

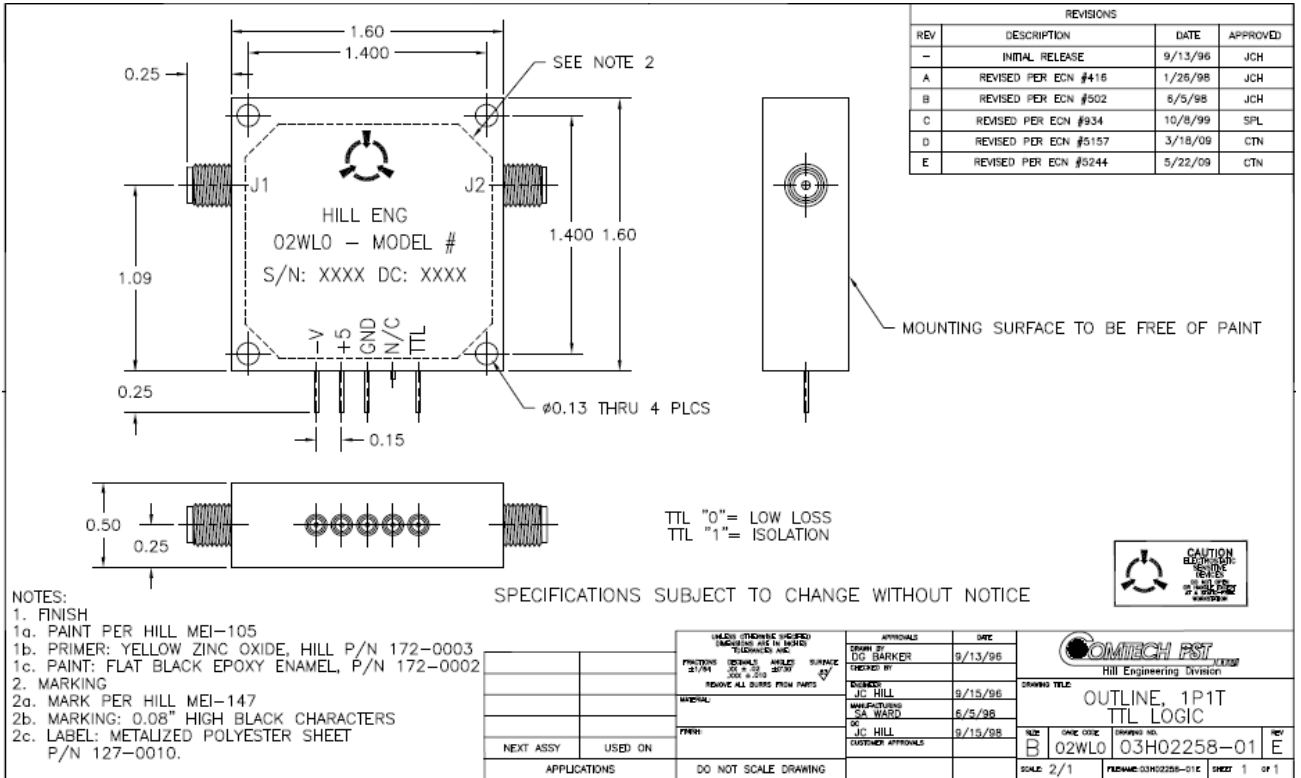
| | | | | | |
|---|------------|---|---------|------|----------------|
|  | Cage Code: | Title: | Date: | Rev: | Model no: |
| | 02WL0 | PRODUCT DATA (subject to change) | 1/12/05 | None | M13-004 |

This document describes the performance of a high power 1P1T switch. This is a cold switched design i. e; switched while RF is off. Proper bias levels per item no. 11 must be applied when operating this device. This device must be properly heat sunk to insure reliable operation.

| ITEM NO | CHARACTERISTIC | CONDITIONS | MIN | MAX | UNITS | COMMENTS |
|---------|------------------------|--------------------|-----|-------|-------|-----------------------|
| 1 | POWER SPECIFICATION | IN BAND | | | | |
| 1.1 | FREQUENCY | | 3.8 | 8.2 | GHz | |
| 1.2 | PEAK POWER | | | 300 | WATTS | |
| 1.3 | PULSE WIDTH | | | 4 | uS | |
| 1.4 | DUTY | | | 5 | % | |
| 1.5 | AVG POWER | | | 15 | WATTS | |
| 2 | POWER SPECIFICATIONS | GUARD BAND | | | | |
| 2.1 | FREQUENCY | | 8.2 | 8.8 | GHz | |
| 2.2 | PEAK POWER | | | 1 | WATTS | |
| 2.3 | PULSE WIDTH | | | 4 | μSEC | |
| 2.4 | DUTY | | | 5 | % | |
| 2.5 | AVG POWER | | | 0.05 | WATTS | |
| 3 | POWER SPECIFICATIONS | OUT OF BAND | | | | |
| 3.1 | FREQUENCY | | | >8.8 | GHz | |
| 3.2 | PEAK POWER | | | 0.10 | WATTS | |
| 3.3 | PULSE WIDTH | | | CW | μSEC | |
| 3.4 | DUTY | | | CW | % | |
| 3.5 | AVG POWER | | | 0.10 | WATTS | |
| 4 | OPERATING FREQUENCY | | 4 | 8 | GHz | |
| 5 | INSERTION LOSS | | | 1.3 | dB | |
| 6 | ISOLATION | Input/Output | 40 | | dB | |
| 7 | PHASE | | | | | |
| 7.1 | ABSOLUTE MATCHING | | | | | NOT SPECIFIED |
| 7.2 | PHASE TRACKING | | | | | NOT SPECIFIED |
| 8 | VSWR | | | | | |
| 8.1 | INPUT & OUTPUT | SELECTED PORTS | | 1.6:1 | | |
| 8.2 | OUTPUT | PORTS NOT SELECTED | | | | INFINITY (reflective) |
| 8.3 | SOURCE AND TERMINATION | | | 1.4:1 | | |

| | | | | | |
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| ITEM NO | CHARACTERISTIC | CONDITIONS | MIN | MAX | UNITS | COMMENTS |
|---------|------------------------|---------------------|-----|------|-------|---------------------------|
| 9 | RESERVED | | | | | |
| 10 | SWITCHING | | | | | |
| 10.1 | TRANSITION TIME | TO 0.5 dB | | 150 | nSEC | |
| 10.2 | SWITCHING RATE | | | 400 | kHz | |
| 10.3 | VIDEO LEAKAGE | | | | Vpp | NOT SPECIFIED |
| 10.4 | COMMAND LOGIC TYPE | TTL | | | | |
| 10.5 | LOGIC TABLE | | | | | SEE DWG 03H02258-01below |
| 11 | D.C. POWER | | | | | |
| 11.1 | POSITIVE BIAS VOLTAGE | NOMINAL | 4.8 | 5.2 | VDC | |
| 11.2 | NEGATIVE BIAS VOLTAGE | | -24 | -32 | VDC | |
| 11.3 | POSTIVE BIAS CURRENT | SELECTED ARM | | +200 | mA | |
| 11.4 | NEGATIVE BIAS CURRENT | NOMINAL PER CHANNEL | | -60 | mA | |
| 12 | CONNECTORS & INTERFACE | | | | | |
| 12.1 | RF | | | | | SMA Female |
| 12.2 | POWER/LOGIC | | | | | SOLDER PINS |
| 13 | MECHANICAL | | | | | |
| 13.1 | WEIGHT | | | 4 | OZ | |
| 13.2 | OUTLINE | | | | | SEE DWG 03H02258-01 below |
| 14 | ENVIRONMENTAL | | | | | |
| 14.1 | OPERATING TEMPERATURE | | -0 | +60 | °C | |
| 14.2 | STORAGE TEMPERATURE | | -20 | +60 | °C | |
| 14.3 | VIBRATION LEVEL | | | | | GROUND TRANSPORTATION |
| 14.4 | SCREENING | | | | | COMMERCIAL, QP-121, LVL 1 |



| REVISIONS | | | |
|-----------|-----------------------|---------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| - | INITIAL RELEASE | 9/13/96 | JCH |
| A | REVISED PER ECN #416 | 1/26/98 | JCH |
| B | REVISED PER ECN #502 | 8/5/98 | JCH |
| C | REVISED PER ECN #934 | 10/8/99 | SPL |
| D | REVISED PER ECN #5157 | 3/18/00 | CTN |
| E | REVISED PER ECN #5244 | 5/22/00 | CTN |

- NOTES:
- FINISH
 - PAIN PER HILL MEI-105
 - PRIMER: YELLOW ZINC OXIDE, HILL P/N 172-0003
 - PAIN: FLAT BLACK EPOXY ENAMEL, P/N 172-0002
 - MARKING
 - MARK PER HILL MEI-147
 - MARKING: 0.08" HIGH BLACK CHARACTERS
 - LABEL: METALIZED POLYESTER SHEET P/N 127-0010.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

| APPROVALS | | | | DATE |
|--------------------|---------|------|---------|------|
| DESIGNED BY | JC HILL | DATE | 9/15/96 | |
| DESIGNED BY | SA WARD | DATE | 6/5/98 | |
| DESIGNED BY | JC HILL | DATE | 9/15/98 | |
| CUSTOMER APPROVALS | | | | |

| COMTECH PST Hill Engineering Division | | | |
|--|-----------|------------------------|--------------|
| DRAWING TITLE: OUTLINE, 1P1T TTL LOGIC | | | |
| SIZE | DATE CODE | DRAWING NO. | REV |
| B | 02WL0 | 03H02258-01 | E |
| SCALE | 2/1 | FILENAME: 03H02258-01E | SHEET 1 OF 1 |

| APPLICTIONS | USED ON |
|-------------|---------|
| | |