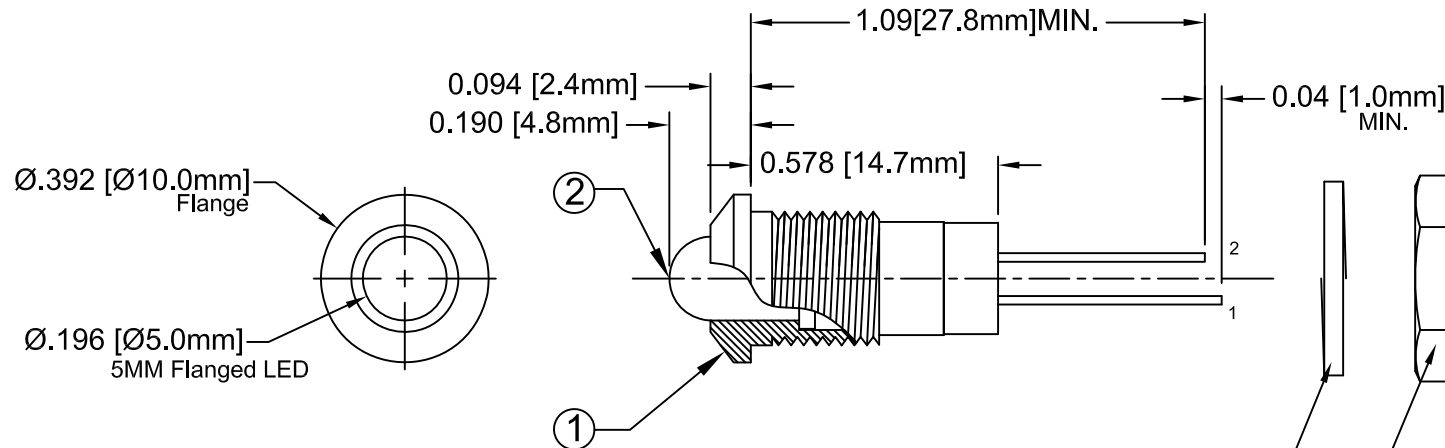
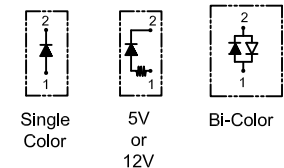


| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION                            |
|------|------|-------------|---------------------------------------------|
| 1    | 1    | MPC5        | Chrome Panel Mount Holder, 5mm              |
| 2    | 1    | 5XX-F       | T-1¼ (5mm) Flanged LED, See Following Pages |

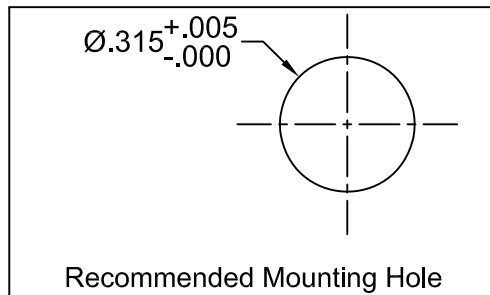
| REV. | DESCRIPTION                     | DATE     | APPROVED |
|------|---------------------------------|----------|----------|
| A    | Engineering Release.            | 03/02/05 | M. C.    |
| B    | Corrected MPC5 Holder Dimension | 09/06/05 | M. C.    |
| C    | Corrected MPC5 Holder Dimension | 11/29/05 | M. C.    |
| D    | Updated MPC5 Holder Dimension   | 09/15/06 | M. C.    |
| E    | Corrected LED Lead Polarity     | 02/01/07 | M. C.    |
| F    | Updated LED offering            | 05/03/12 | T. Y.    |
| G    | Corrected typo on page 4        | 07/16/12 | T. Y.    |



| BI-COLOR POLARITY |             |             |
|-------------------|-------------|-------------|
| LED P/N           | (1) Cathode | (2) Cathode |
| 5BC               | Green       | Red         |
| 5BC-Y/G           | Green       | Yellow      |
| 5BC-R/Y           | Yellow      | Red         |
| 5BC-A/G           | Green       | Amber       |

M8 Spring Lock Washer  
M8X.75 Nut, Stainless Steel

( Mounting Hardware included, packed separately )



## ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

REVERSE VOLTAGE \_\_\_\_\_ 5V  
 REVERSE CURRENT ( VR=5V) \_\_\_\_\_ 100µA  
 OPERATING TEMPERATURE RANGE \_\_\_\_\_ -40°C ~ 85°C  
 STORAGE TEMPERATURE \_\_\_\_\_ -40°C ~ 100°C  
 LEAD SOLDERING TEMPERATURE (1/16" FROM BODY) \_\_\_\_\_ 260°C for 5 Seconds

|                                                      |                          |                                                                                                                                                                 |                                                |
|------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED ) |                          | <br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |                                                |
| DECIMALS                                             | ANGULAR                  |                                                                                                                                                                 |                                                |
| .X ± .1                                              | X° ± 1°                  |                                                                                                                                                                 |                                                |
| .XX ± .02                                            |                          |  <b>TITLE: STD METAL PANEL MOUNT INDICATORS</b>                            |                                                |
| .XXX ± .010                                          |                          |                                                                                                                                                                 |                                                |
| DESIGNED:<br><b>David Green</b>                      | DATE:<br><b>03/02/05</b> | <b>PART NO:</b><br>MPC5XX                                                                                                                                       |                                                |
| CHECKED:<br><b>T. Yin</b>                            | DATE:<br><b>03/02/05</b> | <b>CAGE CODE : 32559</b>                                                                                                                                        | <b>REVISION:</b><br>G<br><b>SHEET # 1 OF 4</b> |

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| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | SEE SHEET#1. |      |          |
|      |              |      |          |

| LED Assy. No. | Chip      |                  |               | Lens Appearance | Electro-Optical Data @ 20mA |           |     |             | Viewing Angle<br>2 θ ½<br>(Deg) | LED P/N   |
|---------------|-----------|------------------|---------------|-----------------|-----------------------------|-----------|-----|-------------|---------------------------------|-----------|
|               | Material  | Peak Wave Length | Emitted Color |                 | If<br>(mA)                  | Vf<br>(V) |     | Iv<br>(mcd) |                                 |           |
|               |           |                  |               |                 | MAX                         | TYP       | MAX | TYP         |                                 |           |
| MPC5BWC       | GaN/SiC   | 430              | BLUE          | WATER CLEAR     | 25                          | 4         | 4.5 | 25          | 20                              | 5BWC-F    |
| MPC5BWD       | GaN/SiC   | 430              | BLUE          | DIFFUSED        | 25                          | 4         | 4.5 | 15          | 45                              | 5BWD-F    |
| MPC5BWT       | GaN/SiC   | 430              | BLUE          | TINTED          | 25                          | 4         | 4.5 | 30          | 20                              | 5BWT-F    |
| MPC5GC        | GaP/GaP   | 568              | GREEN         | WATER CLEAR     | 30                          | 2.1       | 2.8 | 40          | 35                              | 5GC-F     |
| MPC5GD        | GaP/GaP   | 568              | GREEN         | DIFFUSED        | 30                          | 2.1       | 2.8 | 25          | 45                              | 5GD-F     |
| MPC5GT        | GaP/GaP   | 568              | GREEN         | TINTED          | 30                          | 2.1       | 2.8 | 40          | 35                              | 5GT-F     |
| MPC5UGC       | AlGaInP   | 570              | GREEN         | WATER CLEAR     | 30                          | 2.1       | 2.4 | 600         | 35                              | 5UGC-F    |
| MPC5PGC       | GaP/GaP   | 555              | PURE GREEN    | WATER CLEAR     | 30                          | 2.2       | 2.8 | 10          | 35                              | 5PGC-F    |
| MPC5PGD       | GaP/GaP   | 555              | PURE GREEN    | DIFFUSED        | 30                          | 2.2       | 2.8 | 10          | 45                              | 5PGD-F    |
| MPC5PGT       | GaP/GaP   | 555              | PURE GREEN    | TINTED          | 30                          | 2.2       | 2.8 | 10          | 35                              | 5PGT-F    |
| MPC5YC        | GaAsP/GaP | 590              | YELLOW        | WATER CLEAR     | 30                          | 2         | 2.8 | 40          | 35                              | 5YC-F     |
| MPC5YD        | GaAsP/GaP | 590              | YELLOW        | DIFFUSED        | 30                          | 2         | 2.8 | 25          | 45                              | 5YD-F     |
| MPC5YT        | GaAsP/GaP | 590              | YELLOW        | TINTED          | 30                          | 2         | 2.8 | 40          | 35                              | 5YT-F     |
| MPC5AC        | GaAsP/GaP | 605              | AMBER         | WATER CLEAR     | 30                          | 2         | 2.8 | 40          | 35                              | 5AC-F     |
| MPC5AD        | GaAsP/GaP | 605              | AMBER         | DIFFUSED        | 30                          | 2         | 2.8 | 25          | 45                              | 5AD-F     |
| MPC5AT        | GaAsP/GaP | 605              | AMBER         | TINTED          | 30                          | 2         | 2.8 | 40          | 35                              | 5AT-F     |
| MPC5HC        | GaAsP/GaP | 625              | HE RED        | WATER CLEAR     | 30                          | 2         | 2.8 | 40          | 35                              | 5HC-F     |
| MPC5HD        | GaAsP/GaP | 625              | HE RED        | DIFFUSED        | 30                          | 2         | 2.8 | 25          | 45                              | 5HD-F     |
| MPC5HT        | GaAsP/GaP | 625              | HE RED        | TINTED          | 30                          | 2         | 2.8 | 40          | 35                              | 5HT-F     |
| MPC5RC        | GaP/GaP   | 700              | RED           | WATER CLEAR     | 20                          | 2.1       | 2.8 | 2           | 35                              | 5RC-F     |
| MPC5RD        | GaP/GaP   | 700              | RED           | DIFFUSED        | 20                          | 2.1       | 2.8 | 2           | 45                              | 5RD-F     |
| MPC5RT        | GaP/GaP   | 700              | RED           | TINTED          | 20                          | 2.1       | 2.8 | 2           | 35                              | 5RT       |
| MPC5BC-A/G    | GaAsP/GaP | 605              | AMBER         | WHITE DIFFUSED  | 30                          | 2.0       | 2.8 | 6           | 45                              | 5BC-A/G-F |
|               | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1       | 2.8 | 6           |                                 |           |
| MPC5BC        | GaAsP/GaP | 625              | RED           | WHITE DIFFUSED  | 30                          | 2.0       | 2.8 | 6           | 45                              | 5BC-F     |
|               | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1       | 2.8 | 8           |                                 |           |
| MPC5BC-R/Y    | GaAsP/GaP | 625              | RED           | WHITE DIFFUSED  | 30                          | 2.0       | 2.8 | 6           | 45                              | 5BC-R/Y-F |
|               | GaAsP/GaP | 590              | YELLOW        |                 | 30                          | 2.0       | 2.8 | 5           |                                 |           |
| MPC5BC-Y/G    | GaAsP/GaP | 590              | YELLOW        | WHITE DIFFUSED  | 30                          | 2.0       | 2.8 | 5           | 45                              | 5BC-Y/G-F |
|               | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1       | 2.8 | 8           |                                 |           |

|                                                                         |                          |                                                                                                                                                                 |                       |
|-------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br>±10% ALL VALUES |                          | <br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |                       |
| ANGULAR<br>X° ± 5°                                                      |                          |                                                                            |                       |
| DESIGNED:<br><b>David Green</b>                                         | DATE:<br><b>03/02/05</b> | PART NO:<br><b>MPC5XX</b>                                                                                                                                       | REVISION:<br><b>G</b> |
| CHECKED:<br><b>T. Yin</b>                                               | DATE:<br><b>03/02/05</b> | CAGE CODE : <b>32559</b>                                                                                                                                        | SHEET # <b>2 OF 4</b> |
| CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING.                         |                          |                                                                                                                                                                 |                       |

TITLE: STD METAL PANEL MOUNT INDICATORS

|      |              |      |          |
|------|--------------|------|----------|
| REV. | DESCRIPTION  | DATE | APPROVED |
|      | SEE SHEET#1. |      |          |
|      |              |      |          |

| LED Assy. No. | Chip        |                  |               | Lens Appearance | Electro-Optical Data @ 20mA |        |     |          | Viewing Angle<br>2 θ ½<br>(Deg) | LED P/N    |
|---------------|-------------|------------------|---------------|-----------------|-----------------------------|--------|-----|----------|---------------------------------|------------|
|               | Material    | Peak Wave Length | Emitted Color |                 | If (mA)                     | Vf (V) |     | Iv (mcd) |                                 |            |
|               |             |                  |               |                 |                             | MAX    | TYP |          | MAX                             |            |
| MPC5UBWC      | InGaN/SiC   | 468              | BLUE          | WATER CLEAR     | 76                          | 3.7    | 4.5 | 2500     | 15                              | 5BWC2.515F |
| MPC5SGC       | GaP/GaP     | 568              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.8 | 60       | 35                              | 5SGC-F     |
| MPC5SGD       | GaP/GaP     | 568              | GREEN         | DIFFUSED        | 30                          | 2.1    | 2.8 | 50       | 40                              | 5SGD-F     |
| MPC5SGT       | GaP/GaP     | 568              | GREEN         | TINTED          | 30                          | 2.1    | 2.8 | 60       | 35                              | 5SGT-F     |
| MPC5SYC       | GaAsP/GaP   | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.8 | 600      | 35                              | 5SYC-F     |
| MPC5SYD       | GaAsP/GaP   | 590              | YELLOW        | DIFFUSED        | 30                          | 2.0    | 2.8 | 150      | 40                              | 5SYD-F     |
| MPC5SYT       | GaAsP/GaP   | 590              | YELLOW        | TINTED          | 30                          | 2.0    | 2.8 | 600      | 35                              | 5SYT-F     |
| MPC5SRC       | GaAlAs/GaAs | 645              | SUPER RED     | WATER CLEAR     | 30                          | 1.7    | 2.4 | 60       | 35                              | 5SRC-F     |
| MPC5SRD       | GaAlAs/GaAs | 645              | SUPER RED     | DIFFUSED        | 30                          | 1.7    | 2.4 | 40       | 40                              | 5SRD-F     |
| MPC5SRT       | GaAlAs/GaAs | 645              | SUPER RED     | TINTED          | 30                          | 1.7    | 2.4 | 60       | 35                              | 5SRT-F     |
| MPC5UGC       | AlGaInP     | 570              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.4 | 400      | 35                              | 5UGC-F     |
| MPC5SUGC      | AlGaInP     | 570              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.4 | 300      | 35                              | 5SUGC-F    |
| MPC5UYC       | AlGaInP     | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 1000     | 30                              | 5UYC-F     |
| MPC5SUYC      | AlGaInP     | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 700      | 35                              | 5SUYC-F    |
| MPC5UUYC      | AlGaInP     | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 500      | 35                              | 5UUYC-F    |
| MPC5UOC       | AlGaInP     | 625              | ORANGE        | WATER CLEAR     | 30                          | 1.8    | 2.4 | 1400     | 35                              | 5UOC-F     |
| MPC5UOC       | AlGaInP     | 625              | ORANGE        | WATER CLEAR     | 30                          | 1.8    | 2.4 | 1300     | 35                              | 5SUOC-F    |
| MPC5URC       | GaAlAs/GaAs | 645              | RED           | WATER CLEAR     | 30                          | 1.7    | 2.4 | 400      | 30                              | 5URC-F     |
| MPC5SURC      | AlGaInP     | 640              | RED           | WATER CLEAR     | 30                          | 1.8    | 2.4 | 500      | 35                              | 5SURC-F    |
| MPC5UWC       | InGaN/SiC   | 6500K            | WHITE         | WATER CLEAR     | 100                         | 3.5    | 4.2 | 2700     | 30                              | 5WC2.730F  |

|                                                                                |                          |                                                                                       |  |                                                                                                             |  |
|--------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------|--|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br><u>±10% ALL VALUES</u> |                          | ANGULAR<br><br>X° ± 5°                                                                |  | <div>BIVAR®</div> <div>4 THOMAS, IRVINE, CA. 92618</div> <div>TEL: (949) 951-8808 FAX: (949) 951-3974</div> |  |
|                                                                                |                          |  |  | TITLE: STD METAL PANEL MOUNT<br>INDICATORS                                                                  |  |
| DESIGNED:<br><b>David Green</b>                                                | DATE:<br><b>03/02/05</b> | PART NO:<br><b>MPC5XX</b>                                                             |  | REVISION:<br><b>G</b>                                                                                       |  |
| CHECKED:<br><b>T. Yin</b>                                                      | DATE:<br><b>03/02/05</b> | CAGE CODE : <b>32559</b>                                                              |  | SHEET # <b>3</b> OF <b>4</b>                                                                                |  |
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| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | SEE SHEET#1. |      |          |
|      |              |      |          |

| LED Assy. No. | Peak Wave Length<br>$\lambda_p$ (nm) | Emitted Color | Lens Appearance | Max. Rating | Electro-Optical Data @ 2mA |     |             | Viewing Angle<br>$2\theta \frac{1}{2}$<br>(Deg) | LED P/N |
|---------------|--------------------------------------|---------------|-----------------|-------------|----------------------------|-----|-------------|-------------------------------------------------|---------|
|               |                                      |               |                 | If<br>(mA)  | Vf<br>(V)                  |     | Iv<br>(mcd) |                                                 |         |
|               |                                      |               |                 | MAX         | TYP                        | MAX | TYP         |                                                 |         |
| MPC5BWDL      | 430                                  | BLUE          | DIFFUSED        | 7           | 3.8                        | 4.2 | 4           | 40                                              | 5BWDL-F |
| MPC5PGDL      | 555                                  | PURE GREEN    | DIFFUSED        | 7           | 2.1                        | 2.6 | 1           | 40                                              | 5PGDL-F |
| MPC5GDL       | 568                                  | GREEN         | DIFFUSED        | 7           | 2.1                        | 2.6 | 4           | 40                                              | 5GDL-F  |
| MPC5YDL       | 590                                  | YELLOW        | DIFFUSED        | 7           | 2.0                        | 2.6 | 4           | 40                                              | 5YDL-F  |
| MPC5ADL       | 605                                  | AMBER         | DIFFUSED        | 7           | 2.0                        | 2.6 | 4           | 40                                              | 5ADL-F  |
| MPC5HDL       | 625                                  | HE RED        | DIFFUSED        | 7           | 2.0                        | 2.6 | 5           | 40                                              | 5HDL-F  |
| MPC5SRDL      | 645                                  | SUPER RED     | DIFFUSED        | 7           | 1.7                        | 2.3 | 6           | 40                                              | 5SRDL-F |

| Assembly P/N | Peak Wave Length<br>λp(nm) | Emitted Color | Lens Appearance | Electro-Optical Data |           |     |             | Viewing Angle<br>2 θ½<br>(Deg) | LED P/N  |
|--------------|----------------------------|---------------|-----------------|----------------------|-----------|-----|-------------|--------------------------------|----------|
|              |                            |               |                 | If<br>(mA)           | Vf<br>(V) |     | Iv<br>(mcd) |                                |          |
|              |                            |               |                 | MAX                  | TYP       | MAX | TYP         |                                |          |
| 5 Volt       |                            |               |                 | Data @ 5V            |           |     |             |                                |          |
| MPC5BWD5V    | BLUE                       | 430           | DIFFUSED        | -                    | -         | 5   | 15          | 40                             | 5BWD5V-F |
| MPC5GC5V     | GREEN                      | 568           | WATER CLEAR     | -                    | -         | 5   | 40          | 40                             | 5GC5V-F  |
| MPC5GD5V     | GREEN                      | 568           | DIFFUSED        | -                    | -         | 5   | 25          | 40                             | 5GD5V-F  |
| MPC5GT5V     | GREEN                      | 568           | TINTED          | -                    | -         | 5   | 40          | 40                             | 5GT5V-F  |
| MPC5AD5V     | AMBER                      | 605           | DIFFUSED        | -                    | -         | 5   | 25          | 40                             | 5AD5V-F  |
| MPC5HD5V     | HE RED                     | 625           | DIFFUSED        | -                    | -         | 5   | 30          | 40                             | 5HD5V-F  |
| MPC5RD5V     | RED                        | 700           | DIFFUSED        | -                    | -         | 5   | 1.5         | 40                             | 5RD5V-F  |
| MPC5YD5V     | YELLOW                     | 590           | DIFFUSED        | -                    | -         | 5   | 25          | 40                             | 5YD5V-F  |
| 12 Volt      |                            |               |                 | Data @ 12V           |           |     |             |                                |          |
| MPC5GC12V    | GREEN                      | 568           | WATER CLEAR     | -                    | -         | 12  | 40          | 35                             | 5GC12V-F |
| MPC5GD12V    | GREEN                      | 568           | DIFFUSED        | -                    | -         | 12  | 25          | 40                             | 5GD12V-F |
| MPC5HC12V    | HE RED                     | 625           | WATER CLEAR     | -                    | -         | 12  | 50          | 35                             | 5HC12V-F |
| MPC5HD12V    | HE RED                     | 625           | DIFFUSED        | -                    | -         | 12  | 30          | 40                             | 5HD12V-F |
| MPC5RC12V    | RED                        | 700           | WATER CLEAR     | -                    | -         | 12  | 2           | 35                             | 5RC12V-F |
| MPC5RD12V    | RED                        | 700           | DIFFUSED        | -                    | -         | 12  | 1.5         | 40                             | 5RD12V-F |
| MPC5YC12V    | YELLOW                     | 590           | WATER CLEAR     | -                    | -         | 12  | 25          | 35                             | 5YC12V-F |
| MPC5YD12V    | YELLOW                     | 590           | DIFFUSED        | -                    | -         | 12  | 20          | 40                             | 5YD12V-F |

|                                                                                |  |                                                                                       |  |                                                                                                             |  |
|--------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------|--|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br><u>±10% ALL VALUES</u> |  | ANGULAR<br>X° ± 5°                                                                    |  | <div>BIVAR®</div> <div>4 THOMAS, IRVINE, CA. 92618</div> <div>TEL: (949) 951-8808 FAX: (949) 951-3974</div> |  |
|                                                                                |  |  |  | TITLE: STD METAL PANEL MOUNT<br>INDICATORS                                                                  |  |
| DESIGNED:<br>David Green                                                       |  | DATE:<br>03/02/05                                                                     |  | PART NO:<br>MPC5XX                                                                                          |  |
| CHECKED:<br>T. Yin                                                             |  | DATE:<br>03/02/05                                                                     |  | REVISION:<br>G                                                                                              |  |
|                                                                                |  | CAGE CODE : 32559                                                                     |  | SHEET # 4 OF 4                                                                                              |  |
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