| | C | D | E | F | G | H | I | J | K | L | O | S | T | U | V | Y | Z | AA | AE | AJ | AK | AL | AQ | AT | BC | BD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | | | Production | DOIM | GSTM-Based | GSTM-Based | GSTM-Based | Component | Production | CDF SVX | Test Stands | CDF | CDF SVT | CDF SVT | CDF | CDF | CDF | CDF | SVX/ISL/SVT | SVX/ISL/SVT | | | CDF SVX/ISL | CDF | D0 SVX | Grand |
| 4 | | | WBS | Production | Test Stand | Test Stand | Test Stand | Production | Integration | Test Stands | Required | SVX & ISL | | | SVT | non- SVX, SVT | Sub-Total | Required | Total | Total | Budget | Budget | Budget | Budget When | | |
| 5 | | | (Primary) | Test Stand | SRC | VRB | FIB | Test Stand | Test Stand | Total | (Unallocated) | Totals | System Quantities | Spares | Totals | Totals | | Totals | Cost | Cost | Allocated | Remaining | After | All Orders | Totals | Totals |
| 6 | | | | | | | | | | (During Prod.) | (or not available) | | | | | | | | (Actual) | (Estimated) | | (Alloc - Cost) | Spending | Placed | | |
| 7 | | **Port Card (ceramic)** | 1.2.2.5.2 | | | | | | 1 | 1 | -2 | 114 | 0 | 0 | 0 | 0 | 117 | 168 | 0 | 258,540 | 166,200 | -92,340 | 148,200 | -110,340 | 0 | 168 |
| 8 | | **ISL Piggy Back Port Card (ceramic)** | 1.2.2.5.2 | | | | | | 1 | 1 | -2 | 114 | 0 | 0 | 0 | 0 | 117 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 9 | | **Jnct. Box / Flex Cable** | | | | | | | 1 | 1 | -2 | 113 | | | 0 | 0 | 116 | 114 | 0 | 0 | | 0 | 0 | 0 | 0 | 114 |
| 10 | | **SVX 3 IC Emulator** | | | | | | | 3 | 3 | 3 | 0 | | | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 11 | | **SVX3PCB** | | | | | | | 1 | 1 | 1 | 0 | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12 | | **HYBRID** | 1.2.2.2.2 | | | | | | 5 | 5 | 5 | 0 | | | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 13 | | HDI | 1.2.2.3.2 | | | | | | 5 | 5 | 3 | 0 | | | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 14 | | **DOIM** | 1.2.2.6.2.1 | | | | | | 5 | 5 | 5 | 561 | 0 | 0 | 0 | 0 | 561 | 566 | 0 | 1,179,997 | 1,180,000 | 3 | 1,180,000 | 3 | 0 | 566 |
| 15 | | **DOIM production test items** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | | Item #1 | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | | Item #2 | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | | Etc. | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 19 | | **FIB** | 1.2.2.7.2.1 | | | | | 1 | 1 | 8 | 0 | 58 | | | 0 | 0 | 61 | 61 | 45,920 | 323,361 | 312,000 | -11,361 | 283,000 | -40,361 | 0 | 61 |
| 20 | | Finisar G-link Transmitter Card | 1.2.2.8.2.2 | | | | | 4 | 4 | 32 | 0 | 244 | 0 | 0 | 0 | 0 | 256 | 256 | 0 | 196,178 | 265,000 | 68,822 | 134,726 | 68,822 | 0 | 86 |
| 21 | | **FTM (cu)** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 22 | | **FTM (optical)** | 1.2.2.7.2.3 | | | | | | 1 | 1 | -2 | 58 | | | 0 | 0 | 61 | 59 | 54,661 | 73,750 | 51,000 | -22,750 | 51,000 | -22,750 | 0 | 59 |
| 23 | | **FFO** | 1.2.2.7.2.2 | | | | 1 | 1 | 1 | 9 | 1 | 10 | | | 0 | 0 | 13 | 14 | 4,746 | 25,200 | 11,300 | -13,900 | 11,300 | -13,900 | 0 | 14 |
| 24 | | Finisar G-link Receiver Card | 1.2.2.8.2.3 | | | | | 1 | 1 | 8 | 0 | 10 | | | 0 | 0 | 13 | 13 | 0 | 14,887 | 3,100 | -11,787 | -31,255 | -31,255 | 0 | -17 |
| 25 | | **DEM-II** | | | | | | 1 | 12 | 19 | 14 | 0 | | | 0 | 0 | 0 | 19 | 11,055 | 26,600 | | -26,600 | 0 | -25,200 | 0 | 18 |
| 26 | | **VRB** | 1.2.2.9.2.1 | | | | | 1 | 1 | 8 | 0 | 58 | | | 0 | 20 | 81 | 81 | 81,207 | 214,232 | 241,000 | 26,768 | 167,960 | -46,272 | 180 | 261 |
| 27 | | **VTM (GLink)** | 1.2.2.8.2.4 | | | 1 | | 1 | 1 | 9 | 1 | 58 | 36 | 6 | 42 | 0 | 103 | 104 | 79,983 | 206,336 | 106,000 | -100,336 | 31,216 | -175,120 | 180 | 284 |
| 28 | | **VTM (TAXI)** | | | | | | | | 0 | 0 | 0 | | | 0 | 20 | 20 | 20 | 0 | 0 | | 0 | 0 | 0 | 0 | 20 |
| 29 | | **VFO** | 1.2.2.9.2.2 | | | 1 | | 1 | 1 | 9 | 1 | 11 | | | 0 | 0 | 14 | 15 | 7,427 | 15,750 | 19,000 | 3,250 | 16,217 | 467 | 2 | 17 |
| 30 | | **SRC** | 1.2.2.10.2 | | | | | 1 | 1 | 8 | 0 | 3 | | | 0 | 0 | 6 | 8 | 0 | 24,000 | 84,000 | 60,000 | 59,000 | 35,000 | 0 | 8 |
| 31 | | **SRCTM** | | | 1 | | | 1 | 1 | 10 | 2 | 3 | | | 0 | 0 | 6 | 10 | 0 | 18,000 | | -18,000 | 0 | -18,000 | 0 | 10 |
| 32 | | **GSTM** | 1.2.2.13.2.7 | | 2 | 2 | 2 | | | 8 | 8 | 0 | 2 | 1 | 3 | 0 | 3 | 11 | 0 | 31,977 | 20,300 | -11,677 | -4,800 | -7,707 | 4 | 7 |
| 33 | | LB | 1.2.2.13.2.8 | | 1 | 1 | 1 | | | 5 | 4 | 0 | | | 0 | 0 | 0 | 5 | 0 | 1,000 | 1,300 | 300 | 1,300 | 1,100 | 2 | 3 |
| 34 | | MC/TSI | 1.2.2.13.2.9 | | 1 | | | | | 4 | 2 | 0 | | | 0 | 0 | 0 | 4 | 0 | 1,200 | 3,300 | 2,100 | 3,300 | 3,300 | 0 | -1 |
| 35 | | SRCVFOEM | 1.2.2.13.2.12 | | | 1 | | | | 4 | 1 | 0 | | | 0 | 0 | 0 | 4 | 0 | 600 | 0 | -600 | 0 | 0 | 2 | 0 |
| 36 | | GLINKTX w/ Status | 1.2.2.13.2.11 | | | 2 | 1 | | | 7 | 3 | 0 | 3 | 1 | 4 | 0 | 4 | 7 | 0 | 1,400 | 0 | -1,400 | 0 | -1,400 | 4 | 11 |
| 37 | | GLINKRX W/ Status | 1.2.2.13.2.10 | | 1 | | 2 | | | 8 | 4 | 0 | | | 0 | 0 | 0 | 8 | 0 | 1,600 | 4,000 | 2,400 | 2,200 | 600 | 0 | 8 |
| 38 | | VRBSRCEM | 1.2.2.13.2.13 | | 1 | | | | | 4 | 2 | 0 | | | 0 | 0 | 0 | 4 | 0 | 1,200 | 700 | -500 | 700 | 700 | 0 | 0 |
| 39 | | TAXITX w/Status | | | | | | | | 0 | 0 | 0 | | | 0 | 3 | 3 | 3 | 0 | 0 | | 0 | 0 | 0 | 0 | 3 |
| 40 | | Finisar Tx (old style) | 1.2.2.13.2.11 | | | 2 | 1 | | | 3 | 3 | 0 | 3 | 1 | 4 | 0 | 4 | 7 | 0 | 6,650 | | -6,650 | 0 | -6,650 | 4 | 11 |
| 41 | | Finisar Rx (old style) | 1.2.2.13.2.10 | | 1 | | 2 | | | 4 | 4 | 0 | | | 0 | 0 | 0 | 4 | 0 | 3,800 | | -3,800 | 0 | -3,800 | 0 | 4 |
| 42 | | **Optical Splitter (2:1) (AMP)** | 1.2.2.8.2.5 | | | 2 | | 2 | 6 | 22 | 12 | 164 | 3 | 1 | 4 | 0 | 168 | 180 | 0 | 42,750 | 33,200 | -9,550 | 33,200 | -6,225 | 4 | 170 |
| 43 | | **Optical Splitter Face Plate** | | | | 1 | | 1 | 1 | 9 | | 14 | 1 | | 1 | 0 | 15 | 15 | 0 | 3,375 | | -3,375 | 0 | -3,150 | 2 | 16 |
| 44 | | **VIPA Subrack** | 1.2.2.11.2.1 | | 1 | 1 | 1 | 1 | 2 | 13 | 5 | 19 | | | 0 | 0 | 22 | 27 | 0 | 102,600 | 153,000 | 50,400 | 67,000 | 44,200 | 0 | 6 |
| 45 | | **J3BKPL (VRBs, FIBs or both)** | 1.2.2.11.2.2 | | 1 | 1 | 1 | 1 | 2 | 13 | 5 | 21 | | | 0 | 10 | 34 | 39 | 0 | 33,060 | 15,000 | -18,060 | -1,000 | -27,220 | 0 | 33 |
| 46 | | **J3BKPL (dual FIBs, FFOs)** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 47 | | **VIPA Subrack Side Panels** | | | 2 | 2 | 2 | 2 | | 22 | 12 | 0 | | | 0 | 0 | 0 | 22 | 0 | 2,200 | | -2,200 | 0 | -1,900 | 0 | 19 |
| 48 | | **Subrack Pwr. Spy. Chassis** | 1.2.2.11.2.3 | | 1 | 1 | 1 | 1 | 2 | 13 | 5 | 21 | | | 0 | 0 | 24 | 29 | 0 | 87,000 | 36,000 | -51,000 | 36,000 | -33,000 | 0 | 23 |
| 49 | | **PC** | | | 1 | 1 | 1 | 1 | 1 | 12 | 7 | 0 | | | 0 | 0 | 0 | 12 | 0 | 30,000 | | -30,000 | 0 | -22,500 | 0 | 9 |
| 50 | | Bit 3 Interface | | | 1 | 1 | 1 | | | 4 | 4 | 0 | | | 0 | 0 | 0 | 4 | 0 | 6,000 | | -6,000 | 0 | -3,000 | 0 | 2 |
| 51 | | **VMEbus CPU** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 52 | | 162 | | | | | | 1 | 0 | 7 | -4 | 0 | | | 0 | 0 | 6 | 7 | 0 | 17,500 | | -17,500 | 0 | -5,000 | 0 | 2 |
| 53 | | 167 | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | -1 |
| 54 | | **2600 (counting room)** | | | | | | | 2 | 2 | 2 | 6 | | | 0 | 0 | 6 | 8 | 0 | 0 | | 0 | 0 | 0 | 0 | 6 |
| 55 | | **2300 (detector)** | | | | | | | | 0 | 0 | 4 | | | 0 | 0 | 4 | 4 | 0 | 0 | | 0 | 0 | 0 | 0 | 4 |
| 56 | | **VME64x 9U to 6U Adapter** | | | 1 | 1 | 1 | 1 | 2 | 13 | 8 | 30 | | | 0 | 0 | 30 | 38 | 0 | 64,600 | | -64,600 | 0 | -59,500 | 0 | 35 |
| 57 | | **VME64x Extender** | | | 1 | 1 | 1 | 1 | 1 | 12 | 7 | 0 | | | 0 | 0 | 0 | 12 | 0 | 36,000 | | -36,000 | 0 | -30,000 | 0 | 10 |
| 58 | | **XBERT System** | 1.2.2.13.2.6 | | | | | | | 0 | | | | | | 0 | 0 | 0 | 0 | 0 | 10,000 | 10,000 | 10,000 | 10,000 | 0 | 0 |
| 59 | | PBERT | | | | | | | | 0 | | | | | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 60 | | XBERT | | | | | | | | 0 | | | | | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 61 | | RBERT | | | | | | | | 0 | | | | | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 62 | | DOIM XBERT Adapter | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 63 | | DOIM PBERT Adapter | | | | | | | | 0 | | | | | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 64 | | **Detector Power Supply** | | | | | | | 1 | 1 | 1 | 0 | | | 0 | 0 | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 |
| 65 | | **DAQ Commissioning @ B0** | 1.2.2.13.2.16 | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 96,500 | 96,500 | 23,400 | 23,400 | 0 | 0 |
| 66 | | **D0 C/T Receiver** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 67 | | **D0 C/T J3 BKPL** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 68 | | **D0 C/T Quad G-link Tx** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 69 | | **D0 C/T Fanout** | | | | | | | | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| 70 | | | | | | | | | | | | | | | | | | | 285,000 | 3,051,343 | 2,811,900 | -239,443 | 2,222,664 | -506,658 | | |

| | | DOIM Production Test Stand | GSTM-Based Test Stand SRC | GSTM-Based Test Stand VRB | GSTM-Based Test Stand FIB | Component Production Test Stand | Production Integration Test Stand |
|---|---|---|---|---|---|---|---|
| 77 | FCC | | 1 | 1 | 1 | 5 | 1 |
| 78 | U of C | | | | | | |
| 79 | Harvard | | 1 | | | | |
| 80 | Lab D | | | | | 2 | |
| 81 | B0 | | | | | | |
| 82 | D0 | | | 2 | | | |
| 83 | Total CDF Test Stands | 0 | 2 | 1 | 1 | 7 | 1 |
| 84 | Total D0 Test Stands | 0 | 0 | 2 | 0 | 0 | 0 |
| 85 | Post Production Test Stands For CDF | | | | | | |
| 86 | FCC | | 1 | 1 | 1 | 1 | 1 |
| 87 | U of C | | | | | | |
| 88 | Harvard | | 1 | | | | |
| 89 | Lab D | | | | | 1 | |
| 90 | B0 | | | | | | |
| 91 | D0 | | | 2 | | | |
| 92 | CDF Post-Production Test Stands | 0 | 2 | 1 | 1 | 2 | 1 |
| 93 | D0 Post-Production Test Stands | 0 | 0 | 2 | 0 | 0 | 0 |

**Cell:** N3
**Comment:** Quantity allocated for TestStand or StandAlone Systems

**Cell:** Z3
**Comment:** Sum of CDF allocated totals including the quantity allocated for TestStands.

=(CDF TestStands Allocated)+
(CDFSVX& ISL)+(CDF SVT Total)+
(CDF non-SVX,SVT Totals)

**Cell:** AA3
**Comment:** Total components required based on the quantity needed for production, the number of Teststands required before and after production.
=MAX[(CDF Allocated Totals +
Additional TestStands Required) ,
(SVX TestStands Total)]

**Cell:** AM6
**Comment:** Prototype modules fabricated for the Beam Test or onhand by ESE

**Cell:** AA7
**Comment:** Expect a 68.5% yield on Port Cards.
Therefore, order an additional 31.5% Port Cards (currently 53)

**Cell:** R20
**Comment:** 12 additional spares above the amount needed for the spare FIBs

**Cell:** AF20
**Comment:** G-Link = 58.50
FTM-850-1-0 = 280.00
Daughter Card = 427.82
766.32

**Cell:** AM20
**Comment:** Not all 170 have been delivered; only 30 are here thus far

**Cell:** AM23
**Comment:** 3 Prototypes available for early test stands.

**Cell:** AF24
**Comment:** G-Link = 58.50
FTM-850-1-0 = 225.00
Daughter Card = 861.67
1145.17

**Cell:** AN26
**Comment:** Approximate cost of parts received (does not include pc boards). Also, the memory chips for 20 modules were used in the 20 preproduction modules in exchange for D0 paying for the boards and assembly.
SVX's initial order of SARAMs was 960 chips: 800 were used in the 20 prototypes.
Ted Zmuda

**Cell:** AO26
**Comment:** 16 VRBs for crate test. D0 paid for pc boards and assembly. The memory chips were taken the the CDF inventory in exchange for the boards & assembly.

**Cell:** AF27
**Comment:** G-Link = 58.50
FTM-850-1-0 = 225.00
X4 = 1134.00
Other Parts = 200.00
1334.00

**Cell:** AK27
**Comment:** 83.5K to the added to budget by Aesook

**Cell:** AM27
**Comment:** 18 Prototypes available for early test stands.

**Cell:** AN27
**Comment:** Finisar receivers purchased minus the twenty used (170-20=150)

**Cell:** AO27
**Comment:** The 170 ECL Glinks are unusable: 58.50*170=9945. Also the first 20-VTMs will not be used in production:225*20*4=18000 + the pc board cost:548*20+1050*2+386=13446

**Cell:** AY27
**Comment:** D0 has enough VTMs

**Cell:** Y28
**Comment:** Taxi Version:
Walter Stermer

**Cell:** AM29
**Comment:** 4 Prototypes available for early test stands.

**Cell:** AM30
**Comment:** 1 Prototype available for early test stands.

**Cell:** T32
**Comment:** Increased to 2 by ejb 6/12/98

**Cell:** AF32
**Comment:** Price updated by Mike James on 5/14/98

**Cell:** BD32
**Comment:** 4-GSTMs for D0
Leaves us with 2 spares 5/21/98. 3-GSTMs for SVT incl. 1 spare 6/6/98

**Cell:** L33
**Comment:** One spare added.

**Cell:** AM33
**Comment:** 1 Prototype
available for early test stands.

**Cell:** L34
**Comment:** Two spares added.

**Cell:** AM34
**Comment:** 5/18/98
3 prototypes assembled

2 pc boards & parts

**Cell:** L35
**Comment:** Three spares added.

**Cell:** L36
**Comment:** Four spares added.

**Cell:** T36
**Comment:** Increased to 2 by ejb 6/12/98

**Cell:** AM36
**Comment:** 4 Prototypes available for early test stands.

**Cell:** BD36
**Comment:** 4 for SVT including 1 spare. 6/6/98

**Cell:** L37
**Comment:** Four spares added.

**Cell:** AM37
**Comment:** 3 Prototypes available for early test stands.

**Cell:** L38
**Comment:** Two spares added.

**Cell:** AM38
**Comment:** 4 Prototypes available for early test stands.

**Cell:** W39
**Comment:** For Calorimeter VRB Testing

**Cell:** T40
**Comment:** Increased to 2 by ejb 6/12/98

**Cell:** BD40
**Comment:** 4 for SVT including 1 spare. The Production cards shall be used if necessary (Jeff) 6/8/98

**Cell:** T42
**Comment:** Increased to 2 by ejb 6/12/98

**Cell:** BD42
**Comment:** 5 for SVT incl. 1 spare 6/6/98

**Cell:** T43
**Comment:** Increased to 2 by ejb 6/12/98

**Cell:** BD43
**Comment:** 1 for SVT incl. 1 spare 6/6/98

**Cell:** J44
**Comment:** 1 If J3BKPL (split) is available or 2 if J3BKPL (Split) is not available

**Cell:** AF44
**Comment:** Changed to $3800 as per Jeff Spalding 4/21/98

**Cell:** AM44
**Comment:** ESE will supply 3 Rittal subracks; of the 11 CDF SVX has been purchased. 3 are currently used for test stands

**Cell:** X45
**Comment:** Added to list 4/20/98 as per Jim Patrick. Aesook will supplied the Budget code UCE

**Cell:** AM45
**Comment:** 4 Prototypes available for early test stands.

**Cell:** AS45
**Comment:** Reduced by the number of connectors ordered

**Cell:** J48
**Comment:** 1 If J3BKPL (split) is available or 2 if J3BKPL (Split) is not available

**Cell:** AM48
**Comment:** ESE will supply 6

**Cell:** G50
**Comment:** Bit3s are planned to be used with the GSTM as per Margaret Votava.

**Cell:** H50
**Comment:** Bit3s are planned to be used with the GSTM as per Margaret Votava.

**Cell:** I50
**Comment:** Bit3s are planned to be used with the GSTM as per Margaret Votava.

**Cell:** P56
**Comment:** SVX requires 1 ScramNet module per VRB subrack … thus 6 additional Adapters are required

**Cell:** Q56
**Comment:** ScramNet module per VRB subrack … thus 3 additional Adapters are required

**Cell:** R56
**Comment:** SVX requires 1 ScramNet module per VRB subrack … thus 3 additional Adapters are required

**Cell:** AM56
**Comment:** ESE will supply 3 Rittal Adapters; 10 Dawn Versions available for early test stands.

**Cell:** AM57
**Comment:** ESE will supply two Rittal Extenders

**Cell:** J77
**Comment:** The fifth Test Stand will be built up from the spares pool.