



**THE DATASHEET OF
SO-1890-02-01-01-L**



DO NOT SCALE FROM THIS PRINT

DESIGNED & DIMENSIONED IN MILLIMETERS [INCHES]

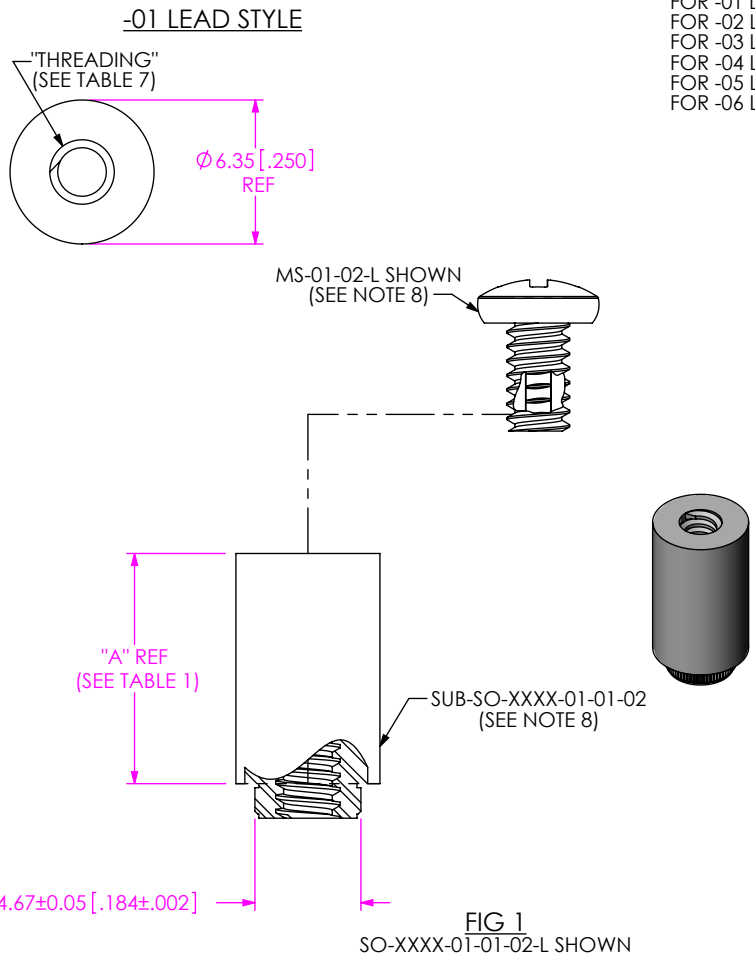


FIG 1
SO-XXXX-01-01-02-L SHOWN

- NOTES:
- NOTE DELETED
 - NOTE DELETED
 - NOTE DELETED
 - STANDOFFS TO BE USED WITH 1.57 [0.062] MIN THICK BOARDS THICK BOARDS. THREADED OPTIONS PCB MAX THICKNESS OF 3.16 [0.124]
 - NOTE DELETED.
 - NOTE DELETED
 - NOTE DELETED.
 - COMPONENTS ARE TO BE PACKAGED IN SEPARATE BAGS UNASSEMBLED AND NOT LABELED. COMBINE SEPARATE BAGS IN ONE LARGER BAG WITH PART NUMBER AND QUANTITY.
 - NOTE DELETED
 - NOTE DELETED
 - NOTE DELETED.
 - REPRESENTS A CRITICAL DIMENSION.
 - STANDOFFS ARE DESIGNED .15MM LONGER THAN CONNECTOR STACK HEIGHTS TO ALLOW FOR PROCESSING VARIABLES.
 - TORQUE TO 2.5 – 3.5 IN*LBS TO SECURE FASTENER IN A STATIC ENVIRONMENT ASSUMING RECOMMENDED BOARD TO BOARD DISTANCES ARE ACHIEVED WITHOUT DAMAGE TO THE PCB, HARDWARE OR OTHER COMPONENTS.
 - FOR -L OPTION, SPREAD LOCKING COMPOUND OVER 5 THREADS OR AT LEAST 0.105".

SO-XXXX-XX-XX-XX-X-X

BOARD STACK HEIGHT

- FOR -01 LEAD STYLE: SEE TABLE 1
- FOR -02 LEAD STYLE: SEE TABLE 3, SHEET 2
- FOR -03 LEAD STYLE: SEE TABLE 4, SHEET 3
- FOR -04 LEAD STYLE: SEE TABLE 5, SHEET 4
- FOR -05 LEAD STYLE: SEE TABLE 6, SHEET 5
- FOR -06 LEAD STYLE: SEE TABLE 8, SHEET 6

KIT OPTION

- N: NO HARDWARE (STANDOFF ONLY; SEE TABLE 2) LEAVE BLANK FOR KIT

LOCKING OPTION

- L: LOCKING COMPOUND (NOT AVAILABLE WITH -04 LEAD STYLE OR -N OPTION ON -01 AND -05 LEAD STYLES)

MATERIAL

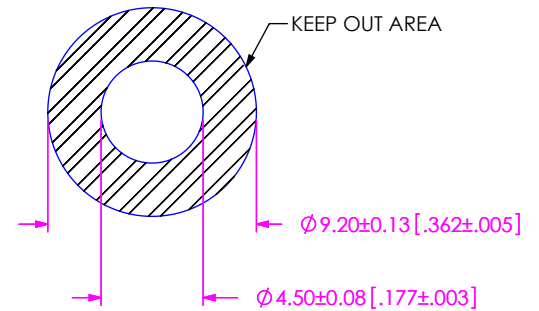
- 01: 6061 ALUMINUM
- 02: 303 STAINLESS STEEL
- 03: 304 STAINLESS STEEL (AVAILABLE FOR -04 LEAD STYLE ONLY)

THREADING

- 01: #4-40
- 02: M3 x 0.5 x 4.76mm
- 03: M2 x 0.4 x 4.76mm

LEAD STYLE

- 01: FEMALE THREAD/PRESS-IN (SEE FIG 1, SHT 1) SEE NOTE 6
- 02: MALE/MALE THREADED (SEE FIG 2, SHT 2) SEE NOTE 7
- 03: MALE/FEMALE THREADED (SEE FIG 3, SHT 3) SEE NOTE 10
- 04: FEMALE/PRESS-IN (SEE FIG 4, SHT 4) SEE NOTE 9
- 05: FEMALE/FEMALE THREADED (SEE FIG 5 SHT 5)
- 06: MALE/MALE THREADED (SEE FIG 6, SHT 6)



RECOMMENDED BOARD CUTOUT (PRESS-IN)

| TABLE 1 | |
|----------------------------|--------------|
| 01 LEAD STYLE AVAILABILITY | |
| BOARD STACK HEIGHT | "A" |
| -0515 | 5.15 [0.203] |
| -0575 | 5.75 [0.226] |
| -0600 | 6.00 [0.236] |
| -0690 | 6.90 [0.272] |
| -0715 | 7.15 [0.281] |
| -0815 | 8.15 [0.321] |
| -0865 | 8.65 [0.341] |
| -0915 | 9.15 [0.360] |
| -0965 | 9.65 [0.380] |

| TABLE 7 | |
|-----------|------------------------------|
| THREADING | |
| -01 | #4-40 UNC 2A #4-40 UNC 2B |
| -02 | M3 x 0.5 6g M3 x 0.5 6H |
| -03 | M2 x 0.4 6g M2 x 0.4 6H |

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES ARE:
DECIMALS ANGLES
X.X: ±0.25 [0.01] 2°
X.XX: ±0.05 [0.002]

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MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 3:1
SEE PART CALL OUT FOR MATERIAL

DESCRIPTION: BOARD TO BOARD STANDOFF

DWG. NO. SO-XXXX-XX-XX-XX-X

BY: T.NEWTON 12/6/2007 **SHEET 1 OF 7**

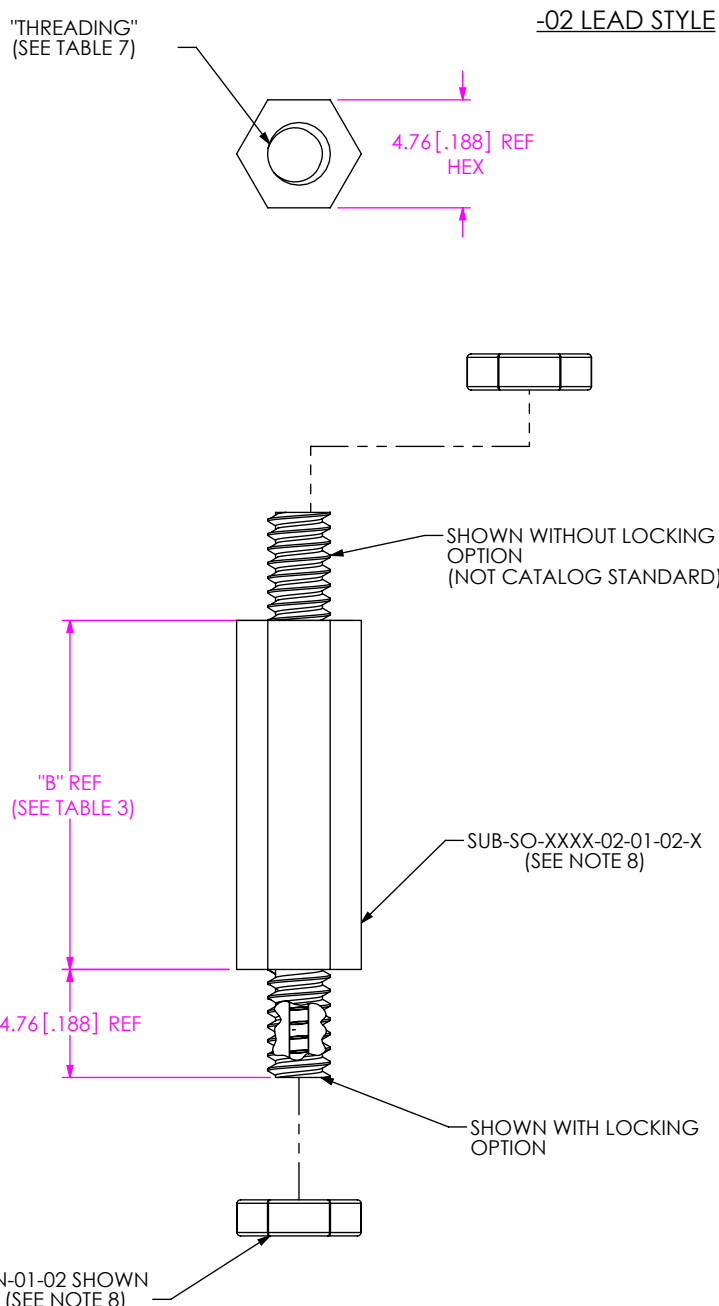
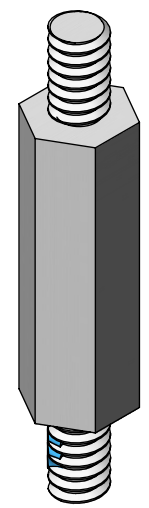
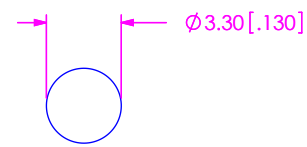


FIG 2
SO-XXXX-02-01-02-X SHOWN



| TABLE 3 | |
|-------------------------------|---------------|
| 02 LEAD STYLE AVAILABILITY | |
| BOARD STACK HEIGHT | "B" |
| -0515 | 5.15 [.203] |
| -0715 | 7.15 [.282] |
| -0865 | 8.65 [.341] |
| -1015 | 10.15 [.400] |
| -1115 | 11.15 [.439] |
| -1215 | 12.15 [.478] |
| -1315 | 13.15 [.518] |
| -1415 | 14.15 [.557] |
| -1515 | 15.15 [.597] |
| -1524 | 15.24 [.600] |
| -1615 | 16.15 [.636] |
| -1715 | 17.15 [.675] |
| -1890 | 18.90 [.744] |
| -1915 | 19.15 [.754] |
| -2015 | 20.15 [.793] |
| -2215 | 22.15 [.872] |
| -2515 | 25.15 [.990] |
| -3015 | 30.15 [1.187] |



RECOMMENDED BOARD
CUTOUT (#4-40)

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DO NOT SCALE DRAWING

DESCRIPTION: BOARD TO BOARD STANDOFF

DWG. NO. SO-XXXX-XX-XX-XX-X

SHEET SCALE: 1:0.333333

BY: T.NEWTON 12/6/2007 SHEET 2 OF 7

-04 LEAD STYLE

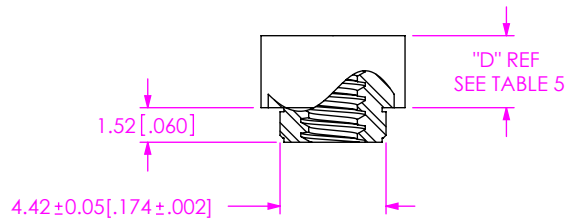
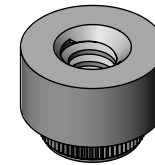
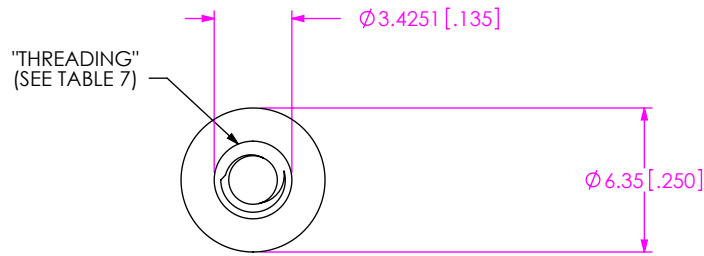
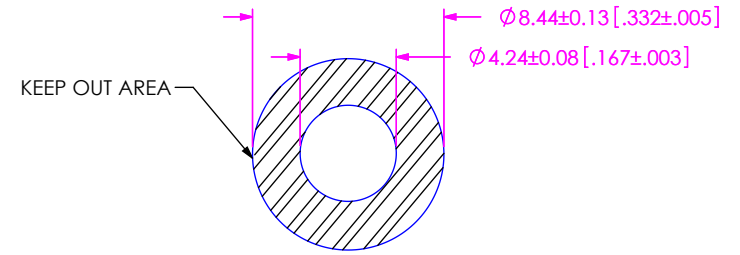



FIG 4
SO-XXXX-04-01-02 SHOWN

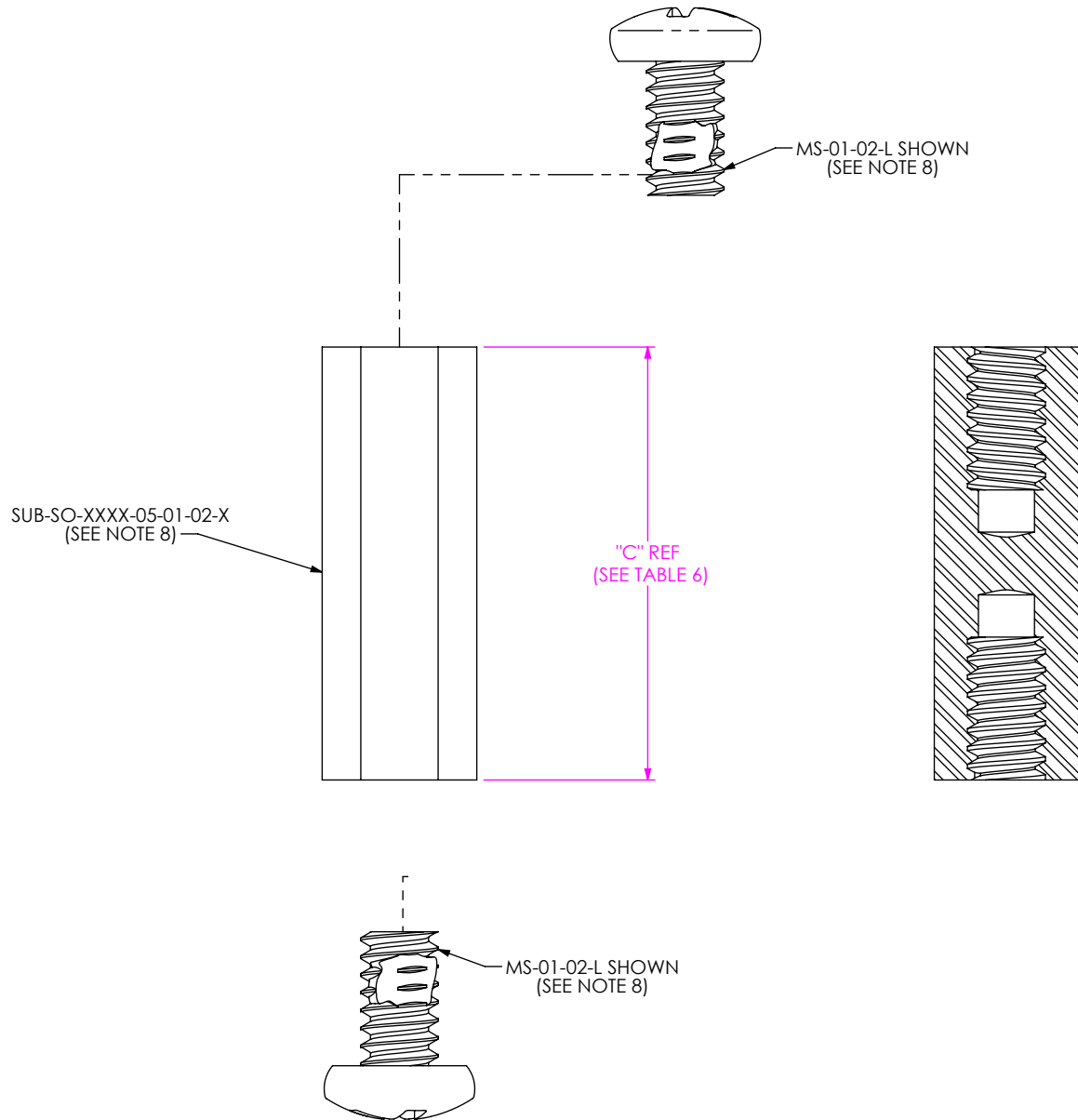
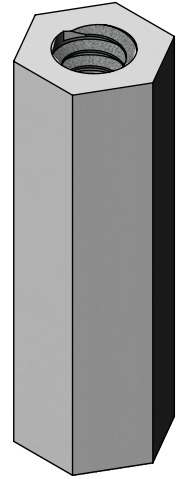


RECOMMENDED BOARD
CUTOUT (PRESS-IN)

| TABLE 5 | |
|----------------------------|-------------|
| 04 LEAD STYLE AVAILABILITY | |
| BOARD STACK HEIGHT | "D" |
| -0165 | 1.65 [.065] |
| -0175 | 1.75 [.069] |
| -0310 | 3.10 [.122] |
| -0318 | 3.18 [.125] |

| | | |
|---|---|---|
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| | <p>DO NOT SCALE DRAWING</p> | <p>DESCRIPTION: BOARD TO BOARD STANDOFF</p> |
| <p>SHEET SCALE: 1:0.333333</p> | <p>BY: T.NEWTON 12/6/2007</p> | <p>SHEET 4 OF 7</p> |

-05 LEAD STYLE



| TABLE 6 | |
|----------------------------|--------------|
| 05 LEAD STYLE AVAILABILITY | |
| BOARD STACK HEIGHT | "C" |
| -0515 | 5.15 [.203] |
| -0700 | 7.00 [.276] |
| -0915 | 9.15 [.360] |
| -1015 | 10.15 [.400] |
| -1115 | 11.15 [.439] |
| -1215 | 12.15 [.478] |
| -1315 | 13.15 [.518] |
| -1415 | 14.15 [.557] |
| -1515 | 15.15 [.596] |
| -1524 | 15.24 [.600] |
| -1615 | 16.15 [.636] |
| -1715 | 17.15 [.675] |
| -1890 | 18.90 [.744] |
| -1915 | 19.15 [.754] |
| -2015 | 20.15 [.793] |
| -2200 | 22.00 [.866] |
| -2215 | 22.15 [.872] |
| -2515 | 25.15 [.990] |

FIG 5
SO-XXXX-05-01-02-X SHOWN
(SAME AS -02 LEAD STYLE,
EXCEPT WHERE STATED)

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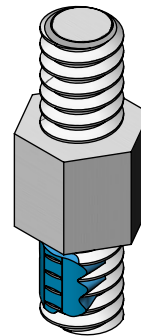
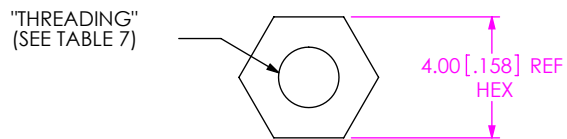
DESCRIPTION: BOARD TO BOARD STANDOFF

DWG. NO. SO-XXXX-XX-XX-XX-X

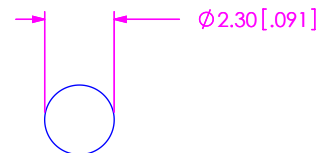
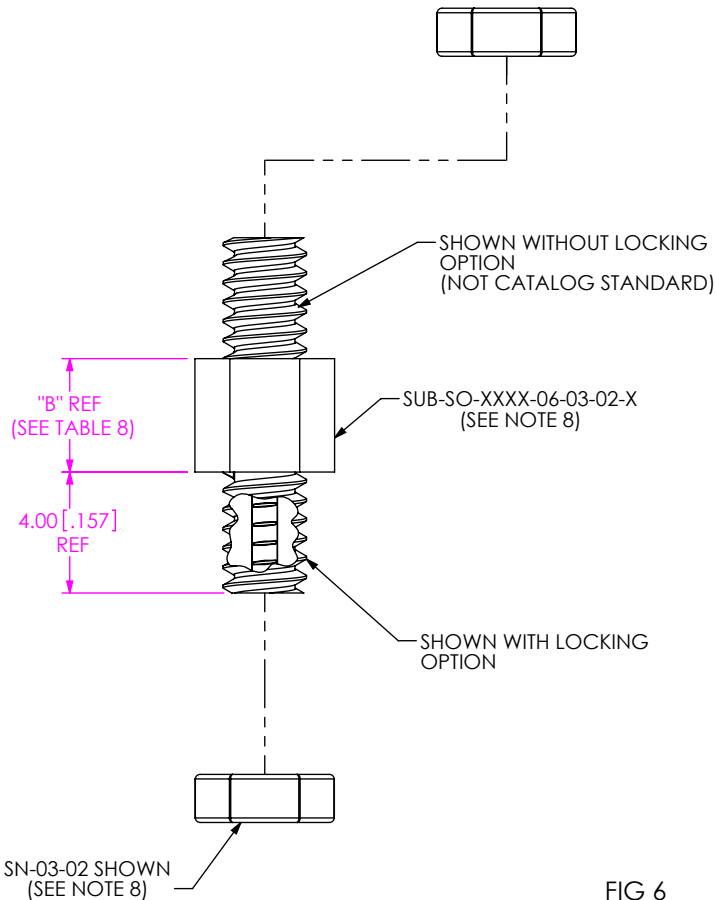
SHEET SCALE: 1:1

BY: T.NEWTON 12/6/2007 SHEET 5 OF 7

-06 LEAD STYLE



| TABLE 8 | |
|----------------------------|-------------|
| 06 LEAD STYLE AVAILABILITY | |
| BOARD STACK HEIGHT | "B" |
| -0375 | 3.75 [.148] |



RECOMMENDED BOARD CUTOUT (M2 x 0.4)

FIG 6
SO-XXXX-06-03-02-X SHOWN
(SAME AS -02 LEAD STYLE,
EXCEPT WHERE STATED)

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DESCRIPTION: BOARD TO BOARD STANDOFF

DWG. NO. SO-XXXX-XX-XX-XX-X

SHEET SCALE: 4:1

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| TABLE 2 - BOM | | | | | | |
|----------------------|------------------------|-----|------------|-----|----------|-----|
| FINISHED GOOD | STANDOFF | QTY | SCREW | QTY | NUT | QTY |
| SO-XXXX-01-01-XX | SUB-SO-XXXX-01-01-XX | 1 | MS-01-XX | 1 | N/A | |
| SO-XXXX-01-01-XX-N | SUB-SO-XXXX-01-01-XX | 1 | N/A | | N/A | |
| SO-XXXX-01-01-XX-L | SUB-SO-XXXX-01-01-XX | 1 | MS-01-XX-L | 1 | N/A | |
| SO-XXXX-02-01-XX | SUB-SO-XXXX-02-01-XX | 1 | N/A | | SN-01-XX | 2 |
| SO-XXXX-02-01-XX-N | SUB-SO-XXXX-02-01-XX | 1 | N/A | | N/A | |
| SO-XXXX-02-01-XX-L | SUB-SO-XXXX-02-01-XX-L | 1 | N/A | | SN-01-XX | 2 |
| SO-XXXX-02-01-XX-L-N | SUB-SO-XXXX-02-01-XX-L | 1 | N/A | | N/A | |
| SO-XXXX-03-01-XX | SUB-SO-XXXX-03-01-XX | 1 | MS-01-XX | 1 | SN-01-XX | 1 |
| SO-XXXX-03-01-XX-N | SUB-SO-XXXX-03-01-XX | 1 | N/A | | N/A | |
| SO-XXXX-03-01-XX-L | SUB-SO-XXXX-03-01-XX-L | 1 | MS-01-XX-L | 1 | SN-01-XX | 1 |
| SO-XXXX-03-01-XX-L-N | SUB-SO-XXXX-03-01-XX-L | 1 | N/A | | N/A | |
| SO-XXXX-05-01-XX | SUB-SO-XXXX-05-01-XX | 1 | MS-01-XX | 2 | N/A | |
| SO-XXXX-05-01-XX-N | SUB-SO-XXXX-05-01-XX | 1 | N/A | | N/A | |
| SO-XXX-05-01-XX-L | SUB-SO-XXX-05-01-XX | 1 | MS-01-XX-L | 2 | N/A | |
| SO-XXXX-01-02-XX | SUB-SO-XXXX-01-02-XX | 1 | MS-02-XX | 1 | N/A | |
| SO-XXXX-01-02-XX-N | SUB-SO-XXXX-01-02-XX | 1 | N/A | | N/A | |
| SO-XXXX-01-02-XX-L | SUB-SO-XXXX-01-02-XX | 1 | MS-02-XX-L | 1 | N/A | |
| SO-XXXX-02-02-XX | SUB-SO-XXXX-02-02-XX | 1 | N/A | | SN-02-XX | 2 |
| SO-XXXX-02-02-XX-N | SUB-SO-XXXX-02-02-XX | 1 | N/A | | N/A | |
| SO-XXXX-02-02-XX-L | SUB-SO-XXXX-02-02-XX-L | 1 | N/A | | SN-02-XX | 2 |
| SO-XXXX-02-02-XX-L-N | SUB-SO-XXXX-02-02-XX-L | 1 | N/A | | N/A | |
| SO-XXXX-02-03-XX-L | SUB-SO-XXXX-02-03-XX-L | 1 | N/A | | SN-03-XX | 2 |
| SO-XXXX-03-02-XX | SUB-SO-XXXX-03-02-XX | 1 | MS-02-XX | 1 | SN-02-XX | 1 |
| SO-XXXX-03-02-XX-N | SUB-SO-XXXX-03-02-XX | 1 | N/A | | N/A | |
| SO-XXXX-03-02-XX-L | SUB-SO-XXXX-03-02-XX-L | 1 | MS-02-XX-L | 1 | SN-02-XX | 1 |
| SO-XXXX-03-02-XX-L-N | SUB-SO-XXXX-03-02-XX-L | 1 | N/A | | N/A | |
| SO-XXXX-03-03-XX | SUB-SO-XXXX-03-03-XX | 1 | MS-06-XX | 1 | SN-03-XX | 1 |
| SO-XXXX-03-03-XX-N | SUB-SO-XXXX-03-03-XX | 1 | N/A | | N/A | |
| SO-XXXX-03-03-XX-L | SUB-SO-XXXX-03-03-XX-L | 1 | MS-06-XX-L | 1 | SN-03-XX | 1 |
| SO-XXXX-03-03-XX-L-N | SUB-SO-XXXX-03-03-XX-L | 1 | N/A | | N/A | |
| SO-XXXX-05-02-XX | SUB-SO-XXXX-05-02-XX | 1 | MS-02-XX | 2 | N/A | |
| SO-XXXX-05-02-XX-N | SUB-SO-XXXX-05-02-XX | 1 | N/A | | N/A | |
| SO-XXX-05-02-XX-L | SUB-SO-XXX-05-02-XX | 1 | MS-02-XX-L | 2 | N/A | |
| SO-XXX-05-03-XX | SUB-SO-XXX-05-03-XX | 1 | MS-06-XX | 2 | N/A | |
| SO-XXX-05-03-XX-L | SUB-SO-XXX-05-03-XX | 1 | MS-06-XX-L | 2 | N/A | |
| SO-XXXX-01-03-XX | SUB-SO-XXXX-01-03-XX | 1 | MS-06-XX | 1 | N/A | |

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DESCRIPTION:
 BOARD TO BOARD STANDOFF


DWG. NO.
SO-XXXX-XX-XX-XX-X

BY: T.NEWTON 12/6/2007 SHEET 7 OF 7

SHEET SCALE: 4:1

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