



EPD 037 651

### MAGNETIC CIRCUIT STUDY

The EPD 037 651 is a stand-alone module, it allows the study of iron core transformer and ferrite core transformer.

#### Functions :

- Pulse generator with two NE 555 circuits with adjustable frequency and duration,
- Power OP AMP Amplification,
- A power transistor, Zener diode (demagnetizing for instance),
- Energy converter function by an iron core transformer, a ferrite core transformer and a pulse transformer,
- Integration function. This function is realized by an operating amplifier assembly which integration constant can be modified,
- « Filtering rectifier » function realized by diode, condenser,
- Charge function made by a resistor. It can be turned into a unidirectional resistor with a diode.

#### LAB WORKS :

- 1 – Measure of inductance of a ferrite core circuit (influence of gap)
- 2 – Hysteresis cycle of a ferrite core transformer (influence of gap)
- 3 – Hysteresis cycle of iron core transformer
- 4 – Realization of a nodal breakdown supply ( Flyback type )
- 5 – Pulse transmission with demagnetizing by commuting diode

#### The EPD3765B pack : « MAGNETIC CIRCUIT STUDY» includes :

Reference	Designation	Quantity
EPD 037 651	Magnetic circuit study module with instruction manual	1
ERD 037 782	Bag of security stackable patching cords (several lengths and colours) 20 of 2 mm and 5 of 4 mm	1
PMM 062 200	Common setting supply : +10 to +15 Vdc 4 A and -10 to -15 Vdc 2 A	1
	OPTIONS (not included)	
PEM 010 180	BNC insulated cord ½ male connectors length : 1.5 m (2 recommended)	
PMM 022 400	Low frequency generator 0.2 Hz 2 MHz with frequency digital measure	
EMD 018 010	Digital Oscilloscope : 2x100 MHz	