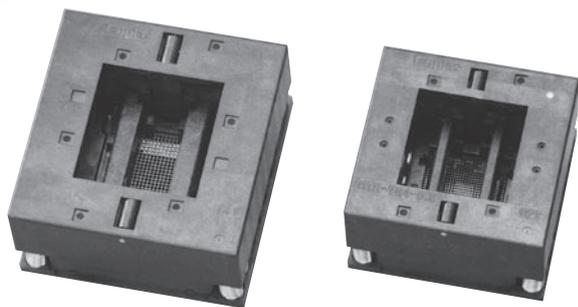
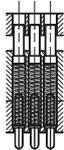


BGA/LGA

BALL/LAND GRID ARRAY

APS-series



※ Fine-Pitch BGA/LGA
 ※ RoHS compliant

ORDERING PROCEDURE

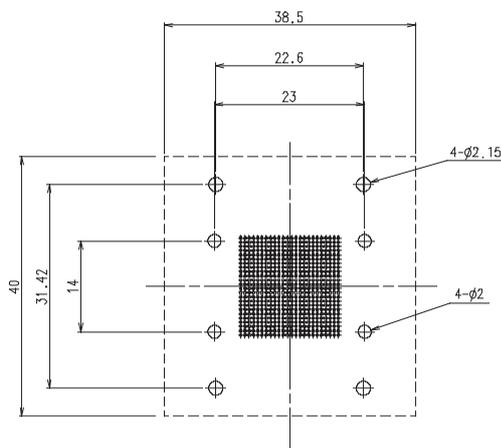
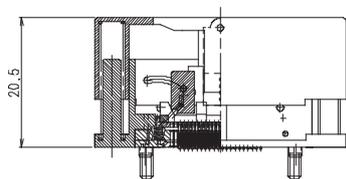
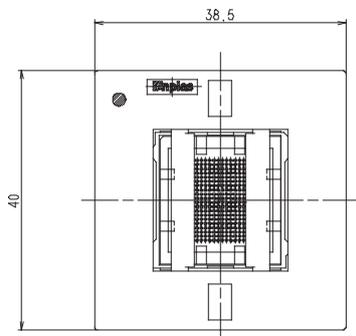
OTB/OTL - □□□ PG - □. □□ - □□□
 Socket Series Pin Count Pitch Design NO.

| Specification / 仕様 | | | | | |
|--|-------------------------------|-------|-------------|-------|-------------|
| | 0.4mm Pitch | | 0.5mm Pitch | | 0.6mm Pitch |
| | APS | BPS | APS | BPS | PS |
| Contact resistance 接触抵抗 (初期値) (at initial, at 10mA) | 400mΩ | 200mΩ | 400mΩ | 200mΩ | 500mΩ |
| Maximum voltage 耐電圧 | AC300V RMS (for 1 minute) | | | | |
| Insulation resistance 絶縁抵抗 at DC 500V | 1,000 MΩ or higher | | | | |
| Rated current 許容電流値 | 0.7A | 1.4A | 0.6A | 2.4A | 0.2A |
| Operating temperature range 使用温度 | -65°C ~ +150°C | | | | |
| Insertion 機械寿命 | Min 10,000 times (Mechanical) | | | | |

| MATERIAL / 材質 | |
|---------------|----------------------------|
| Body 本体 | PEI, PES |
| Contact コンタクト | BeCu, Au plating (Ni-base) |

APPLICABLE IC DIMENSIONS & SOCKET DIMENSIONS

OTB-576PG-0.65 BIS series



PCB PATTERN (TOP VIEW)

OTB-576PG SERIES (0.65mm PITCH)

Unit : mm

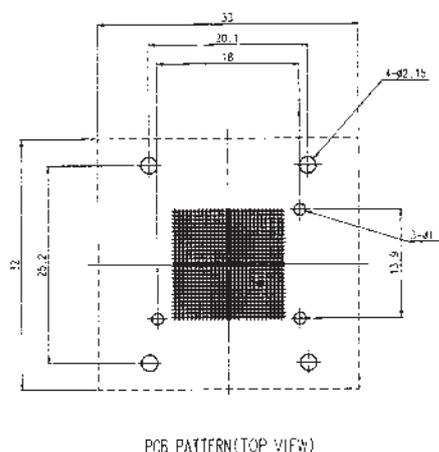
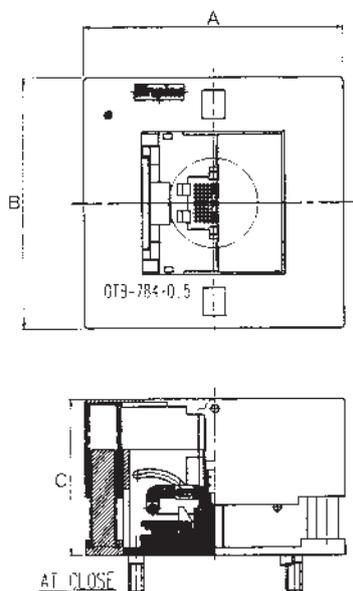
| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS | |
|------------------------|---------------------------------|-------|-------------|--------------|---------------------------|------|----|---------|---|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | | C |
| OTB-196(576PG)-0.65-18 | 10×10 | 14×14 | Fully Array | 196 | 0.65 | 38.5 | 40 | 20.5 | |
| OTB-256(576PG)-0.65-26 | 11×11 | 16×16 | Fully Array | 256 | | | | | |
| OTB-261(576PG)-0.65-11 | 12×12 | 17×17 | Depopulated | 261 | | | | | |
| OTB-280(576PG)-0.65-15 | 13×13 | 19×19 | Depopulated | 280 | | | | | |
| OTB-232(576PG)-0.65-08 | 14×14 | 20×20 | Depopulated | 232 | | | | | |
| OTB-228(576PG)-0.65-10 | 15×15 | 22×22 | Depopulated | 228 | | | | | |

-Max.16×16mm Package can be accommodated

Applicable IC/BGA

Open Top Surface Mount Type Socket

OTB-784APG-0.5/BIS series



OTB-784APG SERIES (0.5mm PITCH)

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-49(784APG)-0.5-*** | 4×4 | 7×7 | Fully Array | 49 | 0.5 | 33 | 32 | 20.5 | |
| OTB-61(784APG)-0.5-*** | 5×5 | 8×8 | Fully Array | 61 | | | | | |
| OTB-80(784APG)-0.5-*** | 5×5 | 9×9 | Depopulated | 80 | | | | | |
| OTB-56(784APG)-0.5-*** | 6×6 | 10×10 | Depopulated | 56 | | | | | |
| OTB-120(784APG)-0.5-*** | 6×6 | 11×11 | Fully Array | 120 | | | | | |
| OTB-109(784APG)-0.5-*** | 7×7 | 12×12 | Depopulated | 109 | | | | | |
| OTB-88(784APG)-0.5-*** | 7×7 | 13×13 | Depopulated | 88 | | | | | |
| OTB-160(784APG)-0.5-*** | 8×8 | 14×14 | Depopulated | 160 | | | | | |
| OTB-131(784APG)-0.5-*** | 8×8 | 15×15 | Depopulated | 131 | | | | | |
| OTB-256(784APG)-0.5-*** | 9×9 | 16×16 | Fully Array | 256 | | | | | |
| OTB-226(784APG)-0.5-*** | 9×9 | 17×17 | Depopulated | 226 | | | | | |
| OTB-225(784APG)-0.5-*** | 10×10 | 18×18 | Depopulated | 225 | | | | | |
| OTB-247(784APG)-0.5-*** | 10×10 | 19×19 | Depopulated | 247 | | | | | |
| OTB-289(784APG)-0.5-*** | 11×11 | 20×20 | Depopulated | 289 | | | | | |
| OTB-280(784APG)-0.5-*** | 11×11 | 21×21 | Depopulated | 280 | | | | | |
| OTB-272(784APG)-0.5-*** | 12×12 | 22×22 | Depopulated | 272 | | | | | |
| OTB-321(784APG)-0.5-*** | 12×12 | 23×23 | Depopulated | 321 | | | | | |
| OTB-356(784APG)-0.5-*** | 13×13 | 24×24 | Depopulated | 356 | | | | | |
| OTB-417(784APG)-0.5-*** | 13×13 | 25×25 | Depopulated | 417 | | | | | |
| OTB-456(784APG)-0.5-*** | 14×14 | 26×26 | Depopulated | 456 | | | | | |
| OTB-484(784APG)-0.5-*** | 14×14 | 27×27 | Depopulated | 484 | | | | | |
| OTB-432(784APG)-0.5-*** | 15×15 | 28×28 | Depopulated | 432 | | | | | |

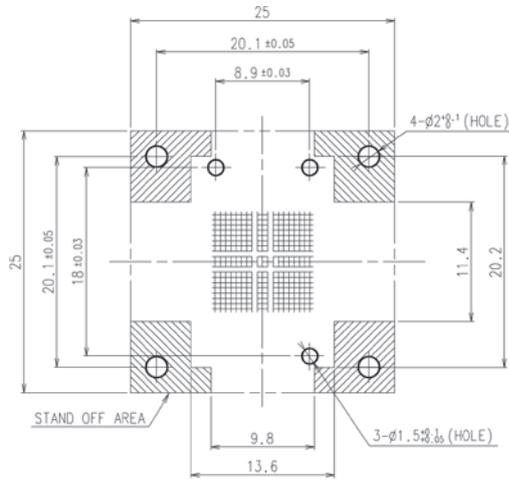
-Max.15×15mm Package can be accommodated

OTB-784BG SERIES (0.5mm PITCH) — Bypass Type —

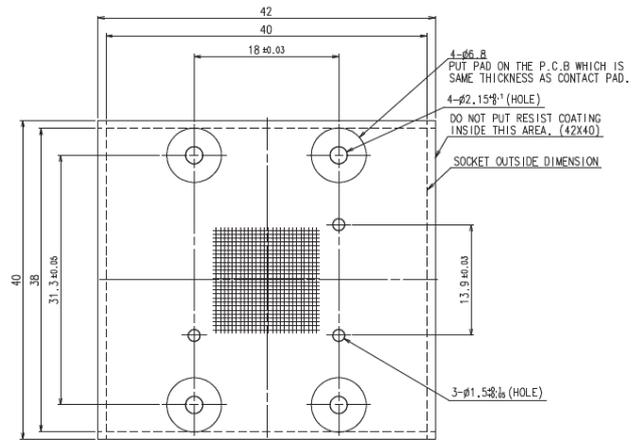
Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-105(784BG)-0.5-008 | 6×6 | 11×11 | Depopulated | 105 | 0.5 | 33 | 32 | 21.1 | |
| OTB-133(784BG)-0.5-03 | 8×8 | 14×14 | Depopulated | 133 | | | | | |
| OTB-226(784BG)-0.5-02 | 9×9 | 17×17 | Depopulated | 226 | | | | | |
| OTB-284(784BG)-0.5-017 | 10×10 | 19×19 | Depopulated | 284 | | | | | |
| OTB-272(784BG)-0.5-01 | 12×12 | 22×22 | Depopulated | 272 | | | | | |
| OTB-424(784BG)-0.5-006 | 12×12 | 23×23 | Depopulated | 424 | | | | | |

-Max.15×15mm Package can be accommodated



OTB-361APS



OTB-784APA

PCB PATTERN

OTB-361APS SERIES (0.5mm PITCH) — Shrink Type —

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-25(361APS)-0.5-*** | 3×3 | 5×5 | Fully Array | 25 | 0.5 | 25 | 25 | 19.5 | |
| OTB-49(361APS)-0.5-*** | 4×4 | 7×7 | Fully Array | 49 | | | | | |
| OTB-81(361APS)-0.5-*** | 5×5 | 9×9 | Fully Array | 81 | | | | | |
| OTB-97(361APS)-0.5-*** | 6×6 | 11×11 | Depopulated | 97 | | | | | |
| OTB-144(361APS)-0.5-*** | 7×7 | 12×12 | Fully Array | 144 | | | | | |
| OTB-137(361APS)-0.5-*** | 7×7 | 13×13 | Depopulated | 137 | | | | | |
| OTB-96(361APS)-0.5-*** | 8×8 | 12×12 | Depopulated | 96 | | | | | |
| OTB-196(361APS)-0.5-*** | 8×8 | 14×14 | Fully Array | 196 | | | | | |
| OTB-201(361APS)-0.5-*** | 9×9 | 15×15 | Depopulated | 201 | | | | | |
| OTB-216(361APS)-0.5-*** | 9×9 | 17×17 | Depopulated | 216 | | | | | |

-Max.10×10mmPackage can be accommodated

OTB-551APG SERIES (0.5mm PITCH)

Unit : mm

| | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-173(551APG)-0.5-*** | 10×10 | 17×17 | Depopulated | 173 | 0.5 | 31.8 | 27 | 20.5 | |

-Max.10×10mmPackage can be accommodated

OTB-784APA SERIES (0.5mm PITCH) — Full Coverage Type —

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|----|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-392(784APA)-0.5-*** | 12×12 | 23×23 | Depopulated | 392 | 0.5 | 40 | 38 | 21 | |
| OTB-465(784APA)-0.5-*** | 13×13 | 24×24 | Depopulated | 465 | | | | | |
| OTB-457(784APA)-0.5-*** | 13×13 | 25×25 | Depopulated | 457 | | | | | |
| OTB-529(784APA)-0.5-*** | 14×14 | 26×26 | Depopulated | 529 | | | | | |
| OTB-729(784APA)-0.5-*** | 14×14 | 27×27 | Fully Array | 729 | | | | | |

-Min.11×11mm -Max.15×15mmPackage can be accommodated

OTB-1521APA SERIES (0.5mm PITCH) — Full Coverage Type —

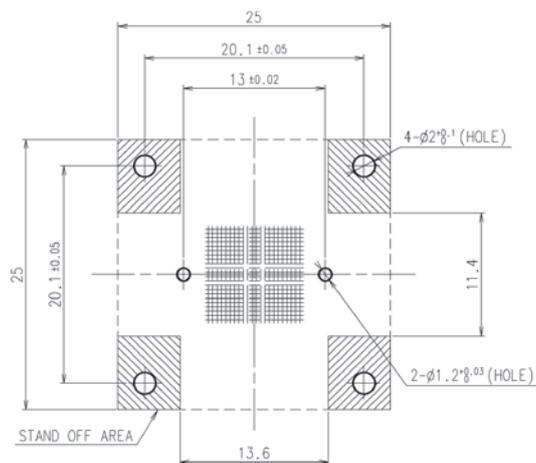
Unit : mm

| | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|--------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|----|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-745(1521APA)-0.5-*** | 20×20 | 39×39 | Depopulated | 745 | 0.5 | 58 | 52 | 21 | |

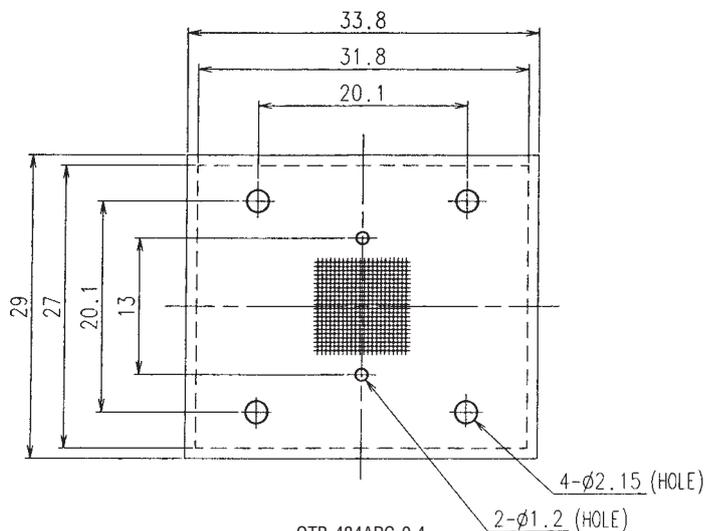
-Max.20×20mmPackage can be accommodated

Applicable IC/BGA

Open Top Surface Mount Type Socket



OTB-484APS-0.4



OTB-484APG-0.4

PCB PATTERN

OTB-484APS SERIES (0.4mm PITCH) — Shrink Type —

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-64(484APS)-0.4-*** | 4×4 | 8×8 | Fully Array | 64 | 0.4 | 25 | 25 | 19.5 | |
| OTB-97(484APS)-0.4-*** | 5×5 | 10×10 | Depopulated | 97 | | | | | |
| OTB-141(484APS)-0.4-*** | 6×6 | 12×12 | Depopulated | 141 | | | | | |
| OTB-161(484APS)-0.4-*** | 6×6 | 13×13 | Depopulated | 161 | | | | | |
| OTB-201(484APS)-0.4-*** | 7×7 | 15×15 | Depopulated | 201 | | | | | |
| OTB-209(484APS)-0.4-*** | 7×7 | 16×16 | Depopulated | 209 | | | | | |
| OTB-244(484APS)-0.4-*** | 8×8 | 18×18 | Depopulated | 244 | | | | | |
| OTB-224(484APS)-0.4-*** | 8×8 | 19×19 | Depopulated | 224 | | | | | |

-Max.10×10mmPackage can be accommodated

OTB-484APG SERIES (0.4mm PITCH)

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|----|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-209(484APG)-0.4-*** | 7×7 | 16×16 | Depopulated | 209 | 0.4 | 31.8 | 27 | 21 | |
| OTB-244(484APG)-0.4-*** | 8×8 | 18×18 | Depopulated | 244 | | | | | |

-Max.10×10mmPackage can be accommodated

OTB-484BPS SERIES (0.4mm PITCH) — Bypass Type —

Unit : mm

| PART NO. | APPLICABLE IC DIMENSIONS (REF.) | | | | | OUTSIDE DIMENSIONS (REF.) | | | REMARKS |
|-------------------------|---------------------------------|-------|-------------|--------------|-------|---------------------------|----|------|---------|
| | BODY SIZE | GRID | ROW/ARRAY | LEADS NUMBER | PITCH | A | B | C | |
| OTB-141(484BPS)-0.4-*** | 6×6 | 13×13 | Depopulated | 141 | 0.4 | 25 | 25 | 19.9 | |