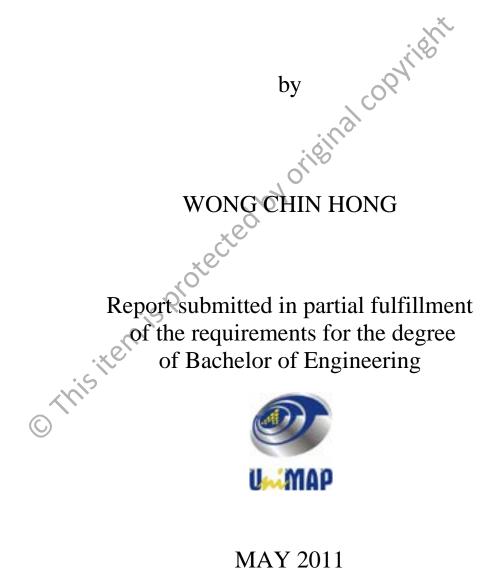
DESIGN AN ISOLATED FORWARD CONVERTER

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DESIGN AN ISOLATED FORWARD CONVERTER



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DECLARATION SHEET

I hereby declare that my Final Year Project Thesis is the result of my research work under supervision of Prof. R. T. Kennedy. All literature sources used for the writing of this thesis have been adequately referenced.

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DESIGN A ISOLATED FORWARD CONVERTER

ABSTRACT

This final year project report provides information related to the design and fabrication of a single transistor Isolated Forward Converter. The report provides a step by step design procedure and the selection process for the major components required to develop a high efficiency DC-DC converter suitable for a wide range of applications. The report includes a PCB design, product sub-subassembly configurations, test procedures, troubleshooting and concludes with a recommendation for product enhancement.

MEREKA BENTUK PENUKAR HADAPAN TERPENCIL

ABSTRAK

Laporan projek tahun akhir memberikan maklumat yang berkaitan dengan reka 'Single Transistor Isolated bentuk fabrikasi Forward dan Converter'. Laporan ini memberikan langkah demi langkah prosedur reka bentuk komponen dan pemilihan proses utama yang diperlukan untuk menghasilkan kecekapan yang tinggi bagi penukar AT -AT yang sesuai untuk pelbagai aplikasi. Laporan ini merangkumi rekabentuk PCB, produk configurasi tatarajah sub-subassembly, prosedur ujian gan orthisitemispro dan diakhiri dengan cadangan untuk peningkatan produk.

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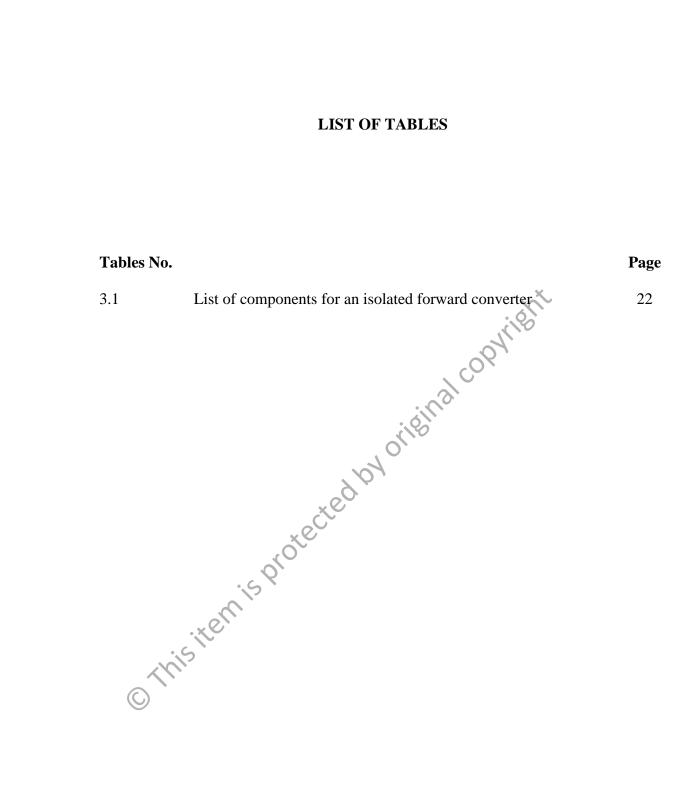
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LIST OF SYMBOLS, ABBREVIATIONS AND NOMENCLATURE

| | X |
|-----------------|--|
| SMPS | Switched Mode Power Supply |
| PWM | Switched Mode Power Supply Pulse Width Modulation Metal-Oxide-Semiconductor Field-Effect Transistor |
| MOSFET | Metal-Oxide-Semiconductor Field-Effect Transistor |
| AC | Alternating Current |
| DC | Metal-Oxide-Semiconductor Field-Effect Transistor Alternating Current Direct Current Hertz Voltage |
| Hz | Hertz |
| V | Voltage |
| А | Ampere |
| D _{sw} | Duty Cycle |
| D1 this te | Diode 1 |
| C O | Capacitor |
| L | Inductor |
| R | Resistor |
| Т | Time |
| Ν | Number of turn |
| f | Frequency |
| PCB | Printed Circuit Board |