

## PRODUCT NUMBER

77311-YXX-XXLF

PLATING SEE SHEET 2

PIN STYLE SEE SHEET 2

RoHS COMPATIBLE  
SEE NOTE 6

TOTAL NB OF POSITIONS 01 TO 36

OPTION LETTER SEE NOTE 7

## PRODUCT NUMBER (BERGSTRIK PACKAGING)

77311-YXX-OOLF

PLATING

1= 0.76µm GOLD/GXT ON CONTACT  
AREA, 2µm TIN MIN ON TAILS8= 0.38µm GOLD/GXT ON CONTACT  
AREA, 2µm TIN MIN ON TAILS

4= 2.0µm TIN MIN FULL PLATED

1.27µm NICKEL MIN UNDERLAYER FOR  
ALL PLATING VERSIONSINDICATES THE PRODUCT IS RoHS  
COMPATIBLE, SEE NOTE 6

POSITIONS PER REEL : 00=36,000 (BERGSTRIK)

| PIN STYLE | MATING | SOLDER | OAL   |
|-----------|--------|--------|-------|
| 01        | 5.84   | 2.41   | 10.8  |
| 02        | 5.84   | 3.42   | 11.8  |
| 18        | 5.84   | 3.05   | 11.43 |
| 22        | 7.75   | 3.05   | 13.35 |
| 24        | 6.75   | 2.9    | 12.2  |
| 27        | 6.6    | 2.66   | 11.8  |

## NOTES:

- HOUSING MAT'L : HIGH TEMPERATURE  
THERMOPLASTIC. UL94V-0 COLOR: BLACK
- PIN MATERIAL : PHOSPHOR BRONZE
- BERGSTRIK PRODUCT PACKAGED IN POLYBAGS.  
BERGSTRIK PRODUCT PACKAGED PER REELS.
- 9N MIN RETENTION IN EITHER DIRECTION
- TO DETERMINE DIMENSIONS :  
N = NUMBER OF POSITIONS PER ROW  
EXAMPLE : 8 POS N x 2.54 = 20.32mm

## 6. RoHS COMPATIBLE PRODUCT SPECIFICATIONS

## a - PLATING:

- "LF" MEANS THE PRODUCT IS LEAD-FREE,  
2µm MINIMUM MATTE TIN OVER 1.27µm  
MINIMUM NICKEL UNDERPLATE.

## b - MANUFACTURING PROCESS COMPATIBILITY

- THE HOUSING WILL WITHSTAND EXPOSURE TO  
260°C ±5°C SOLDER BATH TEMPERATURE FOR  
5 SECONDS IN A WAVE SOLDER APPLICATION  
WITH A 1.6mm MIN THICK CIRCUIT BOARD.
- REFLOW COMPATIBLE

## c - LABELING:

- MEETS PACKAGING SPECS AS PER GS-14-920

## d - LEGAL STATEMENT: SEE GS-47-0004

## 7. OPTIONS : - = POLYBAG PACKAGING

T = TUBE PACKAGING WITHOUT PICK UP CAP

K = TAPE & REEL PACKAGING, WITHOUT PICK UP CAP  
ONLY FOR P/N 77311-462K04(LF) AND 77311-462K05(LF)

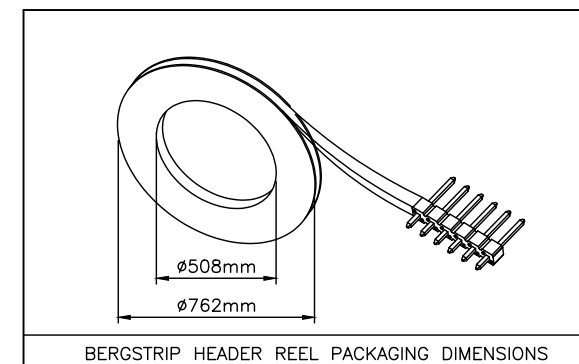
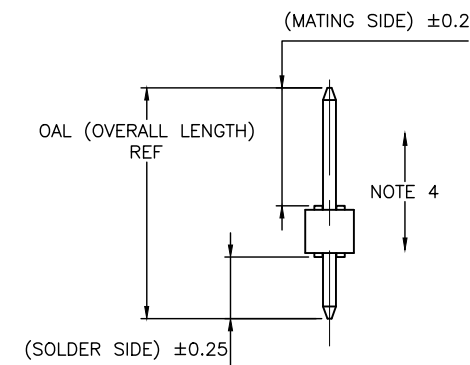
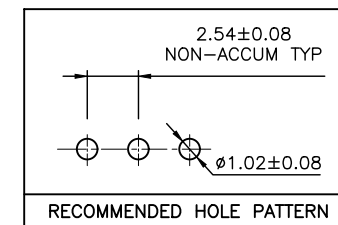
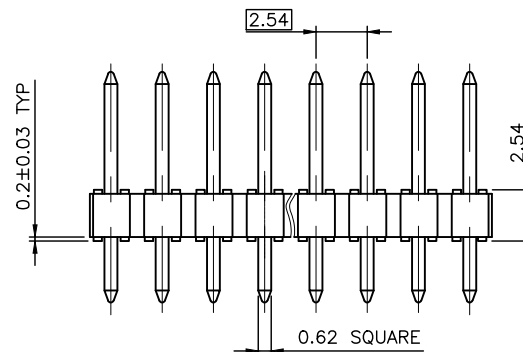
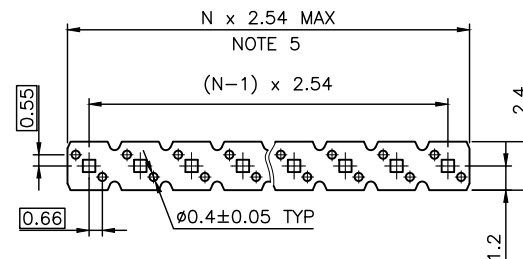
KC = TAPE &amp; REEL PACKAGING WITHOUT PICK UP CAP AND WITH HIGH RETENTION FEATURES

KV = TAPE & REEL PACKAGING WITHOUT PICK UP CAP FOR CUSTOMER DEDICATED PART  
ONLY FOR P/N 77311-462K04(LF)

C = HIGH RETENTION FEATURES, SEE SHEET 2

R = RETENTION FEATURES, SEE SHEET 2  
IF RETENTION FEATURE "R" AND TUBE PACKAGING "T" ARE BOTH REQUIRED  
OPTIONAL LETTER "R" WILL APPEAR INSTEAD OF THE FIRST DASH  
EXAMPLE : 77311R424T03LF

V = BLIBOX PACKAGING FOR CUSTOMER DEDICATED PART. ONLY FOR 77311-4BNV01LF



| mat'l. code |          |     |          | surface  |                                       |         | tolerance  |          | projection | product family        |  |  |
|-------------|----------|-----|----------|----------|---------------------------------------|---------|------------|----------|------------|-----------------------|--|--|
| SEE NOTES   |          |     |          | ISO 1302 | ✓                                     | ISO 406 | ISO 1101   | ISO 1101 |            | BERGSTIK              |  |  |
| ltr         | ecr      | no  | dr       | date     | tolerances unless otherwise specified |         |            |          | mm         | title                 |  |  |
| CN          | F-26241  | LMU | 17.03.01 |          | angles                                | linear  | .X ±0.3    |          |            | UNSHR.HEADER          |  |  |
| CP          | F-28243  | DDE | 17.09.21 |          |                                       |         | .XX ±0.15  |          |            | STR SR TMT            |  |  |
| CR          | F-28445  | DDE | 17.11.10 |          |                                       |         | .XXX ±0.05 |          | scale 5:1  | dwg no                |  |  |
| CS          | F-29484  | DDE | 18.03.08 | dr       | D.LE                                  |         | 01.01.24   |          |            | sheet 1 of 3          |  |  |
| CT          | F-31328  | LMU | 18.09.20 | engr     | JM.C                                  |         | 01.01.24   |          |            | 77311                 |  |  |
|             |          |     |          | chr      | JM.C                                  |         | 01.01.24   |          |            | A3                    |  |  |
| CM          | F-25890  | LMU | 17.01.11 | appd     | JF.N                                  |         | 01.01.24   |          |            | type CUSTOMER Drawing |  |  |
| sheet       | revision | CT  | BX       | J        |                                       |         |            |          |            |                       |  |  |
| index       | sheet    | 1   | 2        | 3        |                                       |         |            |          |            |                       |  |  |

## PLATING

- 1 = 0.76 $\mu$ m GOLD/GXT ON CONTACT AREA, 2 $\mu$ m TIN MIN ON TAIL  
4 = 2 $\mu$ m TIN MIN FULL PLATED  
5 = 0.25 $\mu$ m GOLD/GXT ON CONTACT AREA, 2 $\mu$ m TIN MIN ON TAIL  
8 = 0.38 $\mu$ m GOLD/GXT ON CONTACT AREA, 2 $\mu$ m TIN MIN ON TAIL  
G = 0.76 $\mu$ m FULL GXT  
S = 0.38 $\mu$ m FULL GXT  
T = 2 $\mu$ m TIN MIN FULL PLATED INCLUDED PIN TYP  
- 1.27 $\mu$ m NICKEL MIN UNDERLAYER FOR ALL PLATING VERSIONS

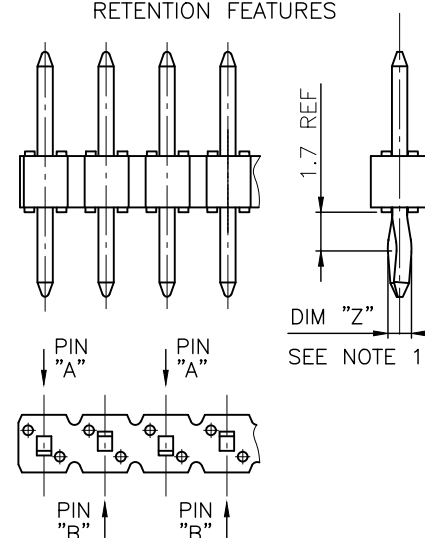
## RETENTION FEATURES :

- 1 - PART NUMBER 77311-XXXXXXLF: DIM "Z"=(0.99)  
PART NUMBER 77311-XXXXCXXLF: DIM "Z"= 1.05MIN -1.15MAX  
2 - PINS "A" AND "B" USED FOR RETENTION.  
3 - DIRECTION OF RETENTION SHOWN BY ARROWS.  
4 - ON 4 TO 36 POSITIONS HEADER; RETENTION IS IN  
MID POSITION OF HEADER (4 CENTRAL PINS)  
5 - FOR RETENTION OPTION , SOLDER TAIL LENGTH TO BE  
2.9 MIN UP TO 3.5 MAX.  
6 - HOUSING MATERIAL FOR P/N 77311-4AJC03LF & 77311-TAJC03LF  
HIGH TEMPERATURE THERMOPLASTIC UL94V-0 COLOR : NATURAL

## PLATING SPECIFICATIONS :

- 7 - ONLY FOR PLATING 1XX, 8.0MM GOLD / GXT PLATING AREA  
FROM PIN TYPE ON MATING SIDE

## RETENTION FEATURES



|             |                |     |          |                                       |        |                               |          |                |        |                            |              |  |         |
|-------------|----------------|-----|----------|---------------------------------------|--------|-------------------------------|----------|----------------|--------|----------------------------|--------------|--|---------|
| mat'l. code |                |     |          | surface<br>ISO 1302 ✓                 |        | tolerance<br>ISO 406 ISO 1101 |          | projection<br> |        | product family<br>BERGSTIK |              |  |         |
| ltr         | ecn no         | dr  | date     | tolerances unless otherwise specified |        |                               |          | title          |        |                            |              |  |         |
| BU          | B-20596        | AMA | 15.03.30 | angles                                | linear |                               |          | UNSHR.HEADER   |        |                            |              |  |         |
| BV          | F-22085        | LMU | 15.10.05 |                                       |        |                               |          | STR SR TMT     |        |                            |              |  |         |
| BW          | F-22100        | AMA | 15.10.08 |                                       |        |                               |          |                |        |                            |              |  |         |
| BX          | F-26241        | LMU | 17.03.01 | dr                                    | D.LE   |                               | 01.01.24 |                | dwg no |                            | sheet 2 of 3 |  | size    |
|             |                |     |          | engr                                  | JM.C   |                               | 01.01.24 |                | 77311  |                            | A3           |  |         |
| BS          | B-20169        | BVE | 15.02.12 | chr                                   | JM.C   |                               | 01.01.24 |                |        |                            |              |  |         |
| BT          | B-20497        | BVE | 15.03.18 | appd                                  | JF.N   |                               | 01.01.24 |                | type   |                            | CUSTOMER     |  | Drawing |
| sheet index | revision sheet |     |          |                                       |        |                               |          |                |        |                            |              |  |         |

| PRODUCTS SPECIFICATIONS |       |        |        |       |
|-------------------------|-------|--------|--------|-------|
| PIN                     | STYLE | MATING | SOLDER | OAL   |
| 01                      |       | 5.84   | 2.41   | 10.8  |
| 02                      |       | 5.84   | 3.42   | 11.8  |
| 03                      |       | 5.72   | 5.09   | 13.35 |
| 05                      |       | 5.72   | 10.14  | 18.4  |
| 08                      |       | 5.72   | 17.78  | 26.04 |
| 15                      |       | 8.51   | 2.55   | 13.6  |
| 18                      |       | 5.84   | 3.05   | 11.43 |
| 19                      |       | 12.83  | 3.03   | 18.4  |
| 20                      |       | 15.37  | 3.04   | 20.95 |
| 22                      |       | 7.75   | 3.05   | 13.35 |
| 24                      |       | 6.75   | 2.9    | 12.2  |
| 25                      |       | 8.51   | 3.18   | 14.22 |
| 27                      |       | 6.6    | 2.65   | 11.8  |
| 26                      |       | 15.57  | 2.84   | 20.95 |
| 29                      |       | 17.5   | 3.46   | 23.5  |
| 32                      |       | 10.3   | 3.05   | 15.9  |
| 38                      |       | 5.84   | 3.82   | 12.2  |
| 39                      |       | 11.2   | 3.05   | 16.8  |
| 46                      |       | 8.08   | 2.98   | 13.6  |
| 54                      |       | 8.08   | 3.81   | 14.43 |
| 58                      |       | 14.47  | 3.05   | 20.06 |
| 62                      |       | 13.5   | 3.05   | 19.09 |
| 70                      |       | 6.54   | 3.50   | 12.57 |
| 83                      |       | 20.46  | 3.00   | 26.00 |
| 85                      |       | 5.72   | 8.51   | 16.76 |
| 87                      |       | 6.98   | 3.05   | 12.57 |
| 91                      |       | 5.6    | 10.21  | 18.35 |
| 92                      |       | 5.65   | 12.76  | 20.95 |
| 93                      |       | 6.00   | 4.81   | 13.35 |
| 94                      |       | 15.60  | 3.20   | 21.25 |
| 95                      |       | 10.00  | 8.45   | 20.95 |
| 96                      |       | 10.95  | 3.05   | 16.55 |
| 97                      |       | 9.00   | 3.55   | 15.09 |
| 98                      |       | 3.00   | 1.35   | 6.84  |
| 99                      |       | 24.00  | 3.05   | 29.50 |
| AA                      |       | 5.72   | 15.24  | 23.50 |
| AB                      |       | N/A    |        |       |

NOTE 7

| PRODUCTS SPECIFICATIONS |       |        |        |       |
|-------------------------|-------|--------|--------|-------|
| PIN                     | STYLE | MATING | SOLDER | OAL   |
| AC                      |       | 7.21   | 3.05   | 12.80 |
| AD                      |       | 17.53  | 3.43   | 23.50 |
| AE                      |       | 4.99   | 2.80   | 10.33 |
| AF                      |       | 5.72   | 3.05   | 11.30 |
| AG                      |       | 5.84   | 4.95   | 13.33 |
| AH                      |       | 14.31  | 3.20   | 20.05 |
| AJ                      |       | 8.90   | 3.40   | 14.85 |
| AK                      |       | 25.06  | 3.00   | 30.80 |
| AL                      |       | 3.30   | 3.30   | 9.14  |
| AM                      |       | 9.26   | 3.05   | 14.85 |
| AN                      |       | 7.60   | 4.40   | 14.47 |
| AP                      |       | 7.80   | 3.30   | 13.60 |
| AR                      |       | 18.86  | 2.41   | 23.81 |
| AS                      |       | 11.91  | 1.45   | 15.90 |
| AT                      |       | 4.60   | 4.60   | 11.61 |
| AU                      |       | 12.10  | 3.10   | 17.70 |
| AV                      |       | 6.30   | 6.30   | 15.10 |
| AW                      |       | 9.16   | 1.80   | 13.50 |
| AX                      |       | 5.08   | 2.43   | 10.05 |
| AY                      |       | 7.49   | 3.47   | 13.50 |
| BA                      |       | 8.08   | 2.75   | 13.37 |
| BB                      |       | 10.80  | 2.15   | 15.50 |
| BC                      |       | 8.08   | 3.81   | 14.43 |
| BD                      |       | 10.10  | 2.16   | 14.80 |
| BE                      |       | 13.65  | 2.41   | 18.60 |
| BF                      |       | 2.54   | 5.32   | 10.40 |
| BG                      |       | 4.98   | 1.85   | 9.23  |
| BH                      |       | 4.69   | 2.41   | 9.50  |
| BJ                      |       | 7.21   | 6.15   | 15.90 |
| BK                      |       | 6.86   | 2.65   | 12.05 |
| BL                      |       | 17.70  | 3.25   | 23.50 |
| BM                      |       | 10.96  | 3.70   | 16.20 |
| BN                      |       | 19.46  | 3.00   | 25.00 |
| BP                      |       | 8.80   | 3.20   | 14.50 |
| BR                      |       | 19.46  | 4.00   | 26.00 |
| BS                      |       | 5.72   | 11.05  | 19.30 |
|                         |       |        |        |       |
|                         |       |        |        |       |
|                         |       |        |        |       |

NOTE 6

|             |                |     |          |                                       |        |                               |  |                                                                                                     |  |                            |  |              |      |
|-------------|----------------|-----|----------|---------------------------------------|--------|-------------------------------|--|-----------------------------------------------------------------------------------------------------|--|----------------------------|--|--------------|------|
| mat'l. code |                |     |          | surface<br>ISO 1302 ✓                 |        | tolerance<br>ISO 406 ISO 1101 |  | projection<br> |  | product family<br>BERGSTIK |  |              |      |
| ltr         | ecn no         | dr  | date     | tolerances unless otherwise specified |        |                               |  |                |  | title                      |  |              |      |
| H           | F-29484        | DDE | 18.03.08 |                                       |        |                               |  |                                                                                                     |  | UNSHR.HEADER               |  |              |      |
| J           | F-31328        | LMU | 18.09.20 | angles                                | linear |                               |  | scale N/A                                                                                           |  | STR SR TMT                 |  |              |      |
|             |                |     |          |                                       |        |                               |  |                                                                                                     |  |                            |  |              |      |
| D           | F-25890        | LMU | 17.01.11 | dr                                    | A.MA   | 15.10.08                      |  |                |  | dwg no                     |  | sheet 3 of 3 | size |
| E           | F-26241        | LMU | 17.03.01 | enrg                                  | L.MU   | 15.10.08                      |  |                                                                                                     |  | 77311                      |  | A3           |      |
| F           | F-28243        | DDE | 17.09.21 | chr                                   | J.CO   | 15.10.08                      |  |                                                                                                     |  |                            |  |              |      |
| G           | F-28445        | DDE | 17.11.10 | appd                                  | A.SO   | 15.10.08                      |  |                                                                                                     |  |                            |  |              |      |
| sheet index | revision sheet |     |          |                                       |        |                               |  |                                                                                                     |  |                            |  |              |      |

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

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<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9