

Bill of Materials



| | |
|------------------|--|
| Project | Information Barrier |
| Schematic Design | IB Phase II EHT Board [Positive] Issue 1.5 |
| PCB Design | EHT Positive |

| # | Designator | Value | Description | Manufacturer No. | Supplier | Part No. | Quantity |
|----|---|----------------|---|--------------------|----------|-------------------|----------|
| 1 | C3,C4 | 2.2uF | 16V | T350A5K016AT | Farnell | 145-7570 | 2 |
| 2 | C5 | 330pF | 50V | K331J15C0GF53L2 | Farnell | 114-1768 | 1 |
| 3 | C6 | 100nF | 50V | C317C104M5U5TA | Farnell | 145-7705 | 1 |
| 4 | C7 | 3.3uF | 16V | T350A335K016AT | Farnell | 145-7571 | 1 |
| 5 | C8b,C8a | 22pF | 500V | CD15ED220D03F | Farnell | 126-4871 | 2 |
| 6 | C9 | 6800pF | 63V | EXFS/HR 6800PF | Farnell | 952-0279 | 1 |
| 7 | C10 | 180uF | 16V | 16SVP180M | Farnell | 918-9076 | 1 |
| 8 | C11,C12,C13,C14,C15,C16,C17,C18,C19,C20,C21,C22 | 1nF | 1000V | F102K39Y5RN6UK5R | Farnell | 114-1792 | 12 |
| 9 | C23 | 2.2nF | 6300V | DECD33J222ZC4B | Farnell | 952-7346 | 1 |
| 10 | C24,C25,C26 | 4.7nF | 7500V | | LCR | LCR special order | 3 |
| 11 | D1 | 1N4002 | Rectifier diode | 1N4002. | Farnell | 956-5000 | 1 |
| 12 | D2 | LM4040-AIZ-4.1 | Voltage reference | | Farnell | 167-3985 | 1 |
| 13 | D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14 | BY203 | High voltage diode | BY203-20STAP | Farnell | 107-5763 | 12 |
| 14 | D16 | 6.2V | Zener diode | | Farnell | 165-1552 | 1 |
| 15 | D17 | 1N4148 | Small signal diode | 1N4148 | Farnell | 984-3680 | 1 |
| 16 | ISO1 | FOD852 | Darlington optocoupler | FOD852 | Farnell | 149-5371 | 1 |
| 17 | J2 | RG58/SHV | High voltage connection to RG58 cable | | | n/a | 1 |
| 18 | J3 | DIN 96_ABC-R | Eurocard connector | 09 03 696 6921 | Farnell | 114-2812 | 1 |
| 19 | J4 | BNC RA | PCB mount BNC | 1-1478035-0 | Farnell | 105-6272 | 1 |
| 20 | L1 | RM5 core | Custom Transformers Limited (ref 10082) | | | n/a | 1 |
| 21 | MC1 | ICL7611 | Operational Amplifier | ICL7611DCPAZ | Farnell | 101-8166 | 1 |
| 22 | RE1 | G5V-2 (5V) | Relay (5V coil) | G5V-2 5DC | Farnell | 994-9488 | 1 |
| 23 | R1,R16 | 10k | Resistor, MRS25 +/--1% | MRS25000C1002FCT00 | Farnell | 946-3976 | 2 |
| 24 | R2 | 1k | Resistor, MRS25 +/--1% | MRS25000C1001FCT00 | Farnell | 946-5170 | 1 |
| 25 | R3 | HT set 1 | Resistor, MRS25 +/--1% | | | Circuit dependent | 1 |
| 26 | R4 | HT set 2 | Resistor, MRS25 +/--1% | | | Circuit dependent | 1 |
| 27 | R5 | 1GΩ | Tyco HB11G0FZRE (7500V) | | Farnell | 150-2881 | 1 |
| 28 | R7 | 47k | Resistor, MRS25 +/--1% | MRS25000C4702FCT00 | Farnell | 946-8498 | 1 |
| 29 | R8 | 100R | 3W wirewound (Welwyn WA84-100RJI) | WA84-100RJI | Farnell | 950-5890 | 1 |
| 30 | R9 | 10MΩ | Tyco HB110MFZRE (7500V) | HB110MFZRE | Farnell | 150-2880 | 1 |
| 31 | R10,R11,R12 | 1MΩ | Tyco HB11M0FZRE (7500V) | | Farnell | 150-2878 | 3 |
| 32 | R13 | 470k | Resistor, MRS25 +/--1% | MRS25000C4703FCT00 | Farnell | 946-8455 | 1 |
| 33 | R14 | 470R | Resistor, MRS25 +/--1% | MRS25000C4700FCT00 | Farnell | 946-8463 | 1 |
| 34 | T1 | BC107 | Bipolar transistor, n-type | BC107B | Farnell | 920-6779 | 1 |
| 35 | T2 | TIP121 | Darlington power transistor | TIP121 | Farnell | 929-4228 | 1 |