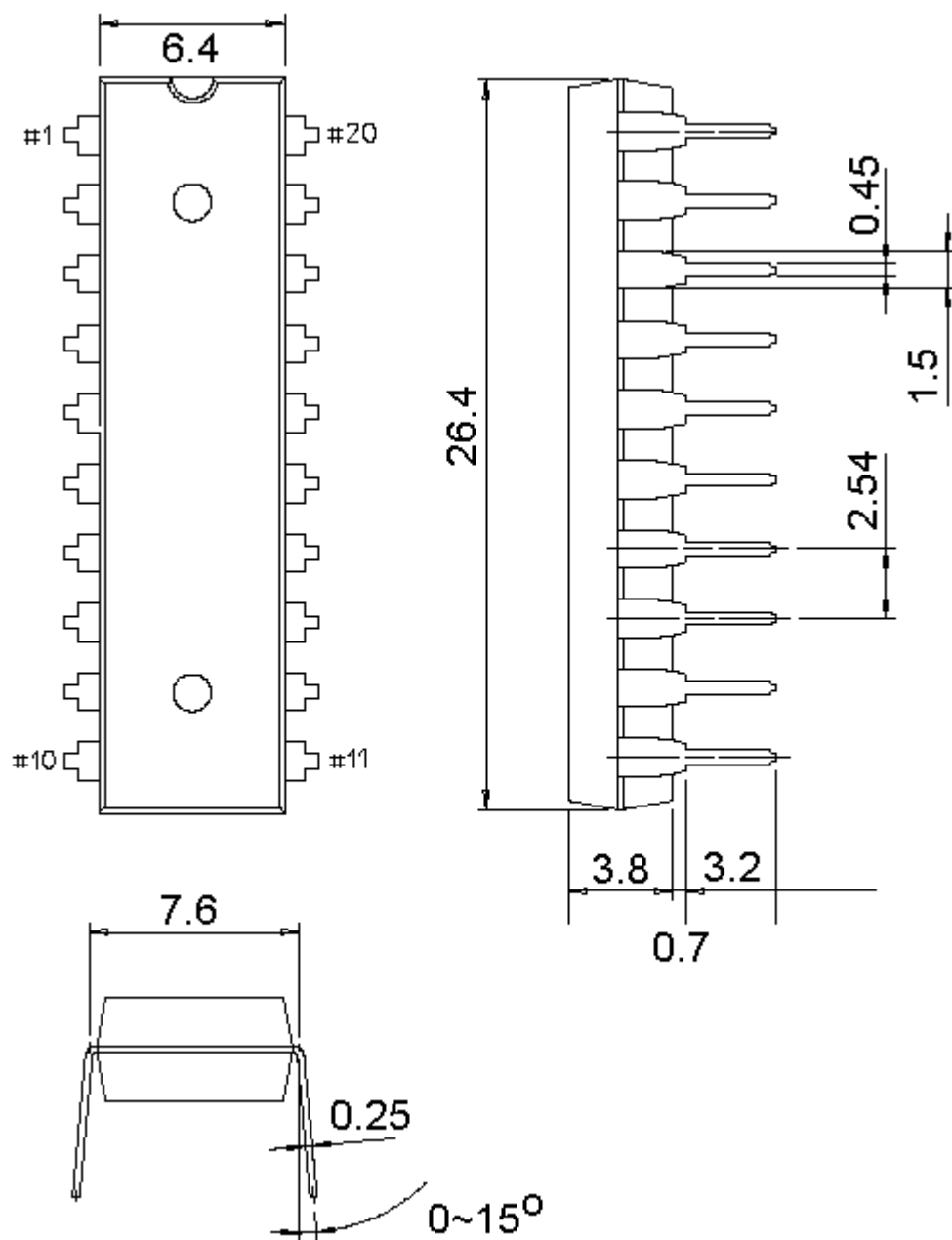
. DIP16



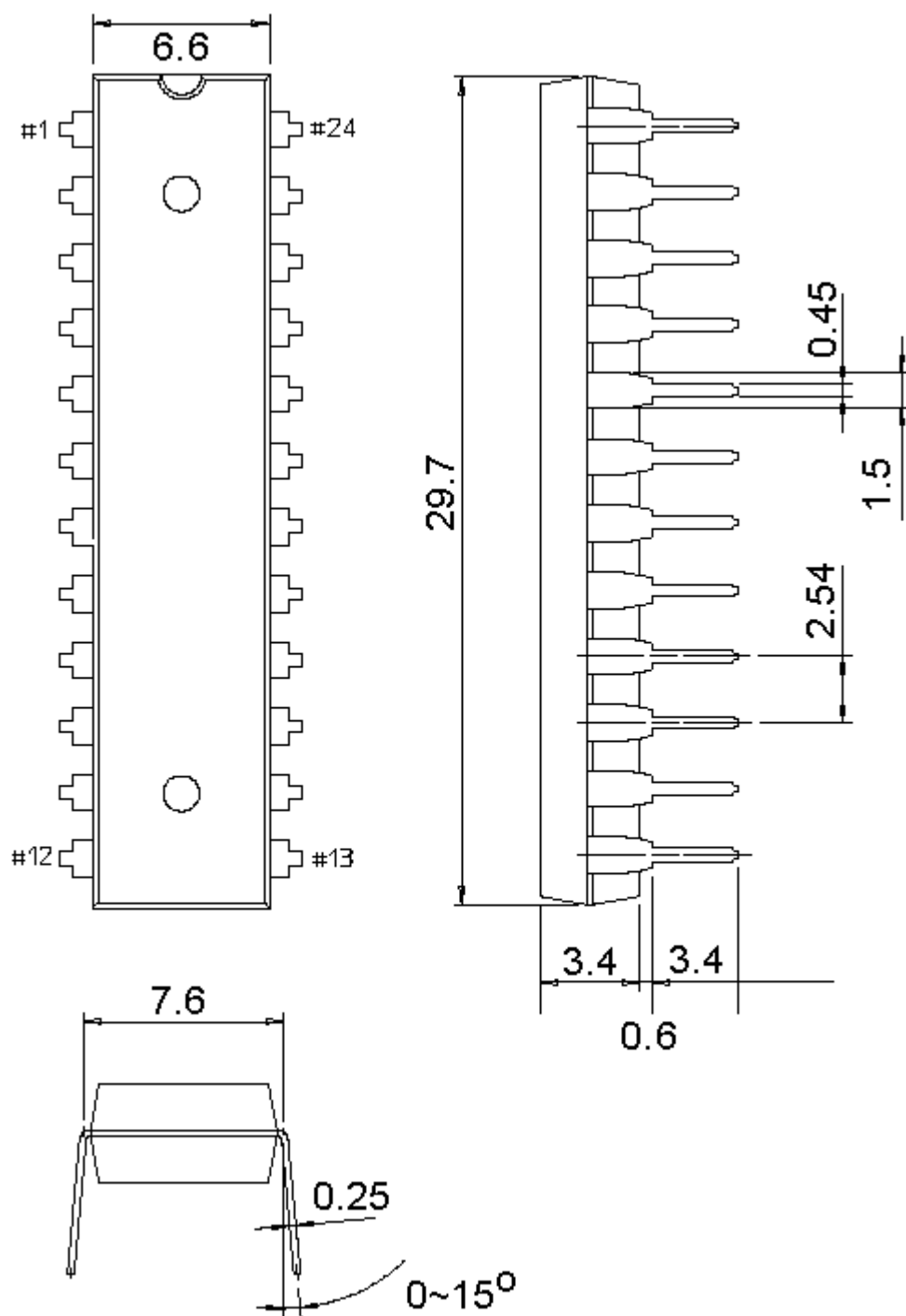
. DIP18



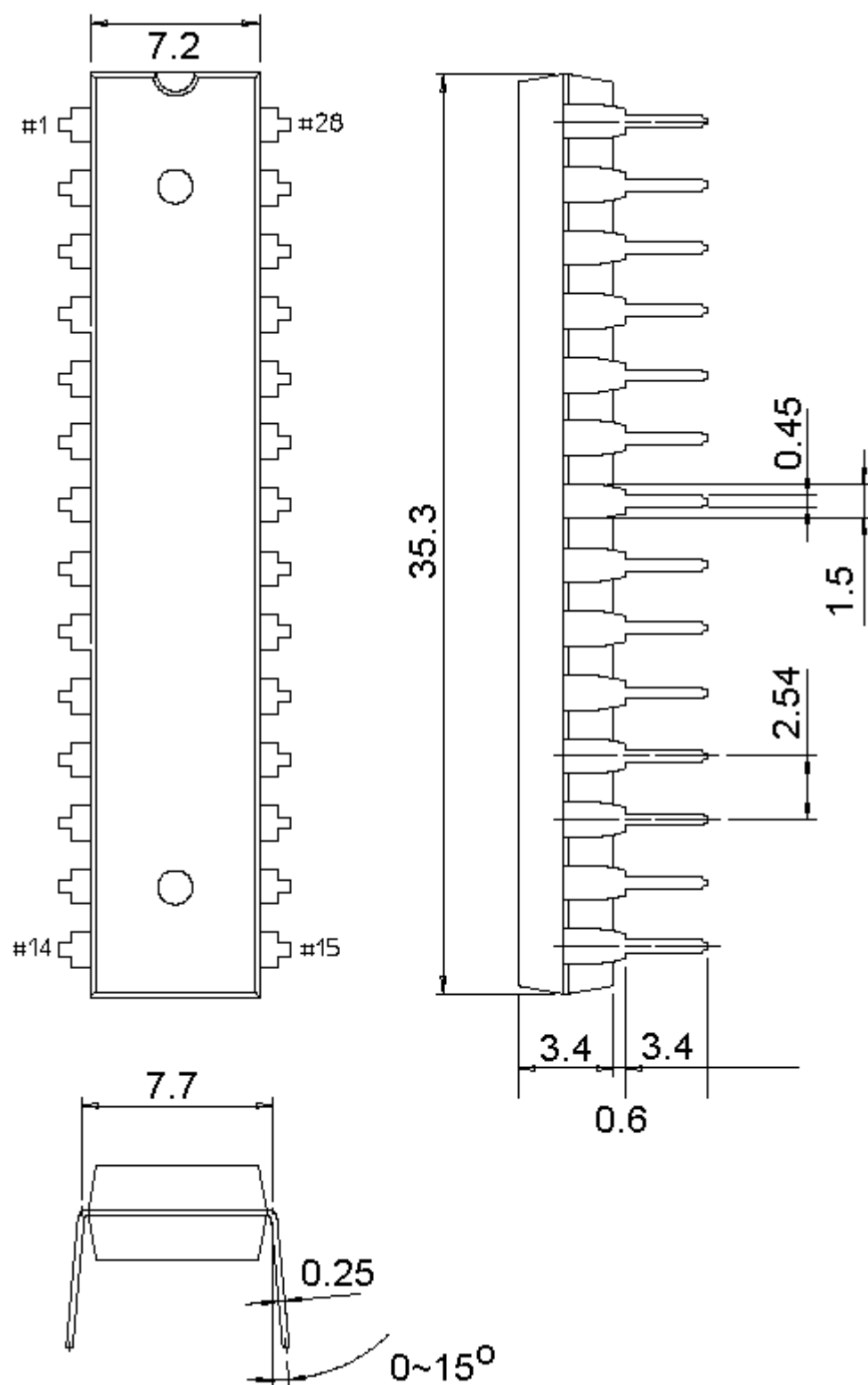
. DIP20



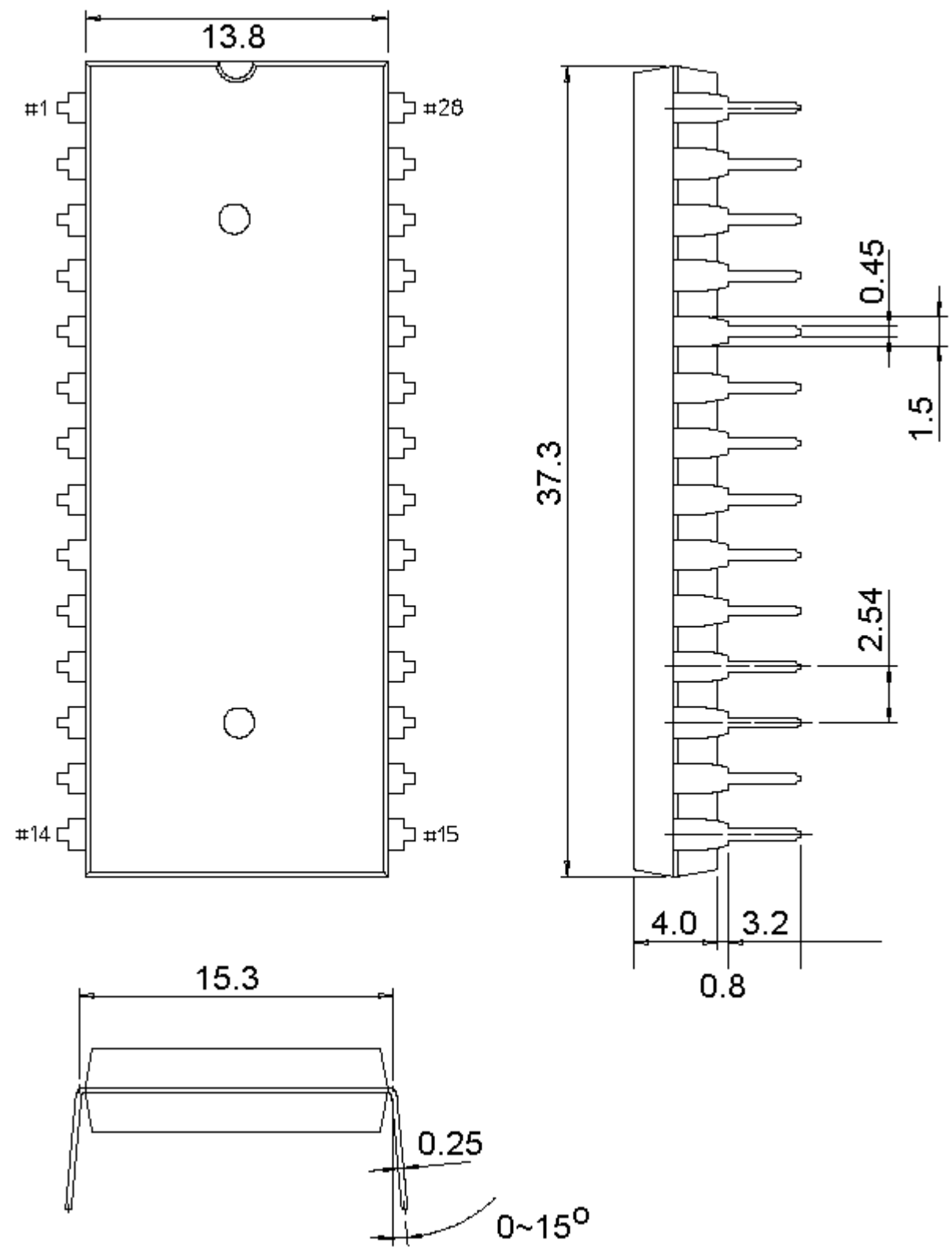
. DIP24S (SKDIP24、DIP24-300mil)



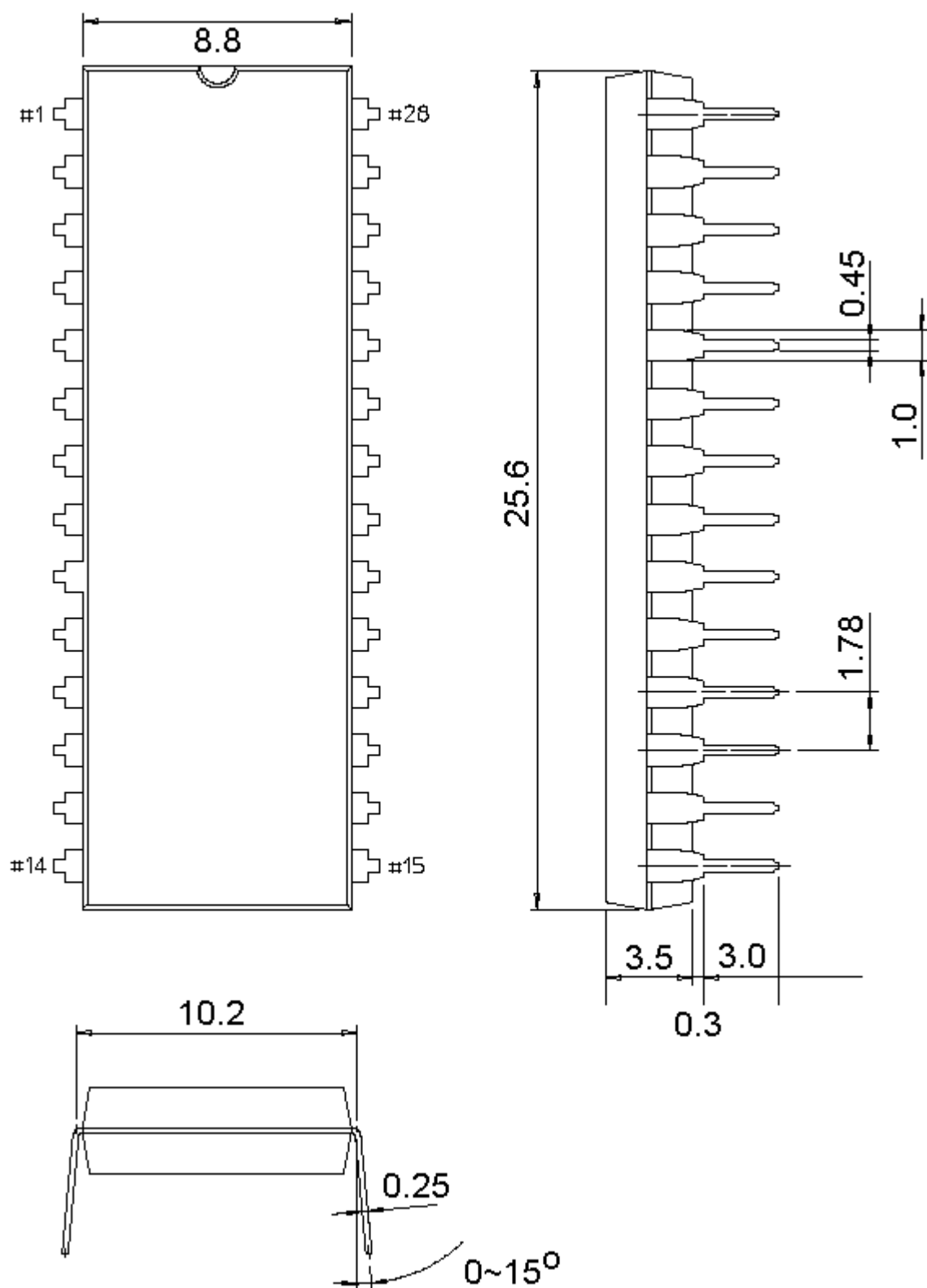
. DIP28S (SKDIP28、DIP28-300mil)



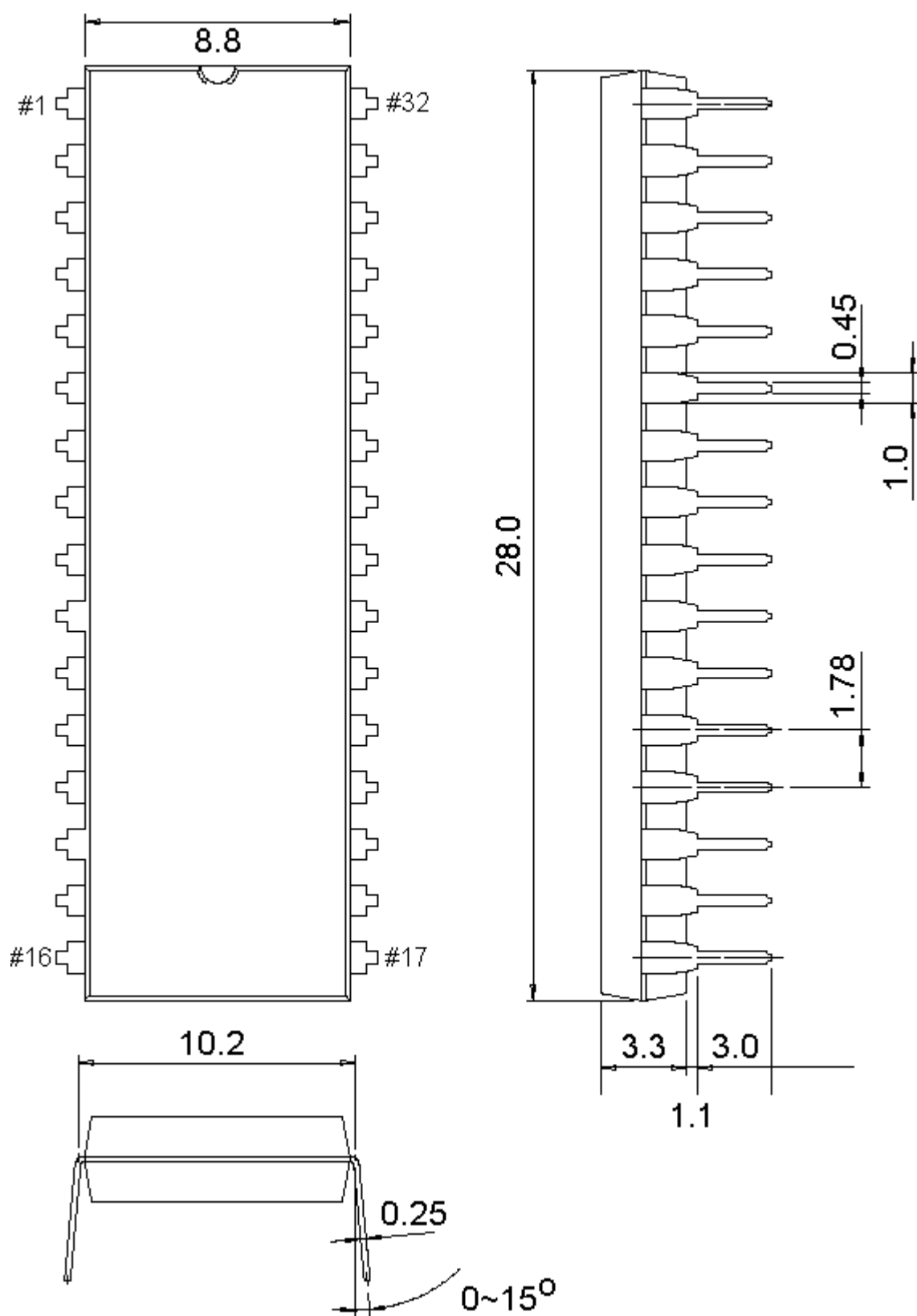
· DIP28 (DIP28W、DIP28-600mil)



. SDIP28 (SDIP28-400mil)



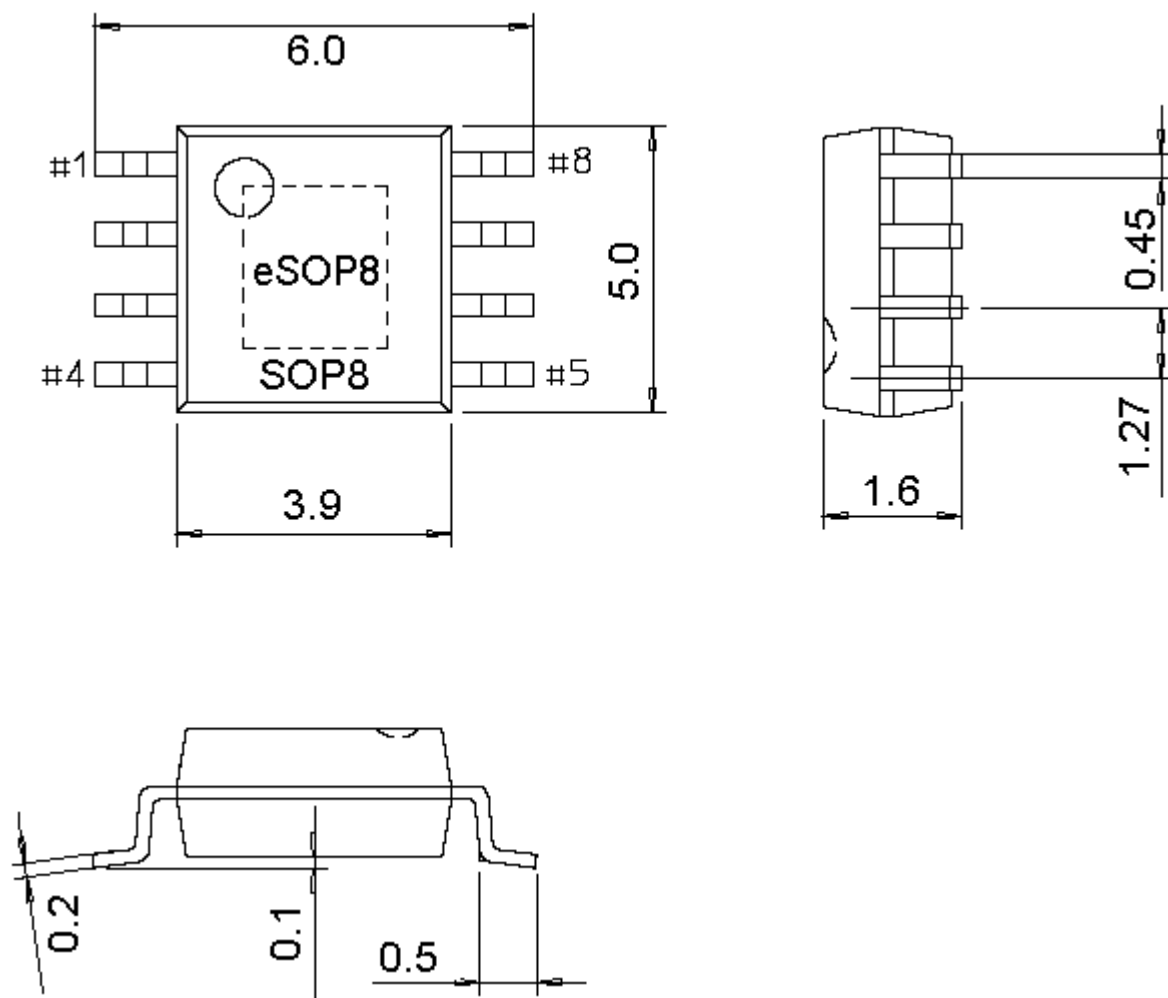
. SDIP32 (SDIP32-400mil)



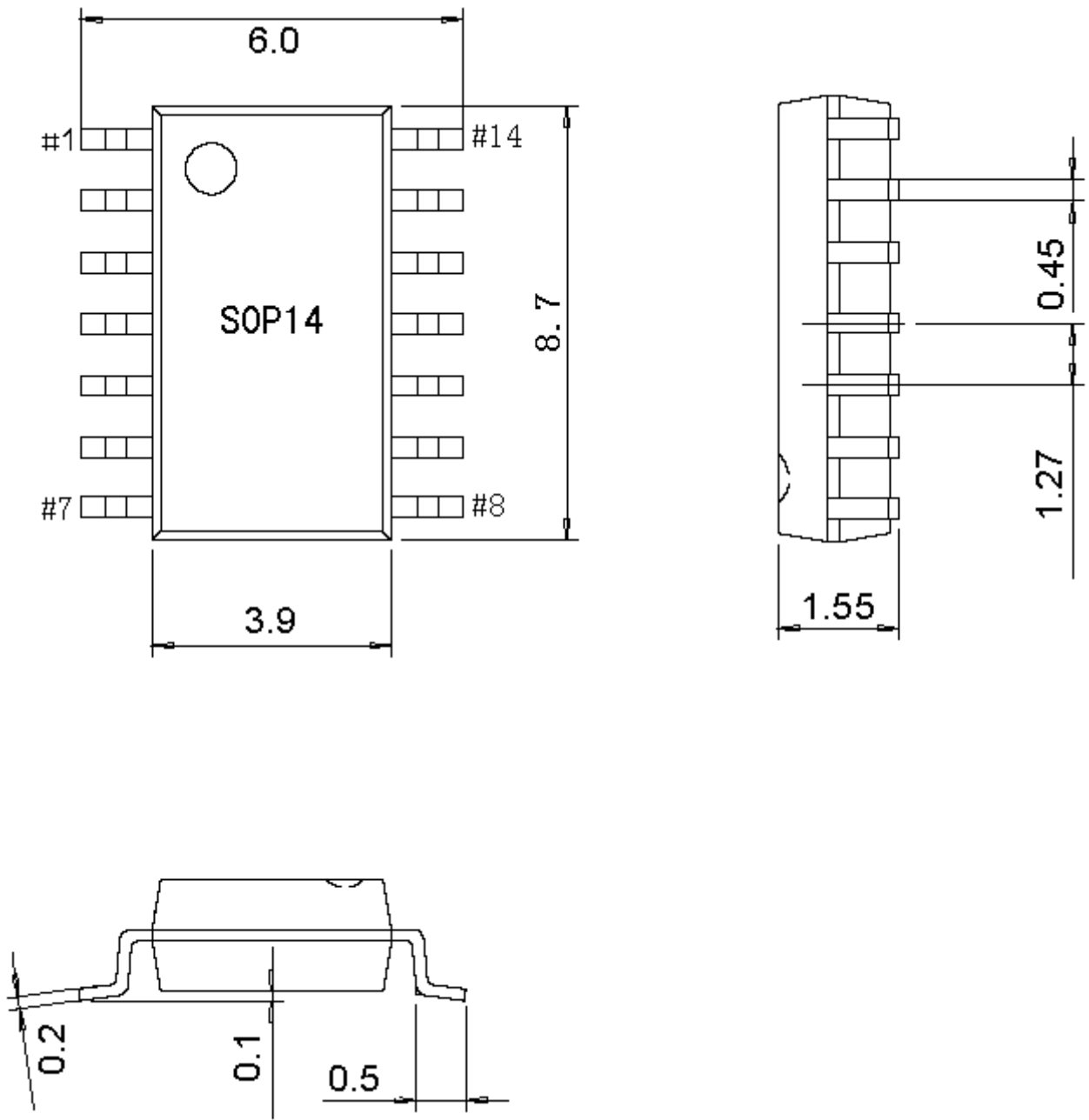
SOP 类 (S01C)

. SOP8、eSOP8

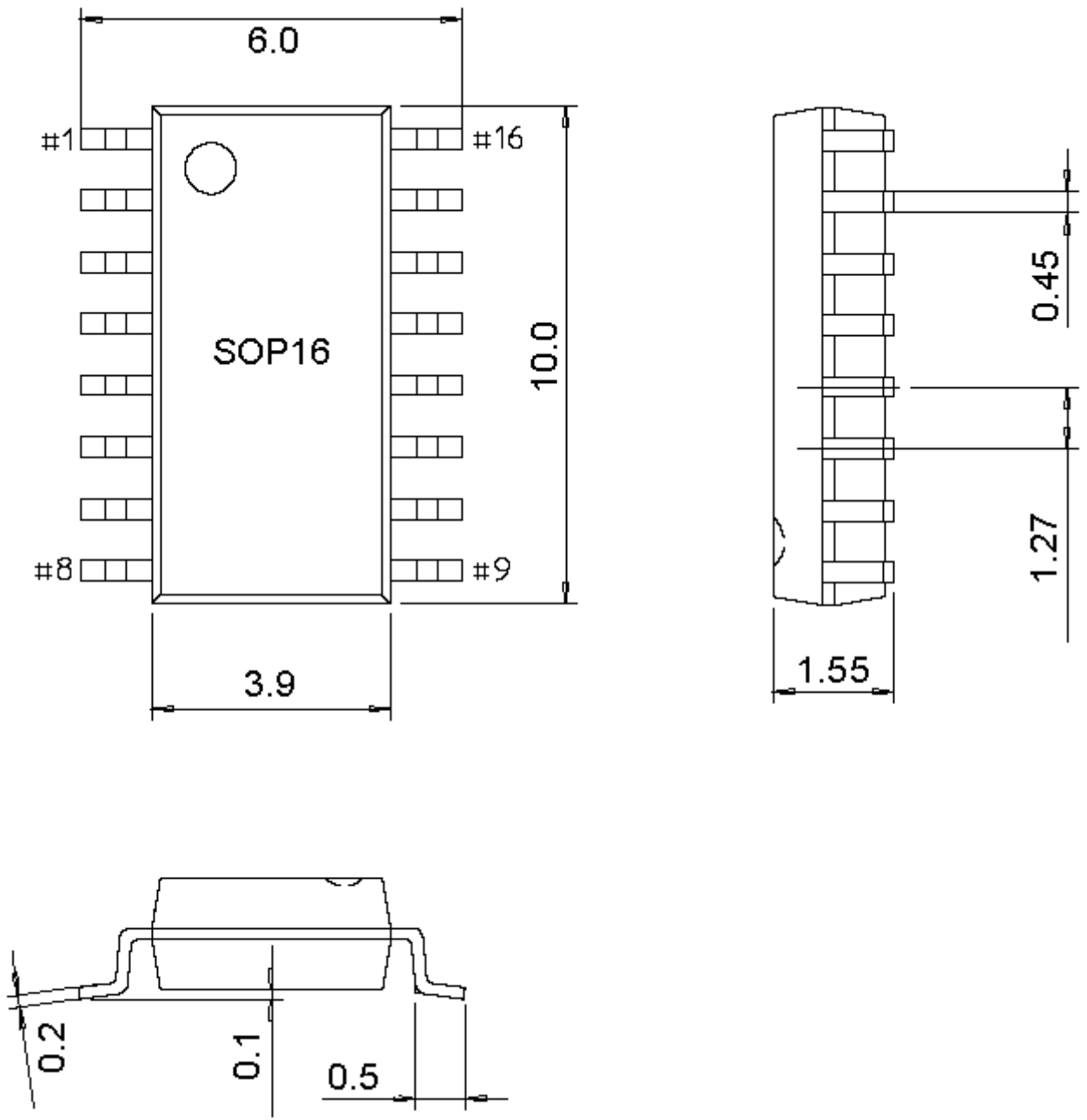
eSOP8 Exposed Pad: 2.1*3.3、2.1*2.1



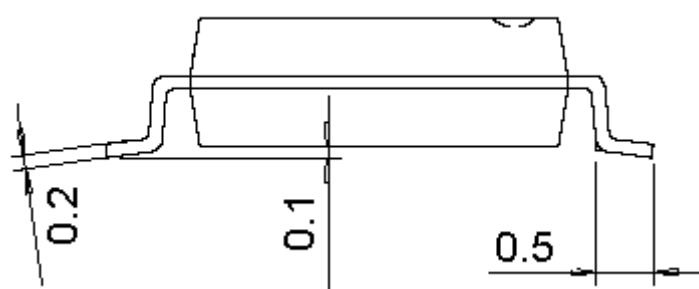
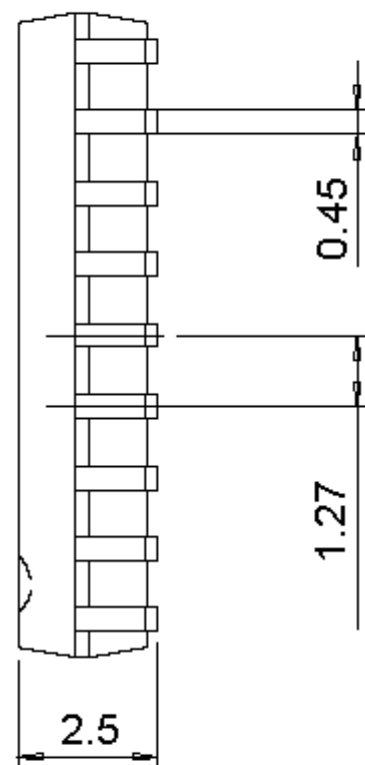
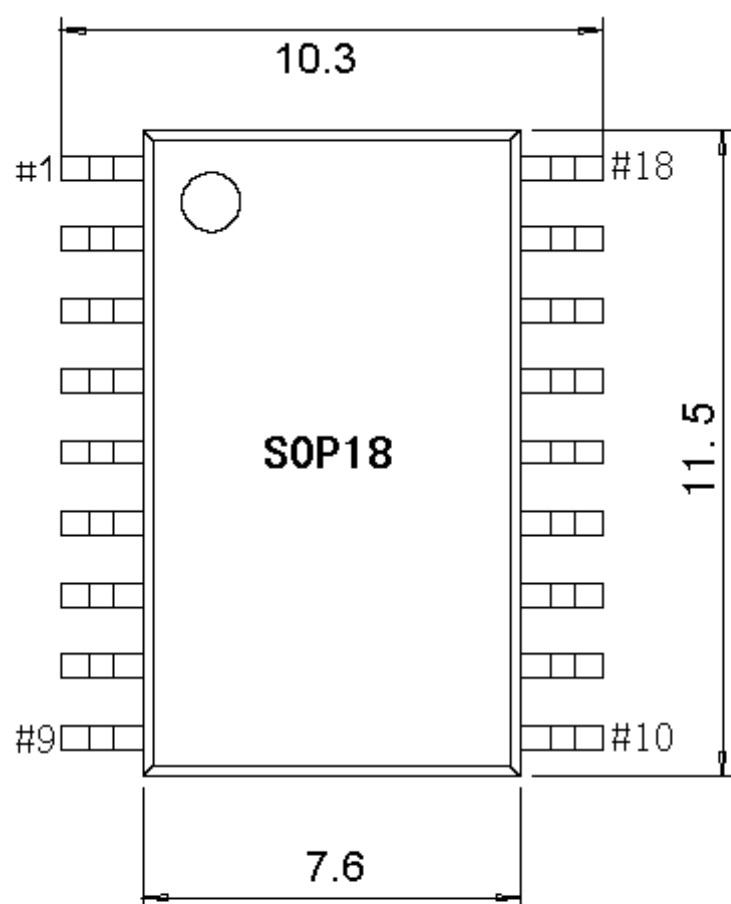
SOP14



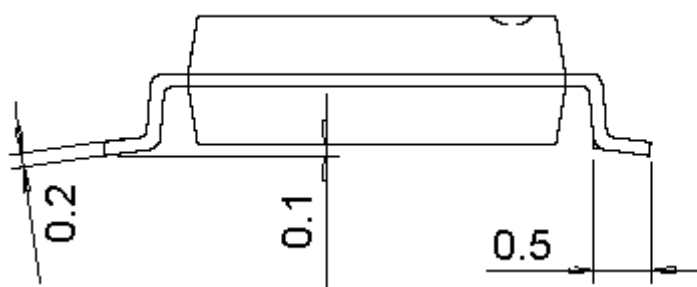
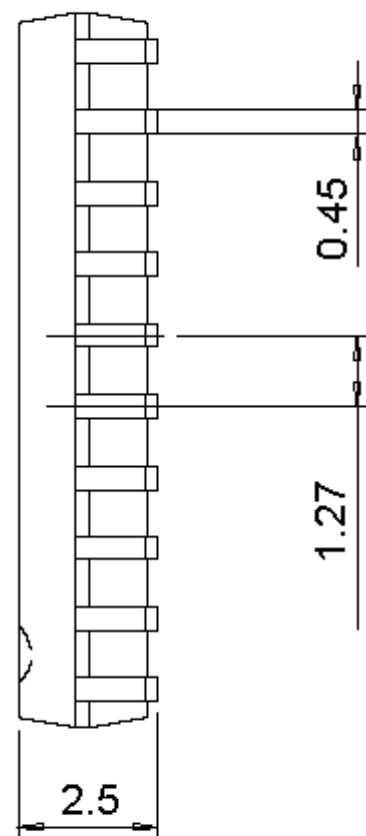
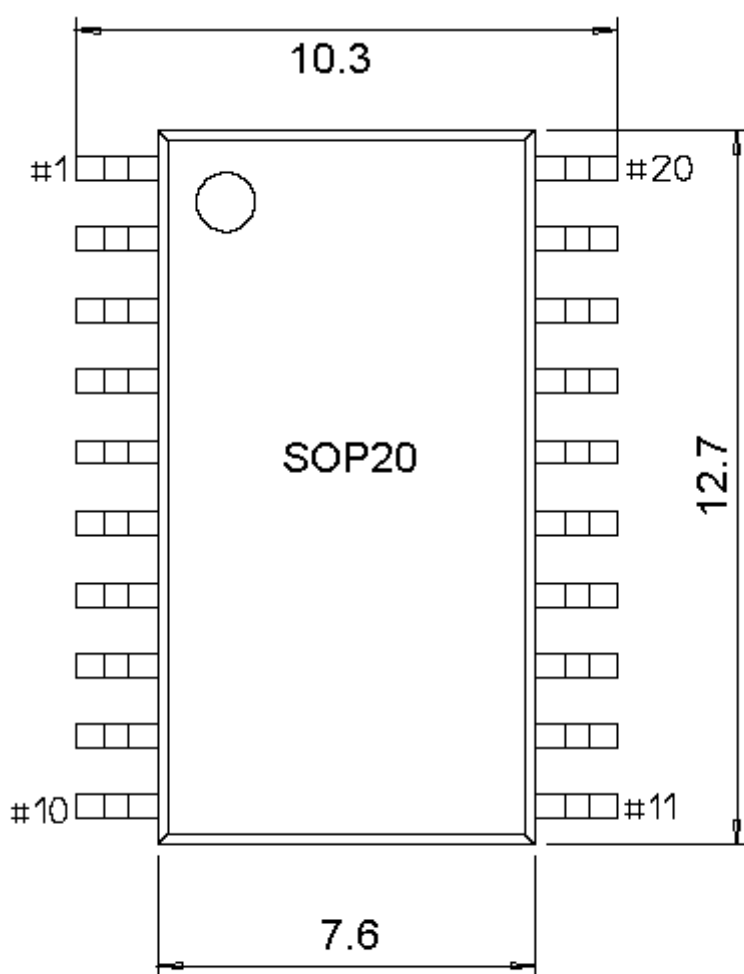
· SOP16 (SOP16-150mil)



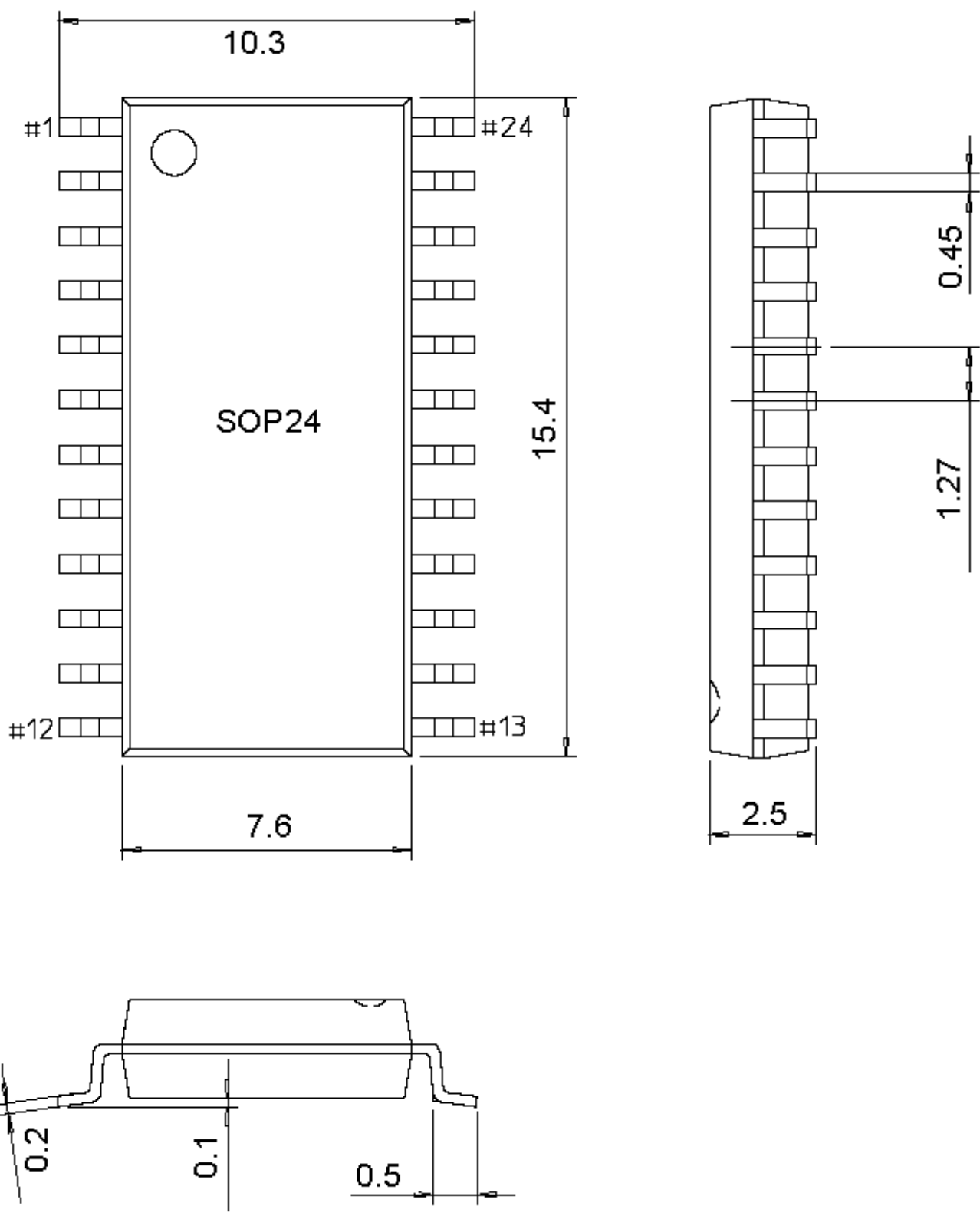
SOP18



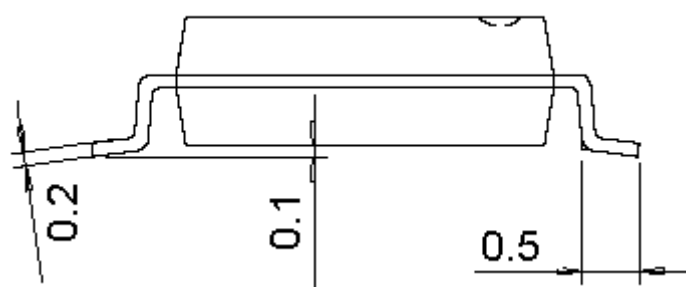
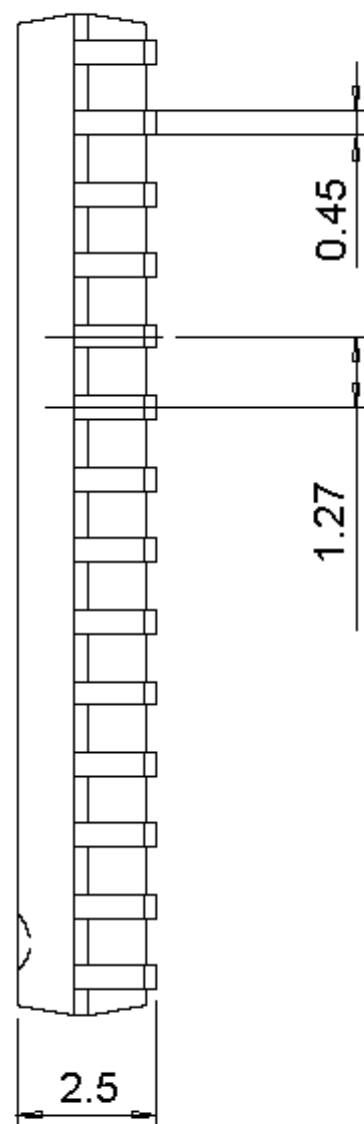
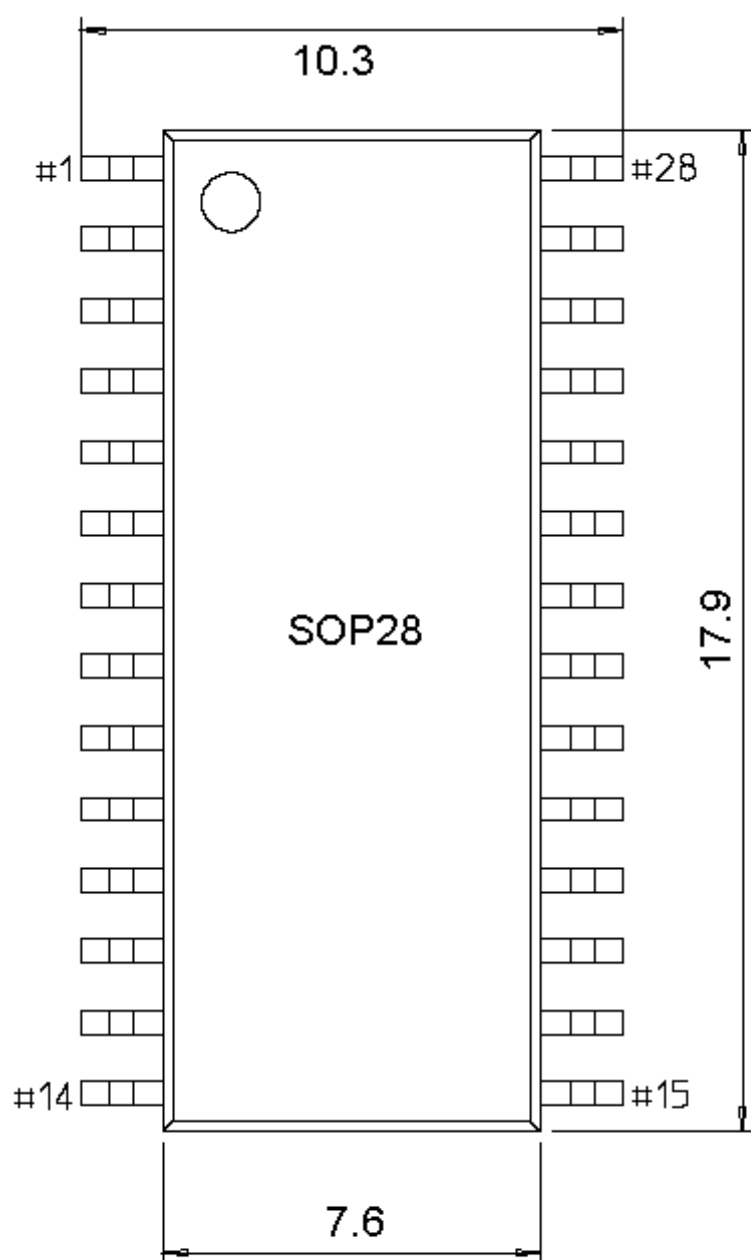
SOP20



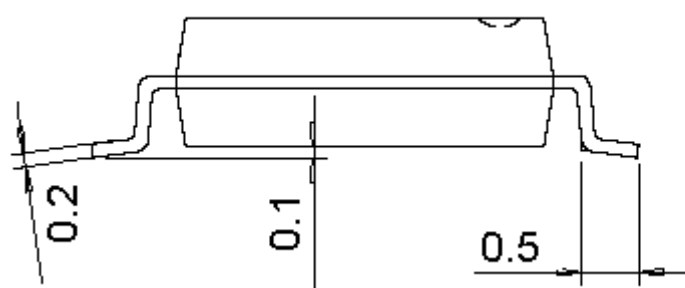
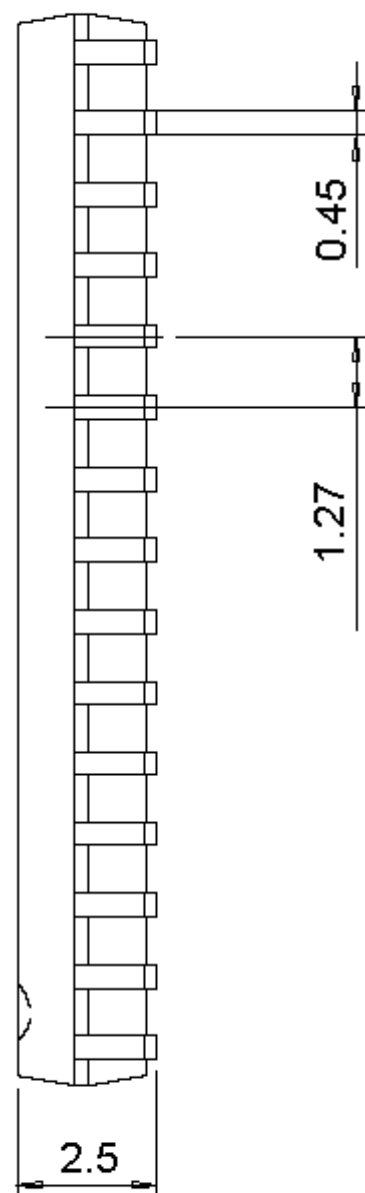
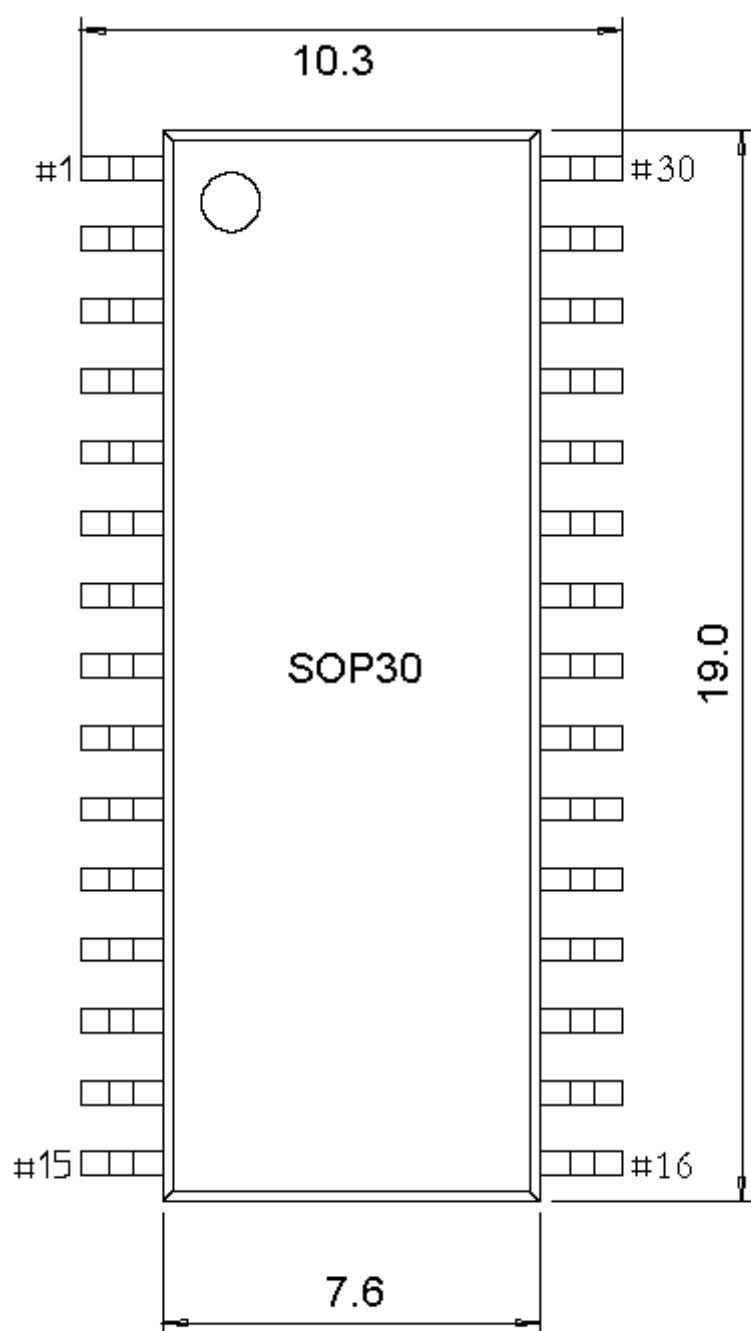
SOP24



SOP28



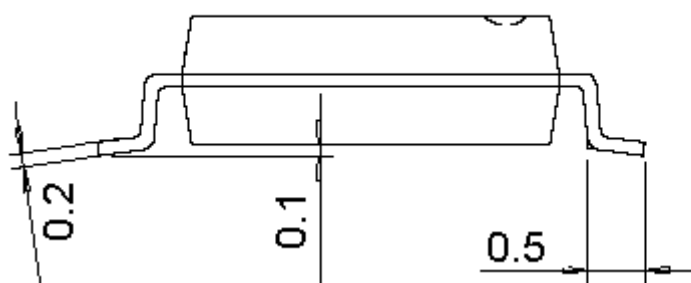
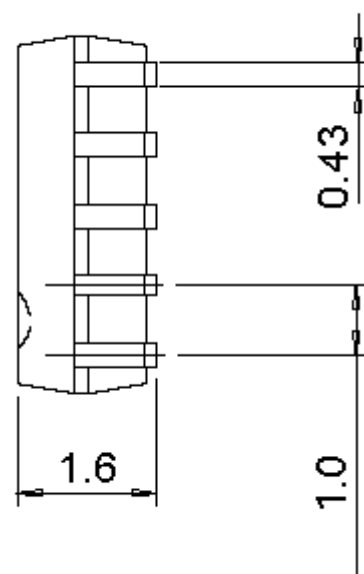
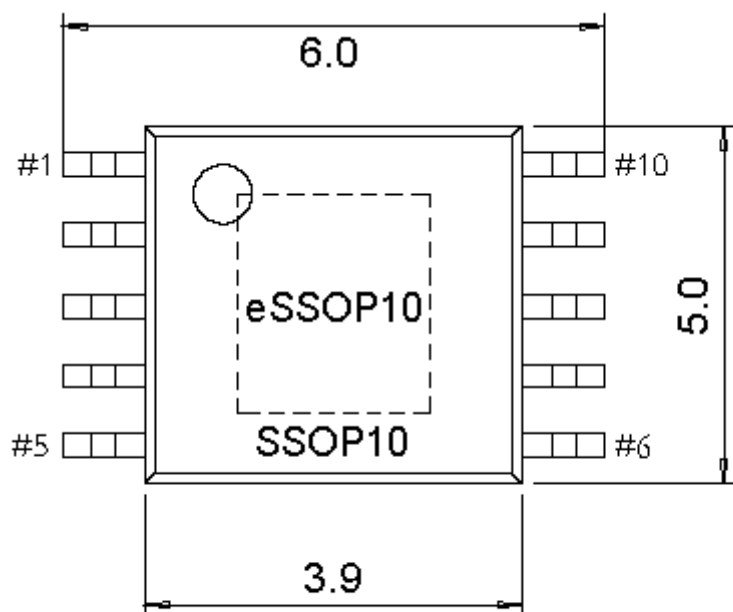
SOP30



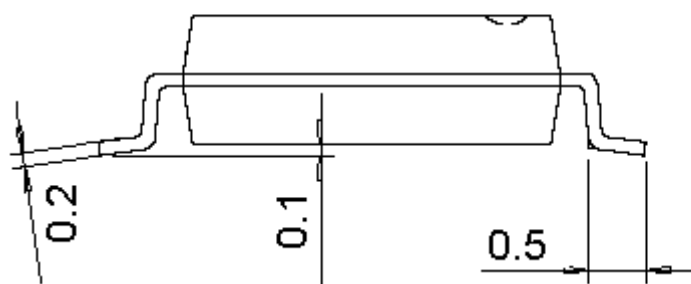
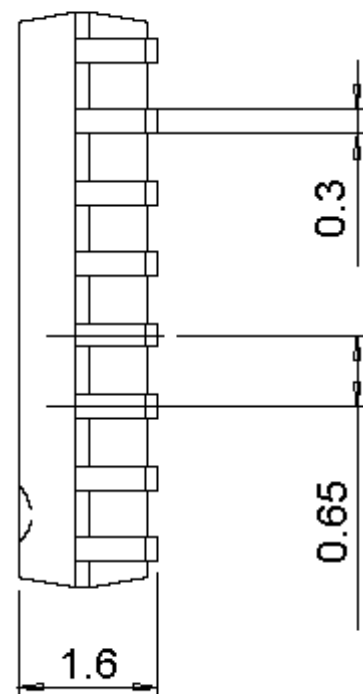
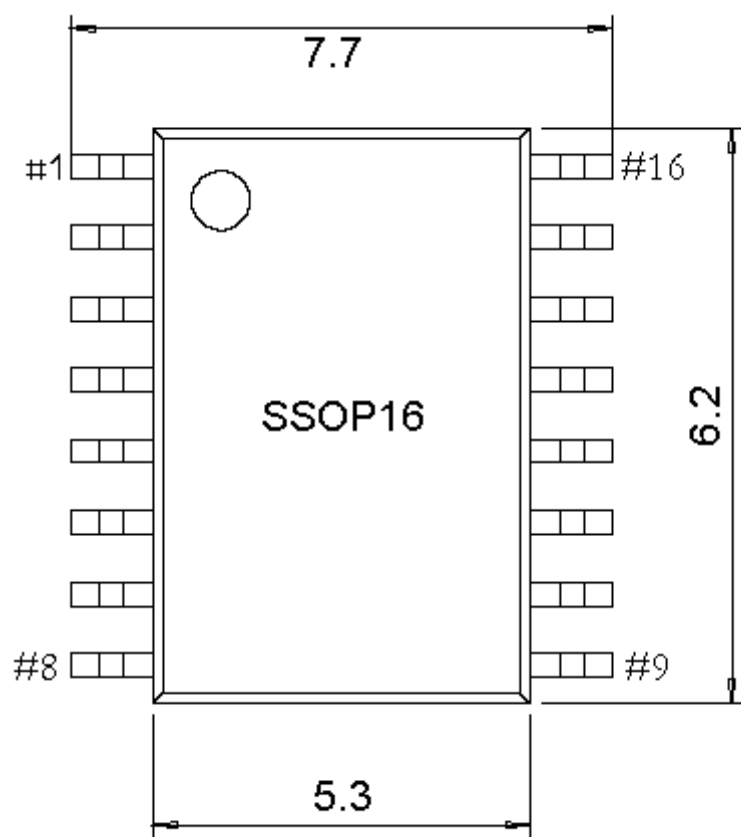
SSOP 类

. SSOP10 (SSOP10-150mil-1.00)、eSSOP10

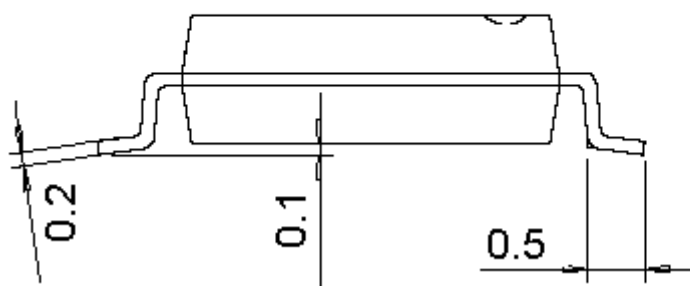
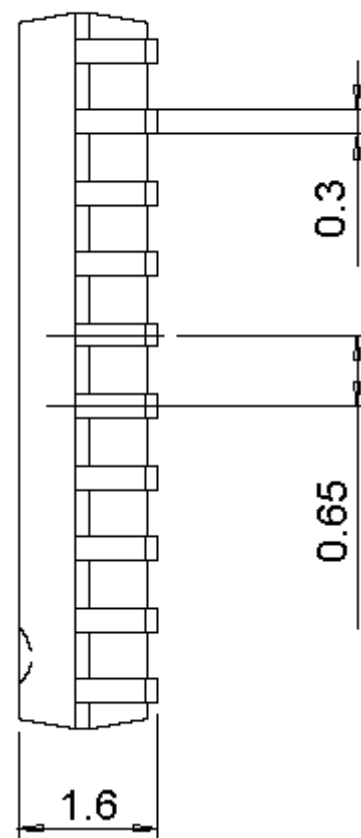
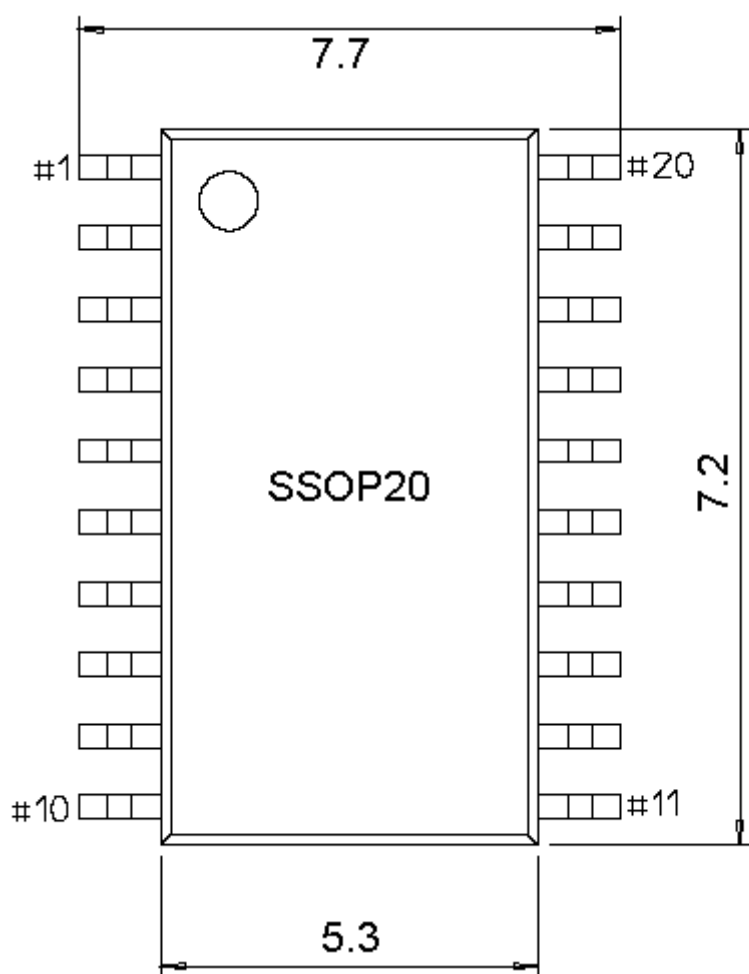
eSSOP10 Exposed Pad: 2.1*3.3



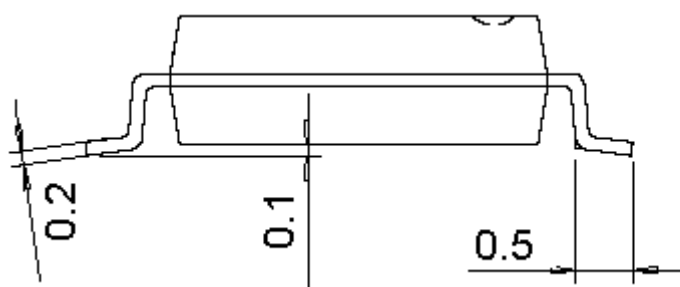
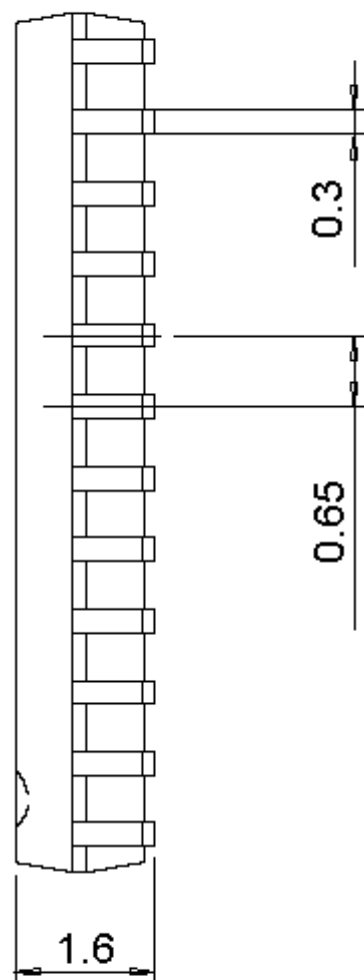
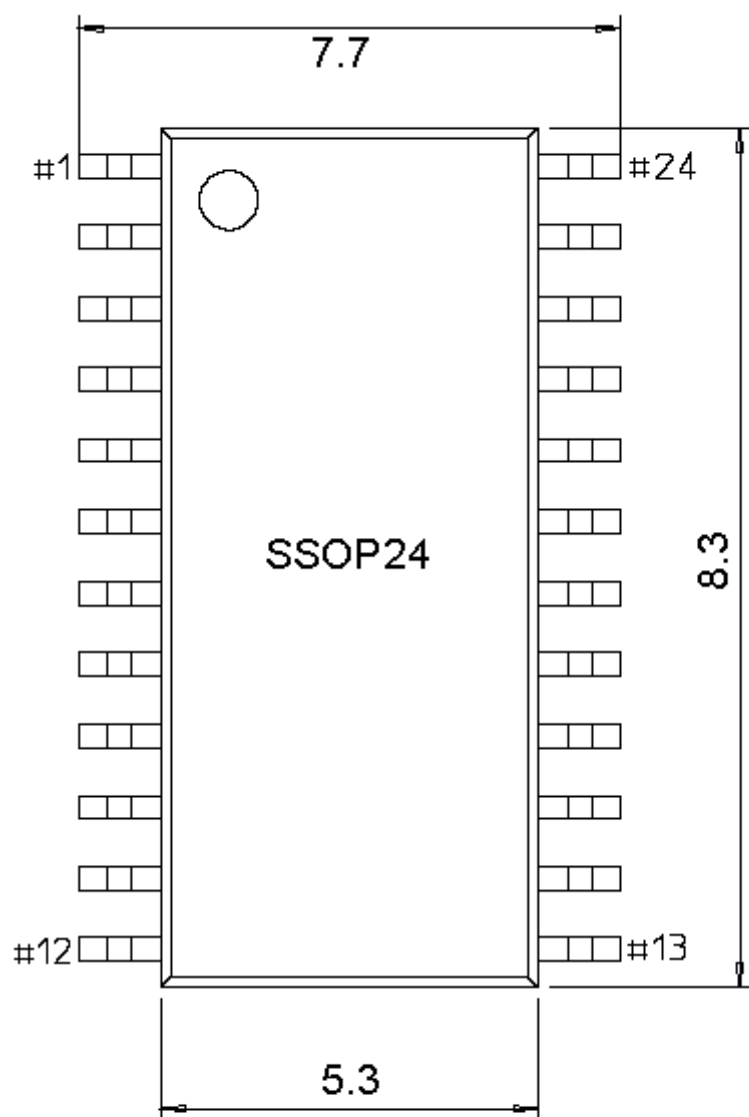
. SSOP16 (SSOP16-209mil-0.65)



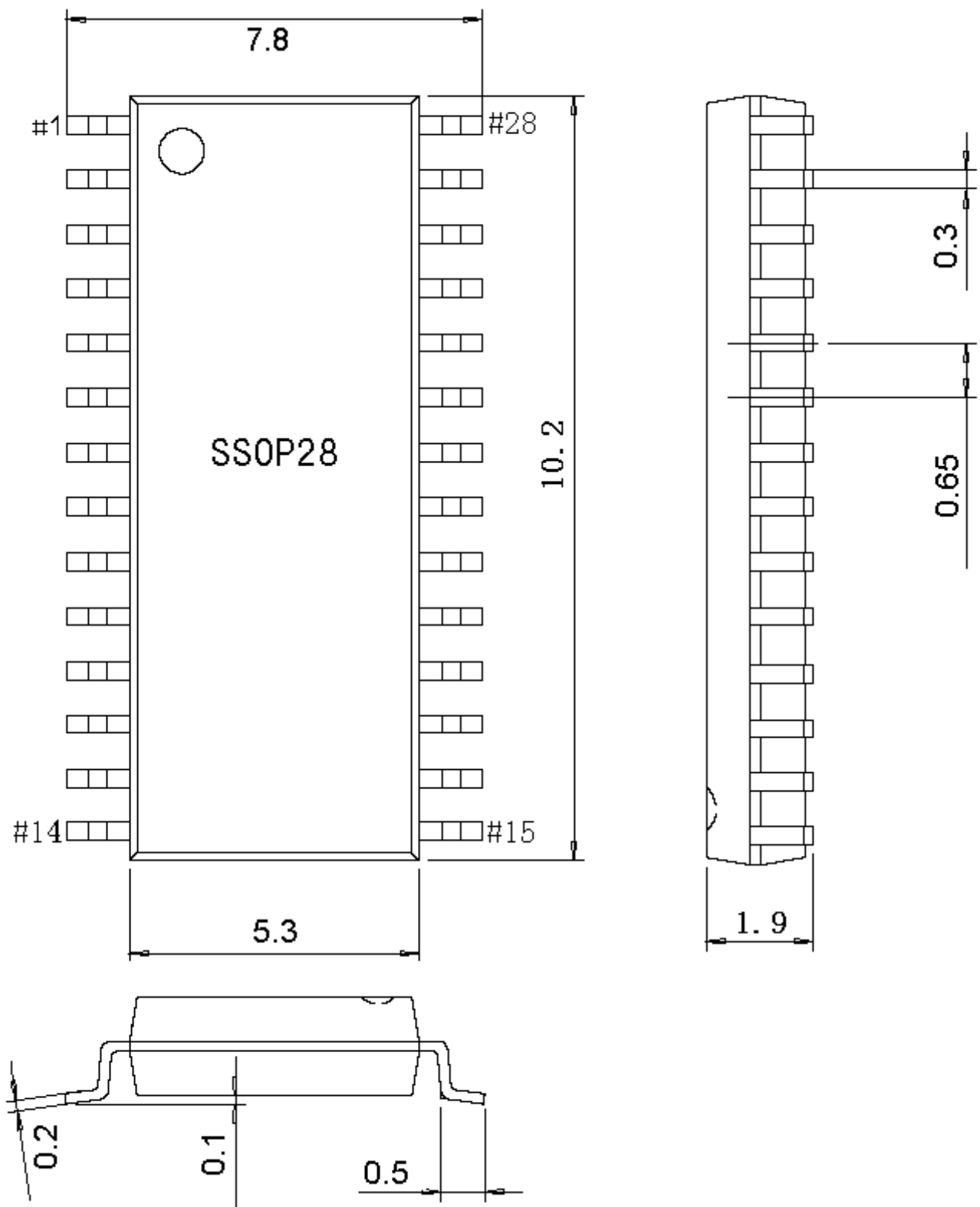
. SSOP20 (SSOP20-209mil-0.65)



. SSOP24 (SSOP24-209mil-0.65)

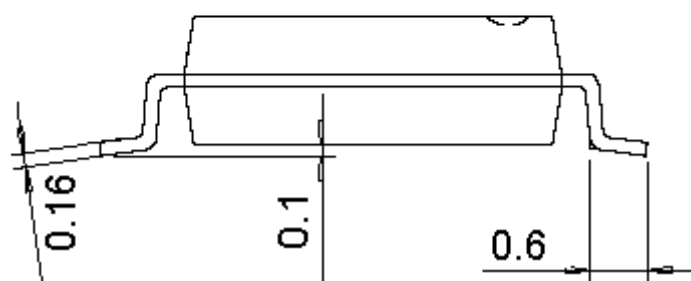
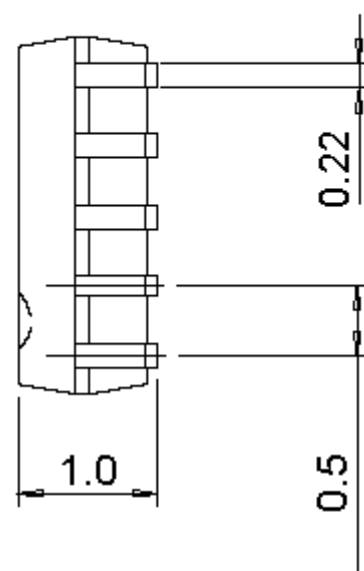
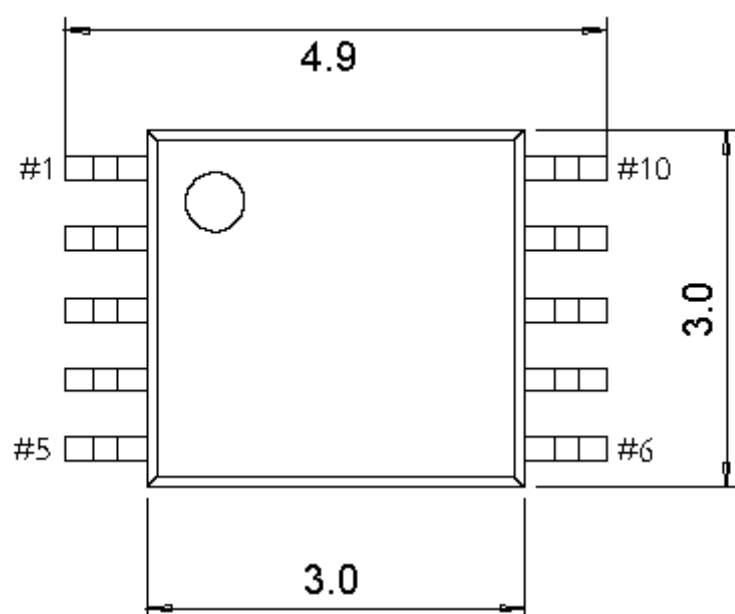


SS0P28 (SS0P28-209mil-0.65)



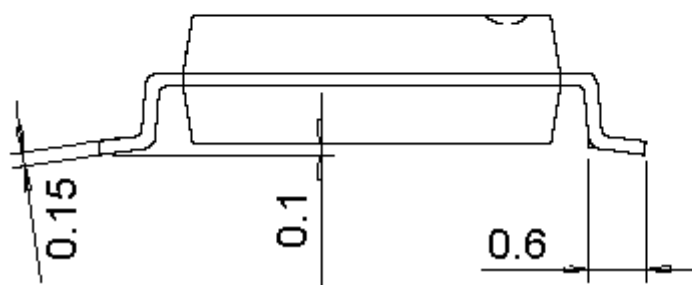
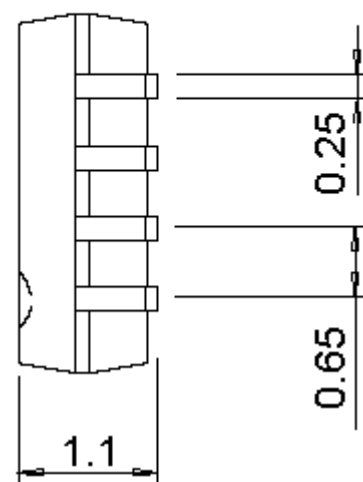
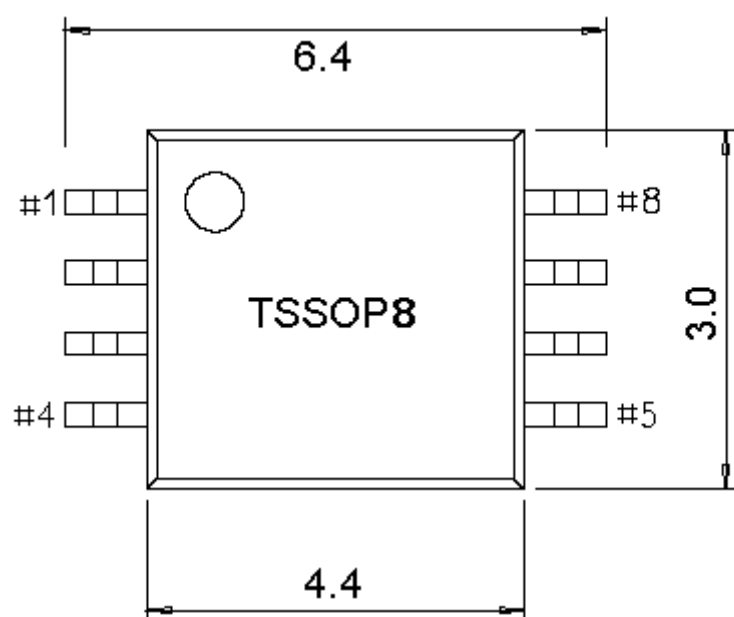
MSOP 类

. MSOP10



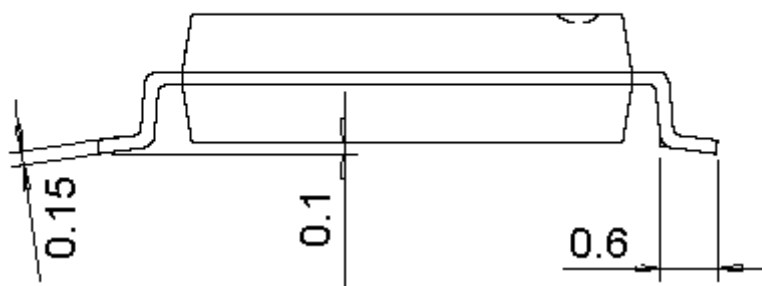
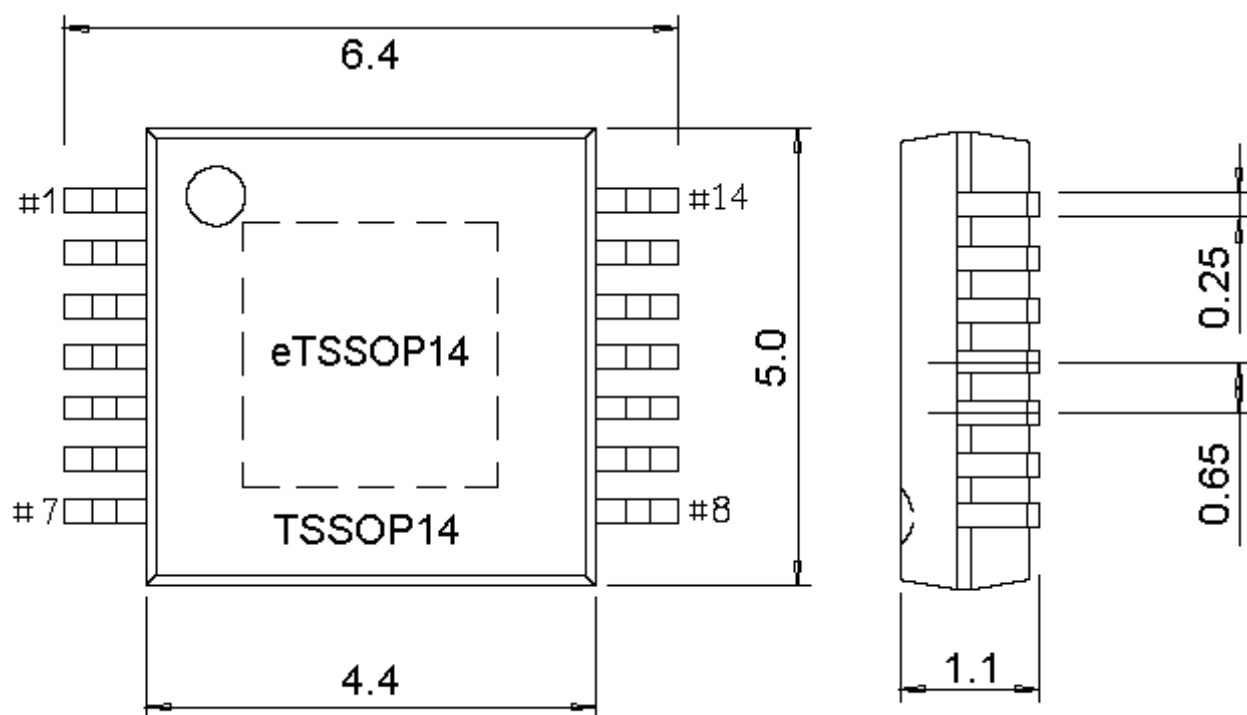
TSSOP 类 (4.4mm, 173mil)

. TSSOP8



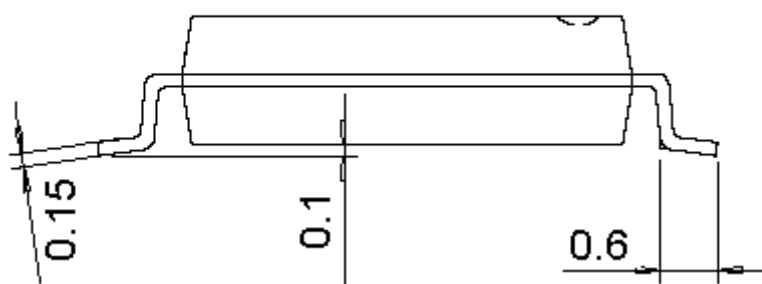
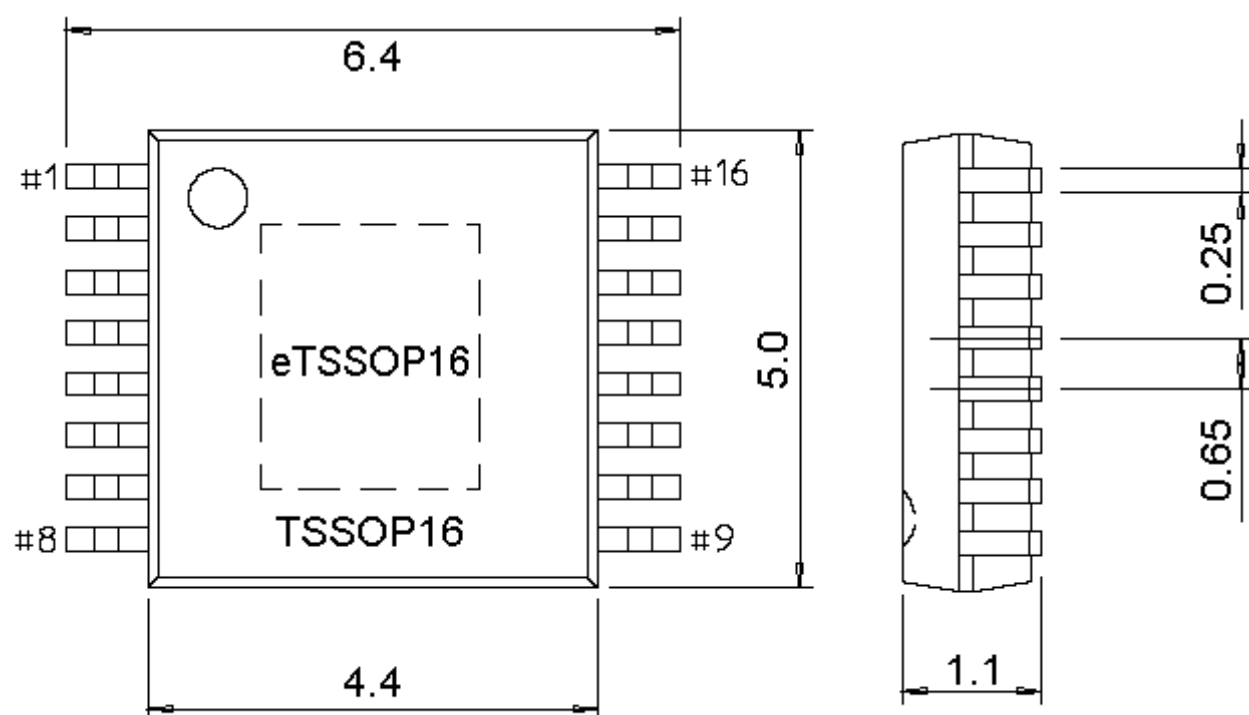
. TSSOP14、eTSSOP14

eTSSOP14 Exposed Pad: 3.0*3.0



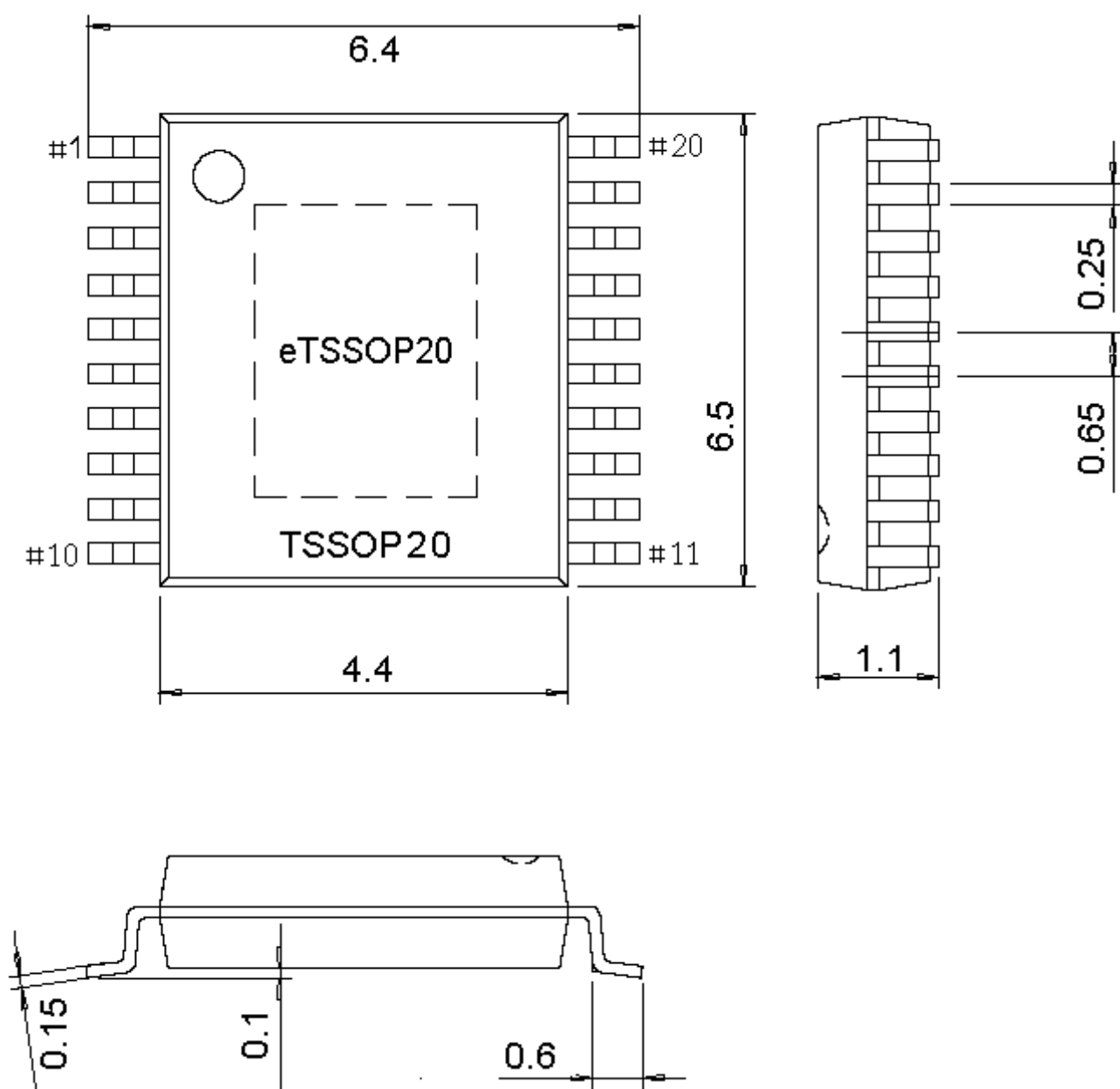
. TSSOP16、eTSSOP16

eTSSOP16 Exposed Pad: 2.8*3.0

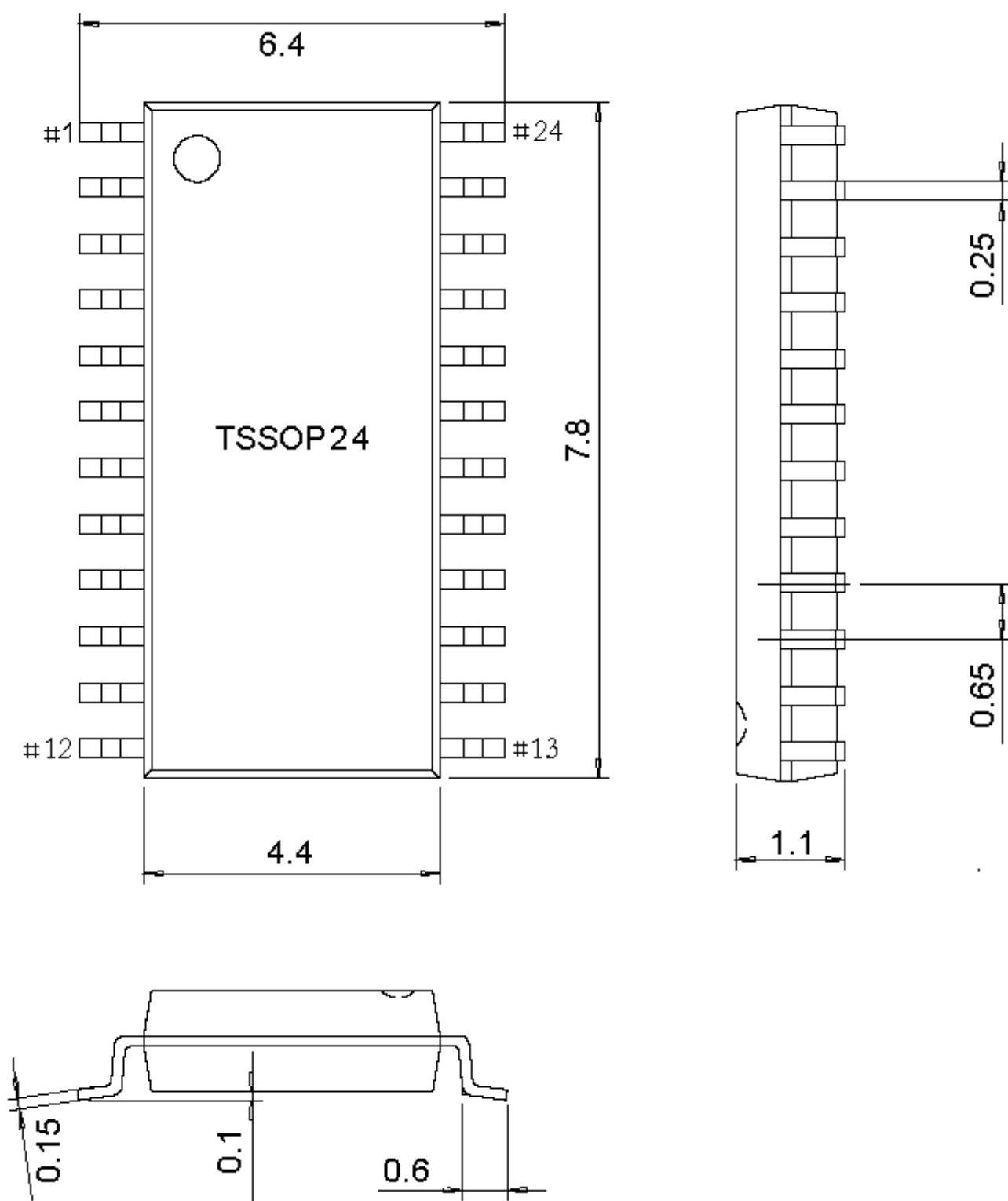


. TSSOP20、eTSSOP20

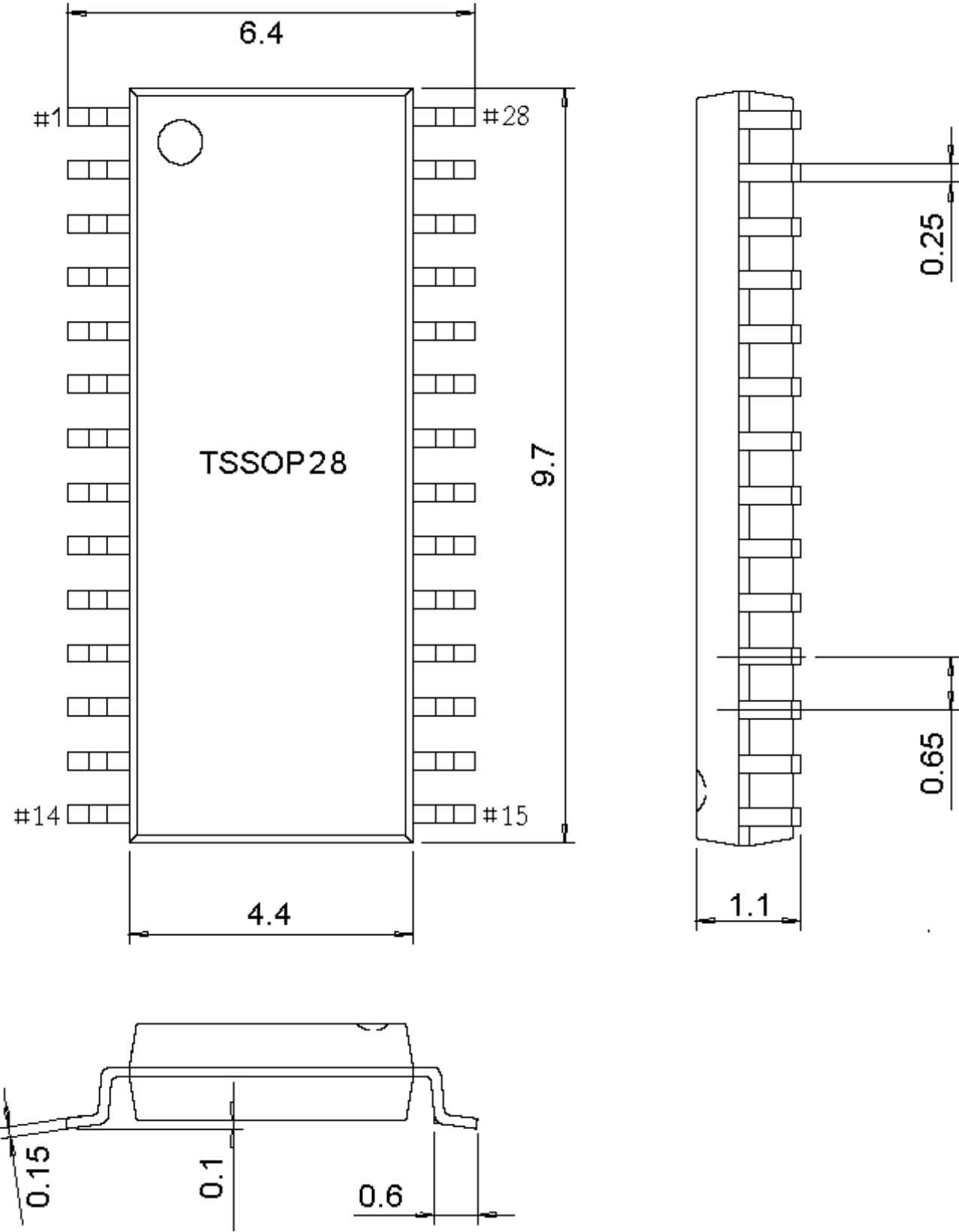
eTSSOP20 Exposed Pad: 3.0*4.2



TSSOP24

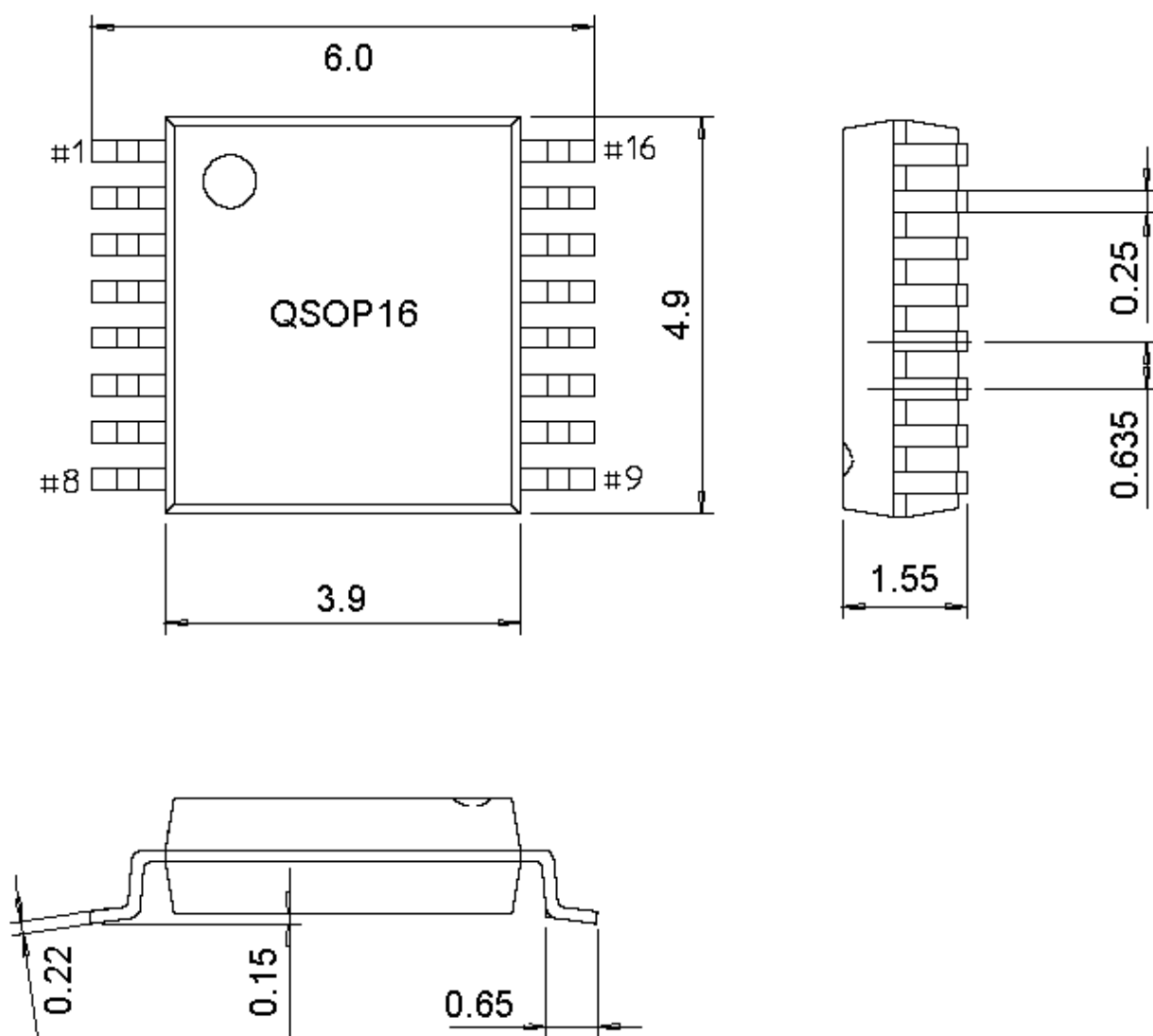


TSSOP28

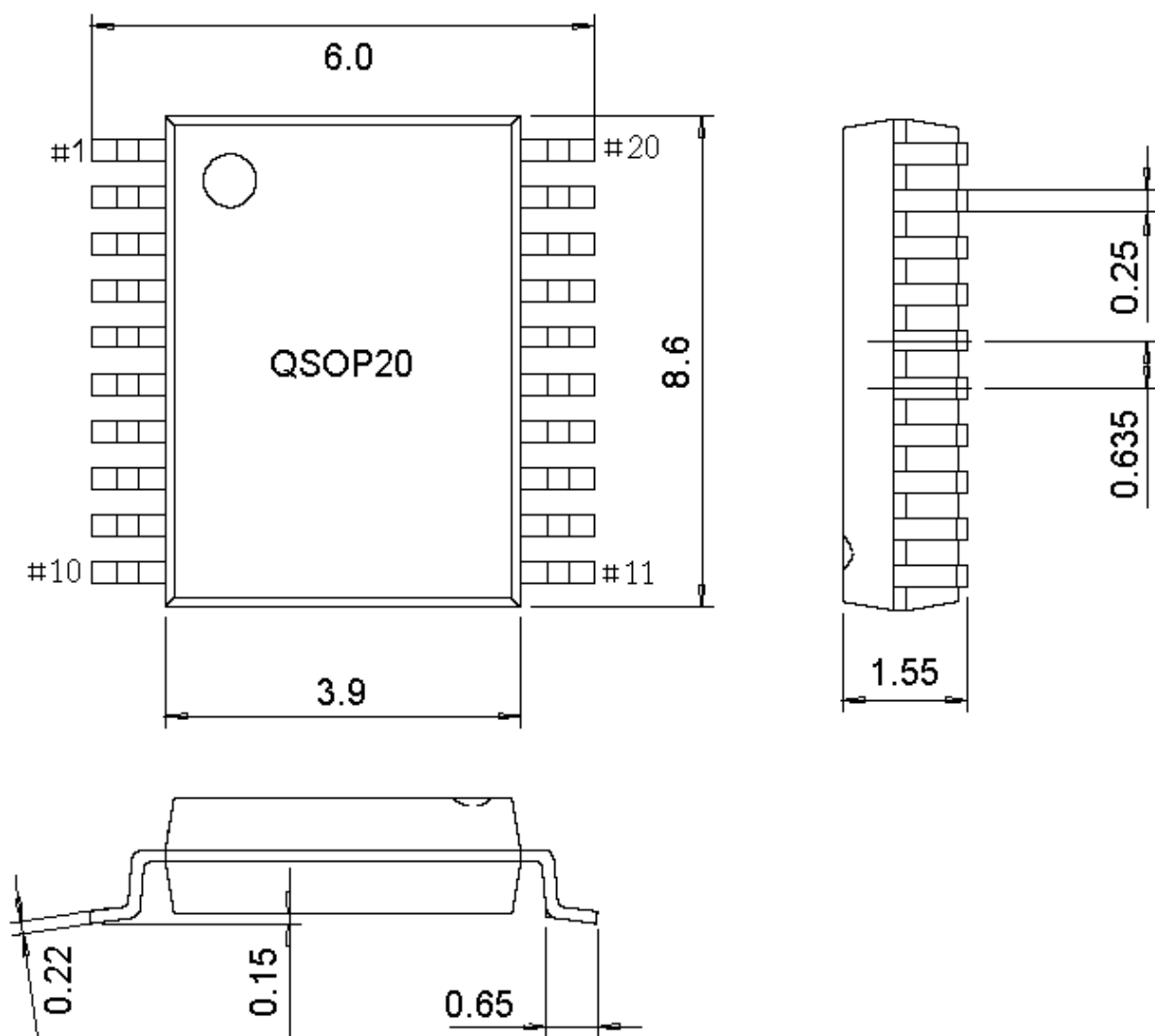


QSOP 类 (3.9mm, 150mil) (SSOP-150)

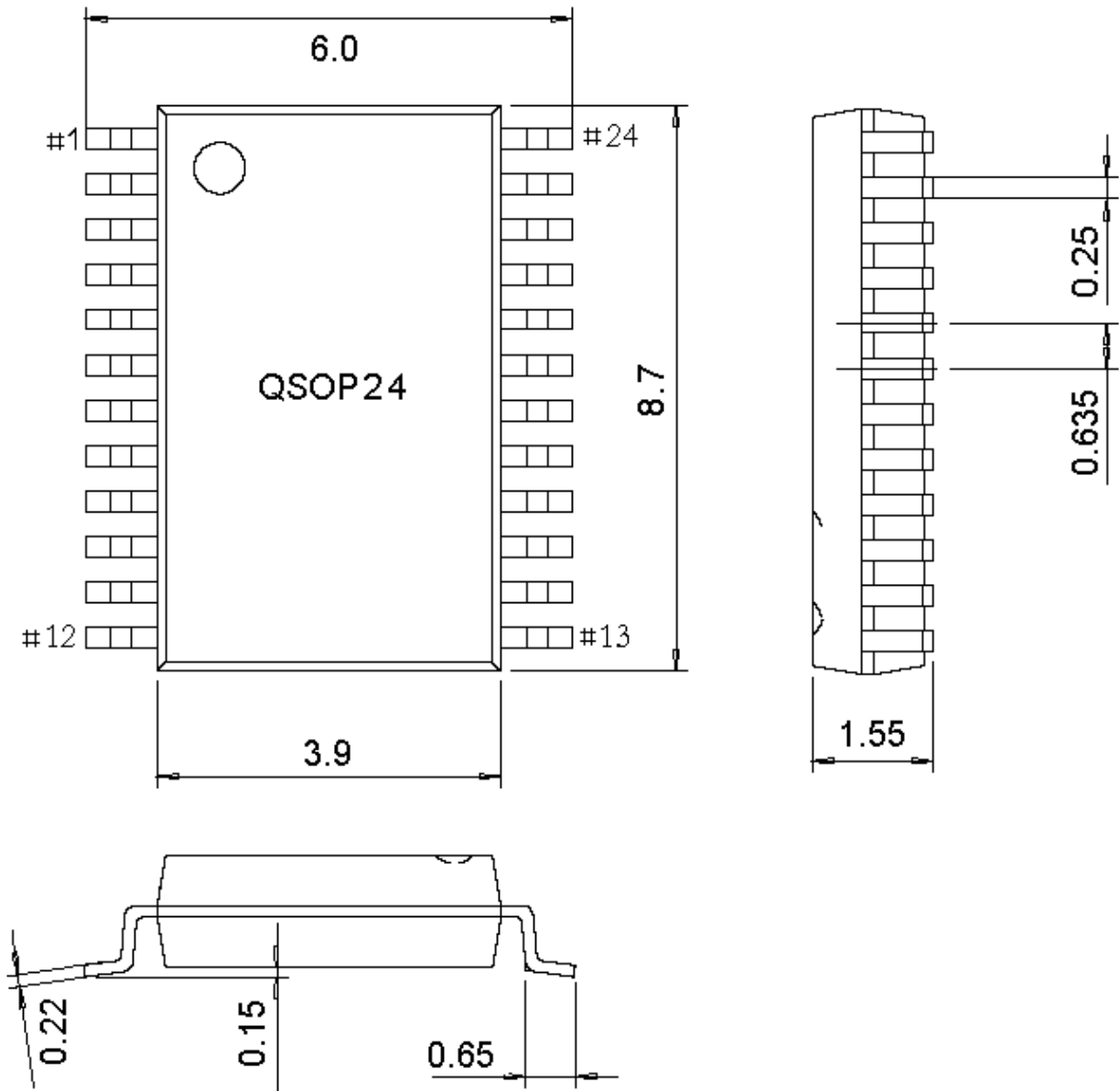
. QSOP16 (SSOP16-150mil-0.635)



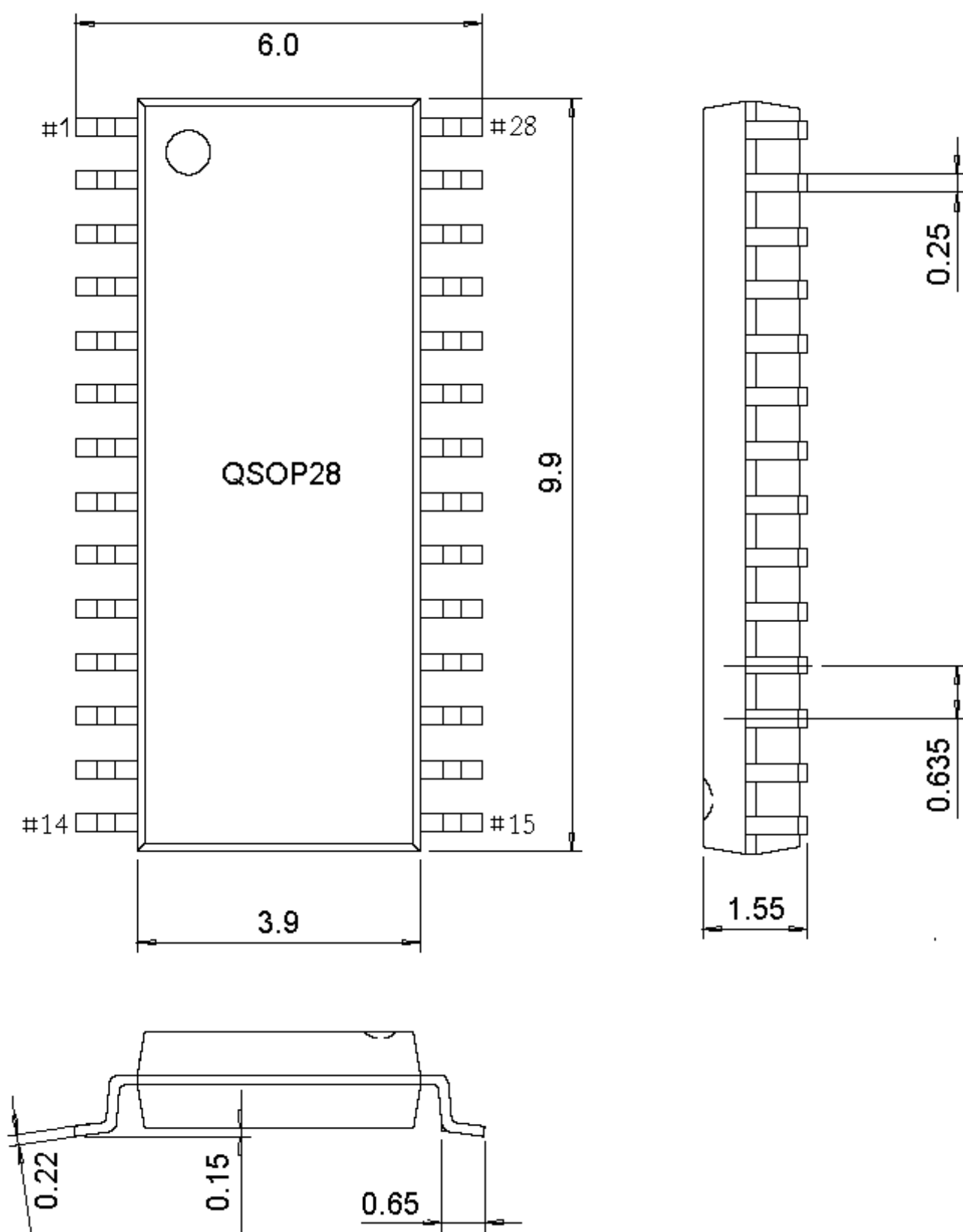
. QSOP20 (SSOP20-150mil-0.635)



· QSOP24 (SSOP24-150mil-0.635)

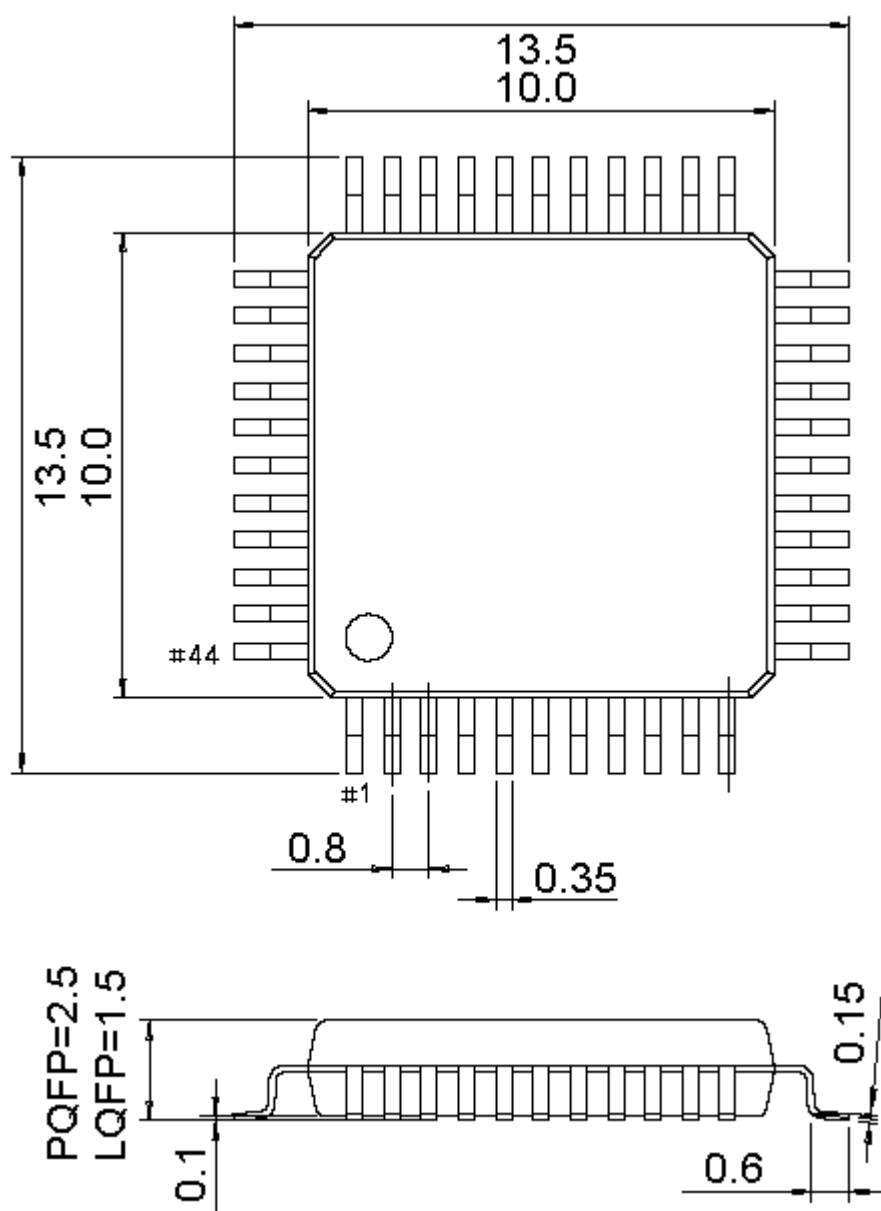


. QSOP28 (SSOP28-150mil-0.635)

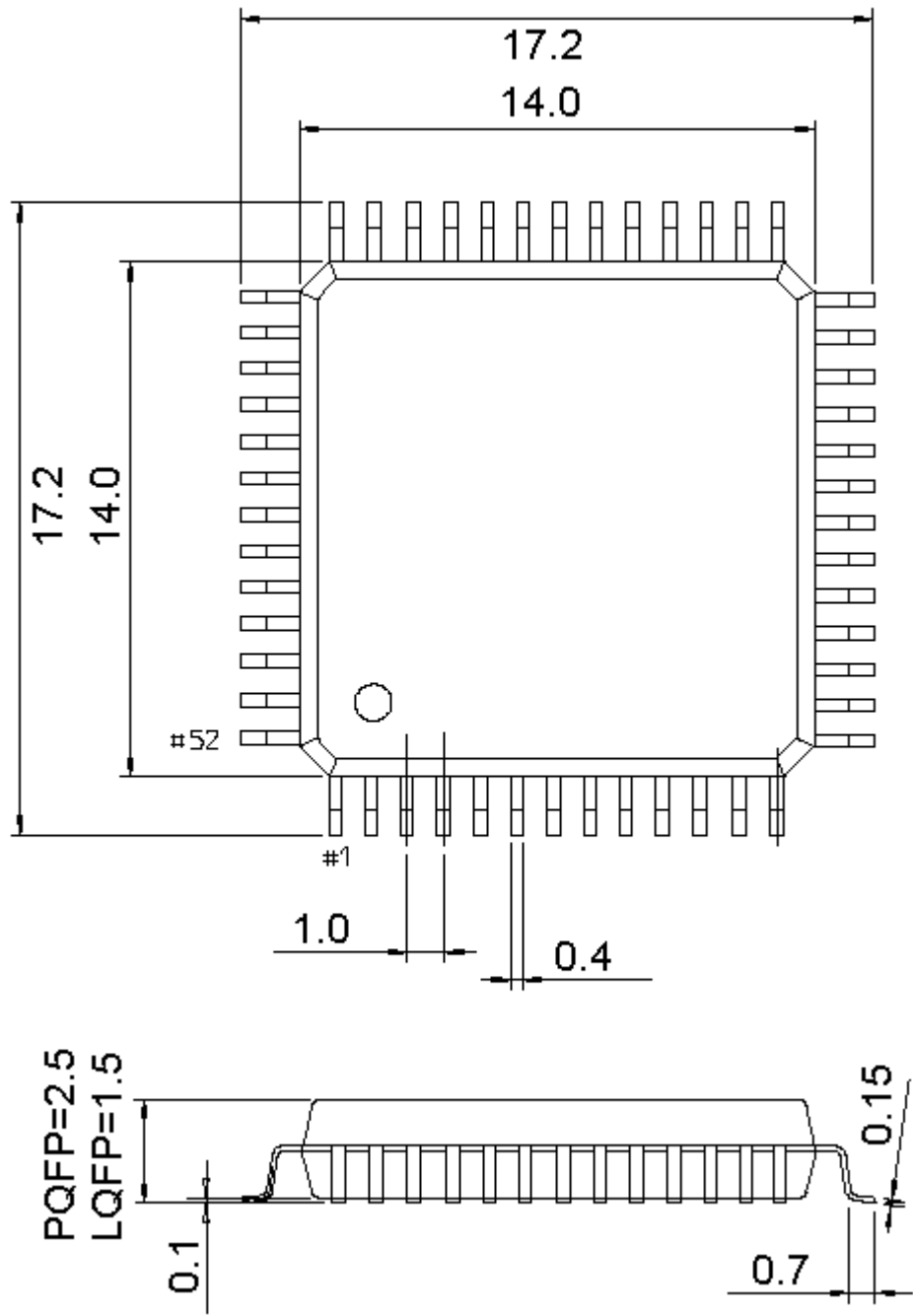


QFP 类 (PQFP、LQFP、TQFP)

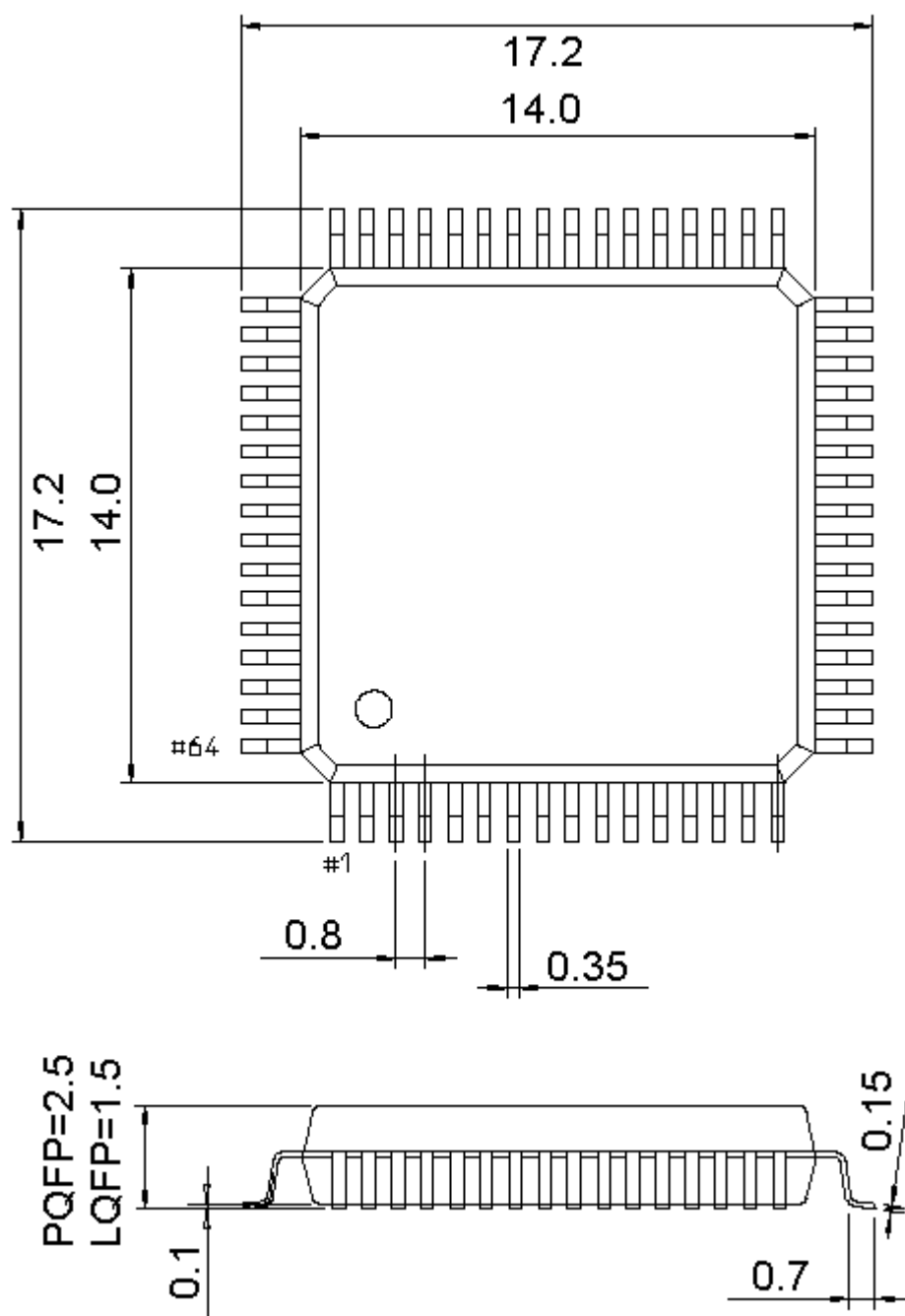
. PQFP44 (QFP44)



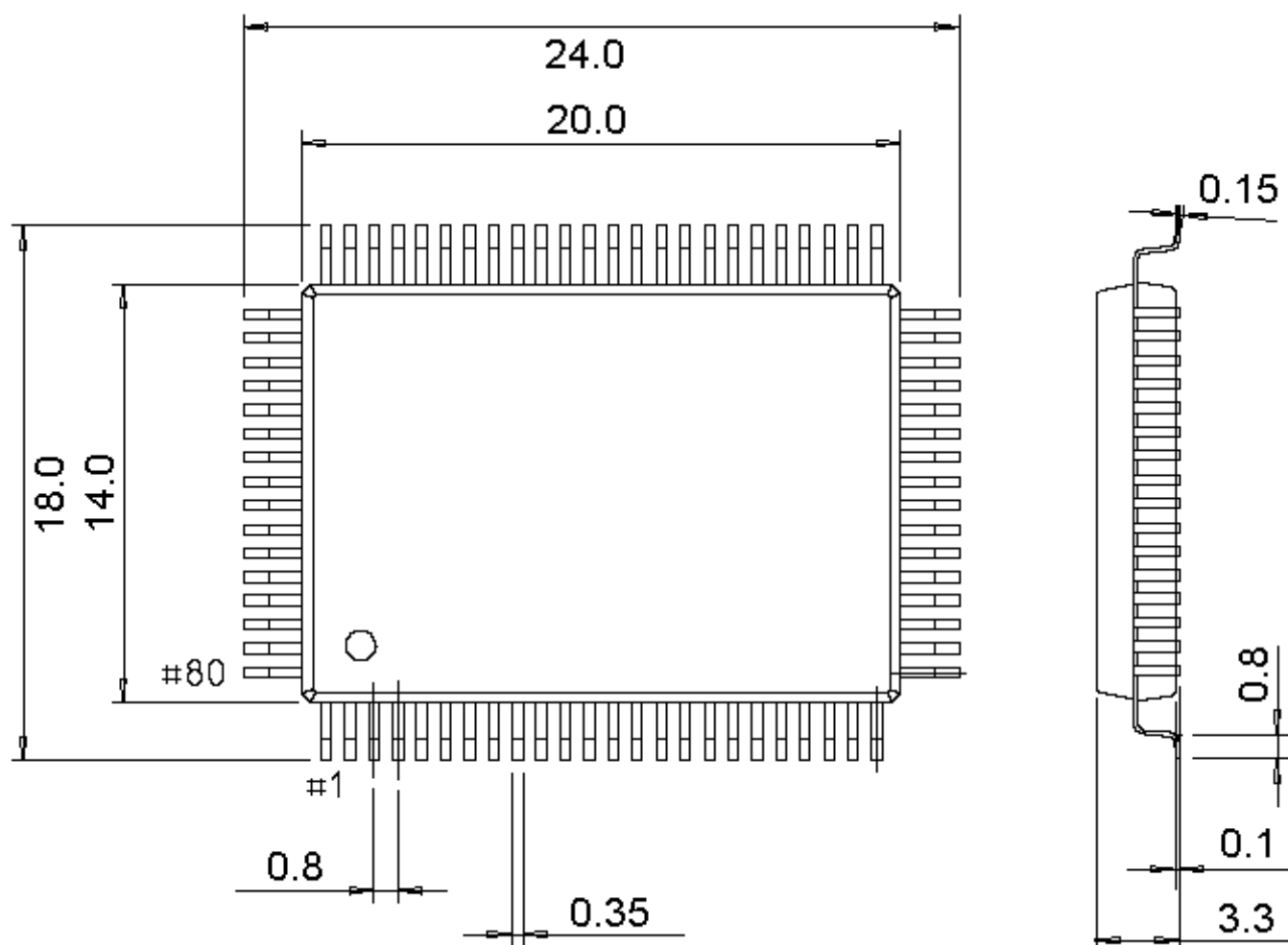
· PQFP52 (QFP52)



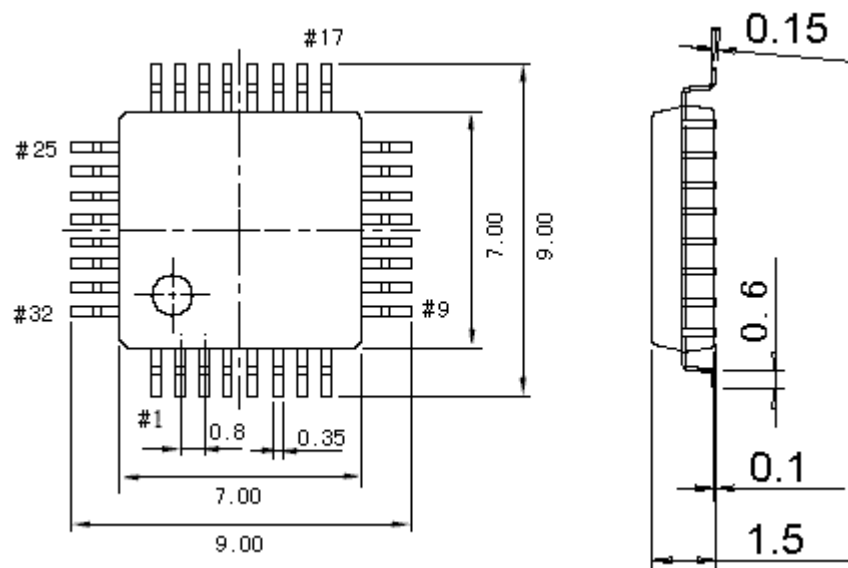
. PQFP64 (QFP64)、LQFP64-14*14



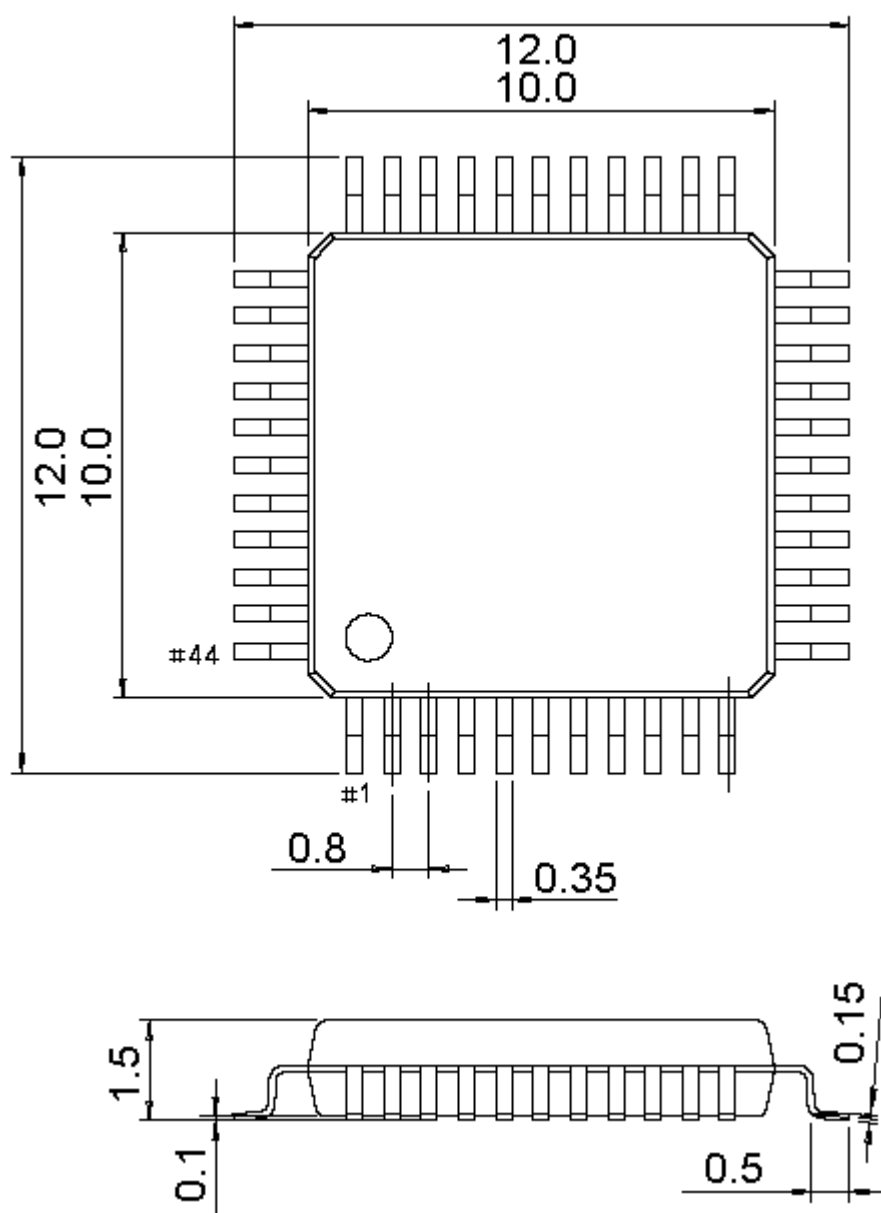
. PQFP80 (QFP80)



. LQFP32 (LQFP32-7*7)

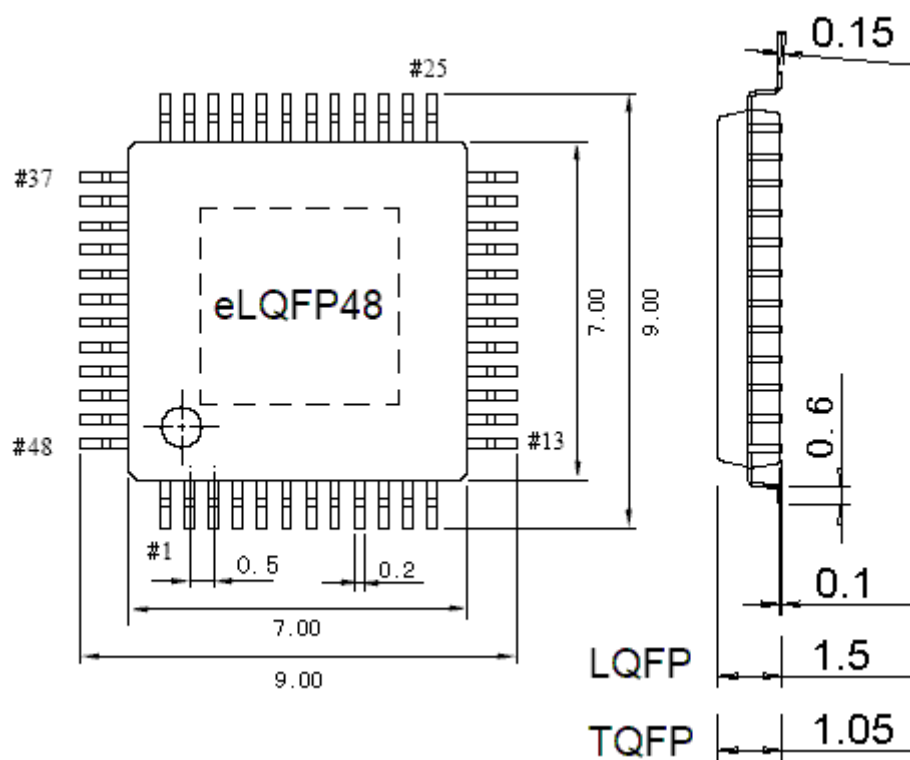


. LQFP44 (LQFP44-10*10)



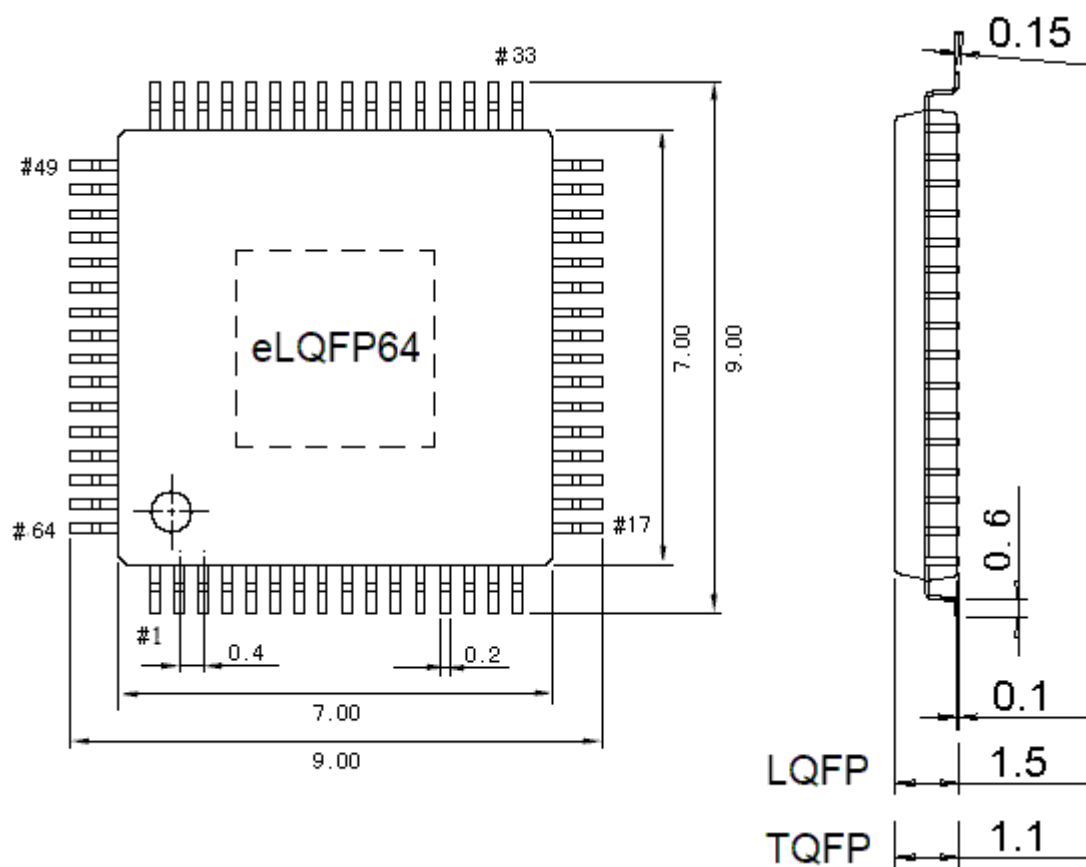
. LQFP48 (LQFP48-7*7)、TQFP48、eLQFP48

eLQFP48 Exposed Pad: 3.2*3.2

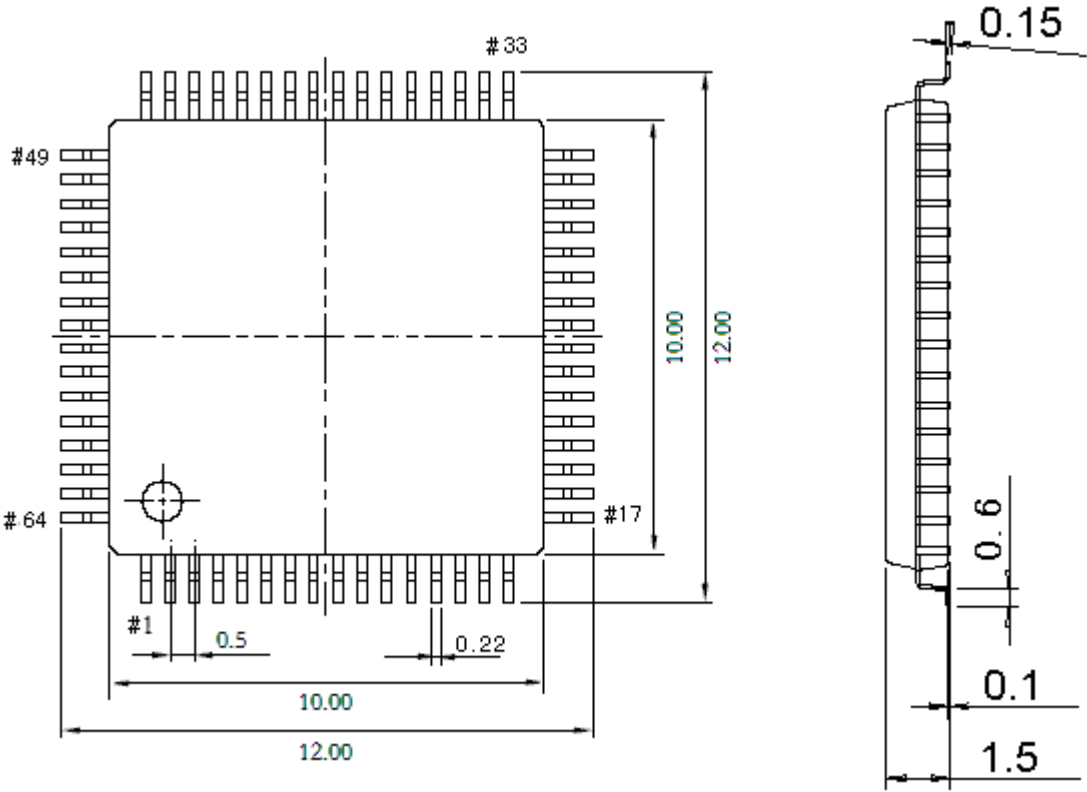


. LQFP64 (LQFP64-7*7)、TQFP64、eLQFP64

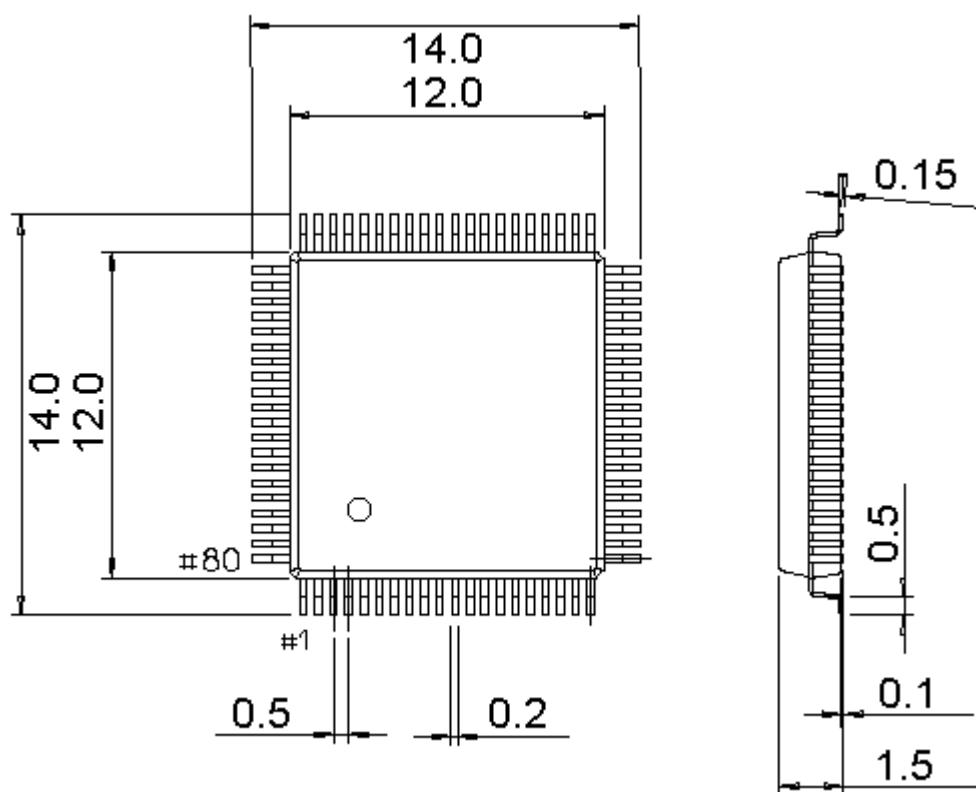
eLQFP64 Exposed Pad: 3.2*3.2



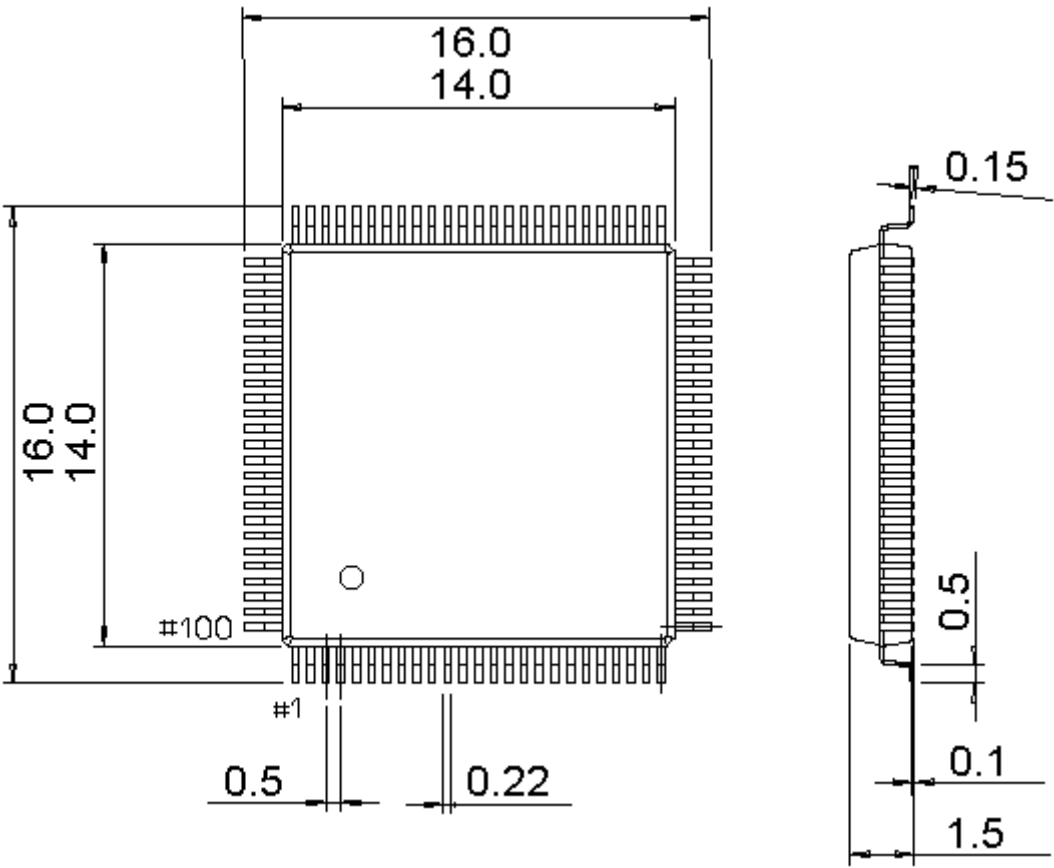
· LQFP64M (LQFP64-10*10)



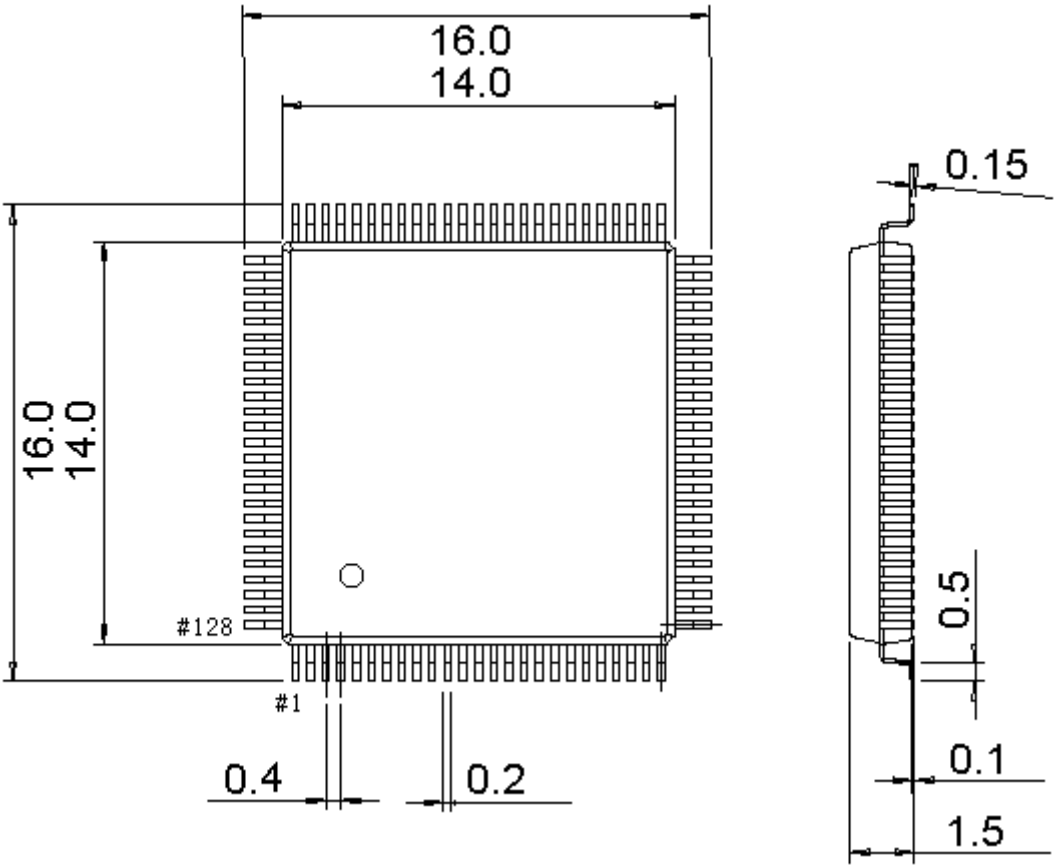
. LQFP80 (LQFP80-12*12)



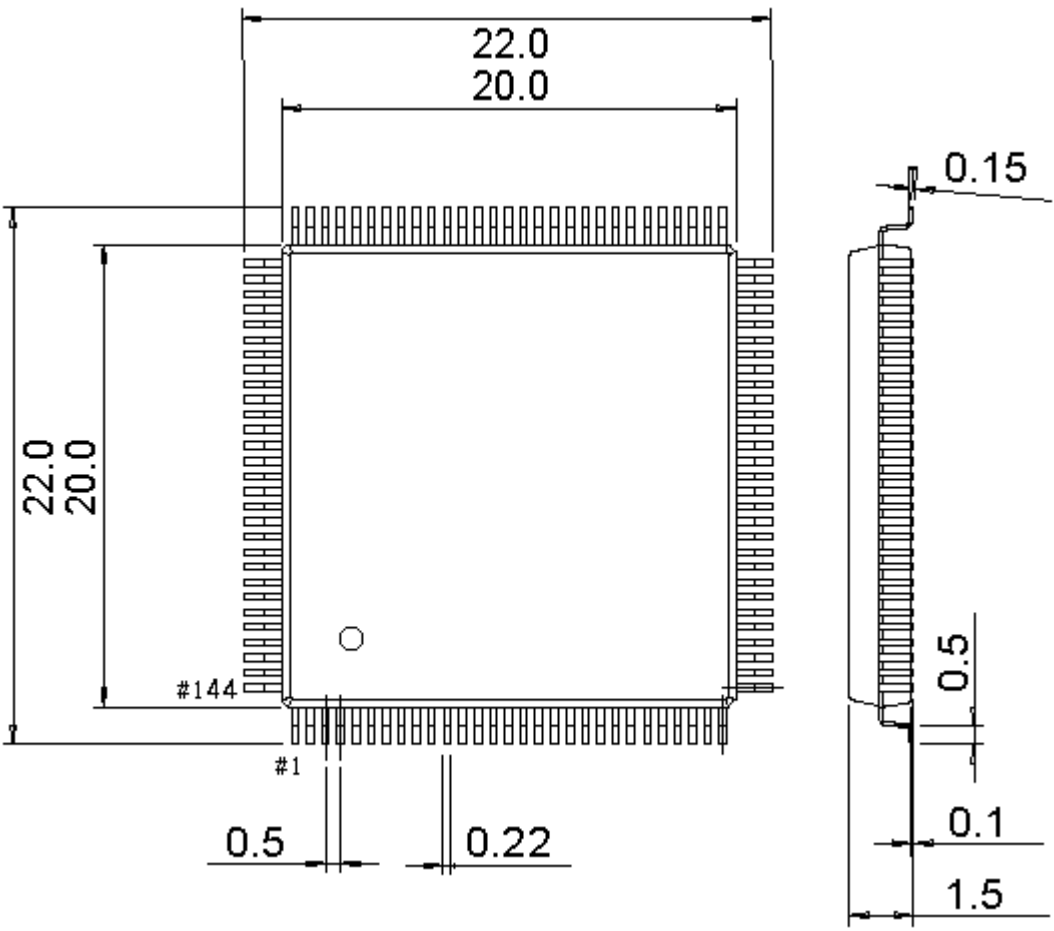
· LQFP100 (LQFP100-14*14)



· LQFP128 (LQFP128-14*14)



· LQFP144 (LQFP144-20*20)



QFN 类

. QFN/DFN 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, 目前最多为 128。

数字 d 和 e: d 和 e 代表 QFN 外形的长和宽 (1#引脚所在边)。

数字 t: t 代表 QFN 外形的厚度, 0.75 和 0.55 较为常用, 另有 0.85、0.5、0.4 等。

数字 p: p 代表引脚节距 pitch, 即相邻引脚的中心的间距, 如有两种则取其小, 0.4 和 0.5 较为常用, 另有 0.35、0.65、0.45、0.3 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, 目前最多为 128。

字母 c: 无 c 代表通用 QFN, 有 Exposed Pad, 默认尺寸, 无数字 d 和 e;

字母 X 代表通用 QFN, 有 Exposed Pad, 非默认尺寸, 至少有数字 d;

字母 L 代表通用 QFN, 无 Exposed Pad, 非默认尺寸, 至少有数字 d;

字母 C 代表 WCH 设计的通用 QFN, 有 Exposed Pad, 至少有数字 d;

字母 F 代表 WCH 定制的专用 QFN, 无 Exposed Pad, 至少有数字 d;

字母 E 代表 WCH 定制的专用 QFN, 有 Exposed Pad, 至少有数字 d。

数字 d 和 e: d 和 e 代表 QFN 外形的长和宽 (1#引脚所在边);

无 d 无 e 代表默认尺寸, 也是常用尺寸;

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;

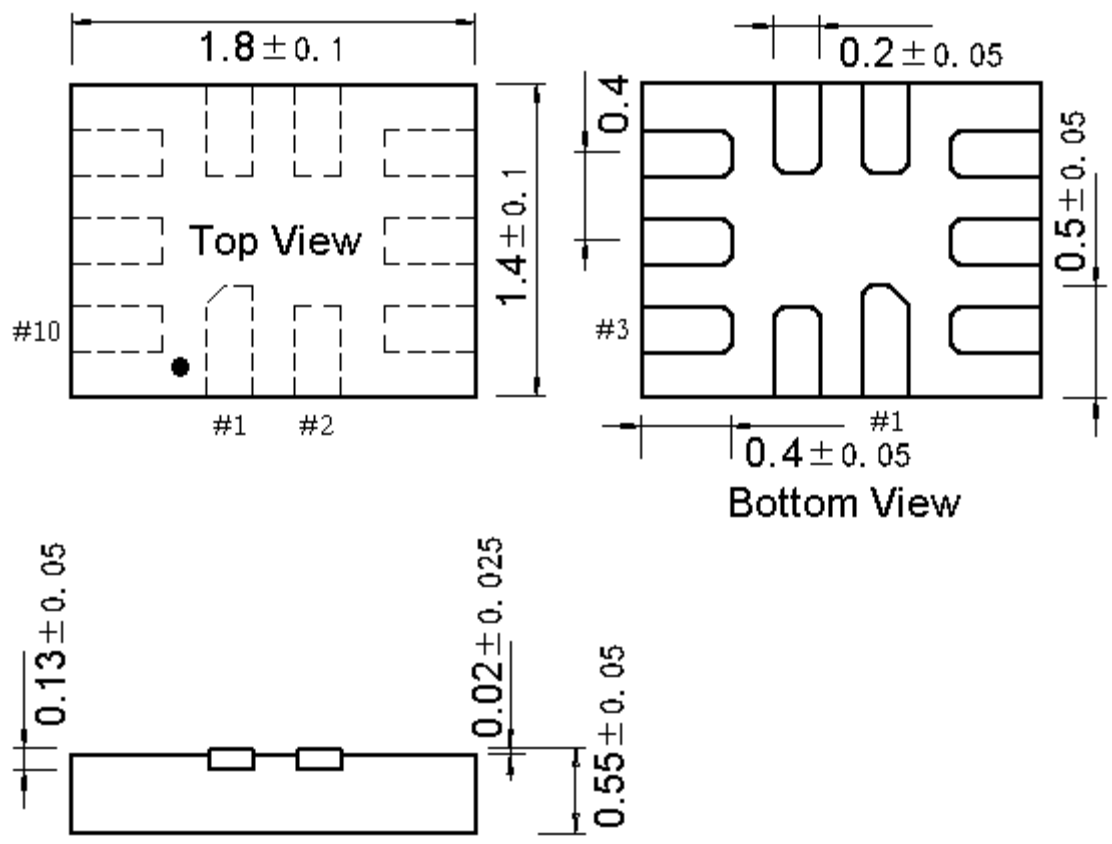
QFN20X25X45: 通用 QFN, 有 Exposed Pad, 尺寸为 2.5*4.5;

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

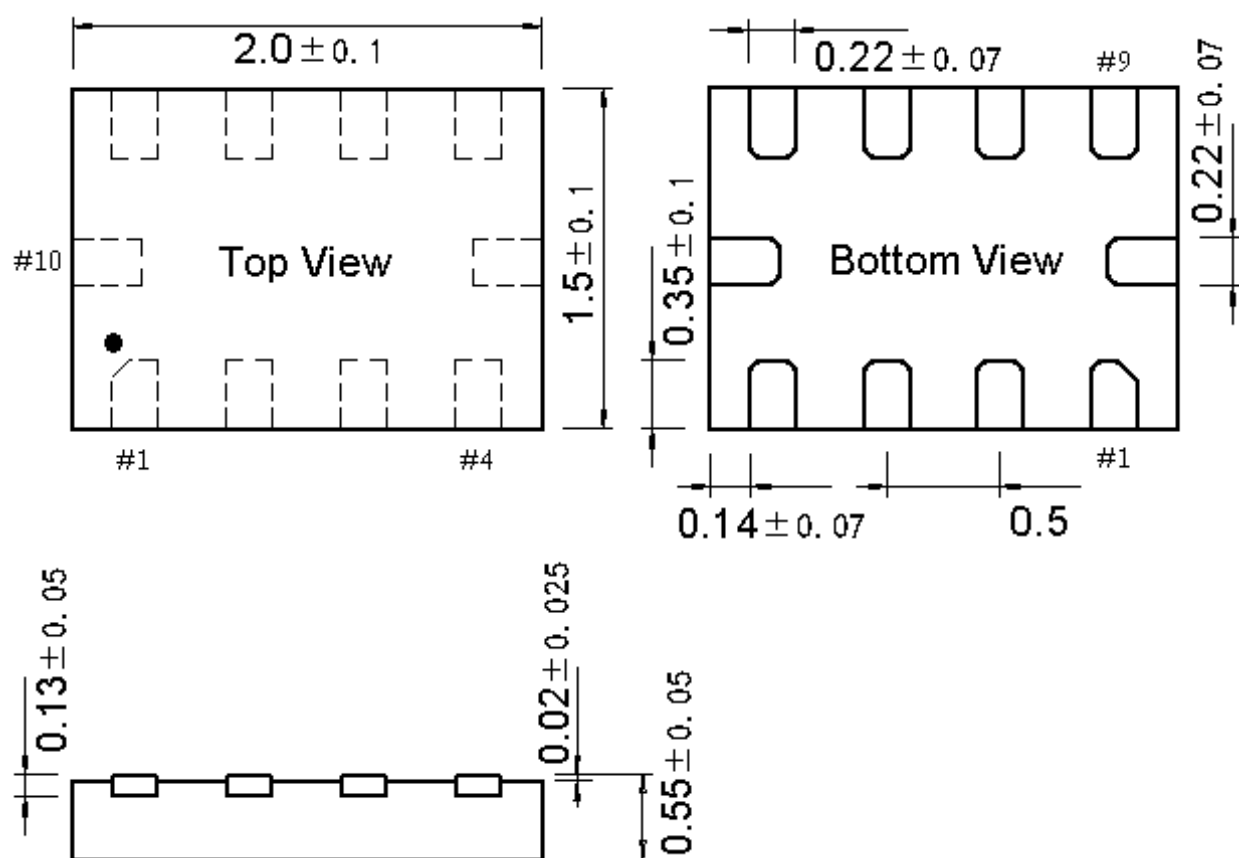
QFN20F3: WCH 定制的专用 QFN, 无 Exposed Pad, 尺寸为 3*3;

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

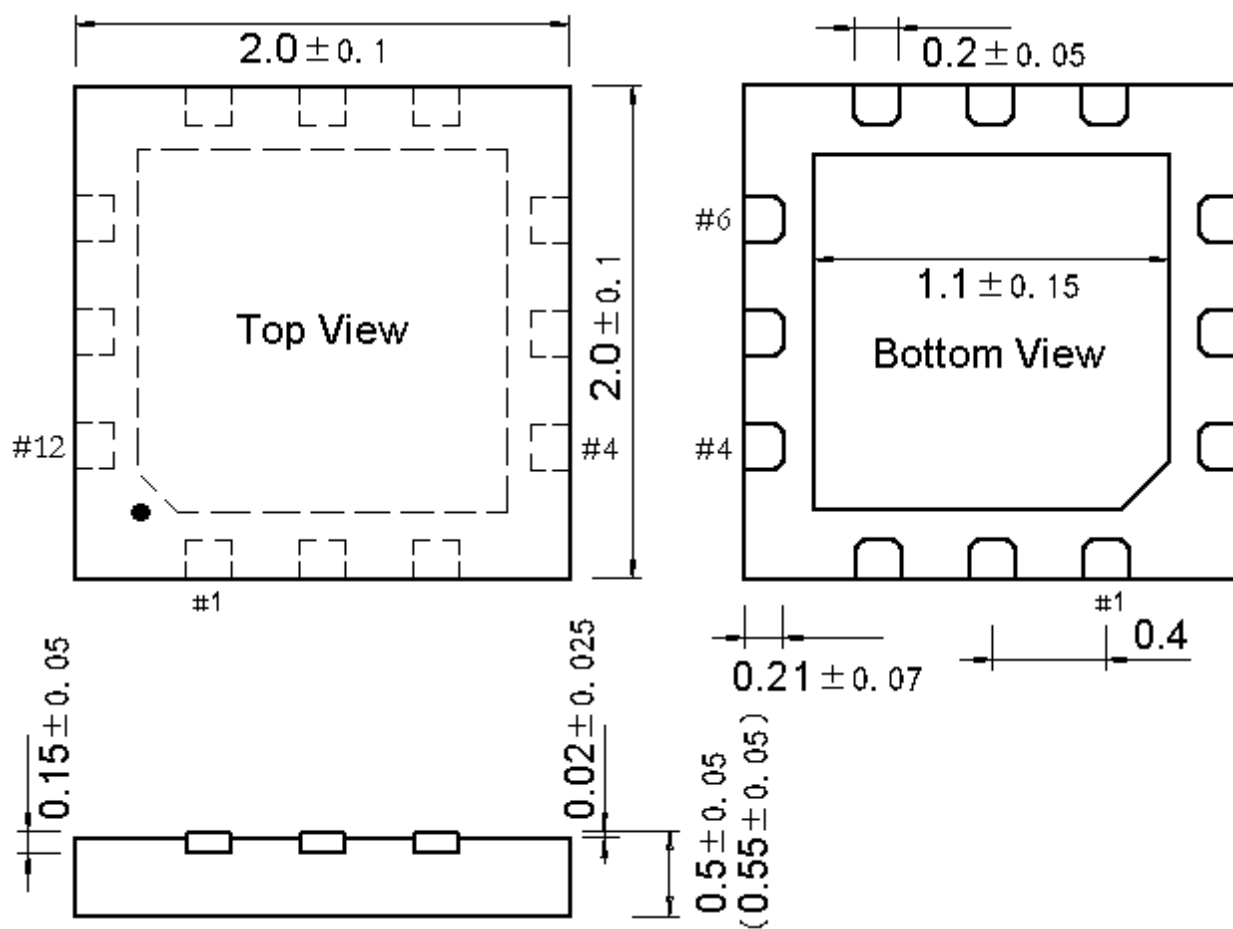
· QFN10L14X18 (QFN10-1.4*1.8*0.55-0.4)



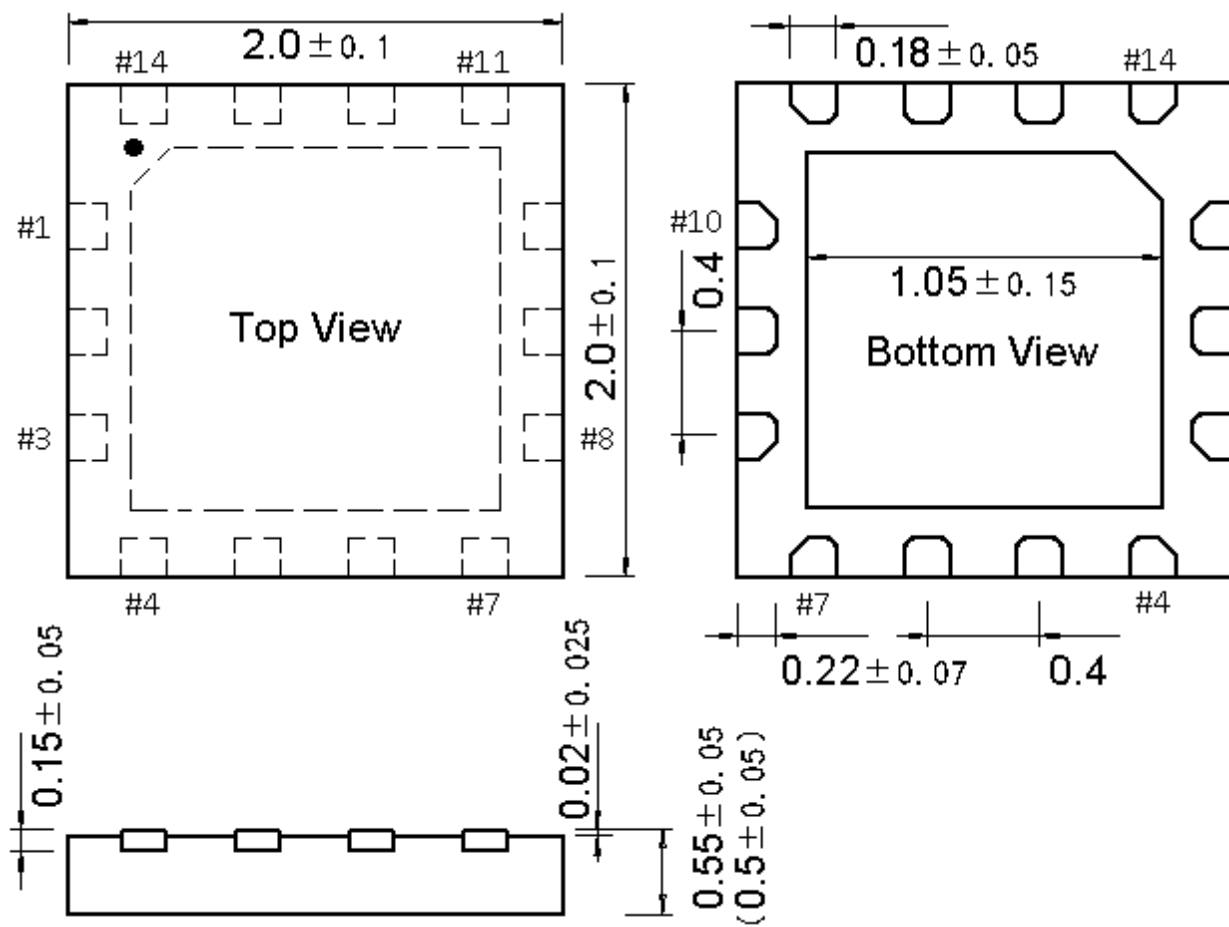
· QFN10L15X2 (QFN10-1.5*2*0.55-0.4)



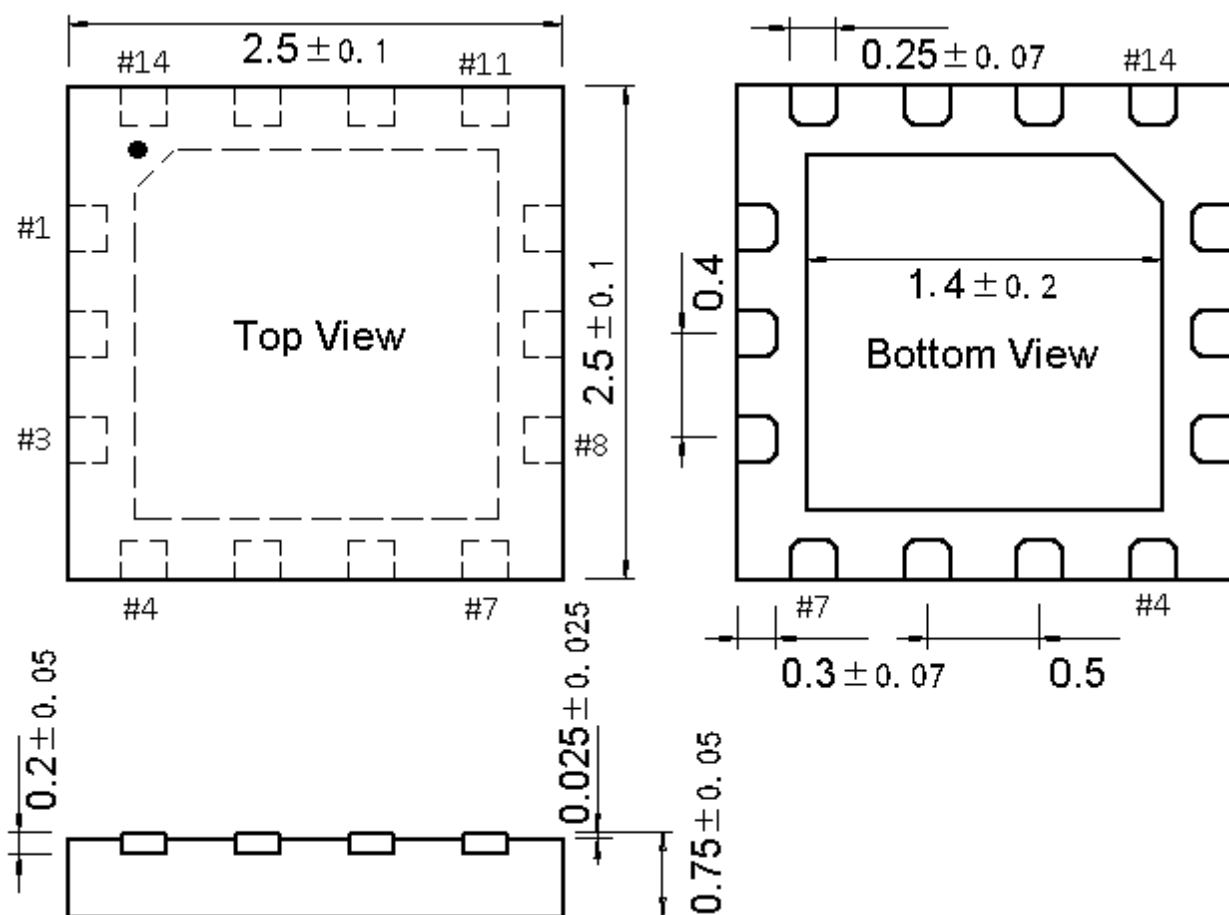
. QFN12 (QFN12-2*2*0.5-0.4)



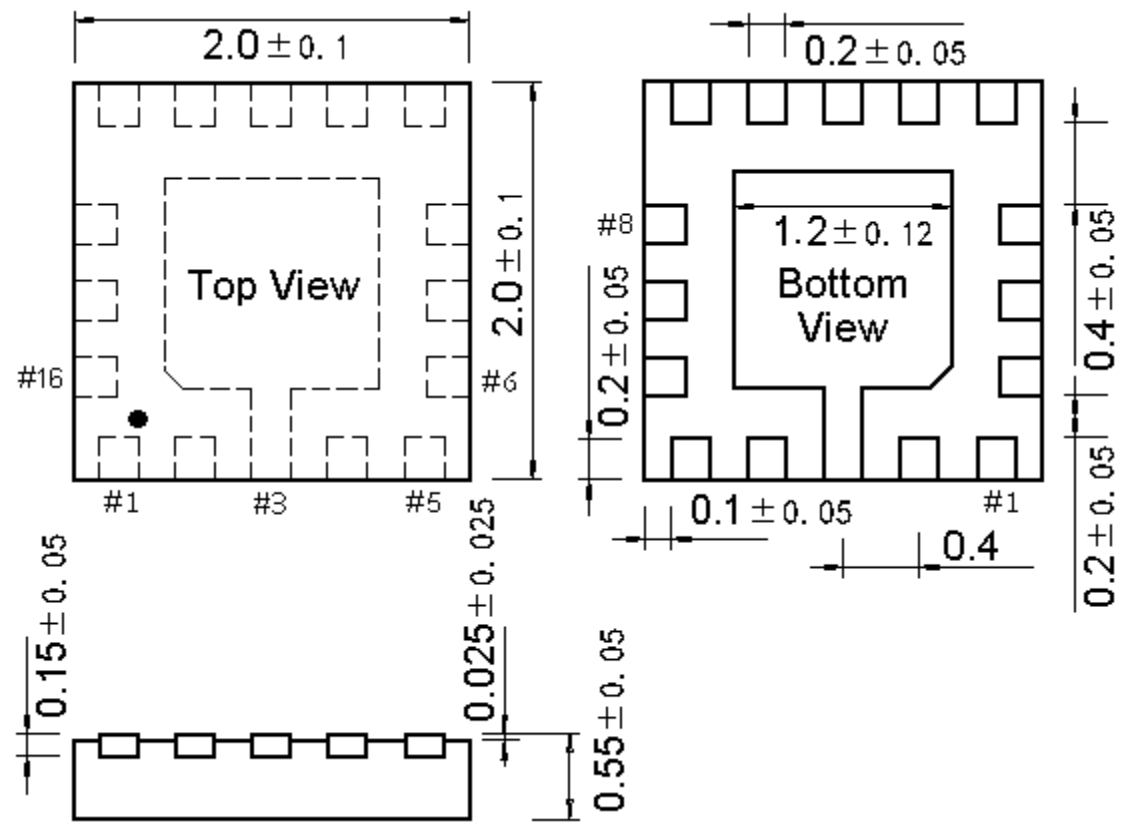
· QFN14 (QFN14-2*2*0.55-0.4)



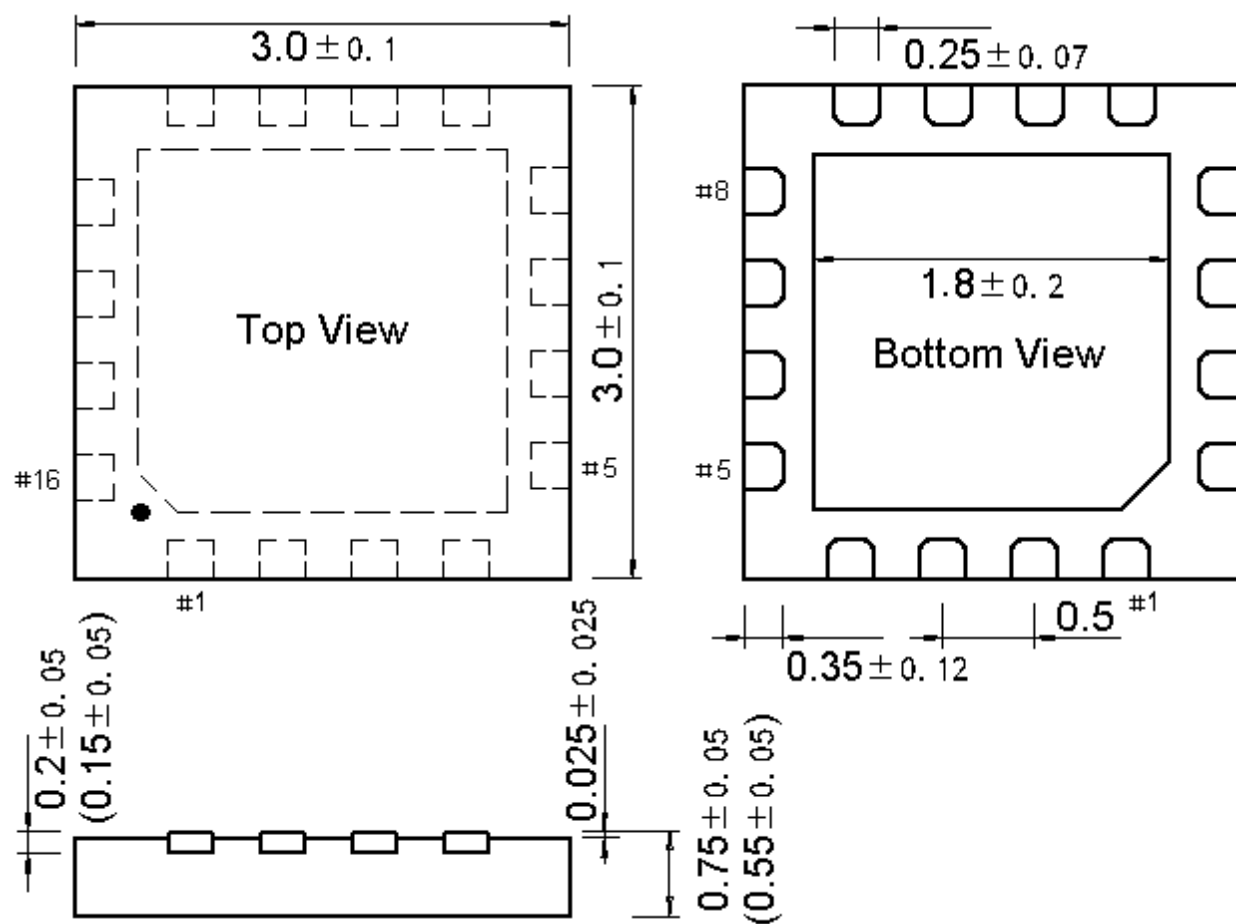
· QFN14X25 (QFN14-2.5*2.5*0.75-0.5)



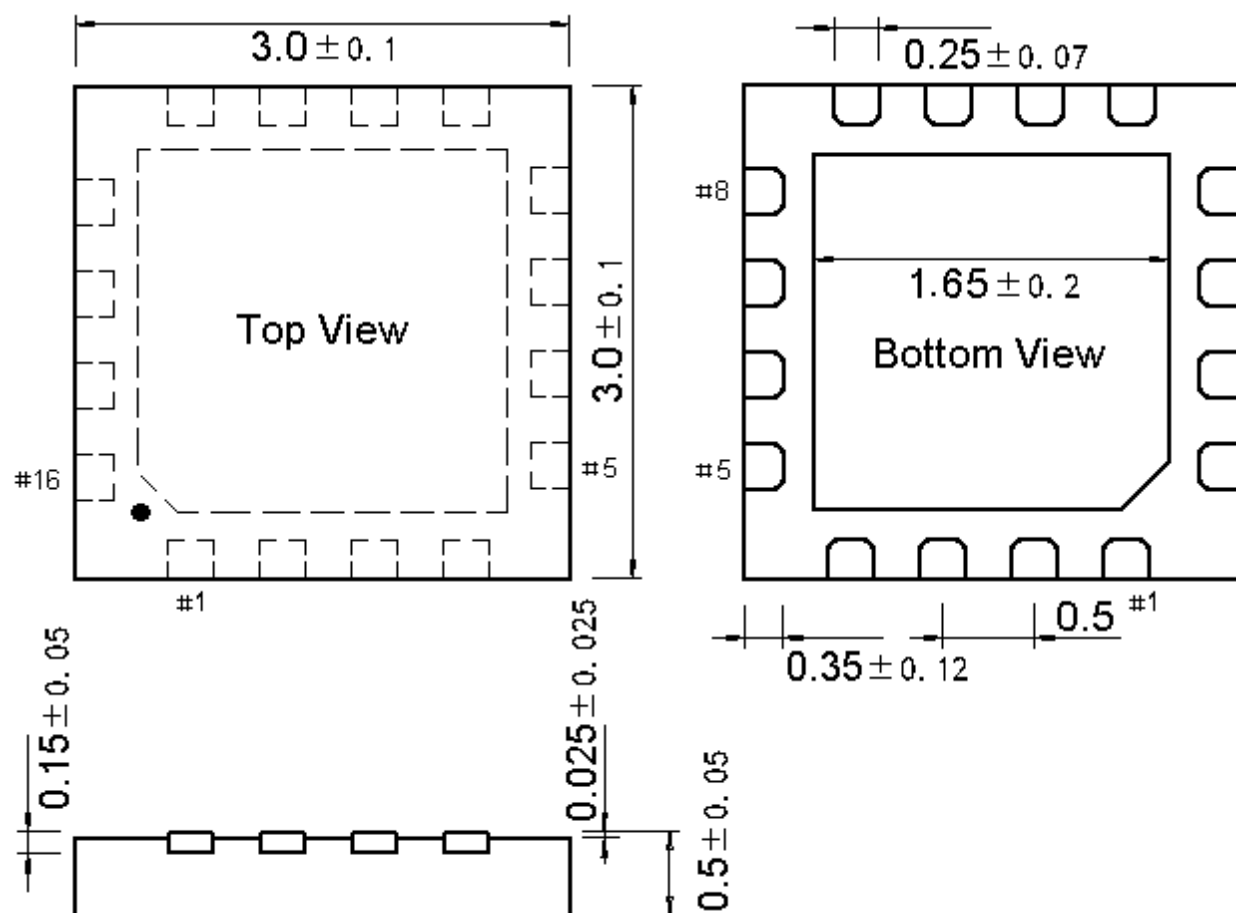
· QFN16C2 (QFN16C-2*2*0.55-0.4)



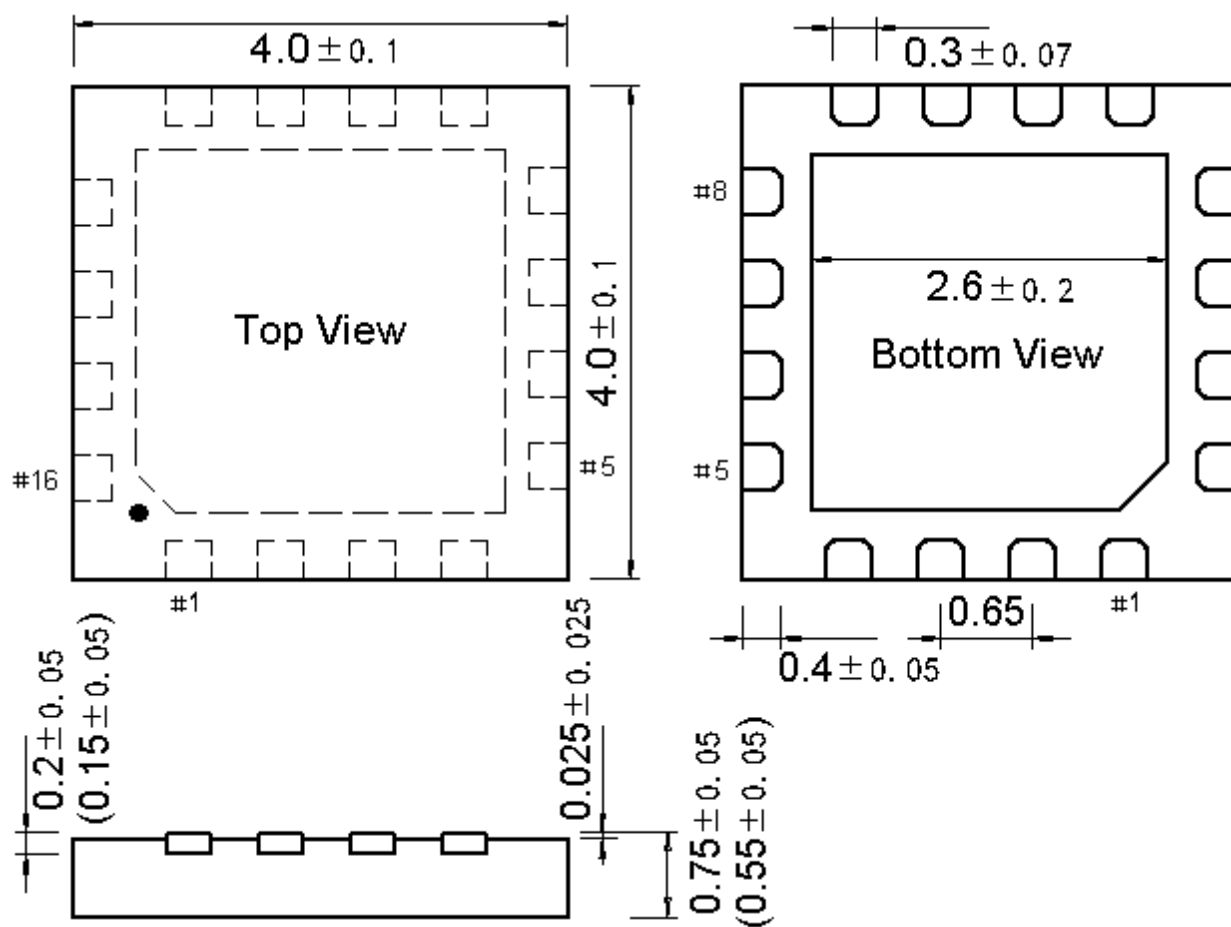
. QFN16 (QFN16-3*3)



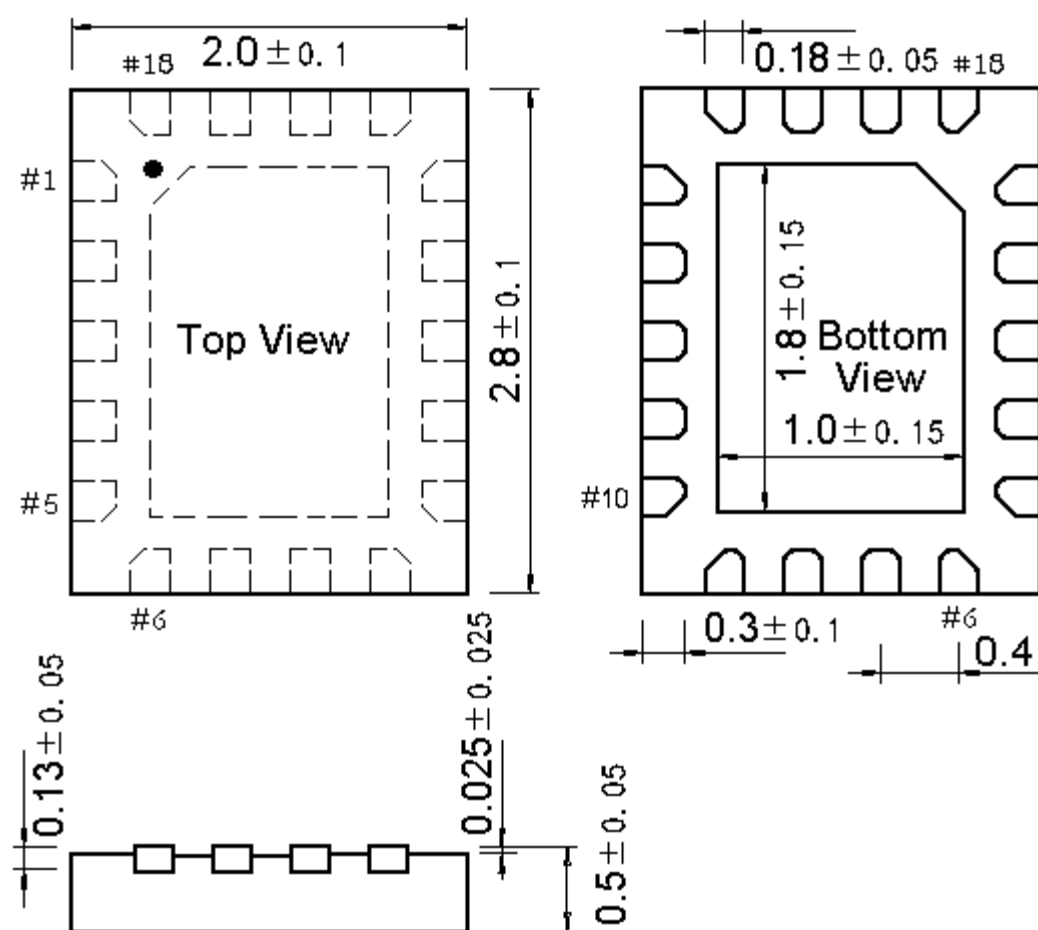
. QFN16-3*3*0.5-0.4



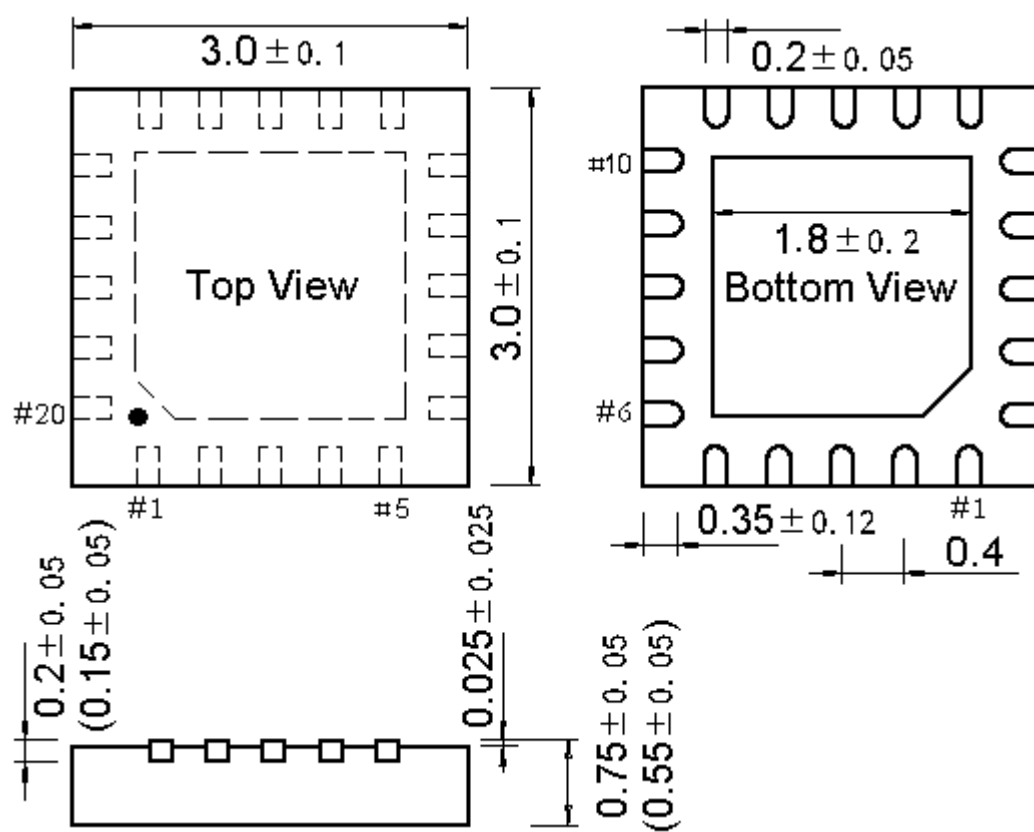
. QFN16X4 (QFN16-4*4)



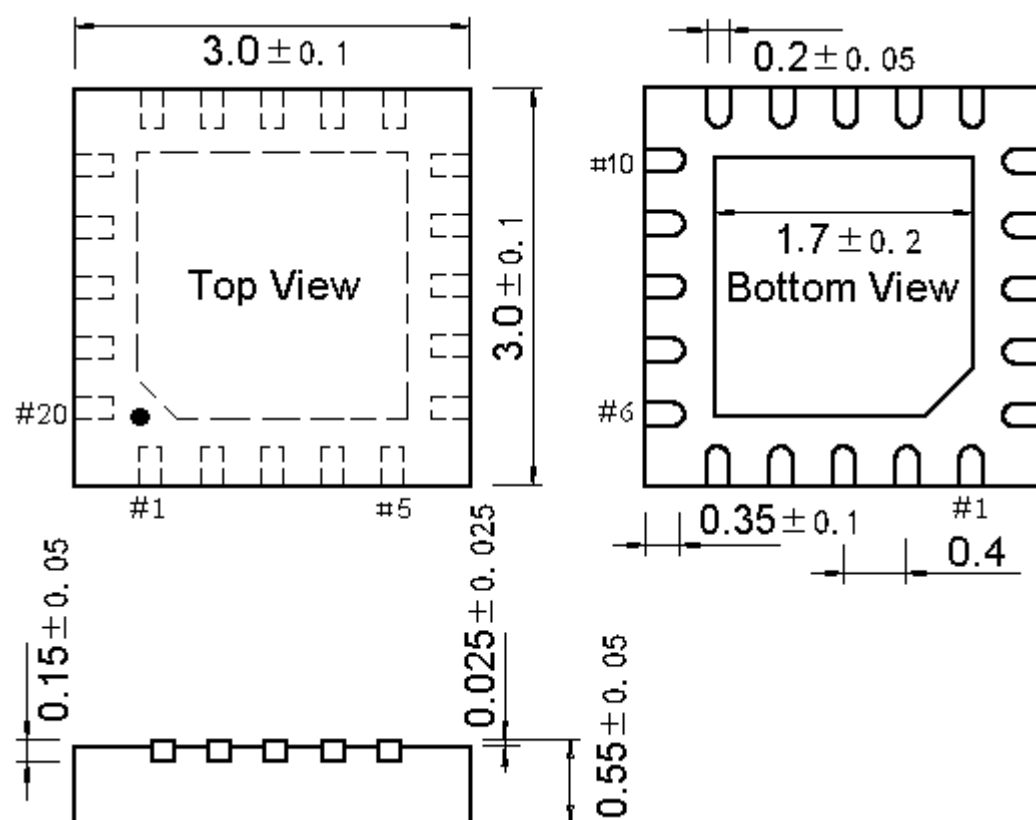
. QFN18X2X28 (QFN18-2*2.8*0.5-0.4)



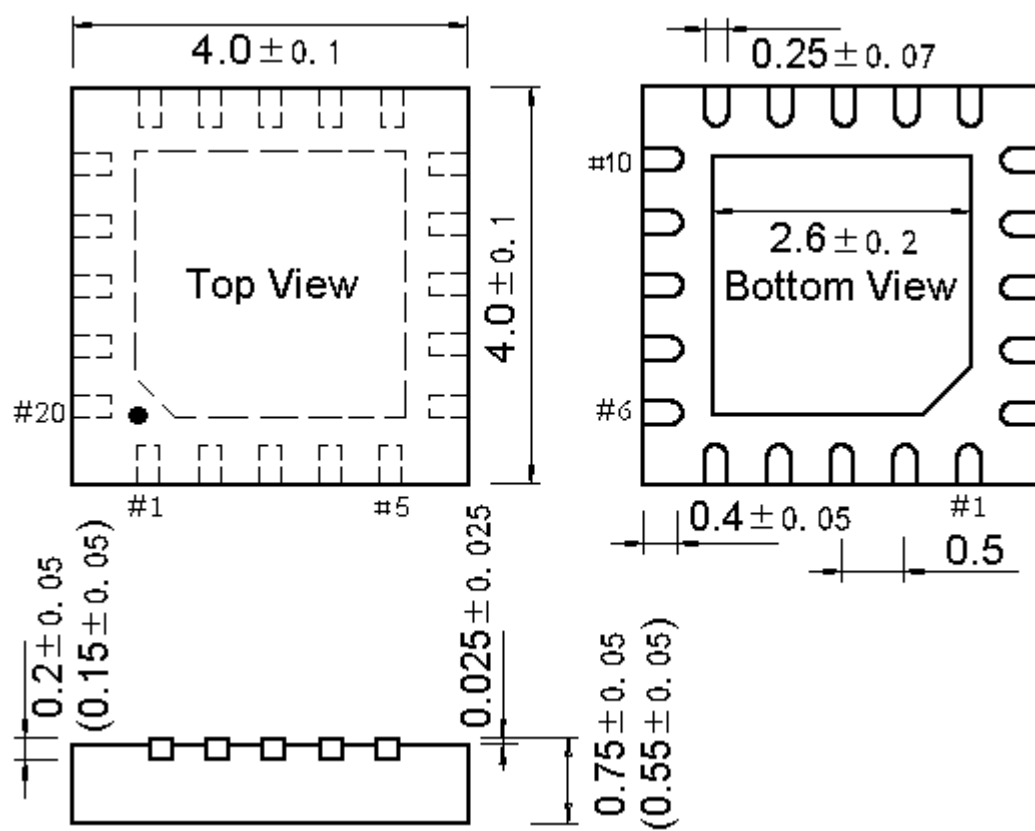
QFN20 (QFN20-3*3)



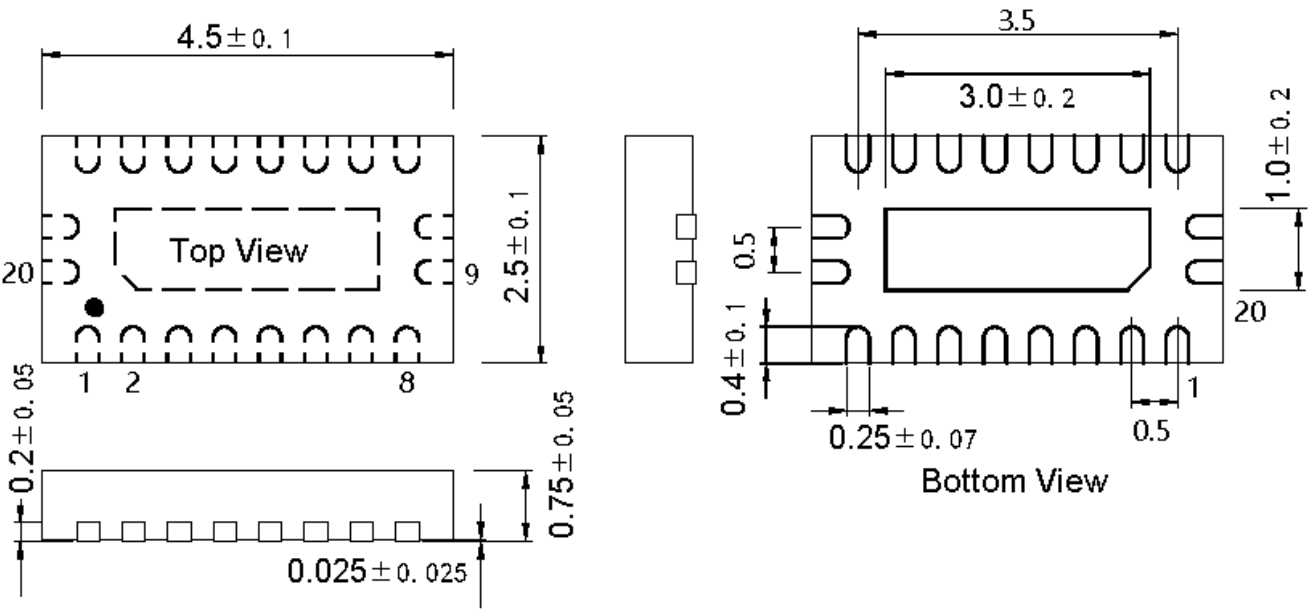
. QFN20-3*3*0.55-0.4



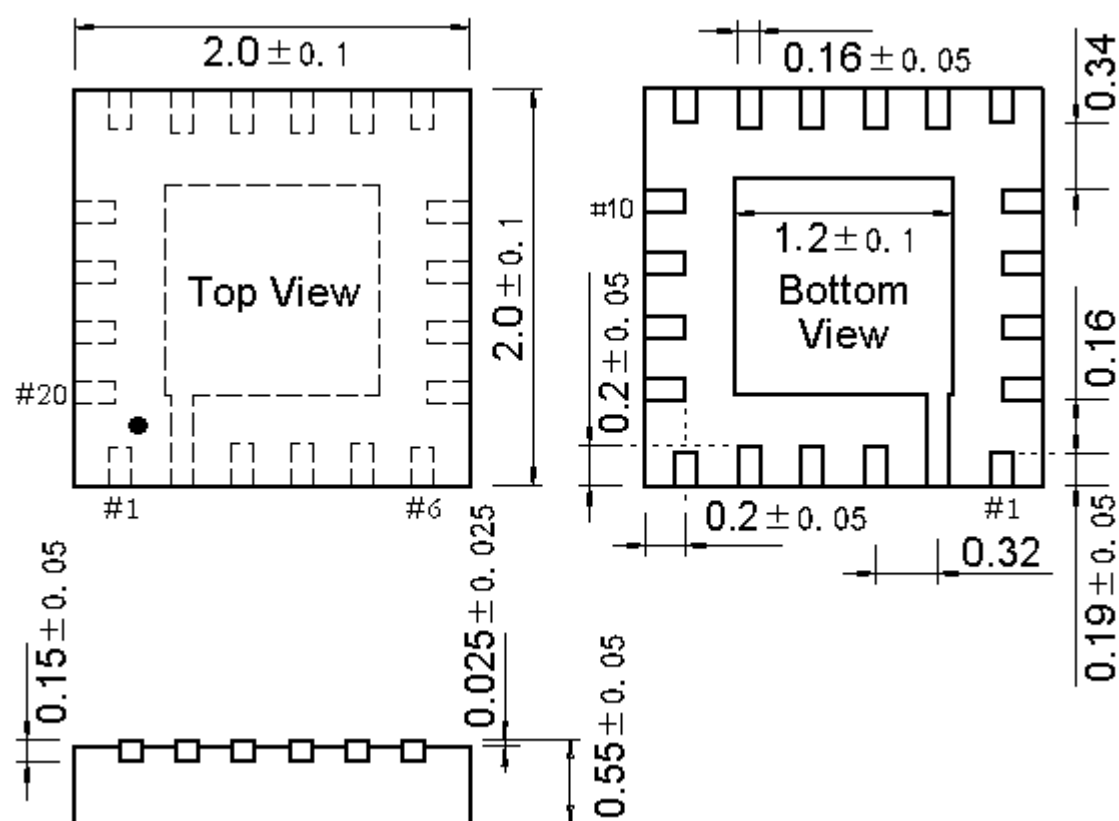
. QFN20X4 (QFN20-4*4)



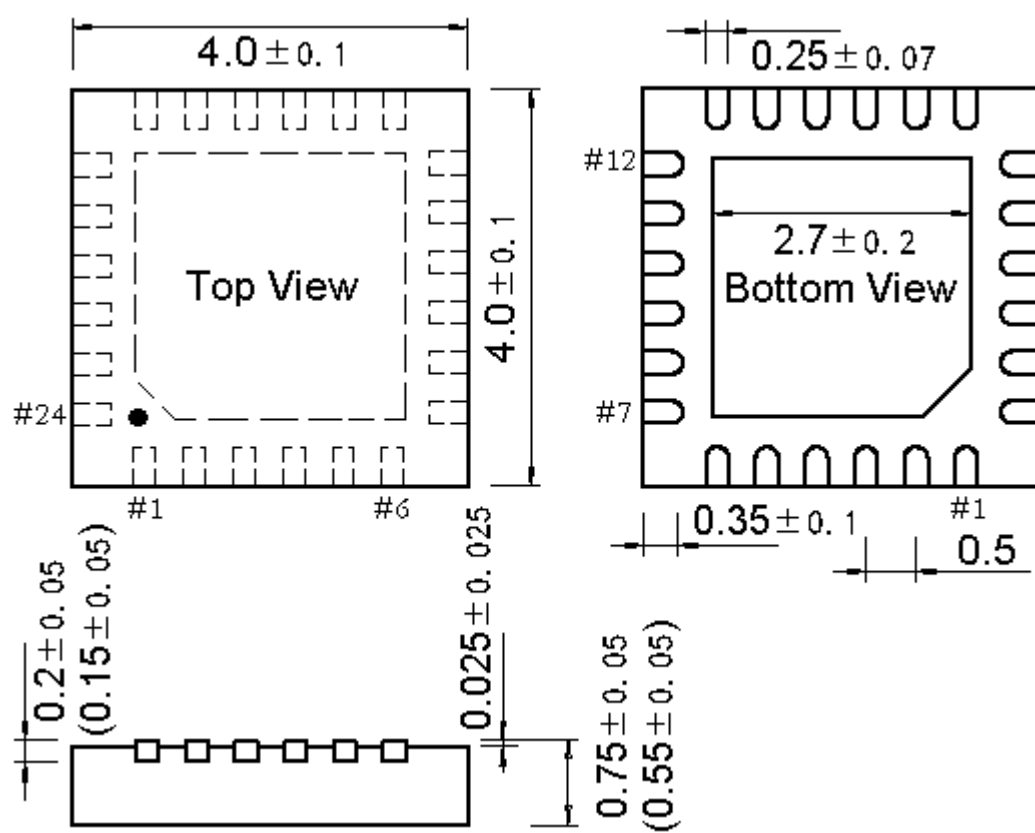
· QFN20X25X45 (QFN20-2.5*4.5*0.75-0.5)



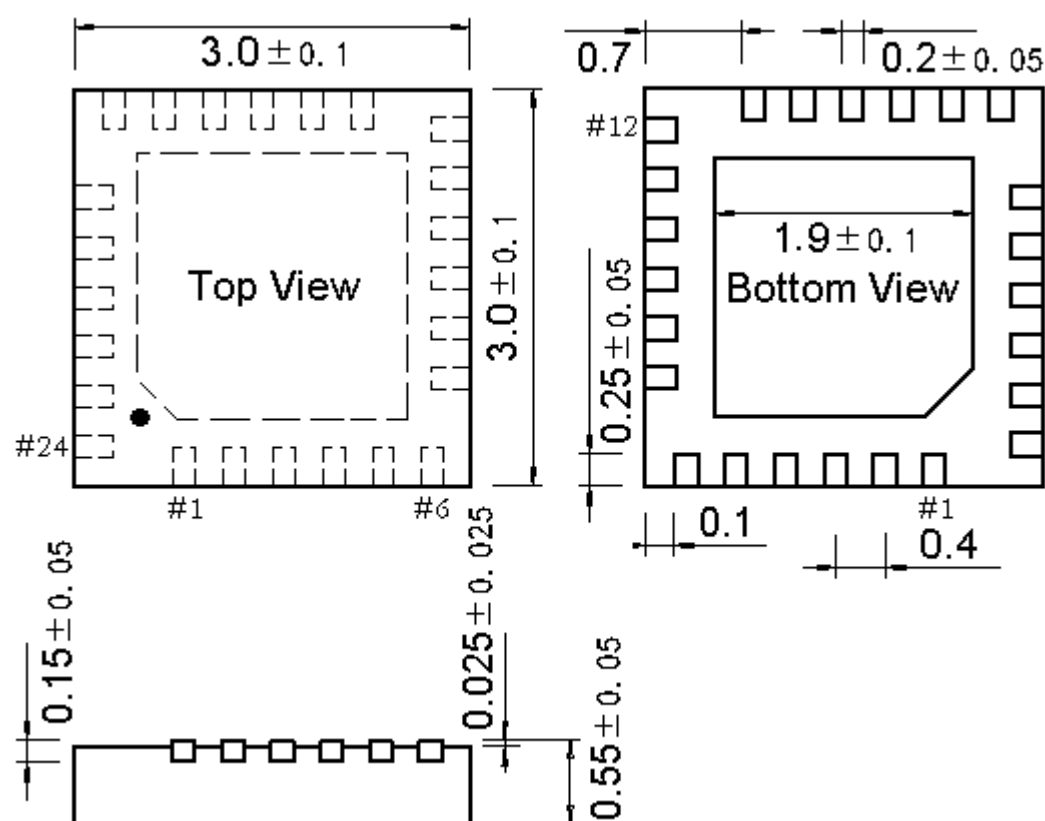
. QFN20C2 (QFN20C-2*2*0.55-0.32)



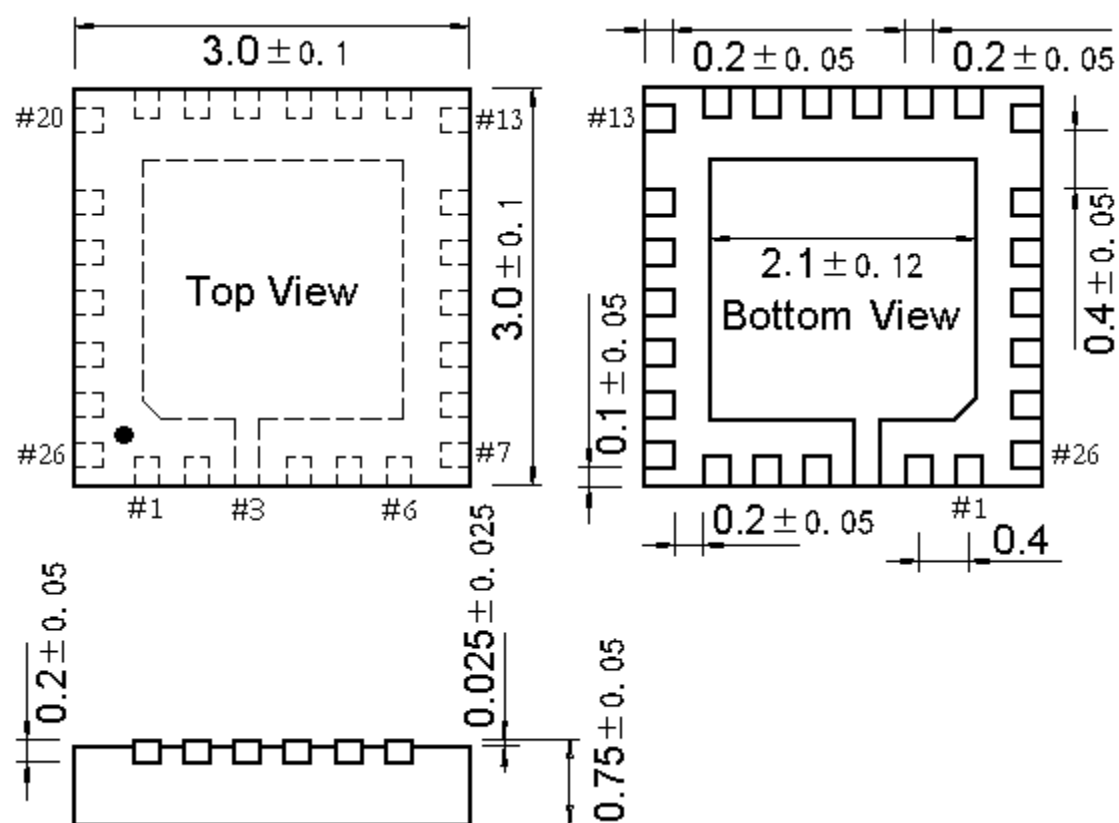
. QFN24 (QFN24-4*4)



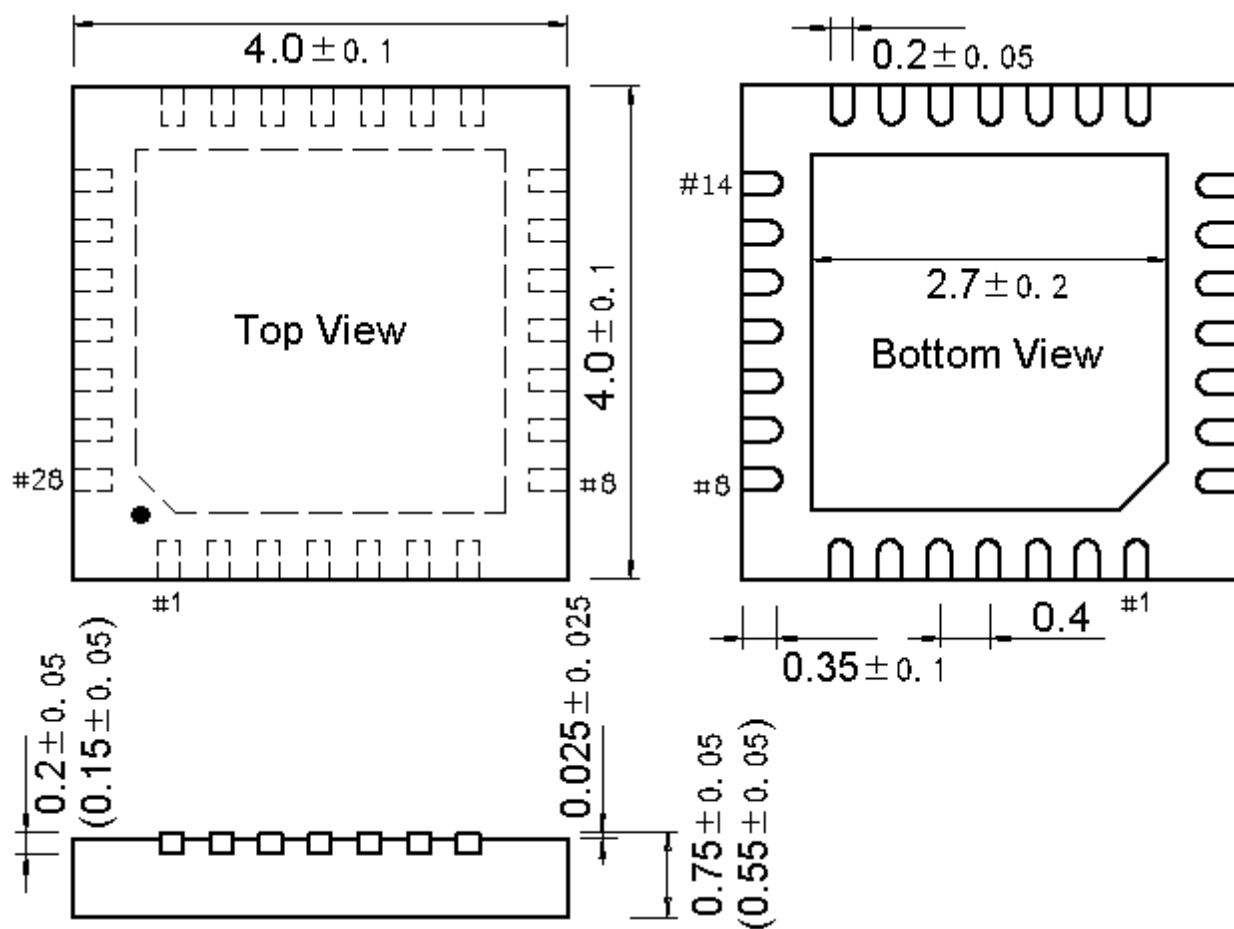
. QFN24X3 (QFN24-3*3*0.55-0.4)



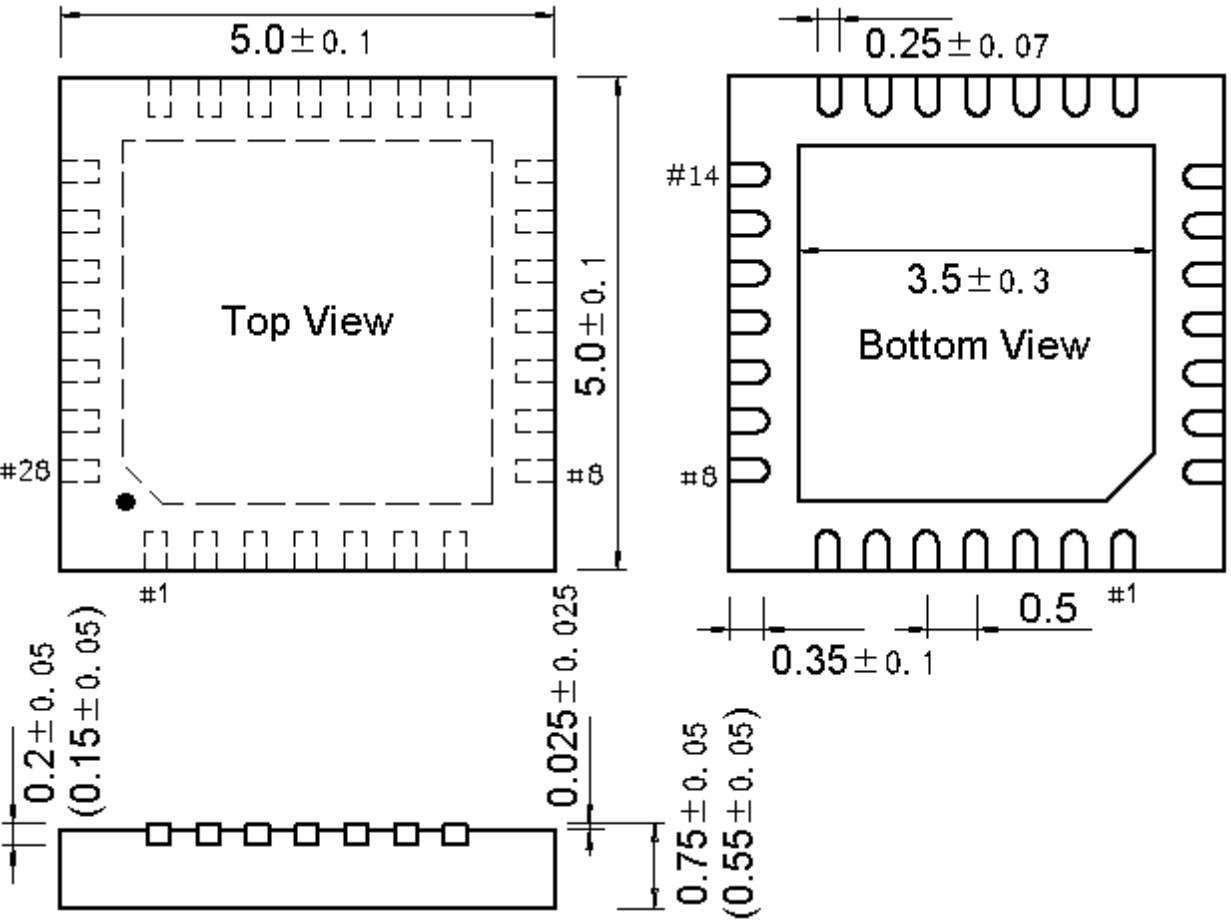
. QFN26C3 (QFN26C-3*3*0.75-0.4)



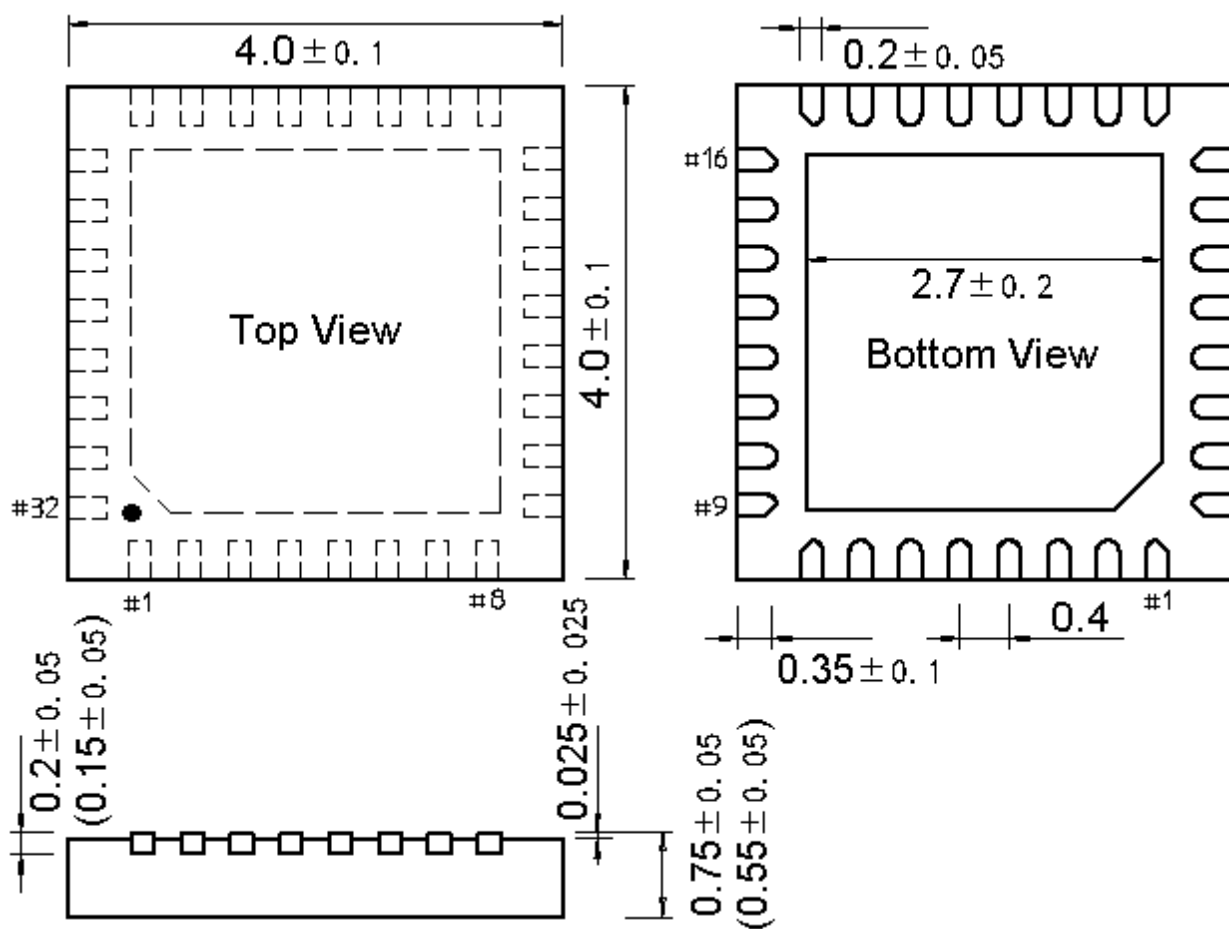
. QFN28 (QFN28-4*4)



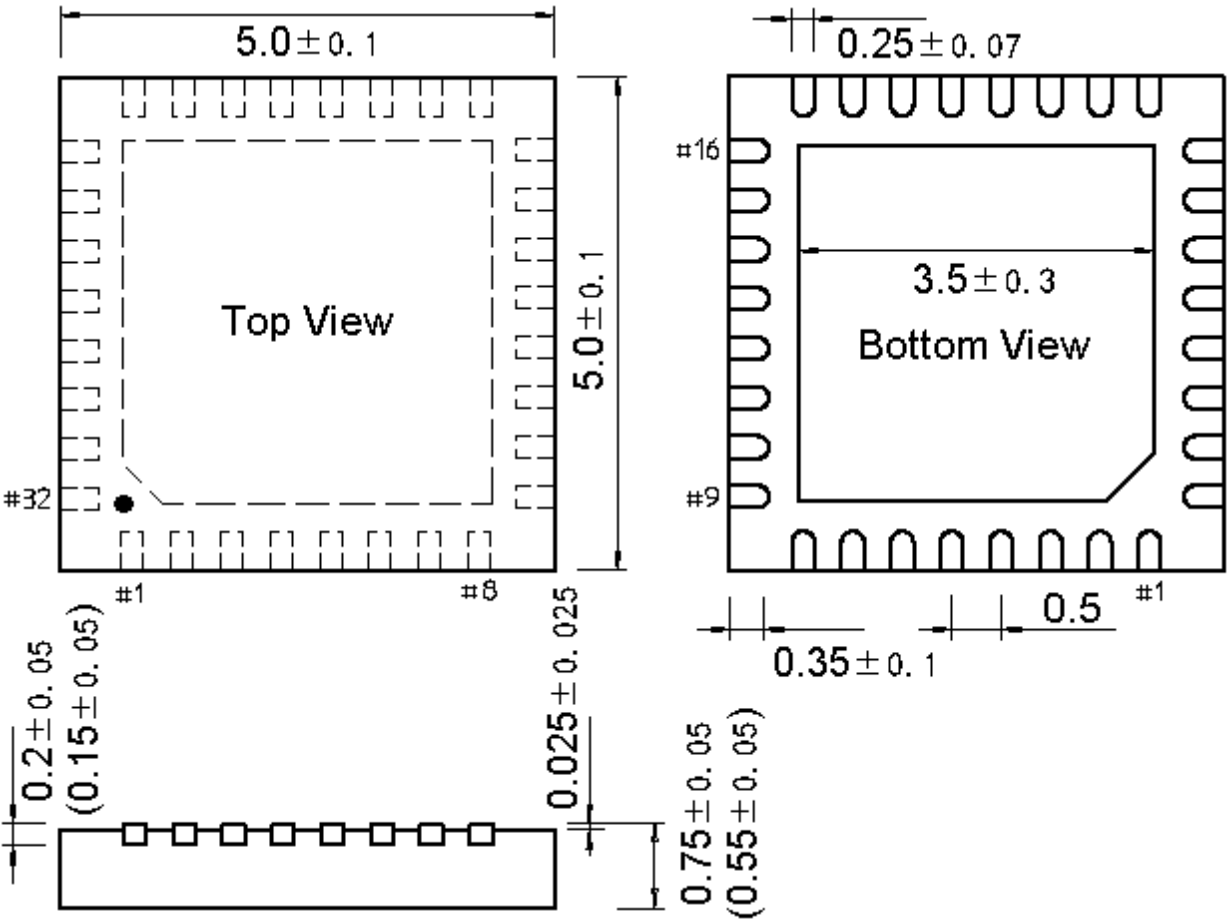
QFN28X5 (QFN28-5*5)



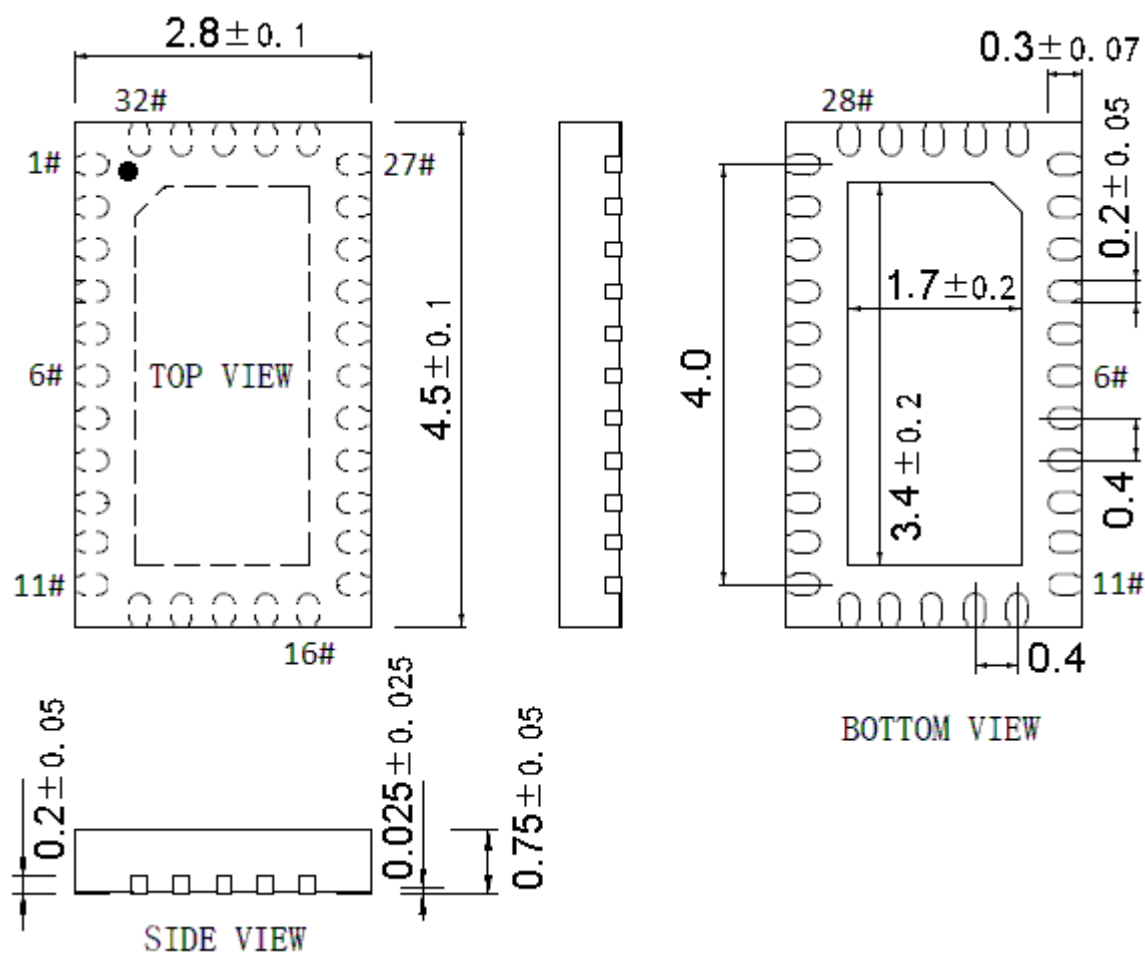
. QFN32 (QFN32-4*4)



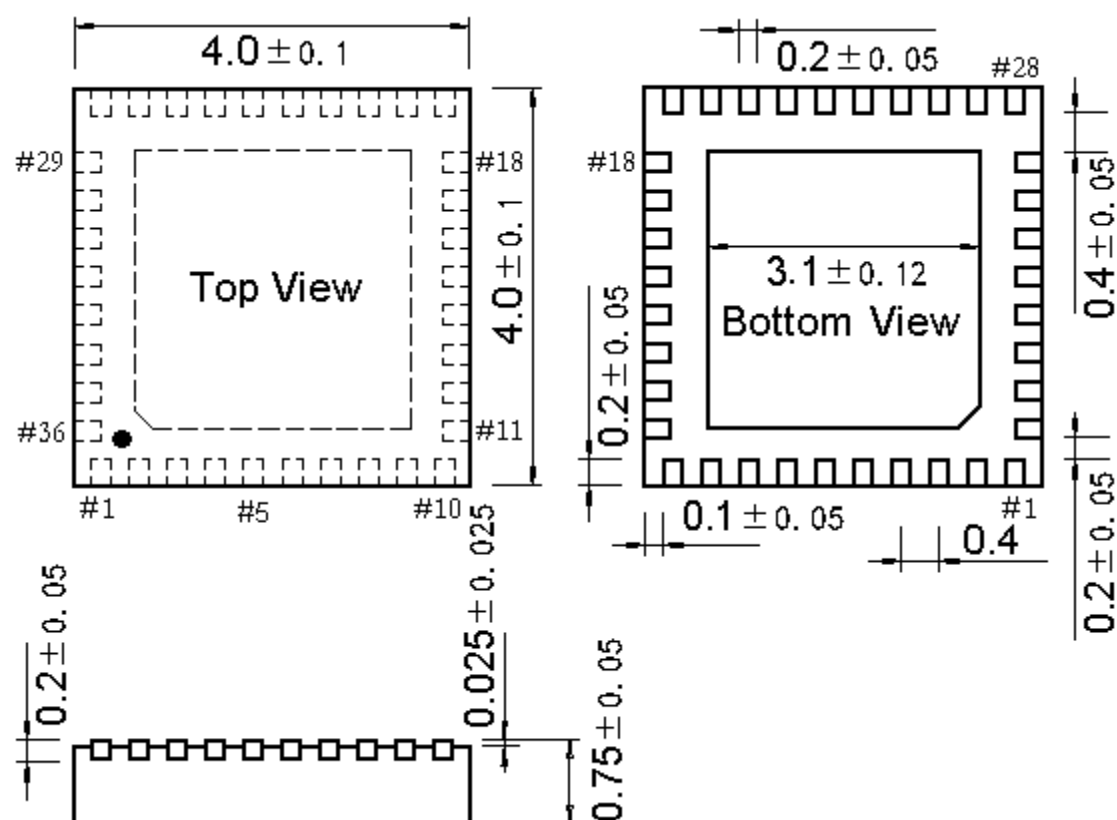
QFN32X5 (QFN32-5*5)



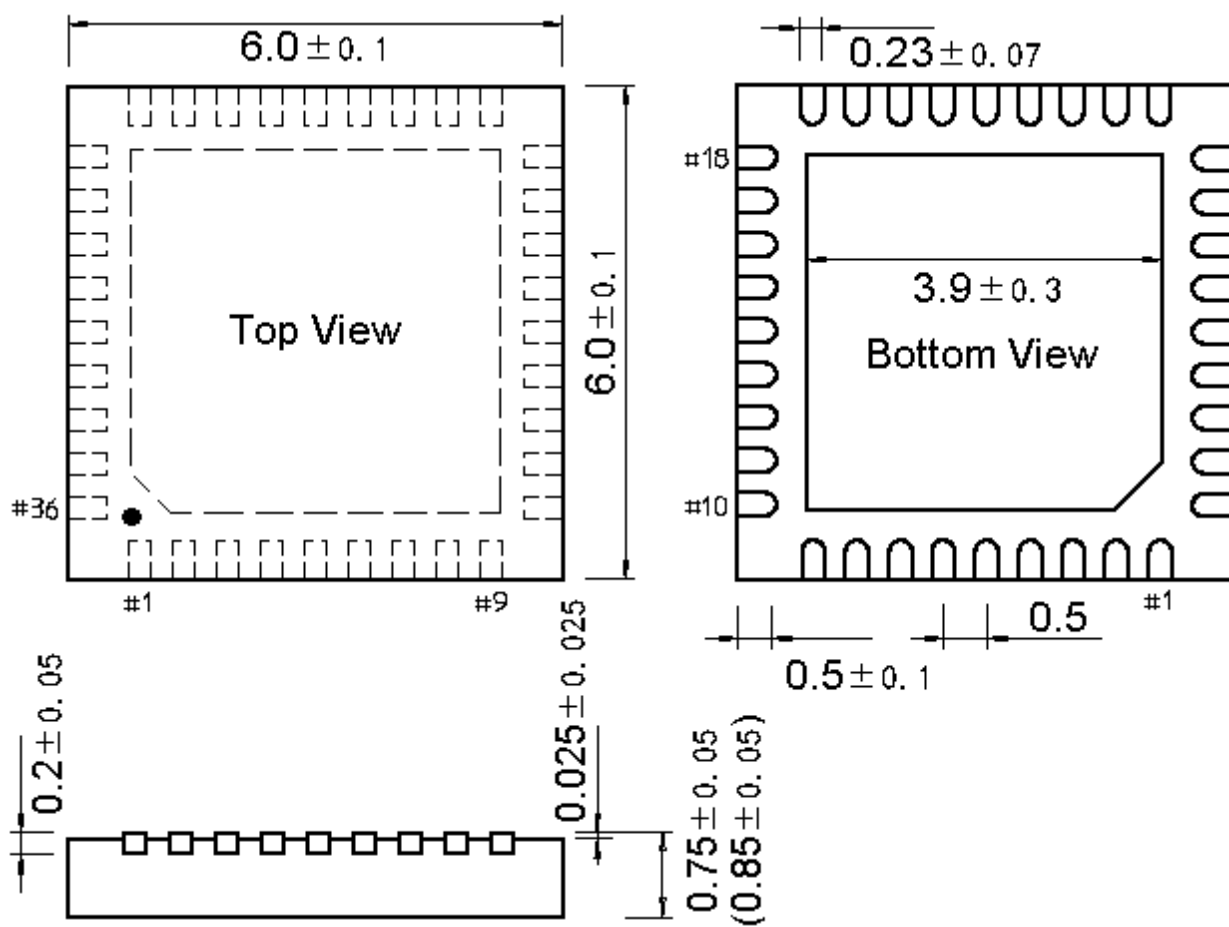
QFN32C28X45 (QFN32C-2.8*4.5*0.75-0.4)



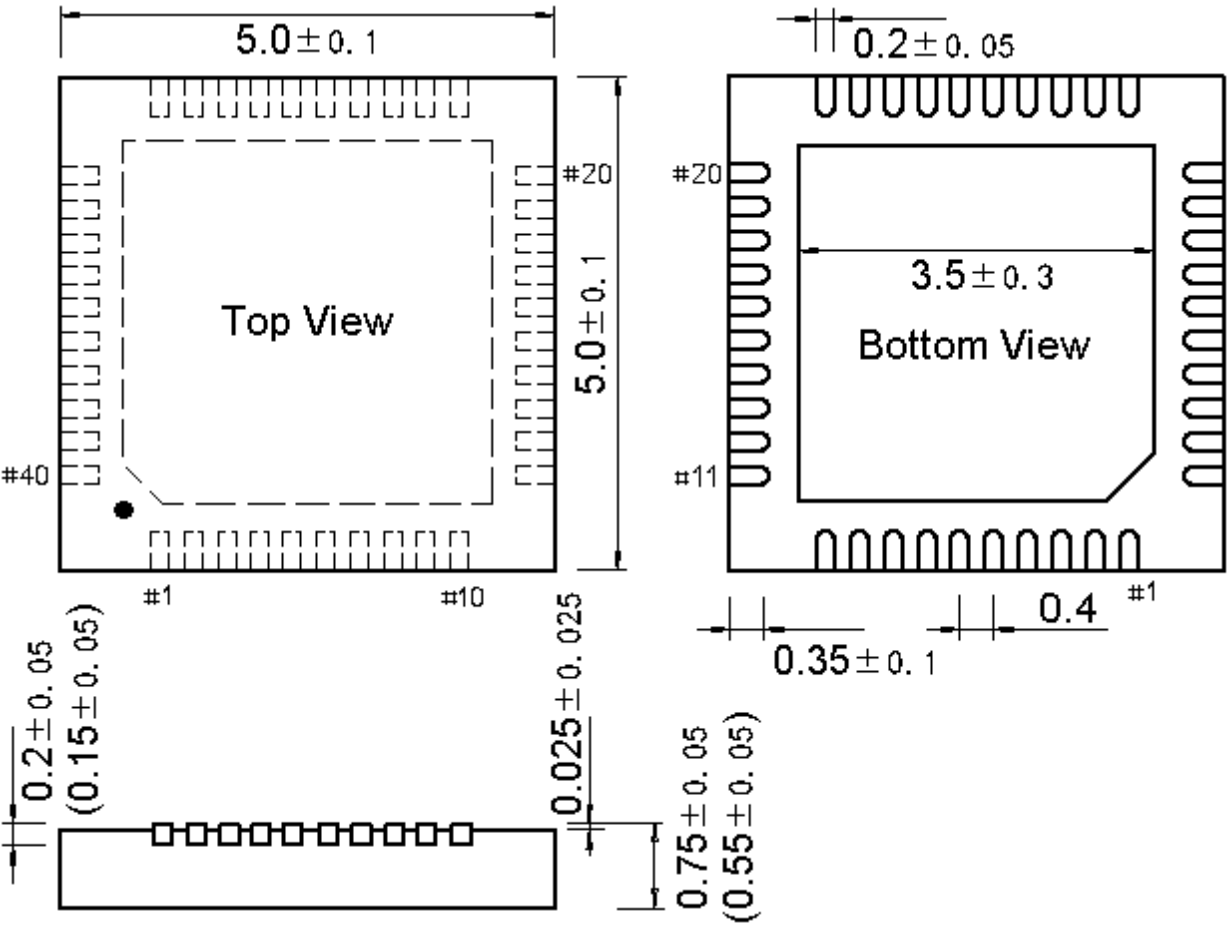
. QFN36C4 (QFN36C-4*4*0.75-0.4)



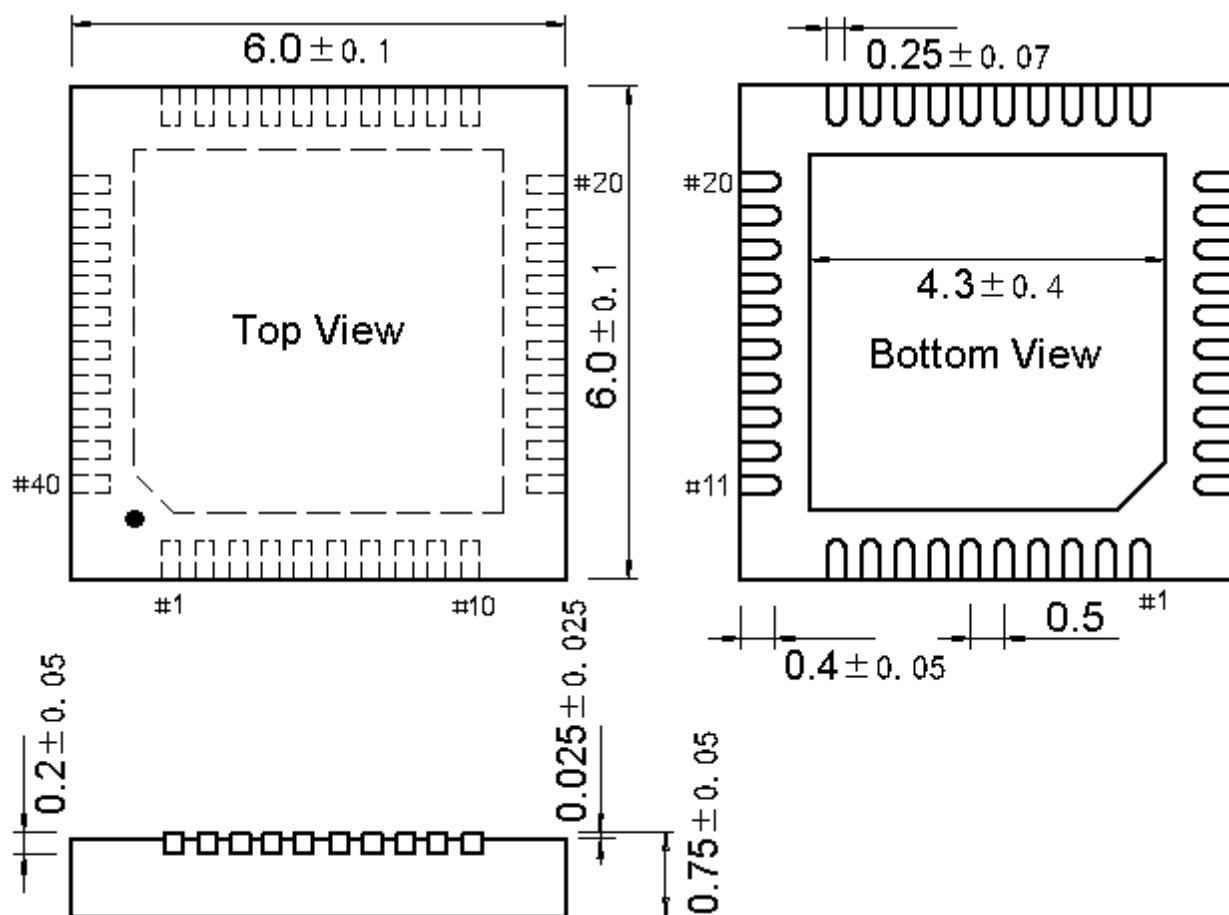
. QFN36X6 (QFN36-6*6)



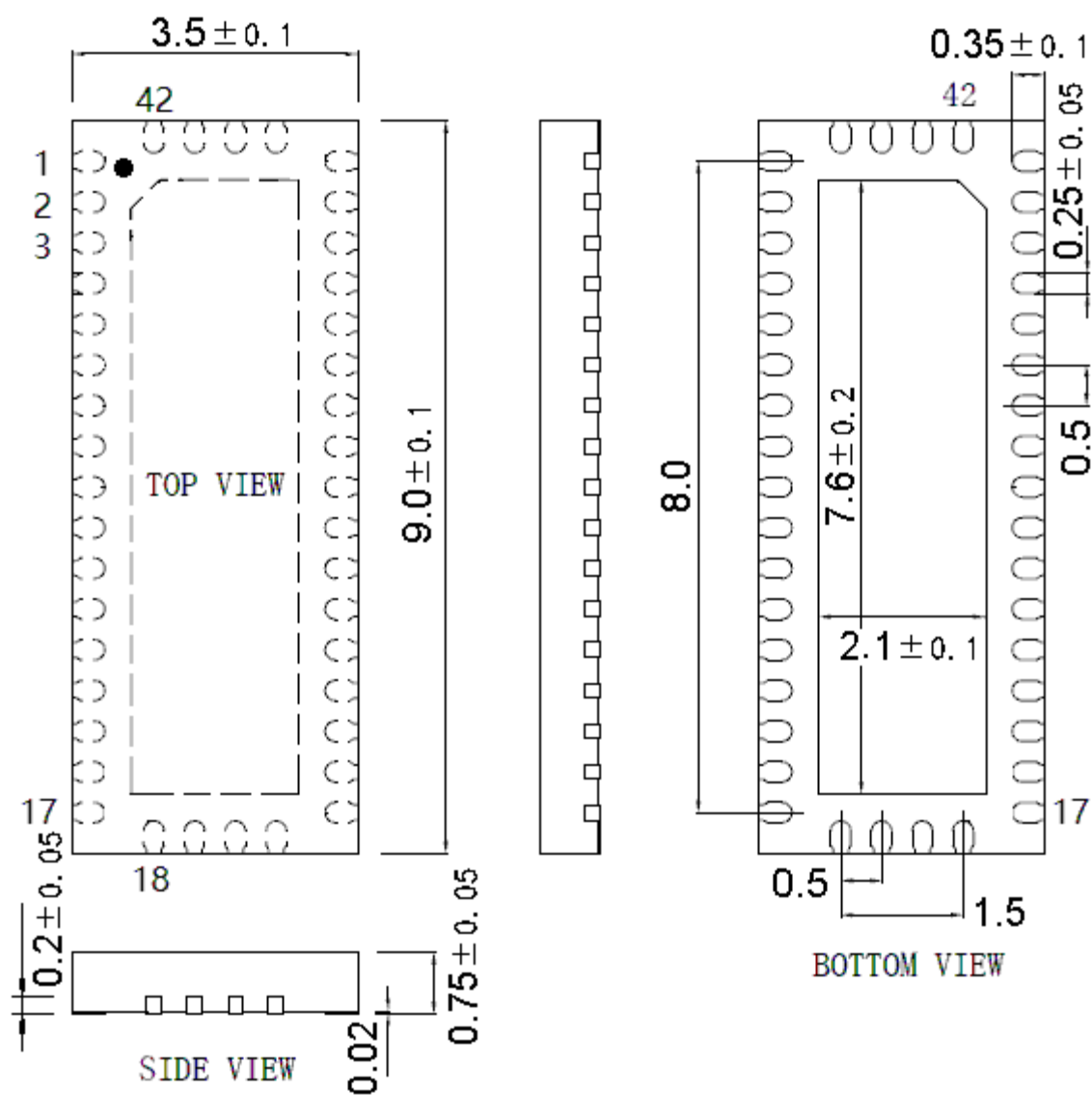
· QFN40 (QFN40-5*5)



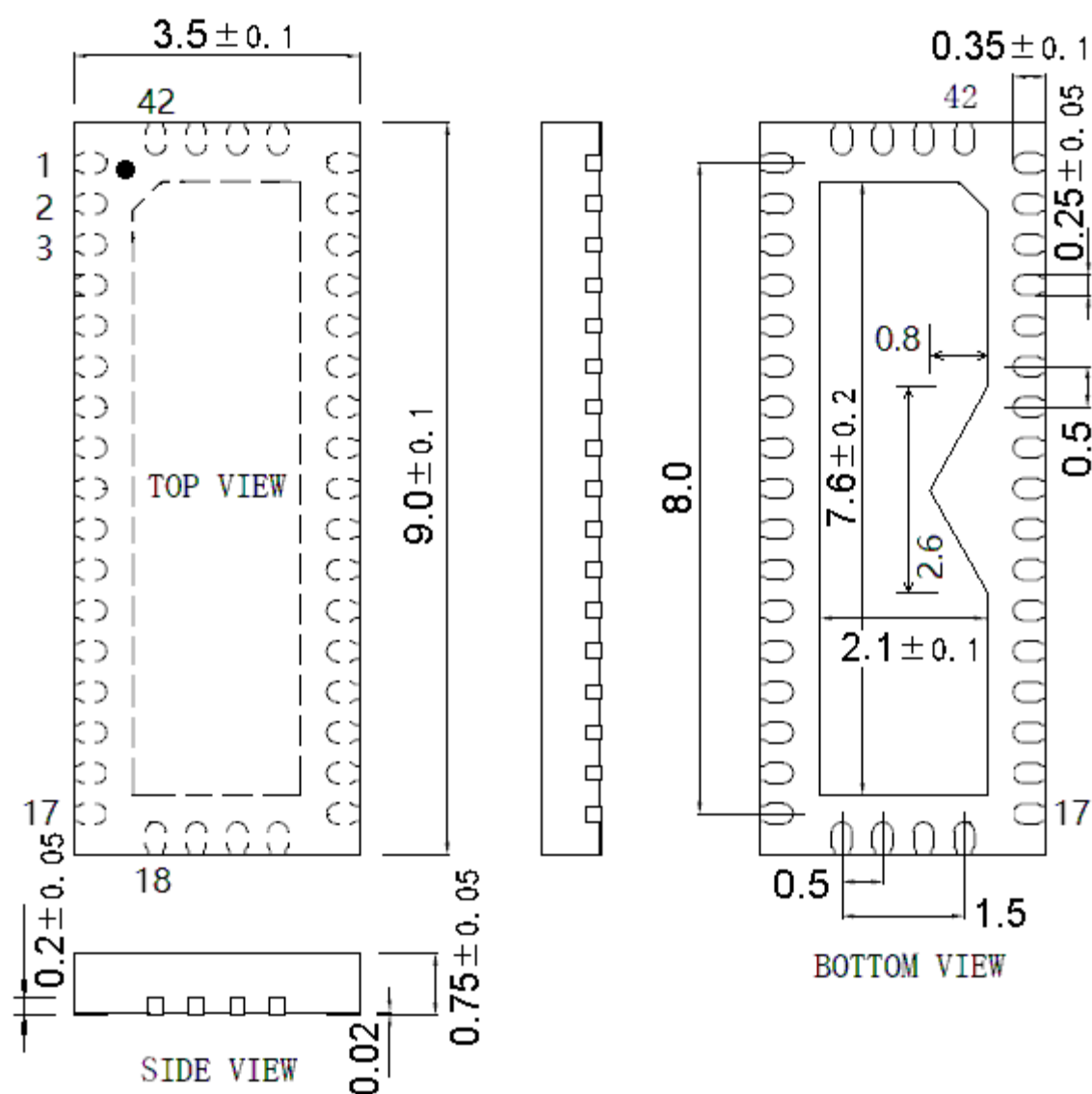
. QFN40X6 (QFN40-6*6)



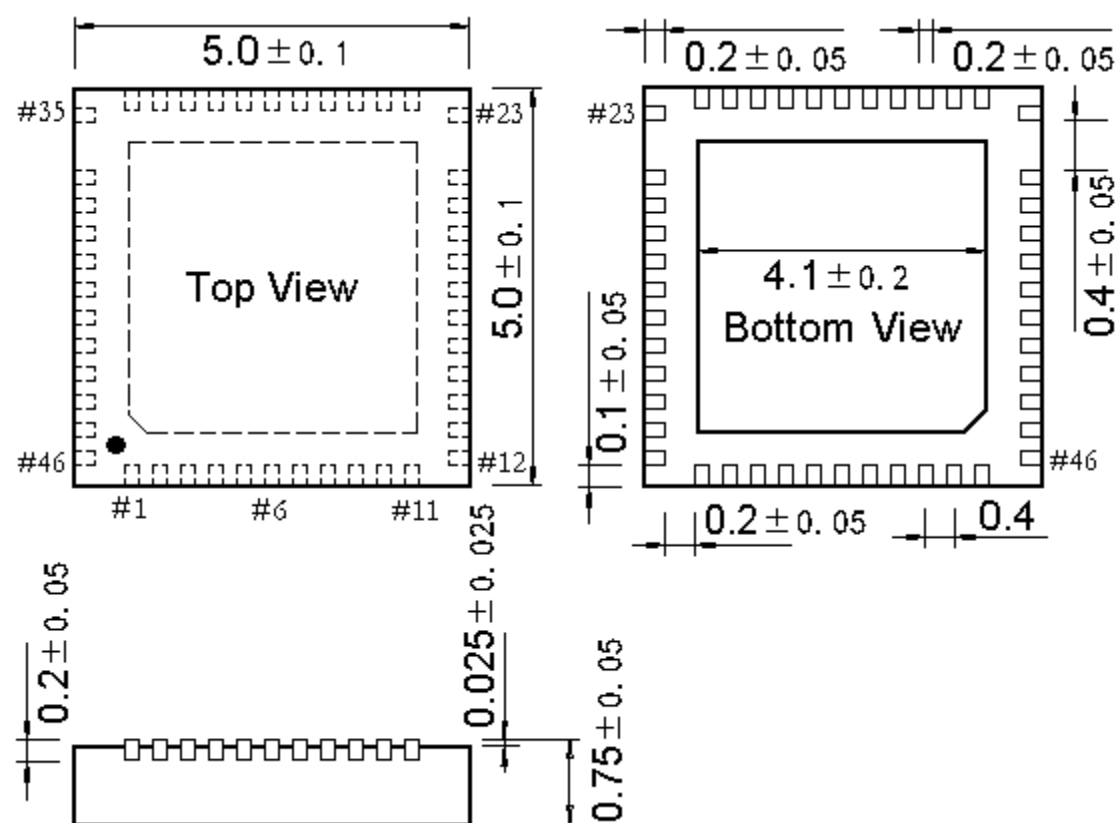
. QFN42X35X9 (QFN42-3.5*9*0.75-0.5)



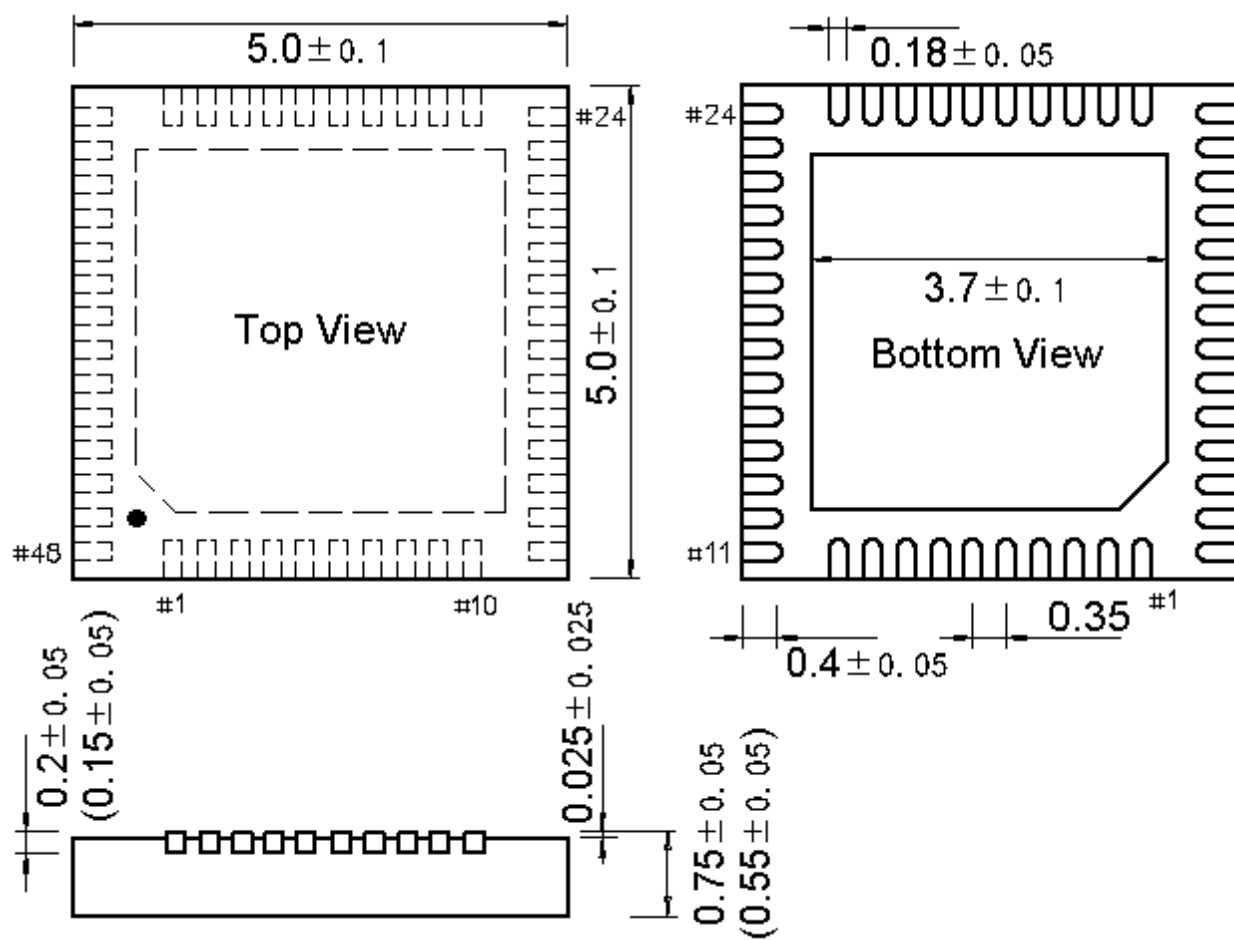
· QFN42C35X9 (QFN42C-3.5*9*0.75-0.5)



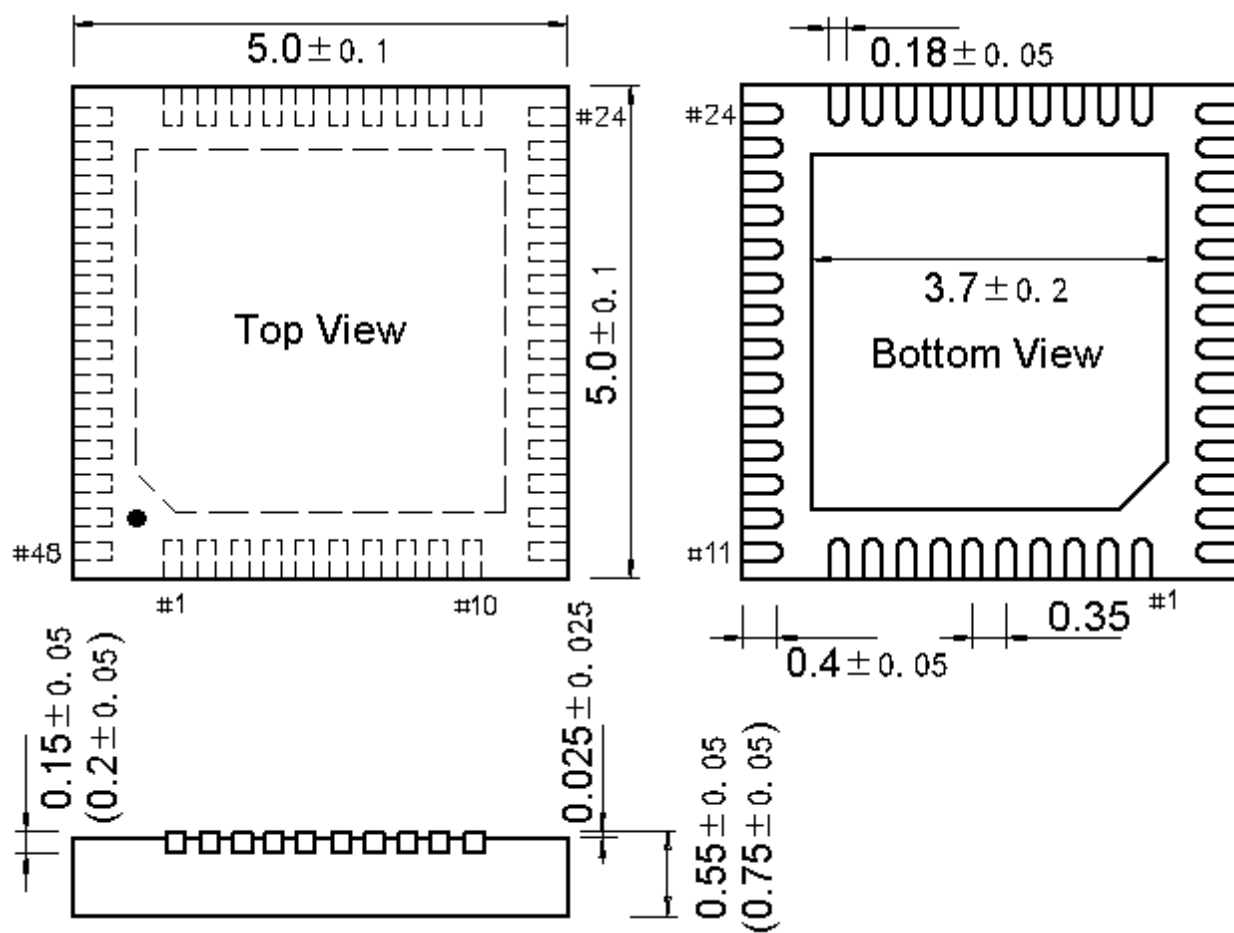
. QFN46C5 (QFN46C-5*5*0.75-0.4)



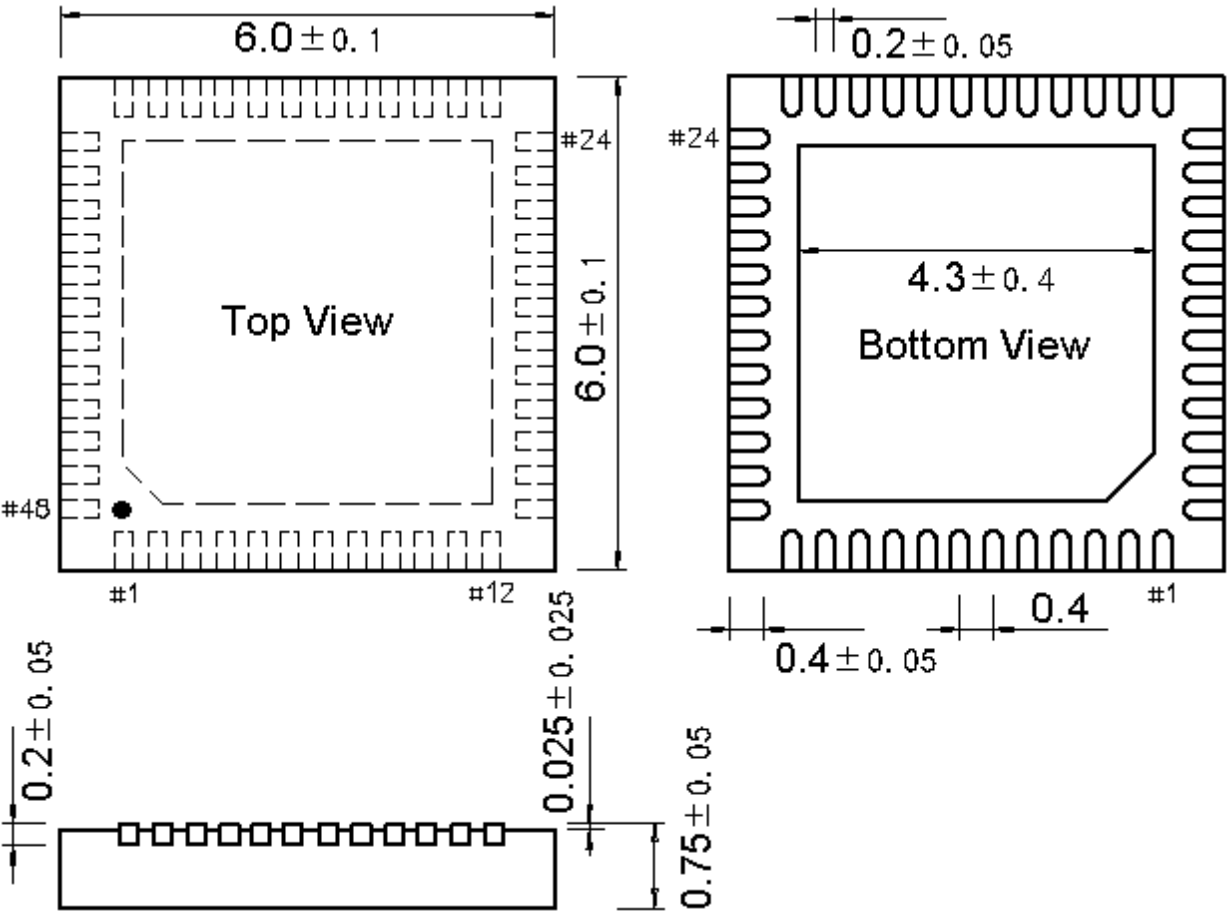
· QFN48 (QFN48-5*5*0.75-0.35)



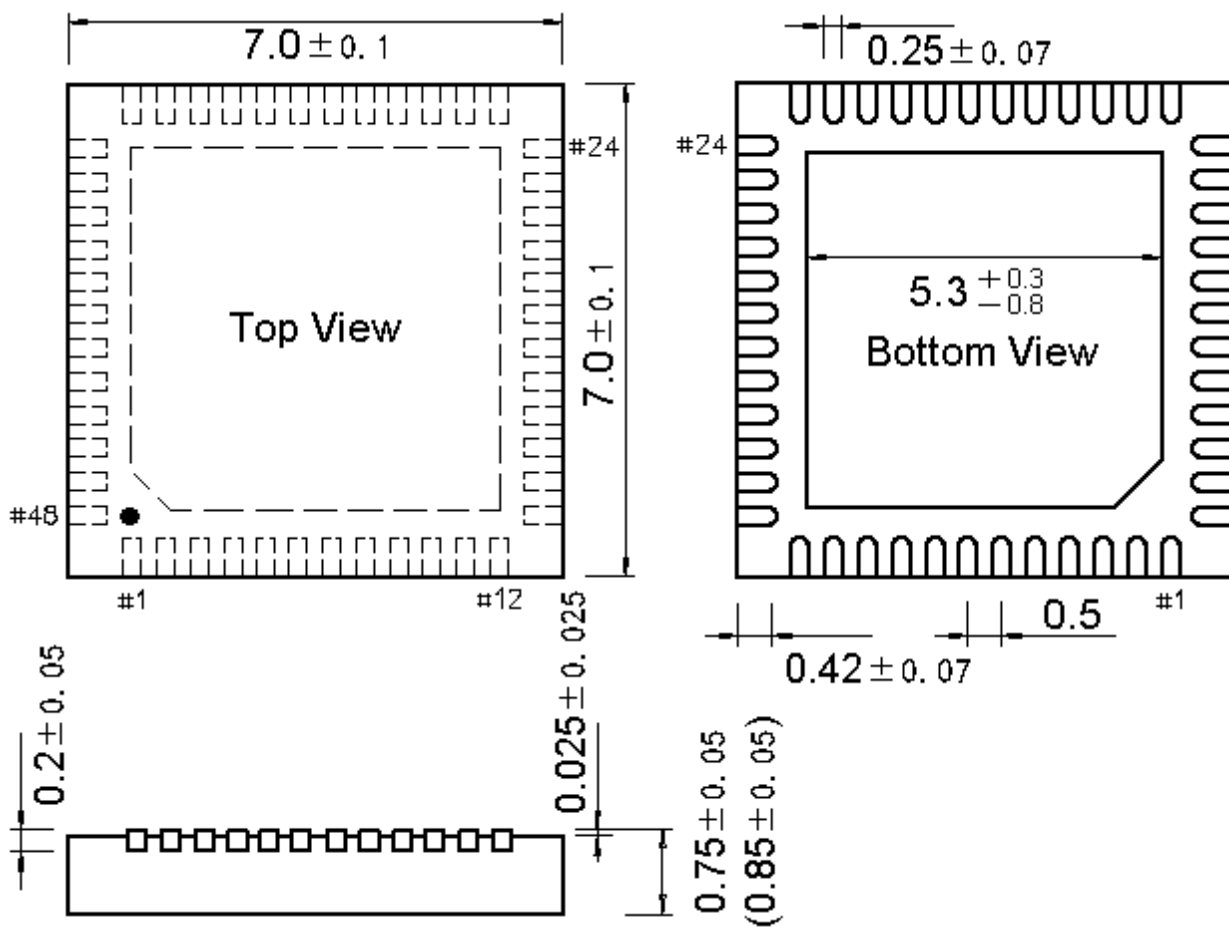
. QFN48-5*5*0.55-0.35



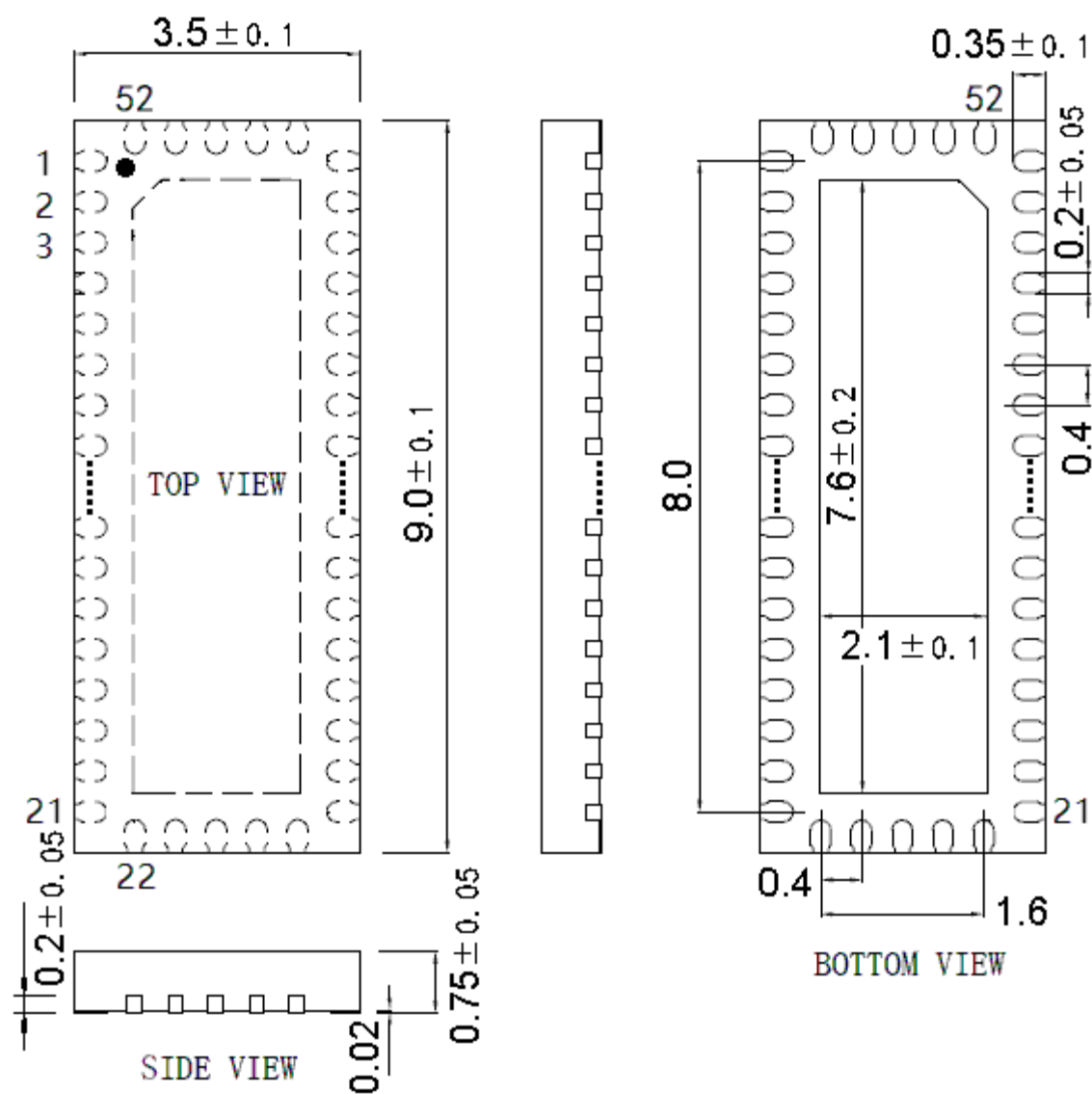
QFN48X6 (QFN48-6*6)



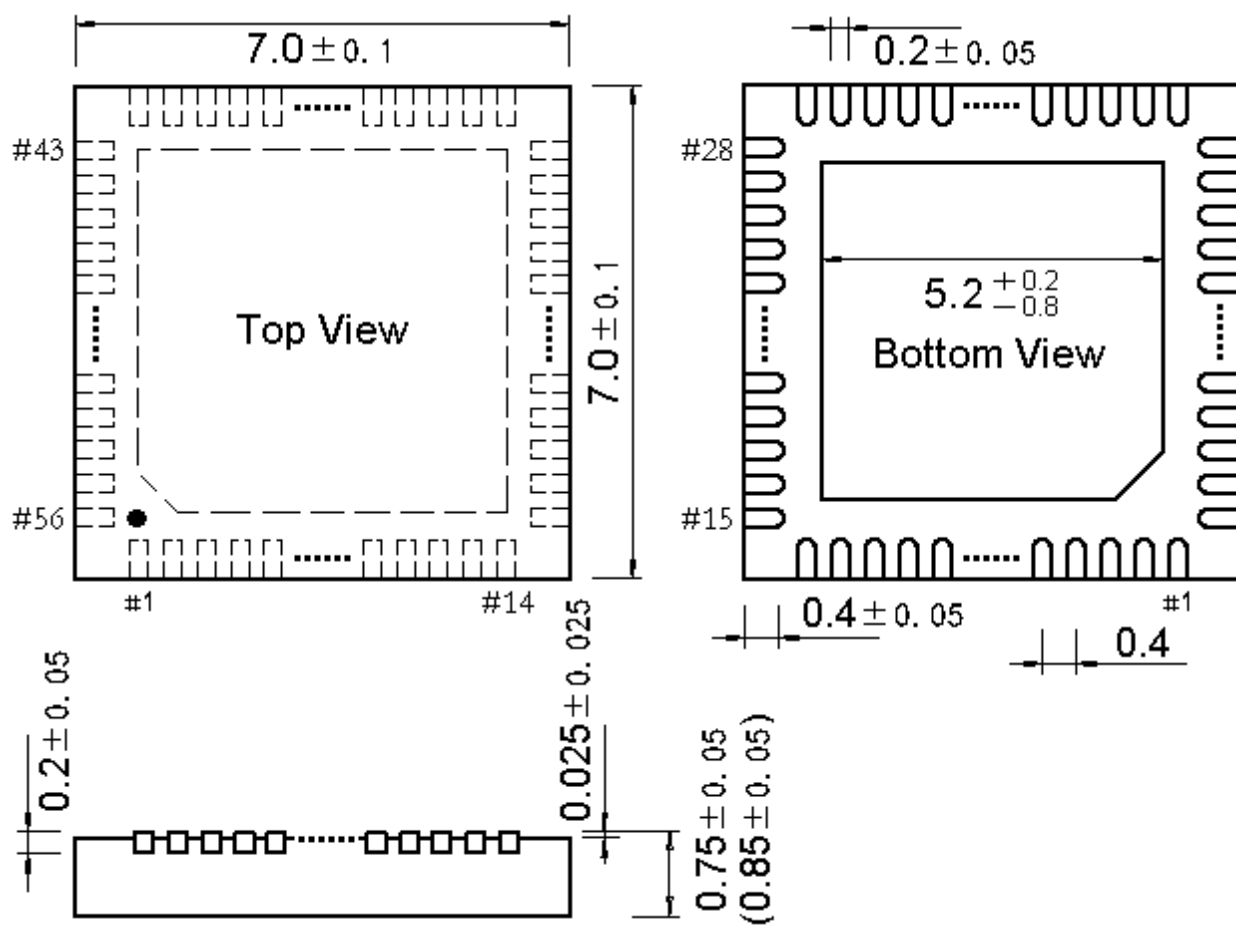
. QFN48X7 (QFN48-7*7)



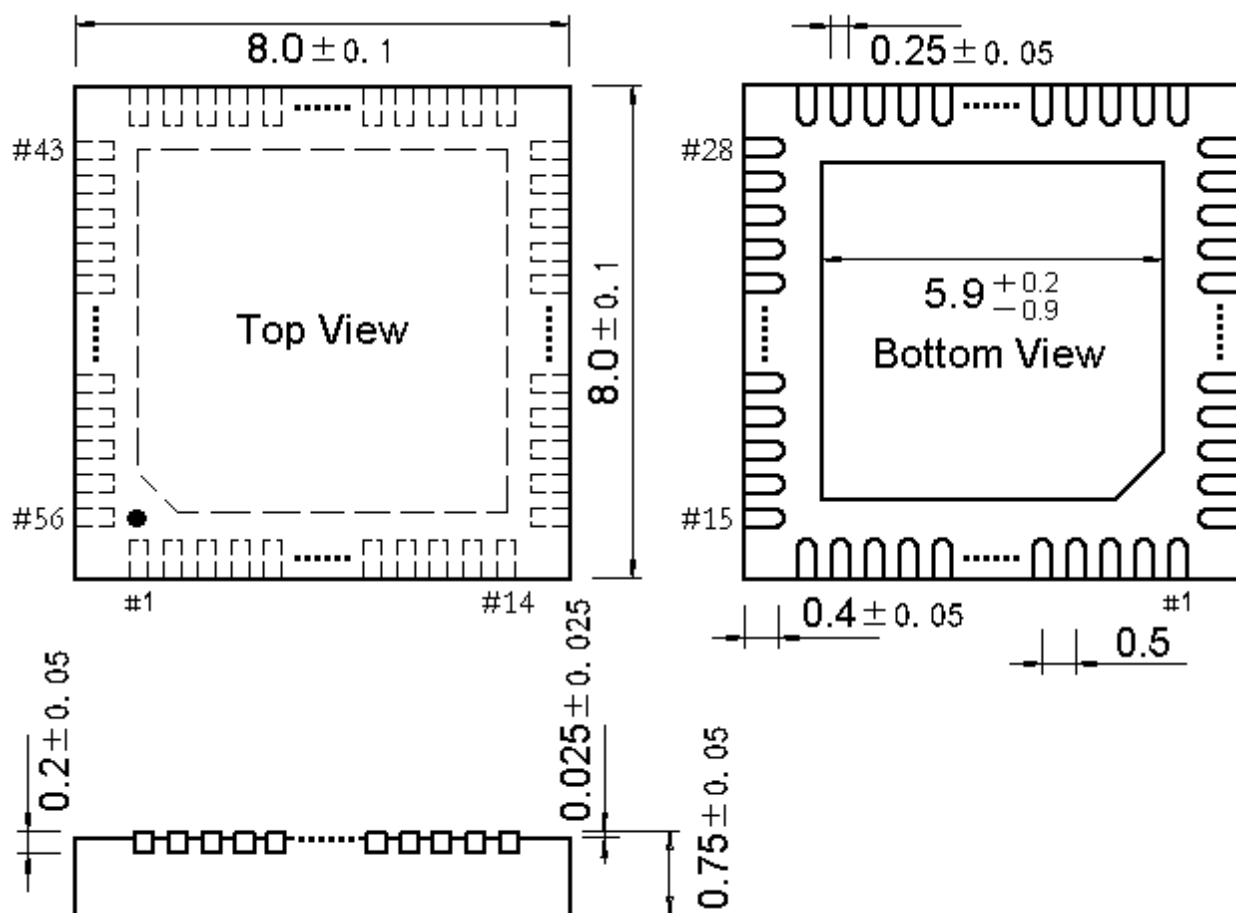
· QFN52X35X9 (QFN52-3.5*9*0.75-0.4)



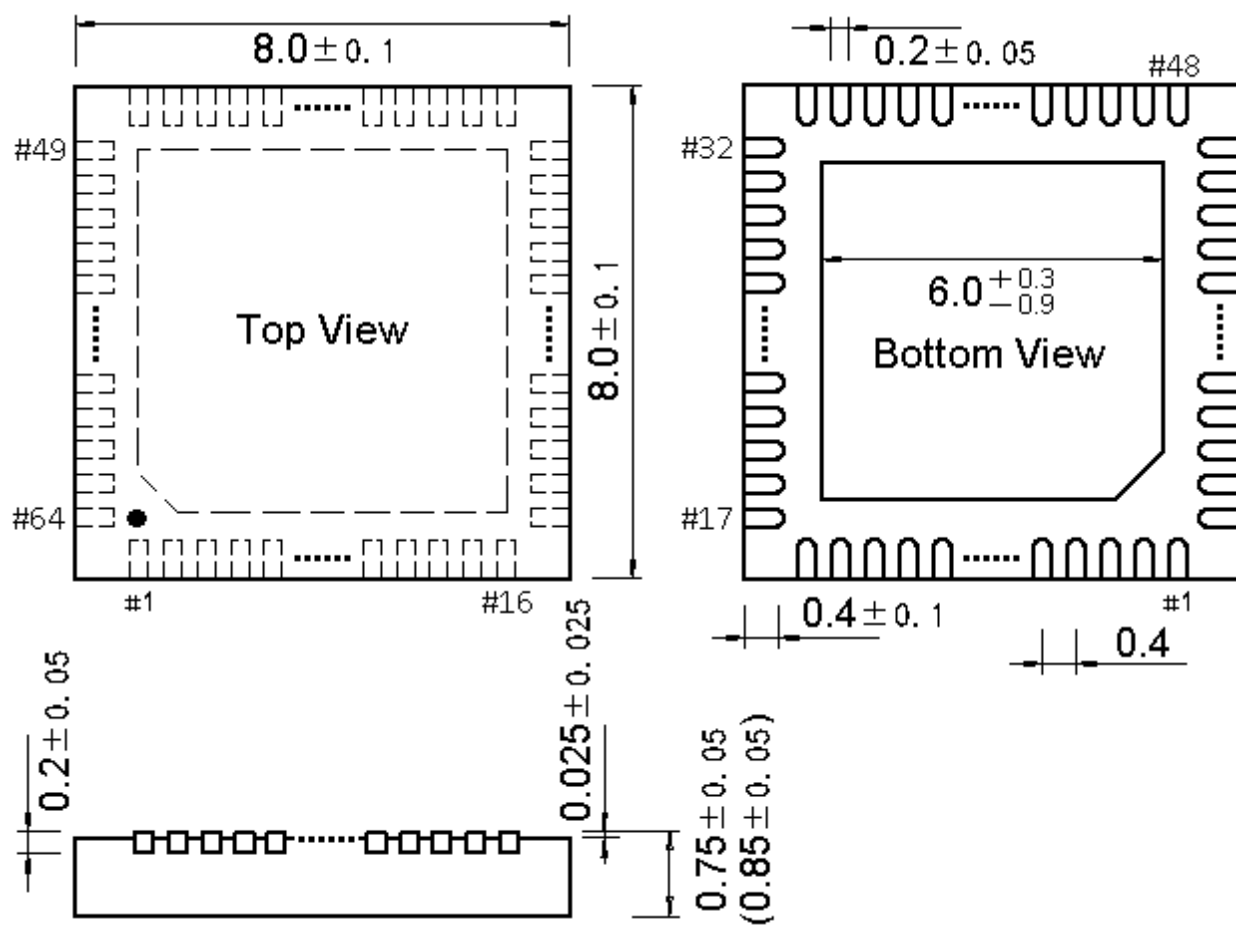
. QFN56 (QFN56-7*7)



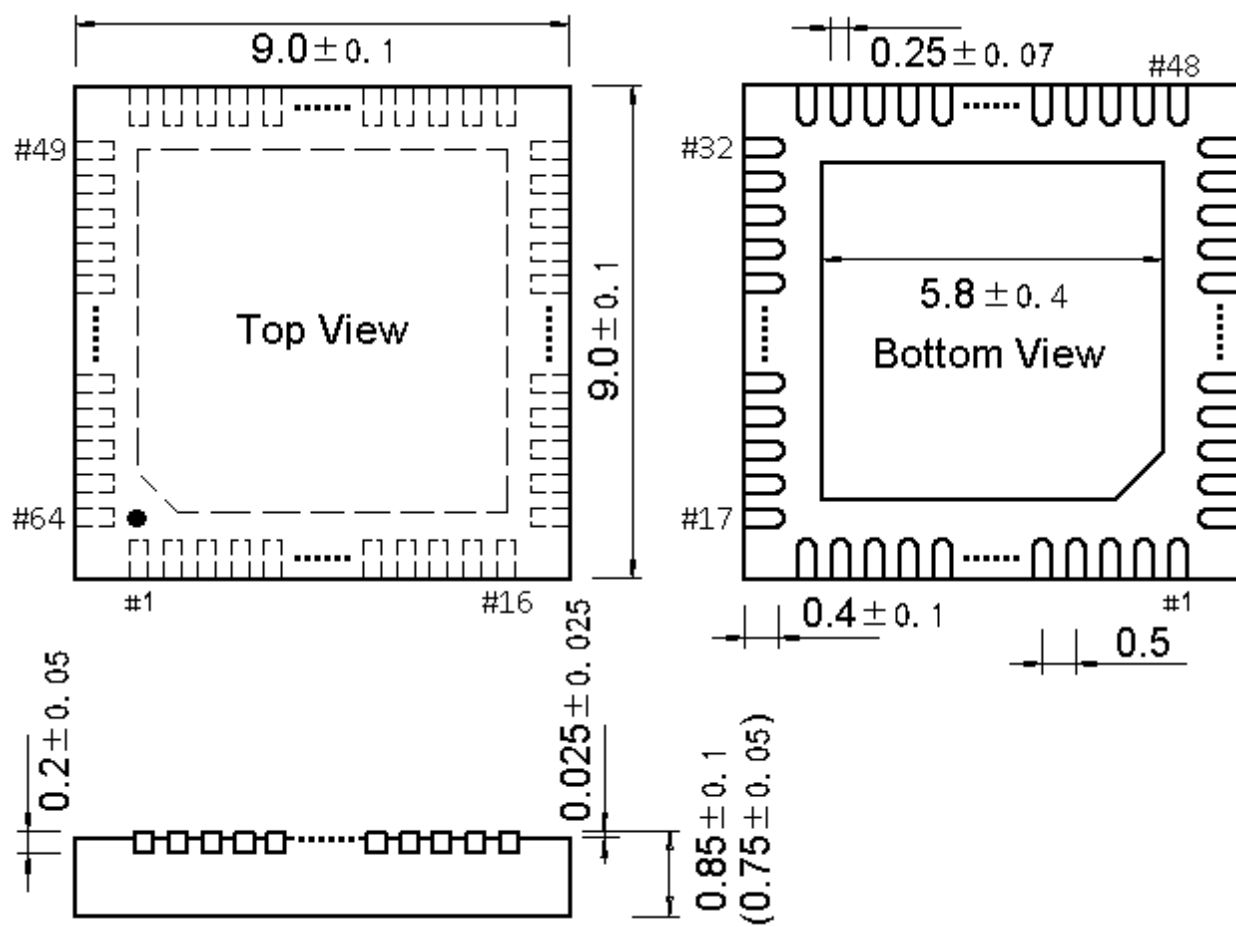
. QFN56X8 (QFN56-8*8)



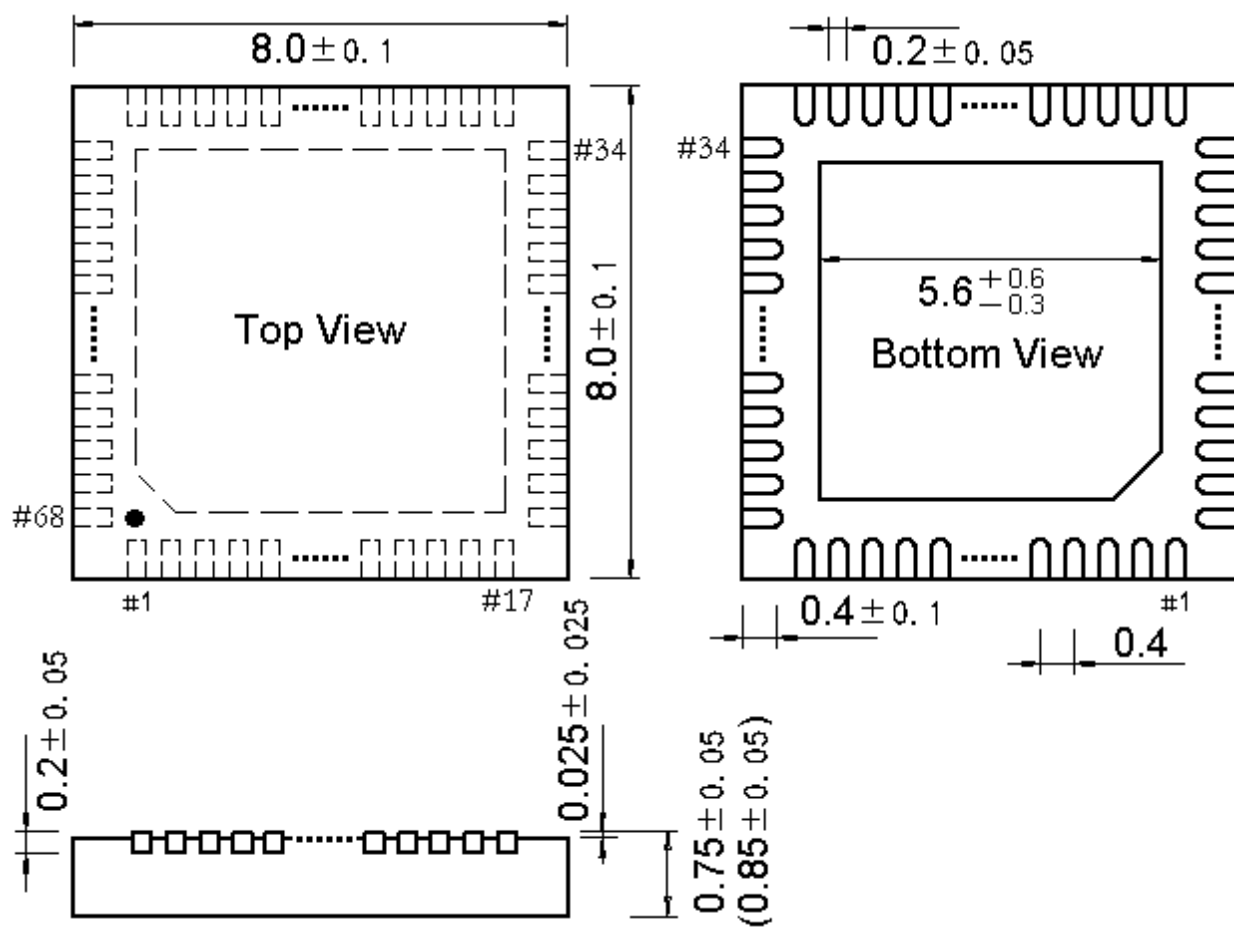
. QFN64 (QFN64-8*8)



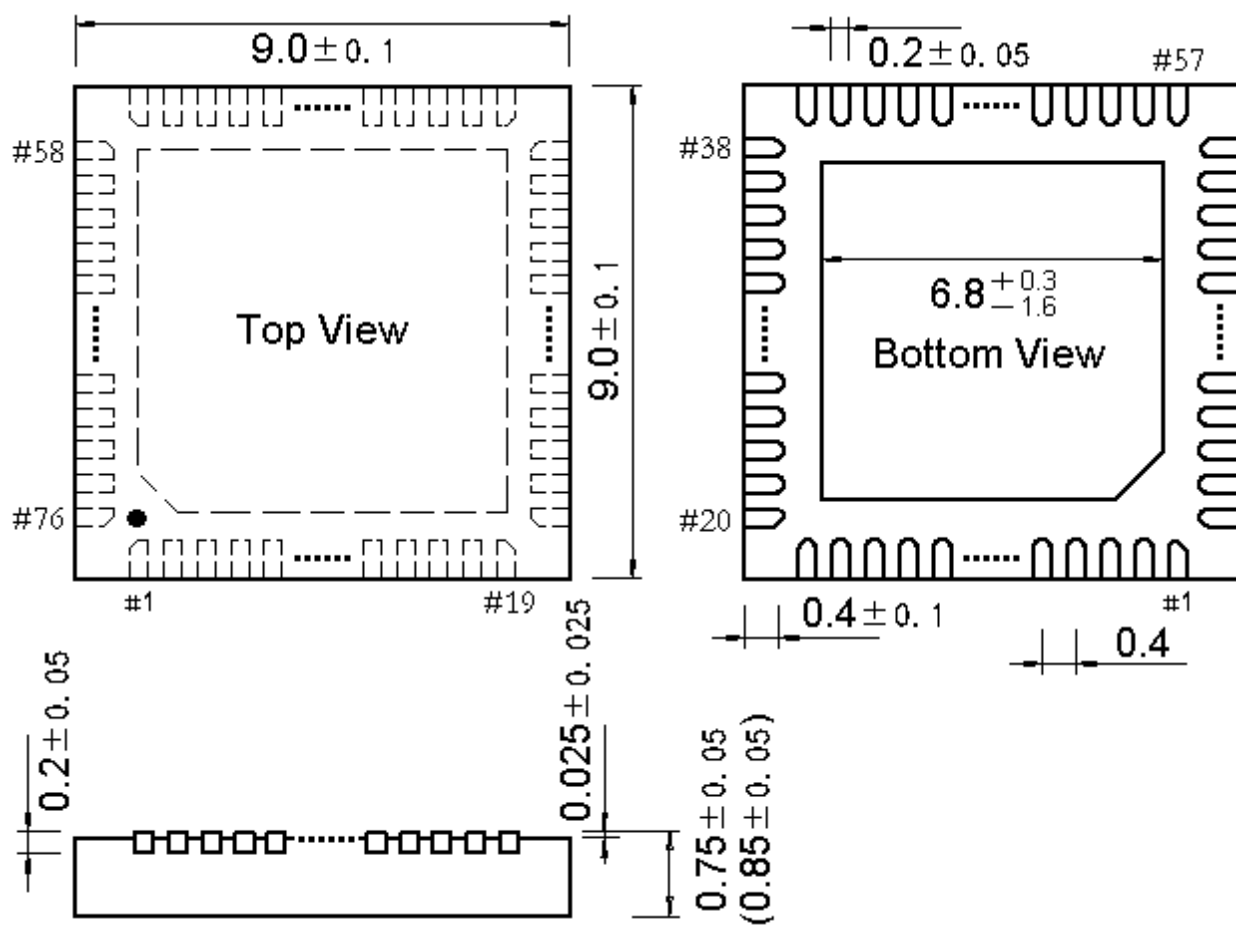
. QFN64X9 (QFN64-9*9)



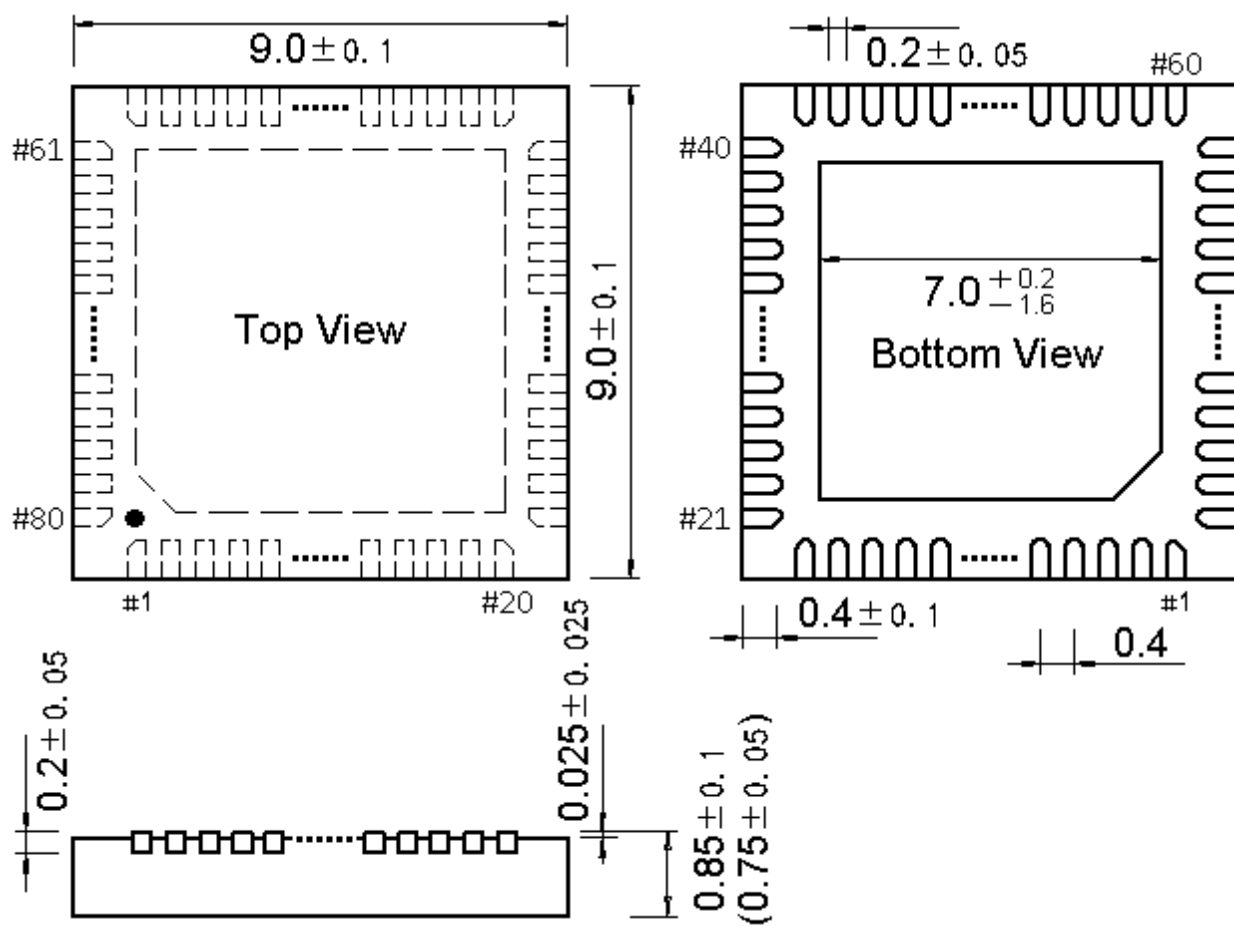
. QFN68 (QFN68-8*8)



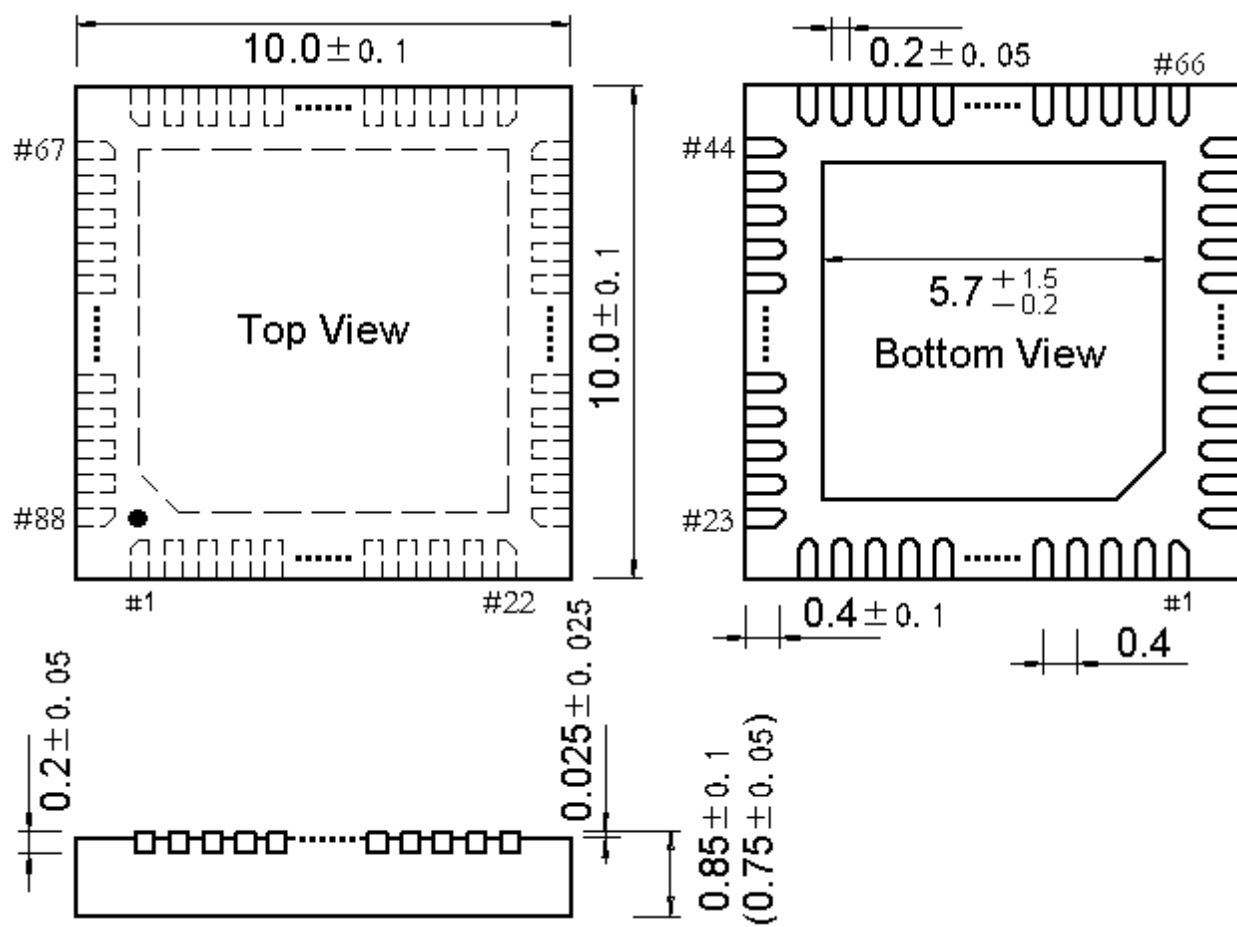
. QFN76 (QFN76-9*9)



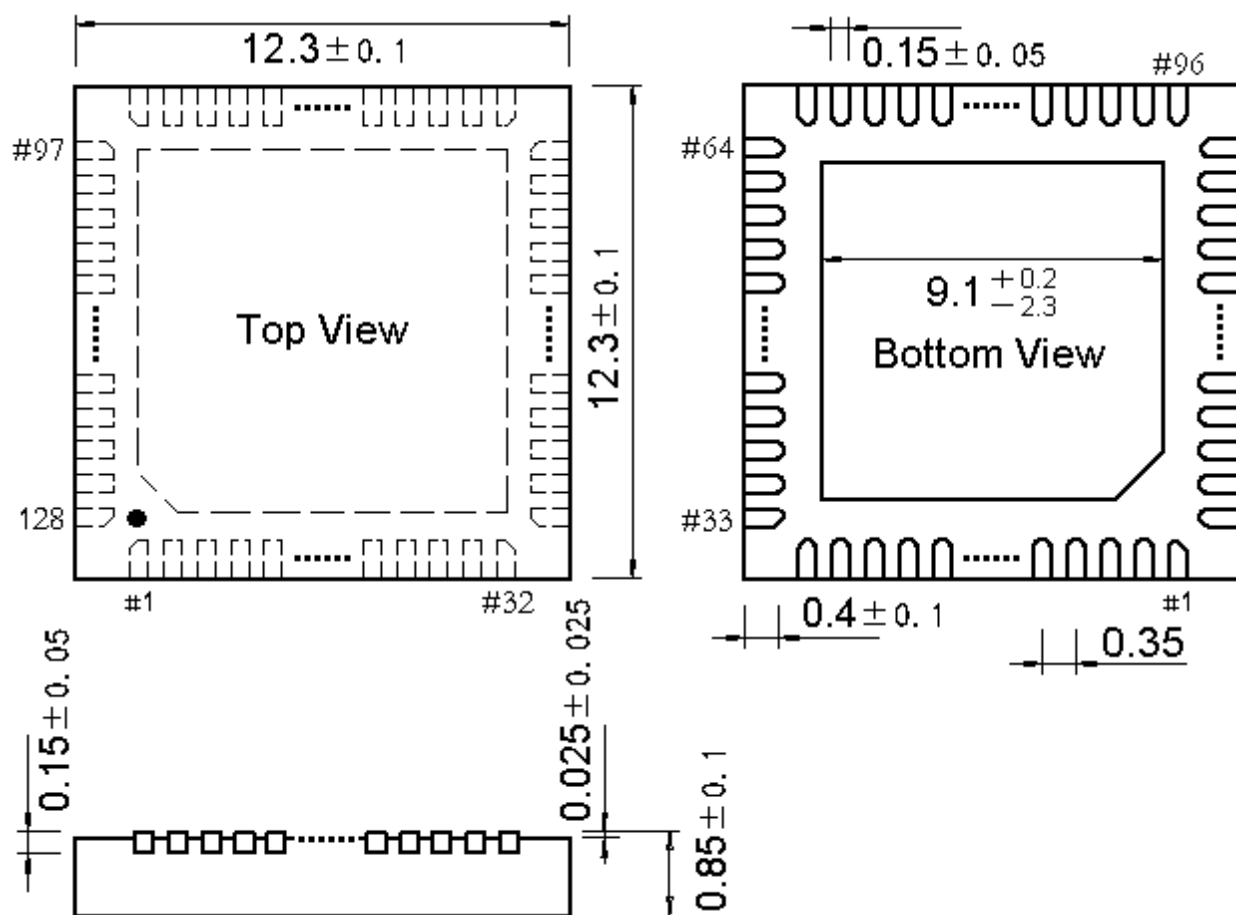
. QFN80 (QFN80-9*9)



QFN88 (QFN88-10*10)

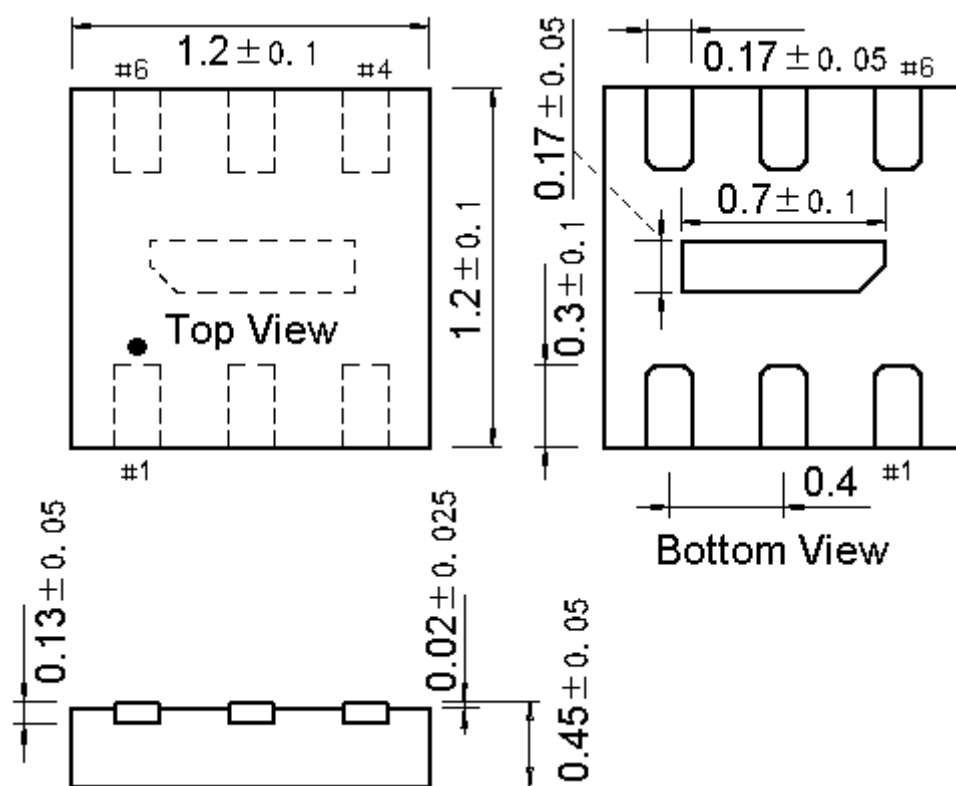


. QFN128 (QFN128-12.3*12.3)

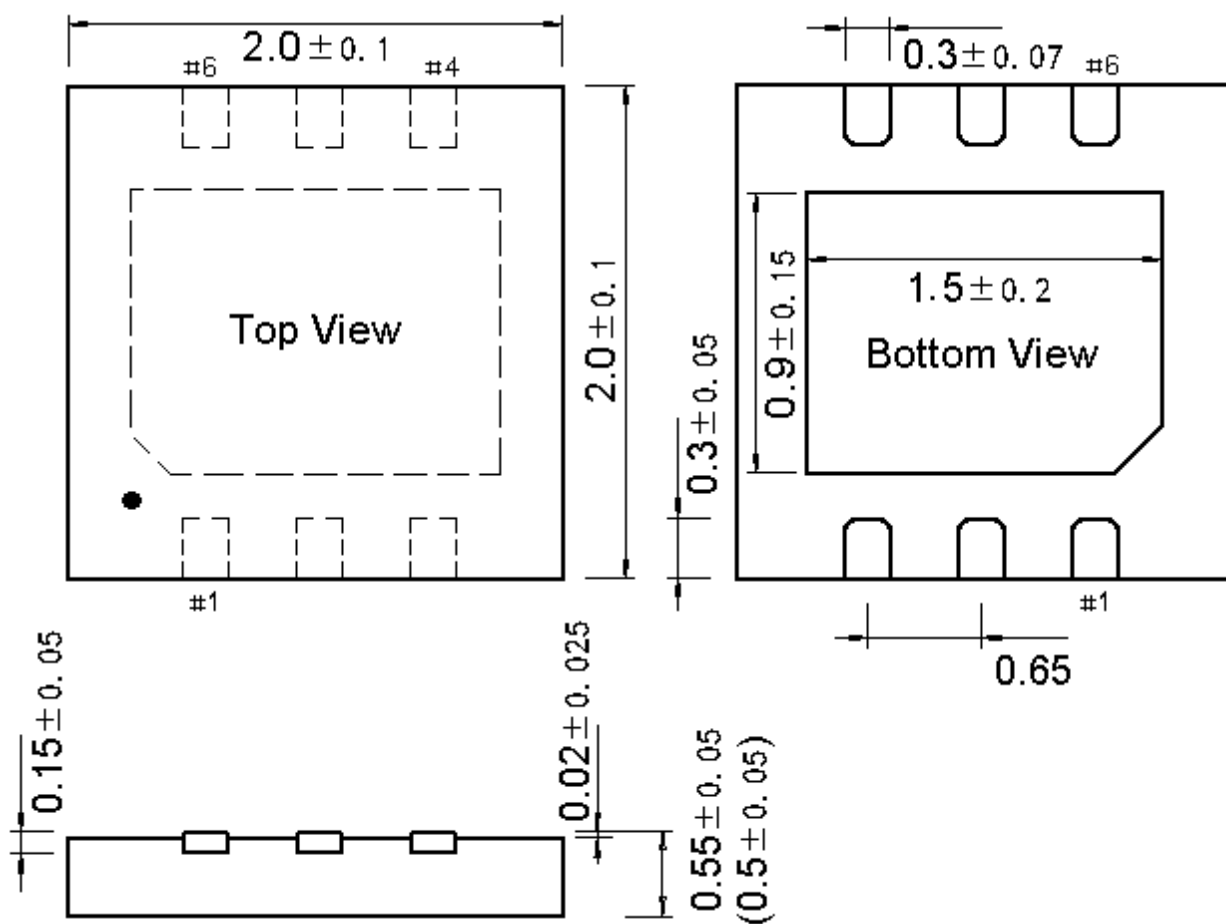


DFN 类

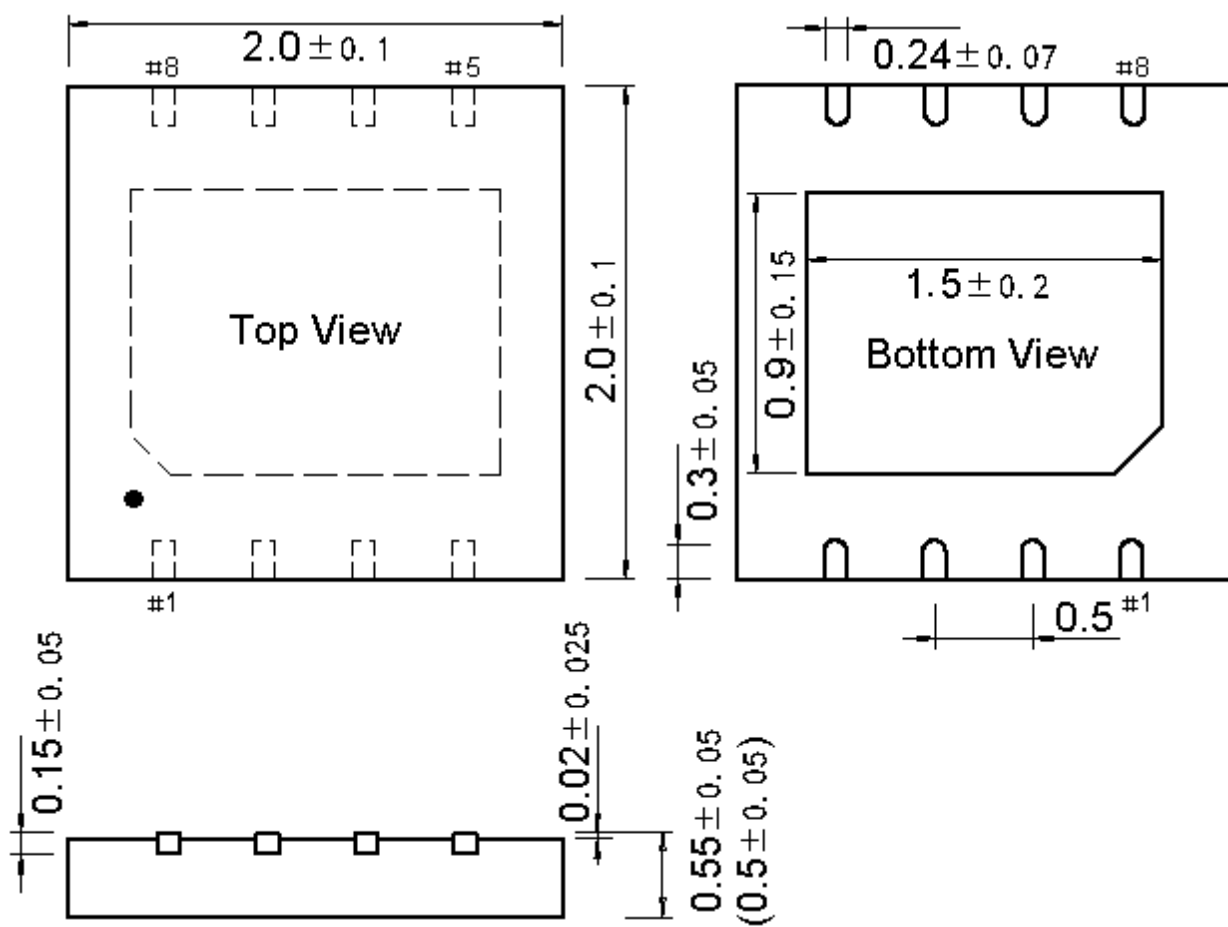
. DFN6X12 (DFN6-1.2*1.2*0.45-0.4)



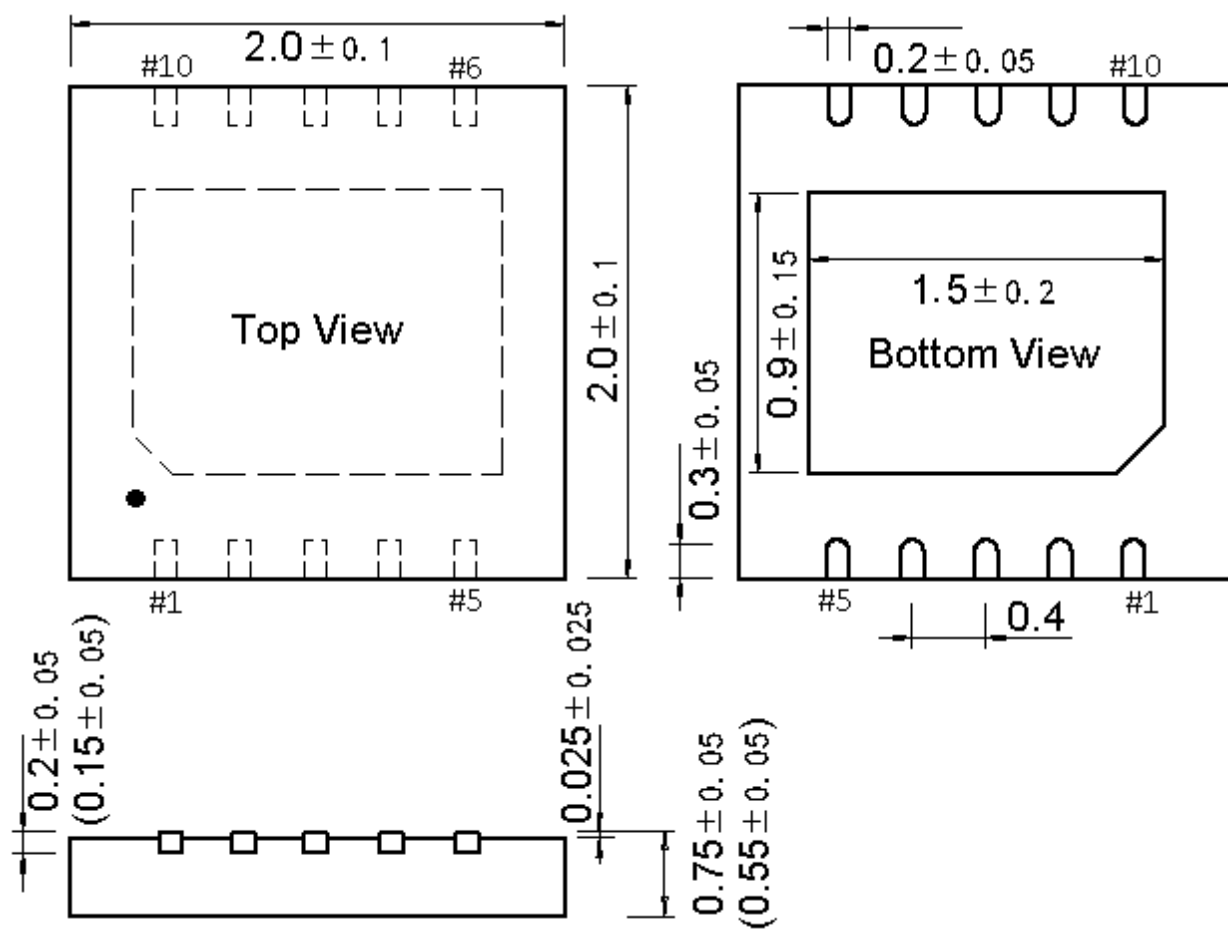
. DFN6 (DFN6-2*2)



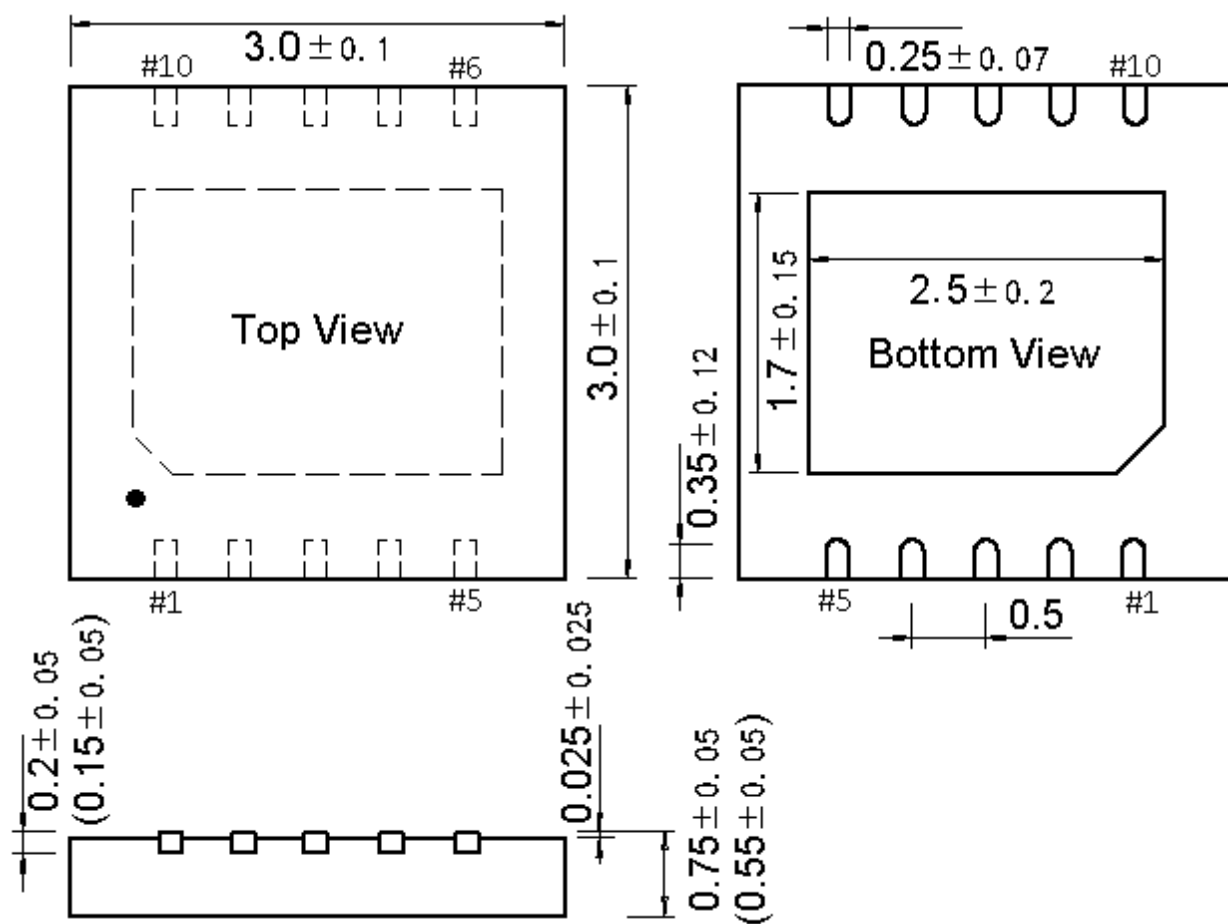
. DFN8 (DFN8-2*2)



DFN10 (DFN10-2*2)

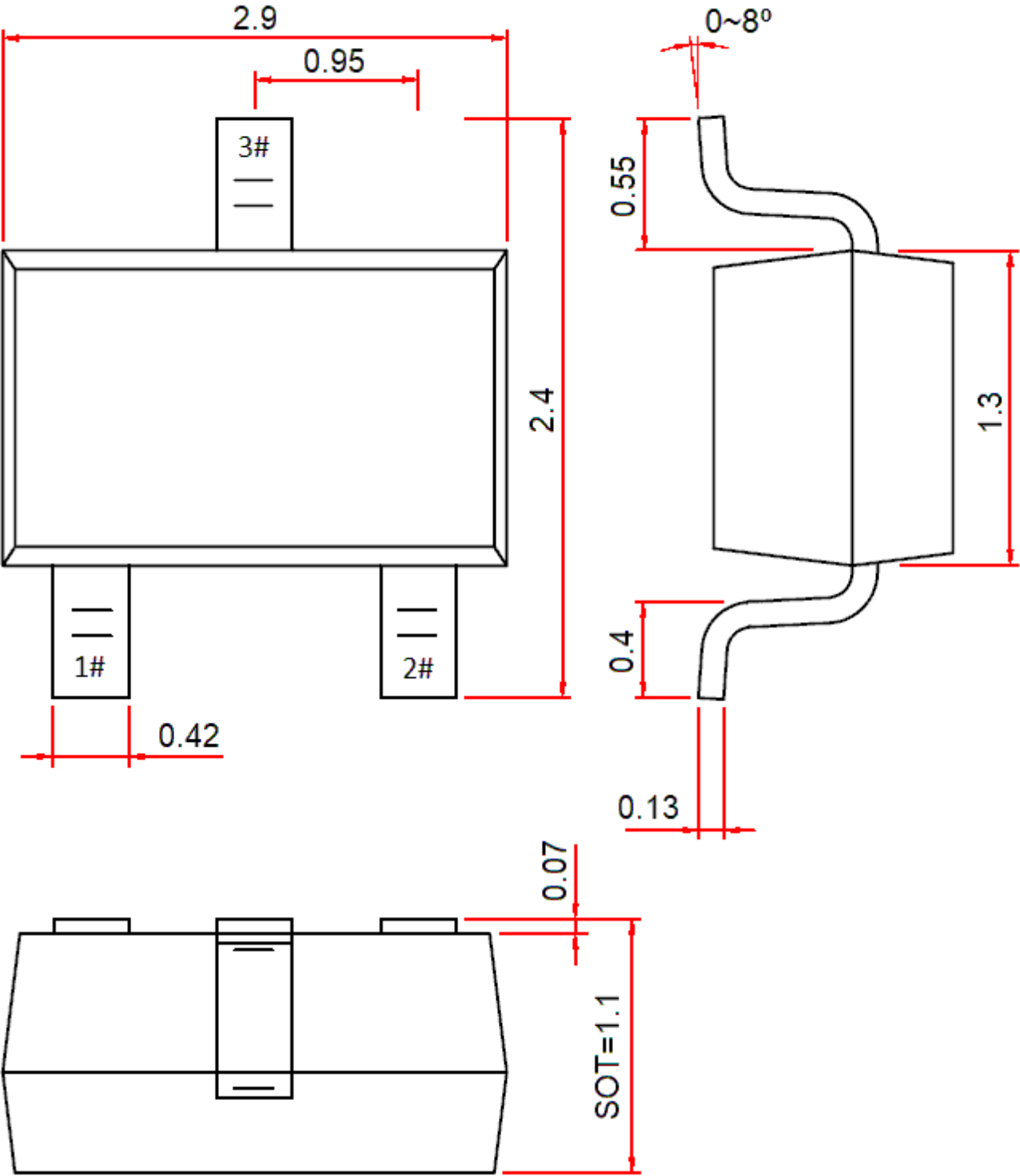


. DFN10X3 (DFN10-3*3)

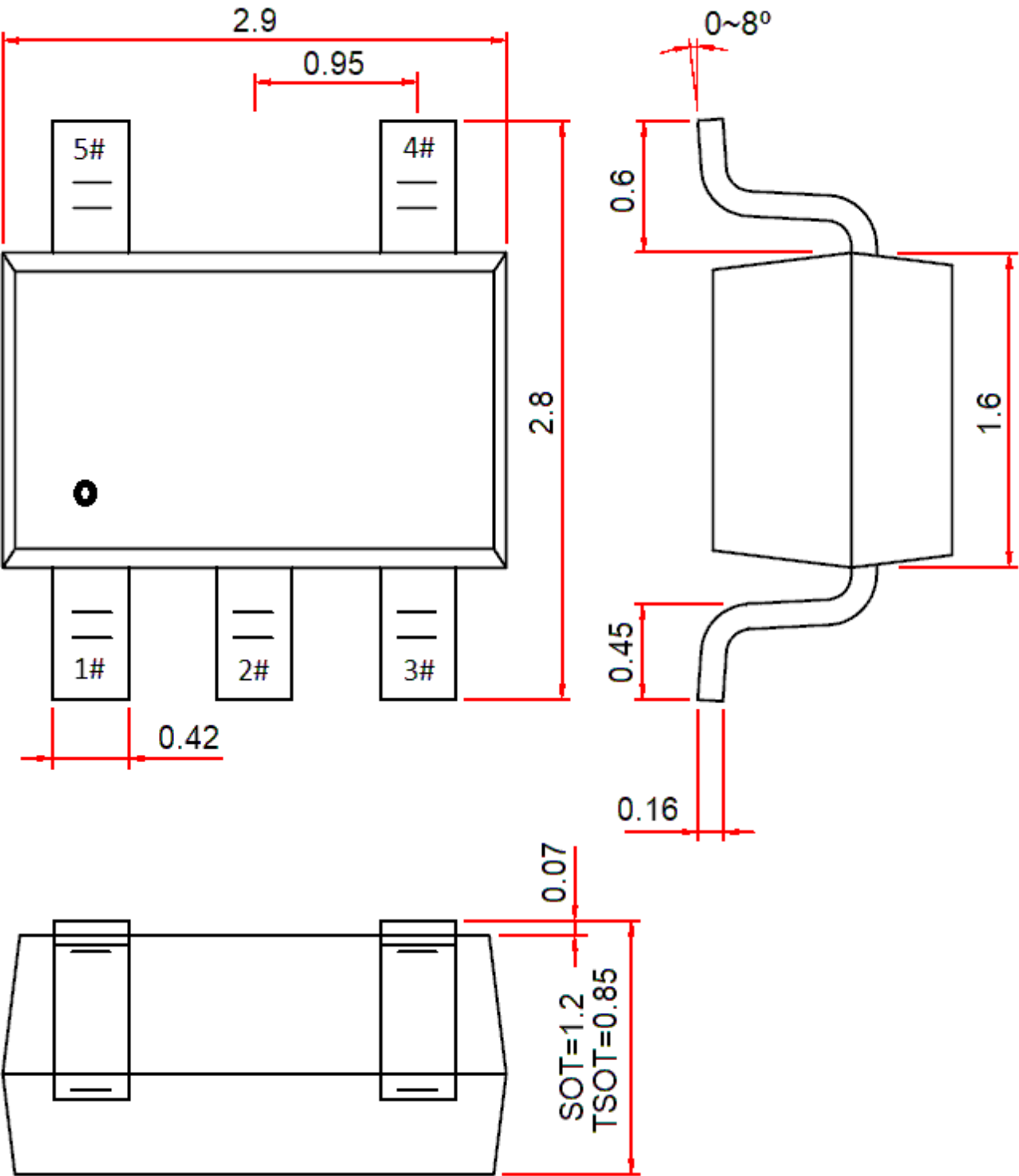


SOT 类

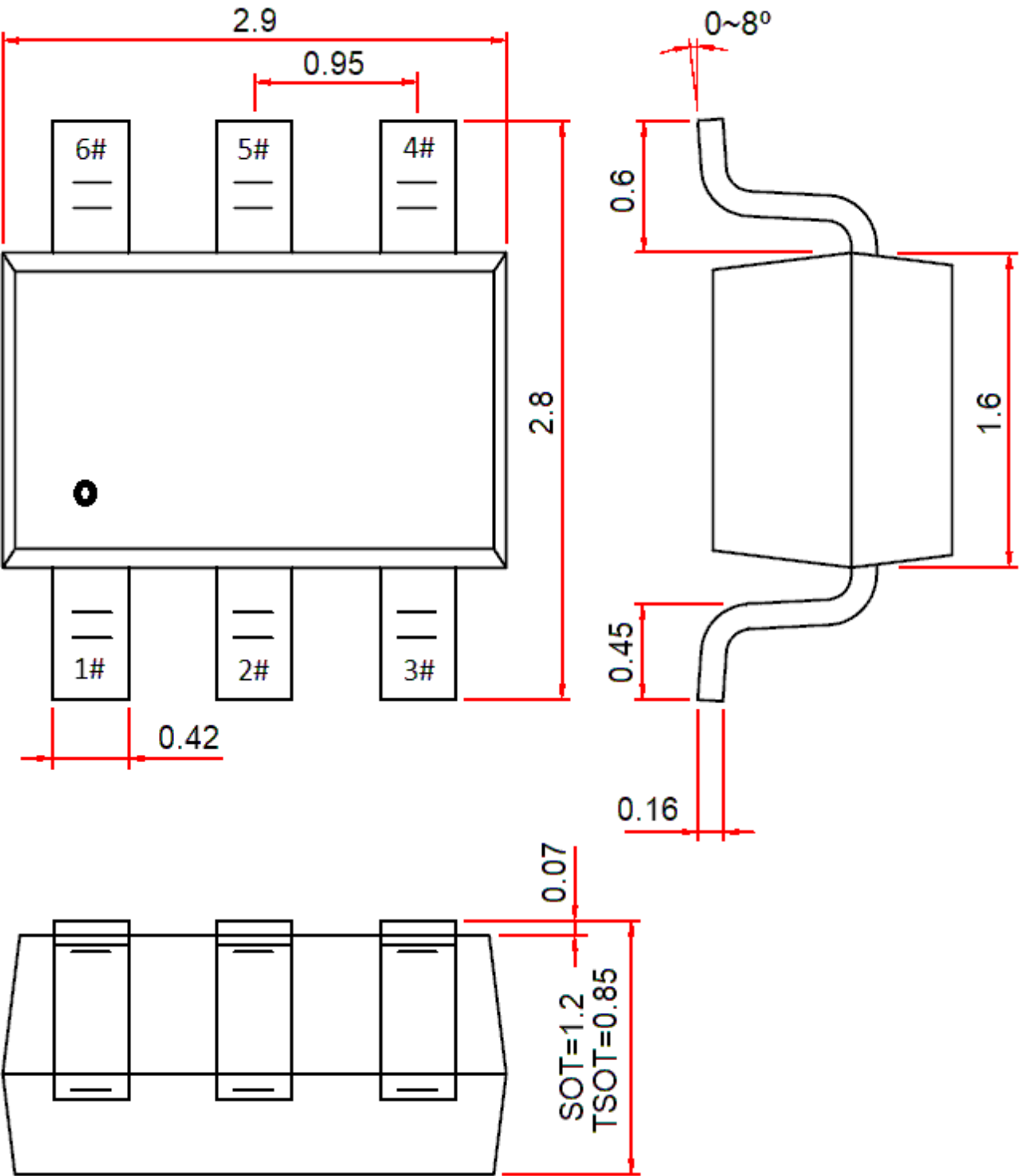
· SOT23-3



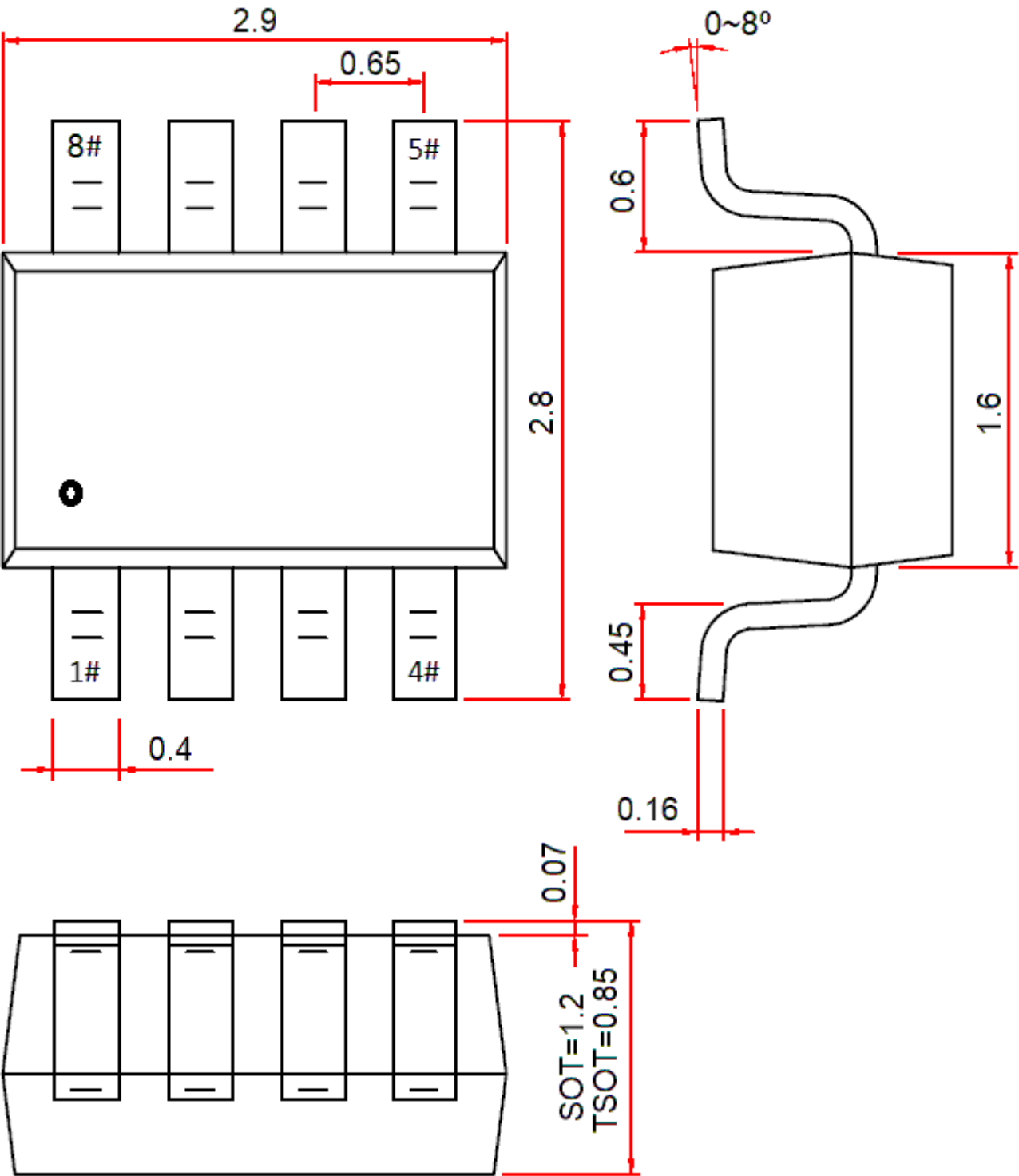
· SOT23-5、TSOT23-5L



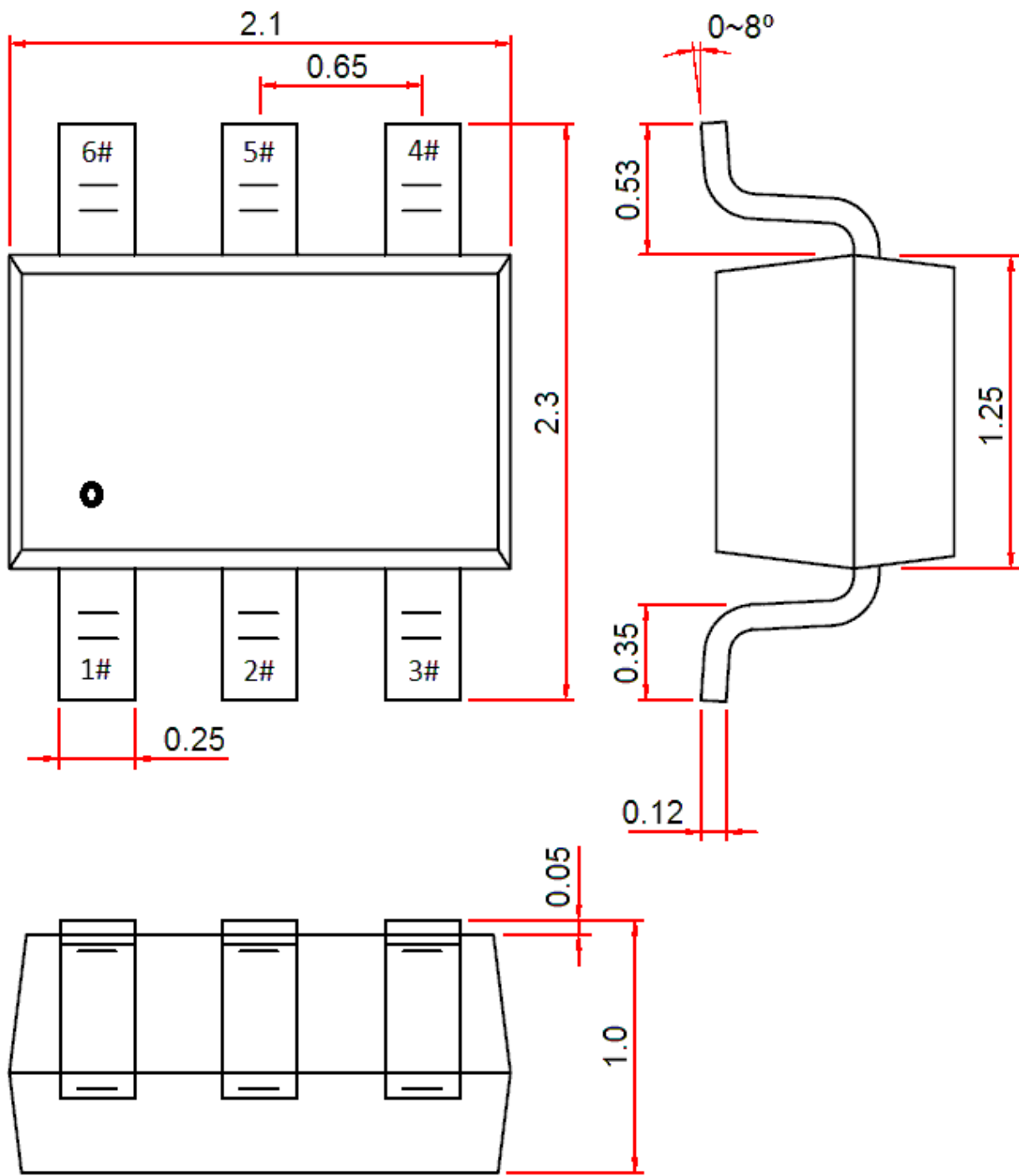
SOT23-6、TSOT23-6L



· SOT23-8、TSOT23-8L



· SOT363 (SC70-6L)



SOT353 (SC70-5L)

