

Engineering Beam Position Monitor (BPM) Boards

Date: Until May 22, 2019

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1. Assembled four BPM boards, soldered following components.

1.1. Capacitors.

#	μF	V
240	0.1	50
204	1	25
28	10	100
16	0.01	100
4	100	16

1.2. Resistors.

#	K Ω	%	W
56	0.0374	1	1/2
48	4.7	1	1/10
24	10	1	1/10
16	3.16	1	1/10
12	0.3	1	1/8
8	0.1	1	1/10
8	1	1	1/8
8	1.5	1	1/10
4	0.01	1	1/10
4	0.0249	1	1/10
4	0.220	1	1/10
4	0.680	1	1/8

1.3. 8 resistor networks, 3.3-ohms, $\pm 5\%$, 62.5 mW.

1.4. 4 metal-oxide varistors, 4 VAC, 5 VDC, 5.5 V.

1.5. EMI filter.

1.5.1 4 low pass, 200 kHz cutoff.

1.5.2 4 40-mOhm, 2 A.

1.6. 4 fiber optic receivers.

1.7. 28 fiber optic transmitters.

1.8. 16 LEDs.

1.9. 16 small outline diodes (SOD).

1.10. 4 dual LEDs.

1.11. 4 P-Channel 80 V MOSFET.

1.12. 4 3.3-V, ABT, 16-BIT bus, transceiver.

1.13. 4 3.3-V, ABT, 16-BIT, buffer/driver.

1.14. 4 oscillators, 3.3 V, 20 MHz.

1.15. 4 IC FPGAs.

1.16. 4 hex inverters, 3.3 V, 6 circuit.

1.17. 4 integrated circuits, 4 MB.

1.18. 12 dual buffer, SOT-23.

1.19. 20 dual peripheral drivers.

1.20. Voltage regulator.

- 1.20.1 4 MPC, 1.2 V, SOT-223.
- 1.20.2 4 MPC, 3.3 V, SOT-223.
- 1.20.3 4 MIC, 2.5 V, SOT-223.
- 1.21. 4 8-position switches.
- 1.22. 4 2x7 headers, 100-MIL.
- 1.23. Shrouded header.
 - 1.23.1 10-pin, vertical.
 - 1.23.2 10-pin, right angle.
- 1.24. 4 right angle, 96 pin, DIN connectors.
- 1.23. 8 right angle, LEMO connectors.
- 1.24. 4 fuse holders, 2 A, surface mount.
- 1.25. 24 through hole test points.